



Appendix A

Lighting Depth Supplemental Information

Full Luminaire Schedule	159
Luminaire Details (Luminaire, Lamp, and Ballast Cutsheets)	
Type PP1	160
Type PP2	164
Type PP3	168
Type PP4	172
Type PP5	173
Type QQ1	177
Type QQ2	180
Type QQ3	183
Type QQ4	186
Type QQ5	190
Type RR1	193
Type RR2	198
Type RR3	202
Type SS1	206
Type SS2	210
Type SS3	214
Type SS5	218
Cutsheet for Time Clock Controller	222
Access Information for Modeling Files	223



Full Luminaire Schedule

Label	Quantity	Manufacturer	Catalog #	Description	Number of Lamps	Linear Feet / Luminaire	Lamp Type	CCT	CRI	Voltage	Watts / Lamp	Watts / Linear Foot	Total Luminaire Watts	Ballast Watts	Driver Watts	Power Factor	Ballast Factor	Amps
PP1	62	Peerless	LSR9-LDL-	Recessed linear fluorescent downlight	-	4	T5	3000K	85	277	150	-	28	29	-	0.98	1.00	0.11
PP2	14	Iris	PN7-M42T-E7TWW-C	Recessed compact fluorescent wall washer	1	-	42W CFL TRT	3000K	82	277	39	-	42	47	-	0.99	1.00	0.17
PP3	24	Iris	P5-M32T-E5T-C	Recessed compact fluorescent downlight	1	-	26W CFL TRT	3000K	82	277	26	-	26	31	-	0.98	1.05	0.11
PP4	33	Erco	0-04-E-3K-90-102-2-(36'-0")-2	Floor recessed LED uplight for ramp and stairs	1	-	LED	3500K	-	277	-	12	3.6	-	4.212	1.00	-	0.02
PP5	8	Shaper	673-25-T5/1/14-277V-PB-2VPTB	Luminous wall sconce with brass trim	-	2	T5	3000K	85	277	-	7	14	19	-	0.98	1.05	0.07
QQ1	6	Holophane	GVP-15DMH-27-M-B-8-R-S-B	Street "acorn" pole fixture with internal reflector to meet "Cutoff" criteria	1	-	150W MH	4200K	88	277	150	-	150	173	-	0.90	-	0.69
QQ2	6	B-K Lighting	SE-60-WHW-9-11-A-RM35-277	Wall-mounted HID projector with 10 degree beam spread and 45 degree shielding	1	-	39W PAR30L MH	3000K	81	277	39	-	39	45	-	0.95	-	0.17
QQ3	2	Erco	81030.000 HIT-CE 70W G12	Recessed exterior HID downlight	1	-	70W CMH	3000K	83	277	70	-	70	79	-	0.90	-	0.32
QQ4A	1	Io	0-04-E-3K-90-102-2-(36'-0")-2	Linear LED floodlight luminaire with asymmetric optics	-	36	LED	3000K	-	277	-	12	432	-	505.44	1.00	-	1.82
QQ4B	2	Io	0-04-E-3K-90-102-2-(19'-6")-2	Linear LED floodlight luminaire with asymmetric optics	-	19.5	LED	3000K	-	277	-	12	234	-	280.8	1.00	-	1.01
QQ5	2	Holophane	MGV-39EMH-27-S-B-5-2-B	Exterior wall-mounted acorn fixture at smaller scale to pole fixture	1	-	39W PAR30L MH	3000K	81	277	39	-	39	45	-	0.95	-	0.17
RR1	23	Zumtobel	GVP-15DMH-27-M-B-8-R-S-B	Recessed direct-indirect LTT luminaire with louvers and white reflector	1	-	40W LTT	3000K	82	277	40	-	40	40	-	0.90	1.00	0.16
RR2	9	Neoray	81-R-1-T8-ETG-2-EB-SI	Recessed T8 fluorescent downlight with parabolic louver	1	-	32W T8	3000K	78	277	32	-	32	34	-	0.98	0.90	0.13
RR3	6	Litecontrol	W-ADW-66N28T8-BW-CWM-ELB-WCB-277	Surface mounted T8 chalkboard light	1	-	32W T8	3000K	78	277	32	-	32	34	-	0.98	0.90	0.13
SS1	34	Iris	P5-M32T-E5T-C	Recessed compact fluorescent downlight	1	-	32W CFL TRT	3000K	82	277	32	-	32	36	-	0.98	0.98	0.13
SS2	14	Iris	P406TAT-MH4CFL-42E-E4DL-BH	Recessed square downlight	1	-	32W CFL TRT	3000K	82	277	32	-	32	36	-	0.98	0.98	0.13
SS3	14	Shaper	673-25-T5/1/14-277V-PB-2VPTB	Luminous wall sconce with brass trim	-	2	T5	3000K	85	277	-	7	14	19	-	0.98	1.05	0.07
SS4	1	Custom	Custom	Decorative pendant with 4 luminous glass discs and brass trim	4	-	42W TRT CFL	3000K	82	277	42	-	168	184	-	0.98	0.98	0.68
SS5	1	elliptipar	F140-T221-X-02-2-000	Oval-shaped low profile linear wallwasher	-	6	T5	3000K	85	277	-	7	42	48	-	0.98	1.02	0.18



Luminaire Type PP1 – Luminaire Cutsheet

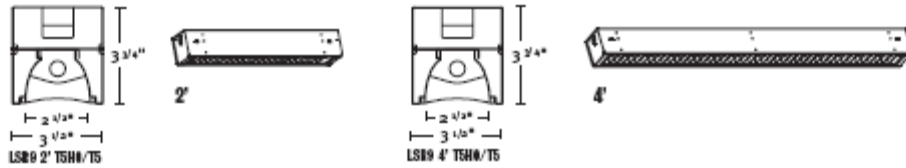
LIGHTLINE™

PEERLESS™ 2 1/2" Aperture

Recessed Mount Symmetric

SPECIFICATIONS

AVAILABLE FIXTURE



SPECIFICATIONS



CONSTRUCTION

Housing is formed from one piece painted cold-rolled steel. Four-stage iron-phosphate pretreatment ensures superior paint adhesion and rust resistance. Painted parts are finished with low-gloss baked enamel.

REFLECTORS

Die formed reflector with baked white enamel finish. Nominal reflectance 90%.

SHIELDING

Arc-shaped, parabolic low iridescent semi-specular aluminum lower.

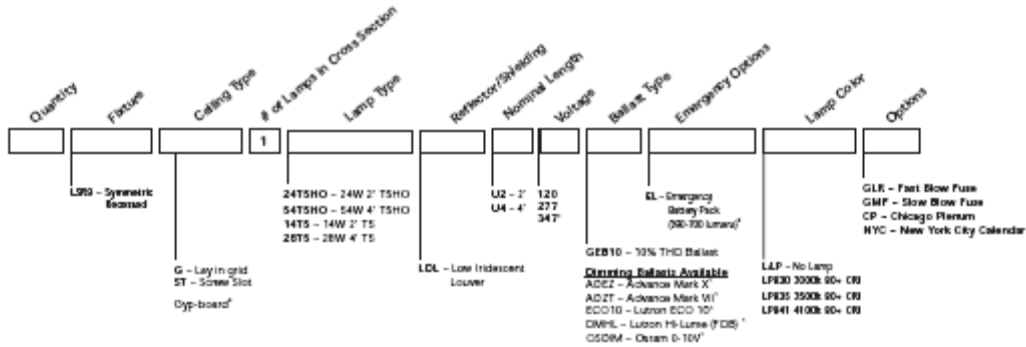
ELECTRICAL

Specify 120 volt, 277 volt, or 347 volt. Non EL versions damp location labeled. UL and C-UL listed and labeled. For special circuiting, consult factory.

FIXTURE SIZE

Nominal 2 1/2" aperture. 2' and 4' lengths available.

ORDERING LOGIC



Accessories (order separately)
 DHSGS2 - Cyp-board Flange Kit 2'
 DHSGS4 - Cyp-board Flange Kit 4'
 BAK000600 - Beam Mounting Clip Set

- 1 Only available with 54TSH0
- 2 Only available with 28T5 & 54TSH0
- 3 Order 'C' Lay-in grid fixture - Flange kit accessory
- 4 Option available on select models. Order fixture in pairs. Factory will supply correct number of Master and Satellite units. 0' cable standard.

EXAMPLE:

Qty Fixture section
 4 LSR9 ST 1 54TSH0 LDL U4 120 GEB10 L&P
 1 LSR9 G 1 14T5 LDL U2 277 GEB10 LP835

Peerless Lighting reserves the right to change materials or modify the design of its products without notification as part of the company's continuing product improvement program.



LIGHTLINE™

PEERLESS®

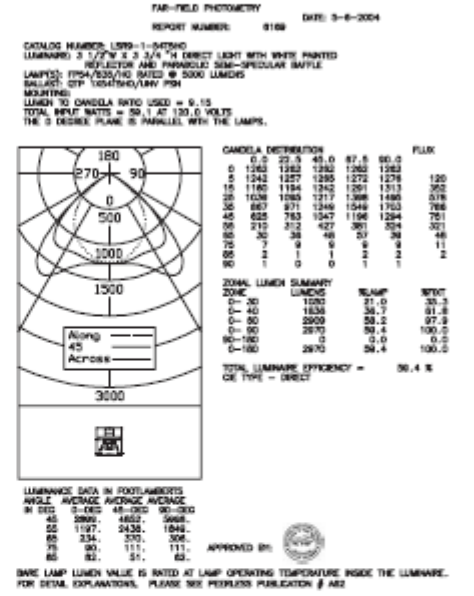
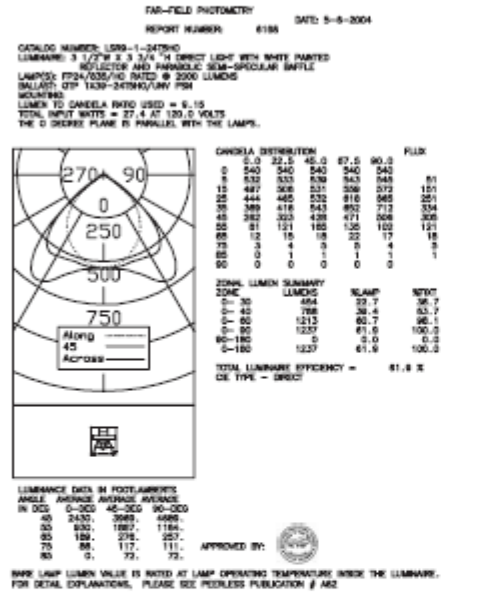
2 1/2" Aperture

Recessed Mount Symmetric

PHOTOMETRICS

1-LAMP 24W T5 HIGH-OUTPUT

1-LAMP 54W T5 HIGH-OUTPUT





LSR-2

PEERLESS LIGHTING Box 2556, Berkeley, CA 94702-0556 510.845-2760 Fax 510.845-2776 www.peerless-lighting.com

© 2004 Acuity Lighting Group, Inc. All rights reserved. "Peerless" is a registered trademark of Acuity Lighting Group, Inc. and "Lightline" is a trademark of Acuity Lighting Group, Inc. These products may be covered by one or more U.S. Patents or Patents Pending. 4/04



Luminaire Type PP1 – Lamp Information


WORLDWIDE PARTNER Commercial Products & Solutions

SITE SEARCH
HOME
PRODUCTS
EDUCATION / RESOURCES
LIGHTING APPLICATIONS


[Where to Buy](#) | [FAQs](#) | [Contact Us](#) | [EliteNet](#)

[Products](#) > [Linear Fluorescent](#) > [Straight Linear](#) > [21 - 30 Watts](#) > 46704

46704 – F28W/T5/830/ECO
GE Ecolux® Starcoat® T5

 **PRINT**

• Passes TCLP, which can lower disposal costs.

 **High Color Rendering**

GENERAL CHARACTERISTICS

Lamp type	Linear Fluorescent - Straight Linear
Bulb	T5
Base	Miniature BI-Pin (G5)
Wattage	28
Voltage	167
Rated Life	30000 hrs
Rated Life (rapid start) @ Time	30000 h @ 3 h 36000 h @ 12 h
Bulb Material	Soda lime
Starting Temperature (MIN)	-20 °C (-4 °F)
Additional info	TCLP compliant

PHOTOMETRIC CHARACTERISTICS


Initial Lumens	2900
Mean Lumens	2660
Nominal Initial Lumens per Watt	103
Color Temperature	3000 K
Color Rendering Index (CRI)	85
S/P Ratio (Scotopic/Photopic Ratio)	1.3

ELECTRICAL CHARACTERISTICS


Open Circuit Voltage (rapid start) Min @ Temperature	425 V @ 10 °C
Cathode Resistance Ratio - Rh/Rc (MIN)	4.25
Cathode Resistance Ratio - Rh/Rc (MAX)	6.5
Current Crest Factor (MAX)	1.7

DIMENSIONS


Maximum Overall Length (MOL)	45.8000 In (1163.3 mm)
Nominal Length	45.200 In (1148.0 mm)
Bulb Diameter (DIA)	0.625 In (15.8 mm)
Bulb Diameter (DIA) (MAX)	0.670 In (17.0 mm)
Max Base Face to Base Face (A)	45.240 In (1149.0 mm)



Bulb



Base



[View Larger](#)

ADDITIONAL RESOURCES

[Catalogs](#)
[Testimonials](#)

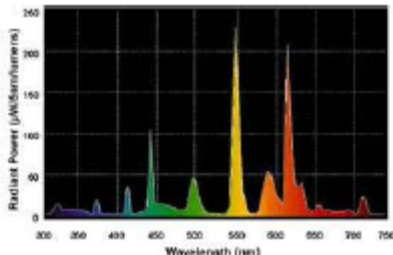
Brochures

- Application/Segment Brochures
 - [Contractor Lighting](#)
 - [Healthcare Lighting](#)
- Product Brochures
 - [Ecolux](#)
 - [Ecolux \(Environmental\)](#)

[Disposal Policies & Recycling Information](#)

GRAPHS & CHARTS

Spectral Power Distribution



Radiant Power (µW/5mm/lumen) vs Wavelength (nm)

Lamp Mortality



Luminaire Type PP1 – Ballast Information

Product Line Guide - Electronic Ballasts

Item Number	OSRAM SYLVANIA Description	Input Voltage (VAC)	Input Current (AMPS)	Lamp Type	Rated Lumens (lm)	No. of Lamps	Ballast Factor (BF)	System Lumens	Input Voltage (W)	System Efficiency (lm/W)
QUICKTRONIC® PROFESSIONAL PROstart® COMPACT FLUORESCENT - UNIVERSAL VOLTAGE DUAL ENTRY™										
NORMAL BALLAST FACTOR										
51818	QTP 1.0x13CFU/MV N/A	120-277	0.25/0.11	13W DC/E,T/E	988	1	1.00	988	16	56
51823	QTP 1.0x18CFU/MV N/A			18W DC/E,T/E	1200	1	1.00	1200	20	60
51833	QTP 2x26CFU/MV N/A	120-277	0.50/0.22	26W DC/E,T/E	1800	1	1.00	1800	29	64
51808	QTP 2x26CFU/MV FEM			26W DC/E,T/E	1800	2	1.00	3600	54	67
51843	QTP 2x26/32/42CFU/MV M	120-277	0.90/0.40	32W DT/E	1800	2	1.02	3670	54	68
51863	QTP 2x26/32/42CFU/MV M AT A			42W DT/E	2400	2	0.95	6080	94	65
51863	QTP 2x26/32/42CFU/MV M FEM			57W DT/E	4900	1	1.00	4900	62	69
				78W DT/E	5200	1	0.92	4780	71	67
Also operates on Ballast Technology & Specifications table for additional lamp types										
NORMAL BALLAST FACTOR - QTP QTP models above replace gray shaded models below										
51718	QTP 1.0x13CFU/MV BS	120-277	0.25/0.11	13W DC/E,T/E	988	1	1.00	988	16	56
51748	QTP 1.0x13CFU/MV TS			13W DC/E,T/E	988	2	1.00	1800	29	62
51723	QTP 1.0x18CFU/MV BS	120-277	0.30/0.14	18W DC/E,T/E	1200	1	1.00	1200	20	60
51753	QTP 1.0x18CFU/MV TS			18W DC/E,T/E	1200	2	1.00	2400	38	63
51733	QTP 2x26CFU/MV BS	120-277	0.50/0.22	26W DC/E,T/E	1800	1	1.00	1800	29	64
51763	QTP 2x26CFU/MV TS			26W DC/E,T/E	1800	2	1.00	3600	54	67
51738	QTP 1.0xCFU/MV BM	120-277	0.57/0.25	26W DC/E,T/E	1800	1	1.02	1890	28	65
51798	QTP 1.0xCFU/MV PM			26W DC/E,T/E	1800	2	1.02	3670	57	64
51768	QTP 1.0xCFU/MV TM			32W DT/E	2400	1	0.97	2390	36	65
				42W DT/E	3200	1	1.00	3200	46	70
51743	QTP 2x26/32/42CFU/MV BM	120-277	0.90/0.40	26W DT/E	1800	2	1.02	3670	54	68
51803	QTP 2x26/32/42CFU/MV PM			32W DT/E	2400	2	0.96	4600	69	67
51773	QTP 2x26/32/42CFU/MV TM			42W DT/E	3200	2	0.95	6080	94	65
	Also operates on 57W or 70W CFL lamps			57W DT/E	4900	1	1.00	4900	62	69
		78W DT/E	5200	1	0.92	4780	71	67		
QUICKTRONIC® HIGH EFFICIENCY POWERSENSE™ 32 TB DIMMING SYSTEMS - A list of controllers is available from OSRAM SYLVANIA										
Power-line control (2-wire) or 0-10Vdc control (4-wire) - 100-5% Dimming Range - <10% THD										
50705	QTP 1x32TB/UMV DIM-TC	120-277	0.27/0.12	F092XP	3000	1	0.88 0.85	2640 150	30 8	88
50707	QTP 2x32TB/UMV DIM-TC	120-277	0.54/0.24	F092XP	3000	2	0.88 0.85	5280 300	60/58 15	88/91
50714	QTP 3x32TB/UMV DIM-TCL	120-277	0.73/0.30	F092XP	3000	3	0.88 0.85	7920 450	87/84 20	91/94
50716	QTP 4x32TB/UMV DIM-TCL	120-277	0.96/0.40	F092XP	3000	4	0.88 0.85	10560 600	114/110 27	92/95
POWERSENSE™ QTP models above also operate these lamps: F02s, F07r & F05oz. POWERSENSE™ replaces former Muller To shoring products.										
QUICKTRONIC® HIGH EFFICIENCY HELIOS™ 32 TB DIMMING SYSTEMS - A list of controllers is available from OSRAM SYLVANIA										
High Ballast Factor - "PLUS" High Light Output System - For 277V, 4-1#W Control Applications Only										
50719	QTP 4x32TB/277 DIM PLUS-TCL	277	0.59	F092XP	3000	4	1.00 0.85	14400 600	145 29	90
QUICKTRONIC® HIGH EFFICIENCY POWERSENSE™ 28 TS DIMMING SYSTEMS - A list of controllers is available from OSRAM SYLVANIA										
Power-line control (2-wire) or 0-10Vdc control (4-wire) - 100-1% Dimming Range - <10% THD										
50726	QTP 2x28TS/UMV DIM-TCL	120-277	0.58/0.28	FF2B	2000	2	1.00 0.81	5800 58	63/62 10	92/94
POWERSENSE™ QTP models above also operate these lamps: FF2s, FF2r & FF2r4										
QUICKTRONIC® PROFESSIONAL HELIOS™ 54 TS HO DIMMING SYSTEMS® - A list of controllers is available from OSRAM SYLVANIA										
0-10Vdc control - 100-1% Dimming Range - <10% THD										
46671	QT1x54/120PHO-DIM	120	0.54	FF54TSHO	5000	1	1.00 0.81	5000 50	62 8	81
46672	QT1x54/277PHO-DIM	277	0.29	FF54TSHO	5000	1	1.00 0.81	5000 50	61 8	82
46673	QT2x54/120PHO-DIM	120	1.07	FF54TSHO	5000	2	1.00 0.81	10000 100	120 18	83
46674	QT2x54/277PHO-DIM	277	0.46	FF54TSHO	5000	2	1.00 0.81	10000 100	117 18	85
NELOS™ QTP models above also operate these lamps: F18sDL & F18cs										
<small>1. Rated lamp lumens and performance data based on QUICKTRONIC HO lamps. Rated lumens at 25°C lamp ambient temperature. 2. Rated lamp lumens and performance data based on HELIOS HO lamps. Rated lumens at 25°C lamp ambient temperature. The maximum input current is shown for maximum lamp power. 3. See Product Control OSRAM SYLVANIA for product availability.</small>										

2 OSRAM SYLVANIA National Customer Service and Sales Center
1-800-LIGHTBULB (1-800-544-4828) or www.sylvania.com



Luminaire Type PP2 – Luminaire Cutsheet



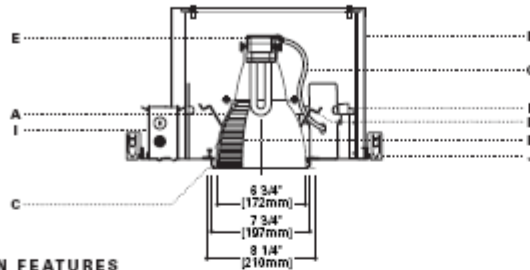
CATALOG#:

TYPE:

DESCRIPTION

Specification grade 42 Watt triple tube compact fluorescent wall wash fixture. Insulation must be kept 3" from fixture sides and top of fixture. The stepped kicker reflector maximizes light towards the wall for smooth, pattern free wall illumination.

Cutoff to lamp and lamp image is 50°. Unit can be relamped from above. Lamp module and optical element can be changed after installation to provide a variety of lamp sources and distributions. e.g. into a PAR36 Adjustable.



SPECIFICATION FEATURES

A...Reflector

.040 thick aluminum specular clear kicker and spun parabolic reflector in Clear, Gold, Haze, Warm Haze, Black Alzak® finish, painted gloss white or matte white. Special cone colors listed below.

B...Kicker

Injection molded, vacuum metalized stepped optics with hardcoat finish is specular clear to minimize flashback. Available in single (120°), double (for corridors (2)120° @180° apart), corner (for inside corners 240°), and half (for outside corners and doors 60°) wall wash versions.

C...Flange

Self flange reflector or die-cast flange with either matte white or clear coat finish. Die-cast flanges are easily removed for field painting. Elements are keyed for proper insertion.

D...Attachment

Positive torsion springs pull flange tight to ceiling. Mechanical light trap eliminates spill light at edge of flange or reflector. The two reflectors are keyed for top relamping.

E...Socket

4 pin G24q4 base for 42W PLT, TBX and TTT lamps (G24q3 for 32W lamps). Fatigue free stainless steel spring ensures positive lamp retention. Fixed socket height ensures consistent lamp position.

F...Electronic Ballast

Thermally protected, current controlled rapid start ballast produces full light output and rated lamp

life. Provides flicker-free and noise-free operation and starting. Meets stringent Class B requirements, FCC part 18, for non-commercial applications.

G...Electrical

Keyed quick connect provides easy lamp module installation.

H...Frame/Housing

Hot dipped galvanized 20 gauge steel frame with built in 1/2 inch plaster lip. Aluminum .032 thick housing allows for heat dissipation and reduces weight. Top is removable for above ceiling access.

I...Junction Box

18 cubic inches, listed for 4#12 AWG or 6#14 AWG 90° C additional feed through conductors, has five 1/2" pryouts.

J...Bar Hangers

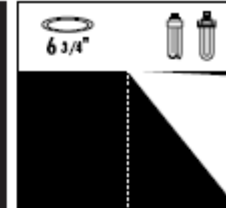
No Flex® bar hangers with positive locking, for use with wood, engineered wood and steel frame joists ship with platform. For use in T-bar ceilings order accessory MBCLP.

K...Codes

Thermally protected, IP labeled. Unit is airtight and exchanges less than 2.0 CFM with the plenum at a pressure of 75 pascals. Insulation must be kept three inches away from fixture sides and none on top as to entrap heat.

L...Labels

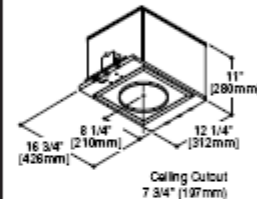
UL and cUL listed, standard damp label, IBEW union made.



**PN7
M42T
E7TWW**

**42 W Triple
32 W Triple
Compact Fluorescent**

**7" WALL WASH
DOWNLIGHT**



ENERGY DATA

7" AirTight®

42W Lamp
Input Power:
120V = 59W
Input Current (Max.):
120V = .45A
Power Factor:
120V = >.99
T.H.D.:
120V = <10%

32W Lamp
Input Power:
120V = 36W
Input Current (Max.):
120V = .306
Power Factor:
120V = >.98
T.H.D.:
120V = <10%

M32T -Lutron
Input Power:
120V = 36W
Input Current (Max.):
120V = .33A
Power Factor:
120V = >.95
T.H.D.:
120V = <20%

For additional options please consult factory. Matte white is recommended for self flanged reflectors

ORDERING INFORMATION

Complete unit consists of a platform, module and element

Platform	Lamp Module	Optical Element	Finish	Flange	Accessories
PN7					
PN7 = 7" Non-IC Housing	M42T = 42W Compact Fluorescent Ballast M32T = 32/26W Compact Fluorescent Ballast M32T-Lutron = 32W Tu Wire Lutron Dimming	E7TWW = 7" Wall Wash E7TDWW = 7" Double Wall Wash E7TCWW = 7" Corner Wall Wash E7THWW = 7" Half Wall Wash	Standard C=Clear H=Haze G=Gold WMH=Warm Haze W=Gloss White MW=Matte White B=Black Custom K=Cognac KH=Cognac Haze CC=Chocolate	Custom Cont. OCH=Chocolate Haze BU=Blush BUH=Blush Haze GP=Graphite GPH=Graphite Haze PN=Pin PNH=Pin Haze SK=Sky SKH=Sky Haze	Blank=Matte White Die-cast SF= Self Flange RAW= Natural Die-cast SFWF= Self Flange Painted White MBCLP = 40 Push On T Bar Clips (for 10 Units) PLE7 = Plaster Lip Extension for Max 2" Thick Ceiling

COOPER LIGHTING

AD1607098



Unit Number: PN7-M42T-E7TWW

PHOTOMETRICS

PN7-M42T-E7TWWC

Test No. H35090
 Lamp: 42W PLT
 Lumens: 3200
 Cutoff: 50°
 Spacing: 1.1
 Efficiency: 48.1%
 Unit LPW:



Candelas

CD Wall	Vertical Angle	CD Downlight
0	90	0
3	85	0
32	75	0
81	65	0
139	55	0
250	45	130
594	35	600
855	25	961
1142	15	1344
1209	5	1483
1172	0	1172



Luminance

Degree	cd/m² @ 180°
85°	0
75°	0
65°	0
55°	0
45°	7060

Single Fixture 2' Distance from Wall

DD	1'	2'	3'	4'
1	18	11	4	1
2	28	15	6	2
3	27	20	9	2
4	18	18	10	5
5	12	12	8	5
6	9	8	6	4
7	6	6	5	3
8	4	4	3	2
9	3	3	3	2
10	3	2	2	1

1'6" Distance from Wall

DD	16" O.C.	24" O.C.
1	52 50 52	41 36 41
2	77 79 77	63 57 63
3	69 75 69	54 54 54
4	50 53 50	40 43 40
5	34 35 34	29 30 29
6	23 24 23	20 21 20
7	17 17 17	15 15 15
8	12 12 12	10 11 10
9	9 9 9	8 9 8
10	7 7 7	6 6 6

2'0" Distance from Wall

DD	24" O.C.	32" O.C.
1	24 23 24	19 16 19
2	38 34 38	32 22 32
3	44 45 44	39 40 39
4	40 42 40	31 31 31
5	31 33 31	25 27 25
6	23 24 23	19 20 19
7	18 18 18	15 16 15
8	13 14 13	12 12 12
9	10 10 10	9 9 9
10	8 8 8	7 7 7

2'6" Distance from Wall

DD	24" O.C.	32" O.C.
1	15 15 15	12 11 12
2	24 24 24	20 18 20
3	32 33 32	26 25 26
4	34 35 34	27 27 27
5	30 32 30	24 25 24
6	24 26 24	20 22 20
7	19 20 19	16 17 16
8	15 15 15	13 13 13
9	12 12 12	10 11 10
10	9 9 9	8 9 8

PN7-M32T-E7TWWC

Test No. H35093
 Lamp: 32W PLT
 Lumens: 2400
 Cutoff: 50°
 Spacing: 1.1
 Efficiency: 46.4%
 Unit LPW:



Candelas

CD Wall	Vertical Angle	CD Downlight
0	90	0
2	85	0
28	75	0
61	65	1
90	55	2
172	45	88
373	35	401
609	25	818
871	15	1093
1013	5	1130
905	0	905



Luminance

Degree	cd/m² @ 180°
85°	0
75°	0
65°	0
55°	0
45°	5380

Single Fixture 2' Distance from Wall

DD	1'	2'	3'	4'
1	12	9	4	1
2	15	9	4	2
3	17	13	6	2
4	13	11	7	3
5	9	9	6	4
6	7	6	5	3
7	5	5	4	3
8	4	4	3	2
9	3	3	3	2
10	2	2	2	2

1'6" Distance from Wall

DD	16" O.C.	24" O.C.
1	38 38 38	30 27 30
2	47 50 47	40 36 40
3	45 47 46	36 34 36
4	35 38 36	28 30 28
5	25 27 25	21 22 21
6	18 19 18	15 16 15
7	13 13 13	11 12 11
8	9 10 9	8 9 8
9	7 7 7	6 7 6
10	5 5 5	5 5 5

2'0" Distance from Wall

DD	24" O.C.	32" O.C.
1	20 20 20	15 14 15
2	24 21 24	20 15 20
3	28 28 28	21 21 21
4	26 26 26	20 19 20
5	22 23 22	17 18 17
6	17 18 17	14 15 14
7	13 14 13	11 11 11
8	10 10 10	9 9 9
9	8 8 8	7 7 7
10	6 6 6	6 6 6

2'6" Distance from Wall

DD	24" O.C.	32" O.C.
1	13 14 13	11 11 11
2	16 17 16	13 13 13
3	20 21 20	16 16 16
4	22 22 22	17 17 17
5	20 21 20	16 16 16
6	17 18 17	14 15 14
7	14 15 14	12 12 12
8	11 12 11	9 10 9
9	9 9 9	8 8 8
10	7 7 7	6 7 6

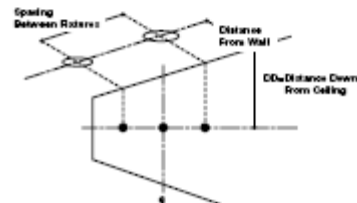
Notes and Formulas:

- Illuminance values for multiple fixtures are based upon the center two units of a four unit array. Footcandle values are contained of fixtures and centered between fixtures.
- Illuminance values are cosine corrected initial values with no contribution from inter reflections from other room surfaces. Total Illumination may increase from contributions from other surfaces.
- DD=Distance Down from Ceiling.
- Changing fixture spacing will affect illuminance level.

$$\text{New Fc} = \frac{\text{Existing Spacing}}{\text{New Spacing}} \times \text{Average Table Fc Level}$$

- When selecting colored cones option, only downlight cone is colored; the wall wash reflector is specular clear. This allows the color (CRI, %K) of the light source to be unaffected and maximizes lumen output.

For optimal wall washing, space fixtures no more than 1.5 the distance from the wall.



Note: Specifications and Dimensions subject to change without notice.



Visit our web site at www.cooperlighting.com



Customer First Center 1121 Highway 74 South Peachtree City, GA 30269 770.486.4800 FAX 770.486.4801 ACH030798
 Cooper Lighting 5925 McLaughlin Rd. Mississauga, Ontario, Canada L5R 1B8 905.507.4000 FAX 905.568.7049



Luminaire Type PP2 – Lamp Information

GE Lighting

WORLDWIDE PARTNER

Commercial Products & Solutions

[SITE SEARCH](#)

[HOME](#)

[PRODUCTS](#)


[EDUCATION / RESOURCES](#)

[LIGHTING APPLICATIONS](#)


[Where to Buy](#) | [FAQs](#) | [Contact Us](#) | [EliteNet](#)

[Products](#) > [Compact Fluorescent](#) > [Plug-In](#) > [Triple Blax®](#) > [T4](#) > 97630


97630 – F32TBX/830/A/ECO
 GE Ecolux® Blax® T4 - Facilities; Retail Display; Hospitality; Office; Restaurant; Warehouse

 **High Color Rendering**
Energy Savings

Bulb



Base



[View Larger](#)

GENERAL CHARACTERISTICS

Lamp type	Compact Fluorescent - Plug-In
Bulb	T4
Base	GX24q-3
Wattage	32
Voltage	120/100
Rated Life	12000 hrs
Starting Temperature (MIN)	0 °C (32 °F)
Cathode Resistance	2.700 Ohm
Rated Life (rapid start) @ Time	12000 h @ 3 h 20000 h @ 12 h
Additional Info	Dimmable with appropriate dimming ballast., End of Life Protection (EOL), TCLP compliant
Primary Application	Facilities; Retail Display; Hospitality; Office; Restaurant; Warehouse

PHOTOMETRIC CHARACTERISTICS

Initial Lumens	2200
Mean Lumens	1850
Nominal Initial Lumens per Watt	68
Color Temperature	3000 K
Color Rendering Index (CRI)	82

ELECTRICAL CHARACTERISTICS

Current (max)	5.2500 A
Open Circuit Voltage (after preheating) (MAX)	265 V
Open Circuit Voltage (MIN)	515 V
Lamp Current	0.320 A
Preheat Voltage (MIN)	4 V
Current Crest Factor (MAX)	1.7
Supply Current Frequency	20000 Hz

ADDITIONAL RESOURCES

[Catalogs](#)
[Testimonials](#)

Brochures
 Product Brochures

- [Ecolux](#)
- [Ecolux \(Environmental\)](#)

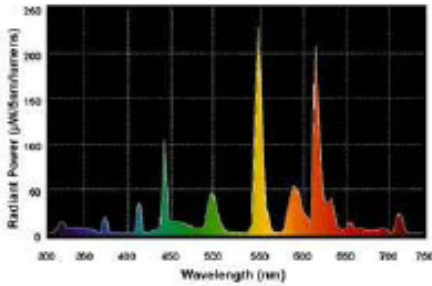
Sell Sheets

- [Fast Warming](#)
- [Blax® T/E 32W with Amalgam](#)

[Disposal Policies & Recycling Information](#)

GRAPHS & CHARTS

Spectral Power Distribution





Luminaire Type PP2 – Ballast Information



IDL-2S26-M5-BS@277	
Brand Name	ROVR
Ballast Type	Electronic Dimming
Starting Method	Programmed Start
Lamp Connection	Series
Input Voltage	120-277
Input Frequency	50/60 HZ
Status	Active

Electrical Specifications

Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (°F/C)	Input Current (Amps)	Input Power (Watts) (min/max)	Ballast Factor (min/max)	MAX THD %	Power Factor	Lamp Current Crest Factor	B.E.F.
* CFTR42W/GX24Q	1	42	50/10	0.17	09/47	0.03/1.00	10	0.99	1.6	2.13

Wiring Diagram

Standard Lead Length (inches)

	in.	cm.		in.	cm.
Black	0	0	Yellow/Blue		0
White	0	0	Blue/White		0
Blue	0	0	Brown		0
Red	0	0	Orange		0
Yellow	0	0	Orange/Black		0
Gray		0	Black/White		0
Violet		0	Red/White		0

Enclosure

Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
4.98 "	3.00 "	1.18 "	2.00 "
4 49/50	3	1 9/50	2
12.6 cm	7.6 cm	3 cm	5.1 cm

Revised 10/23/2007



Data is based upon tests performed by Advance Transformer in a controlled environment and representative of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.

ADVANCE
O'HARE INTERNATIONAL CENTER - 10275 WEST HIGGINS ROAD - ROSEMONT, IL 60018
Customer Support/Technical Service: Phone: 800-372-3331 - Fax: 630-307-3071
Corporate Offices: Phone: 800-322-2086



Luminaire Type PP3 – Luminaire Cutsheet



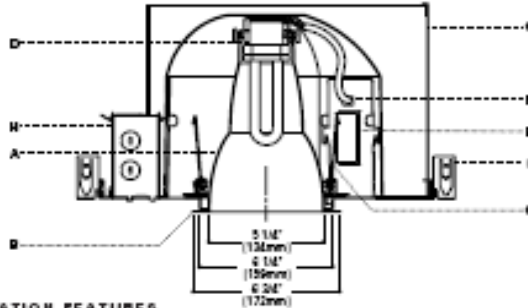
CATALOG#: _____

TYPE: _____

DESCRIPTION

Specification grade 32 Watt triple tube compact fluorescent fixture rated for direct contact with insulation. The 50° cutoff to lamp and lamp image provides a glare free, smooth, medium beam distribution. Triple tube lamps provide excellent

color, long life, and low radiant heat. Dimming and emergency ballast options are available. Lamp module and optical element can be changed after installation to provide a variety of lamp sources and distributions. e.g. into a PAR36 adjustable



SPECIFICATION FEATURES

A -- Reflector
.040 thick aluminum spun parabolic reflector in iridescence-free Clear, Gold, Haze, Warm Haze Alzak® or painted Gloss White finish. Special cone colors listed below

B -- Flange
Self flange reflector or die-cast flange with either matte white or clear coat finish. Die-cast flanges are easily removed for field painting. Elements are keyed for proper insertion.

C -- Attachment
Positive torsion springs pull flange tight to ceiling. Mechanical light trap eliminates spill light at edge of flange or reflector.

D -- Socket
4 pin G24q3 base for 32W PLT, TBX and TTT lamps. Fatigue free stainless steel spring ensures positive lamp retention. Fixed socket height ensures consistent lamp position.

E -- Electronic Ballast
Thermally protected, current controlled electronic ballast produces full light output and rated lamp life. For 32W and 28W triple tube lamps. Provides flicker-free and noise-free operation and starting with 120 or 277 volt input. Meets stringent Class B requirements, FCC part 18, for non-commercial applications. M32T Lutron for use with 32W lamp only.

F -- Electrical
Keyed quick connect provides easy lamp module installation.

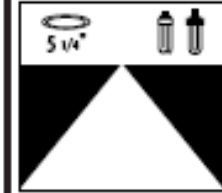
G -- Frame/Housing
Hot dipped galvanized 20 gauge steel frame with bulk in 1/2 inch plaster lip. Gunsights allow for consistent alignment. Aluminum .032 thick housing allows for heat dissipation and reduces weight.

H -- Junction Box
18 cubic inches, listed for 4#12 AWG or 6#14 AWG 90° C additional feed through conductors, has six 1/2 inch pryouts.

I -- Bar Hangers
No Flex® bar hangers with positive locking, for use with wood, engineered wood and steel frame joists spaced up to 24" O.C. ship with platform for use in T-bar ceilings under accessory MBCLP clips. Nailless barb and locator lip provide consistent installation height.

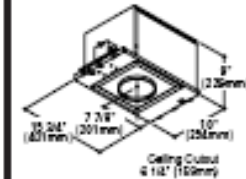
Codes
Thermally protected, IP labeled, for use in direct contact with insulation. Meets Washington State AIF tight requirements, 1995 CABO Model Energy Code.

Labels
UL and cUL listed, standard damp label, IBEW union made.



**P5
M32T
E5T**

**32W TRIPLE
Compact Fluorescent
5" DOWNLIGHT**



ENERGY DATA

M32T
Input Power:
120V = 36W
Input Current (Max):
120V = .305A
Power Factor:
120V = > .88
T.H.D.:
120V = < 10%

M32T Lutron
Input Power:
120V = 36W
Input Current (Max):
120V = .33A
Power Factor:
120V = > .88
T.H.D.:
120V = < 10%

ORDERING INFORMATION

Complete unit consists of a platform, module and element.

Platform	Lamp Module	Optical Element	Finish		Flange	Accessories
P5	M32T					
PS5 [®] Airtight IC Rated Housing	M32T-J32/28W Compact Fluorescent Ballast M32T-Lutron [™] 32W Tri Wire Dimmable Ballast	E5T - 5" Downlight Reflector	Standard C=Clear H=Haze G=Gold W=Warm Haze Wu=Gloss White MW=Matte White C=Custom K=Cognac K4=Cognac Haze C4=Chocolate	Custom Cont. C4=Chocolate H4=Haze G4=Gold W4=Warm Haze Wu4=Gloss White MW4=Matte White C4=Custom K4=Cognac K4=Cognac Haze C4=Chocolate SK4=Sky Haze	Blank=White die-cast SF=Self Flange RAW=Natural Die-cast SPW=Self Flange Painted White	MBCLP40 Push On T Bar Clips (for 10 Units) PLEE=Reater Up Extension for Max 2" Thick Ceiling RACL= Flush Mount Collar

COOPER LIGHTING®

For Emergency Option order P532TGMER and E5T, see catalog for ordering information. For additional options please consult factory.

AC103703



Unit Number: P5-M32T-E5T

PHOTOMETRICS

P5-M32T-E5TC
Test No. H36667
Lamp: 32W FLT
Lumens: 2400
Cutoff: 50°
Spacing: 1.1
Efficiency: 33.7%
Unk LPW: 22.4

Vertical Angle	CD
90°	0
85°	0
75°	0
65°	0
55°	0
45°	124
35°	365
25°	522
15°	605
5°	560
0°	552



Degree	cd/m²
65°	0
75°	0
65°	0
55°	0
45°	12594

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandle	Beam Diameter
4'0"	29	5'0"
5'0"	19	6'0"
6'0"	14	7'0"
8'0"	9	9'0"
10'0"	6	11'0"
12'0"	4	14'0"

Zonal Lumens Summary

Zone	Lumens	%Lamp	%Luminaire
0-30	462	19.4	57.4
0-60	692	29.0	85.5
0-90	903	37.4	99.1
0-90	910	37.7	100.0
90-180	0	0.0	0.0
0-180	910	37.7	100.0

Coefficient of Utilization

Ceiling Reflectance	90%				70%				50%				30%				0%	
	30	50	70	90	30	50	70	90	30	50	70	90	30	50	70	90	0	
0	40	40	40	40	29	29	27	27	26	26	24	24	24	24	24	24	24	24
1	29	27	27	26	27	25	25	24	24	23	23	22	22	21	21	20	20	20
2	27	26	26	25	24	22	22	21	21	20	20	19	19	18	18	17	17	17
3	25	23	23	22	22	20	20	19	19	18	18	17	17	16	16	15	15	15
4	22	21	20	20	20	17	17	16	16	15	15	14	14	13	13	12	12	12
5	21	20	19	19	19	16	16	15	15	14	14	13	13	12	12	11	11	11
6	20	19	18	18	18	15	15	14	14	13	13	12	12	11	11	10	10	10
7	19	18	17	17	17	14	14	13	13	12	12	11	11	10	10	9	9	9
8	17	16	15	15	15	13	13	12	12	11	11	10	10	9	9	8	8	8
9	15	14	13	13	13	11	11	10	10	9	9	8	8	7	7	6	6	6
10	14	13	12	12	12	10	10	9	9	8	8	7	7	6	6	5	5	5

P5-M32T-E5TC
Test No. H36107
Lamp: 26W FLT
Lumens: 1800
Cutoff: 50°
Spacing: 1.1
Efficiency: 39.7%
Unk LPW: 23.2

Vertical Angle	CD
90°	0
85°	0
75°	0
65°	0
55°	0
45°	103
35°	305
25°	460
15°	522
5°	572
0°	540



Degree	cd/m²
65°	0
75°	0
65°	0
55°	123
45°	10606

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandle	Beam Diameter
4'0"	22	5'0"
5'0"	19	6'0"
6'0"	15	7'0"
8'0"	9	9'0"
10'0"	6	11'0"
12'0"	4	14'0"

Zonal Lumens Summary

Zone	Lumens	%Lamp	%Luminaire
0-30	426	23.7	60.9
0-60	612	34.2	87.9
0-90	699	39.0	99.4
0-90	701	39.0	100.0
90-180	0	0.0	0.0
0-180	701	39.0	100.0

Coefficient of Utilization

Ceiling Reflectance	90%				70%				50%				30%				0%	
	30	50	70	90	30	50	70	90	30	50	70	90	30	50	70	90	0	
0	46	46	46	46	45	45	43	43	41	41	41	41	41	41	41	41	41	41
1	44	42	42	42	42	41	41	41	40	40	39	39	38	38	38	38	38	38
2	42	41	40	40	40	39	39	38	38	37	37	36	36	35	35	35	35	35
3	41	39	39	38	38	37	37	36	36	35	35	34	34	33	33	33	33	33
4	39	38	37	37	37	36	36	35	35	34	34	33	33	32	32	32	32	32
5	37	36	35	35	35	34	34	33	33	32	32	31	31	30	30	30	30	30
6	35	34	33	33	33	32	32	31	31	30	30	29	29	28	28	28	28	28
7	33	32	31	31	31	30	30	29	29	28	28	27	27	26	26	26	26	26
8	31	30	29	29	29	28	28	27	27	26	26	25	25	24	24	24	24	24
9	30	29	28	28	28	27	27	26	26	25	25	24	24	23	23	23	23	23
10	29	28	27	27	27	26	26	25	25	24	24	23	23	22	22	22	22	22

Notes and Formulae:

Luminance: To convert cd/m² to footlamberts, multiply by 0.2919

Cone of Light:

- Beam diameter is to 50% of maximum footcandle, rounded to the nearest half-foot.
- Footcandle values are initial. Apply appropriate light loss factors where necessary.
- See page 6845 of catalog.

CU Notes/Formulae:

- maintained illuminance = lamp lumens x CU x light loss factors / room area
- total number of luminaires = (room area x maintained illuminance) / (lamp lumens x CU x light loss factors)
- CU data based on 20% effective floor cavity reflectance.

Note: Specifications and Dimensions subject to change without notice.



Visit our web site at www.cooperlighting.com



Customer First Center 1121 Highway 78 South Peachtree City, GA 30269 770.495.6800 FAX 770.495.6901 ACB30702
Cooper Lighting 5925 McLaughlin Rd. Mississauga, Ontario, Canada L5R 1G9 905.507.4000 FAX 905.585.7069



Luminaire Type PP3 – Lamp Information

GE
Lighting

WORLDWIDE PARTNER


Commercial Products & Solutions

SITE SEARCH
▶ HOME
▶ PRODUCTS
▶ EDUCATION / RESOURCES
▶ LIGHTING APPLICATIONS

[Where to Buy](#) | [FAQs](#) | [Contact Us](#) | [EliteNet](#)

[Products](#) > [Compact Fluorescent](#) > [Plug-In](#) > [Triple Biax®](#) > [T4](#) > 97615

97615 – F26TBX/830/A/ECO
GE Ecolux® Biax® T4 - Facilities; Retail Display; Hospitality; Office; Restaurant; Warehouse

 **High Color Rendering**
Energy Savings

GENERAL CHARACTERISTICS


Lamp type	Compact Fluorescent - Plug-In
Bulb	T4
Base	GX24q-3
Wattage	28
Voltage	120/105
Rated Life	12000 hrs
Starting Temperature (MIN)	0 °C (32 °F)
Cathode Resistance	2.700 Ohm
Rated Life (rapid start) @ Time	12000 h @ 3 h 20000 h @ 12 h
Additional Info	Dimmable with appropriate dimming ballast., End of Life Protection (EOL), TCLP compliant
Primary Application	Facilities; Retail Display; Hospitality; Office; Restaurant; Warehouse

PHOTOMETRIC CHARACTERISTICS


Initial Lumens	1710
Mean Lumens	1440
Nominal Initial Lumens per Watt	65
Color Temperature	3000 K
Color Rendering Index (CRI)	82

ELECTRICAL CHARACTERISTICS


Current (max)	5.2500 A
Open Circuit Voltage (after preheating) (MAX)	285 V
Open Circuit Voltage Across Starter (MIN)	198 V
Lamp Current	0.325 A
Preheat Voltage (MIN)	4 V
Current Crest Factor (MAX)	1.7
Supply Current	20000 Hz



Bulb



Base



[View Larger](#)

ADDITIONAL RESOURCES

[Catalogs](#)

[Testimonials](#)

Brochures

- [Product Brochures](#)
- [Ecolux](#)
- [Ecolux \(Environmental\)](#)

Sell Sheets

- [Fast Warming](#)

[Disposal Policies & Recycling Information](#)

Final Report - Appendices

04/09/2008

170



Luminaire Type PP3 – Ballast Information



VEZ-1T42-M2-BS	
Brand Name	MARK 10 POWERLINE
Ballast Type	Electronic Dimming
Starting Method	Programmed Start
Lamp Connection	Series
Input Voltage	277
Input Frequency	60 HZ
Status	Active

Electrical Specifications

Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (*F/C)	Input Current (Amps)	Input Power (Watts) (min/max)	Ballast Factor (min/max)	MAX THD %	Power Factor	Lamp Current Crest Factor	B.E.F.
CFQ28W/G24Q	1	28	50/10	0.11	08/31	0.05/1.05	10	0.98	1.6	3.39
* CFTR28W/GX24Q	1	28	50/10	0.11	08/31	0.05/1.05	10	0.98	1.6	3.39
CFTR32W/GX24Q	1	32	50/10	0.14	08/38	0.05/1.05	10	0.98	1.6	2.78
CFTR42W/GX24Q	1	42	50/10	0.18	10/49	0.05/1.05	10	0.99	1.6	2.14

Wiring Diagram

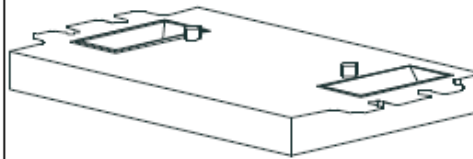


Diag. 134

The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

Enclosure



Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
4.98 "	3.00 "	1.29 "	2.00 "
4 49/50	3	1 29/100	2
12.6 cm	7.6 cm	3.3 cm	5.1 cm

Revised 09/10/2002



Data is based upon tests performed by Advance Transformer in a controlled environment and representative of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.

ADVANCE

O'HARE INTERNATIONAL CENTER · 10275 WEST HIGGINS ROAD · ROSEMONT, IL 60018
Customer Support/Technical Service: Phone: 800-372-3331 · Fax: 630-307-3071
Corporate Offices: Phone: 800-322-2086

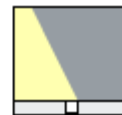
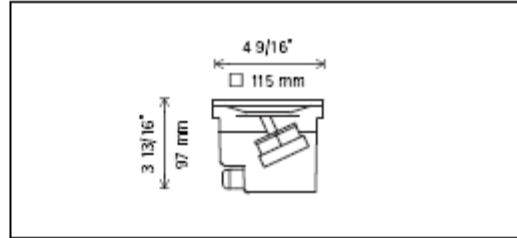


Luminaire Type PP4 – Luminaire Cutsheet

ERCO

Nadir Recessed floor luminaire

Grazing light wallwasher with LED



33804.023 LED warm white
LED 3.6W 90lm 3500K

Product description

Size 4

For mounting in accessories.

Housing: corrosion-resistant cast aluminum, No-Rinse surface treatment. Black double powder-coated. Lampholder carrier 0°-25° tilt. Electronic control gear 120V, 60Hz. Connection cable, 2xAWG14, L 19 11/16" / 500mm.

Version 1

Replaceable LED module.

Aperture mask: aluminum, silver, specular anodized. Sculpture lens. Safety glass: 1/4" / 6mm, clear. Load: 17.24 lb.wt / 8kN.

Mounting accessories to be ordered separately.

Suitable for wet location (IP67): dust-proof and protected against immersion damage.

To avoid submersion in standing water provide local drainage.

Weight 1.90 lbs / 0.90kg

Temperature on the cover glass
87°F / 30°C

ERCO Lighting, Inc.
160 Raritan Center Parkway
Suite 10
Edison, NJ 08837
USA
Tel: +1 732 225 8856
Fax: +1 732 225 8857
info.us@erco.com

Technical Region: 120V/60Hz
Edition: 11.15.2007
Please download latest version from
www.erco.com/33804.023

1/3



Luminaire Type PP5 – Luminaire Cutsheet



DESCRIPTION

673 luminous Half Cylinder features a variety of decorative options such as perforated metal, colored acrylic, trim bars and is ADA compliant.

Catalog #	Type
Project	
Comments	Date
Prepared by	

SPECIFICATION FEATURES

Material

Painted or plated solid aluminum with a 1/8" matte white extruded acrylic panel.

Finish

Standard: Natural Aluminum (NA). [Sustainable Design] Premium: Polished Chrome (PC), Satin Brass (SB), Polished Brass (PB), Lacquered Satin Aluminum (SAL), Matte White (MW), Satin Copper (SCP), Polished Copper (PCP), Satin Nickel (SN), Polished Nickel (PN), Oxidized Brass (OBR), Lacquered Satin Chrome (SCL), Lacquered Satin Nickel (SNL) or Custom Color (CC).

Optics

Refer to www.shaperlighting.com for complete photometrics.

Ballast

Integral electronic HPF, multi-volt 120/277V (347V Canada), thermally protected with end-of-life circuitry to accommodate the specified lamp wattage.

Lamp/Socket

12": One (1) or two (2) 18W (2G11) 4-pin high lumen CFL lamps or one (1) 60W frosted T-10 lamp.
16": Two (2) 27W (2G11) 4-pin high

lumen CFL lamps or two (2) 60W frosted T-10 lamps.

25": One (1) or two (2) 14W T5 linear fluorescent lamps.

37": One (1) or two (2) 21W T5 linear fluorescent lamps. CFL lamps or two (2) 60W Frosted T-10 lamps. CFL socket injection molded plastic. Lamps furnished by others.

Installation

Supplied with a universal circular strap for a standard 4" J-box or plaster ring.

Options

Hand-Painted Faux Alabaster Acrylic Diffuser (FD), Remote Emergency Battery (12" and 16" only) - Supplied by others (REM), Integrated Emergency Battery (IEM) (25" and 37"), Dimming Ballast - Contact the factory for ballast options (DM), Top and Bottom Cover (TBC), Two Vertical Trim Bars (2VTB), Two Horizontal Trim Bars (2HTB), Two Vertical and Horizontal Trim Bars (2HTB/2VTB), Two Vertical Trim Bars with Perf Sides (2VTB/PS), Two Vertical Trim Bars with Four Wide Trim Bars (2VTB/4WTB), Two Vertical and Horizontal Trim Bars with Perf Center (2HTB/2VTB/PC), Two Proud

Extended Vertical Trim Bars (2PVETB), Two Horizontal Trim Bars and One Proud Vertical Trim Bar (2HTB/1PVTB), MRI Applications (INC only) - Contact factory, Accent Balls (ACB), Three Horizontal and One Vertical Trim Bars with Perf (3HTB/1VTB/P), Damp Location (DL): All Painted Finishes, Lacquered Satin Chrome (SCL) and Lacquered Satin Nickel (SNL) finishes only. Energy Star Rating - Consult factory. MRI Applications (INC only) - Contact Factory.

Labels

U.L. and C.U.L approved for indoor and damp location. See options for damp location finishing requirements. ADA compliant (except 2PVTB, 2PVETB, 2HTB/1PVTB).

Modifications

Shaper's skilled craftspeople with their depth of experience offer the designer the flexibility to modify standard wall luminaires for project specific solutions. Contact the factory regarding scale options, additional finishes, mounting, additional materials/colors, or decorative detailing.



673 SERIES

Interior Wall Luminaire
Luminous Half Cylinder



ORDERING INFORMATION

Sample Number: 673-12-CFL/2/16-277V-PCP

Series	Lamp	Voltage	Finish	Options
--------	------	---------	--------	---------

Series 673 Luminous Half Cylinder Size 12" 16" 25" 37" Notes: 1 Available in 12". 2 Available in 16". 3 Available in 24". 4 Available in 37". 5 Available with CFL only. 6 Consult the factory for available options. 7 Supplied by others.	Lamp CFL/1/18" CFL/2/18" CFL/2/27" INC/1/60" INC/2/60" TS/1/14" TS/1/21" TS/2/14" TS/2/21"	Voltage 120V 277V* 347V*	Finish <u>Standard</u> NA: Natural Aluminum <u>Premium</u> CC: Custom Color MW: Matte White OBR: Oxidized Brass PB: Polished Brass PC: Polished Chrome PCP: Polished Copper PN: Polished Nickel SAL: Lacquered Satin Aluminum SB: Satin Brass SCP: Satin Copper SN: Satin Nickel SNL: Lacquered Satin Nickel	Options 2HTB: Two Horizontal Trim Bars 2HTB/1PVTB: Two Horizontal Trim Bars and 1 Proud Vertical Trim Bar 2HTB/2VTB: Two Horizontal and Vertical Trim Bars 2HTB/2VTB/PC: Two Horizontal and Vertical Trim Bars w/ Perf Center 2PVTB: Two Proud Vertical Trim Bars 2VTB: Two Vertical Trim Bars 2VTB/4WTB: Two Vertical Trim Bars w/ Four Wide Trim Bars 2VTB/PS: Two Vertical Trim Bars w/ Perforated Sides 3HTB/1VTB/P: Three Horizontal and One Vertical Trim Bars w/ Perf ACB: Accent Balls DL: Damp Location DM: CFL Dimming Ballast IEM: Integral Emergency Ballast* 4 REM: Remote Emergency Battery* 7 FD: Hand Painted Faux Alabaster Diffuser TBC: Top and Bottom Cover
--	--	--	--	--



Specifications and Dimensions subject to change without notice.
Consult your representative for additional options and finishes.

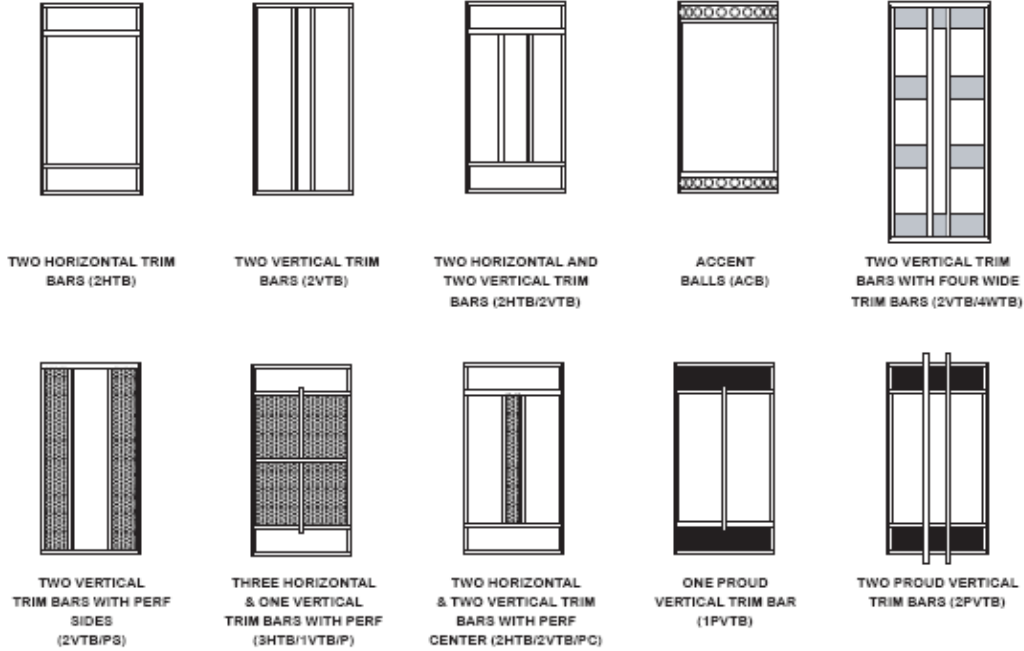
ADS042888
01/22/2008 5:07:31 PM



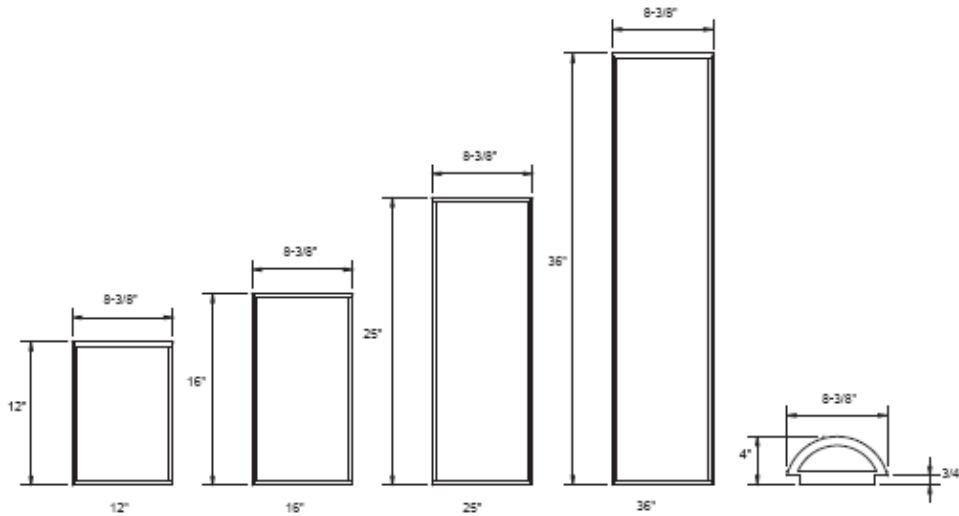
673 SERIES INTERIOR WALL LUMINAIRE

DIMENSIONS

TRIM OPTIONS



DIMENSIONS





Luminaire Type PP5 – Lamp Information



GE
Lighting

Commercial Products & Solutions

[SITE SEARCH](#) | [HOME](#) | [PRODUCTS](#) | [EDUCATION / RESOURCES](#) | [LIGHTING APPLICATIONS](#)

[Where to Buy](#) | [FAQs](#) | [Contact Us](#) | [EliteNet](#)

[Products](#) > [Linear Fluorescent](#) > [Straight Linear](#) > [T5](#) > 31590

31590 – F14W/T5/830/ECO

GE Ecolux® Starcoat® T5

• Passes TCLP, which can lower disposal costs.

High Color Rendering

PRINT

GENERAL CHARACTERISTICS

Lamp type	Linear Fluorescent - Straight Linear
Bulb	T5
Base	Miniature Bi-Pin (G5)
Wattage	14
Voltage	82
Rated Life	30000 hrs
Rated Life (rapid start) @ Time	30000 h @ 3 h 36000 h @ 12 h
Bulb Material	Soda lime
Starting Temperature (MIN)	-20 °C (-4 °F)
Additional Info	TCLP compliant



[View Larger](#)

PHOTOMETRIC CHARACTERISTICS

Initial Lumens	1350
Mean Lumens	1240
Nominal Initial Lumens per Watt	96
Color Temperature	3000 K
Color Rendering Index (CRI)	85
S/P Ratio (Scotopic/Photopic Ratio)	1.3

ADDITIONAL RESOURCES

[Catalogs](#)

[Testimonials](#)

Brochures

- Application/Segment Brochures
 - [Contractor Lighting](#)
 - [Healthcare Lighting](#)
- Product Brochures
 - [Ecolux](#)

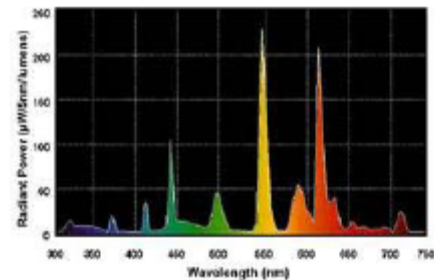
[Disposal Policies & Recycling Information](#)

ELECTRICAL CHARACTERISTICS

Open Circuit Voltage (rapid start) Min @ Temperature	230 V @ 10 °C
Cathode Resistance Ratio - Rh/Rc (MIN)	4.25
Cathode Resistance Ratio - Rh/Rc (MAX)	6.5
Current Crest Factor (MAX)	1.7

GRAPHS & CHARTS

Spectral Power Distribution



Lamp Mortality

DIMENSIONS




Maximum Overall Length (MOL)	22.1700 in (563.1 mm)
Nominal Length	21.600 in (548.8 mm)
Bulb Diameter (DIA)	0.625 in (15.8 mm)
Bulb Diameter (DIA) (MAX)	0.670 in (17.0 mm)
Max Base Face to Base Face (A)	21.610 in (548.8 mm)



Luminaire Type PP5 – Ballast Information

Lutron® | Hi-lume®, Compact SE., Eco-10.
277 volt 3-wire dimming ballasts

► **NEW!**
 For the latest
 model numbers:
www.lutron.com/ballasts

Lamp Type	Lamp Watts (Length)	Lamps per Ballast	Case Type ¹	1% Dimming		10% Dimming		Ballast Current ² – Amps
				Hi-lume	5% Dimming	Eco-10		
T5 Linear  5/8" Dia	14W (22")	1	C ³	—		E 3 T514 C 277 1	.08	
		2	C ³	—		E 3 T514 C 277 2	.14	
	21W (34")	1	C ³	—		E 3 T521 C 277 1	.11	
		2	C ³	—		E 3 T521 C 277 2	.19	
	28W (45")	1	C ³	—		ECO-T528-277-1	.14	
		2	C ³	—		ECO-T528-277-2	.25	
T5-HO Linear  5/8" Dia	24W (21.5")	1	C ³	FDB-T524-277-1		ECO-T524-277-1	.13	
		2	C ³	FDB-T524-277-2		ECO-T524-277-2	.20	
	39W (33.4")	1	C ³	FDB-T539-277-1		ECO-T5H39-277-1	.17	
		2	C ³	FDB-T539-277-2		ECO-T5H39-277-2	.31	
	54W (45")	1	C ³	FDB-T554-277-1		ECO-T554-277-1	.25	
		2	C ³	FDB-T554-277-2		ECO-T554-277-2	.45	
T8 Linear and U-Bent  1" Dia	17W (24")	1	F	FDB-2427-277-1		ECO-T817-277-1	.08	
		2	F	FDB-2427-277-2		ECO-T817-277-2	.15	
		3	F	FDB-2427-277-3		ECO-T817-277-3	.20	
	25W (36")	1	F	FDB-3627-277-1		ECO-T825-277-1	.12	
		2	F	FDB-3627-277-2		ECO-T825-277-2	.19	
		3	F	FDB-3627-277-3		—	.28	
	32W (48")	1	F	FDB-4827-277-1		ECO-T832-277-1	.14/.15 ⁴	
		1	D	—		ECO-T832-277-1-L	.14	
		1	D	—		ECO-T832-277-1-T	.14	
		2	F	FDB-4827-277-2		ECO-T832-277-2	.25/.22 ⁴	
		2	D	—		ECO-T832-277-2-L	.23	
		2	D	—		ECO-T832-277-2-T	.23	
		3	F	FDB-4827-277-3		ECO-T832-277-3	.35	
	40W (60")	1	F	FDB-6027-277-1		—	.16	
	2	F	FDB-6027-277-2		—	.30		

1 For case type information, see pages 32 and 33.

2 To calculate ballast input power, use the following formula: Watts = Ballast Current x 277.

3 Standard with terminals. Leaded options available. Please consult factory.

4 Eco-10 ballast current.



Luminaire Type QQ1- Luminaire Cutsheet

GRANVILLE® PREMIER

Featuring ISD SuperGlass® with Cutoff Optics



DECORATIVE | Historical



Preferred Selections:

Most Frequently Ordered Catalog Number

GVP	175MH	MA	M	B	6	R	S	B
1	2	3	4	5	6	7	8	9
LUMINAIRE	WATTAGE	VOLTAGE	HOUSING	COLOR	OPTICS	TRIM	FINIAL	TRIM FINISH
GVP	175MH 250MH	MA	M	B	6	R	S	B

Holophane's new Cutoff optical design utilizes a precision segmented Micro® 4 reflector design to control up-light and a bottom prismatic glass refractor to provide a very uniform distribution pattern.

Micro® 4 is a Registered Trade Mark of Alconad.

Catalog Numbers for Entire Product Offering

(Pricing and lead times may be affected)

<p>STEP 1: LUMINAIRE</p> <p>GVP Granville Premier</p>	<p>STEP 2: WATTAGE (continued)</p> <p>METAL HALIDE</p> <p>Medium Base</p> <p>70DMH 70W MH 100DMH 100W MH 150DMH 150W MH 175DMH 175W MH</p> <p> mogul Base</p> <p>175MH 175W MH 250MH 250W MH</p> <p>INCANDESCENT</p> <p>200IN 200W Inc</p> <p>COMPACT FLUORESCENT</p> <p>42CFL 42W CFL 57CFL 57W CFL 70CFL 70W CFL</p> <p>INDUCTION</p> <p>035QL¹ 55W Ind 085QL² 85W Ind</p> <p>¹ Not available with 347V ² Not available with 480V ³ 35°C maximum ambient</p>	<p>STEP 4: HOUSING</p> <p>M Modern fluted swing open design</p> <p>STEP 5: COLOR</p> <p>B Black N Green Z Bronze A As specified</p>	<p>STEP 9: TRIM FINISH</p> <p>B Black N Green Z Bronze A As specified U No trim and clear or no finial</p>
<p>STEP 2: SOURCE AND WATTAGE</p> <p>HIGH PRESSURE SODIUM</p> <p>Medium Base</p> <p>50HP 50W HPS 70HP 70W HPS 100HP 100W HPS 150HP 150W/55V HPS</p> <p> mogul Base</p> <p>050HP 50W HPS 070HP 70W HPS 100HP 100W HPS 15AHP 150W/55V HPS</p> <p>¹ Not available with 347V</p>	<p>STEP 3: VOLTAGE</p> <p>06¹ 208V 12 120V 20 208V 24 240V 27 277V 34 347V 40¹ 240V 48 480V</p> <p>Multi-tap, factory installed</p> <p>MA 120 volt only MB 208 volt only MC 240 volt only MD 480 volt only</p> <p>¹ Isolated secondary. Not available with "0FL", "70DMH", "100DMH", "150DMH", and "QL"</p>	<p>STEP 6: OPTICS</p> <p>3 Asymmetric 5 Symmetric 6 Asymmetric, with Lunar Optics 8 Symmetric, with Lunar Optics</p>	<p>STEP 10: OPTIONS/ACCESSORIES</p> <p>DTL Twist-off photocontrol</p> <p>PCTWSTL120 120 volt PCTWSTL1202427 120-277 volt PCTWSTL480 480 volt PCTWSTLSHRTCAP Shorting cap FCVRX¹ Full decorative aluminum cover for "GM" (finial required) H NEMA twist-off photocontrol NEMA-XXXXX NEMA labels. Insert wattage for "XXXXX" P Protected starter for HPS units S Orient door with street</p> <p>Pre-wired leads</p> <p>LEADS-XXX-FT 10GA Pre-wired leads. Insert length for "XXX"</p> <p>¹ For color insert "B", "G", "N", "Z" or "A" for "X"</p>
<p>STEP 7: TRIM</p> <p>B Band only N No trim R Band and ribs</p>	<p>STEP 8: FINIAL</p> <p>Painted Cast Aluminum</p> <p>B Ball E Eagle F Flower P Pawn R Cross S Standard</p> <p>Other</p> <p>C Clear Acrylic, 3" N None</p>	<p>STEP 7: TRIM</p> <p>B Band only N No trim R Band and ribs</p>	<p>STEP 10: OPTIONS/ACCESSORIES</p> <p>DTL Twist-off photocontrol</p> <p>PCTWSTL120 120 volt PCTWSTL1202427 120-277 volt PCTWSTL480 480 volt PCTWSTLSHRTCAP Shorting cap FCVRX¹ Full decorative aluminum cover for "GM" (finial required) H NEMA twist-off photocontrol NEMA-XXXXX NEMA labels. Insert wattage for "XXXXX" P Protected starter for HPS units S Orient door with street</p> <p>Pre-wired leads</p> <p>LEADS-XXX-FT 10GA Pre-wired leads. Insert length for "XXX"</p> <p>¹ For color insert "B", "G", "N", "Z" or "A" for "X"</p>



An AcuityBrands Company

Acuity Brands Lighting, Inc.

Holophane Headquarters, 3825 Columbus Road, Granville, OH 43023
Holophane Canada, Inc. 9040 Leslie Street, Suite 208, Richmond Hill, ON L4B 3M4
Holophane Europe Limited, Bond Ave., Milton Keynes MK11 1JG, England
Holophane, S.A. de C.V., Apartado Postal No. 986, Naucalpan de Juarez, 53000 Edo. de Mexico

Contact your local Holophane factory sales representative for application assistance, and computer-aided design and cost studies. For information on other Holophane products and systems, call the Inside Sales Service Department at 740-345-9631. In Canada call 905-707-5890 or fax 905-707-5695.

Limited Warranty and Limitation of Liability Refer to the Holophane limited material warranty and limitation of liability on this product, which are published in the "Terms and Conditions" section of the current Buyers Guide, and is available from your local Holophane sales representative.



HL-1383 1/08 ©2008 Acuity Brands Lighting, Inc

Visit our web site at www.holophane.com

Printed in USA



Luminaire Type QQ1 – Lamp Information

[Return to: Open/Enclosed Fixtures](#)

[Print Page](#)



Product Number: 64403
Order Abbreviation: MPD150/U/MED/840
General Description: 150W, 4000K, high CRI, reduced color shift, high performance, open fixture rated metal halide lamp, clear, universal burn

Product Information	
Abbrev. With Packaging Info.	MPD150UMED840 20/CS 1/SKU
ANSI Code	M102/O
Approx. Lumens (initial - horizontal)	12500
Approx. Lumens (initial - vertical)	12500
Approx. Lumens (mean - horizontal)	11000
Approx. Lumens (mean - vertical)	11000
Arc Length (in)	0.62
Arc Length (mm)	15.7
Average Rated Life - Horizontal (hr)	6000
Average Rated Life - (hr)	6000
Average Rated Life - Vertical (hr)	7500
Base	E26 Medium
Bulb	E17
Color Rendering Index (CRI)	88
Color Temperature/CCT (K)	4200
Diameter (in)	2.125
Diameter (mm)	54
Family Brand Name	Designer Series Metalarc® Pro-Tech
Fixture Requirement	O
Hot Restrike Time (min)	5-7
Lamp Finish	Clear
Light Center Length - LCL (in)	3.39
Light Center Length - LCL (mm)	86
Maximum Base Temperature - Fahrenheit	410
Maximum Base Temperature - Celsius	210
Maximum Bulb Temperature - Fahrenheit	752
Maximum Bulb Temperature - Celsius	400
Maximum Overall Length - MOL (in)	5.43
Maximum Overall Length - MOL (mm)	138
Nominal Voltage (V)	90.00
Nominal Wattage (W)	150.00



Luminaire Type QQ1 – Ballast Information

		<p>Metal Halide Lamp Ballast</p>	<p>Catalog Number 71A5437P For 150W M102 60 Hz R-HPF Status: Active</p>																																																																																																																																																																																				
DIMENSIONS AND DATA																																																																																																																																																																																							
<p>2 5/8 X 2 3/16 CORE</p>		<table border="1"> <tr><td>INPUT VOLTS</td><td>277</td><td></td><td></td><td></td></tr> <tr><td>CIRCUIT TYPE</td><td>R-HPF</td><td></td><td></td><td></td></tr> <tr><td>POWER FACTOR (min)</td><td>90%</td><td></td><td></td><td></td></tr> <tr><td>REGULATION</td><td></td><td></td><td></td><td></td></tr> <tr><td> Line Volts</td><td>±5%</td><td></td><td></td><td></td></tr> <tr><td> Lamp Watts</td><td>±10%</td><td></td><td></td><td></td></tr> <tr><td>LINE CURRENT (Amps)</td><td></td><td></td><td></td><td></td></tr> <tr><td> Operating</td><td>0.63</td><td></td><td></td><td></td></tr> <tr><td> Open Circuit</td><td>1.50</td><td></td><td></td><td></td></tr> <tr><td> Starting</td><td>0.70</td><td></td><td></td><td></td></tr> <tr><td>UL TEMPERATURE RATINGS</td><td></td><td></td><td></td><td></td></tr> <tr><td> Insulation Class</td><td>H(180°C)</td><td></td><td></td><td></td></tr> <tr><td> Coil Temperature Code</td><td>102B</td><td></td><td></td><td></td></tr> <tr><td>MIN. AMBIENT STARTING TEMP.</td><td>-20°F or -30°C</td><td></td><td></td><td></td></tr> <tr><td>NOM. OPEN CIRCUIT VOLTAGE</td><td>277</td><td></td><td></td><td></td></tr> <tr><td>INPUT VOLTAGE AT LAMP DROPOUT</td><td>170</td><td></td><td></td><td></td></tr> <tr><td>INPUT WATTS</td><td>173</td><td></td><td></td><td></td></tr> <tr><td>RECOMMENDED FUSE (Amps)</td><td>4</td><td></td><td></td><td></td></tr> <tr><td>CORE and COIL</td><td></td><td></td><td></td><td></td></tr> <tr><td> Dimension (A)</td><td>2.50</td><td></td><td></td><td></td></tr> <tr><td> Dimension (B)</td><td>3.80</td><td></td><td></td><td></td></tr> <tr><td> Weight (lbs.)</td><td>4</td><td></td><td></td><td></td></tr> <tr><td> Lead Lengths</td><td>12"</td><td></td><td></td><td></td></tr> <tr><td>CAPACITOR REQUIREMENT</td><td></td><td></td><td></td><td></td></tr> <tr><td> Microfarads</td><td>14.0</td><td></td><td></td><td></td></tr> <tr><td> Volts (min.)</td><td>280</td><td></td><td></td><td></td></tr> <tr><td> Fault Current Withstand (amps)</td><td></td><td></td><td></td><td></td></tr> <tr><td>60 Hz TEST PROCEDURES (Refer to Advance Test Procedure for HID Ballasts - Form 1270)</td><td></td><td></td><td></td><td></td></tr> <tr><td>High Potential Test (Volts)</td><td></td><td></td><td></td><td></td></tr> <tr><td> 1 minute</td><td>2000</td><td></td><td></td><td></td></tr> <tr><td> 2 seconds</td><td>2500</td><td></td><td></td><td></td></tr> <tr><td>Open Circuit Voltage Test (Volts)</td><td>250-305</td><td></td><td></td><td></td></tr> <tr><td>Short-Circuit Current Test (Amps)</td><td></td><td></td><td></td><td></td></tr> <tr><td> Secondary Current</td><td>2.00-2.50</td><td></td><td></td><td></td></tr> <tr><td> Input Current</td><td>0.50</td><td></td><td></td><td></td></tr> <tr><td></td><td>0.75</td><td></td><td></td><td></td></tr> </table>		INPUT VOLTS	277				CIRCUIT TYPE	R-HPF				POWER FACTOR (min)	90%				REGULATION					Line Volts	±5%				Lamp Watts	±10%				LINE CURRENT (Amps)					Operating	0.63				Open Circuit	1.50				Starting	0.70				UL TEMPERATURE RATINGS					Insulation Class	H(180°C)				Coil Temperature Code	102B				MIN. AMBIENT STARTING TEMP.	-20°F or -30°C				NOM. OPEN CIRCUIT VOLTAGE	277				INPUT VOLTAGE AT LAMP DROPOUT	170				INPUT WATTS	173				RECOMMENDED FUSE (Amps)	4				CORE and COIL					Dimension (A)	2.50				Dimension (B)	3.80				Weight (lbs.)	4				Lead Lengths	12"				CAPACITOR REQUIREMENT					Microfarads	14.0				Volts (min.)	280				Fault Current Withstand (amps)					60 Hz TEST PROCEDURES (Refer to Advance Test Procedure for HID Ballasts - Form 1270)					High Potential Test (Volts)					1 minute	2000				2 seconds	2500				Open Circuit Voltage Test (Volts)	250-305				Short-Circuit Current Test (Amps)					Secondary Current	2.00-2.50				Input Current	0.50					0.75			
INPUT VOLTS	277																																																																																																																																																																																						
CIRCUIT TYPE	R-HPF																																																																																																																																																																																						
POWER FACTOR (min)	90%																																																																																																																																																																																						
REGULATION																																																																																																																																																																																							
Line Volts	±5%																																																																																																																																																																																						
Lamp Watts	±10%																																																																																																																																																																																						
LINE CURRENT (Amps)																																																																																																																																																																																							
Operating	0.63																																																																																																																																																																																						
Open Circuit	1.50																																																																																																																																																																																						
Starting	0.70																																																																																																																																																																																						
UL TEMPERATURE RATINGS																																																																																																																																																																																							
Insulation Class	H(180°C)																																																																																																																																																																																						
Coil Temperature Code	102B																																																																																																																																																																																						
MIN. AMBIENT STARTING TEMP.	-20°F or -30°C																																																																																																																																																																																						
NOM. OPEN CIRCUIT VOLTAGE	277																																																																																																																																																																																						
INPUT VOLTAGE AT LAMP DROPOUT	170																																																																																																																																																																																						
INPUT WATTS	173																																																																																																																																																																																						
RECOMMENDED FUSE (Amps)	4																																																																																																																																																																																						
CORE and COIL																																																																																																																																																																																							
Dimension (A)	2.50																																																																																																																																																																																						
Dimension (B)	3.80																																																																																																																																																																																						
Weight (lbs.)	4																																																																																																																																																																																						
Lead Lengths	12"																																																																																																																																																																																						
CAPACITOR REQUIREMENT																																																																																																																																																																																							
Microfarads	14.0																																																																																																																																																																																						
Volts (min.)	280																																																																																																																																																																																						
Fault Current Withstand (amps)																																																																																																																																																																																							
60 Hz TEST PROCEDURES (Refer to Advance Test Procedure for HID Ballasts - Form 1270)																																																																																																																																																																																							
High Potential Test (Volts)																																																																																																																																																																																							
1 minute	2000																																																																																																																																																																																						
2 seconds	2500																																																																																																																																																																																						
Open Circuit Voltage Test (Volts)	250-305																																																																																																																																																																																						
Short-Circuit Current Test (Amps)																																																																																																																																																																																							
Secondary Current	2.00-2.50																																																																																																																																																																																						
Input Current	0.50																																																																																																																																																																																						
	0.75																																																																																																																																																																																						
<p>Capacitor: 7C140M33-R</p> <p>Capacitance: 14 Dia/Oval Dim: 1.5 Height: 2.9 Temp Rating: 105°C</p>		<p>Wiring Diagram:</p> <p>Fig. G</p>																																																																																																																																																																																					
<p>Ignitor: LI533-H4</p>		<p>Typical Ordering Information (please call Advance for suffix availability)</p> <table border="1"> <thead> <tr> <th>Order Suffix</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>5000</td> <td>Ballast With Ignitor and Dry Film Capacitor</td> </tr> <tr> <td>5100</td> <td>Ballast With Dry Film Capacitor, Ignitor & Dry Film Capacitor</td> </tr> <tr> <td>5200</td> <td>Ballast With Ignitor, Dry Film Capacitor</td> </tr> <tr> <td>610</td> <td>Ballast with Welded Bracket and Ignitor, No Capacitor</td> </tr> </tbody> </table>		Order Suffix	Description	5000	Ballast With Ignitor and Dry Film Capacitor	5100	Ballast With Dry Film Capacitor, Ignitor & Dry Film Capacitor	5200	Ballast With Ignitor, Dry Film Capacitor	610	Ballast with Welded Bracket and Ignitor, No Capacitor																																																																																																																																																																										
Order Suffix	Description																																																																																																																																																																																						
5000	Ballast With Ignitor and Dry Film Capacitor																																																																																																																																																																																						
5100	Ballast With Dry Film Capacitor, Ignitor & Dry Film Capacitor																																																																																																																																																																																						
5200	Ballast With Ignitor, Dry Film Capacitor																																																																																																																																																																																						
610	Ballast with Welded Bracket and Ignitor, No Capacitor																																																																																																																																																																																						
<p>Ballast to Lamp Distance (BTL) = 2 feet Temp Rating: 105°C</p> <p><small>Data is based upon tests performed by Advance Transformer in a controlled environment and representative of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice.</small></p>																																																																																																																																																																																							

ADVANCE

O'HARE INTERNATIONAL CENTER · 10275 WEST HIGGINS ROAD · ROSEMONT, IL 60018
 Customer Support/Technical Service: Phone: 800-372-3331 · Fax: 630-307-3071
 Corporate Offices: Phone: 800-322-2088

09/20/00



Luminaire Type QQ2- Luminaire Cutsheet

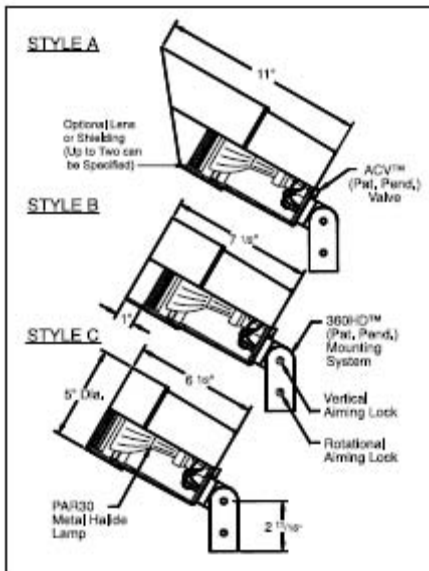
Sierra Series™



The **Sierra Series™** is designed for use with the **PAR30 Master Color™** and other **PAR30 metal halide lamps** in wattages of **35W and 70W**. The all aluminum construction and rich polyester powder coat finish will provide years of performance for this very popular lamp. The lighting designer has seven different ballast options to choose from, which facilitate a wide variety of practical applications. The Sierra Series incorporates the **ACV™ (Pat. Pend.) Valve System** for increased protection against internal condensation corrosion. It also incorporates the **360HD™ (Pat. Pend.) Mounting System** with B-K Lighting's exclusive 'aim-and-lock technology'.

Features

- Tamper proof design.
- Completely sealed optical compartment.
- Clear, tempered glass lens, factory sealed.
- Machined aluminum construction with stainless steel hardware.
- ACV™ (Pat. Pend.) Valve System. See page 33.
- 360HD™ (Pat. Pend.) Mounting System allows vertical to horizontal and rotational aiming with positive 'aim-and-lock technology', provides integral wireway. See page 33.
- Medium base pulse rated lamp holder with 250° C, 18 ga., wire leads.
- Ⓢ & Ⓞ. Listed with 35W and 70W PAR30 metal halide lamps.
- For use with 35W or 70W, 120V or 277V metal halide ballast.



CATALOG NUMBER LOGIC

Example: SE - 63 - BLW - 10 - 11 - C - PC70-120

Series: SE - 63 - BLW - 10 - 11 - C - PC70-120

Lamp Type: 0 - By others
 60 - 35 PAR30/MH/SP(35W), 10° Spot
 61 - 35 PAR30/MH/FL(35W), 30° Flood
 62 - 70 PAR30/MH/SP(70W), 10° Spot
 63 - 70 PAR30/MH/FL(70W), 40° Flood

Finish	Powder Coat Color	Satin	Wrinkle
	Bronze	B/P	B/W
	Black	BL/P	BL/W
	White(Gloss)	W/P	W/W
	Aluminum	SAP	
	Vars		Vars

Lens Type: 9 - Clear (Standard), 10 - Spread, 13 - Rectilinear

Shielding: 11 - Honeycomb Baffle

Cap Style: A - 45°, B - 90°, C - Flush



Ballast Style and Input Voltage:
 HP35-120 or 277 - Recessed in grade (35W)*
 HP70-120 or 277 - Recessed in grade (70W)*
 HPRM35-120 or 277 - Recessed in grade (35W)*
 HPRM70-120 or 277 - Recessed in grade (70W)*
 PPII-120 or 277 - Power Pipe II™ above grade (35W only)
 PC35-120 or 277 - Power Canopy™, wall or ceiling mount (35W)
 PC70-120 or 277 - Power Canopy™, wall or ceiling mount (70W)
 RM35-120 or 277 - Remote wall mounted housing (35W)
 RM70-120 or 277 - Remote wall mounted housing (70W)
 TSB35-120 or 277 - LENGTH - Free strap mounted electronic ballast (35W)
 TSB70-120 or 277 - LENGTH - Free strap mounted electronic ballast (70W)
 TMB35-120 or 277 - Pole top or tenon mount electronic ballast (35W)
 TMB70-120 or 277 - Pole top or tenon mount electronic ballast (70W)

*HP bottom conduit entry standard. For side conduit entry, specify 'SE'. For concrete pour collar option specify 'CPC'.

For ballast information, see page 25.



Luminaire Type QQ2 – Lamp Information

GE Lighting

WORLDWIDE PARTNER

Commercial Products & Solutions

[SITE SEARCH](#) | [HOME](#) | [PRODUCTS](#) | [EDUCATION / RESOURCES](#) | [LIGHTING APPLICATIONS](#)

[Where to Buy](#) | [FAQs](#) | [Contact Us](#) | [EliteNet](#)

Products > [High Intensity Discharge](#) > [Ceramic Metal Halide](#) > [PAR](#) > [PAR30L](#) > 45066


45066 – CMH39/PAR30LSP10
 GE ConstantColor® PulseAro® CMH® Ceramic Metal Halide PAR30L

GENERAL CHARACTERISTICS	
Lamp type	High Intensity Discharge - Ceramic Metal Halide
Bulb	PAR30L
Base	Medium Screw (E26)
Wattage	39
Rated Life	10000 hrs
Bulb Material	Hard glass
Lamp Enclosure Type (LET)	Open or enclosed fixtures
Additional info	Ballast thermal protection, UV control


PHOTOMETRIC CHARACTERISTICS	
Initial Lumens	2400
Nominal Initial Lumens per Watt	61
Beam Spread	10 °
Center Beam Candepower (CBCP)	39600
Color Temperature	3000 K
Color Rendering Index (CRI)	81

ELECTRICAL CHARACTERISTICS	
Burn Position	Universal burning position
Open Circuit Voltage (peak lead ballast) (MIN)	280 V
Open Circuit Voltage (RMS lag ballast) (MIN)	198 V
Warm Up Time to 90%	2 min
Warm Up Time to 90% (MAX)	2 min/3 min
Hot Restart Time to 90% (MIN)	10 min
Hot Restart Time to 90% (MAX)	15 min


DIMENSIONS	
Maximum Overall Length (MOL)	4.7500 In (120.6 mm)
Nominal Length	4.600 In (116.8 mm)
Bulb Diameter (DIA)	3.813 In (96.8 mm)



Bulb



Base



[View Larger](#)

ADDITIONAL RESOURCES

[Catalogs](#)
[Testimonials](#)
 Brochures
 Product Brochures

- [Ceramic Metal Halide](#)
- [Color](#)
- [HID Lamps](#)

Application/Segment Brochures

- [Contractor Lighting](#)

Sell Sheets

- [GE ConstantColor® CMH® Lamps IES/Photometric Download](#)
- [MSDS \(Material Safety Data Sheets\)](#)
- [Disposal Policies & Recycling Information](#)





Luminaire Type QQ2 – Ballast Information

		e-Vision® Electronic Ballast for Metal Halide Lamps				Catalog Number IMH-39-G For 39W Metal Halide Lamps ANSI M130 120-277V 50/60Hz Electronic Status: Preliminary											
										DIMENSIONS AND DATA							
Lamp Data		Input Volts	Catalog Number*	Line Current (Amps)	Input Power (W)	Ballast Factor	Max THD (%)	Min Power Factor	Wiring Dia	Figure	Weight (lb)	Max Distance to Lamp (ft)					
Number	Watts																
39W Watt Lamp, ANSI Code M130 Minimum Starting Temp -30°C/-20°F																	
1	39	120	IMH-39-G-xxx	0.39	46	1.0	15%	0.95	3	G	0.9	5					
		277		0.18	45												
<p>Figure G</p> <p>8-32 x 1/4" Mounting Studs</p> <p>2" (50.8)</p> <p>Mounting Width</p> <p>Case Width</p> <p>Case Length</p> <p>Overall Length</p> <p>Mounting Stud</p> <p>Case Length</p> <p>Mounting Stud</p> <p>Case Width</p> <p>Overall Length</p>						<p>Ballast</p> <p>(Red) Lamp</p> <p>(Blue) Lamp</p> <p>(White) Com</p> <p>(Black) 120V - 277V</p> <p>(Green) Ground</p> <p>Ballast Case must be Grounded</p> <p>Wiring Diagram 3</p>											
<p>Case Temperature Measurement Location</p> <p>12mm</p> <p>To case max = 90 deg. C</p> <p>45mm</p> <p>Side Lead Version</p> <p>Angled Corner (Reference)</p> <p>Bottom Lead & Stud Version</p>						<p>UL CSA</p>											
<p>INSTALLATION & APPLICATION NOTES:</p> <ol style="list-style-type: none"> Maximum allowable case temperature is 90°C. See figure above for measurement location Ignition pulse is 4 kV max All leads are 9 inches long Ballast output will shutdown after 20 minutes if lamp fails to ignite Power must be cycled off – then on, after replacing lamp Connect the red leads to the center terminals of the lamp when using screw base lamps 						<p>*Ordering Information</p> <table border="1"> <thead> <tr> <th>Order Suffix</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>-LF</td> <td>Ballast with side exit leads and mounting feet</td> </tr> <tr> <td>-BLS</td> <td>Ballast with bottom exit leads and mounting studs</td> </tr> </tbody> </table>						Order Suffix	Description	-LF	Ballast with side exit leads and mounting feet	-BLS	Ballast with bottom exit leads and mounting studs
Order Suffix	Description																
-LF	Ballast with side exit leads and mounting feet																
-BLS	Ballast with bottom exit leads and mounting studs																
<p><small>Data is based on tests performed by Advance transformer in a controlled environment and representative of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.</small></p>																	

Advance • 10275 West Higgins Road • Rosemont, Illinois 60018-5603 • (847) 390-5000 • fax: 847-390-5109 • www.advancetransformer.com

A DIVISION OF PHILIPS ELECTRONICS NORTH AMERICA CORPORATION

Revised 1/16/06



Luminaire Type QQ3- Luminaire Cutsheet

ERCO

Lightcast Downlight

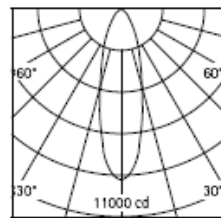
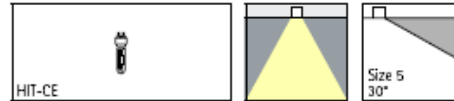
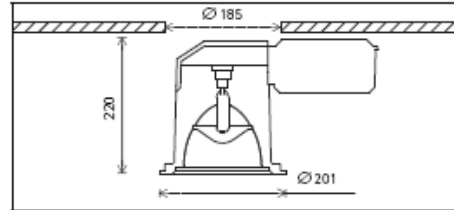
for metal halide lamps



81030.000 Reflector silver
 HIT-CE 70W G12 6600lm

Product description

Housing: cast aluminium, silver powder-coated. Mounting with 3-point support and screw fixing, for ceiling thicknesses of 1-30mm. Side-mounted control gear: cast aluminium, powder-coated black. 2 cable entries. Through-wiring possible. 5-pole terminal block. Control gear with temperature controller, timer-ignitor, capacitor. Darklight reflector: aluminium, bright anodised. Cut-off angle 30°. Diffuser as lamp cover: glass, frosted. Screw-fastened cover ring with safety glass; corrosion-resistant, cast aluminium, No-rinse surface treatment. Silver double powder-coated. To be removed together with Darklight reflector for lamp replacement. Protection mode IP65: dust-proof and water-jet proof. Weight 4.20kg



HIT-CE 70W G12 6600lm


h(m)	E(lx)	D(m)
1	9043	0.52
2	2261	1.03
3	1005	1.55
4	565	2.07
5	362	2.59

ERCO Leuchten GmbH
 Postfach 2490
 58505 Lüdenscheid
 Germany
 Tel: +49 2351 551 0
 Fax: +49 2351 551 300
 info@erco.com

Technical Region: 230V/50Hz
 We reserve the right to make technical and design changes.
 Edition: 13.11.2007
 Please download the current version from
www.erco.com/81030.000



Luminaire Type QQ3 – Lamp Information

GE Lighting

WORLDWIDE PARTNER

Commercial Products & Solutions

[SITE SEARCH](#) | [HOME](#) | [PRODUCTS](#) | [EDUCATION / RESOURCES](#) | [LIGHTING APPLICATIONS](#)

[Where to Buy](#) | [FAQs](#) | [Contact Us](#) | [EliteNet](#)

[Products](#) > [High Intensity Discharge](#) > [Ceramic Metal Halide](#) > [Single-Ended](#) > [T6](#) > 20016

20016 – CMH70TU/830/G12
 GE ConstantColor® PulseArc® CMH® Ceramic Metal Halide T6

GENERAL CHARACTERISTICS

Lamp type	High Intensity Discharge - Ceramic Metal Halide
Bulb	T6
Base	Bi-Pin (G12)
Wattage	70
Rated Life	15000 hrs
Bulb Material	Quartz
Lamp Enclosure Type (LET)	Enclosed fixtures only
Additional Info	UV control

PHOTOMETRIC CHARACTERISTICS

Initial Lumens	6200
Mean Lumens	4700
Nominal Initial Lumens per Watt	88
Color Temperature	3000 K
Color Rendering Index (CRI)	83

ELECTRICAL CHARACTERISTICS

Burn Position	Universal burning position
Warm Up Time to 90% (MAX)	2 min/3 min
Hot Restart Time to 90% (MIN)	10 min
Hot Restart Time to 90% (MAX)	15 min


DIMENSIONS

Maximum Overall Length (MOL)	3.5600 In (90.4 mm)
Light Center Length (LCL)	2.180 In (55.3 mm)


PRODUCT INFORMATION

Product Code	20016
Description	CMH70TU/830/G12
ANSI Code	C139/M139
Standard Package	Case
Standard Package GTIN	10043168200162
Standard Package	12

Bulb




Base



[View Larger](#)

ADDITIONAL RESOURCES

- [Catalogs](#)
- [Testimonials](#)
- Brochures**
 - [Product Brochures](#)
 - [Ceramic Metal Halide](#)
 - [Application/Segment Brochures](#)
 - [Contractor Lighting](#)
- [MSDS \(Material Safety Data Sheets\)](#)
- [Disposal Policies & Recycling Information](#)

 [PRINT](#)



Luminaire Type QQ3 – Ballast Information

		e-Vision® Electronic Ballast for Metal Halide Lamps				Catalog Number IMH-70-J For 70W Metal Halide Lamps ANSI M98, M143 or M139 120-277V 50/60Hz Electronic Status: Preliminary										
						DIMENSIONS AND DATA										
Lamp Data		Input Volts	Catalog Number*	Line Current (Amps)	Input Power (W)	Ballast Factor	Max THD (%)	Min Power Factor	Wiring Dia	Figure	Weight (lb)	Max Distance to Lamp (ft)				
Number	Watts															
70W Watt Lamp, ANSI Code M M98, M143 or M139 Minimum Starting Temp -30°C/-20°F																
1	70	120	IMH-70-J-xxx	0.67	80	1.0	15%	0.90	3	J	0.9	5				
		277		0.30	79											
<p style="text-align: center;">Figure J</p> <p style="text-align: center;">8-32 x 1/4" Mounting Studs</p> <p style="text-align: center;">JUL (2500)</p> <p style="text-align: center;">Mounting Width</p>						<p style="text-align: center;">Ballast Case must be Grounded</p> <p style="text-align: center;">Wiring Diagram 3</p>										
<p> CASE LENGTH = 5.51" [140mm] MOUNTING LENGTH = 5.71" [145mm] MOUNTING WIDTH = 1.08" [27mm] OVERALL LENGTH = 5.87" [149mm] CASE WIDTH = 1.81" [46mm] HEIGHT = 1.18" [30mm] </p>						<p style="text-align: center;">Case Temperature Measurement Location</p>										
<p> INSTALLATION & APPLICATION NOTES: 1. Maximum allowable case temperature is 90°C. See figure above for measurement location 2. Ignition pulse is 4 kV max 3. All leads are 9 inches long 4. Ballast output will shutdown after 20 minutes if lamp fails to ignite 5. Power must be cycled off – then on, after replacing lamp 6. Connect the red lead to the center terminal of the lamp when using screw base lamps </p>						<p style="text-align: center;">*Ordering Information</p> <table border="1"> <thead> <tr> <th>Order Suffix</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>-LF</td> <td>Ballast with side exit leads and mounting feet</td> </tr> </tbody> </table>							Order Suffix	Description	-LF	Ballast with side exit leads and mounting feet
Order Suffix	Description															
-LF	Ballast with side exit leads and mounting feet															
<p style="font-size: small;">Data is based on tests performed by Advance transformer in a controlled environment and representative of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.</p>																

Advance • 10275 West Higgins Road • Rosemont, Illinois 60018-5603 • (847) 390-5000 • fax: 847-390-5105 • www.advancetransformer.com

A DIVISION OF PHILIPS ELECTRONICS NORTH AMERICA CORPORATION

Revised 1/16/06



Luminaire Types QQ4a and QQ4b– Luminaire Cutsheet



line™ 2.0

ASYMMETRIC



Application

Io Lighting's line series 2.0 is a low voltage linear floodlight luminaire that utilizes high brightness LEDs. series 2.0 may be specified for interior or exterior applications and may be ordered in nominal lengths of 18", 36", 54", and 72". The precise asymmetric beam spread along the perpendicular axis of the fixture is excellent for wall washing, sign lighting or pathway applications. series 2.0's patented optical assembly is designed to practically eliminate stray light, making it perfect for applications where light pollution and/or light trespass are important design considerations.

series 2.0's low profile housing enables the luminaire to be integrated within "tight" architectural details while delivering high intensity illumination.

LEDs are similar to halogen light sources in that they are point sources that can reveal superior definition to three-dimensional objects and sparkle to reflective surfaces.

To ensure that each LED is driven with the proper current and voltage which enables the average rated life to be 50,000 hours at 70% of lamp lumen output. To ensure proper performance, architectural details should allow for ventilation and air flow around the fixture. Ambient temperature surrounding the fixture shall not exceed 120° F.

Light Output

Asymmetric series 2.0's patented optical assembly offers a fixture efficiency in excess of 83%. Refer to light output tables for footcandle values at various distances. Two luminous intensities are available for white light. IES format files may be obtained from the factory or downloaded from www.iolighting.com.

Standard Output

3000K White: 213 lms/ft
5000K White: 300 lms/ft

High Output

3000K White: 320 lms/ft
5000K White: 450 lms/ft

Construction

Heavy-duty aluminum housing provides recommended heat sink requirements for LEDs. Precision optics are composed of a customized acrylic material offering excellent light transmission and UV stability. High strength adhesive bonds the housing and patented optical assembly. series 2.0 is UL Listed for wet locations.

Mounting Options

series 2.0 may be surface mounted, side surface mounted or surface mounted with field adjustability and lockable aiming. series 2.0 may not be mounted vertically in exterior applications.

Electrical

All fixtures are pre-wired and pre-assembled for easy installation. 8'-0", 14 AWG electrical feed is side mounted to enable continuous row mounting. Universal 120v - 277v supply required for remote driver. Driver enclosures for interior or exterior applications may be provided by io. 100W advance drivers may be remotely located up to 48'-0" (w/14 AWG), 71'-0" (w/12 AWG) and 120'-0" (w/10 AWG).

Power supply and dimming module must be specified separately. For detailed information, see the LED Linear brochure or download the Power Supply specification sheet from www.iolighting.com.

Power Consumption

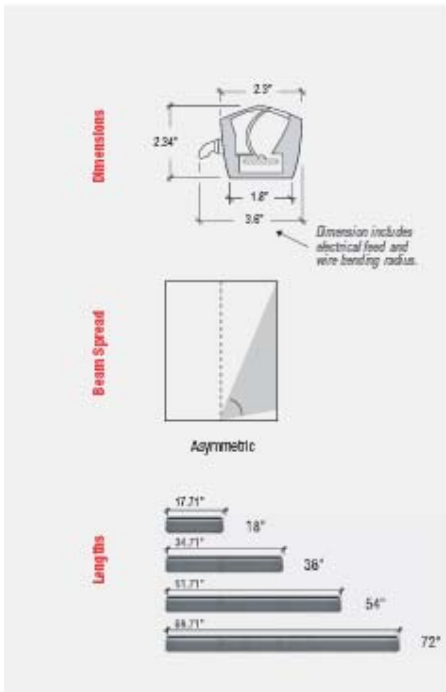
Standard Output: 12 w/ft

High Output: 17.8 w/ft

Power consumption does not include power supply losses. Consult to driver specification sheets for losses associated with each driver option.

Finish

Anodized aluminum finish is standard. Custom finishes may be available upon request.



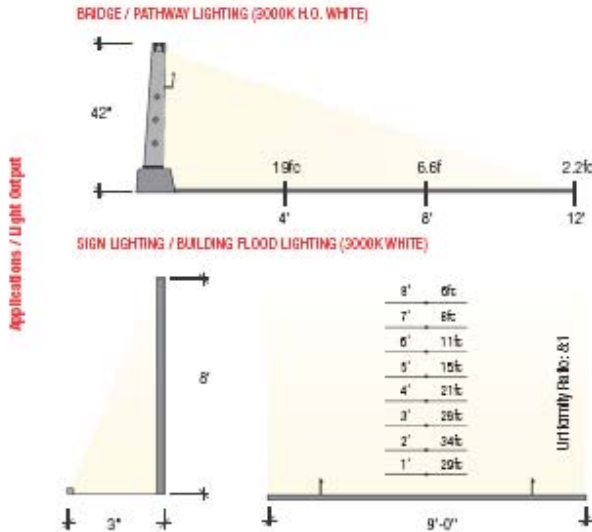
io Lighting
370 Corporate Woods Pkwy Vernon Hills, IL 60061-3107
T 847.735.7000 F 847.735.7001 E info@iolighting.com www.iolighting.com

©2007 - io Lighting reserves the right to change specifications for product improvement without notification.





io line™ 2.0 ASYMMETRIC



LIGHT OUTPUT CONVERSION TABLE

White Light Output	3000K S.O.	6000K S.O.	3000K H.O.	6000K H.O.
Light Output Multiplier	0.67 ¹	0.94 ¹	1.0 ²	1.4 ²

Color Light Output	RED	GREEN	BLUE
Light Output Multiplier	.89 ¹	1.00 ¹	0.4 ¹

IES format photometrics may be downloaded from www.iolighting.com



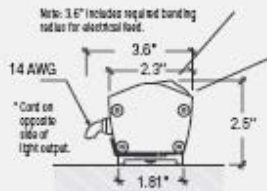
line series 2.0 is UL Listed for wet locations. It is not rated for submersible applications. line 2.0 should not be mounted in conditions where there is any standing water whatsoever.

series 2.0's patented optical assembly is designed to practically eliminate stray light, making it perfect for applications where light pollution and/or light trespass are important design considerations.

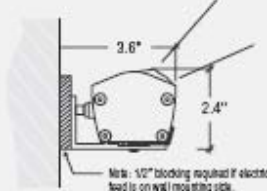


Note: Electrical feed is located on opposing side of lens.

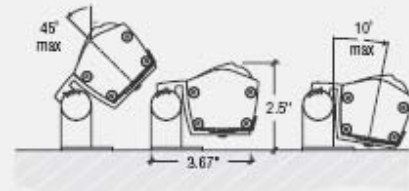
Mounting options



100 Surface (to part #: LABK.SURFMT)



101 Side surface (to part #: LABK.WALLMT)



102 Field adjustable with lockable aiming (to part #: LABK.ADJMT)

Order Code

0	1	2	3	4	5	6	7	8	9
1. LIGHT OUTPUT	4. DISTRIBUTION	7. LENGTH	9. VOLTAGE / DIMMING						
04 2.0 S.O. (Standard Output)	90 Asymmetric	UNITS	SIDE FEED STANDARD						
06 2.0 H.O. (High Output)	5. MOUNTING	18 18" (17.71" actual)	1 120v						
2. LOCATION	100 Surface	36 36" (34.71" actual)	2 277v						
I Interior	101 Side surface	54 54" (51.71" actual)	3 120v w/dim						
E Exterior	102 Field adjustable	72 72" (68.71" actual)	4 277v w/dim						
3. COLOR	6. FINISH	FOR CONTINUOUS ROW	5 Other						
3K White 3000K ¹	1 Anodized Aluminum	Specify length (i.e., 96'-0")	9. SPECIFIC DRIVER / DIMMING						
5K White 5000K ²	2 Anodized Custom Color	Note: Overall length must be divisible by 18"	Note: Reference to power supply specification sheet for driver and dimming options. If left blank, io will supply 100 watt drivers.						
R Red ¹									
G Green ¹									
B Blue ¹									

Footnotes

1. Refer to conversion table for output. Available in Standard Output only (2.0S)
2. White light conforms to ANSI IES70-01. A single fixture will not exceed +/- 200K.

©2007 - io Lighting reserves the right to change specifications for product improvement without notification.





Luminaire Types QQ4a and QQ4b – Driver Information



Universal Outdoor Drivers for 12V and 24V LED systems



Applications

- Orientation/Step Lighting
- Architectural Lighting
- Channel Letters
- Contour Lighting
- Edge Lighting



LEDs have evolved into a practical, flexible light source for a wide variety of illumination applications. Common LED products available in the market today are configured in a series-parallel array – designed to be powered by a suitable 24vdc driver – which allows flexibility to connect variable load levels. These operating voltages have become the standard in the industry.

The Brain Behind the Bright Idea
 Xitanium LED drivers from Advance are designed specifically for 24V LED systems and incorporate features that enable broad commercialization of end-use solid-state lighting products.

Features

- UL Class 2
- UL Outdoor Damp location rated - IP 66
- Ultra small, compact size
- Extreme low temperature Performance (-40°C)
- Generous high temperature capability (+60°C)
- Tightly regulated output (1% line, 5% load)
- 5 year warranty

Benefits

- Limited output voltage and current plus isolation for safe operation
- Fully potted for moisture resistance and thermal benefits
- Facilitates new, low-profile fixture design
- Allows use in any outdoor application
- Margin flexibility to facilitate fixture design
- Consistent light output across line and load levels
- Peace of mind for your new products and for end users...from the industry's most trusted component maker
- Advance is preferred by end users – Enhance the value of your product

Powered by Advance



Quick Selection Table

Catalog Number	Description	Application
LEDINTA0024V41FO	Intellivolt 100 Watt 24Vdc Outdoor	• 24Vdc LED Systems

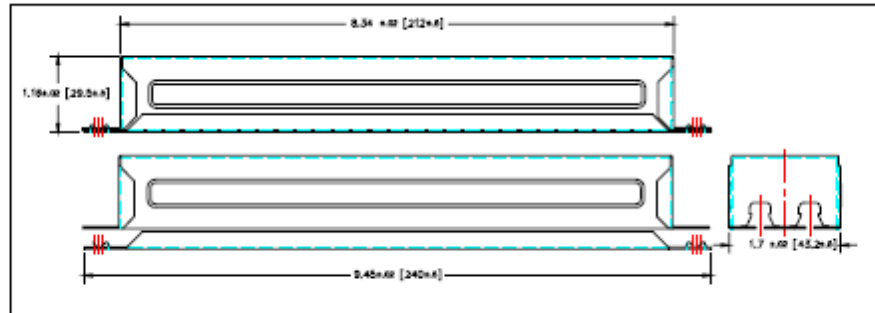
LED Driver Specifications

Description	Catalog Number	Input			Output			Case Temp Max (°C)	Figure	Weight (Grams)
		Volts (V)	Power Max (W)	Current Max (A)	Power Max (W)	Voltage Nom (V)	Current Max (A)			
100 Watt	LEDINTA0024V41FO	120	117.0	0.98	100.0	24.0	4.1	90	A	640
		230		0.51						
		277		.042						

Total Harmonic Distortion: 20% max
 Power Factor: 90% min
 Line Regulation: 1% output variation across input voltage range
 Load Regulation: 5% output variation across input voltage range
 Current Crest Factor: 1.5 max
 Environmental Protection: IP66 outdoor rated
 EMI: FCC47 SubPart15, CISPR15 and CISPR22 Class A
 Protection: Meet UL1310 for Class 2; Inherent short-circuit protection, self-limited; overload protected; 3.2KV output insulation
 AC Input and DC Output: 2 (0.78mm²) Solid Copper Wires, 15cm long

Dimensions



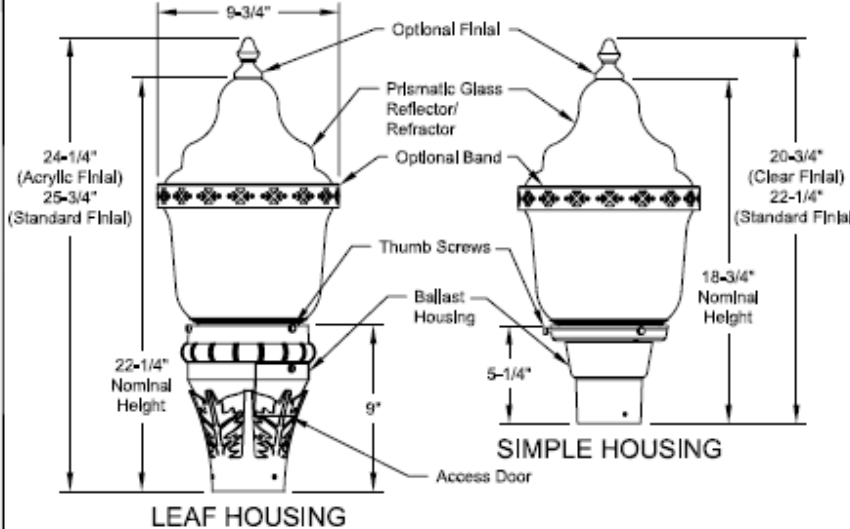
Fig. A



Advance, A Division of Philips Electronics North America - 10275 W Higgins Road - Rosemont, IL 60018 - USA
 Tel: + 1 847 390-5205 - Fax: + 1 847 390-5264 - Revised 09/05PJJ



Luminaire Type QQ5- Luminaire Cutsheet

<p>FINIALS</p>  <p>CLEAR (Acrylic)</p>  <p>STANDARD (Cast Aluminum)</p>	<p>Maximum Weight - Leaf Housing 22 lbs./ Simple Housing 11 lbs. Maximum Effective Projected Area - .49 sq. ft.</p>  <p>LEAF HOUSING SIMPLE HOUSING</p>	<p>Granville® Mini</p>											
<p>ORDERING INFORMATION:</p>	<p>MGV 70DMH 12 L A 3 1 A</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">LUMINAIRE MGV - Granville Mini</td> <td style="width: 25%;">Source and Wattage 42CFL = 42W CFL 35DHP = 35W HPS 50DHP = 50W HPS 70DHP = 70W HPS 20EMH = 20W Electronic MH 39EMH = 39W Electronic MH 50DMH = 50W MH 70DMH = 70W MH 20DIN = 200W INCANDESCENT 055QL = 55W QL</td> <td style="width: 25%;">Voltage 12 = 120 VOLT 20 = 208 VOLT 24 = 240 VOLT 27 = 277 VOLT 34 = 347 VOLT MT = Multitap</td> <td style="width: 25%;">Housing S = SIMPLE L = LEAF</td> </tr> <tr> <td colspan="4">Housing Color A = As Specified B = Black N = Green W = White Z = Bronze</td> </tr> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Optics 3 = Asymmetric 5 = Symmetric</td> <td style="width: 33%;">Band & Finial N = No Finial, No Decorative Band 1 = Clear Acrylic Finial, No Decorative Band 2 = Standard Finial, No Decorative Band 3 = Clear Acrylic Finial, Decorative Band 4 = Standard Finial, Decorative Band 5 = No Finial, Decorative Band</td> <td style="width: 33%;">Cast Finial and Band Color A = As Specified B = Black G = Gold N = Green R = Red S = Silver W = White Z = Bronze U = No Band with Clear Finial or No Band, No Finial</td> </tr> </table>	LUMINAIRE MGV - Granville Mini	Source and Wattage 42CFL = 42W CFL 35DHP = 35W HPS 50DHP = 50W HPS 70DHP = 70W HPS 20EMH = 20W Electronic MH 39EMH = 39W Electronic MH 50DMH = 50W MH 70DMH = 70W MH 20DIN = 200W INCANDESCENT 055QL = 55W QL	Voltage 12 = 120 VOLT 20 = 208 VOLT 24 = 240 VOLT 27 = 277 VOLT 34 = 347 VOLT MT = Multitap	Housing S = SIMPLE L = LEAF	Housing Color A = As Specified B = Black N = Green W = White Z = Bronze				Optics 3 = Asymmetric 5 = Symmetric	Band & Finial N = No Finial, No Decorative Band 1 = Clear Acrylic Finial, No Decorative Band 2 = Standard Finial, No Decorative Band 3 = Clear Acrylic Finial, Decorative Band 4 = Standard Finial, Decorative Band 5 = No Finial, Decorative Band	Cast Finial and Band Color A = As Specified B = Black G = Gold N = Green R = Red S = Silver W = White Z = Bronze U = No Band with Clear Finial or No Band, No Finial	<p>Architectural Outdoor</p> <p>HOLOPHANE® An <i>vacuity</i> Brands Company LEADER IN LIGHTING SOLUTIONS</p>
LUMINAIRE MGV - Granville Mini	Source and Wattage 42CFL = 42W CFL 35DHP = 35W HPS 50DHP = 50W HPS 70DHP = 70W HPS 20EMH = 20W Electronic MH 39EMH = 39W Electronic MH 50DMH = 50W MH 70DMH = 70W MH 20DIN = 200W INCANDESCENT 055QL = 55W QL	Voltage 12 = 120 VOLT 20 = 208 VOLT 24 = 240 VOLT 27 = 277 VOLT 34 = 347 VOLT MT = Multitap	Housing S = SIMPLE L = LEAF										
Housing Color A = As Specified B = Black N = Green W = White Z = Bronze													
Optics 3 = Asymmetric 5 = Symmetric	Band & Finial N = No Finial, No Decorative Band 1 = Clear Acrylic Finial, No Decorative Band 2 = Standard Finial, No Decorative Band 3 = Clear Acrylic Finial, Decorative Band 4 = Standard Finial, Decorative Band 5 = No Finial, Decorative Band	Cast Finial and Band Color A = As Specified B = Black G = Gold N = Green R = Red S = Silver W = White Z = Bronze U = No Band with Clear Finial or No Band, No Finial											
<p>THIS PRODUCT IS AN APPROVED PRODUCT. BEFORE THE ORDER IS PLACED, THE CUSTOMER IS ADVISED THAT THE ORDER IS SUBJECT TO THE TERMS AND CONDITIONS OF THE HOLOPHANE COMPANY. THE CUSTOMER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES. THE HOLOPHANE COMPANY SHALL NOT BE RESPONSIBLE FOR ANY DAMAGE TO PROPERTY OR PERSONS ARISING FROM THE USE OF THIS PRODUCT. THE HOLOPHANE COMPANY SHALL NOT BE RESPONSIBLE FOR ANY DAMAGE TO PROPERTY OR PERSONS ARISING FROM THE USE OF THIS PRODUCT. THE HOLOPHANE COMPANY SHALL NOT BE RESPONSIBLE FOR ANY DAMAGE TO PROPERTY OR PERSONS ARISING FROM THE USE OF THIS PRODUCT.</p>			<p>ORDER #: TYPE: DRAWN: BRL DATE: 01/21/08 DWG #: MA-6349</p>										
1 of 2													



Luminaire Type QQ5- Lamp Information

GE Lighting
 WORLDWIDE PARTNER

Commercial Products & Solutions

[SITE SEARCH](#) | [HOME](#) | [PRODUCTS](#) | [EDUCATION / RESOURCES](#) | [LIGHTING APPLICATIONS](#)
[Where to Buy](#) | [FAQs](#) | [Contact Us](#) | [EliteNet](#)

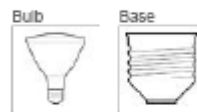
Products > [High Intensity Discharge](#) > [Ceramic Metal Halide](#) > [PAR](#) > [PAR30L](#) > 45066

45066 – CMH39/PAR30LSP10
 GE ConstantColor® PulseAro® CMH® Ceramic Metal Halide PAR30L



GENERAL CHARACTERISTICS

Lamp type	High Intensity Discharge - Ceramic Metal Halide
Bulb	PAR30L
Base	Medium Screw (E26)
Wattage	39
Rated Life	10000 hrs
Bulb Material	Hard glass
Lamp Enclosure Type (LET)	Open or enclosed fixtures
Additional info	Ballast thermal protection, UV control



[View Larger](#)

PHOTOMETRIC CHARACTERISTICS

Initial Lumens	2400
Nominal Initial Lumens per Watt	61
Beam Spread	10 °
Center Beam Candepower (CBCP)	39600
Color Temperature	3000 K
Color Rendering Index (CRI)	81

ELECTRICAL CHARACTERISTICS

Burn Position	Universal burning position
Open Circuit Voltage (peak lead ballast) (MIN)	280 V
Open Circuit Voltage (RMS lag ballast) (MIN)	198 V
Warm Up Time to 90%	2 min
Warm Up Time to 90% (MAX)	2 min/3 min
Hot Restart Time to 90% (MIN)	10 min
Hot Restart Time to 90% (MAX)	15 min

DIMENSIONS

Maximum Overall Length (MOL)	4.7500 In (120.6 mm)
Nominal Length	4.600 In (116.8 mm)
Bulb Diameter (DIA)	3.813 In (96.8 mm)

ADDITIONAL RESOURCES

- [Catalogs](#)
- [Testimonials](#)
- Brochures
 - Product Brochures
 - [Ceramic Metal Halide](#)
 - [Color](#)
 - [HID Lamps](#)
 - Application/Segment Brochures
 - [Contractor Lighting](#)
- Sell Sheets
 - [GE ConstantColor® CMH® Lamps IES/Photometric Download](#)
 - [MSDS \(Material Safety Data Sheets\)](#)
 - [Disposal Policies & Recycling Information](#)



Luminaire Type QQ5 – Ballast Information

		e-Vision® Electronic Ballast for Metal Halide Lamps				Catalog Number IMH-39-G For 39W Metal Halide Lamps ANSI M130 120-277V 50/60Hz Electronic Status: Preliminary												
										DIMENSIONS AND DATA								
Lamp Data		Input Volts	Catalog Number*	Line Current (Amps)	Input Power (W)	Ballast Factor	Max THD (%)	Min Power Factor	Wiring Dia	Figure	Weight (lb)	Max Distance to Lamp (ft)						
Number	Watts																	
39W Watt Lamp, ANSI Code M130 Minimum Starting Temp -30°C/-20°F																		
1	39	120	IMH-39-G-xxx	0.39	46	1.0	15%	0.95	3	G	0.9	5						
		277		0.18	45													
<p>Figure G</p> <p>8-32 x 1/4" Mounting Studs</p> <p>2" (50.8)</p> <p>Mounting Width</p> <p>Case Length</p> <p>Overall Length</p> <p>Case Width</p> <p>Case Height</p> <p>Case Length = 3.54" [90mm] MOUNTING LENGTH = 3.43" [87mm] MOUNTING WIDTH = 2.64" [67mm] OVERALL LENGTH = 3.82" [97mm] CASE WIDTH = 3.03" [77mm] HEIGHT = 1.18" [30mm]</p>						<p>Ballast Case must be Grounded</p> <p>Wiring Diagram 3</p> <p>UL CSA</p>												
<p>Case Temperature Measurement Location</p> <p>12mm</p> <p>45mm</p> <p>45mm</p> <p>12mm</p> <p>Side Lead Version</p> <p>Angled Corner (Reference)</p> <p>Bottom Lead & Stud Version</p> <p>To case max = 90 deg. C</p>						<p>*Ordering Information</p> <table border="1"> <thead> <tr> <th>Order Suffix</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>-LF</td> <td>Ballast with side exit leads and mounting feet</td> </tr> <tr> <td>-BLS</td> <td>Ballast with bottom exit leads and mounting studs</td> </tr> </tbody> </table>							Order Suffix	Description	-LF	Ballast with side exit leads and mounting feet	-BLS	Ballast with bottom exit leads and mounting studs
Order Suffix	Description																	
-LF	Ballast with side exit leads and mounting feet																	
-BLS	Ballast with bottom exit leads and mounting studs																	
<p>INSTALLATION & APPLICATION NOTES:</p> <ol style="list-style-type: none"> 1. Maximum allowable case temperature is 90°C. See figure above for measurement location 2. Ignition pulse is 4 kV max 3. All leads are 9 inches long 4. Ballast output will shutdown after 20 minutes if lamp fails to ignite 5. Power must be cycled off – then on, after replacing lamp 6. Connect the red leads to the center terminals of the lamp when using screw base lamps 																		
<p><small>Data is based on tests performed by Advance transformer in a controlled environment and representative of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.</small></p>																		

Advance • 10275 West Higgins Road • Rosemont, Illinois 60018-5603 • (847) 390-5000 • fax: 847-390-5109 • www.advancetransformer.com

A DIVISION OF PHILIPS ELECTRONICS NORTH AMERICA CORPORATION

Revised 1/16/06



Luminaire Type RR1- Luminaire Cutsheet

SYNTO T5

**Fluorescent
One or Two Lamp Twin Tube (T5TT)
Two Lamp T5 HO**

Recessed 2' x 2'



Applications: The SYNTO family of fixtures combines indirect illumination with a direct component controlled with a T5 louver to minimize brightness. The Zumtobel exclusive light chamber provides soft and diffused general illumination; the louvers have been specifically developed to minimize glare when using T5 lamps. This solution is best for open offices, retail spaces and institutions.

online Find It Fast **243**

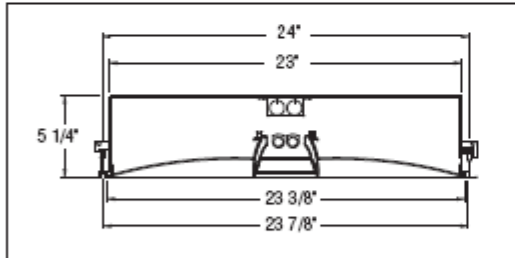
Meets RP-1-04 guidelines for normal VDT-use environments (2245 C/W, 1405 C/W, 2405 C, 1505 C)

Type: _____
Project: _____

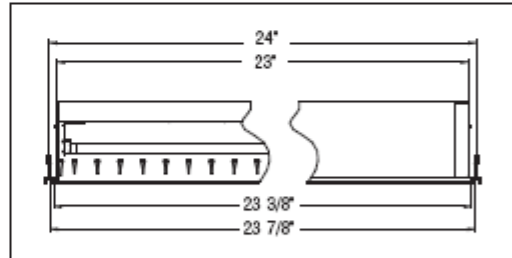
ORDERING NOTE: Specify fixture/ceiling type, lampping, louver, voltage/ballast and options.

▼ Fixture/Ceiling Type	▼ Length	▼ Lampping	▼ Louver	▼ Voltage/Ballast	▼ Options
SY5	22				
SY5U SYNTO T5 Recessed 15/16" Lay-In, Flush 9/16" Slot-Grid, Flush 9/16" Lay-In, Tegular	22 2' x 2'	1405 (1) 40W T5TT 1505 (1) 50W T5TT 2405 (2) 40W T5TT 2245 (2) 24W T5 HO	C Matte W White CO Matte with Frosted Inlay WO White with Frosted Inlay	U Universal 120/277V 347 347V (may not be available with BM dimming) DA_* Dimming, Analog (0-10V) DD_* Dimming, DALI DE_* Dimming, Lutron ECO-10 DH_* Dimming, Lutron Hi-Lume	WF Whip Flex 3/8" x 6' 14 AWG WN_* Whip Flex 3/8" x 6' 14 AWG (NYC) EM1_* Stand-by Battery Pack/1 lamp SS Separate Switching (2-lamp fixtures only) AR Air Return CP Chicago Plenum F Fusing
SY5F SYNTO T5 Recessed 9/16" Lay-In, Flush					
SY5E SYNTO T5 Recessed Concealed					
<i>For flange details, see next page</i>					
* Specify *F* for 120V or *2* for 277V. Some lamp types may not be available.					

Cross Section, Lay-In Ceiling



Side View, Lay-In Ceiling



IBEW Union Made

1. Housing - 20 gauge cold-rolled steel. Finish is powder-coated white. Right-angle access plate (two per fixture) allows feed from top or side of unit.

2. Light Chamber - Powder-coated high-reflectance white interior reflector and shaped extruded acrylic diffusers.

3. Louver - The 16-cell louver has blades 7/8" high by 1 7/16" o.c. Available with white or matte finish. Louver hinges for ease of maintenance. Optional opal inlay is white acrylic.

4. Lamps/sockets - One or two 40W or one 50W compact fluorescent lamps, with 2G11 four-pin lamp sockets. Two 24W T5 HO fluorescent lamps with miniature bi-pin sockets. Lamps supplied by others.

5. Ballast - Universal voltage electronic 120/277V ballast. Consult factory for 347V. Ballasts are mounted in luminaire. Accessible from below.

6. Mounting - Integral bend-out tabs are provided in the universal (SY5U and SY5F) ceiling fixture types. Adjustable mounting brackets provided for selected concealed tee or gypsum board (SY5E) ceiling installations.

7. Stand-by Battery Pack - Integral stand-by battery pack with integral test switch. Will operate one lamp with an initial output of up to 450 lumens (24W T5 HO or 40W T5 TT), 625 lumens (50W T5 TT) for 90 minutes.

8. Dimming - Consult factory for specific dimming requirements other than those listed above.

9. Weight - 21.0 lbs.

In a continuing effort to offer the best product possible we reserve the right to change, without notice, specifications or materials that in our opinion will not alter the function of the product. Technical specification sheets that appear on www.zumtobel.us are the most recent version and supersede all other versions that exist in any other printed or electronic form.

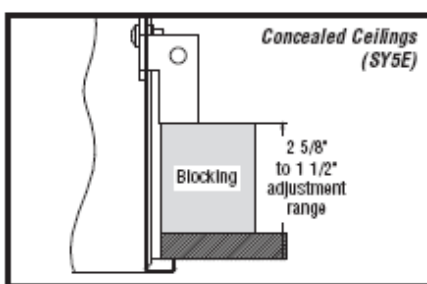
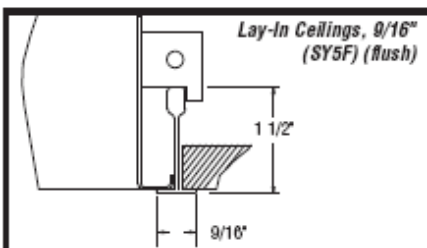
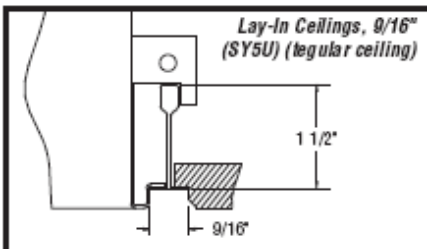
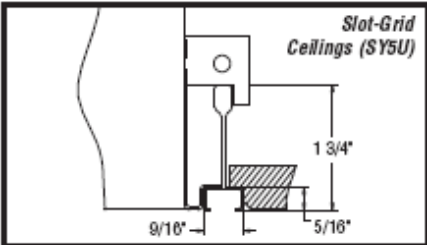
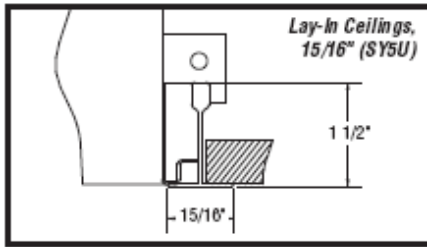
Zumtobel Lighting Inc. ©2007
3300 Route 9W • Highland, NY 12528-2630
www.zumtobel.us
TEL (845) 691-6262 • (800) 932-0633 • FAX (845) 691-6289
6/15/07

SY5-1





Mounting with common ceiling types



Zumtobel Lighting Inc. ©2007
 3300 Route 9W • Highland, NY 12528-2630
 www.zumtobel.us
 TEL (845) 691-6262 • (800) 932-0633 • FAX (845) 691-6289
 6/15/07

Photometric Data

SY5 22 1505 W (1) 50W T5TT

2x2 RECESSED, WHITE LOUVER

PRORATED FROM LTL 09164

Total Luminaire Efficiency 73%

0% Uplight 100% Downlight

Spacing Criteria

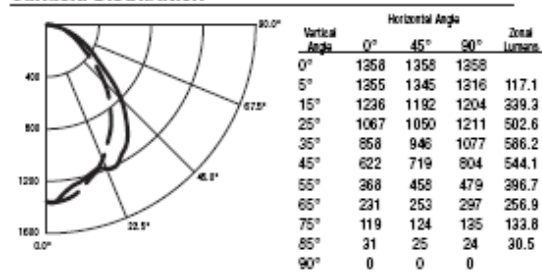
Lateral Plane 0° 90°

1.1 1.3

TOTAL LAMP LUMENS = 4000

INPUT WATTS = 60

Candela Distribution



Luminance Data in Candela / Sq. Meter

Angle In Vertical°	Average 0°	Average 45°	Average 90°
45°	2596	2999	3354
55°	1895	2358	2462
65°	1613	1764	2074
75°	1361	1418	1534
85°	1032	860	816

Coefficients of Utilization

Effective Floor Cavity Reflectance = 20%

pcc pw	0.6				0.7				0.5				0.3			
	0.7	0.5	0.3	0.1	0.7	0.5	0.3	0.1	0.5	0.3	0.1	0.5	0.3	0.1		
0	87	87	87	87	85	85	85	85	81	81	81	78	78	78		
1	81	77	75	72	79	76	73	71	73	71	69	70	68	67		
2	74	69	64	60	72	67	63	60	65	61	58	62	59	57		
3	68	61	56	51	66	60	55	51	58	53	50	56	52	49		
4	63	55	49	44	61	54	48	44	52	47	43	50	46	43		
5	58	49	43	39	56	48	43	38	47	42	38	45	41	38		
6	54	45	38	34	52	44	38	34	43	37	34	41	37	33		
7	50	41	35	30	49	40	34	30	39	34	30	38	33	30		
8	47	37	31	27	46	37	31	27	36	31	27	35	30	27		
9	44	34	29	25	43	34	28	25	33	28	25	32	28	24		

Air Return

SYNTO Return Air Volume, CFM:

Negative Static Pressure, in. H2O

	0.04	0.05	0.07	0.08	0.1
Fixture Size					
2 x 2	80	90	100	110	120
1 x 4	150	170	210	225	250
2 x 4	150	170	210	225	250



Test performed in accordance with ASHRAE-70-1997
 by Intertek ETL SEMKO. Consult factory for full report.

SY5-1A





Luminaire Type RR1- Lamp Information

GE
Lighting


Commercial Products & Solutions

[SITE SEARCH](#) | [HOME](#) | [PRODUCTS](#) | [EDUCATION / RESOURCES](#) | [LIGHTING APPLICATIONS](#)

[Where to Buy](#) | [FAQs](#) | [Contact Us](#) | [EliteNet](#)

[Products](#) > [Compact Fluorescent](#) > [Plug-in](#) > [High Lumen Blax®](#) > 16953

16953 – F4030BXSPX30 10P
 GE Blax® T5 - Facilities; Retail Display; Hospitality; Office; Restaurant; Warehouse

 **High Color Rendering**
 Energy Savings

GENERAL CHARACTERISTICS

Lamp type	Compact Fluorescent - Plug-in
Bulb	T5
Base	4-Pin (2G11)
Wattage	40
Voltage	126
Rated Life	20000 hrs
Starting Temperature (MIN)	10 °C (50 °F)
Primary Application	Facilities; Retail Display; Hospitality; Office; Restaurant; Warehouse

PHOTOMETRIC CHARACTERISTICS

Initial Lumens	3150
Mean Lumens	2840
Nominal Initial Lumens per Watt	78
Color Temperature	3000 K
Color Rendering Index (CRI)	82

ELECTRICAL CHARACTERISTICS


Lamp Current	0.320 A
Current Crest Factor (MAX)	1.7

DIMENSIONS


Maximum Overall Length (MOL)	22.5000 In (571.5 mm)
Nominal Length	22.500 In (571.5 mm)

PRODUCT INFORMATION


Product Code	16953
Description	F4030BXSPX30 10P
ANSI Code	60901-IEC-6240-2
Standard Package	Master
Standard Package GTIN	10043168169537
Standard Package Quantity	40
Sales Unit	Unit



Bulb



Base



[View Larger](#)

ADDITIONAL RESOURCES

[Catalogs](#)
[Testimonials](#)

Brochures


Application/Segment Brochures

- [Restaurant Lighting](#)
- [Retail Lighting](#)
- [Office Lighting](#)
- [Healthcare Lighting](#)
- [Contractor Lighting](#)

Product Brochures

- [Industrial Lighting](#)

[Disposal Policies & Recycling Information](#)

 **PRINT**



Luminaire Type RR1 – Ballast Information



Commercial Products & Solutions

[SITE SEARCH](#) | [HOME](#) | [PRODUCTS](#) | [EDUCATION / RESOURCES](#) | [LIGHTING APPLICATIONS](#)

[Where to Buy](#) | [FAQs](#) | [Contact Us](#) | [EliteNet](#)

[Products](#) > [Ballasts](#) > [Compact Fluorescent](#) > [Plug-In](#) > 80681

80681 – C240SI277RH-IP
GE CFL Electronic Standard Instant Start Ballast



- Electronic compact fluorescent ballasts for all general fluorescent applications
- Low profile case

GENERAL CHARACTERISTICS

Application	2- FT40W/2G11- IS 277
Category	Compact Fluorescent
Ballast Type	Electronic - Standard Instant Start
Starting Method	Instant start
Lamp Wiring	Series
Line Voltage Regulation (+/-)	10 %
Ambient Temperature (MAX)	105 °F (41 °C)
Case Temperature (MAX)	70 °C (158 °F)
Ballast Factor	Normal
Power Factor Correction	Passive
Sound Rating	A (20-24 decibels)
Enclosure Type	Metal
Additional Info	End of Life Protection (EOL), Thermally protected



[View Larger](#)

ELECTRICAL CHARACTERISTICS

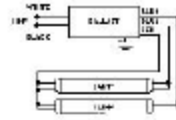
Supply Current	50 Hz/60 Hz
Frequency	

PRODUCT INFORMATION

Product Code	80681
Description	C240SI277RH-IP
Standard Package	Master
Standard Package GTIN	30043168806818
Standard Package Quantity	10
Sales Unit	Individual Pack
No Of Items Per Sales Unit	1
No Of Items Per Standard Package	10
UPC	043168806817

DIMENSIONS

Case dimensions			
Length (L)			8.3 In (211.07 mm)
Width (W)			2.4 In (60.96 mm)
Height (H)			1.6 In (39.37 mm)
Mounting dimensions			
Bracket Length (BL)			9.5 In (241.30 mm)
Mount Length (M)			8.9 In (225.80 mm)
Mount Width (X or F)			1.7 In (42.87 mm)
Mount Slots (MS)			0.3 In (7.92 mm)
Weight			2.70 lbs
Exit Type			Slide
Remote mounting distance to lamp			12 ft
Remote Mounting Wire Gauge			18 AWG
Lead lengths			
	Qty	Exit	Length (± 1 in.)
Blue	1	Right	33.0 In (838 mm)
White	1	Left	25.0 In (635 mm)
Red	1	Right	33.0 In (838 mm)
Black	1	Left	25.0 In (635 mm)



[View Larger](#)

SPECIFICATIONS BY LAMP & WATTAGE

Lamp	# of Lamps	Line Volts	System Watts	Nom. Line Current	System Ballast Factor	Ballast Efficacy Factor % (>=)	Power Factor (<=)	Creep Factor (<=)	THD% (<=)	Min. Starting Temp (°F/°C)	
FT40W/4P	1	277	40	0.17 A	1.02	2.55	90	1.7	20	50.0 / 10	System specs
	2	277	67	0.27 A	0.88	1.31	95	1.7	20	50.0 / 10	System specs

Safety & Performance

- UL Type 1 Outdoor
- UL Type HL
- FCC - CLASS A Non-Consumer
- UL Class P
- UL Listed
- CSA

[See list of cautions & warnings.](#)

NOTES

- This product contains an End of Lamp Life Safety Shutdown circuit. When replacing a lamp, the power to the ballast must be re-cycled for 5 seconds to reset the shutdown circuit.

WARRANTY INFORMATION

GE Lighting warrants to the purchaser that each ballast will be free from defects in material or workmanship for period as defined in the attached documents from the date of manufacture when properly installed and under normal conditions of use.

[Download full warranty.](#)

ADDITIONAL RESOURCES

- [Catalogs](#)
- [Testimonials](#)
- Brochures
 - [Application/Segment Brochures](#)
 - [Healthcare Lighting](#)
 - [Office Lighting](#)
 - [Retail Lighting](#)
- Product Brochures
 - [Industrial Lighting](#)
- [Disposal Policies & Recycling Information](#)

Photos are representational only. Sizes, shapes and labels of ballast may vary.

[Return To Top](#)



Luminaire Type RR2- Luminaire Cutsheet

NEO-RAY™

DESCRIPTION

Series 81 can be used individually or in illuminated rows and patterns, each fixture is uniquely suited to achieve many functional and aesthetic spatial effects. Shielding locks in place without hardware. The trim is rigid "U" shaped, doubled formed with a 3/8" recess soft lit edge.

Catalog #	Type
Project	
Comments	Date
Prepared by	

SPECIFICATION FEATURES

A ... Construction

20-gauge steel housing. Nominal 3' or 4' illuminated sections.

B ... Shielding

Acrylic diffuser or lens, parabolic or bold baffle shielding.

C ... Electrical

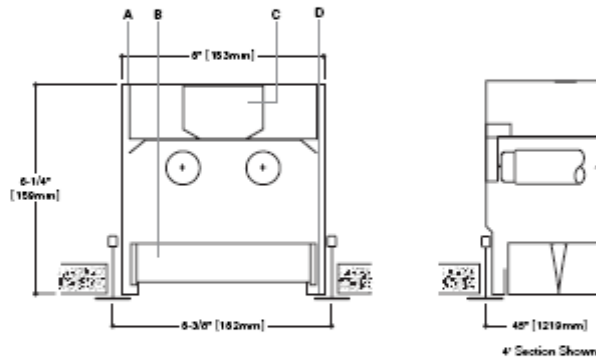
120, 277, 347 or Universal Voltage electronic ballast. Fixtures and electrical components certified to UL and CUL standards.

D ... Finish

Durable, low gloss, white, powder coated acrylic finish.

Mounting

Recessed. (ETG) Exposed T-Grid only.



81

1 & 2TB
 1 & 2TS
 1 & 2TSHO

Recessed
 Direct

Light Distribution
 Indirect - 0.0%
 Direct - 100.0%

ORDERING INFORMATION

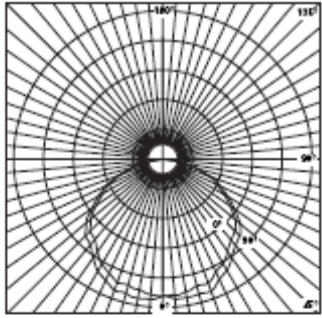
Sample Number: 50TR/2TB/ETG/1ES-DU

Series 81-81	Mounting R- Recessed	Number of Lamps 1- 1 Lamp 2- 2 Lamps	Lamp Type TB- TB TS- TS TSHO- TSHO	Voltage ¹ 1- 120V 2- 277V 3- 347V	Ballast EB- Electronic Ballast DB- Dimming Ballast	Switching Options SR- Single Switching DU- Double Switching	Fusing GLR- GLR GMR- GMR	Shielding Options S2- Acrylic Diffuser S5- KSH-12 Acrylic Lens S7- Bold Baffle S7P- Parabolic Baffle
			Ceiling Type ETG- Exposed T-Grid			Emergency EM- Emergency Pack		

Note: 1 - Not all options available. Please consult your Cooper Lighting Representative for availability.



PHOTOMETRICS



Series 81
(2) F40T12RS/WW
3200 Lumens
Efficiency 38.4%
Test Report
#3010.0

Coefficients of Utilization

rc	Effective floor cavity reflectance					
	80%			20%		
	70	50	30	50	30	10
1	43	41	40	39	38	37
2	40	38	35	34	33	32
3	37	34	32	30	29	28
4	35	31	28	26	25	24
5	32	28	25	23	22	21
6	30	26	23	21	20	19
7	28	24	21	19	18	17
8	26	22	19	17	16	15
9	24	20	17	15	14	13
10	23	18	15	13	12	11

Candela

Angle	Along l	45°	Across l
0	1596	1596	1596
5	1555	1556	1524
10	1445	1491	1526
15	1359	1395	1462
20	1239	1278	1373
25	1085	1099	1235
30	929	979	1156
35	721	792	969
40	551	652	768
45	381	471	568
50	270	355	446
55	228	283	363
60	179	195	340
65	140	152	281
70	92	102	162
75	53	71	95
80	37	43	51
85	14	22	21
90	0	0	0

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	1059	18.7	43.4
0-40	1550	24.7	64.2
0-60	1814	56.7	85.9
0-90	2460	38.4	100.0
90-180	0	0.0	0.0
0-180	2460	38.4	100.0

Total Luminaire Efficiency = 38.4%

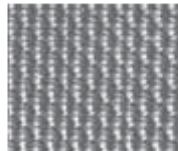
MOUNTING INFORMATION



SHIELDING INFORMATION



S22 Acrylic Diffuser
3/16" thick, matte white finish, rabbeted joints, no light leaks.



S58 Acrylic Lens
1/8" thick, clear acrylic prismatic lens.





S72 Bold Baffle
1" high x 1.2" o.c., 3/16" thick aluminum baffle, continuous and unbroken, no visible joints.



S79 Parabolic Baffle
1-1/4" high blade, 2.4" o.c., semi-specular low-brightness Pearlescent Aluminum baffle. Continuous and unbroken, no visible joints.



Luminaire Type RR2- Lamp Information

GE Lighting

WORLDWIDE PARTNER

Commercial Products & Solutions


[SITE SEARCH](#)
HOME
PRODUCTS
EDUCATION / RESOURCES
LIGHTING APPLICATIONS

[Where to Buy](#) | [FAQs](#) | [Contact Us](#) | [EliteNet](#)

[Products](#) > [Linear Fluorescent](#) > [Straight Linear](#) > [T8](#) > 26666

26666 – F32T8/SP30/ECO
GE Ecolux® Starcoat® T8

- Passes TCLP, which can lower disposal costs.

 **High Color Rendering**
Meets Federal Minimum Efficiency Standards

GENERAL CHARACTERISTICS

Lamp type	Linear Fluorescent - Straight Linear
Bulb	T8
Base	Medium BI-Pin (G13)
Wattage	32
Voltage	137
Rated Life	20000 hrs
Rated Life (instant start) @ Time	20000 h @ 3 h 24000 h @ 12 h
Rated Life (rapid start) @ Time	24000 h @ 12 h
Bulb Material	Soda Ilme
Starting Temperature (MIN)	10 °C (50 °F)
Additional Info	TCLP compliant

PHOTOMETRIC CHARACTERISTICS


Initial Lumens	2600
Mean Lumens	2660
Nominal Initial Lumens per Watt	87
Color Temperature	3000 K
Color Rendering Index (CRI)	78
S/P Ratio (Scotopic/Photopic Ratio)	1.3

ELECTRICAL CHARACTERISTICS


Open Circuit Voltage (rapid start) Min @ Temperature	315 V @ 10 °C
Cathode Resistance Ratio - Rh/Rc (MIN)	4.25
Cathode Resistance Ratio - Rh/Rc (MAX)	6.5
Current Crest Factor (MAX)	1.7

DIMENSIONS


Maximum Overall Length (MOL)	47.7600 In (1213.6 mm)
Minimum Overall Length	47.6700 In (1210.8 mm)
Nominal Length	48.000 In (1219.2 mm)
Bulb Diameter (DIA)	1.000 In (25.4 mm)



Bulb



Base



[View Larger](#)

ADDITIONAL RESOURCES

[Catalogs](#)
[Testimonials](#)

Brochures

- Product Brochures
 - [Color](#)
 - [Ecolux](#)
 - [Ecolux \(Environmental\)](#)
 - [Industrial Lighting](#)
 - [Linear Fluorescent Lamps](#)
- Application/Segment Brochures
 - [Contractor Lighting](#)
 - [Healthcare Lighting](#)
 - [Office Lighting](#)
 - [Retail Lighting](#)

[MSDS \(Material Safety Data Sheets\)](#)
[Disposal Policies & Recycling Information](#)

GRAPHS & CHARTS

[Spectral Power Distribution](#)



Luminaire Type RR2- Ballast Information

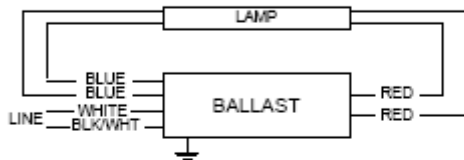


VCN-1S32-SC	
Brand Name	CENTIUM
Ballast Type	Electronic
Starting Method	Programmed Start
Lamp Connection	Series
Input Voltage	277
Input Frequency	60 HZ
Status	Active

Electrical Specifications

Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (*F/C)	Input Current (Amps)	Input Power (ANSI Watts)	Ballast Factor	MAX THD %	Power Factor	MAX Lamp Current Crest Factor	B.E.F.
F17T8	1	17	32/00	0.08	22	1.00	10	0.97	1.7	4.55
F25T8	1	25	32/00	0.10	28	0.95	10	0.98	1.7	3.39
* F32T8	1	32	32/00	0.13	34	0.90	10	0.98	1.7	2.65

Wiring Diagram



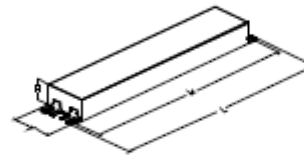
Diag. 20

The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

	In.	cm.		In.	cm.
Black	0	0	Yellow/Blue		0
White	22L	55.9	Blue/White		0
Blue	36L	91.4	Brown		0
Red	26R	66	Orange		0
Yellow		0	Orange/Black		0
Gray		0	Black/White	22L	55.9
Violet		0	Red/White		0

Enclosure



Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
9.50 "	1.7 "	1.18 "	8.90 "
9 1/2	1 7/10	1 9/50	8 9/10
24.1 cm	4.3 cm	3 cm	22.6 cm

Revised 11/13/2001



Data is based upon tests performed by Advance Transformer in a controlled environment and representative of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.

ADVANCE

O'HARE INTERNATIONAL CENTER · 10275 WEST HIGGINS ROAD · ROSEMONT, IL 60018
 Customer Support/Technical Service: Phone: 800-372-3331 - Fax: 630-307-3071
 Corporate Offices: Phone: 800-322-2086



Luminaire Type RR3- Luminaire Cutsheet

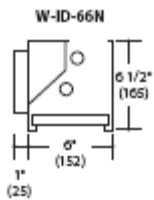
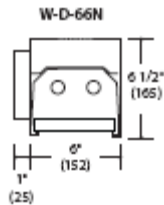
LITECONTROL



Type:
Project:

Mod-66™
W-D-66N, W-ID-66N,
W-ADW-66N (chalkboard)
Wall-Mounted

Specifications



HOUSING. Die-formed and welded steel, with 3/8" regression at housing bottom for rigidity and appearance, furnished with 6" long, 20-gauge steel splines for precise alignment at each joint. End headers have clearance holes for easy row installation and are notched under lamps for more even diffuser luminance and continuous baffle appearance. W-ID-66N. Three-inch wide opening in housing top provides 36-50% upright ceiling and wall illumination.

END CAPS. Steel, 14-gauge, with no holes or knockouts, finished to match housing. Four fasteners on each end cap allow tight attachment to ends of individual fixtures and ends of rows.

REFLECTOR. W-D-66N. Standard: Die-formed steel with high-reflectance white finish. Parabolic Reflector/Baffle (PARSS). Die-formed semi-specular anodized aluminum reflector and baffle assembly. W-ID-66N. Die-formed steel with high-reflectance white finish. W-ADW-66N. Die-formed semi-specular aluminum (on lamp side) and die-formed steel with high-reflectance white finish.

LAMPING. Available in one- and two-lamp TB.

BALLAST. Electronic Ballast (ELB), high power factor, thermally protected Class P Sound Rated A, less than 10% THD, manufactured by a UL Listed manufacturer, as available, determined by Litecontrol. Ballasts with a voltage range of 120 to 277 will be used when fixture configuration and ballast availability allow. The minimum number of ballasts will be used.

TANDEM WIRING. When selected from Ordering guide below, fixtures wired to switch in-line lamps separately, providing two levels of light (two-lamp cross-section fixtures only).

SYSTEM CONNECTORS. Corners and straight extensions available. Die-formed steel. Bottom and exposed sides to be smooth with no exposed fasteners or knockouts. See Field Measurement Procedure for instructions.

MOUNTING. Provided with two wall-mounting brackets measuring 4 1/2" square x 1" deep. Finish is CBC (Camera Black). W-ADW-66N. Provided with two wall-mounting brackets (WCB) measuring 4 1/2" x 6" deep finished to match housing.

CERTIFICATION. Fixture and electrical components shall be UL and/or CUL Listed and shall bear the I.B.E.W., AF, of L label.

Note: Litecontrol reserves the right to change specifications without notice for product development and improvement.

Ordering guide

Product, lamping, & length						Options						
W -	D -	66N	2	4	T8 -	BW -	CWM -	-	ELB -	-	EF -	120
Mounting	Distribution	Series	Lamp Count	Nominal Length(ft)	Lamp Type	Diffuser	Finish	Tandem Wiring	Ballast	Bracket	Other options	Volts
W Wall-Mounted	D Direct	66N	1, 2 →	2	T8	BW	CWM (Matte White) is standard	-	ELB is standard DA/ELB HEL/ELB ECO/ELB	WCB (ADW only)	EF F	120 277
	ID Indirect/Direct		1, 2 →	3		PAT. 12 (XA)	see LiteColor™ In Product Guide for other finishes					
	ADW *		1, 2 →	4		PAT. 19						
	Asymmetric		2, 4 →	6		FP						
	Direct		2, 4 →	8		PARSS (1-lamp D only) 6044 (ADW only)						
			see notes			see Diffusers						

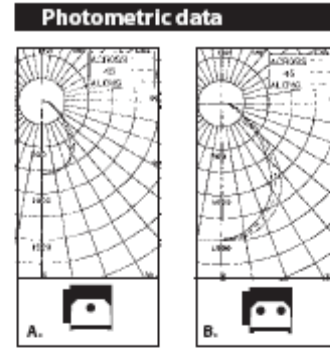
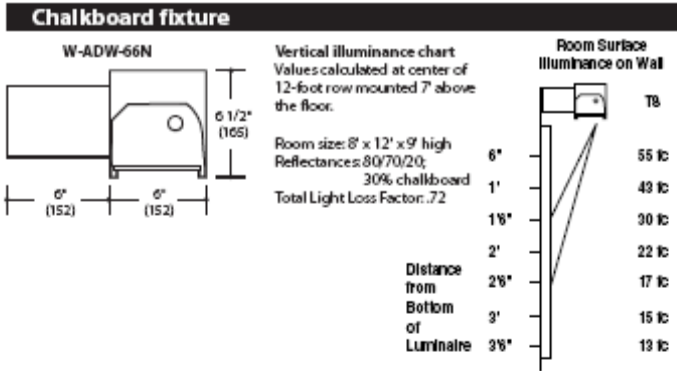
notes:
Lamp Count = total number of lamps in the fixture
Tandem Wiring not available for one-lamp cross-section fixtures
*W-ADW-66N available in one-lamp cross-section only
For ordering guide information in shaded areas, please select by reading ACROSS the shaded areas for correct specifications.

W-D-66N24T8-BW-CWM-ELB-EF-120 is a typical catalog number for a 2-lamp (2 lamps in cross-section), 4-foot long T8 fixture with white blade baffle, Matte White finish, electronic ballast, emergency fluorescent ballast, 120 volts.
W-ADW-66N14T8-6044-CWM-ELB-WCB-EF-120 is a typical catalog number for a 1-lamp (1-lamp in cross-section), 4-foot long T8 fixture with a 6044 lens, Matte White finish, electronic ballast, chalkboard mounting brackets, emergency fluorescent ballast, 120 volts.

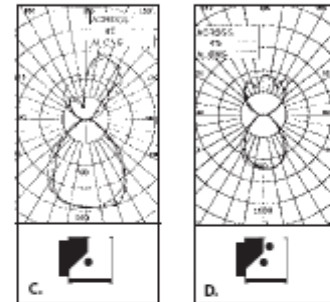
Questions to Ask

1. 120 or 277 volt?
2. Row information, including desired fixture lengths?
3. Diffuser type?
4. White, LiteColor, or special color?
5. Tandem wiring?
6. Other options?

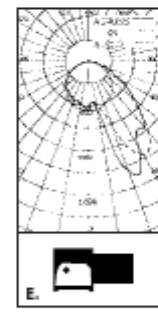
litecontrol.com



- ### Diffusers (W-D-66N & W-ID-66N only)
- BW** Blade Baffle, White, 3/4" high x 3/4" OC, 20-gauge steel, regressed.
 - PB55** Parabolic Baffle, Semi-specular anodized aluminum, 1.4" high x 2" OC. (Used with standard reflector.)
 - PWA** Louver, Parabolic specular aluminum, acrylic, 1/2" cube, regressed.
 - PAT.12(XA)** Lens, Diagonal 3/16" conical prisms, .100" thick extruded acrylic, regressed.
 - PAT.19** Lens, 3/16" square prisms, .156" thick, extruded acrylic, regressed.
 - FP** Lens, White acrylic, .100" thick, regressed.
 - PAR55** Parabolic Reflector/Baffle, Semi-specular anodized aluminum, parabolic reflector with 1.4" high x 2" OC parabolic baffles. One-lamp cross-section W-D-66N only
 - 6044** Asymmetric Lens, .210" thick acrylic asymmetric lens (6044) to direct light towards wall. W-ADW-66N only



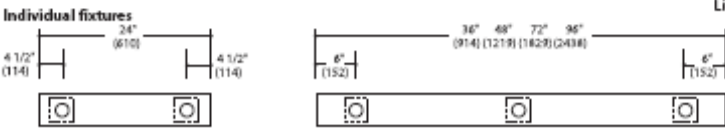
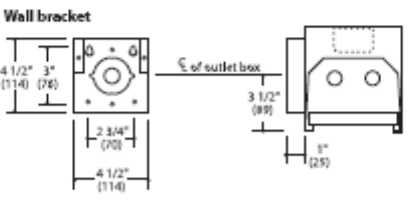
- ### Ballast options
- Specify in place of ELB, contact factory for availability/compatibility with lamping:
- DA/ELB** Advance Mark VII Dimming Ballast.
 - HEL/ELB** Osram Sylvania Dimming Ballast.
 - ECO/ELB** Lutron ECO-10 Dimming Ballast.



- ### Other options
- EF** Emergency Fluorescent Ballast. Battery-powered ballast from a UL Listed manufacturer will operate one T8 lamp for 1 1/2 hours.
 - F** Fuse. Slow or fast low, determined by Litecontrol.

Planning for Installation

For special system connectors needed to exactly fill a wall or follow a perimeter, field-measured dimensions may be required from the job site. Minimum SE length is 3.25'. Please refer to Field Measurement Procedure for instructions.



□ indicates wall mounting bracket location
 ○ 2 1/2" diameter knockout (in fixture)

Center bracket for W-ID-66N 6' and 8' only

- A. W-D-66N14T8-XA 58.2% Efficiency
 Litecontrol Certified Test Report #12111010
- B. W-D-66N24T8-XA 51.1% Efficiency
 Litecontrol Certified Test Report #12121010
- C. W-ID-66N14T8-XA 69.4% Efficiency
 Litecontrol Certified Test Report #10411010
- D. W-ID-66N24T8-XA 67.2% Efficiency
 Litecontrol Certified Test Report #10421010
- E. W-ADW-66N14T8-6044 55.7% Efficiency
 Litecontrol Certified Test Report #17811070



For complete photometric information, see website.



LITECONTROL ... an employee owned company
 100 Hawks Avenue Hanson MA 02341 781 294 0100 FAX 781 293 2849 info@litecontrol.com litecontrol.com



Luminaire Type RR3- Lamp Information

GE Lighting

WORLDWIDE PARTNER

Commercial Products & Solutions


[SITE SEARCH](#)
HOME
PRODUCTS
EDUCATION / RESOURCES
LIGHTING APPLICATIONS

[Where to Buy](#) | [FAQs](#) | [Contact Us](#) | [EliteNet](#)

[Products](#) > [Linear Fluorescent](#) > [Straight Linear](#) > [T8](#) > 26666

26666 – F32T8/SP30/ECO
GE Ecolux® Starcoat® T8

- Passes TCLP, which can lower disposal costs.

 **High Color Rendering**
Meets Federal Minimum Efficiency Standards

GENERAL CHARACTERISTICS

Lamp type	Linear Fluorescent - Straight Linear
Bulb	T8
Base	Medium BI-Pin (G13)
Wattage	32
Voltage	137
Rated Life	20000 hrs
Rated Life (instant start) @ Time	20000 h @ 3 h 24000 h @ 12 h
Rated Life (rapid start) @ Time	24000 h @ 12 h
Bulb Material	Soda Ilme
Starting Temperature (MIN)	10 °C (50 °F)
Additional Info	TCLP compliant

PHOTOMETRIC CHARACTERISTICS


Initial Lumens	2600
Mean Lumens	2660
Nominal Initial Lumens per Watt	87
Color Temperature	3000 K
Color Rendering Index (CRI)	78
S/P Ratio (Scotopic/Photopic Ratio)	1.3

ELECTRICAL CHARACTERISTICS


Open Circuit Voltage (rapid start) Min @ Temperature	315 V @ 10 °C
Cathode Resistance Ratio - Rh/Rc (MIN)	4.25
Cathode Resistance Ratio - Rh/Rc (MAX)	6.5
Current Crest Factor (MAX)	1.7

DIMENSIONS


Maximum Overall Length (MOL)	47.7600 In (1213.6 mm)
Minimum Overall Length	47.6700 In (1210.8 mm)
Nominal Length	48.000 In (1219.2 mm)
Bulb Diameter (DIA)	1.000 In (25.4 mm)



Bulb



Base



[View Larger](#)

ADDITIONAL RESOURCES

[Catalogs](#)
[Testimonials](#)

Brochures

- Product Brochures
 - [Color](#)
 - [Ecolux](#)
 - [Ecolux \(Environmental\)](#)
 - [Industrial Lighting](#)
 - [Linear Fluorescent Lamps](#)
- Application/Segment Brochures
 - [Contractor Lighting](#)
 - [Healthcare Lighting](#)
 - [Office Lighting](#)
 - [Retail Lighting](#)

[MSDS \(Material Safety Data Sheets\)](#)
[Disposal Policies & Recycling Information](#)

GRAPHS & CHARTS

[Spectral Power Distribution](#)



Luminaire Type RR3- Ballast Information

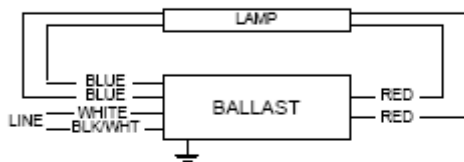


VCN-1S32-SC	
Brand Name	CENTIUM
Ballast Type	Electronic
Starting Method	Programmed Start
Lamp Connection	Series
Input Voltage	277
Input Frequency	60 HZ
Status	Active

Electrical Specifications

Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (*F/C)	Input Current (Amps)	Input Power (ANSI Watts)	Ballast Factor	MAX THD %	Power Factor	MAX Lamp Current Crest Factor	B.E.F.
F17T8	1	17	32/00	0.08	22	1.00	10	0.97	1.7	4.55
F25T8	1	25	32/00	0.10	28	0.95	10	0.98	1.7	3.39
* F32T8	1	32	32/00	0.13	34	0.90	10	0.98	1.7	2.65

Wiring Diagram



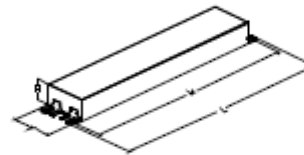
Diag. 20

The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

	In.	cm.		In.	cm.
Black	0	0	Yellow/Blue		0
White	22L	55.9	Blue/White		0
Blue	36L	91.4	Brown		0
Red	26R	66	Orange		0
Yellow		0	Orange/Black		0
Gray		0	Black/White	22L	55.9
Violet		0	Red/White		0

Enclosure



Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
9.50 "	1.7 "	1.18 "	8.90 "
9 1/2	1 7/10	1 9/50	8 9/10
24.1 cm	4.3 cm	3 cm	22.6 cm

Revised 11/13/2001



Data is based upon tests performed by Advance Transformer in a controlled environment and representative of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.

ADVANCE

O'HARE INTERNATIONAL CENTER · 10275 WEST HIGGINS ROAD · ROSEMONT, IL 60018
 Customer Support/Technical Service: Phone: 800-372-3331 - Fax: 630-307-3071
 Corporate Offices: Phone: 800-322-2086



Luminaire Type SS1- Luminaire Cutsheet



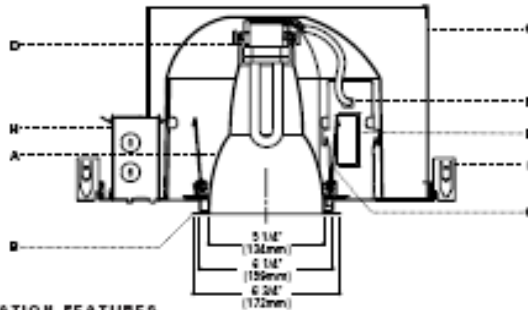
CATALOG#:

TYPE:

DESCRIPTION

Specification grade 32 Watt triple tube compact fluorescent fixture rated for direct contact with insulation. The 50° cutoff to lamp and lamp image provides a glare free, smooth, medium beam distribution. Triple tube lamps provide excellent

color, long life, and low radiant heat. Dimming and emergency ballast options are available. Lamp module and optical element can be changed after installation to provide a variety of lamp sources and distributions. e.g. into a PAR36 adjustable



SPECIFICATION FEATURES

A -- Reflector

.040 thick aluminum spun parabolic reflector in iridescence-free Clear, Gold, Haze, Warm Haze Alzak® or painted Gloss White finish. Special cone colors listed below

B -- Flange

Self flange reflector or die-cast flange with either matte white or clear coat finish. Die-cast flanges are easily removed for field painting. Elements are keyed for proper insertion.

C -- Attachment

Positive torsion springs pull flange tight to ceiling. Mechanical light trap eliminates spill light at edge of flange or reflector.

D -- Socket

4 pin G24q3 base for 32W PLT, TBX and TTT lamps. Fatigue free stainless steel spring ensures positive lamp retention. Fixed socket height ensures consistent lamp position.

E -- Electronic Ballast

Thermally protected, current controlled electronic ballast produces full light output and rated lamp life. For 32W and 26W triple tube lamps. Provides flicker-free and noise-free operation and starting with 120 or 277 volt input. Meets stringent Class B requirements, FCC part 18, for non-commercial applications. M32T Lutron for use with 32W lamp only.

F -- Electrical

Keyed quick connect provides easy lamp module installation.

G -- Frame/Housing

Hot dipped galvanized 20 gauge steel frame with bulk in 1/2 inch plaster lip. Gunsights allow for consistent alignment. Aluminum .032 thick housing allows for heat dissipation and reduces weight.

H -- Junction Box

18 cubic inches, listed for 4#12 AWG or 6#14 AWG 90° C additional feed through conductors, has six 1/2 inch pryouts.

I -- Bar Hangers

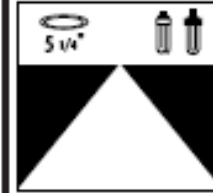
No Flex® bar hangers with positive locking, for use with wood, engineered wood and steel frame joists spaced up to 24" O.C. ship with platform for use in T-bar ceilings under accessory MBCLP clips. Nailless barb and locator lip provide consistent installation height.

Codes

Thermally protected, IP labeled, for use in direct contact with insulation. Meets Washington State AIF tight requirements, 1995 CABO Model Energy Code.

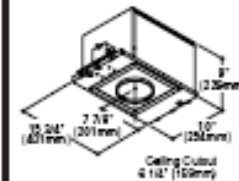
Labels

UL and cUL listed, standard damp label, IBEW union made.



**P5
M32T
E5T**

**32W TRIPLE
Compact Fluorescent
5" DOWNLIGHT**



ENERGY DATA

M32T

Input Power:
120V = 36W
Input Current (Max):
120V = .305A
Power Factor:
120V = > .88
T.H.D.:
120V = < 10%

M32T Lutron

Input Power:
120V = 36W
Input Current (Max):
120V = .33A
Power Factor:
120V = > .88
T.H.D.:
120V = < 10%

ORDERING INFORMATION

Complete unit consists of a platform, module and element.

Platform	Lamp Module	Optical Element	Finish		Flange	Accessories
P5	M32T					
PS5 [®] Airtight IC Rated Housing	M32T-J32/26W Compact Fluorescent Ballast M32T-Lutron [®] 32W Tri Wire Dimmable Ballast	E5T - 5" Downlight Reflector	Standard C=Clear H=Haze G=Gold W=Warm Haze Wu=Gloss White MW=Matte White C=Custora K=Cognac K4=Cognac Haze CC=Chocolate	Custom Cont. C4=Chocolate H4=Haze G4=Gold W4=Warm Haze GPH=Graphite H4=Haze PN4=Plne Haze SK4=Sky Haze	Blank/White die-cast SF=Self Flange RAW=Natural Die-cast SPW=Self Flange Painted White	MBCLP-40 Push On T Bar Clips (for 10 Units) PLEE=Reater Up Extension for Max 2" Thick Ceiling RACL= Flush Mount Collar

COOPER LIGHTING®

For Emergency Option order P532TGMER and E5T, see catalog for ordering information. For additional options please consult factory.

AC1820703



Unit Number: P5-M32T-E5T

PHOTOMETRICS

P5-M32T-E5TC
Test No. H36667
Lamp: 32W FLT
Lumens: 2400
Cutoff: 50°
Spacing: 1.1
Efficiency: 33.7%
Unk LPW: 22.4

Vertical Angle	CD
90°	0
85°	0
75°	0
65°	0
55°	0
45°	124
35°	365
25°	522
15°	605
5°	560
0°	552



Degree	cd/m ²
65°	0
75°	0
85°	0
55°	0
45°	12594

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandle	Beam Diameter
4'0"	29	5'0"
5'0"	19	6'0"
6'0"	14	7'0"
8'0"	9	9'0"
10'0"	6	11'0"
12'0"	4	14'0"

Zonal Lumens Summary

Zone	Lumens	%Lamp	%Luminaire
0-30	492	19.4	57.4
0-60	692	29.0	65.5
0-90	903	32.4	99.1
0-90	910	32.7	100.0
90-180	0	0.0	0.0
0-180	910	32.7	100.0

Coefficient of Utilization

Ceiling Reflectance	90%				70%				50%				30%				0%	
	30	50	70	90	30	50	70	90	30	50	70	90	30	50	70	90	0	
0	40	40	40	40	29	29	27	27	26	26	24	24	24	24	24	24	24	24
1	29	27	27	26	27	25	25	24	24	23	23	22	22	21	21	20	20	20
2	27	26	26	23	24	22	22	22	22	21	21	21	21	21	20	20	20	20
3	25	23	21	20	22	20	20	20	20	20	20	20	20	20	20	20	20	20
4	22	21	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
5	21	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
6	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
7	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
8	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
9	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
10	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20

P5-M32T-E5TC
Test No. H36107
Lamp: 26W FLT
Lumens: 1800
Cutoff: 50°
Spacing: 1.1
Efficiency: 39.7%
Unk LPW: 23.2

Vertical Angle	CD
90°	0
85°	0
75°	0
65°	0
55°	0
45°	104
35°	305
25°	460
15°	522
5°	572
0°	540



Degree	cd/m ²
65°	0
75°	0
85°	0
55°	0
45°	10606

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandle	Beam Diameter
4'0"	22	5'0"
5'0"	19	6'0"
6'0"	16	7'0"
8'0"	11	9'0"
10'0"	8	11'0"
12'0"	6	14'0"

Zonal Lumens Summary

Zone	Lumens	%Lamp	%Luminaire
0-30	424	22.7	60.9
0-60	612	34.2	67.9
0-90	699	39.0	99.4
0-90	701	39.0	100.0
90-180	0	0.0	0.0
0-180	701	39.0	100.0

Coefficient of Utilization

Ceiling Reflectance	90%				70%				50%				30%				0%	
	30	50	70	90	30	50	70	90	30	50	70	90	30	50	70	90	0	
0	42	42	42	42	35	35	33	33	32	32	30	30	30	30	30	30	30	30
1	34	32	32	32	32	31	31	31	31	30	30	30	30	30	30	30	30	30
2	32	31	31	30	31	30	30	30	30	29	29	29	29	29	29	29	29	29
3	31	30	30	29	30	29	29	29	29	29	29	29	29	29	29	29	29	29
4	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
5	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
6	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
7	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
8	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
9	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
10	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29

Notes and Formulas:

Luminance: To convert cd/m² to footlamberts, multiply by 0.2919

Cone of Light:

- Beam diameter is to 50% of maximum footcandle, rounded to the nearest half-foot.
- Footcandle values are initial. Apply appropriate light loss factors where necessary.
- See page 6845 of catalog.

CU Notes/Formula:

- $\text{maintained illuminance} = \frac{\text{lamp lumens} \times \text{CU} \times \text{light loss factors}}{\text{room area}}$
- $\text{total number of luminaires} = \frac{\text{room area} \times \text{maintained illuminance}}{\text{lamp lumens} \times \text{CU} \times \text{light loss factors}}$
- CU data based on 20% effective floor cavity reflectance.

Note: Specifications and Dimensions subject to change without notice.



Visit our web site at www.cooperlighting.com



Customer First Center 1121 Highway 78 South Peachtree City, GA 30269 770.495.6800 FAX 770.495.6901 ACB30702
Cooper Lighting 5925 McLaughlin Rd., Mississauga, Ontario, Canada L5R 1G9 905.507.4000 FAX 905.585.7069



Luminaire Type SS1- Lamp Information

GE Lighting

WORLDWIDE PARTNER


Commercial Products & Solutions


[SITE SEARCH](#) | [HOME](#) | [PRODUCTS](#) | [EDUCATION / RESOURCES](#) | [LIGHTING APPLICATIONS](#)

[Where to Buy](#) | [FAQs](#) | [Contact Us](#) | [EliteNet](#)

[Products](#) > [Compact Fluorescent](#) > [Plug-In](#) > [Triple Blax®](#) > [T4](#) > 97630

97630 – F32TBX/830/A/ECO
GE EcoLux® Blax® T4 - Facilities; Retail Display; Hospitality; Office; Restaurant; Warehouse

 **High Color Rendering**
Energy Savings


 **PRINT**

GENERAL CHARACTERISTICS	
Lamp type	Compact Fluorescent - Plug-In
Bulb	T4
Base	GX24q-3
Wattage	32
Voltage	120/100
Rated Life	12000 hrs
Starting Temperature (MIN)	0 °C (32 °F)
Cathode Resistance	2.700 Ohm
Rated Life (rapid start) @ Time	12000 h @ 3 h 20000 h @ 12 h
Additional Info	Dimmable with appropriate dimming ballast, End of Life Protection (EOL), TCLP compliant
Primary Application	Facilities; Retail Display; Hospitality; Office; Restaurant; Warehouse


PHOTOMETRIC CHARACTERISTICS	
Initial Lumens	2200
Mean Lumens	1850
Nominal Initial Lumens per Watt	68
Color Temperature	3000 K
Color Rendering Index (CRI)	82

ELECTRICAL CHARACTERISTICS	
Current (max)	5.2500 A
Open Circuit Voltage (after preheating) (MAX)	265 V
Open Circuit Voltage (MIN)	515 V
Lamp Current	0.320 A
Preheat Voltage (MIN)	4 V
Current Crest Factor (MAX)	1.7
Supply Current Frequency	20000 Hz

Bulb



Base



[View Larger](#)

ADDITIONAL RESOURCES

[Catalogs](#)
[Testimonials](#)
Brochures

- [Product Brochures](#)
- [EcoLux](#)
- [EcoLux \(Environmental\)](#)

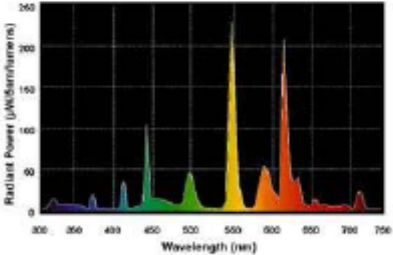
Sell Sheets

- [Fast Warming](#)
- [Blax® T/E 32W with Amalgam](#)

[Disposal Policies & Recycling Information](#)

GRAPHS & CHARTS

Spectral Power Distribution





Luminaire Type SS1- Ballast Information

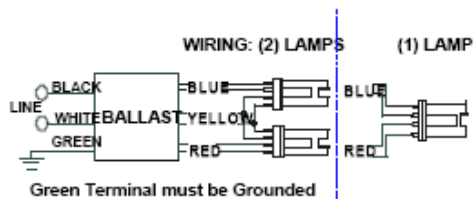


Electrical Specifications

ICF2S26M1LSQS@277	
Brand Name	SMARTMATE
Ballast Type	Electronic
Starting Method	Programmed Start
Lamp Connection	Series
Input Voltage	120-277
Input Frequency	50/60 HZ
Status	Active

Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (*F/C)	Input Current (Amps)	Input Power (ANSI Watts)	Ballast Factor	MAX THD %	Power Factor	MAX Lamp Current Crest Factor	B.E.F.
CFQ28W/G24Q	1	28	0/-18	0.10	27	1.00	10	0.99	1.7	3.70
CFQ28W/G24Q	2	28	0/-18	0.19	51	1.00	10	0.99	1.7	1.96
CFTR28W/GX24Q	1	28	0/-18	0.11	19	1.10	10	0.99	1.7	5.79
CFTR28W/GX24Q	2	28	0/-18	0.21	54	1.00	10	0.99	1.7	1.85
* CFTR32W/GX24Q	1	32	0/-18	0.13	36	0.98	10	0.98	1.7	2.72
CFTR42W/GX24Q	1	42	0/-18	0.17	46	0.98	10	0.98	1.7	2.13

Wiring Diagram

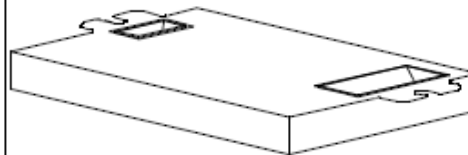


The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

	in.	cm.		in.	cm.
Black	0	0	Yellow/Blue		0
White	0	0	Blue/White		0
Blue	0	0	Brown		0
Red	0	0	Orange		0
Yellow	0	0	Orange/Black		0
Gray		0	Black/White		0
Violet		0	Red/White		0

Enclosure



Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
4.98 "	2.4 "	1.0 "	4.6 "
4 49/60	2 2/5	1	4 3/5
12.6 cm	6.1 cm	2.5 cm	11.7 cm

Revised 11/20/2007



Data is based upon tests performed by Advance Transformer in a controlled environment and representative of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.

ADVANCE

OHARE INTERNATIONAL CENTER - 10275 WEST HIGGINS ROAD - ROSEMONT, IL 60018
Customer Support/Technical Service: Phone: 800-372-3331 - Fax: 630-307-3071
Corporate Offices: Phone: 800-322-2086



Luminaire Type SS2- Luminaire Cutsheet

IRIS®

DESCRIPTION

Recessed medium beam downlight luminaire with 4 inch square aperture utilizing horizontal 26W DTT or 26/32/42W TTT compact fluorescent lamp. Modular platform can be reconfigured from below the ceiling to accept a broad range of lamp modules and optical elements. Platform is suitable for shallow plenum commercial construction. Insulation must be kept 3" from top and sides of housing. Platform + module + element combination produces square distribution with excellent light control and low aperture brightness.

Catalog #	Type
Project	
Comments	Date
Prepared by	

SPECIFICATION FEATURES

Frame

Galvanized steel plaster frame with integral bar hanger receivers. Setcrews provide positive horizontal locking.

Collar

Matte black steel collar adjusts vertically for 1/2" - 1" thick ceilings and can be rotated +/- 7.5° thru the aperture. Integral gun sights facilitate the use of guide strings or laser lines. Shipped with a paint overspray protector.

Lamp Module

Installed or removed thru the aperture or from the top and allows lamp orientation at 0°, 90°, 180° and 270° positions (except for 26W DTT and 42W TTT lamps).

Housing

Steel housing painted matte black for a visually dark interior. Removable hinged top allows for top access. All fasteners are captive.

Gaskets

Closed cell gaskets achieve restrictive airflow requirements without additional caulking.

Optical Element

Mousetrap type springs pull flange tight to ceiling. Light trap eliminates spill light at edge of flange and reflector. Available in self-flanged or metal trim ring versions. May also be installed rimless using optional plastering lathing ring.

Bar Hangers

Captive preinstalled bar hangers adjust from 8-1/2" to 24" wide; pass thru feature allows shortening without removal. Captive nail penetrates standard and engineered lumber. Mounting flange levels platform with ceiling. Integral clip attaches directly to i-bar.

Butterfly Bracket

Provides 3" of vertical adjustment and accept 1/2" EMT, C channel or bar hangers.

Primary Reflector

Miro® Erotek segmented upper reflector yields a smooth square beam with medium distribution. Accepts 26W DTT, 26/32/42W TTT compact fluorescent lamps.

Lower Reflector

Aluminum parabolic shielding prismatoid provides for 55° cutoff and is available in a wide range of semi specular Alzak® finishes. Corrugated Baffle: An optional embossed pattern that extends through the flange adding a subtle design element and reduces aperture brightness.

Junction Box

(7) 1/2" trade size pry outs, (3) integral clamps for non-metallic cable. Rated for (8) #12 thru branch circuits. Wago® type push wire connectors for field connections.

Thermal Protector

Self-resetting thermal protector protects against improper lamping and direct contact with insulation.

Ballast

Universal input electronic ballast features multi-watt capability operating 26W DTT and 26/32/42W TTT lamps. Programmed rapid start allows use with occupancy sensors and building control systems.

Lamp Socket

4 pin Gx24q3/4 base with rotary lock socket ensures positive lamp retention. Lamp socket locks into one of two positions accommodating different lamp lengths.

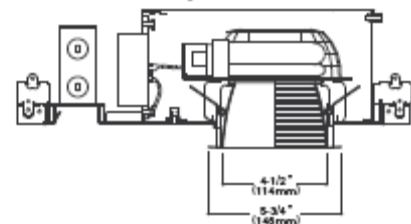
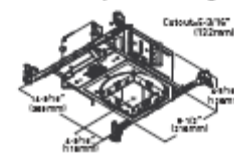
Code Compliance

Thermally protected, IP labeled and cULus listed for damp locations and ASTM-E283 AIRTITE(tm).



P406TAT
MH4CFL42E
E4DL E4DLCB
26W DTT
26/32/42W TTT
Compact
Fluorescent

4 Inch Square Downlight



Min. Starting Temp. 10°F		Sound Rating Class A	
DIMENSIONS: 4" x 4" x 1 1/2"		Input Frequency 100-140 Hz	
Power Factor > 0.98	THD < 10%		
Input Voltage	Input Power	Input Current	Input Frequency
120V	26W	0.23A	110W
26W	32W	0.31A	110W
42W	32W	0.31A	110W
26/32/42W	32W	0.31A	110W
Min. Starting Temp. 10°F			
Sound Rating Available in a 20dB Ambient			
DIMENSIONS: 4" x 4" x 1 1/2" (Maximum Limits)			
Power Factor > 0.98	THD < 10%		
Input Voltage 120V	Input Power	Input Current	Input Frequency
120V	26W	0.23A	110W
26W	32W	0.31A	110W

ORDERING INFORMATION: Complete unit consists of platform, lamp module and optical element.

Platform	Lamp Module	Ballast Option	Optical Element	Finish	Flange	Accessories
MH4CFL						
P406TAT = 4" Square Aperture Non-IC Housing	42E = 26W DTT 26/32/42W TTT 120-277V UNV 42SE = 26W DTT 26/32/42W TTT 347V 10/26 = 26W DTT/TTT Lutron TuWire Dimming 120V 10/32 = 32W TTT Lutron TuWire Dimming 120V	E4DL = 4" Square Aperture Lower Shielding Prismatoid, Open E4DLCB = 4" Square Aperture Corrugated Lower Shielding Prismatoid, Open	Alzak® Finishes R = Clear Haze WHH = Warm Haze WHL = Wheat Haze KH = Cognac Haze GPH = Graphite Haze CTH = Cobalt Haze CCH = Chocolate Haze BH = Black Haze Painted Finishes MW = Matte White MB = Matte Black	Blank = Metal Trim Ring, Matte White SF = Self Flanged SPWF = Self Flanged, Matte White Flange (SPWF not available with corrugated baffle)		Accessories FL56x4 = Plaster lathing ring for rimless FLA4x4 = Rimless adapter for solid ceiling surface EDC4x41 = Extended depth collar for 1" - 1-1/2" thick ceilings EDC4x42 = Extended depth collar for 1-1/2" - 2" thick ceilings L4X4HEX = Matte black hex cell louver MTR4MW = Metal trim ring, matte white MTR4MS = Metal trim ring, matte black MTR4SN = Metal trim ring, satin nickel MTR4AC = Metal trim ring, antique copper MTR4TBZ = Metal trim ring, tucson bronze

COOPER Lighting
www.cooperlighting.com

Specifications and Dimensions subject to change without notice.
Consult your representative for additional options and details.

AD000085
02/26/2008 9:24:01 PM



F40STAT MH4FL E4DL E4DLCS

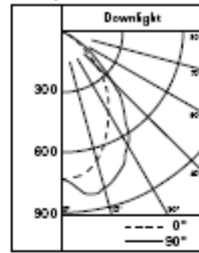
Photometrics

Photometric Results

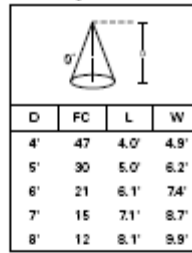
Spacing Criterion = 1, 1.3
 Efficiency = 50.6%

Test No. 254P232
 Platform = P4
 Element = E4DLH
 Lumens = 2400
 Lamp = CF32TTE/841

Candlepower Distribution



Cone of Light



Candelas

Vertical Angle	CD
90	0
85	2
75	15
65	44
55	113
45	248
35	396
25	525
15	650
5	704
0	711

Zonal Lumens Summary

Zone	Lumens	% Lamp	% Luminaires
0-30	568	23.7	46.8
0-40	856	35.7	70.5
0-60	1162	48.4	95.7
0-90	1214	50.6	100
90-180	0	0	0
0-180	1214	50.6	100

Coefficients of Utilization

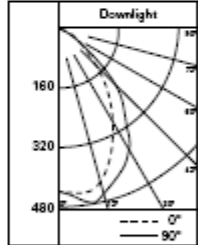
Ceiling Wall % RCR	70 50 30 10	70 50 30 10	50 30 10	50 30 10	50 30 10	0
Zonal cavity method -- floor reflectance = 20%						
0	60 60 60 60	59 59 59 59	56 56 56	54 54 54	52 52 52	51
1	57 56 53 52	55 54 52 51	52 51 50	50 49 48	48 47 47	46
2	53 50 47 45	52 49 47 45	47 45 44	46 44 43	44 43 42	41
3	49 45 42 40	48 45 42 39	43 41 39	42 40 38	41 39 37	37
4	46 41 38 35	45 41 37 35	40 37 35	38 36 34	37 35 34	33
5	43 38 34 31	42 37 34 31	36 33 31	35 33 31	35 32 30	30
6	40 35 31 28	39 34 31 28	33 30 28	33 30 28	32 30 28	27
7	38 32 28 26	37 32 28 26	31 28 26	30 27 25	30 27 25	24
8	35 30 26 24	35 29 26 23	29 26 23	28 25 23	28 25 23	22
9	33 28 24 22	33 27 24 22	27 24 21	26 23 21	26 23 21	20
10	31 26 22 20	31 25 22 20	25 22 20	25 22 20	24 22 20	19

Photometric Results

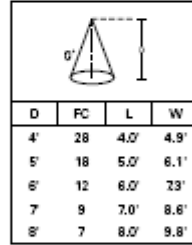
Spacing Criterion = 1, 1.2
 Efficiency = 35.5%

Test No. 254P229
 Platform = P4
 Element = E4DLH
 Lumens = 1800
 Lamp = CF26TTE/830

Candlepower Distribution



Cone of Light



Candelas

Vertical Angle	CD
90	0
85	1
75	8
65	24
55	61
45	140
35	239
25	338
15	427
5	442
0	438

Zonal Lumens Summary



Zone	Lumens	% Lamp	% Luminaires
0-30	339	18.8	47.6
0-40	507	28.2	71.3
0-60	682	37.9	95.9
0-90	711	39.5	100
90-180	0	0	0
0-180	711	39.5	100

Coefficients of Utilization

Ceiling Wall % RCR	70 50 30 10	70 50 30 10	50 30 10	50 30 10	50 30 10	0
Zonal cavity method -- floor reflectance = 20%						
0	47 47 47 47	46 46 46 46	44 44 44	42 42 42	40 40 40	40
1	44 43 42 41	43 42 41 40	40 40 39	39 38 38	38 37 37	36
2	41 39 37 35	41 38 37 35	37 36 34	36 35 33	35 34 33	32
3	39 36 33 31	38 35 33 31	34 32 30	33 31 30	32 31 29	29
4	36 32 30 28	35 32 29 28	31 29 27	30 28 27	29 28 26	26
5	34 30 27 25	33 29 27 25	29 26 24	28 26 24	27 25 24	23
6	32 27 24 22	31 27 24 22	26 24 22	26 24 22	25 23 22	21
7	30 25 22 20	29 25 22 20	24 22 20	24 22 20	23 21 20	19
8	28 23 21 19	27 23 20 19	23 20 18	22 20 18	22 20 18	18
9	26 22 19 17	26 21 19 17	21 19 17	21 18 17	20 18 17	16
10	25 20 18 16	24 20 17 16	20 17 16	19 17 16	19 17 16	15



Luminaire Type SS2- Lamp Information

GE
Lighting

Commercial Products & Solutions


[SITE SEARCH](#)


HOME
PRODUCTS
EDUCATION / RESOURCES
LIGHTING APPLICATIONS

[Where to Buy](#) | [FAQs](#) | [Contact Us](#) | [EliteNet](#)

[Products](#) > [Compact Fluorescent](#) > [Plug-In](#) > [Triple Blax®](#) > [T4](#) > 97630

97630 – F32TBX/830/A/ECO
GE EcoLux® Blax® T4 - Facilities; Retail Display; Hospitality; Office; Restaurant; Warehouse

 **PRINT**

 **High Color Rendering**
Energy Savings

GENERAL CHARACTERISTICS

Lamp type	Compact Fluorescent - Plug-In
Bulb	T4
Base	GX24q-3
Wattage	32
Voltage	120/100
Rated Life	12000 hrs
Starting Temperature (MIN)	0 °C (32 °F)
Cathode Resistance	2.700 Ohm
Rated Life (rapid start) @ Time	12000 h @ 3 h 20000 h @ 12 h
Additional Info	Dimmable with appropriate dimming ballast, End of Life Protection (EOL), TCLP compliant
Primary Application	Facilities; Retail Display; Hospitality; Office; Restaurant; Warehouse


PHOTOMETRIC CHARACTERISTICS

Initial Lumens	2200
Mean Lumens	1850
Nominal Initial Lumens per Watt	68
Color Temperature	3000 K
Color Rendering Index (CRI)	82


ELECTRICAL CHARACTERISTICS

Current (max)	5.2500 A
Open Circuit Voltage (after preheating) (MAX)	265 V
Open Circuit Voltage (MIN)	515 V
Lamp Current	0.320 A
Preheat Voltage (MIN)	4 V
Current Crest Factor (MAX)	1.7
Supply Current Frequency	20000 Hz

Bulb



Base



[View Larger](#)

ADDITIONAL RESOURCES

[Catalogs](#)
[Testimonials](#)

Brochures

- Product Brochures
 - [Ecolux](#)
 - [Ecolux \(Environmental\)](#)

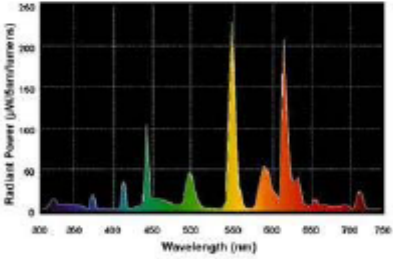
Sell Sheets

- [Fast Warming](#)
- [Blax® T/E 32W with Amalgam](#)

[Disposal Policies & Recycling Information](#)

GRAPHS & CHARTS

Spectral Power Distribution





Luminaire Type SS2– Ballast Information

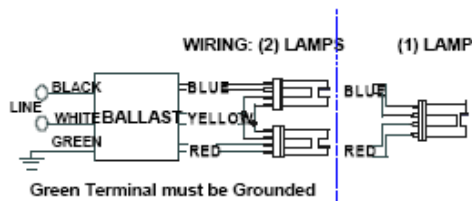


Electrical Specifications

ICF2S26M1LSQS@277	
Brand Name	SMARTMATE
Ballast Type	Electronic
Starting Method	Programmed Start
Lamp Connection	Series
Input Voltage	120-277
Input Frequency	50/60 HZ
Status	Active

Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (°F/C)	Input Current (Amps)	Input Power (ANSI Watts)	Ballast Factor	MAX THD %	Power Factor	MAX Lamp Current Crest Factor	B.E.F.
CFQ28W/G24Q	1	28	0/-18	0.10	27	1.00	10	0.99	1.7	3.70
CFQ28W/G24Q	2	28	0/-18	0.19	51	1.00	10	0.99	1.7	1.96
CFTR28W/GX24Q	1	28	0/-18	0.11	19	1.10	10	0.99	1.7	5.79
CFTR28W/GX24Q	2	28	0/-18	0.21	54	1.00	10	0.99	1.7	1.85
* CFTR32W/GX24Q	1	32	0/-18	0.13	36	0.98	10	0.98	1.7	2.72
CFTR42W/GX24Q	1	42	0/-18	0.17	46	0.98	10	0.98	1.7	2.13

Wiring Diagram

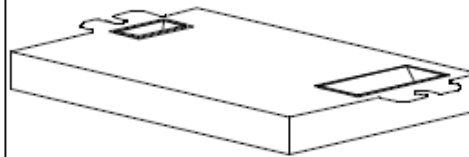


The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

	in.	cm.		in.	cm.
Black	0	0	Yellow/Blue		0
White	0	0	Blue/White		0
Blue	0	0	Brown		0
Red	0	0	Orange		0
Yellow	0	0	Orange/Black		0
Gray		0	Black/White		0
Violet		0	Red/White		0

Enclosure



Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
4.98 "	2.4 "	1.0 "	4.6 "
4 49/60	2 2/5	1	4 3/5
12.6 cm	6.1 cm	2.5 cm	11.7 cm

Revised 11/20/2007



Data is based upon tests performed by Advance Transformer in a controlled environment and representative of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.

ADVANCE

OHARE INTERNATIONAL CENTER · 10275 WEST HIGGINS ROAD · ROSEMONT, IL 60018
Customer Support/Technical Service: Phone: 800-372-3331 · Fax: 630-307-3071
Corporate Offices: Phone: 800-322-2086



Luminaire Type SS3 – Luminaire Cutsheet



DESCRIPTION

673 luminous Half Cylinder features a variety of decorative options such as perforated metal, colored acrylic, trim bars and is ADA compliant.

Catalog #	Type
Project	
Comments	Date
Prepared by	

SPECIFICATION FEATURES

Material

Painted or plated solid aluminum with a 1/8" matte white extruded acrylic panel.

Finish

Standard: Natural Aluminum (NA). [Sustainable Design] Premium: Polished Chrome (PC), Satin Brass (SB), Polished Brass (PB), Lacquered Satin Aluminum (SAL), Matte White (MW), Satin Copper (SCP), Polished Copper (PCP), Satin Nickel (SN), Polished Nickel (PN), Oxidized Brass (OBR), Lacquered Satin Chrome (SCL), Lacquered Satin Nickel (SNL) or Custom Color (CC).

Optics

Refer to www.shaperlighting.com for complete photometrics.

Ballast

Integral electronic HPF, multi-volt 120/277V (347V Canada), thermally protected with end-of-life circuitry to accommodate the specified lamp wattage.

Lamp/Socket

12": One (1) or two (2) 18W (2G11) 4-pin high lumen CFL lamps or one (1) 60W frosted T-10 lamp.
16": Two (2) 27W (2G11) 4-pin high

lumen CFL lamps or two (2) 60W frosted T-10 lamps.

25": One (1) or two (2) 14W T5 linear fluorescent lamps.

37": One (1) or two (2) 21W T5 linear fluorescent lamps. CFL lamps or two (2) 60W Frosted T-10 lamps. CFL socket injection molded plastic. Lamps furnished by others.

Installation

Supplied with a universal circular strap for a standard 4" J-box or plaster ring.

Options

Hand-Painted Faux Alabaster Acrylic Diffuser (FD), Remote Emergency Battery (12" and 16" only) - Supplied by others (REM), Integrated Emergency Battery (IEM) (25" and 37"), Dimming Ballast - Contact the factory for ballast options (DM), Top and Bottom Cover (TBC), Two Vertical Trim Bars (2VTB), Two Horizontal Trim Bars (2HTB), Two Vertical and Horizontal Trim Bars (2HTB/2VTB), Two Vertical Trim Bars with Perf Sides (2VTB/PS), Two Vertical Trim Bars with Four Wide Trim Bars (2VTB/4WTB), Two Vertical and Horizontal Trim Bars with Perf Center (2HTB/2VTB/PC), Two Proud

Extended Vertical Trim Bars (2PVETB), Two Horizontal Trim Bars and One Proud Vertical Trim Bar (2HTB/1PVTB), MRI Applications (INC only) - Contact factory, Accent Balls (ACB), Three Horizontal and One Vertical Trim Bars with Perf (3HTB/1VTB/P), Damp Location (DL): All Painted Finishes, Lacquered Satin Chrome (SCL) and Lacquered Satin Nickel (SNL) finishes only. Energy Star Rating - Consult factory. MRI Applications (INC only) - Contact Factory.

Labels

U.L. and C.U.L approved for indoor and damp location. See options for damp location finishing requirements. ADA compliant (except 2PVTB, 2PVETB, 2HTB/1PVTB).

Modifications

Shaper's skilled craftspeople with their depth of experience offer the designer the flexibility to modify standard wall luminaires for project specific solutions. Contact the factory regarding scale options, additional finishes, mounting, additional materials/colors, or decorative detailing.



673 SERIES

Interior Wall Luminaire
Luminous Half Cylinder



ORDERING INFORMATION

Sample Number: 673-12-CFL/2/16-277V-PCP

Series	Lamp	Voltage	Finish	Options
--------	------	---------	--------	---------

Series 673 ¹ Luminous Half Cylinder Size 12" 16" 25" 37" Notes: 1 Available in 12". 2 Available in 16". 3 Available in 24". 4 Available in 37". 5 Available with CFL only. 6 Consult the factory for available options. 7 Supplied by others.	Lamp CFL/1/18" CFL/2/18" CFL/2/27" INC/1/60" INC/2/60" TS/1/14" TS/1/21" TS/2/14" TS/2/21" Options 2HTB ² Two Horizontal Trim Bars 2HTB/1PVTB ² Two Horizontal Trim Bars and 1 Proud Vertical Trim Bar 2HTB/2VTB ² Two Horizontal and Vertical Trim Bars 2HTB/2VTB/PC ² Two Horizontal and Vertical Trim Bars w/ Perf Center 2PVTB ² Two Proud Vertical Trim Bars 2VTB ² Two Vertical Trim Bars 2VTB/4WTB ² Two Vertical Trim Bars w/ Four Wide Trim Bars 2VTB/PS ² Two Vertical Trim Bars w/ Perforated Sides 3HTB/1VTB/PC ² Three Horizontal and One Vertical Trim Bars w/ Perf ACB ³ Accent Balls DL ⁴ Damp Location DM ⁵ CFL Dimming Ballast IEM ⁶ Integral Emergency Ballast ⁴ REM ⁷ Remote Emergency Battery ^{4, 7} FD ⁸ Hand Painted Faux Alabaster Diffuser TBC ⁹ Top and Bottom Cover
---	--



Specifications and Dimensions subject to change without notice.
Consult your representative for additional options and finishes.

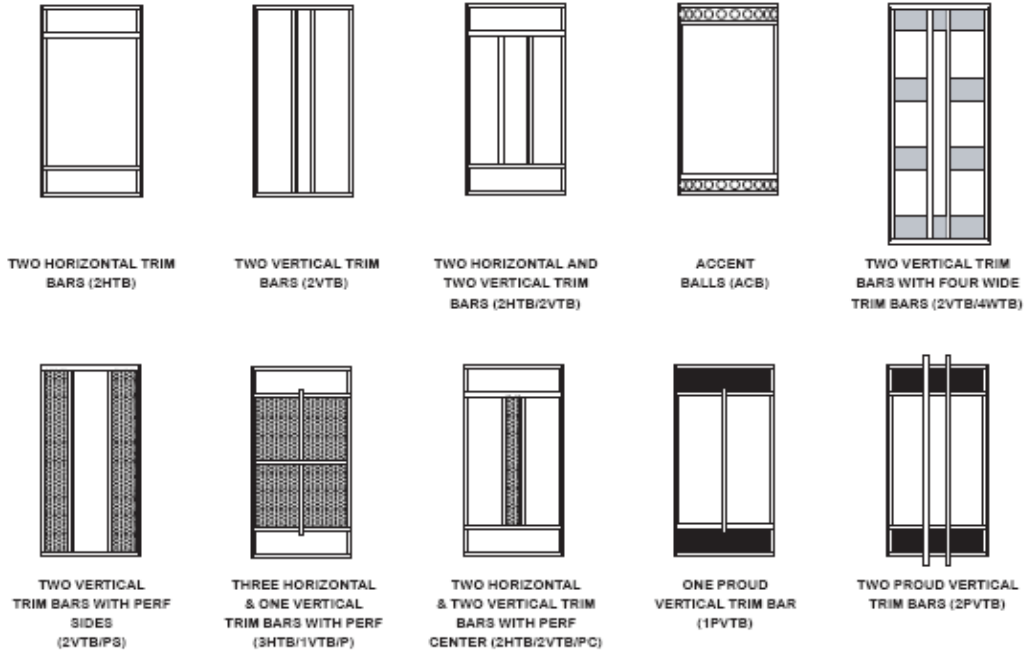
ADS042888
01/22/2008 5:07:31 PM



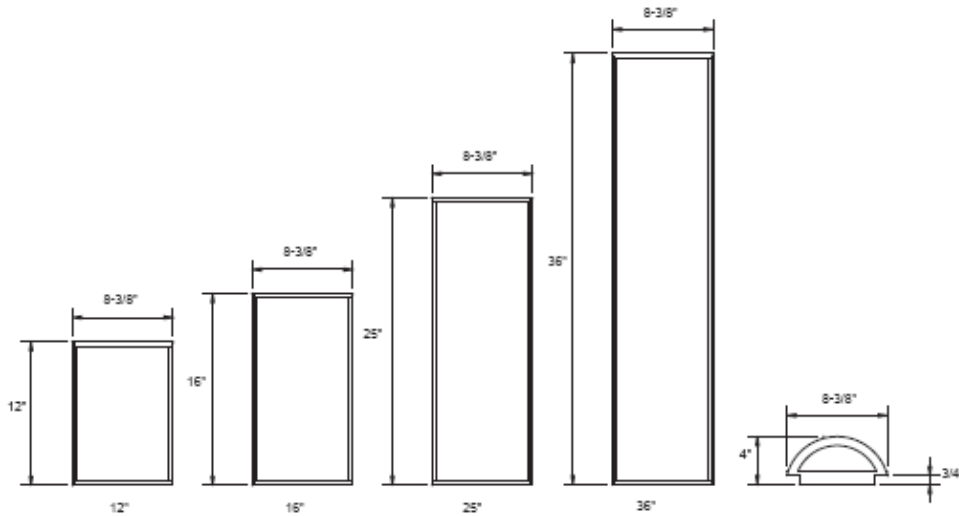
673 SERIES INTERIOR WALL LUMINAIRE

DIMENSIONS

TRIM OPTIONS



DIMENSIONS





Luminaire Type SS3 – Lamp Information



GE
Lighting

Commercial Products & Solutions

[SITE SEARCH](#)
[HOME](#)
[PRODUCTS](#)
[EDUCATION / RESOURCES](#)
[LIGHTING APPLICATIONS](#)

[Where to Buy](#) | [FAQs](#) | [Contact Us](#) | [EliteNet](#)

[Products](#) > [Linear Fluorescent](#) > [Straight Linear](#) > [T5](#) > 31590

31590 – F14W/T5/830/ECO

GE Ecolux® Starcoat® T5

• Passes TCLP, which can lower disposal costs.

High Color Rendering



GENERAL CHARACTERISTICS

Lamp type	Linear Fluorescent - Straight Linear
Bulb	T5
Base	Miniature Bi-Pin (G5)
Wattage	14
Voltage	82
Rated Life	30000 hrs
Rated Life (rapid start) @ Time	30000 h @ 3 h 36000 h @ 12 h
Bulb Material	Soda lime
Starting Temperature (MIN)	-20 °C (-4 °F)
Additional Info	TCLP compliant



[View Larger](#)

PHOTOMETRIC CHARACTERISTICS

Initial Lumens	1350
Mean Lumens	1240
Nominal Initial Lumens per Watt	96
Color Temperature	3000 K
Color Rendering Index (CRI)	85
S/P Ratio (Scotopic/Photopic Ratio)	1.3

ADDITIONAL RESOURCES

[Catalogs](#)

[Testimonials](#)

Brochures

Application/Segment Brochures

• [Contractor Lighting](#)

• [Healthcare Lighting](#)

Product Brochures

• [Ecolux](#)

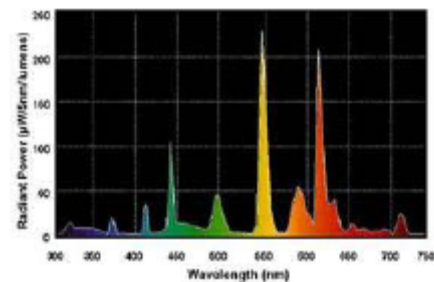
[Disposal Policies & Recycling Information](#)

ELECTRICAL CHARACTERISTICS

Open Circuit Voltage (rapid start) Min @ Temperature	230 V @ 10 °C
Cathode Resistance Ratio - Rh/Rc (MIN)	4.25
Cathode Resistance Ratio - Rh/Rc (MAX)	6.5
Current Crest Factor (MAX)	1.7

GRAPHS & CHARTS

Spectral Power Distribution



Lamp Mortality

DIMENSIONS

Maximum Overall Length (MOL)	22.1700 in (563.1 mm)
Nominal Length	21.600 in (548.8 mm)
Bulb Diameter (DIA)	0.625 in (15.8 mm)
Bulb Diameter (DIA) (MAX)	0.670 in (17.0 mm)
Max Base Face to Base Face (A)	21.610 in (548.8 mm)



Luminaire Type SS3 – Ballast Information



ICN-132-MC@277V	
Brand Name	CENTIUM MICRO CAN
Ballast Type	Electronic
Starting Method	Instant Start
Lamp Connection	Series
Input Voltage	120-277
Input Frequency	50/60 HZ
Status	Active

Electrical Specifications

Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (°F/°C)	Input Current (Amps)	Input Power (ANSI Watts)	Ballast Factor	MAX THD %	Power Factor	MAX Lamp Current Crest Factor	B.E.F.
* F14T5	1	14	32/00	0.07	19	1.05	20	0.98	1.7	5.53
F17T8	1	17	0/-18	0.06	17	0.88	20	0.98	1.7	5.18
F21T5	1	21	32/00	0.09	26	1.05	15	0.98	1.7	4.04
F25T8	1	25	0/-18	0.09	23	0.88	15	0.98	1.7	3.83
F28T5	1	28	32/00	0.12	34	1.05	10	0.98	1.7	3.09
F32T8	1	32	0/-18	0.11	30	0.88	10	0.98	1.7	2.93
F32T8/ES (30W)	1	30	60/16	0.10	27	0.88	10	0.98	1.7	3.26

Wiring Diagram

Diag. 63

The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

Enclosure

Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
9.50"	1.08"	1.05"	8.91"
9 1/2	1 2/25	1 1/20	8 91/100
24.1 cm	2.7 cm	2.7 cm	22.6 cm

Revised 01/06/2005



Data is based upon tests performed by Advance Transformer in a controlled environment and representative of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.


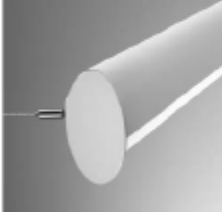
ADVANCE
 O'HARE INTERNATIONAL CENTER · 10275 WEST HIGGINS ROAD · ROSEMONT, IL 60018
 Customer Support/Technical Service: Phone: 800-372-3331 · Fax: 630-307-3071
 Corporate Offices: Phone: 800-322-2086

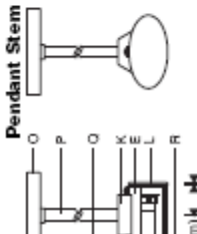
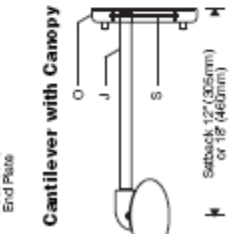


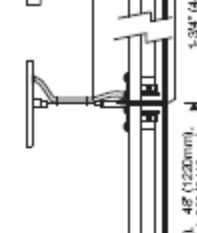
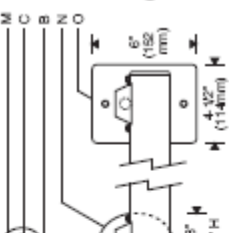
Luminaire Type SS5- Luminaire Cutsheet

Lighting the Wall Xtra small enclosed oval, integral T5 Fluorescent

Style 140

Specifications

- A 1/4" aluminum canopy
- B 1/16" dia. 7x7 cable
- C Adjustable cable glider
- D Leveling bracket (cable)
- E Extruded aluminum housing
- F Specular extruded aluminum reflector
- G Electronic ballast
- H Recessed outlet box w/ plaster ring (by others)
- J Tubular steel arm
- K Formed aluminum filling
- L Aluminum decorative end plates (order separately)
- M Aluminum anc. for plate
- N Aluminum cover plate
- O Aluminum canopy
- P Tubular aluminum stem
- Q 18/3 cord with clips
- R Aluminum joist/reveal plates (black)
- S Steel wall and leveling plates (under canopy)

Finish:
Semi-gloss white housing. Black joist/reveal plates. Painted surfaces - 6 stage pretreatment and electrostatically applied the most powder coat for stable, long lasting and corrosion resistant finish.
Reflector - extruded high purity aluminum with clear anodized specular finish. All luminaire hardware - stainless steel.

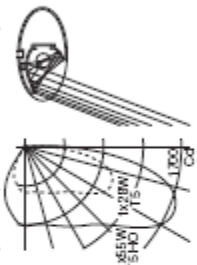
Mounting:
Cables, pendants or cantilevers hang as ordered separately. For single unit, specify starter in circular module (X mount). For continuous row, add intermediate end modules (Y mount). Joist/reveal plates align and bolt together.
Pendant stem - 1 1/16" O.D. aluminum, internally threaded. 5" dia. aluminum canopy. For swivel - consult factory.
Cable - 1/16" dia. 7x7 aircraft cable, fit B adjustable length. Crossbar w/ 1/4"-20 stud, coupling with slotted 5" dia. canopy.
Cantilever - 1 1/16" O.D. steel arm; suitable support structure required. Choice of: Rectangular canopy with adjustable interface plate allows leveling of arms +/- 5° or Oval wall plates with adjustable cable tieback.

Features

- Small classic form - full oval end plates; articulated reveals
- Powerful T5/T5HO fluorescent wall lighting - low energy
- Unequaled uniformity from minimal setbacks - ideal for conference rooms, marketplaces, art walls, displays, signs
- Versatile - cable, pendant or two styles of cantilevers
- Integral electronic ballast - modular quick connect wiring

Performance

Two parabolic reflector sections drive light to the bottom of the wall. An elliptical section shields the lamp from normal viewing angles and redirects its light to a parabola. Glare is minimized and asymmetry of the beam is maximized resulting in high beam efficiency and superior surface uniformity.



For complete photometrics, see www.elliptipar.com.

elliptipar



Project:
Type:
Style 140

To form a Catalog Number
Oval/Flat XS

F 1, 4, 0 | T | | | | | | |
Style 140

1 Source
F - Linear Fluorescent

2 Style
140 - Xtra small end based oval, integral ballast

3 Lamp
T | | | | | | | = T5 Fluorescent Lamp Code
Lamp Wattage (see chart below)
Number of Lamps in Length, specify 1 or 2
Example: T155 = 4' (1.2m) housing with one 54W T5-HO lamp

4 Mounting
X = Starter/individual module with electrical feed (1883 cord)
Note: units with dimming or battery will be provided with 1884 or two (2) 1883 cords as required.
Y = Intermediate/end module with modular through wiring with quick connectors
Note: Order cable, pendant, or cantilever hangers separately.

5 Finish
02 = Semi-gloss white
99 = Custom RAL or computer matched color to be specified, consult sales representative

6 Voltage/Ballast
Electronic
1 = 120V
2 = 277V
3 = 347V (Canada)
Note: Not available for use with cable hangers.
* Consult sales representative for dimming 5' lamps (lamp codes T185, T180). Availability for voltages and voltage varies with ballast manufacturer and control type - see www.elliptipar.com for additional dimming specifications and limitations.
Consult factory when dimming units with cable supports. Frequency of electrical feed cable hangers to accommodate the control circuit varies with ballast manufacturer and control type.

7 Option
(See Accessories Section for specifications)
00 = No option
0E = Integral emergency battery pack with inches for lamp and lead ballast. Operates one lamp. Available in 4', 5', 6' and 8' lengths (lamp codes T128, T155, T221, T228, T155, T239 and T255).
Note: For rows, 0E option must be specified for the starter/individual module (X mount). Additional battery packs may be specified on intermediate/end module.
XX = For modification not listed, include detailed description. Consult factory prior to specification.

8 Stand and
0 = UL Underwriters Laboratories
J = CSA, Canadian Standards Association

Example
F140 - T155 - X - 02 - 2 - 000
Xtra small end based oval series for use with one 4' F54T5HO lamp, 48" long housing (in cl including decorative end plates). For use with cable, pendant or cantilever hangers (order separately). Semi-gloss white. Integral 277V ballast. UL. Order decorative end plates and hangers separately.

Accessories
Order separately. See Accessories Section for specifications.
ADE40 | | | | | | | = Decorative end plates, pair, white, or custom color to match housing
Note: Add 3/8" (10mm) to length

9 Hangers
Order separately. See Accessories Section for specifications. Cable supports. Order on non-electrical and one electrical feed cable support for each starter/individual module (X mount). Order one non-electrical cable support for each additional intermediate/end module (Y mount) in a row.
Note: For dimming (voltage/ballast code T or V), an additional electrical feed cable support may be required depending on ballast manufacturer and control type - consult factory.
Pendant and Cantilevers
Order one hanger for each module (X or Y mount) plus one hanger for the end of each row. All location with outlet box, prewired cord on starter/individual module (X mount) is managed through stem or arm.
Electrical feed can be located at ends or intermediate joints.

VX
0 = Cable support, is H adjustable
48 = up to 48" (1.2m)
96 = up to 96" (2.4m)
5 Finish canopy is white unless specified other
R = Non-electrical
S = Electrical, white or Black 1883 cord

VXF
0 = Pendant stem, 1 1/16" O.D. aluminum
Length in inches, up to 60" (1.5m), 6" minimum
5 Finish

VXW
0 = Cantilever with cable tieback, oval wall plates
Setback in inches, 12" (305mm) min., 36" (915mm) max.
5 Finish

VXC
0 = Cantilever with rectangular canopy, levels +/- 5°
Setback in inches, 12 = 12" (305mm), 18 = 18" (460mm)
5 Finish

elliptipar
114 Becken Road, West Haven, Connecticut 06516, USA
Phone: 203.931.4855 • Fax: 203.931.4464 • www.elliptipar.com

Theoretical shapes of the assembly, selection and installation of elliptipar. Custom products illustration may be covered by applicable patents and pending pending. For a full of patents, see Contents pages. These specifications supersede all prior publications and are subject to change without notice. © 2007 elliptipar.



Luminaire Type SS5 – Lamp Information



Commercial Products & Solutions

[SITE SEARCH](#) | [HOME](#) | [PRODUCTS](#) | [EDUCATION / RESOURCES](#) | [LIGHTING APPLICATIONS](#)

[Where to Buy](#) | [FAQs](#) | [Contact Us](#) | [EliteNet](#)

[Products](#) > [Linear Fluorescent](#) > [Straight Linear](#) > [T5](#) > 46677

46677 – F21W/T5/830/ECO
GE Ecolux® Starcoat® T5

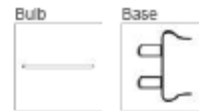


• Passes TCLP, which can lower disposal costs.

High Color Rendering

GENERAL CHARACTERISTICS

Lamp type	Linear Fluorescent - Straight Linear
Bulb	T5
Base	Miniature BI-Pin (G5)
Wattage	21
Voltage	123
Rated Life	30000 hrs
Rated Life (rapid start) @ Time	30000 h @ 3 h 36000 h @ 12 h
Bulb Material	Soda lime
Starting Temperature (MIN)	-20 °C (-4 °F)
Additional Info	TCLP compliant



[View Larger](#)

PHOTOMETRIC CHARACTERISTICS

Initial Lumens	2100
Mean Lumens	1930
Nominal Initial Lumens per Watt	100
Color Temperature	3000 K
Color Rendering Index (CRI)	85
S/P Ratio (Scotopic/Photopic Ratio)	1.3

ELECTRICAL CHARACTERISTICS

Open Circuit Voltage (rapid start) Min @ Temperature	340 V @ 10 °C
Cathode Resistance Ratio - Rh/Rc (MIN)	4.25
Cathode Resistance Ratio - Rh/Rc (MAX)	6.5
Current Crest Factor (MAX)	1.7

DIMENSIONS

Maximum Overall Length (MOL)	33.9800 in (863.0 mm)
Nominal Length	33.400 in (848.3 mm)
Bulb Diameter (DIA)	0.625 in (15.8 mm)
Bulb Diameter (DIA) (MAX)	0.670 in (17.0 mm)
Max Base Face to Base Face (A)	33.430 in (849.1 mm)

ADDITIONAL RESOURCES

[Catalogs](#)

[Testimonials](#)

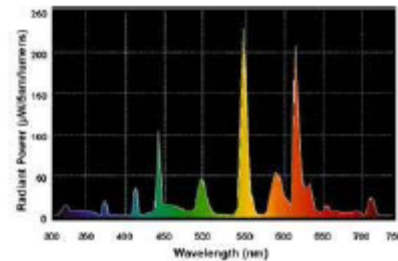
Brochures

- Application/Segment Brochures
 - [Contractor Lighting](#)
 - [Healthcare Lighting](#)
- Product Brochures
 - [Ecolux](#)
 - [Ecolux \(Environmental\)](#)

[Disposal Policies & Recycling Information](#)

GRAPHS & CHARTS

Spectral Power Distribution



Lamp Mortality



Luminaire Type SS5 – Ballast Information



ICN-2S28@277	
Brand Name	CENTIUM T5
Ballast Type	Electronic
Starting Method	Programmed Start
Lamp Connection	Series
Input Voltage	277
Input Frequency	50/60 HZ
Status	Active

Electrical Specifications

Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (°F/C)	Input Current (Amps)	Input Power (ANSI Watts)	Ballast Factor	MAX THD %	Power Factor	MAX Lamp Current Creet Factor	B.E.F.
F14T5	1	14	0/-18	0.07	19	1.07	20	0.90	1.7	5.63
F14T5	2	14	0/-18	0.13	34	1.06	10	0.98	1.7	3.12
F21T5	1	21	0/-18	0.10	26	1.03	15	0.95	1.7	3.96
* F21T5	2	21	0/-18	0.17	48	1.02	10	0.98	1.7	2.13
F28T5	1	28	0/-18	0.12	33	1.04	10	0.98	1.7	3.15
F28T5	2	28	0/-18	0.23	63	1.03	10	0.99	1.7	1.63
F35T5	1	35	0/-18	0.15	41	1.01	10	0.98	1.7	2.46
F35T5	2	35	0/-18	0.28	77	1.00	10	0.99	1.7	1.30

Wiring Diagram

The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

	In.	cm.		In.	cm.
Black	0	0	Yellow/Blue	0	0
White	0	0	Blue/White	0	0
Blue	0	0	Brown	0	0
Red	0	0	Orange	0	0
Yellow	0	0	Orange/Black	0	0
Gray	0	0	Black/White	0	0
Violet	0	0	Red/White	0	0

Enclosure

Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
16.70 "	1.18 "	1.00 "	16.34 "
16 7/10	1 9/50	1	16 17/50
42.4 cm	3 cm	2.5 cm	41.5 cm

Revised 03/01/2004




Data is based upon tests performed by Advance Transformer in a controlled environment and representative of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.

ADVANCE
 O'HARE INTERNATIONAL CENTER · 10275 WEST HIGGINS ROAD · ROSEMONT, IL 60018
 Customer Support/Technical Service: Phone: 800-372-3331 · Fax: 630-307-3071
 Corporate Offices: Phone: 800-322-2086

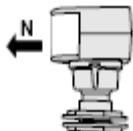


Cutsheet for Time Clock Controller

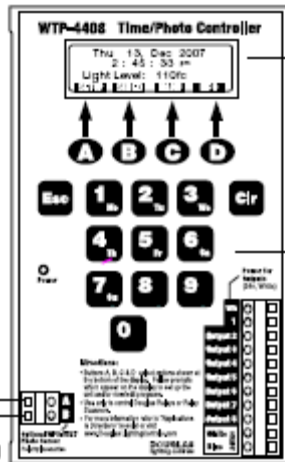
8 Output Time/Photo Controller **WTP-4408** **Technical Data**

	PART No. WTP-4408 Time / Photo Controller ONLY WPS-5527 Optional Remote Daylight Sensor	DESCRIPTION <ul style="list-style-type: none"> Electronic 365 day astronomic time/photo controller for switching Douglas 2-wire relays and/or relay scanners. Controller is designed to fit in Douglas relay panels on center DIN rail. The Time/Photo Controller uses a LCD display and membrane keypad for programming. Each output is programmed to switch ON or OFF when an event occurs. Events can be: Time Based: Lights are turned ON or OFF at a specific time of day, Astro Based: Lights are turned ON or OFF depending on solar position of the sun, Photo Based: Lights are turned ON or OFF depending on the true ambient light level (requires WPC-5527 Sensor). 	SPECIFICATION Inputs <ul style="list-style-type: none"> Power: 24VAC / 100mA Class 2 Low Voltage device. Power rating does not include power for switching relays or scanners. Connect switches in parallel with controller outputs for remote override switching. Optional WPS-5527 Photo Sensor. Range: 1 to 6,500 fc; remote mount. Outputs <ul style="list-style-type: none"> 8 time/photo controlled outputs for Douglas relays and scanners. Maximum relays per output is 4. Use #18 AWG wire. Maximum length for relay control: 500'. Maximum scanners per output is 20. Use #18 AWG wire. Maximum length for scanner control 2000. Programming <ul style="list-style-type: none"> Membrane key pad entry with LCD display graphic. Any output can be time, astro, photo controlled or combination time and photo/astro controlled. Using sensor, any output can be set to switch at a specific light level. (eg1: ON 10fc; OFF 40fc Day Night) (eg2: ON 2000fc; OFF 4000fc Skylight) Up to 600 events per week. Set any output schedule to run on any week day (Su-Mo-Tu-W-Th-F-Sa). 32 holiday dates are available. The controller's memory and time are not lost when power fails. Programs are held indefinitely and time is held for a minimum of 72 hours.
---	---	--	--

WPS-5527 Remote Sensor Head
 Point sensor to the Northern sky for the most consistent readings. Connect sensor to only one photo controller.



WTP-4408 8 Output Time/Photo Controller
 Install Controller in relay panel. Connect to relays or relay scanners.



LCD Display
 In normal operating mode the LCD display shows the present time. In all other modes, the LCD display shows various prompts to help guide viewing and editing the Controller's programs.

Membrane Keypad
 Membrane Keypad is used to set the time clock's time and is used to enter the programs.

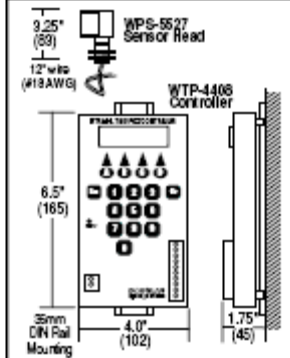
Outputs
 There are 8 outputs designed to switch Douglas 2-wire relays or scanners.

Wiring
 Wire length max: 500' (150M)
 Use two #18 AWG, unshielded wire.

Environment

- Indoors, stationary, non-vibrating, non-corrosive atmosphere and non-condensing humidity.
- Ambient operating temperature: +15° to +120°F (-10°C to +50°C).

DIMENSIONS & MOUNTING



Components 6.1
 B4-123, 4 Auto, Time & Photo Control

www.DouglasLightingControls.com

DOUGLAS
 lighting controls



Access to Modeling Files

P:\Thesis AGI Models

-Lab, Atrium, Atrium Daylight Study, Lecture Hall, Exterior QuickCalc

P:\Thesis Model Files

-Exterior Renderings in VIZ, all AutoCAD model files

P:\Thesis AutoCAD Files

-Lighting and Circuiting Plans for all layouts