


















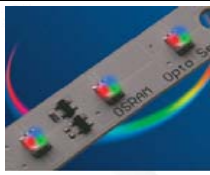





APPENDIX A: LIGHTING PLANS

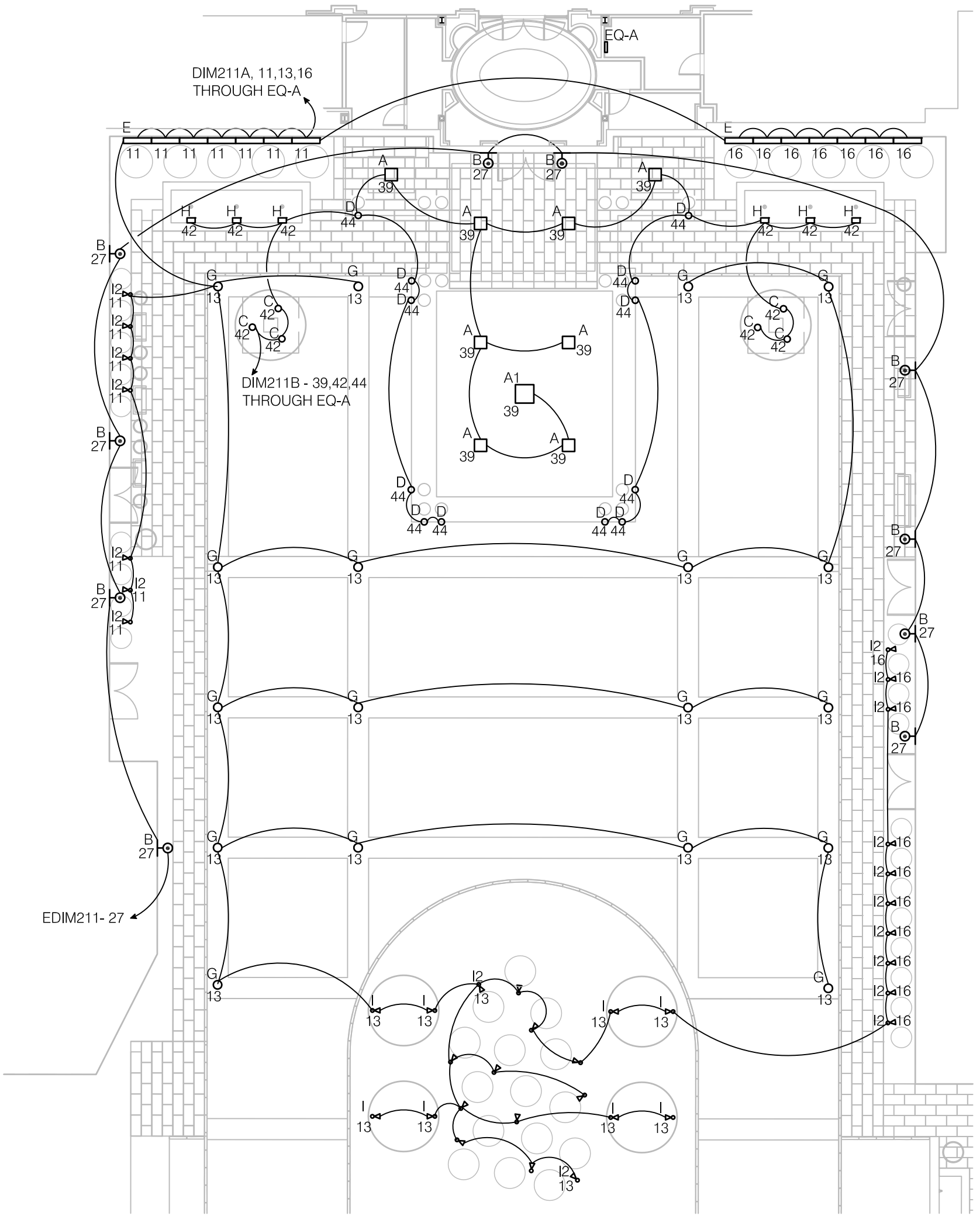
Luminaire Schedule

Type		Manufacturer	Catalog Number	Description	Mounting	Ballast/ Power Supply	Voltage	Lamp	Wattage
A		Troy Lighting	CCD8990OR	Exterior ceiling surface mounted decorative downlight. 14"W x 9"H. Clear seeded glassware. Hand-worked wrought iron metalwork. English bronze finish.	Surface-mounted	Electronic	120	20W HIT-TC-CE Metal Halide. MC20TC/U/G6.5/830PB	24 W
A1		Troy Lighting	CCD8990OR	Exterior ceiling surface mounted decorative downlight. 24"W x 12"H. Clear seeded glassware. Hand-worked wrought iron metalwork. English bronze finish.	Surface-mounted	Electronic	120	(2)20W HIT-TC-CE Metal Halide. MC20TC/U/G6.5/830PB	48 W
B		Troy Lighting	B9491EB	Exterior surface mounted decorative wall sconce. 14"W x 37" H x 14.5"P; 25.75" TCD; solid brass; English Bronze finish; clear glass.	Wall-mounted	Self-ballasted	120	(4) DULUX EL Self-ballasted "Flame" CFL. Candelabra base. CF9EL/B14/C/830/ADP/BL2	36 W
C		BK Lighting	RM-MR-2-BLP-10	Ring Mount Delta Star™ tree-mounted downlight for moon lighting effect. Solid aluminum body with enclosed, water-proof wireway and heat sink. 1" diameter brass mounting ring for cable or hook mounting. Water-tight seal. Tempered, clear glass lens; hermetically sealed optical compartment. Tamper-resistant, stainless steel hardware. Polyester powder coating on aluminum. 40 degree flood distribution.	Tree-mounted: hanging	Remote Transformer	12 VAC	(1) 20W MR-16. 20MR16/FL36-BAB	20 W
D		BK Lighting	HP2 - T635-SP-RD-81-BZP-GS-RM-H35E-120	Ground-recessed spot accent light. Flush with ground: 7" diameter. Sheet molded polyester compound housing. G12 bi-pin base. IP-68 rated vacuum sealed enclosure. Anti-condensation valve. High heat, shock resistant, tempered 1/4" borosilicate flat glass lens. Suitable for walk-over and drive-over applications. Glare shield for pedestrians. Polyester powder coating over aluminum.	Ground recessed	Electronic (remote)	120	(1) 35T6/MH/830	41 W
E		Philips Color Kinetics	523-000030-02	Stone façade eW® Graze Powercore LED wall grazer. 2.1" x 2.7" x 48". 10 degree beam angle. Low profile extruded anodized aluminum housing. Clear polycarbonate lens. Multi-positional, constant torque locking hinge mounting. IP 66 - Wet environment rated. Dimming capability. 2700K	Surface-mounted under roof overhang.	(Line Voltage)	120	LED Class 2 product	60 W/4 ft.
E2		Prudential Lighting	PSM-101 1T8 04' BWE 120 DM	Linear fluorescent strip fixture for dormer interiors. Aluminum body. 4' - 0" die-formed steel housing. White enamel finish.	Surface	Electric dimming	120	Philips Extra long life, extra low mercury: F32T8 TL830 XLL ALTO	35 W
F		Erco	34068.023	Corrosion-resistant cast aluminum housing. Double powder-coated. Hinge with internal wiring - 130 degree tilt. Mounting plate rotatable through 240 degrees. Reflector: aluminum, silver, mirror-finish anodized. IP65.	Cantilever arm - Product # 3450.023 (See Appendix B for mounting detail)	Electronic	120	70W HIT-CE Metal Halide. MC70T6/U/G12/930PB	45 W

G		Erco	33764.023	LED Orientation luminaire. Housing with gasket: stainless steel. Clear prismatic diffuser with circular light aperture. Cover ring: corrosion resistant stainless steel with 1/4" safety glass. IP68.	Ground recessed	33858.023 Control gear.	30 VDC	LED 0.9W 30V DC	0.9 W
H		Philips Color Kinetics	116-000024-01	Ultra-thin, submersible fountain fixture. RGB LED color changing capability. Cast brass housing. 10 degree beam angle. Frosted tempered glass lens.	Fountain wall recessed	PDS-60	24 VDC	Class 2 LEDs	25 W
I		BK Lighting	DS-MR-2-BLP-9-A-360L	Delta Star landscaping flood light. Solid aluminum housing. Full 180 degree vertical adjustment. High temperature silicone O-Ring provides water-tight seal. Shock resistant, tempered clear glass lens. Polyester powder coat finish, black color. 45 degree cutoff.	Ground surface	12 VAC remote transformer	12 VAC	(1) 20W MR-16. 20MR16/FL36-BAB	20 W
I2		BK Lighting	S-NS-LED-e22-WFL-BLP-12-360SL	Nite Star (SSL) landscape light. Wide flood, 3000K light with flush mounted lens. Tamper resistant, stainless steel hardware. Aim-and-Lock feature. Black polyester powder coat finish. Integral heat sink. Outdoor/wet-rated.	Ground Surface	Remote Transformer	12 VAC	8W, 12V B-K Solid-State Lighting LED	8 W
J		Zumtobel	S5D4312 D1 4311R MC	Open recessed downlight. 4" aperture. Vertical CFL lamp orientation. 20 gauge galvanized, die-formed plaster frame. Adjustable butterfly mounting brackets. Spun aluminum reflector with white matte finish.	Ceiling Recessed	Electric dimming	120	Sylvania Dulux Ecologic: CFT18DT/E/IN/827/ECO	23 W
J1		Zumtobel	S5D4312 D1 4311W MC	Open recessed downlight/wallwash. 4" aperture. Vertical CFL lamp orientation. 20 gauge galvanized, die-formed plaster frame. Adjustable butterfly mounting brackets. Wallwasher reflector - hydroformed aluminum kicker plate is mounted to the main reflector for wall illumination. Reflector is fully rotatable from below.	Ceiling Recessed	Electric dimming	120	Sylvania Dulux Ecologic: CFT18DT/E/IN/827/ECO	23 W
K		Erco	88147.023	Adjustable recessed narrow spot light. 6" aperture. 0-40 degree tilt, 360 degree rotation. Lockable angles. Reflector: aluminum, anodised, mirror-finish. Safety glass. White powder-coated external ring. Flush mounted.	Ceiling Recessed	Electronic	120	20W HIT-TC-CE Metal Halide. MC20TC/U/G6.5/830PB	24 W
K1		Erco	88148.023	Adjustable recessed spot light. 6" aperture. 0-40 degree tilt, 360 degree rotation. Lockable angles. Reflector: aluminum, anodised, mirror-finish. Safety glass. White powder-coated external ring. Flush mounted.	Ceiling Recessed	Electronic	120	20W HIT-TC-CE Metal Halide. MC20TC/U/G6.5/830PB	24 W
L		DDP	Cwi-24-60-27K	LED CoveWash luminaire. Low-profile linear fixture with linear parabolic reflector and thin film diffusers. 1.0" deameter clear extruded acrylic housing (UV resistant). Diffuse end caps to prevent shadows. 2' - 0" length	Cove surface mounted	24VDC Class 2	24 VDC	LED	4W/ft
L1		DDP	Cwi-12-60-27K	LED CoveWash luminaire. Low-profile linear fixture with linear parabolic reflector and thin film diffusers. 1.0" deameter clear extruded acrylic housing (UV resistant). Diffuse end caps to prevent shadows. 1' - 0" length	Cove surface mounted	24VDC Class 2	24 VDC	LED	4W/ft
M		2nd Ave.	75606.2.X	"Esther" decorative wall sconce. 13" x 14" x 8". Iron metalwork with bronze finish. Fabric shade, decorative crystal, fiber drip candle covers. Handcrafted. Candelabra base.	Wall surface		120	(2) Philips EnduraLED Candle LED lamps. 3BA END/CL WW 120V 8/I	5 W

M1		2nd Ave.	75835.2.X	"Josephine" decorative wall sconce. 18" x 21" x 9". Iron metalwork with Autumn Leaf finish. Decorative crystal, fiber drip candle covers. Handcrafted. Candelabra base.	Wall surface		120	(2) Philips EnduraLED Candle LED lamps. 3BA END/CL WW 120V 8/I	5 W
M2		2nd Ave.	751118.1	"Renzo" wall sconce. 6.5" x 15" x 9". Antique iron gate finish. Handcrafted. Candelabra base.	Wall surface		120	Philips EnduraLED Candle LED lamps. 3BA END/CL WW 120V 8/I	2.5 W
N		2nd Ave.	87948.36	"Jenna" custom decorative chandelier. 36" x 24". Candelabra base, antique iron gate finish. Fabric shade, fiber drip candle covers, handcrafted.	Pendant mounted		120	(6) Philips EnduraLED Candle LED lamps. 3BA END/CL WW 120V 8/I	15 W
N1		2nd Ave.	87809.30.X	"Annabella" decorative chandelier. 30" Diameter x 45" height. Candelabra base, corinth finish. 3 ft. chain. Crystal decoration, fiber drip candle covers, handcrafted.	Pendant mounted		120	(8) Philips EnduraLED Candle LED lamps. 3BA END/CL WW 120V 8/I	20 W
N2		2nd Ave.	87618.42.X	"Minuet" decorative chandelier. 42" Diameter x 60" height. Candelabra base, pompe gold finish. 160 lbs. Fiber drip candle covers. Gold dipped crystal decoration.	Pendant mounted		120	(16) Philips EnduraLED Candle LED lamps. 3BA END/CL WW 120V 8/I	40 W
N3		2nd Ave.	01.0750.18.DL	Lakeshore Chandelier with downlight. 18" x 30". "Cajun Spice finish" 3 ft. chain, handcrafted, C2 Canopy.	Pendant mounted		120	(5) Philips EnduraLED Candle LED lamps. 3BA END/CL WW 120V 8/I	12.5 W
N4		Steven Handelman Studios	CH46.12	"Sirracco" Pendant. Iron. Burnished gold finish (Tier 3). Hammered glass (Tier 1). 12" x 19"	Pendant mounted		120	(2) Philips EnduraLED Candle LED lamps. 3BA END/CL WW 120V 8/I	5 W
O		Osram Sylvania	LNRLRMX/LM01M/RGB	LINEARlight Colormix Rigid Colormixing LED Module. 0.45" wide x 0.14" deep x 18" long. Each LED contains individually powered red, green, and blue chip. RGB dimmable by pulse width modulation. Ideal for areas with space limitations.	See Appendix B	OPTOTRONIC	24 VDC	Osram Sylvania RGB LEDs	10 W

P		Osram Sylvania	BLP/BL04/W3F-865	BACKlight 2G Protect BL04 Chain LED module for signage. 11.8 ft., 120 LEDs per module.	Mounted to wine bar casement	OPTOTRONIC power suply - OT50	10.5 VDC	Osram Sylvania LED - White 6500K	23 W
P1		Osram Sylvania	HF2Narrow Stick 830H	HF2Narrow Stick Compact High Intensity LED Module for edge lighting. 5/8" wide. 10" segments can be connected end-to-end.	Mounted to wine bar casement	OPTOTRONIC power suply - OT96D	24 VDC	Osram Sylvania LED - White 3000K	4.2 W
Q		Philips Color Kinetics	523-000028-18	eW Profile Powercore 2700K. Ultra-low profile, white light LED under cabinet fixture. Direct line voltage. 11" length with end-to-end connections. Clear polycarbonate lens, Extruded aluminum, polycarbonate white powder-coated finish. 0.88" height x 1.7" width.	Under cabinet		120	2700K Class 1M LED	5.5 W

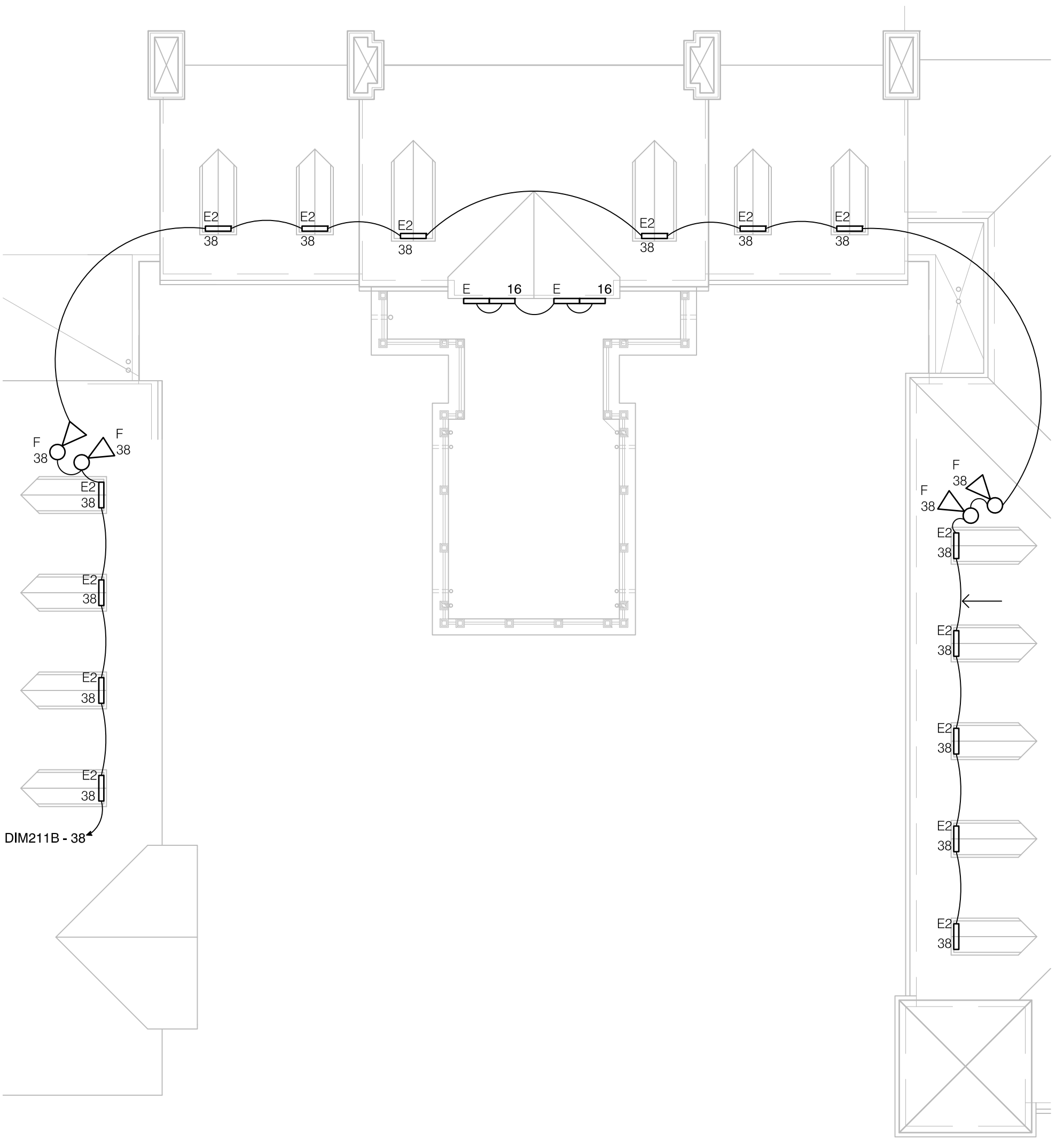


LUKE RENWICK
 AE CAPSTONE
 SENIOR THESIS
 SCALE: 1/16" = 1'-0"

SALAMANDER HOSPITALITY HOTEL AND SPA
 MIDDLEBURG, VA
 APRIL 7, 2010

COURTYARD
 LIGHTING PLAN

E1.1



E1.2

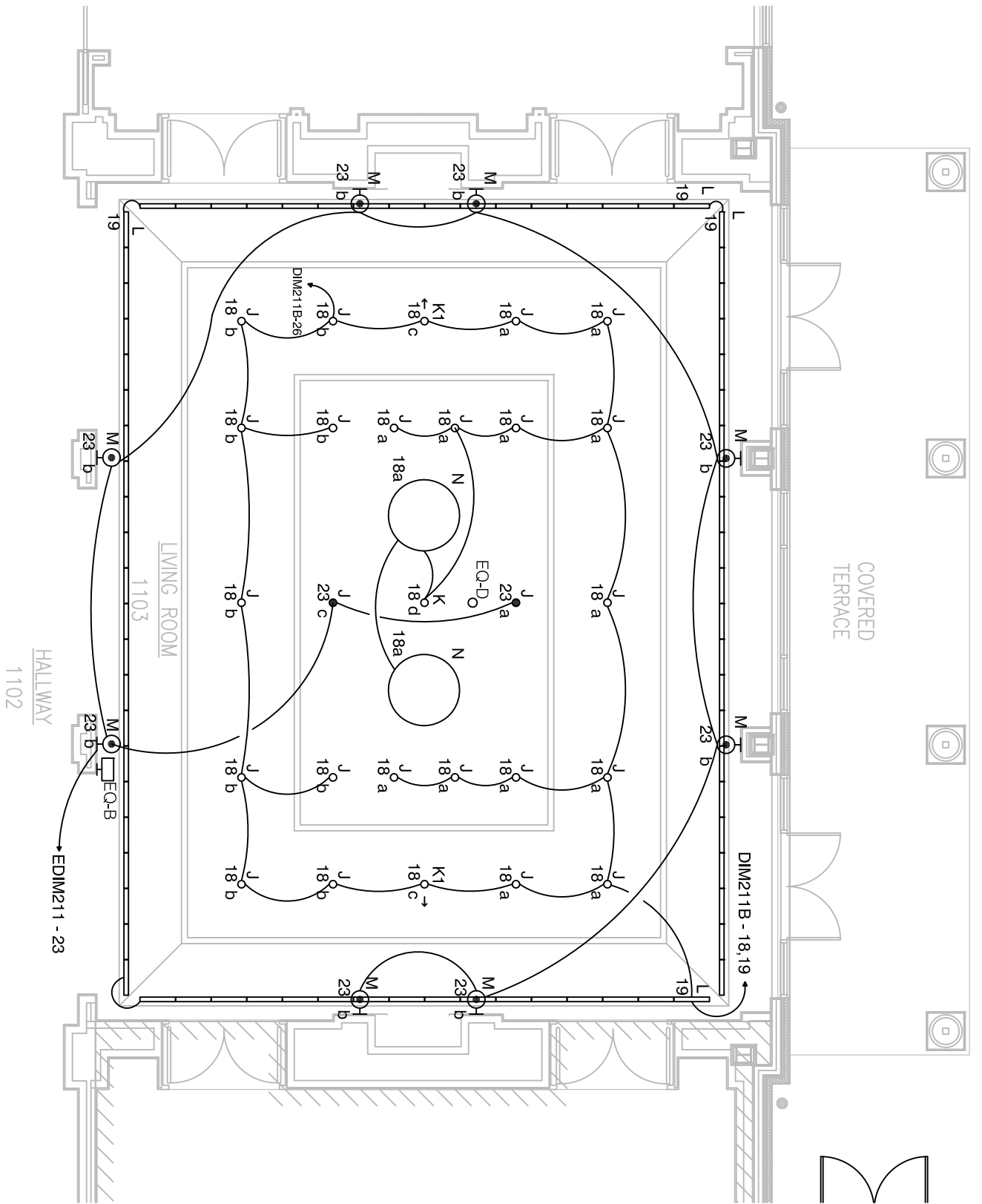
COURTYARD
LIGHTING PLAN

SCALE: 1/16" = 1'-0"

AE CAPSTONE
SENIOR THESIS

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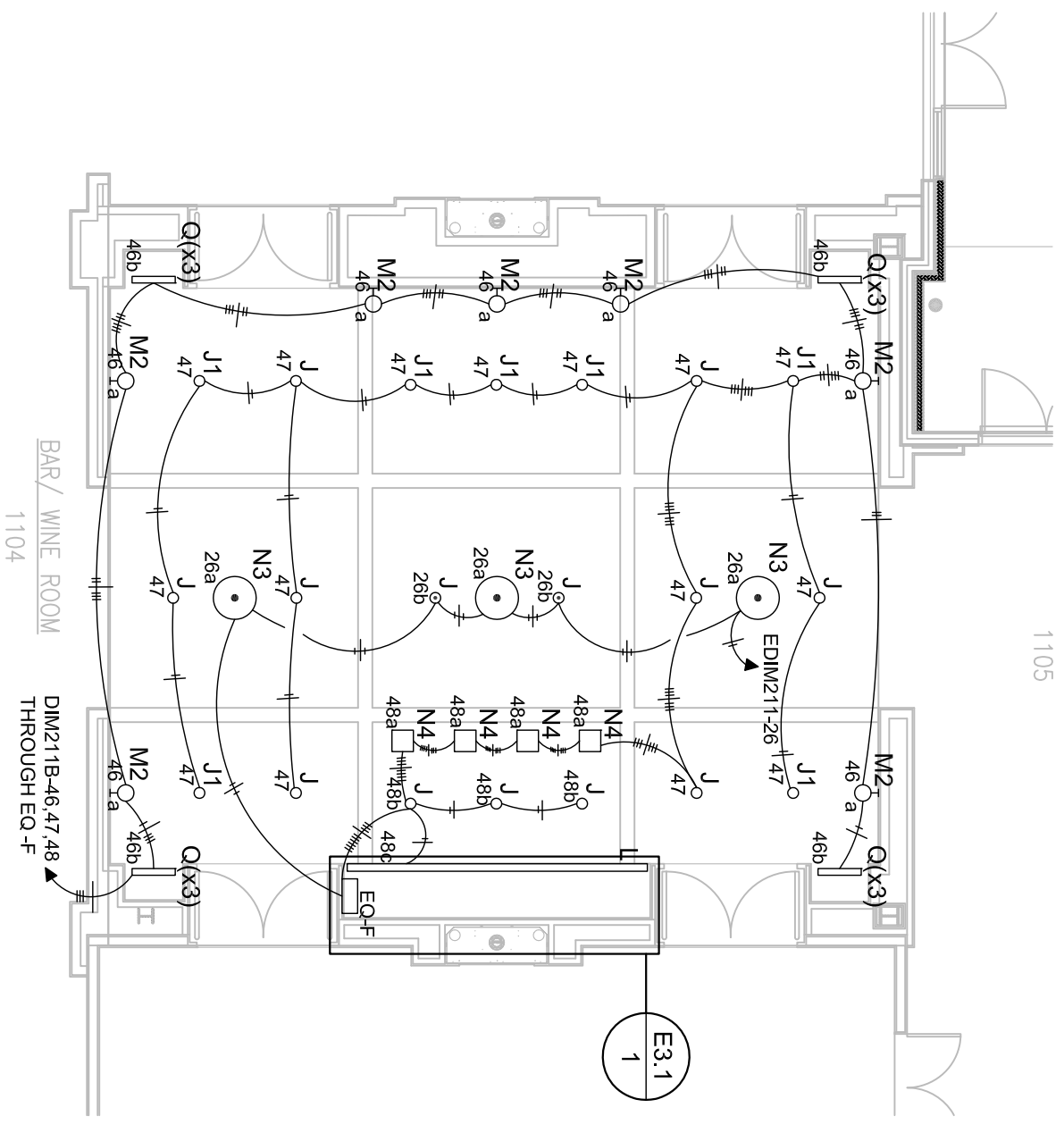
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AE481-CAPSTONE
 SENIOR THESIS

SCALE: 1/8" = 1'-0"

LIVING ROOM
 LIGHTING PLAN

E2.1



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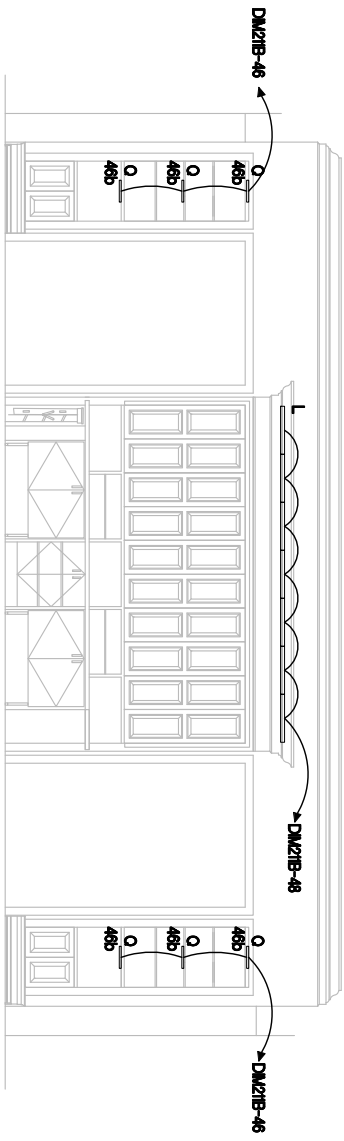
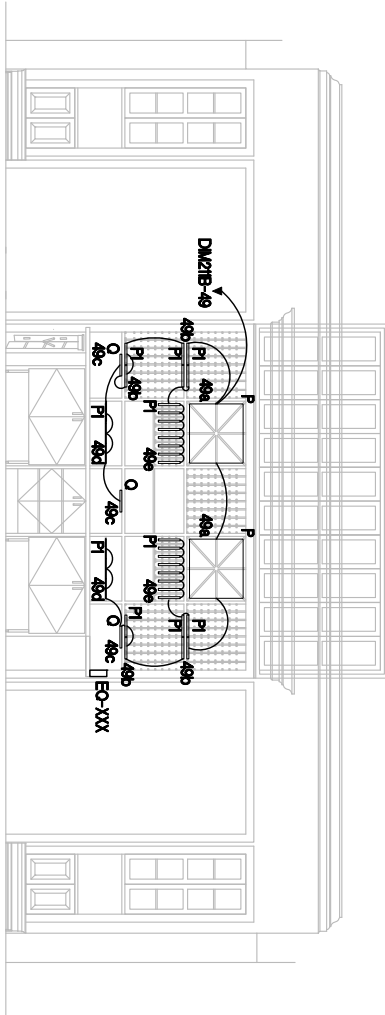
LUKE RENWICK

AE481-CAPSTONE
 SENIOR THESIS

SCALE: 1/4" = 1'-0"

WINE BAR
 LIGHTING PLAN

E3.1



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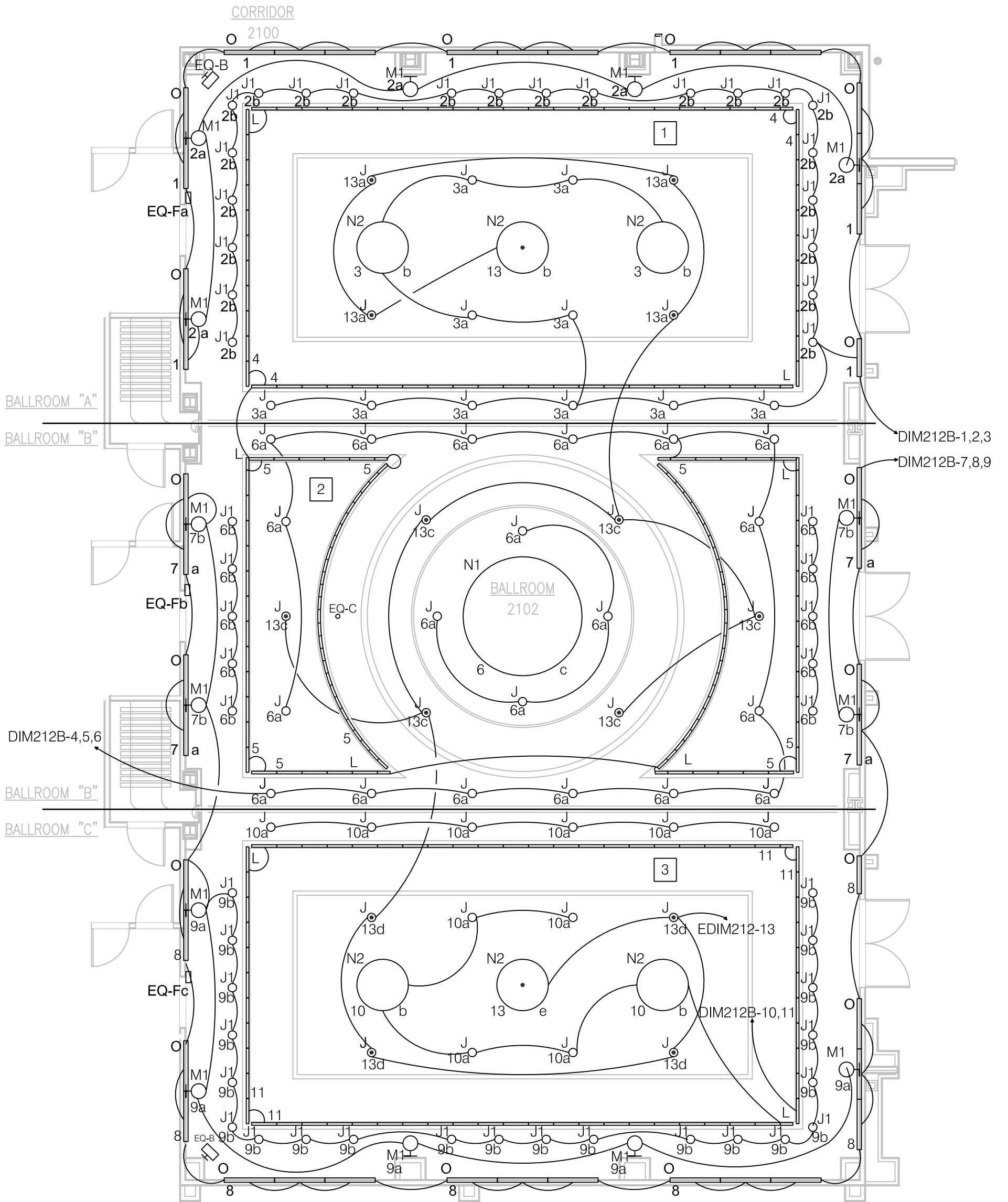
LUKE RENWICK

AE481-CAPSTONE
 SENIOR THESIS

SCALE: 1/4" = 1'-0"

WINE BAR
 LIGHTING

E3.1



GENERAL NOTES:
 If partitions OPEN:
 All luminaires controlled by EQ-Fb.

KEY NOTES:

- 1** If partitions closed:
Luminaires in Ballroom "A" controlled by EQ-Fa.
- 2** If partitions closed:
Luminaires in Ballroom "B" controlled by EQ-Fb.
- 3** If partitions closed:
Luminaires in Ballroom "C" controlled by EQ-Fc.

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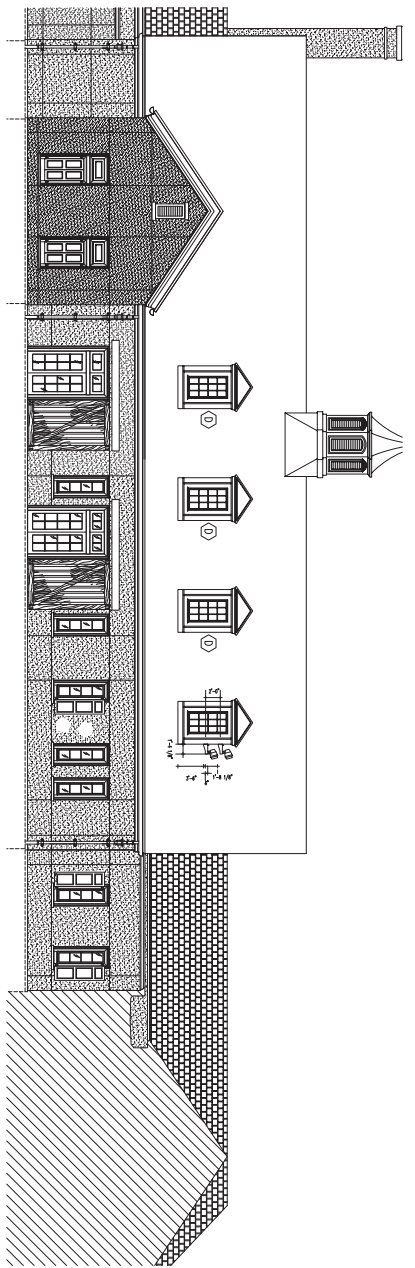
AE CAPSTONE
 SENIOR THESIS

SCALE: 1/4" = 1'-0"

BALLROOM
 LIGHTING PLAN

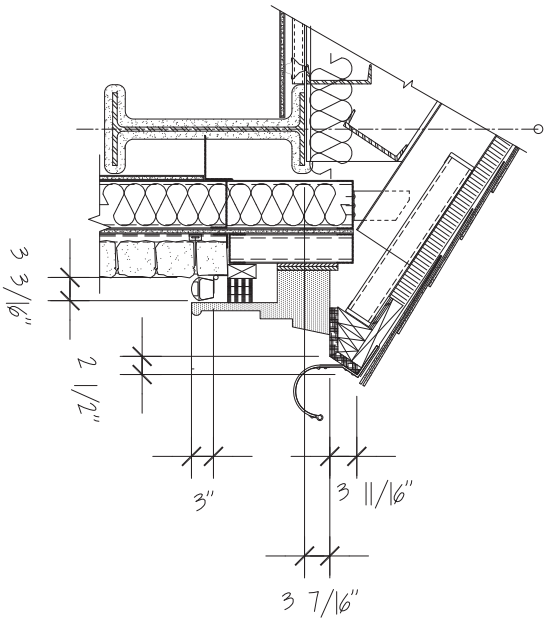
E4.1

APPENDIX B: MOUNTING DETAILS



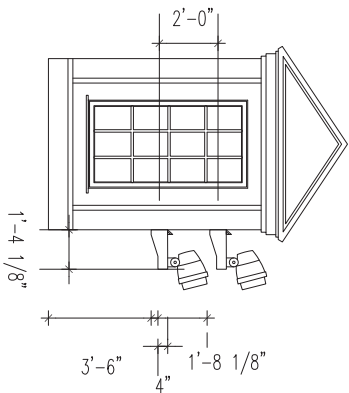
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DORMER MOUNTING DETAIL – ELEVATION
SCALE: 1/8" = 1'-0"



1

FACADE WALL – GRAZING DETAIL
SCALE: 1" = 1'-0"



1

DORMER MOUNTING DETAIL – ENLARGED
SCALE: 1/2" = 1'-0"

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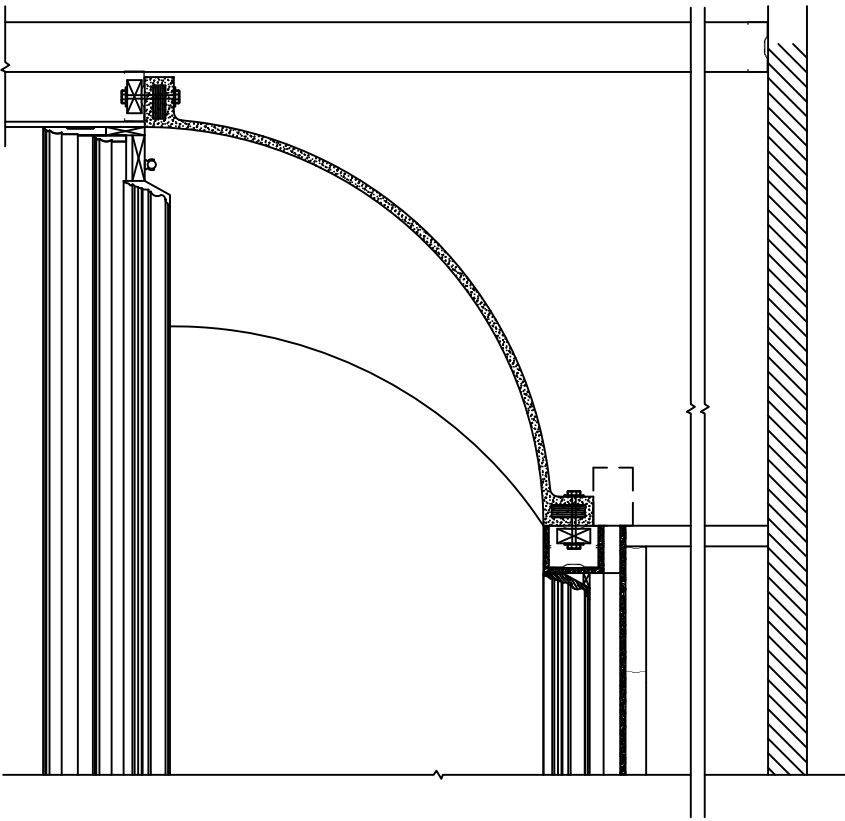
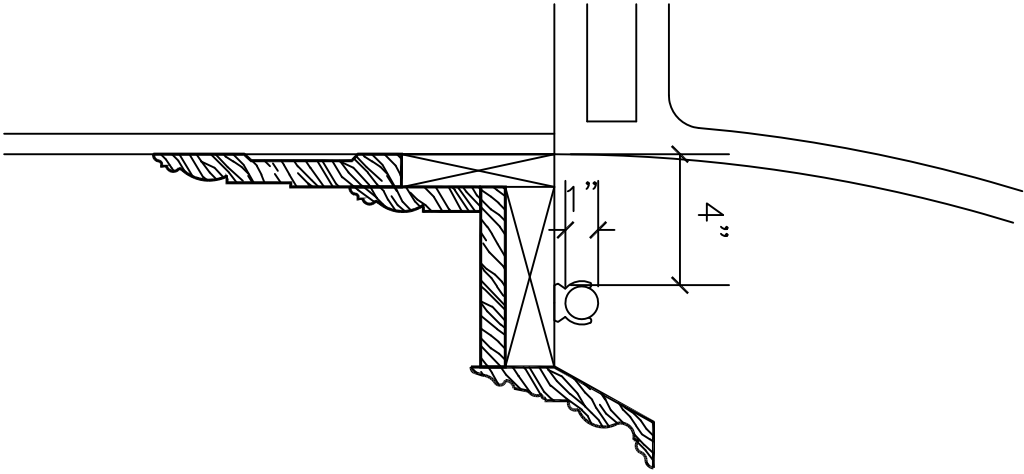
LUKE RENWICK

AE481 – CAPSTONE
SENIOR THESIS

SCALE: 1/2" = 1'-0"

COURTYARD
DETAILS

E1.3



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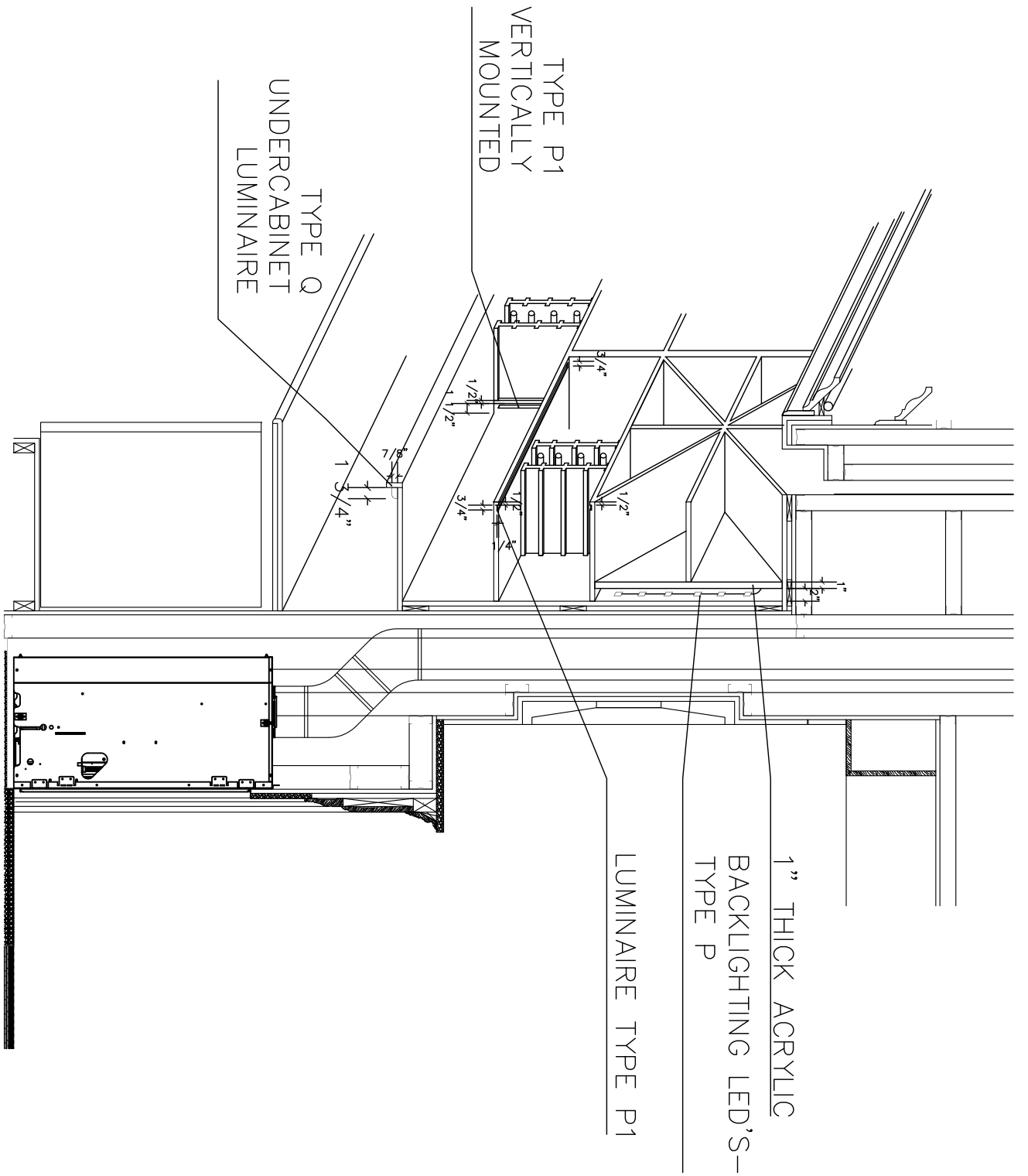
LUKE RENWICK

AE#81-CAPSTONE
SENIOR THESIS

NTS

LIVING ROOM
DETAILS

E2.2



1" THICK ACRYLIC
 BACKLIGHTING LED'S-
 TYPE P

LUMINAIRE TYPE P1

TYPE P1
 VERTICALLY
 MOUNTED

TYPE Q
 UNDERCABINET
 LUMINAIRE

SALAMANDER HOSPITALITY HOTEL AND SPA
 MIDDLEBURG, VA
 APRIL 7, 2010

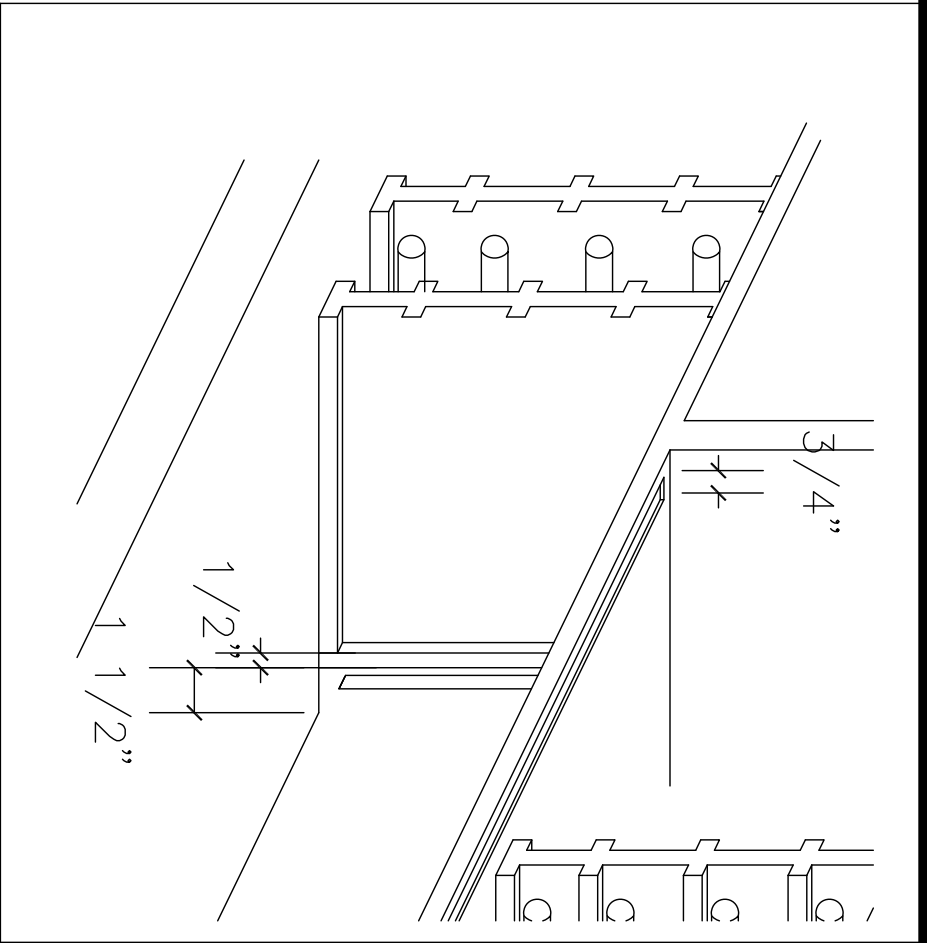
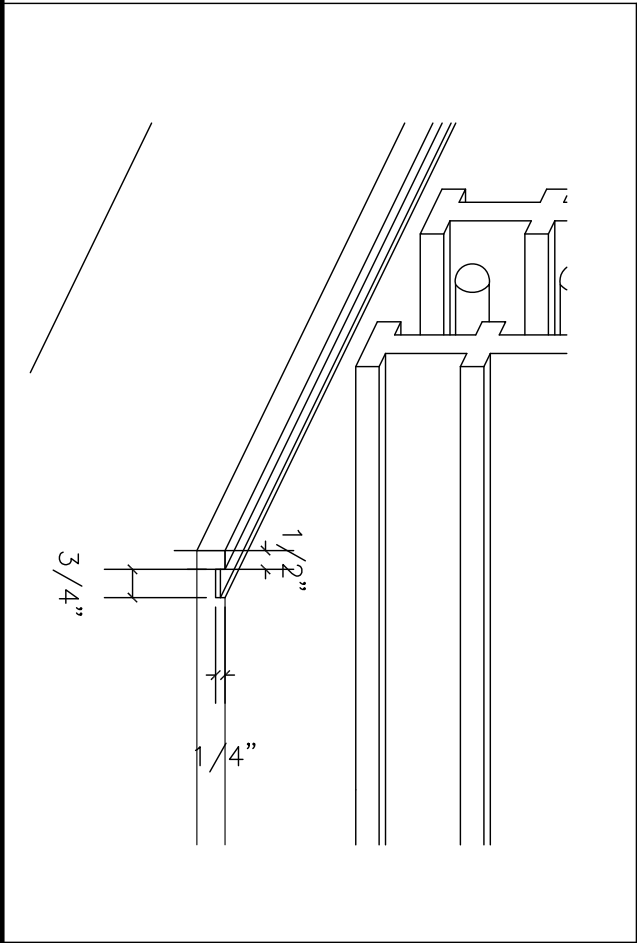
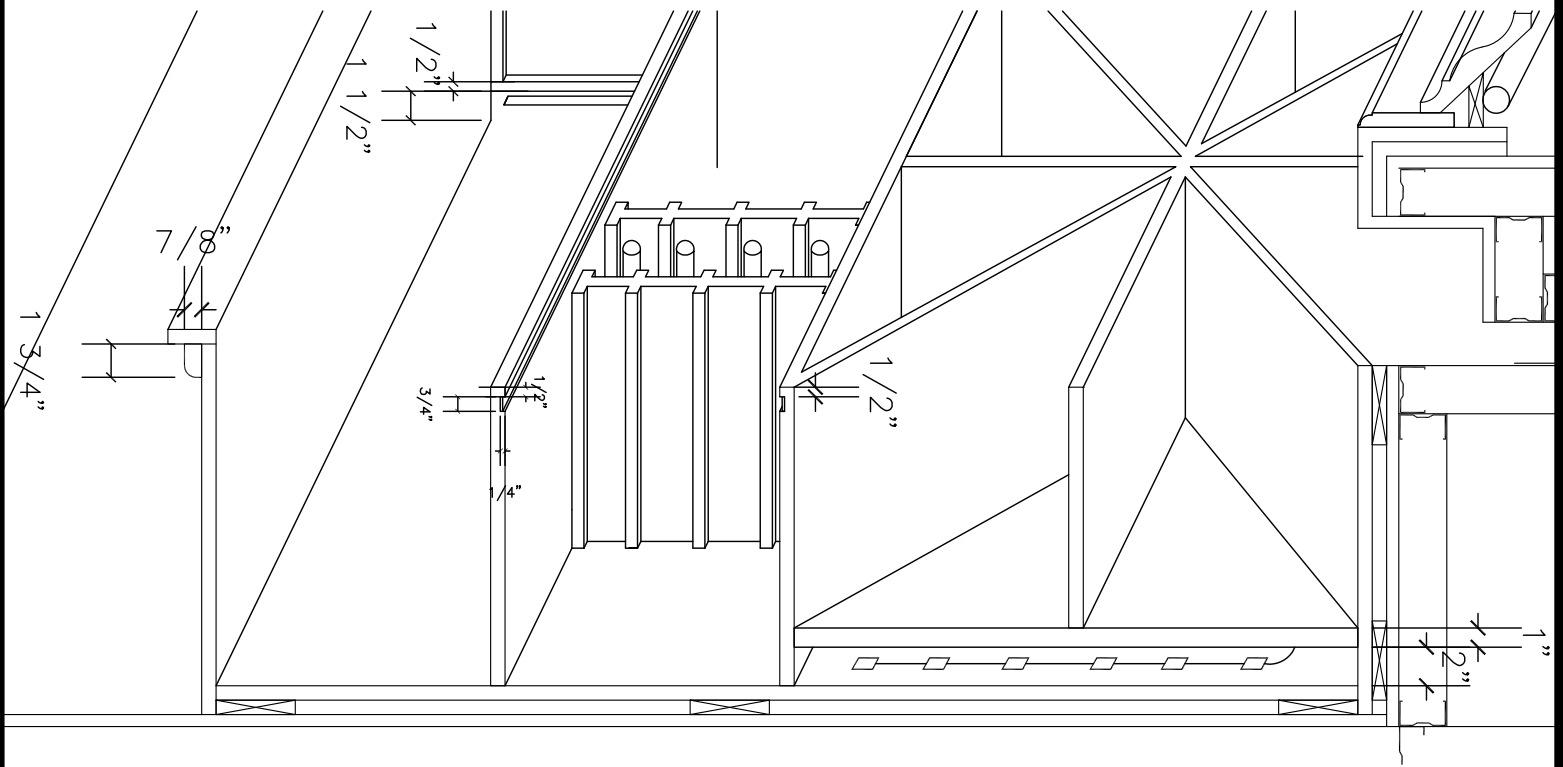
LUKE RENWICK

AE481-CAPSTONE
 SENIOR THEISIS

NTS

WINE BAR
 DETAILS

E3.3



E3.4

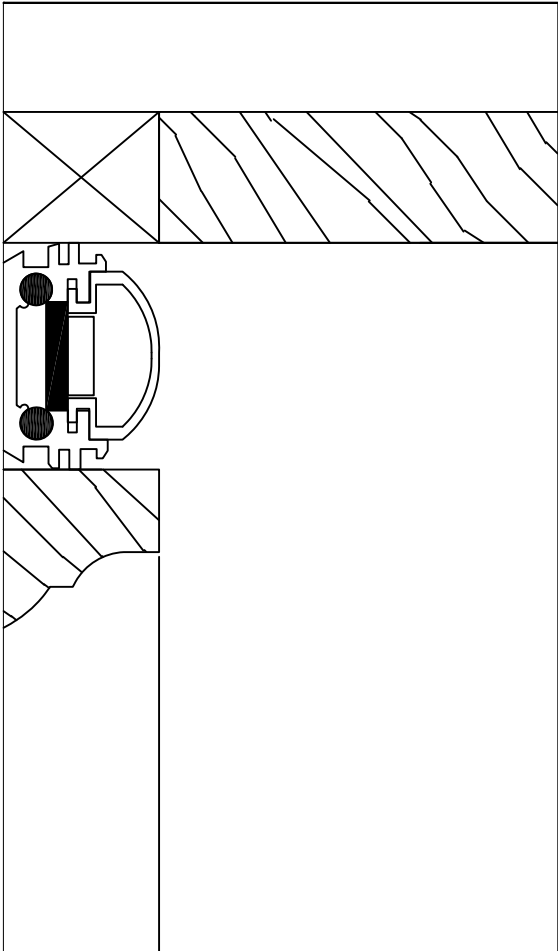
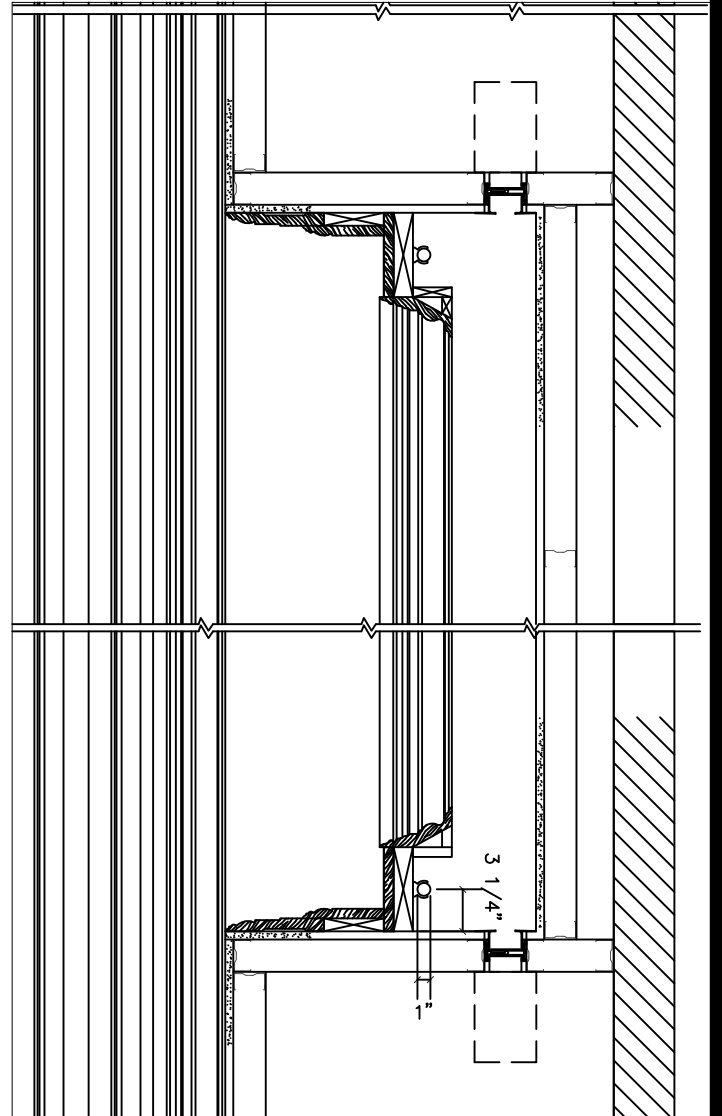
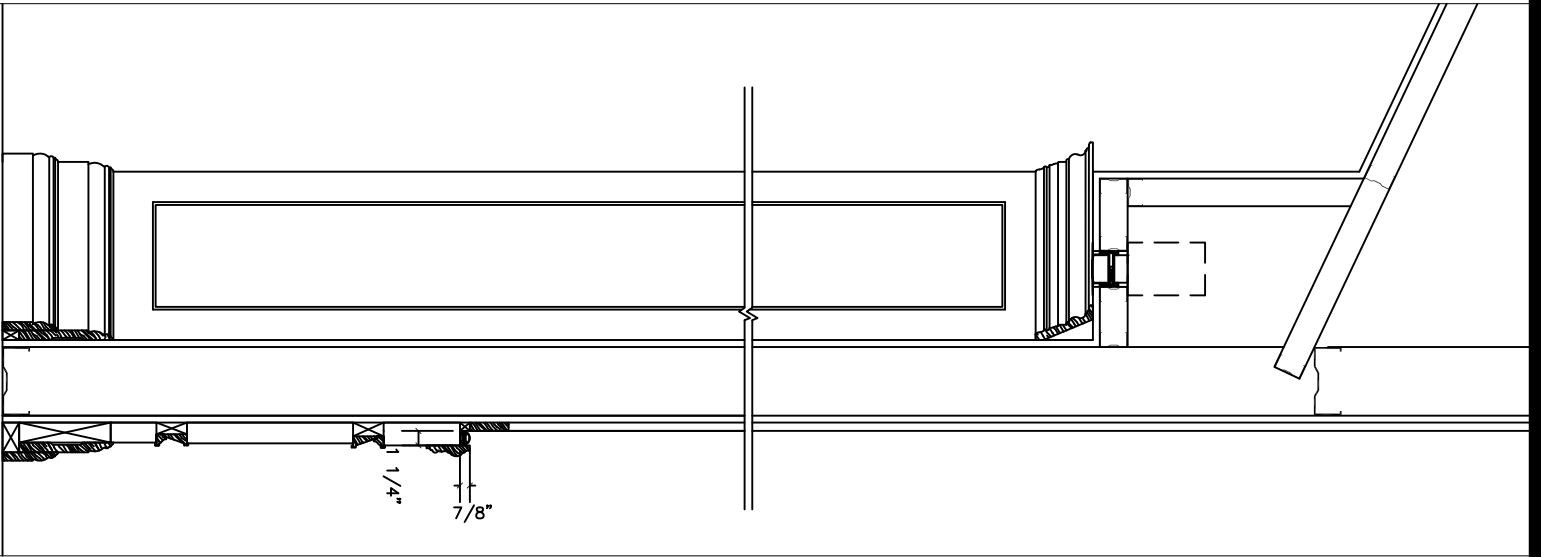
WINE BAR
DETAILS

NTS

AE481-CAPSTONE
SENIOR THESSIS

LUKE RENWICK

SALAMANDER HOSPITALITY HOTEL AND SPA
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APRIL 7, 2010



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LUKE RENWICK

AE481-CAPSTONE
 SENIOR THESIS

NTS

BALLROOM
 DETAILS

E4.2

APPENDIX C:
LUMINAIRE, BALLAST,
EQUIPMENT CUT-SHEETS



- INTERIOR PRODUCTS
 - Interior Hanging
 - Bath & Vanity
 - Sconce
 - Flush & Semi-Flush
- EXTERIOR PRODUCTS
 - Exterior Hanging
 - Wall
 - Post Fixtures
 - Flush
 - Posts & Pier Mounts
 - Environmental Series
 - Williamsburg
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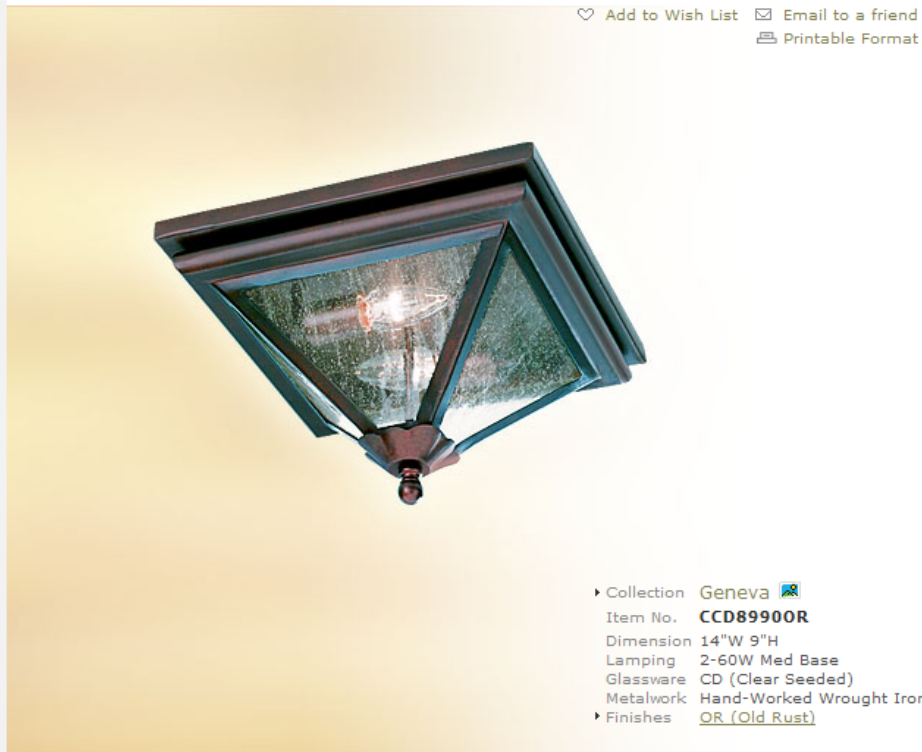
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Collection **Geneva**

Item No. **CCD89900R**

Dimension 14"W 9"H

Lamping 2-60W Med Base

Glassware CD (Clear Seeded)

Metalwork Hand-Worked Wrought Iron

Finishes [OR \(Old Rust\)](#)

Icon S, M, L, XL or XXL indicate the size of the lantern in relationship to the others in the individual collection.

- You may also be interested in
- FCD8996OR
<M>
8"W 28"H
OR
Detail
 - BCD8991OR
<S>
6"W
23.63"H
OR
Detail
 - BCD8994OR
<M>
8"W 32"H
OR
Detail



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INTERIOR PRODUCTS

Interior Hanging
Bath & Vanity
Sconce

EXTERIOR PRODUCTS

Exterior Hanging
Wall
Post Fixtures
Flush
Posts & Pier Mounts
Environmental Series
Williamsburg

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You are at | Exterior Products | Wall | B9495EB

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Collection [Dorchester](#)
Item No. **B9495EB** <L>
Dimension 14"W 37"H 14.5"P
25.75"TCD
Lamping 4-60W Cand Base
Glassware Clear
Metalwork Solid Brass
Finishes [EB \(English Bronze\)](#)

Icon S, M, L, XL or XXL indicate the size of the lantern in relationship to the others in the individual collection.



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You may also be interested in



F9498EB
<M>
11.25"W
21"H
EB
[Detail](#)



B9494EB
<M>
11.25"W
20.25"H
EB
[Detail](#)



B9491EB
<S>
7.5"W
22.5"H
EB
[Detail](#)



INTERIOR PRODUCTS

Interior Hanging
Bath & Vanity
Sconce

EXTERIOR PRODUCTS

Exterior Hanging
Wall
Post Fixtures
Flush
Posts & Pier Mounts
Environmental Series
Williamsburg

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Collection [Dorchester](#)
Item No. **B9493EB** <M>
Dimension 11.25"W 30.5"H 11.5"P
21.5"TCD
Lamping 3-60W Cand Base
Glassware Clear
Metalwork Solid Brass
Finishes [EB \(English Bronze\)](#)

Icon S, M, L, XL or XXL indicate the size of the lantern in relationship to the others in the individual collection.



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You may also be interested in



B9490EB
<S>
7.5"W
16.25"H
EB
[Detail](#)



F9499EB
<L>
14"W
26"H
EB
[Detail](#)



P9497EB
<L>
14"W
29"H
EB
[Detail](#)



INTERIOR PRODUCTS

- Interior Hanging
- Bath & Vanity
- Sconce
- Flush & Semi-Flush

EXTERIOR PRODUCTS

- Exterior Hanging
- Wall
- Post Fixtures
- Flush
- Posts & Pier Mounts
- Environmental Series
- Williamsburg

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- 🖨️ Printable Format



You may also be interested in

F9498EB
<M>
11.25"W
21"H
EB
[Detail](#)

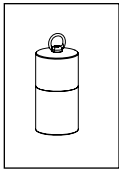
B9494EB
<M>
11.25"W
20.25"H
EB
[Detail](#)

B9491EB
<S>
7.5"W
22.5"H
EB
[Detail](#)

- ▶ Collection [Dorchester](#)
- Item No. **B9495EB** <L>
- Dimension 14"W 37"H 14.5"P
25.75"TCD
- Lamping 4-60W Cand Base
- Glassware Clear
- Metalwork Solid Brass
- ▶ Finishes [EB \(English Bronze\)](#)

Icon S, M, L, XL or XXL indicate the size of the lantern in relationship to the others in the individual collection.



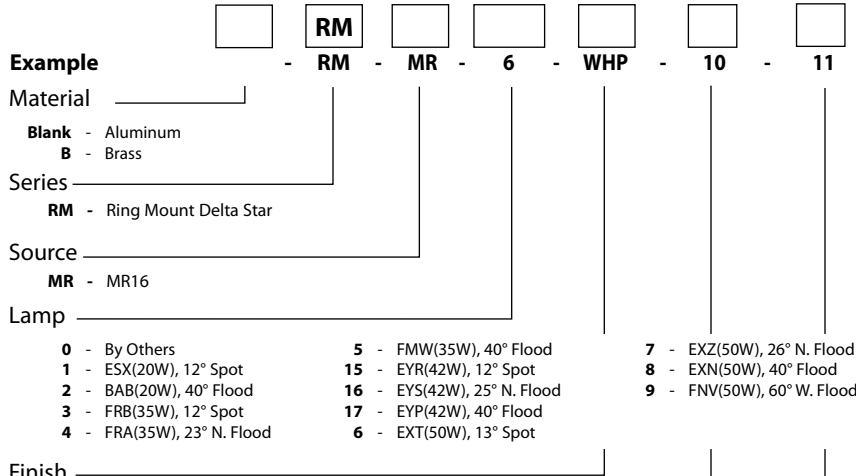


MR-16 Halogen

RING MOUNT DELTA STAR™

PROJECT:	
TYPE:	
CATALOG NUMBER:	
LAMP(S):	
NOTES:	

CATALOG NUMBER LOGIC



Aluminum & Brass Finish

Powder Coat Color	Satin	Wrinkle
Bronze	BZP	BZW
Black	BLP	BLW
White (Gloss)	WHP	WHW
Aluminum	SAP	—
Verde	—	VER

Brass

Machined	MAC
Polished	POL
Mitique™	MIT

Also available in Premium Finishes
See submittal SUB-1439-00 for Premium Finishes

Lens Type

9 - Clear (Standard) **10** - Spread* **12** - Soft Focus* **13** - Rectilinear*

Shielding

11 - Honeycomb Baffle*

* Accommodates up to 2 Lens/Shielding media

LAMP DATA

BK No.	Lamp Watts	Description	Rated Life (hrs.)	Center Beam Candlepower	Beam Angle	Beam Type
1	20	ESX	4,000	4,000	12°	Spot
2	20	BAB	4,000	500	40°	Flood
3	35	FRB	5,000	7,600	12°	Spot
4	35	FRA	5,000	2,300	23°	Narrow Flood
5	35	FMW	5,000	1,100	40°	Flood
15	42	EYR	5,000	7,500	12°	Spot
16	42	EYS	5,000	2,600	25°	Narrow Flood
17	42	EYP	5,000	1,100	40°	Flood
6	50	EXT	5,000	9,800	13°	Spot
7	50	EXZ	5,000	3,200	26°	Narrow Flood
8	50	EXN	5,000	1,600	40°	Flood
9	50	FNV	5,000	700	60°	Wide Flood

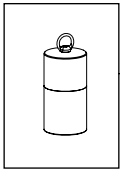
B-K LIGHTING

40429 Brickyard Drive • Madera, CA 93636 • USA
559.438.5800 • FAX 559.438.5900
www.bklighting.com • info@bklighting.com

SUBMITTAL DATE
04-01-08

DRAWING NUMBER
SUB-1146-00

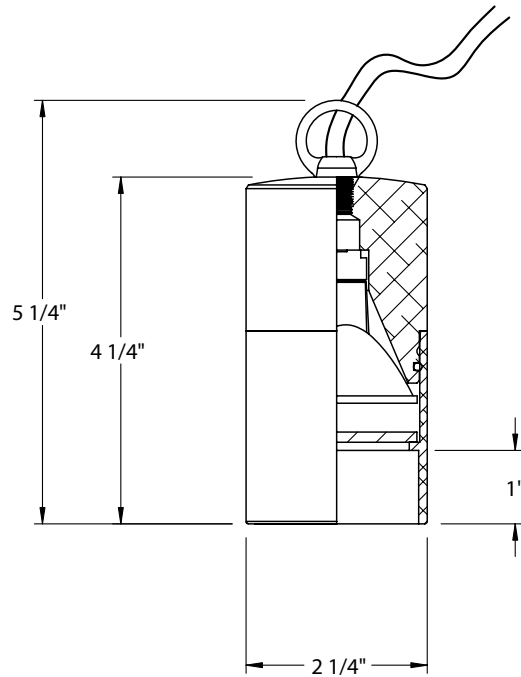
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MR-16 Halogen

RING MOUNT DELTA STAR™

PROJECT:	
TYPE:	



SPECIFICATIONS

Body

Fully machined from solid, copper-free aluminum. Also available in solid machined brass. Unibody design provides enclosed, water-proof wireway and heat sink to maximize lamp life. 1" diameter Brass Mounting Ring allows for cable or hook mounting. High temperature, silicone 'O' Ring provides water-tight seal.

Cap

Machined from copper-free aluminum. Also available in machined brass. 1" deep cutoff with flush mounted lens. Accommodates up to (2) lens or louver media.

Lens

Shock resistant, tempered, clear glass lens is factory adhered to fixture cap and provides hermetically sealed optical compartment.

Lamp

For use with 50 watt maximum, MR-16 lamp.*
*Except GE Light Q42MR16/C/VNSP9 (EZY).

Transformer

For use with 12 VAC remote transformer.

Socket

Specification grade, ceramic body lamp holder. GU5.3 base. Nickel allow contacts and heat resistant, spring loaded, stainless steel lamp retaining clips.

Wiring

Teflon® coated wire, 18AWG, 600V, 250° C rated and certified to UL 1659 standard. Leads extended 12" beyond brass mounting ring.

Hardware

Tamper-resistant, stainless steel hardware.

Finish

StarGuard® (Pat. Pend.), a 15 stage chromate-free process cleans and conversion coats aluminum components prior to application of Class 'A' TGIC polyester powder coating. Brass components are available in powder coat or handcrafted metal finish.

Warranty

5 year limited warranty.

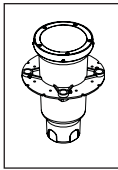
Listings

ARL and CSA listed to UL 1838 standard. Suitable for indoor or outdoor use. Suitable for use in wet locations.



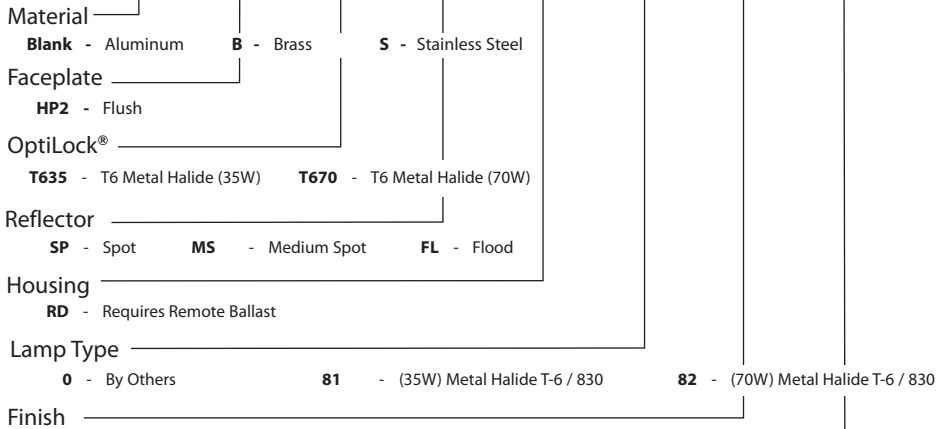
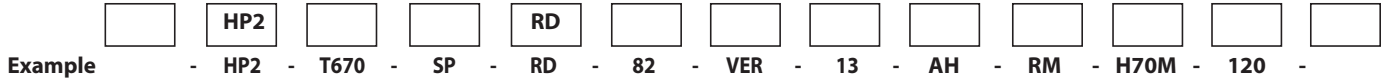
*Teflon is a registered trademark of DuPont Corporation.

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PROJECT:	
TYPE:	
CATALOG NUMBER:	
LAMP(S):	
NOTES:	

CATALOG NUMBER LOGIC



Aluminum & Brass Faceplates			Brass Faceplates	
Powder Coat Color	Satin	Wrinkle	Machined	MAC
Bronze	BZP	BZW	Polished	POL
Black	BLP	BLW	Mitique™	MIT
White (Gloss)	WHP	WHW	Stainless Faceplates	
Aluminum	SAP	—	Machined	MAC
Verde	—	VER	Polished	POL
			Brushed	BRU

Also available in Premium Finishes. See submittal SUB-1439-00 for Premium Finishes.

Accessory Select up to 2. Requires Accessory Holder.

- 10** - Spread Lens **11** - Honeycomb Baffle **13** - Rectilinear Lens
- Option**
 - AH** - Accessory Holder (Accommodates up to 2 Media)
 - CPC** - Concrete Pour Collar (HP2 Only.) Material and Finish to Match Faceplate. May be Field Installed prior to permanent installation of side conduit connectors. Included with ICEE™ Lens option.
 - DG** - Dome Glass Lens (Replaces Flat Glass. Not Driveover Rated)
 - GS** - Glare Shield*
 - HD** - Half Dome*
 - ICEE** - ICEE™ Lens (HP2 Only. Faceplate standard aluminum only. Concrete Pour Collar included.) Options DG, GS, HD, RG and RO not available with ICEE™ lens.
 - RG** - Rock Guard*
 - RO** - Rock Guard with Optical Opening*
 - TC** - Traction Control Lens (Replaces Flat Glass)
* HP2 Only. Material and Finish to Match Faceplate. Dome lens included.

- Remote Ballast Housing
- RM** - Remote Wall Mount **HP2RM** - Remote In-Grade (Flush)* **CO2RM** - Remote In-Grade (Flange)*
* Material and Finish to Match Fixture

- Ballast Type
- H35M** - (35W) Magnetic **H70M** - (70W) Magnetic **H35E** - (35W) Electronic **H70E** - (70W) Electronic

- Input Voltage
- 120** - 120 Volt **277** - 277 Volt **MT** - 120/208/240/277 Volt Multi Tap
Electronic Ballast Only

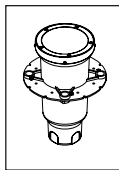
- Ballast Option
- CPC** - Concrete Pour Collar (HP2RM Only) Material and Finish to Match Faceplate. May be Field Installed prior to permanent installation of side conduit connectors.

LAMP DATA

BK No.	Lamp Watts	Description	Rated Life	Initial Lumens	Mean Lumens	CRI	CCT(K)
81	35	35T6/MH/830	12,000	3,300	2,600	81	3,000
82	70	70T6/MH/830	12,000	6,600	4,950	81	3,000

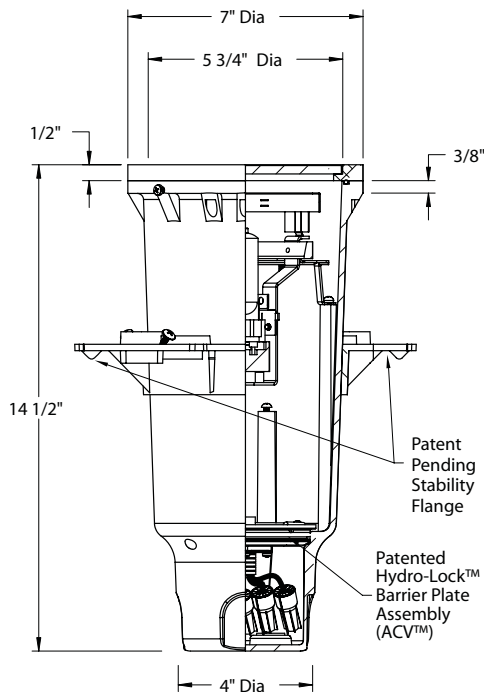
B-K LIGHTING	40429 Brickyard Drive • Madera, CA 93636 • USA 559.438.5800 • FAX 559.438.5900 www.bklighting.com • info@bklighting.com	SUBMITTAL DATE 8-7-09	DRAWING NUMBER SUB-1358-00
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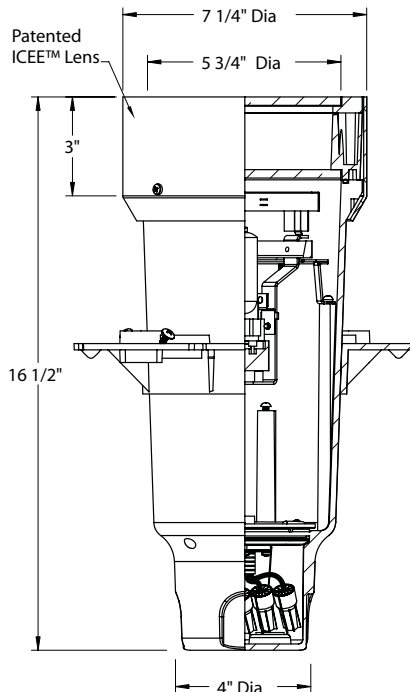


PROJECT:	
TYPE:	

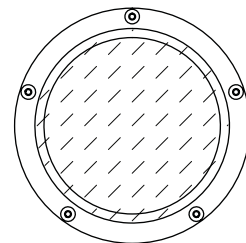
SIDE VIEW



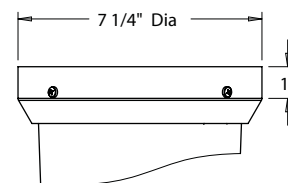
SIDE VIEW WITH ICEE™ LENS OPTION



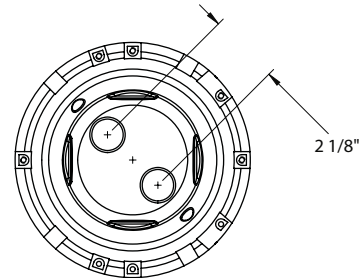
FACEPLATE



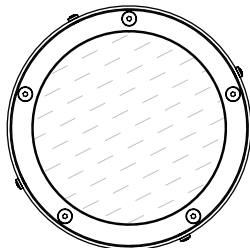
TOP SIDE VIEW



BOTTOM VIEW



ICEE™ LENS FACEPLATE



SPECIFICATIONS

GreenSource Initiative™

Metal and packaging components are made from recycled materials. Manufactured using renewable solar energy, produced onsite. Returnable to manufacturer at end of life to ensure cradle-to-cradle handling. Packaging contains no chlorofluorocarbons (CFC's). RoHs compliant.

Fixture Housing

Corrosion-free composite, made from high strength, thermoformed, sheet molded polyester compound. Glass reinforced, flame retardant and UV stabilized. (2) Bottom-Entry, 3/4" NPT female conduit entries with knockout plugs and (4) side flats for 1/2" or 3/4" conduit adapters.

Stability Flange (Patent Pending)

Corrosion-free composite flange projects into installation substrate to reinforce housing stability. Integral REBAR saddles simplify installation onto concrete form. (4) Orthogonal bosses permit use of 1/2" PCV conduit or EMT to simplify vertical position and leveling of housing. Pre-set self-tapping screws anchor housing at proper elevation.

Aiming

Dual axis OptiLock® stainless steel aiming bracket rotates 360° and provides vertical adjustment up to 14° from nadir. Positive lock action ensures optical orientation.

Socket

Specification grade ceramic body lamp holder rated for 5kV starting pulse. G12 bi-pin base, nickel-plated contacts and stainless steel, heat resistant lamp retaining clips.

Remote Ballast

For use with remote metal halide ballast. See ballast technical data to determine lamp-to-ballast distance and wiring requirements prior to detailing field installation of any remote wiring.

Wiring / Connectors

Teflon® coated wire, 18 gauge, 600V, 250°C rated and certified to UL1659 standard. OptiLock® and gear tray quick disconnects. Patented HydroLock® with anti-siphon valve (ASV™) wireway. (3) Water-Tight connectors supplied for line connection. Maximum (2) #10 & (1) #18. Minimum (1) #12 & (1) #18.

Water Management

Self Evacuating Airtight Lamp Module (S.E.A.L.™). IP-68 rated, vacuum sealed enclosure. Patented Anti-Condensation Valve (ACV™) eliminates condensation from optical chamber. High temperature silicone 'O' Ring at faceplate. Patented HydroLock® technology provides fail safe water barrier between junction box and interior components. Anti-siphon valve (ASV™) prevents "wicking" through conductor insulation.

Lens

High heat, shock resistant, tempered 1/4" borosilicate flat glass lens. Suitable for walk-over and drive-over applications.

Patented ICEE™ Lens Option

ICEE™ (Interstice Cooling Evacuated Enclosure) is a significant advancement in the science of temperature management. Effectively reduces surface lens temperatures without compromising lumen output or optical control. Increases overall fixture depth by 2". Available with aluminum faceplates only. Supplied with 5-3/4" dia. lens only. Includes Concrete Pour Collar.

Faceplate

Solid, 1/2" machined 6061T6 aluminum with (5) black oxide, captive, stainless steel mounting screws. Faceplate options include solid, 1/2" machined brass and solid, 1/2" machined stainless steel.

Finish

StarGuard® (Patent Pending), a 15 stage, chromate-free process cleans and conversion coats aluminum components prior to application of Class 'A' TGIC polyester powder coating. Brass components are available in powder coat or handcrafted metal finish. Stainless steel components are available in handcrafted metal finish. RoHs compliant.

Listings

ETL Listed to ANSI/UL Standard 1598 and Certified to CAN/CSA Standard C22.2 No. 250.



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	Precision2® and its features are covered in whole or in part by U.S. Patent No. 7,033,038; U.S. Patent No. 6,254,258 B1; U.S. Patent No. 7,249,867 B2; U.S. Patent No. 7,370,988 B2; and U.S. Patent No. 7,560,148.		



Date: _____ Type: **E**

Firm Name: _____

Project: **SALAMANDER RESORT AND SPA**

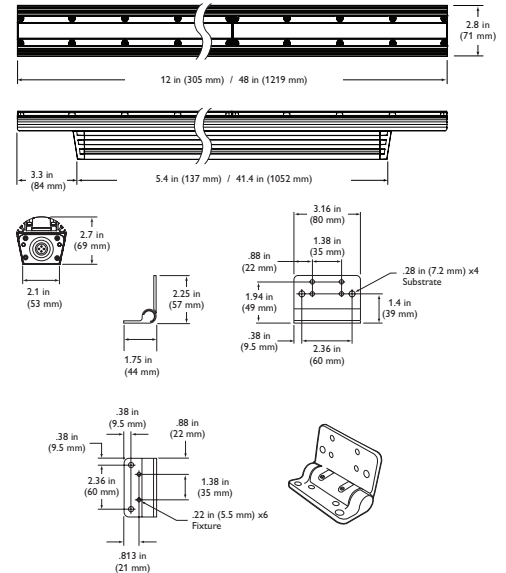
eW Graze Powercore

2700 K, 10° x 60° Lens

Linear, LED surface light for wall washing and grazing

eW® Graze Powercore is a linear lighting fixture optimized for surface grazing and wall-washing applications requiring high-quality white or solid color light. Featuring Powercore® technology, eW Graze Powercore processes power directly from line voltage, eliminating the need for low-voltage, external power supplies. Fixtures are available in eight color temperatures, ranging from a warm 2700 K to a cool 6500 K, and five solid colors. eW Graze Powercore offers superior illumination quality and dramatic energy savings for new installations and retrofit upgrades. A space-efficient, low-profile aluminum housing and flexible mounting options allow discrete placement within a wide range of compact architectural details

- Tailor light output to specific applications — eW Graze Powercore is available in standard 1 ft and 4 ft exterior-rated housings, and standard 10° x 60° and 30° x 60° beam angles.
- High-performance illumination and beam quality — eW Graze Powercore offers superior beam quality for striation-free saturation as close as 6 in (152 mm) from fixture placement. eW Graze Powercore accommodates end-to-end or incremental placement without visible light scalloping between fixtures.
- Supports new applications for white light— Long-life LEDs (50,000 hours at 70% lumen maintenance) significantly reduce or eliminate maintenance problems, allowing the use of white or solid color lighting in spaces where bulb maintenance may be limited or unfeasible.
- Universal power input range — eW Graze Powercore accepts line voltage input of 100, 120, 220 – 240, and 277 VAC.
- Versatile installation options — Constant torque locking hinges offer simple position control from various angles without special tools. The low-profile extruded aluminum housing accommodates installation within architectural niches of many different shapes and sizes.



- Wide range of build-to-order configurations — Additional fixture lengths, beam angles, color temperatures up to 6500 K, and solid colors (Royal Blue, Blue, Green, Amber, and Red) are available as build-to-order configurations. See the eW Graze Powercore Ordering Information sheet for complete details.
- “Cool lighting” functionality — eW Graze Powercore fixtures do not heat illuminated surfaces, discharge infrared radiation or emit ultraviolet light.
- Dimming capable — Patented DIMand™ technology offers smooth dimming capability with many ELV-type dimmers.
- Trouble-free, code-compliant installation — IP66, UL wet location ratings. UL / cUL, CE, FCC, RoHS, WEEE certified.

For detailed product information, please refer to the eW Graze Powercore Product Guide at www.colorkinetics.com/ls/essentialwhite/ewgraze/



A Green Flagship Product

Our Green Flagship Products offer significantly improved environmental performance in two or more of the following Green Focal Areas: weight, energy consumption, hazardous substances, packaging, recycling, disposal, and lifetime reliability.

PHILIPS

Specifications

Due to continuous improvements and innovations, specifications may change without notice.

Item	Specification	1 ft (305 mm)	4 ft (1.2 m)	
Output	Beam Angle	10° x 60°		
	Color Temperature	2700 K (+375 / -300)		
	Lumens†	404	1616	
	Efficacy (Lm/W)	26.9		
	Mixing Distance	6 in (152 mm) to uniform beam saturation		
	Lumen Maintenance‡	100,000+ hours L70 @ 25° C 50,000 hours L70 @ 50° C		
Electrical	Input Voltage	100 / 120 / 220 – 240 / 277 VAC, 50 / 60 Hz		
	Power Consumption	15 W maximum at full output, steady state	60 W maximum at full output, steady state	
Control		Commercially available ELV control dimmers		
Physical	Dimensions (Height x Width x Depth)	2.7 x 12 x 2.8 in (69 x 305 x 71 mm)	2.7 x 48 x 2.8 in (69 x 1219 x 71 mm)	
	Weight	2.7 lb (1.2 kg)	10.8 lb (4.9 kg)	
	Housing	Extruded anodized aluminum		
	Lens	Clear polycarbonate		
	Fixture Connectors	Integral male / female waterproof connectors		
	Mounting	Multi-positional, constant torque locking hinges		
	Temperature	-40° – 122° F (-40° – 50° C) Operating -4° – 122° F (-20° – 50° C) Startup		
	Humidity	0 – 95%, non-condensing		
	Fixture Run Lengths*	88 @ 110 VAC 97 @ 20 VAC 180 @ 220 VAC 197 @ 240 VAC	Configuration: 1 ft (305 mm) fixtures installed end-to-end, 20 A circuit, standard 50 ft (15.2 m) Leader Cable	
	Certification and Safety	Certification	UL / cUL, FCC Class A, CE, RoHS, WEEE	
LED Class		Class 2 LED product		
Environment		Dry / Damp / Wet Location, IP66		

† Lumen measurement complies with IES LM-79-08.

‡ L70 = 70% maintenance of lumen output. (When light output drops below 70% of initial output.)

* These figures, provided as a guideline, are accurate for this configuration only. Changing the configuration can affect the fixture run lengths.



OPTIBIN® | POWERCORE® | DIMAND®
CKTECHNOLOGY | CKTECHNOLOGY | CKTECHNOLOGY

Fixtures

Item	Beam Angle	Voltage	Size	Item Number	Philips 12NC	
eVW Graze Powercore 2700 K	10° x 60°	120 VAC	1 ft	523-000030-00	910503700276	
			4 ft	523-000030-02	910503700278	
			1 ft	523-000030-08	910503700284	
			4 ft	523-000030-10	910503700286	
		277 VAC	1 ft	523-000030-16	910503700292	
			4 ft	523-000030-18	910503700294	
			220 – 240 VAC	1 ft	523-000030-24	910503700300
				4 ft	523-000030-26	910503700302
		100 VAC	1 ft	523-000030-24	910503700300	
			4 ft	523-000030-26	910503700302	

Use Item Number when ordering in North America.

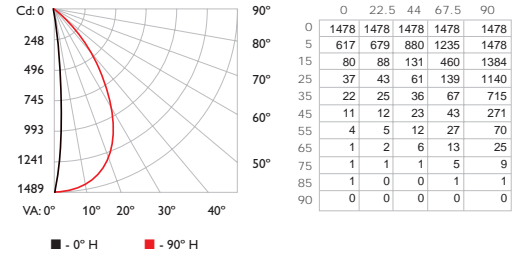


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Fax 617.423.9998
www.colorkinetics.com

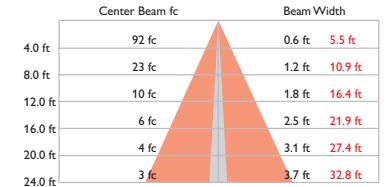
Photometrics

2700 K, 1 ft, 10° x 60° lens

Polar Candela Distribution



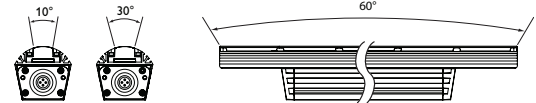
Illuminance at Distance



■ Vert. Spread: 8.8°
■ Horiz. Spread: 68.8°

Power Consumption	15 W
Lumens	404
Efficacy	26.9 Lm/W

For lux multiply fc by 10.7

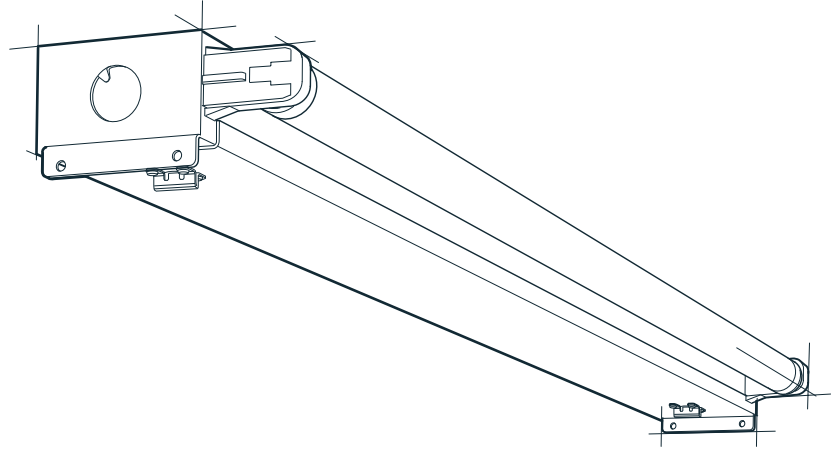
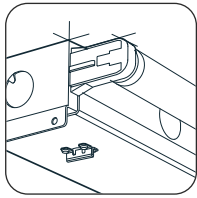
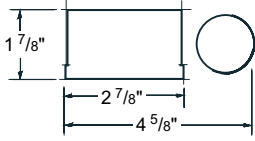


Accessories

Item	Type	Size	Item Number	Philips 12NC
Leader Cable	UL / cUL	50 ft (15.2 m)	108-000041-00	910503700320
	CE		108-000041-01	910503700320
Jumper Cable	UL / cUL	End-to-End	108-000039-00	910503700314
		1 ft (305 mm)	108-000039-01	910503700315
	CE	5 ft (1.5 m)	108-000039-02	910503700316
		End-to-End	108-000040-00	910503700317
		1 ft (305 mm)	108-000040-01	910503700318
		5 ft (1.5 m)	108-000040-02	910503700319
Glare Shield	1 ft (305 mm)	120-000081-00	910503700745	
		2 ft (610 mm)	120-000081-01	910503700746
		3 ft (914 mm)	120-000081-02	910503700747
		4 ft (1.2 m)	120-000081-03	910503700748

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DAS-000009-01 R04 07-09



ordering

series	lamp rows	nominal length	color/finish	voltage	options
PSM-101	1T8	02'	BWE* white enamel	120	AL
		03'	YGW gloss white	277	EML*
		04'	Y__ premium color	347	EMH*
		06'	CC custom color		DM
		08'	*standard		RSE
		R__*			10THD
		*row length			B__
			FH	*consult factory for fixture lengths < 4'	

Applications Concealed coves, perimeter systems, merchandising, warehouses.

Features A unique side-mounted 1-lamp T8 strip light. An aluminum body is optional with dimming ballasts and emergency batteries also available.

Construction The housing, available in 2-, 3-, 4-, 6- or 8-foot standard lengths, is made of die-formed, 20-gauge steel.

Finish The standard exterior body color is white enamel (BWE) or optional gloss white (YGW) using polyester powder paint. Refer to **Defining Section** for optional paint colors.

Electrical T8 fixtures have instant-start electronic ballasts with less than 20% THD. Fixtures are U.L. Damp labeled (non-emergency) and I.B.E.W. manufactured. Maximum ballast size available: 2 3/8" width x 1 1/2" height.

Mounting Fixture is to be surface-mounted.

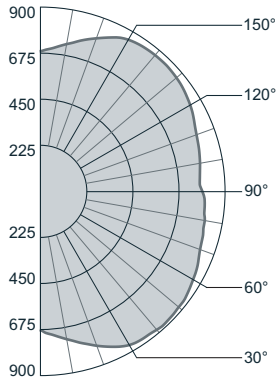
Options **AL**: aluminum body; **EML**: emergency battery (T8=600 lumens); **EMH**: emergency battery (T8=1200 lumens); **DM**: dimming (consult factory); **RSE**: rapid-start electronic; **10THD**: ballast with < 10% total harmonic distortion; **B_**: specific ballast, specify manufacturer and catalog number (consult factory); **FH**: fixture fusing (slow blow).

0811 P-142

photometric data

PSM-101-1T8-04-BWE

Report # LSI16334 D=50.9% I=49.1%
Lamp Lumens: 3000 Input Watts: 33



Candlepower Summary

Vertical Angle	Horizontal Angle					Output Lumens
	0°	22.5°	45°	67.5°	90°	
0	679	679	679	679	679	
5	674	676	696	696	705	34
15	648	668	717	746	768	101
25	596	645	740	806	841	168
35	523	610	751	848	881	228
45	429	557	729	851	891	270
55	320	493	682	831	881	291
65	201	404	622	801	854	291
75	92	3265	559	757	828	374
85	15	235	516	735	811	259
90	0	204	503	718	796	
95	13	223	500	712	787	252
105	94	309	544	740	807	271
115	204	404	611	785	833	287
125	323	496	673	819	863	289
135	433	562	724	838	875	268
145	528	620	751	838	869	227
155	601	653	745	791	831	168
165	652	675	724	744	763	101
175	677	681	702	696	703	34
180	686	686	686	686	686	

Zonal Lumen Summary

Zone	% Lamp	% Luminaire
0-90	50.06	50.90
90-180	48.30	49.10

Efficiency = 98.4%

Luminance Summary (cd/m²)

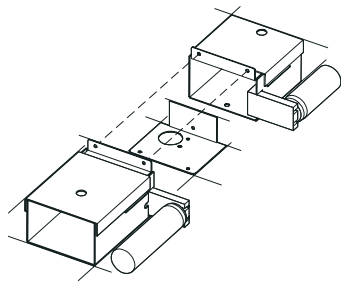
Angle	0°	45°	90°
45	12019	11659	12083
55	11052	11346	12054
65	9422	11125	12166
75	7042	11169	12707
85	3409	12169	13944

Coefficients of Utilization (%)

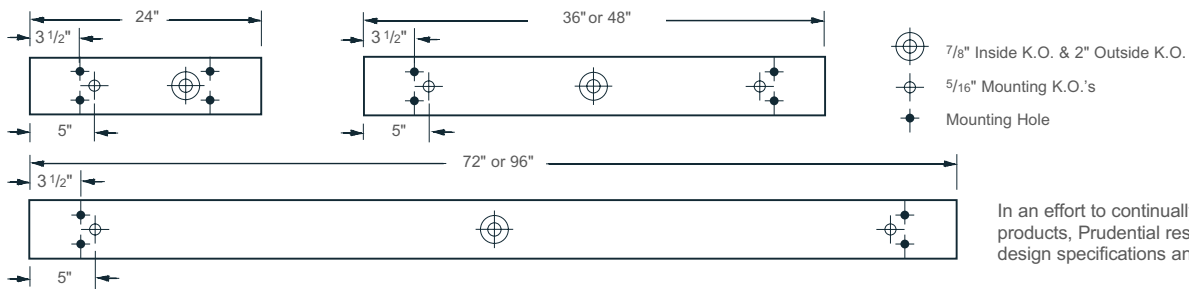
	effective floor cavity reflectance = .20										
	Floor		Ceiling		Wall		70		50		
RCR 0	106	106	106	106	98	98	98	98	82	82	82
1	95	90	85	81	87	83	79	75	70	67	64
2	85	77	70	65	78	71	65	60	60	55	52
3	78	67	60	53	71	62	55	50	53	47	43
4	71	59	51	45	65	55	47	42	46	40	36
5	64	52	44	37	59	48	41	35	41	35	30
6	59	46	38	32	54	43	35	30	36	30	26
7	54	41	33	27	50	38	31	26	33	26	22
8	50	37	29	24	46	34	27	22	29	23	19
9	46	33	26	20	42	31	24	19	26	21	16
10	43	30	23	18	39	28	21	17	24	18	14

installation

Adjoining Detail

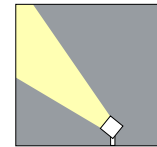
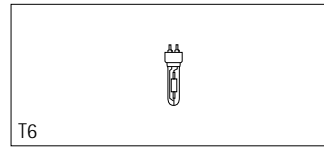
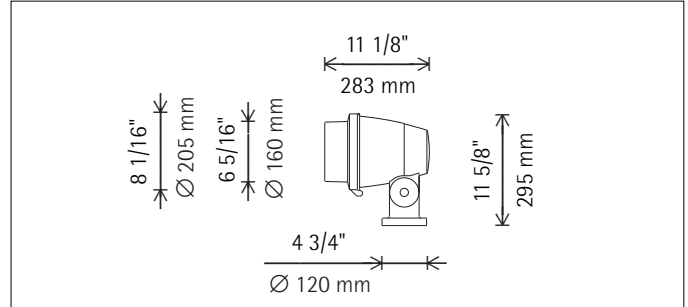


Mounting Locations



In an effort to continually provide the highest quality products, Prudential reserves the right to change design specifications and/or materials, without notice.

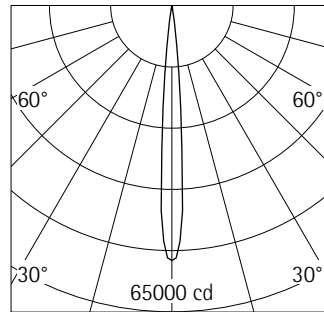
with mounting bracket for metal halide lamps



34068.023 Graphit m
T6 39W G12 3500lm
ECG
Spot reflector

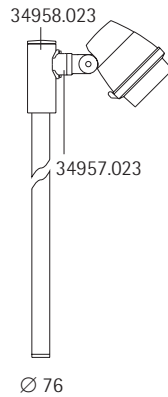
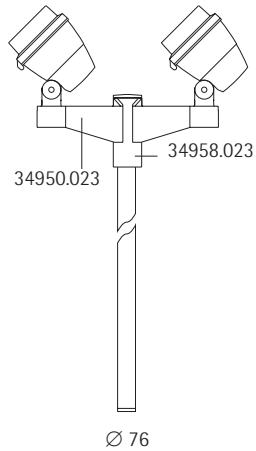
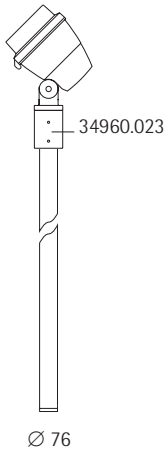
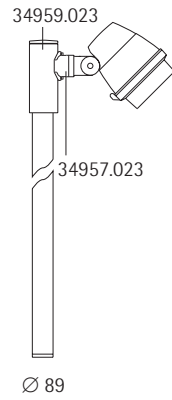
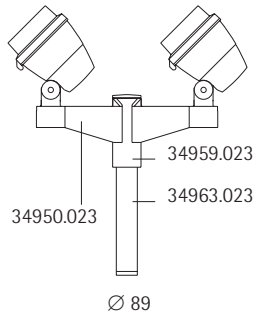
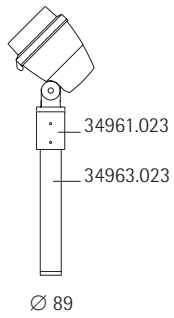
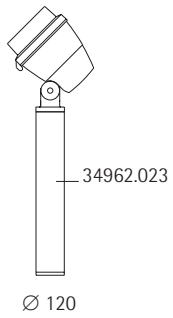
Product description

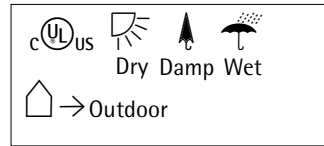
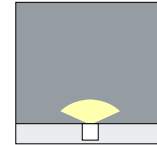
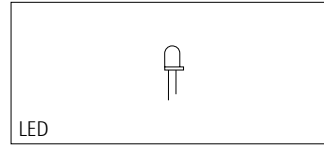
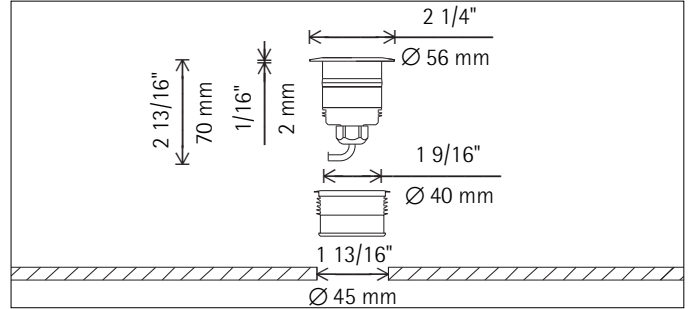
For mounting on accessories.
Housing, hinge and mounting bracket: corrosion-resistant, cast aluminum, No-rinse surface treatment. Double powder-coated. Optimized surface for reduced accumulation of dirt. Hinge with internal wiring, 130° tilt. Graduated disc: stainless steel.
Electronic control gear 120V/277V, 60Hz. Heat-resistant cable with plug.
Reflector: aluminum, silver anodized, specular.
Screw-fastened snoot with safety glass: corrosion-resistant cast aluminum, double powder-coated. Cross-baffle: metal, black lacquered. Cut-off angle 50°. Without spill light.
Mounting accessories to be ordered separately.
Weight 12.35lbs / 5.60kg
Maximum wind load area 0.65ft²



T6 39W G12 3500lm

h(ft)	E(fc)	D
		9°
6	1503	0'11"
12	376	1'11"
18	167	2'10"
24	94	3'9"
30	60	4'9"





33764.023
 LED daylight white
 LED 0.9W 30V DC

Product description
 Housing with gasket: stainless steel.
 Installation bush with ribs: plastic.
 Cable, L 19 11/16" / 500mm.
 Clear prismatic diffuser with circular light aperture.
 Cover ring: corrosion resistant stainless steel, with 1/4" / 6mm safety glass.
 Load 1124lb.wt / 5kN.
 Control gear to be ordered separately.
 Suitable for wet location (IP68): dust-proof.
 Weight 0.35lbs / 0.16kg

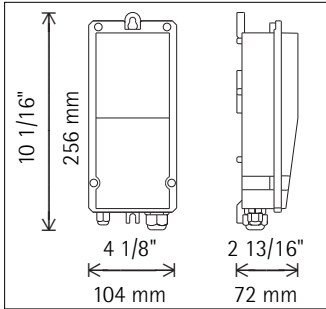
ERCO Lighting Inc.
 160 Raritan Center Parkway
 Suite 10
 Edison, NJ 08837
 USA
 Tel.: +1 732 225 8856
 Fax: +1 732 225 8857
 info.us@erco.com

Technical Region: 120V/60Hz
 We reserve the right to make technical and design changes.
 Edition: 03.11.2009
 Current version under
 www.erco.com/33764.023

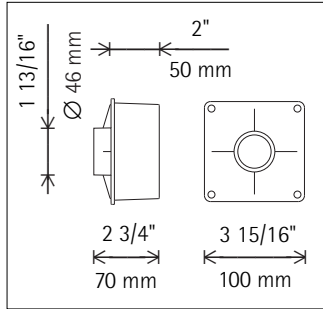
Accessories



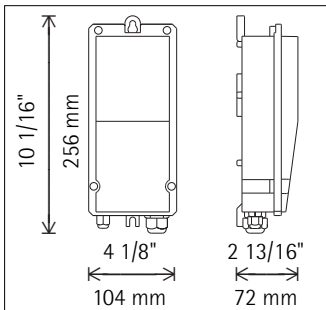
33858.023
 Control gear
 for max. 10 orientation luminaires.
 Input voltage 100V-240V AC, 120V-250V DC.
 Output voltage 30V DC.
 Functions: dimming. Pulsating and flashing at three speeds.
 Suitable for wet location (IP65): dust-proof and water-jet proof.
 Weight 1.32lbs / 0.60kg
 ☼☼_{us} ☼ ☼ ☼ ☼ ☼ → Outdoor
 Dry Damp Wet



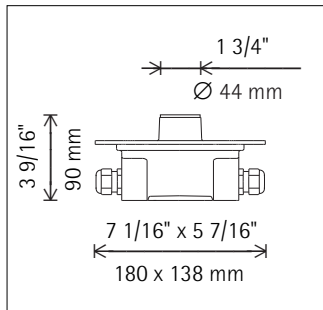
33873.000
 Housing for recessed mounting
 for mounting in plaster.
 Weight 0.20lbs / 0.09kg
 ☼☼_{us}



33859.023
 Control gear
 for max. 10 orientation luminaires.
 Input voltage 100V-240V AC, 120V-250V DC.
 Output voltage 30V DC.
 24V DC input for emergency power operation.
 Functions: dimming. Pulsating and flashing at three speeds.
 Suitable for wet location (IP65): dust-proof and water-jet proof.
 Weight 1.32lbs / 0.60kg
 ☼☼_{us} ☼ ☼ ☼ ☼ ☼ → Outdoor
 Dry Damp Wet



33893.023
 Recessed housing IP67
 for installation in concrete floors or compressed natural ground with 1" / 25mm floor covering.
 Cast aluminum, black, double powder-coated.
 2 cable entries with IP67 ports.
 Through-wiring possible.
 Suitable for wet location (IP67): dust-proof and protected against immersion damage.
 ☼☼_{us} ☼ ☼ ☼ ☼ ☼ → Outdoor
 Dry Damp Wet





**Higher
Output**

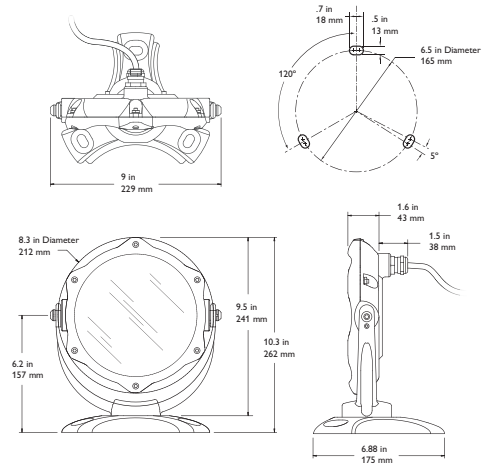
Date: _____ Type: **H**
Firm Name: _____
Project: **SALAMANDER RESORT AND SPA**

C-Splash 2

Submersible, color-changing LED spotlight for fresh and salt water

C-Splash 2 is an ultra-thin, submersible fixture designed to provide vibrant color and color-changing light in fresh and saltwater locations to a depth of 15 ft (4.6 m). With its watertight cast brass housing and silicon bronze adjusting hardware, C-Splash 2 is perfect for water-based applications such as fountains and theme park installations, as well as for applications situated in harsh environments.

- Rugged and watertight — Cast brass housing and yoke with silicon bronze adjusting hardware is designed for submersion in fresh or salt water to a depth of 15 ft (4.6 m). This IP68-rated fixture is also able to withstand water treated with bromine or chlorine.
- Two beam angles — The frosted tempered glass lens offers a soft-edge beam of light at 22°, while the clear glass lens offers extended light projection at 10°.
- Unified power and data cable — Each C-Splash 2 fixture comes with a 60 ft (18.3 m) unified power and data cable to minimize wiring. C-Splash 2 is intended for use with PDS-150e and PDS-60 24V power / data supplies.
- Industry-leading controls — C-Splash 2 works seamlessly with the complete line of Philips controllers, including iPlayer 3 and Light System Manager, as well as third-party DMX controllers.
- Versatile light positioning — Locking base and pivot allows vertical and horizontal rotation through a full 360°.
- Temperature monitoring — C-Splash 2 has a temperature monitoring feature that automatically interrupts operation to protect the fixtures from damage due to extreme operating temperatures.



- High output, underwater — This submersible fixture offers the full range 16.7 million RGB colors and an output of over 500 lumens. Long-life LEDs significantly reduce or eliminate required maintenance, a major advantage for underwater installations.

For detailed product information, please refer to the ColorReach Powercore Product Guide at www.colorkinetics.com/ls/rgb/csplash2/

PHILIPS

Specifications

Due to continuous improvements and innovations, specifications may change without notice.

Item	Specification	Clear Lens	Frosted Lens
Output	Beam Angle	10°	22°
	Lumens†	583	515
	Color Range	16.7 million additive RGB colors; continuously variable intensity	
	Lumen Maintenance‡	50,000+ hours L50 @ 50° C (full output)	
Electrical	Input Voltage	24 VDC	
	Power Consumption	25 W maximum at full output, steady state	
Control	Interface	PDS-150e 24V (DMX or Ethernet) PDS-60 24V (DMX, Pre-programmed, or Ethernet)	
	Control System	Philips full range of controllers, including Light System Manager and iPlayer 3, or third-party DMX controllers	
Physical	Dimensions (Height x Width x Depth)	10.3 x 9 x 1.6 in (262 x 229 x 41 mm)	
	Weight	22 lb (10 kg)	
	Housing	Cast brass	
	Lens	Clear tempered glass	Tempered ground glass
	Fixture Connections	60 ft (18.3 m) unified power / data cable	
	Temperature	-40° – 122° F (-40° – 50° C) Operating -4° – 122° F (-20° – 50° C) Startup	
	Humidity	0 – 100%	
	Cable Length	60 ft (18.3 m) standard 150 ft (45.7 m) maximum 400 ft (121.9 m) total per power / data supply	
	Maximum Fixtures Per Power / Data Supply	PDS-150e 24V: 6 (1 per port) PDS-60 24V: 2 (1 per port)	
	Certification and Safety	Certifications	UL / cUL, CE
LED Class		Class 2 LED product	
Environment		Dry / Damp / Wet, IP68	

† Lumen measurement complies with IES LM-79-08 testing procedures

‡ L50 = 50% maintenance of lumen output. (When light output drops below 50% of initial output.)
Ambient temperature specified.



Fixtures and Accessories

Item	Type	Item Number	Philips 12NC
C-Splash 2	10° clear lens	116-000024-01	910503700617
	22° frosted lens	116-000024-00	910503700616
PDS-150e 24V	DMX / Ethernet	109-000008-01	910503700092
PDS-60 24V	Pre-programmed	109-000017-00	910503700096
	DMX / Ethernet	109-000017-03	910503700097
Light System Manager	Ethernet	103-000015-02	910503700221
iPlayer 3	NA Power Cord	103-000019-00	910403327101
	EU Power Cord	103-000019-01	910503700392
ColorDial Pro	DMX	103-000025-00	910503700790
Synchronizer	DMX	103-000001-00	—
Multi Synchronizer	DMX	103-000002-00	—

Use Item Number when ordering in North America.

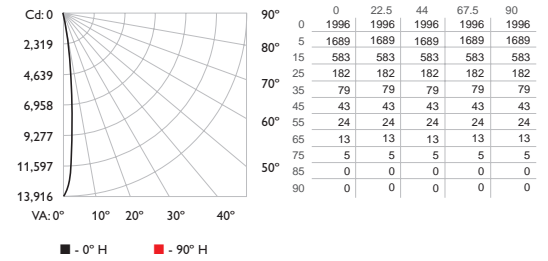


Philips Color Kinetics
3 Burlington Woods Drive
Burlington, Massachusetts 01803 USA
Tel 888.385.5742
Tel 617.423.9999
Fax 617.423.9998
www.colorkinetics.com

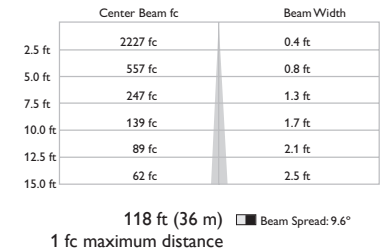
Photometrics

10° clear lens

Polar Candela Distribution



Illuminance at Distance

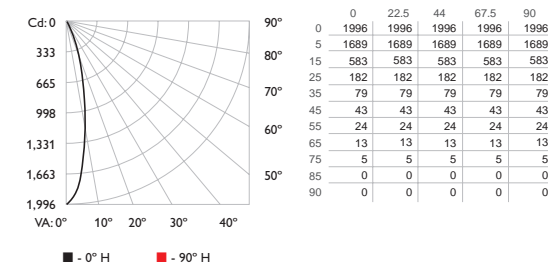


LED	Lumens	Watts	Efficacy
RGB	583	25	23.3

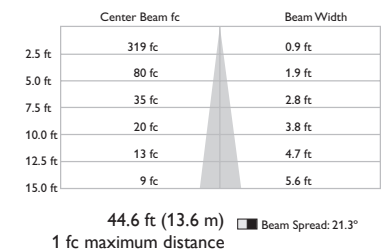
For lux multiply fc by 10.7

22° frosted lens

Polar Candela Distribution



Illuminance at Distance



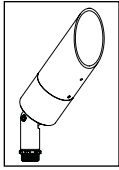
LED	Lumens	Watts	Efficacy
RGB	515	25	20.6

C-Splash 2 fixtures are part of a complete low-voltage system which includes fixtures and:

- One or more power / data supplies
- One leader cable to connect each power / data supply output to a fixture
- Any Philips controller, including Light System Manager and iPlayer 3, or a third-party DMX controller

For detailed product information, please refer to the C-Splash 2 Product Guide at www.colorkinetics.com/ls/rgb/csplash2/

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MR-16 Halogen

DELTA STAR™

PROJECT:	
TYPE:	
CATALOG NUMBER:	
LAMP(S):	
NOTES:	

CATALOG NUMBER LOGIC



Example

Material **DS** **MR** **6** **WHP** **10** **11** **E** **360SL**

Material
Blank - Aluminum
B - Brass

Series
DS - Delta Star™

Source
MR - MR16

Lamp

0 - By Others	5 - FMW(35W), 40° Flood	7 - EXZ(50W), 26° N. Flood
1 - ESX(20W), 12° Spot	15 - EYR(42W), 12° Spot	8 - EXN(50W), 40° Flood
2 - BAB(20W), 40° Flood	16 - EYS(42W), 25° N. Flood	9 - FNV(50W), 60° W. Flood
3 - FRB(35W), 12° Spot	17 - EYP(42W), 40° Flood	
4 - FRA(35W), 23° N. Flood	6 - EXT(50W), 13° Spot	

Finish

Aluminum & Brass Finish			Brass	
Powder Coat Color	Satin	Wrinkle	Machined	MAC
Bronze	BZP	BZW	Polished	POL
Black	BLP	BLW	Mitique™	MIT
White (Gloss)	WHP	WHW		
Aluminum	SAP	—		
Verde	—	VER		

*Also available in Premium Finishes
See submittal SUB-1439-00 for Premium Finishes*

Lens Type

9 - Clear (Standard)	12 - Soft Focus*
10 - Spread*	13 - Rectilinear*

Shielding

11 - Honeycomb Baffle**

Cap Style

A - 45°	B - 90°	D - 45° Less weephole (for Interior Use Only)	E - 90° Less weephole (for Interior Use Only)
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Options

360SL - 360SL™ Knuckle Mounting System

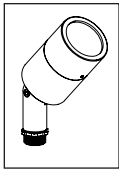
* Accommodates up to 2 Lens/Shielding media

LAMP DATA

BK No.	Lamp Watts	Description	Rated Life (hrs.)	Center Beam Candlepower	Beam Angle	Beam Type
1	20	ESX	4,000	4,000	12°	Spot
2	20	BAB	4,000	500	40°	Flood
3	35	FRB	5,000	7,600	12°	Spot
4	35	FRA	5,000	2,300	23°	Narrow Flood
5	35	FMW	5,000	1,100	40°	Flood
15	42	EYR	5,000	7,500	12°	Spot
16	42	EYS	5,000	2,600	25°	Narrow Flood
17	42	EYP	5,000	1,100	40°	Flood
6	50	EXT	5,000	9,800	13°	Spot
7	50	EXZ	5,000	3,200	26°	Narrow Flood
8	50	EXN	5,000	1,600	40°	Flood
9	50	FNV	5,000	700	60°	Wide Flood

B-K LIGHTING	40429 Brickyard Drive • Madera, CA 93636 • USA 559.438.5800 • FAX 559.438.5900 www.bklighting.com • info@bklighting.com	SUBMITTAL DATE 08-31-09	DRAWING NUMBER SUB-117D-06
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the power of

NITE STAR™

PROJECT:	
TYPE:	
CATALOG NUMBER:	
NOTES:	

CATALOG NUMBER LOGIC



Example

- NS - LED - e23 - SP - BZW - 12 - 11 - 360SL

Material

- Blank** - Aluminum
- B** - Brass
- S** - Stainless Steel

Series

- NS** - Nite Star™

Source

- LED** - 'e' Technology with Integral Driver

LED Type

- e22** - 8WLED/3K
- e23** - 8WLED/4K
- e24** - 8WLED/Red
- e25** - 8WLED/Green
- e26** - 8WLED/Blue
- e27** - 8WLED/Amber

Optics*

- NSP** - Narrow Spot (Red Indicator)
- SP** - Spot (Green Indicator)
- MFL** - Medium Flood (Yellow Indicator)
- WFL** - Wide Flood (Blue Indicator)

Finish

Aluminum & Brass Finish

Powder Coat Color	Satin	Wrinkle
Bronze	BZP	BZW
Black	BLP	BLW
White (Gloss)	WHP	WHW
Aluminum	SAP	—
Verde	—	VER

Brass Finish

Machined	MAC
Polished	POL
Mitique™	MIT

Stainless Finish

Machined	MAC
Polished	POL
Brushed <small>Interior Use Only</small>	BRU

*Also available in Premium Finishes
See submittal SUB-1439-00*

Lens Type

- 12** - Soft Focus Lens
- 13** - Rectilinear Lens

Shielding

- 11** - Honeycomb Baffle

Option

- 360SL** - 360SL™ Rotational Knuckle Mounting System

LM79 DATA

BK No.	CCT (Typ.)	Input Watts (Typ.)	CRI (Typ.)
e22	3100K	8.4	80
e23	4100K	8.4	66
e24	Red (627nm)	7.9	~
e25	Green (530nm)	8.4	~
e26	Blue (470nm)	8.4	~
e27	Amber (590nm)	7.9	~

L70 DATA

Minimum Rated Life (hrs.) 70% of initial lumens (L ₇₀)
50,000
50,000
50,000
50,000
50,000
50,000

***OPTICAL DATA**

Beam Type	Angle	Visual Indicator
Narrow Spot	14°	Red Dot
Spot	18°	Green Dot
Medium Flood	25°	Yellow Dot
Wide Flood	36°	Blue Dot

B-K LIGHTING

40429 Brickyard Drive • Madera, CA 93636 • USA
559.438.5800 • FAX 559.438.5900
www.bklighting.com • info@bklighting.com

SUBMITTAL DATE
1-11-10

DRAWING NUMBER
SUB000929

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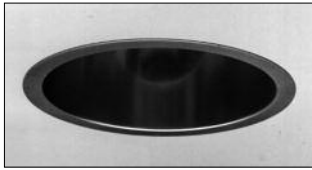
SPEC-5

Vertical Compact Fluorescent (1) 13W or (1) 18W Triple Tube

Open Recessed Downlight and Wallwasher

4"

online
Find it Fast **113**



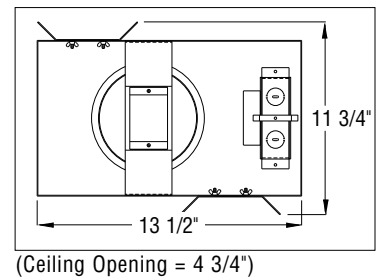
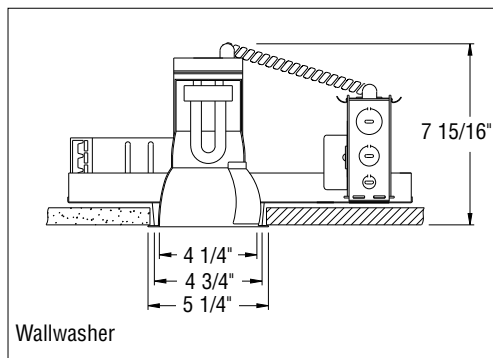
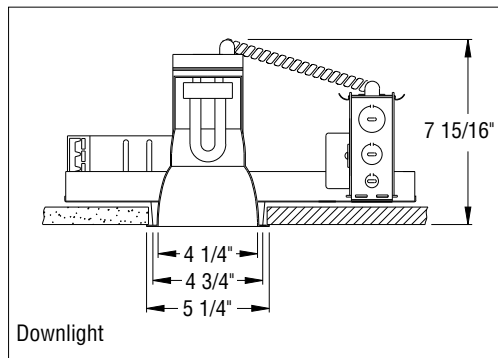
Applications: A vertical CFL fixture is the ideal choice for use in offices and lobbies which demand a low brightness aperture with high efficiency and lumen output. The 4" aperture makes this fixture ideal for use in any general downlighting application. Available in two wattages with a standard electronic ballast.

Type: _____

Project: _____

ORDERING NOTE: Complete unit consists of rough-in and trim section. Indicate ballast/voltage and desired options.

▼ Rough-In	▼ Ballast/Voltage	▼ Trim	▼ Trim Finish	▼ Options
S5D _____	_____	4311 _____	_____	_____
S5D4311 (1) 13W Triple Tube	U 120/277v	4311R Downlight Reflector	C Clear Specular Reflector	F Fusing
S5D4312 (1) 18W Triple Tube	S3 347v	4311W Wallwasher Reflector	MC Matte Clear Alzak® Reflector	W White painted reflector flange
	D1 Dimming 120v*			9930 Set of two 27" C-channel mounting bars
	D2 Dimming 277v*			9952 Set of two 52" C-channel mounting bars
	*Not available on 13W.			9956 Set of two 28" 10 ga. one piece universal mounting bars
				E4 Stand-by Battery Pack 120/277v



Suitable for damp locations
Fixtures with stand-by battery packs
are rated for dry locations only
Approved for thru-wiring
Above ceiling access not required
Thermally protected

IBEW Union Made

Alzak® is a registered trademark of the Aluminum Company of America.

1. Yoke Assembly - 16 gauge steel yoke assembly is corrosion protected and fixed to the mounting pan.

2. Plaster Frame - 20 gauge galvanized, die-formed plaster frame has a fixed throat depth of 3/4".

3. Mounting Bracket - Adjustable butterfly mounting brackets allow for a vertical adjustment of 1 1/2" and accept one piece universal or C-channel mounting bars (ordered as an optional accessory).

4. Junction Box - 14 gauge galvanized junction box is U.L. listed for thru wiring (4 in and 4 out at 90°C) and has 7/8" and 1 1/8" knockouts. Ground wire is supplied. Junction box is accessible from below ceiling.

5. Stand-by Battery Pack - IOTA I-42, mounted on junction box cover. An external test light/switch assembly, supplied, to be located on ceiling near fixture. Operates on 120v or 277v, 60Hz only.

6. Reflector - One piece spun aluminum reflector with 1/2" flat

flange with low iridescence, specular butterfly finish. Clear specular and matte clear Alzak® finishes are available. A white painted flange is also available. The reflector is secured to the yoke assembly by 2 captive screws.

7. Wallwasher Reflector - A hydroformed aluminum kicker plate is mounted to the main reflector for wall illumination. Reflector assembly is fully rotatable from below ceiling ensuring proper reflector alignment.

8. Lamp/Socket - One 13W or 18W triple tube compact fluorescent lamp with a GX24q-1 (13W) or a GX24q-2 (18W) socket. Lamp supplied by others.

9. Ballast - One (1) lamp, thermally protected Class P electronic ballast is supplied. Dimming ballast is Lutron Compact SE (5%).

10. Weight - Housing: 5.25 lbs.
Trim: Downlight-0.25 lbs.;
Wallwasher-0.30 lbs.

NOTE: National or municipal codes must be followed regarding set back of thermal insulating material from fixture. As a guideline, any insulation materials must be held away from the fixture by a minimum of 3".
Fixtures are not designed for direct contact with thermal insulation.

In a continuing effort to offer the best product possible we reserve the right to change, without notice, specifications or materials. 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. ©2008
3300 Route 9W • Highland, NY 12528-2630
www.zumtobel.us
TEL (845) 691-6262 • (800) 932-0633 • FAX (845) 691-6289
10/1/08

S5-1

ZUMTOBEL

SPEC-5

Vertical Compact Fluorescent (1) 13W or (1) 18W Triple Tube

Open Recessed Downlight and Wallwasher

4"

online
Find it Fast **113**



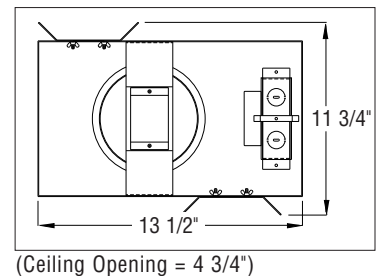
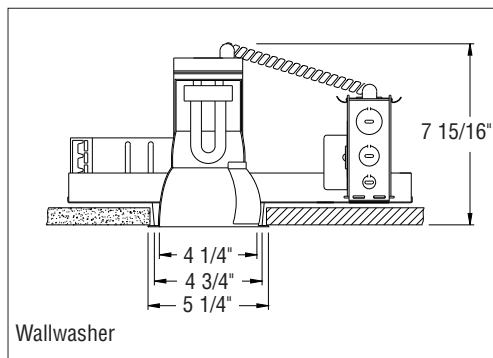
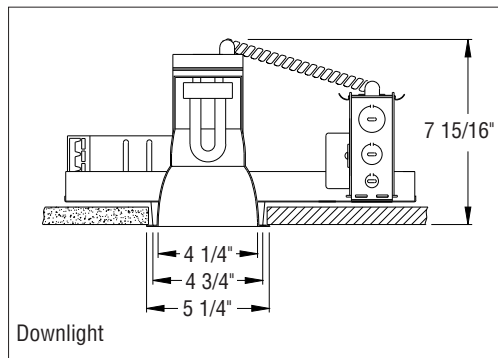
Applications: A vertical CFL fixture is the ideal choice for use in offices and lobbies which demand a low brightness aperture with high efficiency and lumen output. The 4" aperture makes this fixture ideal for use in any general downlighting application. Available in two wattages with a standard electronic ballast.

Type: _____

Project: _____

ORDERING NOTE: Complete unit consists of rough-in and trim section. Indicate ballast/voltage and desired options.

▼ Rough-In	▼ Ballast/Voltage	▼ Trim	▼ Trim Finish	▼ Options
S5D _____	_____	4311 _____	_____	_____
S5D4311 (1) 13W Triple Tube S5D4312 (1) 18W Triple Tube	U 120/277v S3 347v D1 Dimming 120v* D2 Dimming 277v* *Not available on 13W.	4311R Downlight Reflector 4311W Wallwasher Reflector	C Clear Specular Reflector MC Matte Clear Alzak® Reflector MG Matte Champagne Gold Alzak® Reflector MP Matte Pewter Alzak® Reflector MS Matte Straw Alzak® Reflector MW Matte Wheat Alzak® Reflector (for colors of specular reflectors, consult factory)	F Fusing W White painted reflector flange 9930 Set of two 27" C-channel mounting bars 9952 Set of two 52" C-channel mounting bars 9956 Set of two 28" 10 ga. one piece universal mounting bars E4 Stand-by Battery Pack 120/277v



Suitable for damp locations
Fixtures with stand-by battery packs are rated for dry locations only
Approved for thru-wiring
Above ceiling access not required
Thermally protected

IBEW Union Made

Alzak® is a registered trademark of the Aluminum Company of America.

1. Yoke Assembly - 16 gauge steel yoke assembly is corrosion protected and fixed to the mounting pan.

2. Plaster Frame - 20 gauge galvanized, die-formed plaster frame has a fixed throat depth of 3/4".

3. Mounting Bracket - Adjustable butterfly mounting brackets allow for a vertical adjustment of 1 1/2" and accept one piece universal or C-channel mounting bars (ordered as an optional accessory).

4. Junction Box - 14 gauge galvanized junction box is U.L. listed for thru wiring (4 in and 4 out at 90°C) and has 7/8" and 1 1/8" knockouts. Ground wire is supplied. Junction box is accessible from below ceiling.

5. Stand-by Battery Pack - IOTA I-42, mounted on junction box cover. An external test light/switch assembly, supplied, to be located on ceiling near fixture. Operates on 120v or 277v, 60Hz only.

6. Reflector - One piece spun aluminum reflector with 1/2" flat

flange with low iridescence, specular clad finish. Matte clear, champagne gold, pewter, straw and wheat Alzak® finishes are available. A white painted flange is also available. The reflector is secured to the yoke assembly by 2 captive screws.

7. Wallwasher Reflector - A hydroformed aluminum kicker plate is mounted to the main reflector for wall illumination. Reflector assembly is fully rotatable from below ceiling ensuring proper reflector alignment.

8. Lamp/Socket - One 13W or 18W triple tube compact fluorescent lamp with a GX24q-1 (13W) or a GX24q-2 (18W) socket. Lamp supplied by others.

9. Ballast - One (1) lamp, thermally protected Class P electronic ballast is supplied. Dimming ballast is Lutron Compact SE (5%).

10. Weight - Housing: 5.25 lbs.
Trim: Downlight-0.25 lbs.;
Wallwasher-0.30 lbs.

NOTE: National or municipal codes must be followed regarding set back of thermal insulating material from fixture. As a guideline, any insulation materials must be held away from the fixture by a minimum of 3".
Fixtures are not designed for direct contact with thermal insulation.

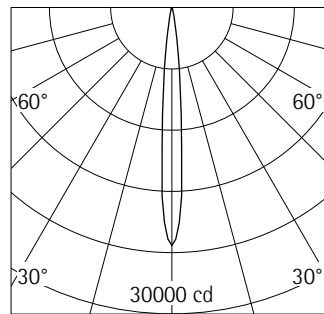
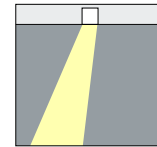
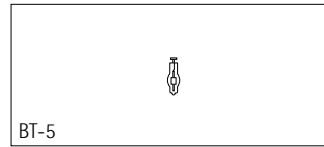
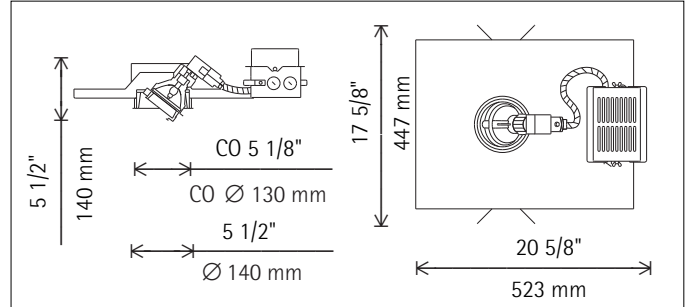
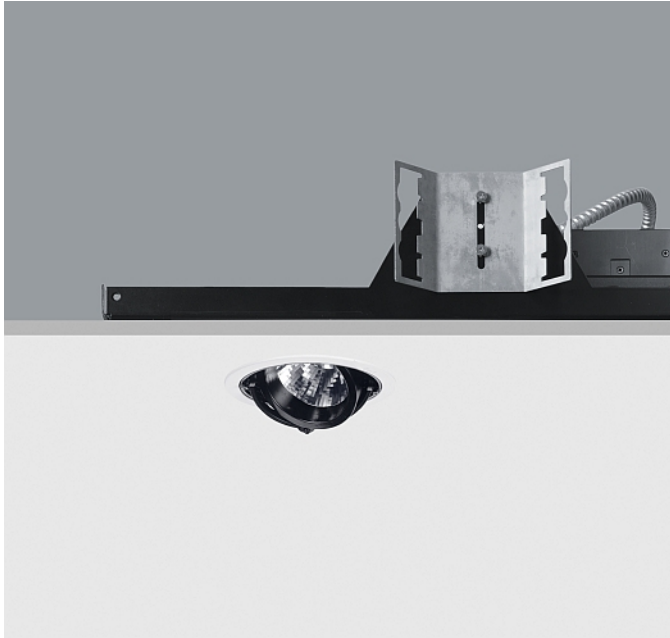
In a continuing effort to offer the best product possible we reserve the right to change, without notice, specifications or materials that in our opinion will not alter the function of the product. Technical specification sheets that appear on www.zumtobel.us are the most recent version and supersede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

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TEL (845) 691-6262 • (800) 932-0633 • FAX (845) 691-6289
5/22/07

S5-1

ZUMTOBEL

for metal halide lamps



BT-5 20W PGJ5 1650lm

h(ft)	E(fc)	D
3	2590	9° 0'6"
6	648	0'11"
9	288	1'5"
12	162	1'11"
15	104	2'4"

88147.023 Reflector silver
 BT-5 20W PGJ5 1650lm
 ECG
 Spherolit reflector, narrow spot

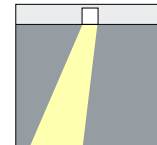
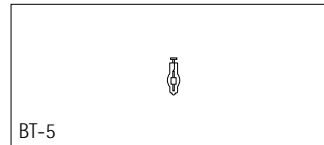
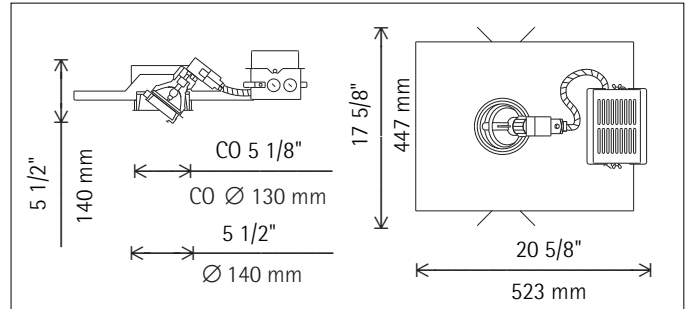
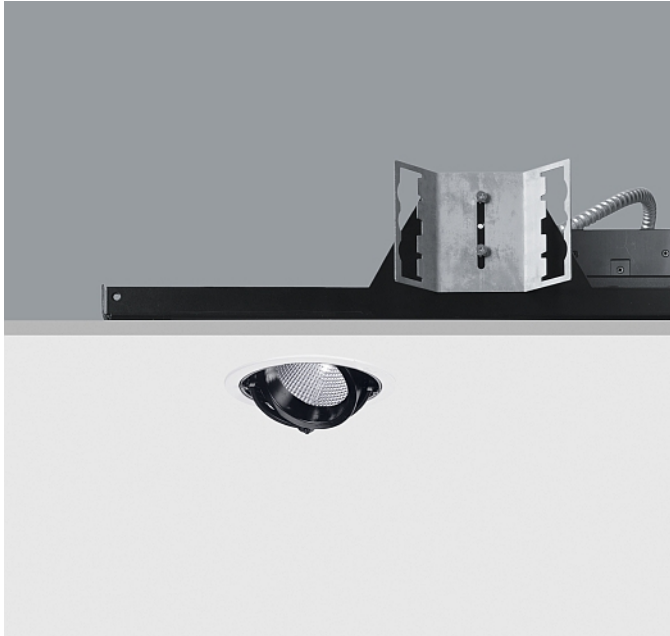
Product description

Size 4
 Luminaire: cast aluminum, black powder-coated.
 Mounting ring: plastic, white (RAL9002), with multigroove baffle, cast aluminum, black powder-coated. Fixing springs. Cardanic suspension of the luminaire in the mounting ring. 0°-40° tilt. Pivots are to be locked.
 Mounting plate for preinstallation with junction box for through-wiring. Electronic control gear 120V, 60Hz on top of junction box. Snap-in plug for connection between junction box and luminaire.
 Reflector: aluminum, anodized, specular. Safety glass.
 Anti-glare ring: plastic, black.
 Type Non IC luminaire.
 Insulation materials must be kept away from the luminaire by a minimum of 3". Thermally protected luminaire. Luminaires protected with disconnecting switch. Suitable for damp location. Removal of luminaire allows access to junction box from below.
 Max. ceiling thickness 3/4".
 Weight 7.72lbs / 3.50kg

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
 We reserve the right to make technical and design changes.
 Edition: 03.11.2009
 Current version under
 www.erco.com/88147.023

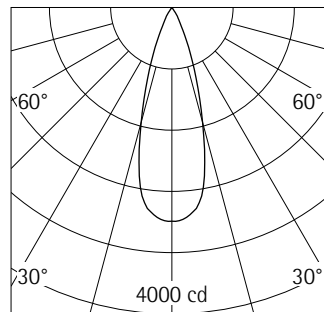
for metal halide lamps



88148.023 Reflector silver
 BT-5 20W PGJ5 1650lm
 ECG
 Spherolit reflector, flood

Product description

Size 4
 Luminaire: cast aluminum, black powder-coated.
 Mounting ring: plastic, white (RAL9002), with multigroove baffle, cast aluminum, black powder-coated. Fixing springs. Cardanic suspension of the luminaire in the mounting ring. 0°-40° tilt. Pivots are to be locked.
 Mounting plate for preinstallation with junction box for through-wiring. Electronic control gear 120V, 60Hz on top of junction box. Snap-in plug for connection between junction box and luminaire.
 Reflector: aluminum, anodized, specular. Safety glass.
 Anti-glare ring: plastic, black.
 Type Non IC luminaire.
 Insulation materials must be kept away from the luminaire by a minimum of 3". Thermally protected luminaire. Luminaires protected with disconnecting switch. Suitable for damp location. Removal of luminaire allows access to junction box from below.
 Max. ceiling thickness 3/4".
 Weight 7.72lbs / 3.50kg

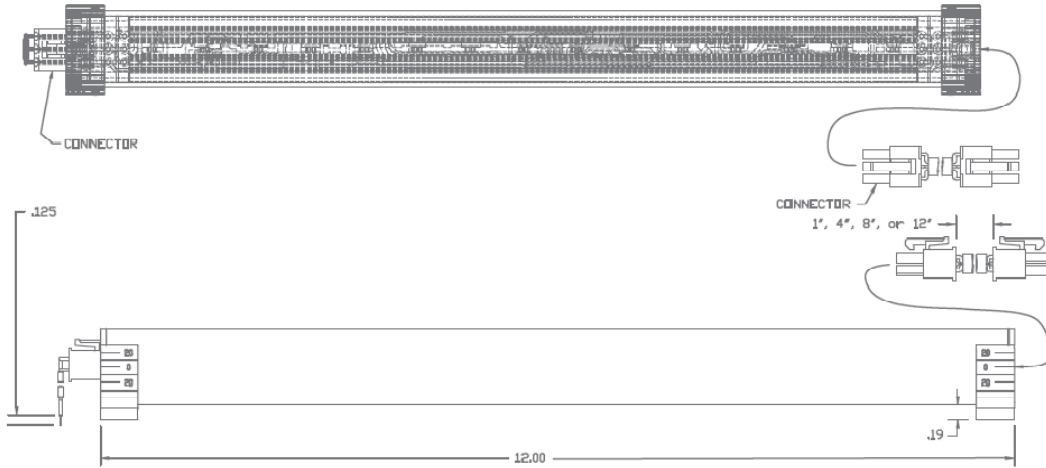


BT-5 20W PGJ5 1650lm

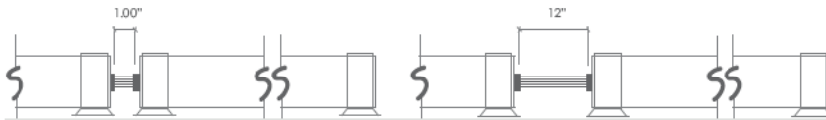
h(ft)	E(fc)	D
3	310	32°
6	78	1'9"
9	34	3'5"
12	19	5'2"
15	12	6'11"
		8'7"

MECHANICAL PROFILE

All fixtures may be wall, ceiling or ground mounted in face up or face down position.



Clear mounting clip designed with a unique angle indicator mark. Feature allows convenient and accurate install of fixtures on jobsite.



Tandem mounting of fixtures from 1.00" min space up to 12" between fixtures. Contact factory for custom lengths.

Tolerancias: .xx" ± .025"

SPECIFICATION INFORMATION

CWI	12	60	27k
MODEL	LENGTH ⁽¹⁾	BEAM ANGLE ⁽²⁾	COLOR ⁽³⁾
LED CoveWash Interior	12"	100° x 120°	Warm White
	24"	80° x 120°	Warm White
		60° x 100°	Neutral White
		50° x 120°	Cool White
		Custom Angle (Consult Factory)	Cool White
			Daylight
			Custom Color (Consult Factory)
	12	100	27K
	24	80	30K
		60	35K
		50	42K
		CA	53K
			63K
			CK

For additional accessory parts, please refer to the part numbers below

ACCESSORIES
 Jumper Cables ⁽⁴⁾ **504435-XX**
 Power Cables ⁽⁵⁾ **504488-XX**



1. Cascade up to 20 feet.

2. Refer to photometric chart.

3. Contact factory for color options. Color temperature may vary +/-200K.

4. Replace XX with corresponding jumper length in 1", 4", 8" and 12".

5. Replace XX with corresponding power cable length in 6ft or 10ft

SALAMANDER RESORT AND SPA
TYPE : M

Esther



2nd Ave Part No.: 75606.2.X

MSRP: \$546

Dimensions: 13 in. W x 14 in. H
x 8 in. P

Wattage: 40w per bulb

Socket Type: Candelabra

Bulb Type: Incandescent

of Bulbs: 2

of Tiers: 1

Voltage: 120v

Features:

Crystal
Decorative Accents
Fabric Shade
Fiber Drip Candle Covers
Handcrafted

More Product Options...

- Single

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Available In: (click on links below to view thumbnails)

SALAMANDER RESORT AND SPA
TYPE : M1

Josephine



2nd Ave Part No.: 75835.2.X

MSRP: \$897

Dimensions: 18 in. W x 21 in. H
x 9 in. P

Wattage: 60w per bulb

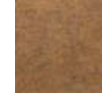
Socket Type: Candelabra

Bulb Type: Incandescent

of Bulbs: 2

Voltage: 120v

Finish(shown): Autumn Leaf



Box Weight: 7 lbs.

Box Size: 18 X 18 X 16

Features:

Crystal
Decorative Accents
Fiber Drip Candle Covers
Handcrafted
Scrollwork
Uplight

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Available In: (click on links below to view thumbnails)

SALAMANDER RESORT AND SPA
TYPE: M2

Renzo



2nd Ave Part No.: 751118.1

MSRP: \$717

Dimensions: 6.5 in. W x 15 in. H
x 9 in. P

Wattage: 40w per bulb

Socket Type: Candelabra

Bulb Type: Incandescent

of Bulbs: 1

Voltage: 120v

Finish(shown): Antique Iron Gate



Box Weight: 8 lbs.

Box Size: 18 X 18 X 10

Features:

Handcrafted
Scrollwork
Honey Amber CC

2ndave.com / 800.843.1602

Available In: (click on links below to view thumbnails)

SALAMANDER RESORT AND SPA

TYPE: N

Jenna



2nd Ave Part No.: 87948.36

MSRP: \$2,124

Dimensions: 36 in. W x 24 in. H

Wattage: 40w per bulb

Socket Type: Candelabra

Bulb Type: Incandescent

of Bulbs: 6

of Tiers: 1

Voltage: 120v

Finish(shown): Antique Iron Gate



Box Weight: 37 lbs.

Box Size: 36 X 36 X 37

Features:

Decorative Accents
Fabric Shade
Fiber Drip Candle Covers
Finials
Handcrafted
Scrollwork
Uplight

2ndave.com / 800.843.1602

Available In: (click on links below to view thumbnails)

SALAMANDER RESORT AND SPA
TYPE: N1

Annabella Chandelier - 30"



2nd Ave Part No.: 87809.30.X

Please call for trade discount

Dimensions: 30 in. D x 45 in. H

Wattage: 60w per bulb

Socket Type: Candelabra

Bulb Type: Incandescent

of Bulbs: 8

of Tiers: 1

Voltage: 120v

Finish(shown): Corinth



Chain: 3 ft.

Features:

Crystal
Custom
Fiber Drip Candle Covers
Handcrafted
Scrollwork

Availability: Custom 6-8 weeks

Installation: Dry Locations

Listing: UL

2ndave.com / 800.843.1602

Available In: (click on links below to view thumbnails)

SALAMANDER RESORT AND SPA

TYPE: N2

Minuet



2nd Ave Part No.: 87618.42.CX

MSRP: \$14,505

Dimensions: 42 in. W x 60 in. H

Wattage: 60w per bulb

Socket Type: Candelabra

Bulb Type: Incandescent

of Bulbs: 16

of Tiers: 2

Voltage: 120v

Finish(shown): Pompeii Gold



Box Weight: 160 lbs.

Box Size: 46 X 46 X 49

Features:

Decorative Accents
Fiber Drip Candle Covers
Gold Dipped Crystal
Handcrafted
Scrollwork
Uplight

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Available In: (click on links below to view thumbnails)

SALAMANDER RESORT AND SPA
TYPE: N3

Lakeshore Chandelier W/downlight 18"



2nd Ave Part No.: 01.0750.18.DL

MSRP: \$2,775

Dimensions: 18 in. D x 30 in. H

Wattage: 40/60w per bulb

Socket Type: Medium/Candelabra

Bulb Type: Incandescent

of Bulbs: 5

of Tiers: 1

Voltage: 120v

Finish(shown): Cajun Spice



Hanging weight: 23 lbs.

Box Weight: 26 lbs.

Box Size: 24 X 24 X 32

Chain: 3 ft.

Family: Lakeshore

Features:
Handcrafted
Ivory CC

Canopy: C2 Canopy

Availability: Standard 4-6 weeks

Installation: Dry Locations

Listing: UL

2ndave.com / 800.843.1602

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Product #: **CH46.12**

Price: **\$745.00 ***

This price includes standard Black Finish and Clear Glass (Where the product has glass).

Chandelier

Available in these mounting configurations:

Available in the following sizes:

Width: **12 inches**
Height: **19 inches**

Length: All chandeliers come with 3' chain standard. Extra chain is \$6.00/ft. Please specify (OHA) overall height on all chandeliers. That is the distance desired from the point of attachment at the ceiling to where you want the bottom of the chandelier to hang.

Point of Attachment to Top:"

Point of Attachment to Bottom:"

Canopy Size: **5.5**

Weight: **20 lbs.**

Max Wattage: **3(60)**

Upgrade Finish

Tier 1: **\$56.00** ([Tier 1 Finish choices](#))

Tier 2: **\$64.00** ([Tier 2 Finish choices](#))

Tier 3: **\$76.00** ([Tier 3 Finish choices](#))

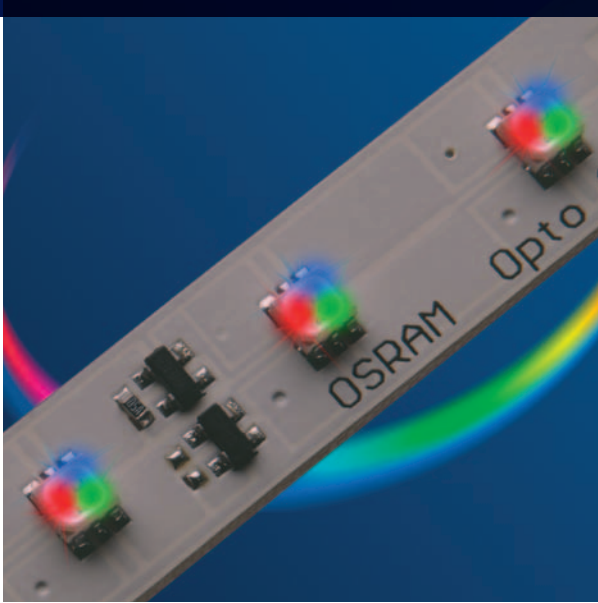
Upgrade Glass

Tier 1: **\$28.00** ([Tier 1 Glass choices](#))

Tier 2: **\$38.00** ([Tier 2 Glass choices](#))

LINEARlight Colormix

Rigid Colormixing LED Module



SYLVANIA LINEARlight Colormix modules provide dynamic control of colored illumination. Each individual LED contains red, green, and blue chips in one LED package. LINEARlight Colormix is optimally paired with OPTOTRONIC® 24Vdc Power Supplies and RGB 3CH DIM and OT RGB Sequencer controllers or OT RGB DMX to yield an infinite choice of colors, including white. This unique method of colormixing within each LED achieves better color consistency and uniformity than by combining separate, colored LEDs. LINEARlight Colormix modules are easily configured with available connector accessories.

These dynamic features enable the systems to be used in a wide range of large scale applications, including edge lighting of transparent and diffusing materials, illuminating facades and coves and architectural applications. These modules are ideal for wherever temperatures or space limitations prevent the use of conventional means of illumination.

Key Features & Benefits

- Each Multi LED contains an individually powered red, green and blue chip; this unique method of colormixing achieves excellent color consistency and uniformity
- Modules may be field cut to achieve a customized fit
- LEDs are closely spaced to minimize hot spots in shallow installations
- RGB dimmable by pulse width modulation, a method that maintains consistent lumen output and color
- Long life: up to 50,000 hours when temperature at Tc point is maintained at 40°C

Product Offering

Ordering Abbreviation	Wattage	Color
LNRLRMX/LM01M/RGB 1.48FT	8.3	RGB

Application Information

Applications

- Accent lighting
- Backlighting
- Controlled color sequencing
- Cove lighting
- Edge lighting

Specifications and Certifications

RoHS compliant



Specification Data

Catalog # LNRCLRMX/LM01M/RGB Type

Project SALAMANDER RESORT AND SPA

Comments

Prepared by _____ Date _____

Ordering Information

Item Number	Ordering Abbreviation	Module Length (ft)	No. of LEDs	Power (W)	Voltage (Vdc)	Current (Amps)	Wavelength	Watts/ft	Lumens (lm)
70080	LNRCLRMX/LM01M/RGB	1.48	30						
	Red Channel			1.8	24	0.075	617nm	1.2	32
	Green Channel			3.6	24	0.15	525nm	2.4	51
	Blue Channel			2.9	24	0.12	467nm	2.0	8

Note:

All data is related to entire module measured at Tc point of 25°C. Data reflects statistical mean values. Actual data may differ depending on variances in the manufacturing process. End users need to take into account the lumen depreciation as the temperature rises with various thermal management solutions installed.

Ordering Guide

LNRCLRMX	/	LM01M	/	RGB
Module Name		Style		Red, Green, Blue, Colormix
LINEARlight Colormix				

Power Supply Information

Application	OPTOTRONIC® Power Supply	Ordering Code	Qty.	OPTOTRONIC RGB Control Interface	Ordering Code	Qty.	Max. length of LINEARlight Colormix Strip	No. of Modules	Controllers
Colormixing, Color Changing, Sequencing	OT20/120-240/24S	51512	1	OT RGB 3CH DIM	51517	1	2.9 ft.	2	*Three 0-10V controllers or 100 K ohm potentiometers required ** DMX controller
	OT50/120/24LP	51598	1	OT RGB Sequencer	51518		8.9 ft.	6	
	OT75/120-277/24E	51514	1	OT DMX RGB	51600		13.3 ft.	9	
	OT96/120-277/24D	51510	1				14.8 ft.	10	
	OT96/120-277/24	51511	1				14.8 ft.	10	
	OT240/120-240/24/CH3	51515	1				3 x 13.3 ft.	3 x 9	

*Please contact SYLVANIA for a list of approved 0-10V controllers.

** DMX controller is only compatible with OT DMX RGB.

Notes:

1. A maximum of 5 modules can be connected in a single run. Please reference the "Wiring Diagram" in this document for specifics.
2. This table is for indoor applications. For outdoor applications reduce the number of modules by one.
3. OPTOTRONIC power supplies are optimally paired with SYLVANIA LED modules and are specifically designed with protection features for safe operation.

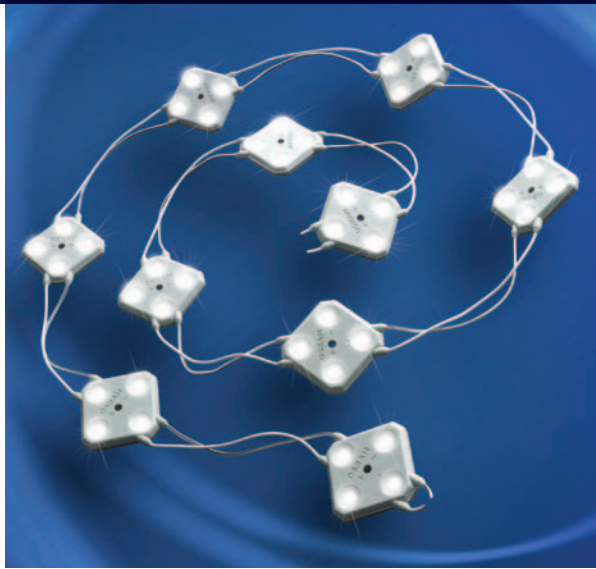
Minimum and Maximum Ratings

Parameter	Symbol	Values
Operating Temperature at Tc point	T_{op}	-30 to +75°C (-22 to +162°F)
Storage Temperature Range	T_{stg}	-30 to +80°C (-22 to +176°F)
Voltage Range	V_{max}	23 – 25Vdc
Reverse Voltage	V_R	25Vdc

Notes:

1. Exceeding maximum ratings may damage the LED module and pose potential safety hazards.
2. Elevated operating temperatures can be expected to negatively impact the service life in terms of lumen output.
3. Incorrect wiring may damage the LED module.
4. Not intended for use with constant current power supplies.

BACKlight 2G Protect BL04 Chain LED Module for Signage



BACKlight 2G Protect BL04 LED modules are a durable, energy efficient, long life alternative to neon sources. These LED modules are IP66 rated with special encapsulation that protects against heavy rainfall. Their flexible chain configuration makes them ideally suited to fit contours and curves typical of channel letter signs. These LED modules are quickly and easily configured as a neon retrofit or in new signs. Available in 6500K white, the BACKlight 2G BL04 module can be used in a wide variety of applications.

Each BACKlight 2G Protect BL04 LED board features four high brightness LEDs. Installation can be accomplished with available mounting accessories or a center mounting hole that allows the module to be installed with either M4 screws or snap-in connectors. The BACKlight 2G Protect BL04 LED modules are optimally paired with OPTOTRONIC® 10.5Vdc power supplies.

Key Features & Benefits

- Small height and wide beam angle allow for creation of extremely low-profile lettering with uniform illumination
- Flexible cables enable luminance to be adjusted fitting into the complex contours of a channel letter
- Installation “from the reel” and simple connection to control gear reduces installation costs
- Circuit boards are conformally coated and housed (IP66 rated) to protect against dust, moisture and dripping water
- Chain design allows for easy retrofit installations or installations in new signs
- Mounting holes allow for installation by screw, rivet, or snap-in mounting accessories
- Dimmable by pulse width modulation, a method that maintains consistent lumen output and color
- Long life: up to 50,000 hours (L_{50}) when temperature at Tc point is maintained at 40°C minimizing maintenance frequency

Product Offering

Ordering Description	Wattage	Color
BLP/BL04/W3F-865	22	6500K

Application Information

Applications

- Backlighting advertising panels
- Channel letters
- Cove lighting
- Displays
- Effect lighting
- Signs

Specifications and Certifications

RoHS compliant



Specification Data

Catalog #	BLP/BL04/W3F-865	Type	P
Project	SALAMANDER RESORT AND SPA		
Comments			
Prepared by	Date		

Ordering Information

Item Number	Ordering Abbreviation	Module Length	Circuit Board Spacing	No. of LEDs	Power (W)	Voltage (Vdc)	Module Current (Amps)	Color	Color Temperature	Lumens (lm)	Lumens/ft	Watts/ft
70355	BLP/BL04/W3F-865	11.8 ft.	4.72in.	120	22	10.5	2.1	White	6500K	440	37.2	1.8

Notes:

- All data is related to the entire module. Data reflects statistical mean values. Actual data may differ depending on variances in the manufacturing process. End users need to take into account the lumen depreciation as the temperature rises with various thermal management solutions installed.
- There are two modules per reel. Data is for a single module of 120 LEDs.

Ordering Guide

BLP	/	BL04	/	W3F	/	8	/	65
BACKlight Protect		BACKlight 2nd Generation		White-3rd Generation Fine Bin		CRI 8>80		Color Temp 65 = 6500K

Power Supply Information

Maximum Length and Number of Boards per Power Supply

Item Number	OT20 (51599)		OT25 (51505)		OT50 (51509)	
	Max. Length (ft)	Max. No. of Boards	Max. Length (ft)	Max. No. of Boards	Max. Length (ft)	Max. No. of Boards
70355	11	27	13	33	27	68

Notes:

- A maximum of 30 coupons can be connected on a single load.
- OPTOTRONIC® power supplies are optimally paired with SYLVANIA LED modules and are specifically designed with protection features for safe operation.
- The module is designed to work with constant voltage power supplies only. Reference the power supply PIB # ECS049 for product specification information.
- One 23.6 ft long reel contains two separate 11.8 ft long modules. See "wiring diagram" for power supply configurations.
- Installation with more than one LED chain on one OPTOTRONIC 50W has to be realized by either feeding the power to the center or by splitting the power feed to contact groups of single LED chains.
- These values are an approximation based on the typical "power" values listed under the "Ordering Information" parameters. To accurately determine the maximum LED load, evaluate the application based on the application note "Determining the maximum LED load on a constant voltage power supply" LED026. This document can be found at www.sylvania.com.

Minimum and Maximum Ratings

Parameter	Values
Operating Temperature at Tc point	-20... +85°C (-4 to +185°F)
Storage Temperature Range	-20... +85°C (-4 to +185°F)
Voltage Range (all colors)	10 – 11 V _{dc}
Maximum Reverse Voltage	0

Notes:

- Exceeding maximum ratings for operating and storage temperature will reduce the expected lifetime or destroy the LED module.
- Exceeding maximum ratings for operating voltage will cause hazardous overload and likely destroy the LED module.
- The temperature of the LED module must be measured at the Tc point according to -1 in a thermally constant status with a temperature sensor or a temperature sensitive label. For exact location of the Tc point see "Assembly Diagram".

HF²Narrow Stick

Compact High Intensity LED Module



The SYLVANIA HF²Narrow Stick LED module is an innovative module comprised of a closely packed array of small, discrete LEDs on boards under 5/8" wide. The module is designed to provide highly uniform, intense illumination and is available in 4" and 10". The module is also available in a half power version for most lengths and color temperatures.

HF²Narrow Stick modules may be conveniently connected end-to-end through the integrated 2-pin connectors. These modules are optimally paired with SYLVANIA OPTOTRONIC[®] 24 Vdc power supplies and may be dimmed using the OPTOTRONIC OT-DIM control interface.

Key Features & Benefits

- Highly dense LED spacing creates a virtually linear light source
- Narrow profile allows for easy installation in tight spaces
- Available in full and half output versions allowing for choice and customization
- Dimmable by pulse width modulation, a method that maintains consistent lumen output and color
- Long life: up to 50,000 hours (L₇₀) when temperature at Tc point is maintained below 85°C
- IES files are available at www.sylvania.com and Photopia files are available at www.ltioptics.com/sylvania

Product Offering

Ordering Abbreviation	Wattage	Color
HF2Narrow Stick 830H	1.7	3000K
HF2Narrow Stick 835H	1.7	3500K
HF2Narrow Stick 840H	1.7	4000K
*HF2Narrow Stick 729	3.4	2900K
HF2Narrow Stick 830	3.4	3000K
*HF2Narrow Stick 735	3.4	3500K
HF2Narrow Stick 835	3.4	3500K
*HF2Narrow Stick 740	3.4	4000K
HF2Narrow Stick 840	3.4	4000K
*HF2Narrow Stick 729H	4.2	2900K
HF2Narrow Stick 830H	4.2	3000K
*HF2Narrow Stick 735H	4.2	3500K
HF2Narrow Stick 835H	4.2	3500K
*HF2Narrow Stick 740H	4.2	4000K
HF2Narrow Stick 840H	4.2	4000K
*HF2Narrow Stick 729	8.4	2900K
HF2Narrow Stick 830	8.4	3000K
HF2Narrow Stick 835	8.4	3500K
*HF2Narrow Stick 740	8.4	4000K
HF2Narrow Stick 840	8.4	4000K

* Product being discontinued

Application Information

Applications

- Accent lighting
- Cove lighting
- Edge lighting
- Under cabinet lighting

Specifications and Certifications



The SYLVANIA HF²Narrow Stick is UL2108 Recognized for US and Canada Class 2 Unit (UL file # E247649)

RoHS compliant



Specification Data

Catalog #	HF2Narrow Stick 830H	Type	P1
Project	SALAMANDER RESORT AND SPA		
Comments			
Prepared by	Date		

Ordering Information

Item Number	Ordering Abbreviation	Length	No. of LEDs	Power (W)	Voltage (Vdc)	Current (mA)	Color Temperature	Initial Lumens	Beam Angle	CRI
70392	HF2Narrow Stick 830H	4"	24	1.7	24	70	3000K	86	120°	85
70393	HF2Narrow Stick 835H	4"	24	1.7	24	70	3500K	88	120°	85
70394	HF2Narrow Stick 840H	4"	24	1.7	24	70	4000K	102	120°	85
70372	*HF2Narrow Stick 729	4"	42	3.4	24	140	2900K	164	150°	70
70492	HF2Narrow Stick 830	4"	42	3.4	24	140	3000K	172	120°	85
70373	*HF2Narrow Stick 735	4"	42	3.4	24	140	3500K	168	150°	70
70473	HF2Narrow Stick 835	4"	42	3.4	24	140	3500K	176	120°	85
70374	*HF2Narrow Stick 740	4"	42	3.4	24	140	4000K	196	150°	70
70493	HF2Narrow Stick 840	4"	42	3.4	24	140	4000K	205	120°	85
70375	*HF2Narrow Stick 729H	10"	54	4.2	24	175	2900K	205	150°	70
70495	HF2Narrow Stick 830H	10"	54	4.2	24	175	3000K	215	120°	85
70376	*HF2Narrow Stick 735H	10"	54	4.2	24	175	3500K	210	150°	70
70496	HF2Narrow Stick 835H	10"	54	4.2	24	175	3500K	220	120°	85
70391	*HF2Narrow Stick 740H	10"	54	4.2	24	175	4000K	245	150°	70
70497	HF2Narrow Stick 840H	10"	54	4.2	24	175	4000K	257	120°	85
70369	*HF2Narrow Stick 729	10"	102	8.4	24	350	2900K	410	150°	70
70436	HF2Narrow Stick 830	10"	102	8.4	24	350	3000K	430	120°	85
70472	HF2Narrow Stick 835	10"	102	8.4	24	350	3500K	441	120°	85
70371	*HF2Narrow Stick 740	10"	102	8.4	24	350	4000K	490	150°	70
70422	HF2Narrow Stick 840	10"	102	8.4	24	350	4000K	514	120°	85

* Product being discontinued

Notes:

- All data is related to the entire module. Data reflects statistical mean values. Actual data may differ depending on variances in the manufacturing process.
- Delivered lumens per board subject to change based on shipments of lumens per LED of 3 to 9 lumens.
- Color coordinates for the 3000K (x=.4562, y=.4260), (x=.4299, y=.4165), (x=.4147, y=.3814), (x=.4373, y=.3893). Color coordinates for the 3500K (x=.4299, y=.4165), (x=.3996, y=.4015), (x=.3889, y=.3690), (x=.4147, y=.3814). Color coordinates for the 4000K (x=.4006, y=.4044), (x=.3736, y=.3874), (x=.3670, y=.3578), (x=.3898, y=.3716).
- Dry location** use only.

Ordering Guide

HF2	Narrow Stick	7	29	H
High Flux	Module	CRI	Color Temperature	Half Power
Second Generation	Name	7 > 70 8 > 80	29 = 2900K 30 = 3000K 35 = 3500K 40 = 4000K	

Power Supply Information

Maximum Number of Modules per Power Supply

	OT17 (51622)	OT20 (51512)	OT50 (51598)	OT75 (51514)	OT96D (51510)	OT96 (51511)	OT240 (51515)
All 10" (102 LEDs) Item Numbers	1	2	5	8	10	10	8 / chnl
All 4" (42 LEDs) Item Numbers	4	5	13	20	25	25	21 / chnl
All 10" (H, 54 LEDs) Item Numbers	3	4	10	16	20	20	17 / chnl
All 4" (H, 24 LEDs) Item Numbers	9	10	26	40	51	51	42 / chnl

Notes:

- For the 10" 102 LED version, 5 LED modules can be operated on a single feed. For the 10" 54 LED version and the 4" 42 LED version, 10 LED modules can be operated on a single feed.
For the 4" 24 LED version, 24 LED modules can be operated on a single feed.
- OPTOTRONIC® power supplies are optimally paired with SYLVANIA LED modules and are specifically designed with protection features for safe operation.
- The module is designed to work with Constant Voltage power supplies only. Reference the Power Supply PIB #ECS050 for product specific information.
- These values are an approximation based on the typical "power" values listed under the "Ordering Information" parameters. To accurately determine the maximum LED load, evaluate the application based on the application note "Determining the Maximum LED Load on a Constant Voltage Power Supply" LED026. This document can be found at www.sylvania.com.
- HF2Narrow Stick modules can be dimmed when used with the OT DIM, or OTRGBDIM controllers. Because of the power consumed by these controllers, an additional de-rating of the overall "maximum" load must be factored into the above chart. To determine this de-rating (wattage) value please reference Step 8 of this same App. Note #LED026.



White



A Green Flagship Product

Our Green Flagship Products offer significantly improved environmental performance in two or more of the following Green Focal Areas: weight, energy consumption, hazardous substances, packaging, recycling, disposal, and lifetime reliability.

Date: _____ Type: Q

Firm Name: _____

Project: SALAMANDER RESORT AND SPA

eW Profile Powercore 2700 K

Ultra-low profile, white light LED under cabinet fixture

eW[®] Profile Powercore is a direct line voltage under cabinet LED fixture for common task lighting and display case applications. Available in 2700 K or 4000 K color temperatures, eW Profile Powercore is suitable for new installations and retrofit upgrades requiring superior illumination quality with dramatic energy savings. Onboard Powercore[®] digital power processing technology maximizes output efficiency and eliminates the need for external power supplies. Combined with an ultra low profile housing, three fixture lengths, versatile jumper options, and housing colors to match any environment, eW Profile Powercore offers an unprecedented level of contractor-friendly installation.

- Onboard Powercore[®] technology — eW Profile Powercore fixtures process power input directly from line voltage. Clip or track mounting options and standard line-neutral-ground wiring dramatically simplify installation.
- Industry-leading quality — Long-life LEDs provide 55,000 hours of use at 70% lumen maintenance.
- Exceptional illumination performance — Meets IESNA illumination intensity specifications for optimal usability and safety in task lighting applications.
- Energy cost savings — Consumes just 5.5 watts of energy per fixture and can support a continuous run up to 50 ft (15.2 m) in length.

Specifications

Due to continuous improvements and innovations, specifications may change without notice.

Item	Specification	9.25 in (actual) 11 in (effective)	19.25 in (actual) 21 in (effective)	39.25 in (actual) 41 in (effective)
Output	Beam Angle	110° x 110°		
	Lumens	150	264	524
	Color Temperature	2700 K (+475 / -200)		
	Efficacy (lm / W)	25.0	26.4	26.2
	Mixing Distance	2 in (51 mm) to uniform light		
	CRI	71	72	73
	Lumen Maintenance	55,000 hours L70* @ 25° C 31,000 hours L70* @ 50° C		
Electrical	Input Voltage	100 / 120 / 220 – 240 VAC, 50 / 60 Hz		
	Power Consumption	5.5 W max. at full output, steady state 6 W peak in-rush	10 W max. at full output, steady state 13 W peak in-rush	20 W max. at full output, steady state 25 W peak in-rush
	Power Factor	≥ 95		
Control	Commercially available ELV, trailing edge, or reverse-phase control dimmer			
Physical	Dimensions (Height x Width x Depth)	.88 x 9.25 x 1.7 in (22 x 235 x 43 mm)	.88 x 19.25 x 1.7 in (22 x 489 x 43 mm)	.88 x 39.25 x 1.7 in (22 x 997 x 43 mm)
	Weight	7 oz (198 g)	13 oz (369 g)	1.6 lbs (728 g)
	Housing	Extruded aluminium, polycarbonate, White, Black, or Gray powder-coated finish		
	Lens	Clear polycarbonate		
	Fixture Connections	Integral male / female connectors		
	Operating Temperature	-4° – 122° F (-20° – 50° C)		
	Humidity	0 – 95%, non-condensing		
	Maximum Fixture Run Length	Up to 50 ft (15.3 m) of fixtures on a single circuit, ≤ 324 W		
Certification and Safety	Certification	UL / cUL, FCC Class B, CE		
	LED Class	Class 1M LED product		
	Environment	Dry / Damp Location, IP50		

* Lumen measurement complies with IES LM-79-08



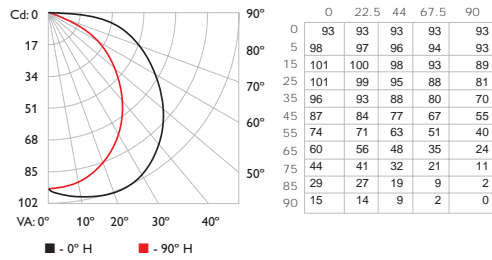
For detailed product information, please refer to eW Profile Powercore Product Guide at www.colorkinetics.com/Is/essentialwhite/ewprofile/



eW Profile Powercore 19.25 in, 2700 K Photometrics

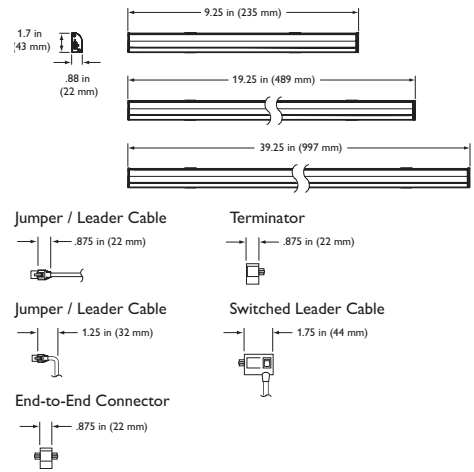
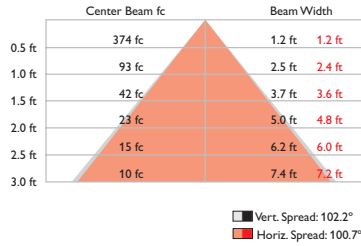
Power Consumption – 10 W, Lumens – 264, Efficacy – 26.4 lm / W

Polar Candela Distribution



For lux multiply fc by 10.7

Illuminance at Distance



For detailed product information, please refer to eW Profile Powercore Product Guide at www.colorkinetics.com/essentialwhite/ewprofile/

Fixtures and Accessories

Item	Housing Color	Temp.	Size	Item Number	Philips 12NC
eW Profile Powercore, 100 VAC	White	2700 K	9.25 in (235 mm) (effective 11 in)	523-000026-18	910503700407
			19.25 in (489 mm) (effective 21 in)	523-000026-19	910503700408
			39.25 in (997 mm) (effective 41 in)	523-000026-20	910503700409
eW Profile Powercore, 120 VAC	White	2700 K	9.25 in (235 mm) (effective 11 in)	523-000027-18	910503700425
			19.25 in (489 mm) (effective 21 in)	523-000027-19	910503700426
			39.25 in (997 mm) (effective 41 in)	523-000027-20	910503700427
eW Profile Powercore, 220 – 240 VAC including Leader Cable and Terminator	White	2700 K	9.25 in (235 mm) (effective 11 in)	523-000028-36	910503700528
			19.25 in (489 mm) (effective 21 in)	523-000028-37	910503700529
			39.25 in (997 mm) (effective 41 in)	523-000028-38	910503700530
eW Profile Powercore, 220 – 240 VAC including End-to-End Connector	White	2700 K	9.25 in (235 mm) (effective 11 in)	523-000028-18	910503700443
			19.25 in (489 mm) (effective 21 in)	523-000028-19	910503700444
			39.25 in (997 mm) (effective 41 in)	523-000028-20	910503700445
Mounting Track	White		25 @ 9 in (229 mm)	120-000064-02	910503700273
			25 @ 19 in (483 mm)	120-000064-00	910503700271
			24 @ 39 in (991 mm)	120-000064-01	910503700272
Jumper Cable, 100 / 220 – 240 VAC	White		6 in (152 mm)	108-000035-05	910503700265
			12 in (305 mm)	108-000035-06	910503700266
			18 in (457 mm)	108-000035-07	910503700267
			5 ft (1.5 m)	108-000035-08	910503700268
Jumper Cable, 120 VAC	White		6 in (152 mm)	108-000035-00	910503700260
			12 in (305 mm)	108-000035-01	910503700261
			18 in (457 mm)	108-000035-02	910503700262
			5 ft (1.5 m)	108-000035-03	910503700263
End-to-End Connector, Quantity 5	White		.875 in (22 mm)	108-000035-10	910503700368
“Y” Jumper Cable and Terminator, 100 / 220 – 240 VAC	White		16.5 in (419 mm)	108-000035-09	910503700269
“Y” Jumper Cable and Terminator, 120 VAC	White		16.5 in (419 mm)	108-000035-04	910503700264
Switched Portable Leader Cable and Terminator, 120 VAC	White		10 ft (3 m)	108-000034-00	910503700258
Leader Cable and Terminator, 100 / 220 – 240 VAC	White		10 ft (3 m)	108-000034-01	910503700259
Permanent Wiring Compartment and Terminator, 120 VAC	White		1.125 x 1.75 x 3.5 in (29 x 45 x 89 mm) (Height x Width x Depth)	120-000065-00	910503700270
Switched Permanent Wiring Compartment and Terminator, 120 VAC	White		.875 x 2 x 4.25 in (22 x 51 x 108 mm) (Height x Width x Depth)	120-000065-04	910503701022

Use Item Number when ordering in North America.



Philips Color Kinetics
3 Burlington Woods Drive
Burlington, Massachusetts 01803 USA
Tel 888.385.5742
Tel 617.423.9999
Fax 617.423.9998
www.colorkinetics.com

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DAS-000005-01 R07 02-10

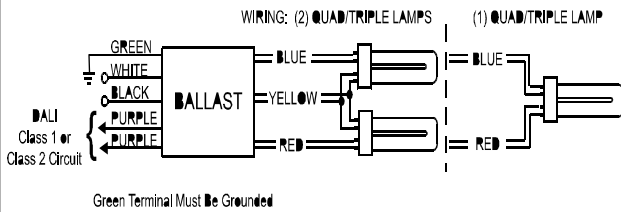
IDL-2S26-M5-BS@120

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.
* CFTR18W/GX24Q	1	18	50/10	0.19	07/23	0.03/1.00	10	0.99	1.6	4.35
CFTR18W/GX24Q	2	18	50/10	0.34	11/41	0.03/1.00	10	0.99	1.6	2.44

Wiring Diagram



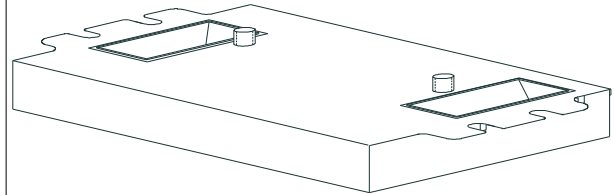
Diag. 165

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 "	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 Philips Lighting Electronics N.A. in a controlled environment and is 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.

PHILIPS LIGHTING ELECTRONICS N.A.

10275 WEST HIGGINS ROAD · ROSEMONT, IL 60018

Tel: 800-322-2086 · Fax: 888-423-1882 · www.philips.com/advance

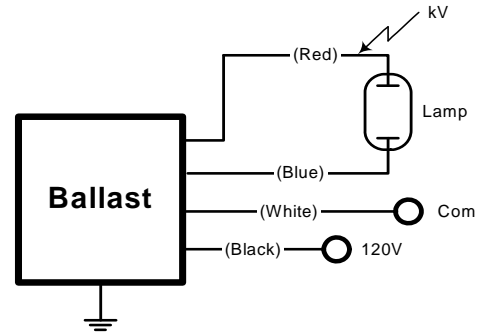
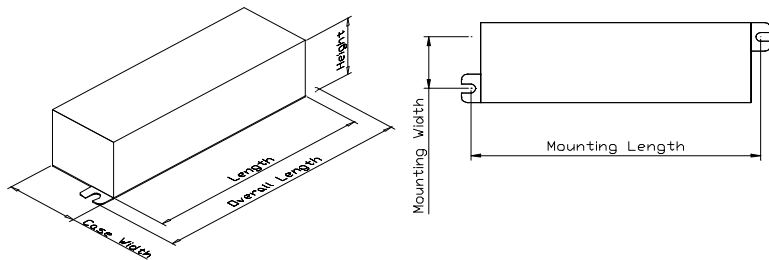
Customer Support/Technical Service: 800-372-3331 · OEM Support: 866-915-5886

	e-Vision® Electronic Ballast for Metal Halide Lamps	Catalog Number: RMH-G20-K For 20W Metal Halide Lamps ANSI M156 120V 50/60Hz Electronic Status: RELEASED
	DIMENSIONS AND DATA	

Lamp		Input Volts	Catalog Number*	Line Current (Amps)	Input Power (Watts)	Min Power Factor	Wiring Diag	Fig.	Weight (lb)	Max. Distance to Lamp (ft)
Number	Watts									

20W Watt Lamp, ANSI Code M156 Minimum Starting Temp -30°C/-20°F

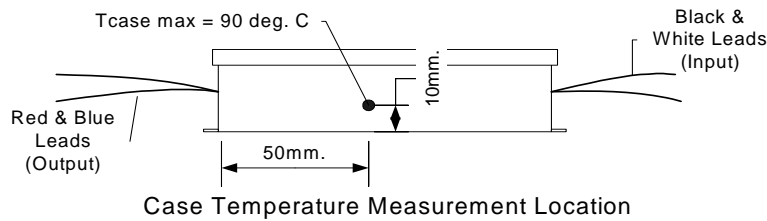
1	20	120	RMH-G20-K-XXX	0.21	24	0.9	4	K	0.4	6
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Ballast Case must be Grounded

Wiring Diagram 4

Case Figure	Overall Length	Case Length	Case Width	Height	Mounting Length	Mounting Width
K	119mm [4.74"]	104mm [4.1"]	33mm [1.1"]	30mm [1.2"]	114mm [4.5"]	13.5mm [0.5"]



INSTALLATION & APPLICATION NOTES:

- Maximum allowable case temperature is 90°C. See figure above for measurement location
- Ignition pulse is 2 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 lead to the center terminal of lamp when using screw base lamps

***Ordering Information**

Order Suffix	Description
-LF	Ballast with side exit leads and mounting feet, Leads exit either end
-LFS	Ballast with side exit leads and mounting feet, Leads exit same end

Data is based on tests performed by Philips Advance in a controlled environment and is 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.

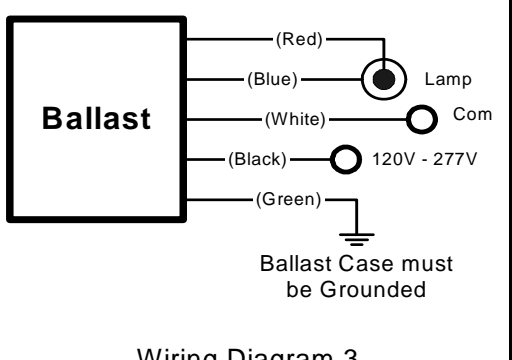
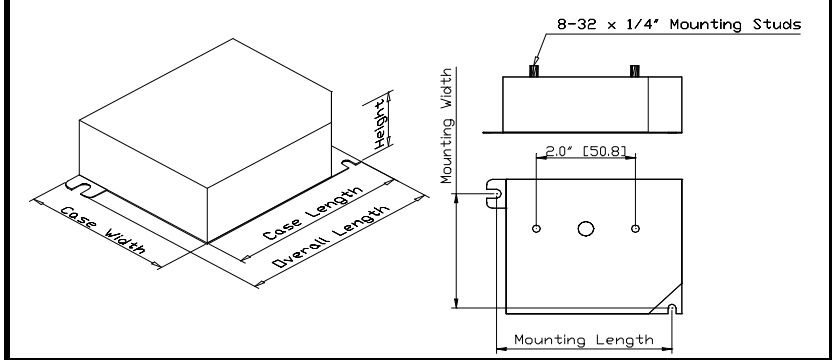
Philips Lighting Electronics N.A.

10275 West Higgins Road • Rosemont, IL 60018 • www.philips.com/advance
 Tel: 800-322-2086 • Fax: 800-423-1882 • Customer Support: 800-372-3331 • OEM Support: 866-915-5886

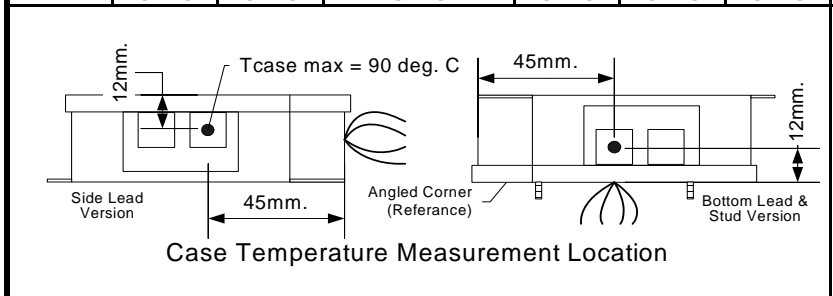
	e-Vision® Electronic Ballast for Metal Halide Lamps	Catalog Number: IMH-39-G For 39W Metal Halide Lamps ANSI M130 120-277 50/60Hz Electronic Status: RELEASED
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DIMENSIONS AND DATA

Lamp		Input Volts	Catalog Number*	Line Current (Amps)	Input Power (Watts)	Min Power Factor	Wiring Diag	Fig.	Weight (lb)	Max. Distance to Lamp (ft)
Number	Watts									
39W Watt Lamp, ANSI Code M130 Minimum Starting Temp -30°C/-20°F										
1	39	120 277	IMH-39-G-XXX	0.39 0.18	46 45	0.9	3	G	0.9	5



Case Figure	Overall Length	Case Length	Case Width	Height	Mounting Length	Mounting Width
G	97mm [3.8"]	90mm [3.5"]	77mm [3.0"]	30mm [1.2"]	87mm [3.4"]	67mm [2.6"]



- INSTALLATION & APPLICATION NOTES:**
- 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 lead to the center terminals of the lamp when using screw base lamps

*Ordering Information	
Order Suffix	Description
-LF	Ballast with side exit leads and mounting feet
-BLS	Ballast with bottom exit leads and mounting studs

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LED Dimming Driver

Product Specifications

ANZ#: Z151a, February 26, 2009

LP1090-XX-YZ-E / LP1060-XX-YZ-E	
Switch-Mode LED Driver	
Total Power	60 - 96 Watts
Input Voltages	90-264 VAC or 100-277VAC
Number of Outputs	One

SPECIAL FEATURES ELECTRICAL SPECIFICATIONS

- UL1310 / UL48 Class 2 recognized
- Provides 0-10V Dimming Control
- Compatible with standard ballast dimmer
- Meet IP66 standards
- Suitable for damp or dry locations
- Suitable for wet location with adequate end plate and connectors
- Built-in wiring compartments for easy installation (selected models)
- Compact, lightweight w/ aluminum case
- Active PFC to conserve power consumption

Input range	90 to 264 VAC(60W) ; 100-277VAC(96W)
Frequency	47 to 63 Hz
Power Factor	> 0.95 at full load, 115VAC
Crest Factor	1.5 max.
Inrush current	40.0 Amps maximum at 230VAC, cold start, 25° C
Input current	1.5Amps maximum at 90VAC
Efficiency	85% typical at 230VAC and maximum load
EMI filtering	47CFR, Part 2, Part 15 and CispR PUB, 22 Class A
Maximum power	96W
Current Adjust range	30 ~ 50%
Load regulation	±3%
Leakage Current	0.2mA @ 110VAC, 0.4mA @ 230VAC
Hold up time	Half cycle minimum at 120 VAC and 80% of rated load
Protection	Over-voltage, Over-current, Over-power and Short circuit protection: Auto-recovery

ENVIRONMENTAL

Operating temperature:	-30 to 70 ° C (De-rating : 2% per ° C from 50°C)
Storage temperature:	-40 to 85 ° C
Humidity (Non-Condensing):	5% to 95%
Cooling:	Convection
Vibration Frequency:	5 to 50 Hz
MTBF:	>100,000 Hours at full load and 25°C ambient conditions (MIL-217F)
EMC :	Compliant to 47CFR, Part 2, Part15 and CispR PUB, 22 Class B

SAFETY

UL	UL1310 / UL48 Class 2
CE	Certified

MODEL INFORMATION – SINGLE OUTPUT

Model Numbers	Constant Voltage Mode Output		Total output (Watts)
	Adjust range (Vdc)	Current range (A)	
LP1090-24-YZ-E	18 ~ 24	1.5 ~ 4.00	96
LP1090-19-YZ-E	12 ~ 19	2.0 ~ 5.00	60 ~ 95
LP1060-24-YZ-E	20 ~ 24	1.5 ~ 2.50	60
LP1060-12-YZ-E	10 ~ 12	2.5 ~ 5.00	60

MECHANICAL DRAWING

- Model Information – Single DC output**
LP1090-XX-YZ-E / LP1060-XX-YZ-E
 XX – DC outputs
 Y – AC input side plate options, refer to drawing for more details
 Z – G = Gland
 E – Aluminum enclosure length, 290mm, refer to drawing for more details



100W Single Output Switching Power Supply

PLN-100 series



■ Features :

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Built-in active PFC function
- IP64 design for indoor or outdoor installations
- UL1310 Class 2 power unit
- Cooling by free air convection
- 100% full load burn-in test
- Suitable for LED lighting and moving sign applications.
- High reliability
- 2 years warranty



SPECIFICATION

MODEL		PLN-100-12	PLN-100-15	PLN-100-20	PLN-100-24	PLN-100-27	PLN-100-36	PLN-100-48
OUTPUT	DC VOLTAGE	12V	15V	20V	24V	27V	36V	48V
	RATED CURRENT <small>Note.6</small>	5A	5A	4.8A	4A	3.55A	2.65A	2A
	CURRENT RANGE <small>Note.6</small>	0 ~ 5A	0 ~ 5A	0 ~ 4.8A	0 ~ 4A	0 ~ 3.55A	0 ~ 2.65A	0 ~ 2A
	RATED POWER <small>Note.6</small>	60W	75W	96W	96W	95.85W	95.4W	96W
	RIPPLE & NOISE (max.) <small>Note.2</small>	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p
	VOLTAGE ADJ. RANGE	0% ~ -15%						
	CURRENT ADJ. RANGE	3% ~ -25%						
	VOLTAGE TOLERANCE <small>Note.3</small>	±3.0%	±3.0%	±3.0%	±3.0%	±3.0%	±2.0%	±2.0%
	LINE REGULATION	±1.0%						
	LOAD REGULATION	±2.0%						
SETUP, RISE TIME	1200ms, 80ms/230VAC 1200ms, 80ms/115VAC at full load							
HOLD UP TIME (Typ.)	60ms/230VAC 30ms/115VAC at full load							
INPUT	VOLTAGE RANGE <small>Note.5</small>	90 ~ 264VAC						
	FREQUENCY RANGE	47 ~ 63Hz						
	POWER FACTOR (Typ.)	PF>0.95/230VAC PF>0.98/115VAC at full load						
	EFFICIENCY (Typ.)	83%	85%	87%	87%	87%	87%	87%
	AC CURRENT (Typ.)	12V:0.8A/115VAC	0.4A/230VAC	15V:0.9A/115VAC	0.45A/230VAC	20V ~ 48V:1.1A/115VAC	0.55A/230VAC	
	INRUSH CURRENT (Typ.)	COLD START 40A/230VAC						
	LEAKAGE CURRENT	0.5mA / 240VAC						
PROTECTION	OVER CURRENT <small>Note.4</small>	95 ~ 100% Protection type : Constant current limiting, recovers automatically after fault condition is removed						
	OVER VOLTAGE	13 ~ 16V	16.5 ~ 20V	22 ~ 27V	27 ~ 34V	29 ~ 36V	39 ~ 48V	52 ~ 64V
	OVER TEMPERATURE	90°C ±10°C (RTH2) Protection type : Shut down o/p voltage, re-power on to recover						
ENVIRONMENT	WORKING TEMP.	-30 ~ +50°C (Refer to output load derating curve)						
	WORKING HUMIDITY	20 ~ 90% RH non-condensing						
	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH						
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)						
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes						
SAFETY & EMC	SAFETY STANDARDS	UL1310 Class 2, TUV EN60950-1, CAN/CSA C22.2 No. 223-M91(except for 48V),IP64 approved						
	WITHSTAND VOLTAGE	I/P-O/P:4.25KVDC						
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms/500VDC						
	EMI CONDUCTION & RADIATION	Compliance to EN55015, EN55022 (CISPR22) Class B						
	HARMONIC CURRENT	Compliance to EN61000-3-2,-3						
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN61547, EN55024, light industry level, criteria A						
OTHERS	MTBF	303.1Khrs min. MIL-HDBK-217F (25°C)						
	DIMENSION	200*70.5*35mm (L*W*H)						
	PACKING	0.52Kg; 20pcs/11.4Kg/0.76CUFT						
NOTE	<ol style="list-style-type: none"> 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. Please refer to OLP characteristics. 5. Derating may be needed under low input voltage. Please check the derating curve for more details. 6. This is the maximum possible output current and power. Over load protection may be activated slightly below this level to comply with the requirement of UL1310 class 2. 							

OPTOTRONIC® Electronic 24V DC LED Power Supplies

Power Supply Guide

OT6/100-120/24CE
OT17/120-277/24E
OT20/120-240/24S
OT30/120/24CORD
OT50/120/24LP
OT75/120-277/24E
OT96/120-277/24D
OT96/120-277/24
OT240/120-240/24/CH3

LED power supplies compatible with:
24V LED Modules

Key System Features

- Class 2 output
- Long life
- Short circuit and overload protection
- Remote mounting possible
- OT6, OT17, & OT75 models are rated for outdoor, damp locations
- OT96 & OT240 models are IP66 rated for wet locations

Application Information

OSRAM OPTOTRONIC

power supplies are ideally suited for:

- Low & medium power applications
- Signs
- Compact installations
- Path and roadway marking
- Backlighting
- Step and seat marking
- Effect lighting
- Panel lighting
- Ambience lighting inside furniture
- Wall washing
- General lighting

OSRAM OPTOTRONIC power supplies are compact and electronically stabilized. The wide range of input voltage, on select models, from 100 to 277 VAC enables worldwide use on single-phase AC power lines. These supplies are available with 24VDC outputs.

OPTOTRONIC power supplies are protected against open circuit, short circuit, overload and overheating conditions. They meet the highest industry standards.



System Information

OSRAM SYLVANIA has introduced a full line of LED modules (Light Emitting Diodes) and power supply products.

LED modules can be used in a wide variety of applications due to our variable module design, module geometries, and range of available colors.

The LEDs are available in many different configurations to meet the demands of these applications. For additional information about OSRAM LED systems, contact OSRAM SYLVANIA or visit www.sylvania.com/LED.



SPECIFICATION DATA

Catalog #	Date	Type
Project	Prepared by	
Comments		

OPTOTRONIC LED Power Supplies (DC Output)

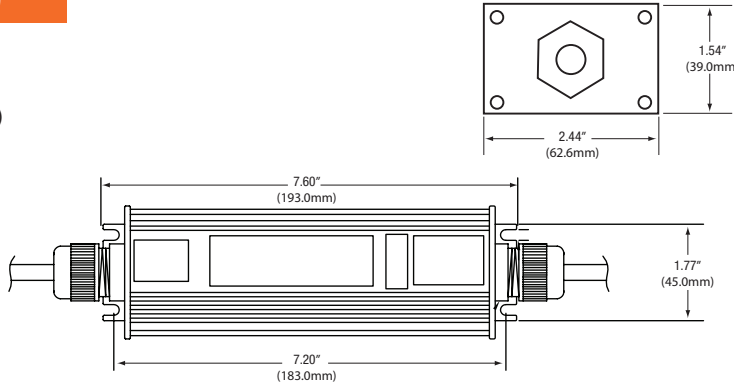
Item Number	Description	Nominal Input Voltage (VAC)	Nominal Input Current (Amps)	Power Factor	Nominal Input Power (W)	Output Voltage (VDC)	Output Power Range (W)	Max. Line Ripple (V)	UL/ETL file#	Location Rating
51503	OT6/100-120/24CE	120	0.11	0.55	7.1	24.0±0.5	0.9-6	±0.2V	E258264	Damp
51622	OT17/120-277/24E	120 277	0.19 0.10	0.92	21	24.0±0.5	0.8-17	±1.0V	E220096	Damp
51512	OT20/120-240/24S	120 240	0.38 0.19	0.5	23	24.0±1.0	0.9-20	±0.2V	E258264	Dry
51521	OT30/120/24CORD	120	0.63	0.5	38	24.0±1.0	1-30	±1.5V	3137489	Dry
51598	OT50/120/24LP	120	0.47	0.99	56	24.0±0.5	0.9-50	±0.2V	E248522	Dry
51514 ³	OT75/120-277/24E	120 277	0.76 0.33	0.99	90	24.0±0.5	0.9-75	±0.2V	E258264	Damp
51510	OT96/120-277/24D	120 277	0.91 0.39	0.99	108	24.0±0.5	0.8-96	±1.0V	E220096	Dry
51511	OT96/120-277/24	120 277	0.91 0.39	0.99	108	24.0±0.5	0.8-96	±1.0V	E220096	WET ²
51515	OT240/120-240/24/CH3	120 240	2.39 1.19	0.99	285	24.0±0.5	0.8-240	±1.0V	E220096	WET ²

1: All power supplies can be remote mounted up to 32 feet. Although it is possible to exceed the remote mounting distance, the installer and/or end user must take precautions to prevent and/or test the effects of EMI (electromagnetic interference).
 2: Use wiring rated and marked PLTC, CL3R, and "sun resistant"
 3: 51514 replaces 51513 (OT75/120/24), which is discontinued

OT96 Case (Dry Rated)

Packaging:
 Quantity: 20 pieces/carton
 Weight: 1.6 lbs each (approx.)
 33 lbs/carton

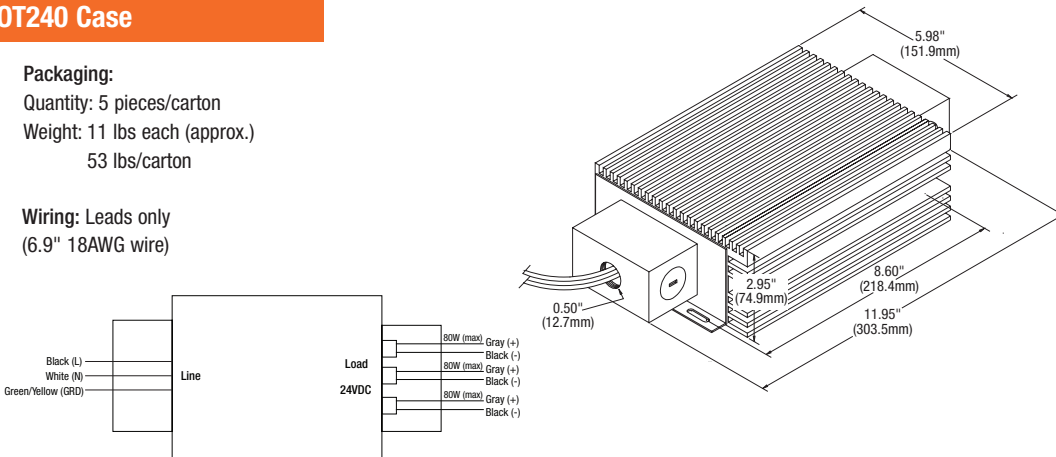
Wiring: Leads only
 (12" 18AWG wire)
 Input: Black (L), White (N), & Green/Yellow (GRD)
 Output: Red (+) & Black (-)



OT240 Case

Packaging:
 Quantity: 5 pieces/carton
 Weight: 11 lbs each (approx.)
 53 lbs/carton

Wiring: Leads only
 (6.9" 18AWG wire)



OPTOTRONIC®

24V DC LED Power Supplies

Specifications

Class 2 Outputs
Input Voltage Range (Min/Max):
 OT6: 90 - 132 VAC
 OT20 & OT240: 108 - 254 VAC
 OT30 & OT50: 108 - 132 VAC
 OT17, OT75 & OT96: 100 - 305 VAC
Input Frequency: 50/60Hz
Ambient Temp. Range:
 -20°C through +50°C
 OT30: -20°C through +45°C
 OT75/120-277: -25°C through +60°C
 OT17, OT96 & OT240: -30°C through +70°C
Max. Case Temp:
 OT30: 45°C
 OT6, OT50: 70°C
 OT20: 75°C
 OT17, OT75, OT96 & OT240: 90°C



OT6, OT17, OT20, OT75: UL 1310, UL48
 Recognized for US & Canada Class 2 Unit
 OT96 & OT240: UL48 Recognized for US & Canada Class 2 Unit
 OT50: UL1310 Recognized for US & Canada Class 2 Unit



OT30: ETL listed and conforms to UL1310



OT6, OT75 are CSA approved
 FCC 47CFR Part 15 compliant RoHS compliant

Life / Warranty

OPTOTRONIC LED Power Supply Products are covered by our OPTOTRONIC power supply warranty. For additional details, refer to our latest version of the warranty bulletin.

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

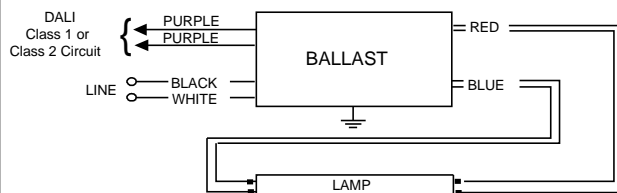
Specifications subject to change without notice.

Electrical Specifications

IDA-132-SC@277V	
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

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.
F17T8	1	17	50/10	0.07	07/20	0.03/1.00	10	0.99	1.7	5.00
F25T8	1	25	50/10	0.10	07/27	0.03/1.00	10	0.99	1.7	3.70
* F32T8	1	32	50/10	0.13	08/35	0.03/1.00	10	0.99	1.7	2.86

Wiring Diagram

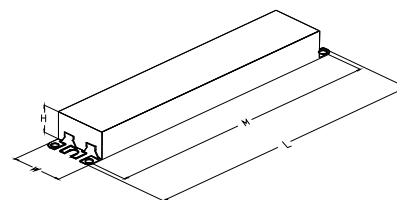


Diag. 55B

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 "	1.7 "	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 02/01/2008



Data is based upon tests performed by Philips Lighting Electronics N.A. in a controlled environment and is 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.

PHILIPS LIGHTING ELECTRONICS N.A.

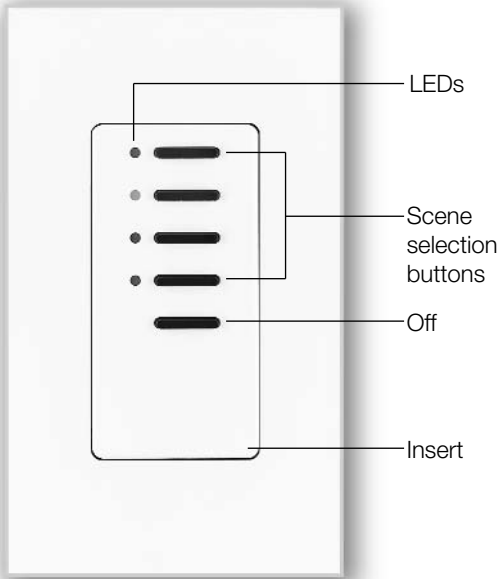
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Tel: 800-322-2086 · Fax: 888-423-1882 · www.philips.com/advance

Customer Support/Technical Service: 800-372-3331 · OEM Support: 866-915-5886

Color and Finish Codes

NTOMX-4S-NRL-__-__ 5-Button Wallstation



Description

- Recalls preset light levels for four scenes plus Off.
- Starts or stops one to four sequences.
- Off button turns all lights off.
- May be custom-configured for other functions.
- Works with GRAFIK 5000/6000/7000 Systems.

Finish and Engraving Options

- Available with engraving to meet specific project needs.
- Available in a “no-insert” version for a sleeker look.
- Green LEDs are standard. Amber LEDs are optional.

Job Name:	Model Numbers:
Job Number:	

Specifications

Power

Low-voltage type Class 2 (PELV).
Operating voltage: 32 V Direct Current.

Key Design Features

- Meets IEC 801-2. Tested to withstand 15kV electro-static discharge without damage or memory loss.
- Faceplate snaps on with no visible means of attachment.
- Can be ganged to share a common faceplate with NovaT* and Vareo Dimmers. Counts as a "small control" for ganging.

System Communications and Capacity

- Low-voltage type Class 2 (PELV) wiring connects Wallstations to Processor Panel.
- Up to 32 Wallstations, Control Units, and/or Control Interfaces may be connected per Class 2 (PELV) wiring link.

Terminals

Accept up to two #18 AWG (1.0mm²) typical.

Environment

32-104°F (0-40°C). Relative humidity less than 90% non-condensing.

Color and Finish Codes

Matte Finishes

Standard – Ship in 48 hours
White WH
Ivory IV
Beige BE
Gray GR
Brown BR
Black BL

Metal Finishes

Ship in 4 to 6 weeks
Bright Brass BB
Bright Chrome BC
Bright Nickel BN
Satin Brass SB
Satin Chrome SC
Satin Nickel SN
Antique Brass QB
Antique Bronze QZ

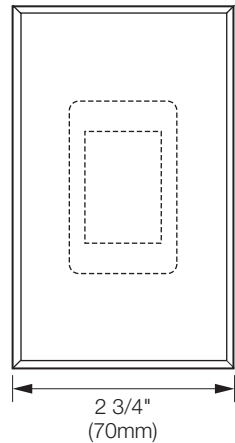
Anodized Aluminum Finishes

Ship in 4 to 6 weeks
Clear CLA
Black BLA
Brass BRA
Engraving E
No Insert NI

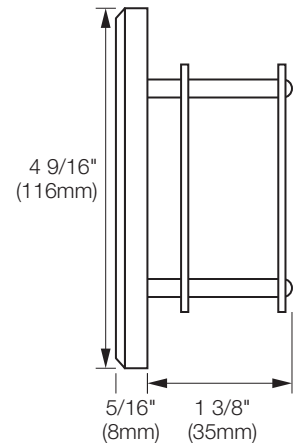
Also available:
-Custom Controls
-Color Matching
Ship in 4 to 6 weeks. Pricing may vary depending on finishes.

Dimensions

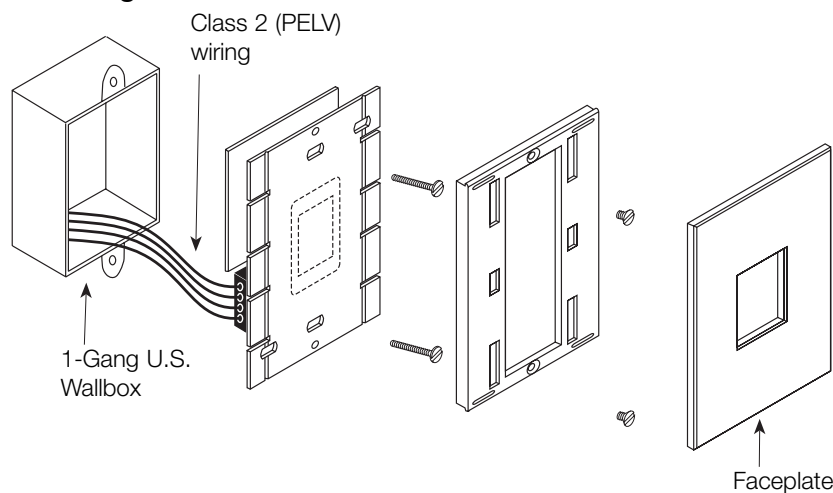
Front View



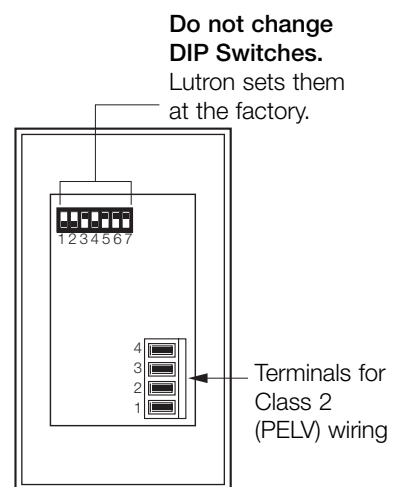
Side View



Mounting



Back View

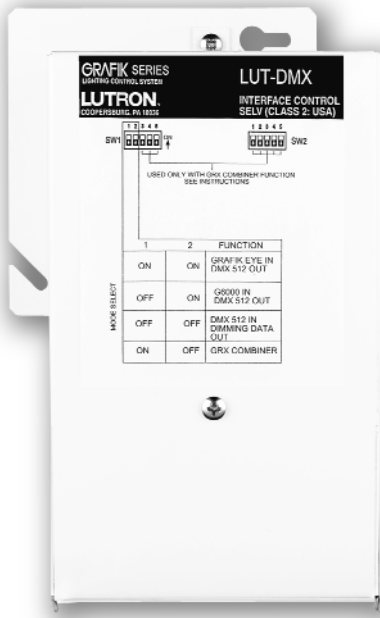


Job Name:

Model Numbers:

Job Number:

LUT-DMX DMX512 Control Interface



Description

- Allows GRAFIK Eye lighting controls to operate lighting and other equipment that uses the DMX512 protocol, including:
 - Strobes, fiber optic lighting, and LED-based lamps.
 - Fogger machines.
 - Animated characters and motorized fixtures.
- Converts GRAFIK zone intensities into DMX512 channel settings. Each zone is assigned to a DMX512 channel.
- Works with GRAFIK Eye 3000 and 4000 Series Control Units, as well as GRAFIK 5000/6000/7000 Systems (see DIP switches 1 and 2). Interface does not require an address.

Example of Usage

A DMX512-controlled fiber optic fixture is setup so that:

- Channel 5 controls color channel or dial setting.
- Channel 6 controls shutter open/close.

The Control Unit’s scenes are setup so that:

- Zone 5 intensity = desired fiber optic color.
- Zone 6 intensity = desired shutter open/close.

When a scene is selected at the Control Unit:

- DMX512 Interface converts new scene's zone intensities into DMX512 channel settings.
- Fiber optics automatically change color and shutter open/close.

Job Name:	Model Numbers:
Job Number:	

LUT-ELI-3PH Emergency Lighting Interface



Description

- The LUT-ELI-3PH is UL924 Listed as “Emergency Lighting and Power Equipment.”
- The LUT-ELI-3PH is to be used in conjunction with Lutron *GRAFIK* Systems GP, LP dimming panels, XP switching panels (Circuit Selector), RadioTouch® Controllers, EcoSystem® Bus Supplies, Quantum® Bus Supplies, XPS, and LCP Controllers.
- The LUT-ELI-3PH senses the normal (non-essential) line voltage on all three phases (3PH) of normal power. When one or more phases of power are lost, the LUT-ELI-3PH will send a signal to the *RadioTouch* Controller, Circuit Selector, *EcoSystem* Bus Supply, *Quantum* Bus Supply, LCP Controller, or XPS Controller with emergency (essential) power, causing it to enter the emergency lighting mode. Any lights controlled by these devices will go to the emergency light level setting (factory set to 100% intensity). When normal power is restored, the lights will return to their previous intensities.
- The interface mounts to a standard 4 x 4 in (102 x 102 mm) junction box. It is powered by the *RadioTouch*, GP, XP, LP, LCP, or XPS panel’s 24 V $\overline{=}$ supply. The interface can detect 100 to 347 V \sim 50/60 Hz.
- For use with an EcoSystem or Quantum Bus Supply, a separate 24 V $\overline{=}$ power supply must be used.

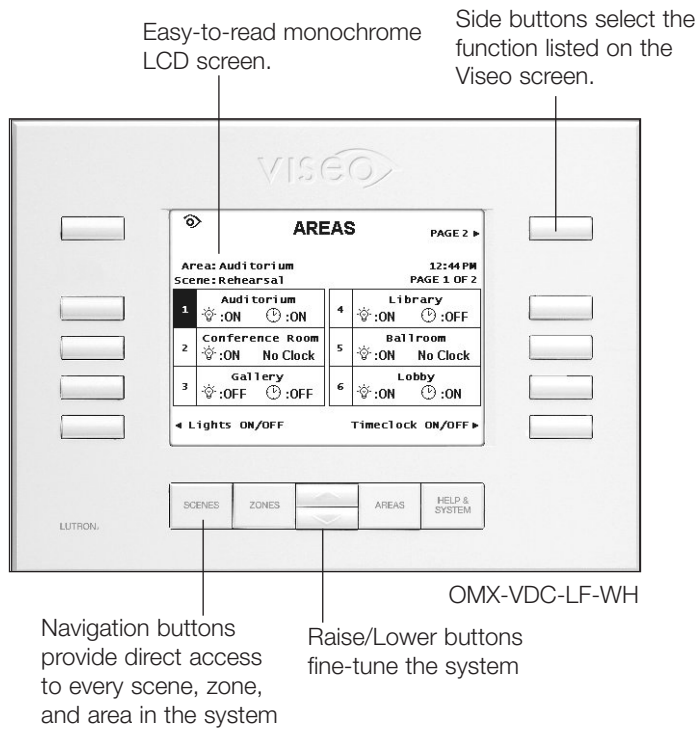
Job Name:

Model Numbers:

Job Number:

OMX-VDC-LB/OMX-VDC-LF

Viseo® Wallstation



Description

The Viseo Wallstation provides local access to the Lighting Control System.

- Works with GRAFIK 5000™, GRAFIK 6000®, GRAFIK 7000™ Systems.
- Program, monitor, and operate every lighting zone* and scene of a space that is controlled by an individual Processor. For multiple Processor applications, contact Lutron.
- Offers an effective alternative to PC's and other plug-in devices for day-to-day operations.
- Automatically downloads data from your system without reprogramming.
- Modify preset light levels.
- View the lighting status of all the areas in the system.
- View the timeclock status of all the areas in the system
- Take control of any lighting zone* or group of lighting zones* in any area; fine tune in 1% increments with graphic and numeric feedback.
- Program changes to preset light levels, including fade and delay times, in any area.
- Menus and help screens can be displayed in one of 7 languages: English, French, German, Italian, Spanish, Portuguese, or Dutch.

Design Options

Monochrome Color Options:

- High contrast blue/white - OMX-VDC-LB
- Neutral black/white - OMX-VDC-LF

* Does not display Lighting Zone Controller or OMX-3600 zone information.

Job Name:	Model Numbers:
Job Number:	

CX-100 Series Passive Infrared Ceiling/Wall Sensors

Turns lights on and off based on occupancy

User-adjustable time delay and sensitivity

ASIC technology reduces components and provides greater reliability



Choice of four coverage patterns

Built-in light level sensor

Isolated relay for use with HVAC or other control systems

Automatic or manual-on operation when used with a BZ-150 Power Pack

PROJECT

LOCATION/TYPE

Product Overview

Description

WattStopper's CX-100 Series Passive Infrared (PIR) Ceiling/Wall Sensors detect occupancy to control lighting in a wide variety of applications. These sensors provide superior coverage and performance with great energy savings.

Operation

CX-100 Series Sensors are 24 VDC and control lighting systems through WattStopper power packs. Utilizing the latest PIR technology, they turn lights on when a difference is detected between infrared energy from a human body in motion and the background space. After the area is vacated and the time delay elapses, lighting automatically turns off.

Features

- ASIC technology reduces components and enhances reliability
- Pulse Count Processing eliminates false off without reducing sensitivity
- Detection Signature Analysis eliminates false triggers and provides immunity to RFI and EMI
- Digital time delay adjustable from 15 seconds to 30 minutes
- Adjustable sensitivity enables occupancy detection to match the level of activity for each space
- LED indicates occupancy detection

Coverage Choices

The CX-100 Series Sensors are available with a choice of coverage patterns. The standard lens offers coverage up to 1000 square feet for typical desktop activity. When using the CX-100/105-1 or -3 lens, motion moving toward sensors will begin to be detected at 55 to 60 feet.

Applications

The CX sensors are ideal for large areas and can cover up to 2000 square feet of walking motion. By choosing the proper lens pattern for each application, the sensors can reliably cover large offices, computer rooms, classrooms, aisleways, warehouses and open offices where coverage cut-off is desired. Corner mounting to a wall or ceiling adds versatility and more control to the coverage.

- The CX-100's integrated light level sensor can create bi-level control for added energy savings
- Multilevel Fresnel lens for superior desktop occupancy detection with four lens patterns
- Isolated relay can interface with HVAC, EMS and monitoring systems, or with an additional lighting load
- Dual-element, temperature compensated pyroelectric sensor
- Swivel mounting bracket for convenient corner mounting to wall or ceiling
- Qualifies for ARRA-funded public works projects

CI-300 Series Passive Infrared Ceiling Sensors



Architecturally appealing low-profile appearance

Auto set automatically selects optimal time delay and sensitivity settings

Automatic or manual-on operation when used with a BZ-150 Power Pack

Plug terminal wiring for quick and easy installation

Accepts low-voltage switch input for manual-on operation

Walk-through mode increases savings potential

360° coverage

PROJECT
LOCATION/TYPE

Product Overview

Description

WattStopper's CI-300 Passive Infrared (PIR) Ceiling Sensors automatically turn lighting on and off based on occupancy. The sensor mounts on the ceiling with a flat, low-profile appearance and provides 360 degrees of coverage.

Operation

CI-300 Series Sensors operate on 24 VDC, VAC or halfwave rectified. Utilizing the latest PIR technology, they automatically turn lighting on when a difference is detected between infrared energy from a human body in motion and the background space. When no occupancy is detected for the length of the time delay, lighting automatically turns off. For manual-on operation, the CI-300 will operate with a low-voltage momentary switch.

Auto Set

The CI-300 Series Sensors require no adjustment at installation. Auto set continuously monitors the controlled space to identify usage patterns. Based on this information, the units automatically adjust time delay and sensitivity settings for optimal performance and energy efficiency. Sensors assign short delays (as low as five minutes) for times when the space is usually vacant, and longer delays (up to 30 minutes) for busier times.

Applications

CI-300 Series Sensors have the flexibility to work in a variety of applications that include open office spaces, computer rooms, conference rooms, classrooms and warehouses. Areas with high ceilings or with two-level lighting can also be controlled. The convenient mounting system keeps installation costs down to speed up the product's payback.

Features

- Advanced control logic based on RISC microcontroller provides:
 - Detection Signature Processing to eliminate false triggers and provide immunity to RFI and EMI
 - Walk-through Mode turns lights off three minutes after the area is initially occupied – ideal for brief visits such as mail delivery
 - Built-in light level sensor featuring simple, one-step setup
- LED indicates occupancy detection
- CI-300 Series Sensors work with low-voltage momentary switches for manual control
- DIP switch simplifies sensor adjustments
- Clip-mounting system simplifies ceiling tile installation
- Plug terminal wiring system for quick and easy installation
- Available with isolated relay for integration with BAS or HVAC
- Qualifies for ARRA-funded public works projects

DT-300 Series Dual Technology Ceiling Sensors

Architecturally appealing
low-profile appearance

Auto set automatically
selects optimal settings
for each space

Walk-through mode
increases savings potential

Ultrasonic diffusers give more
comprehensive coverage



Plug terminal wiring for
quick and easy installation

Accepts low-voltage
switch input for
manual-on operation

Automatic or manual-on operation
when used with a BZ-150 Power Pack

PROJECT

LOCATION/TYPE

Product Overview

Description

The DT-300 Series Dual Technology Ceiling Sensors combine the benefits of passive infrared (PIR) and ultrasonic technologies to detect occupancy. Sensors have a flat, unobtrusive appearance and provide 360 degrees of coverage.

Operation

Low voltage DT-300 Series sensors utilize a WattStopper power pack to turn lights on when both PIR and ultrasonic technologies detect occupancy. They can also work with a low voltage switch for manual-on operation. PIR technology senses motion via a change in infrared energy within the controlled area, whereas ultrasonic uses 40KHz high frequency ultrasound. Once lights are on, detection by either technology holds them on. When no occupancy is detected for the length of the time delay, lights turn off. DT-300 Series Sensors can also be set to trigger lights on when either technology or both detect occupancy, or to require both technologies to hold lighting on.

Auto Set

The DT-300 requires no adjustment at installation. Auto set continuously monitors the controlled space to identify usage patterns. Based on these patterns, the unit automatically adjusts time delay and sensitivity settings for optimal performance and energy efficiency. Sensors assign short delays (as low as five minutes) for times when the space is usually vacant, and longer delays (up to 30 minutes) for busier times.

Application

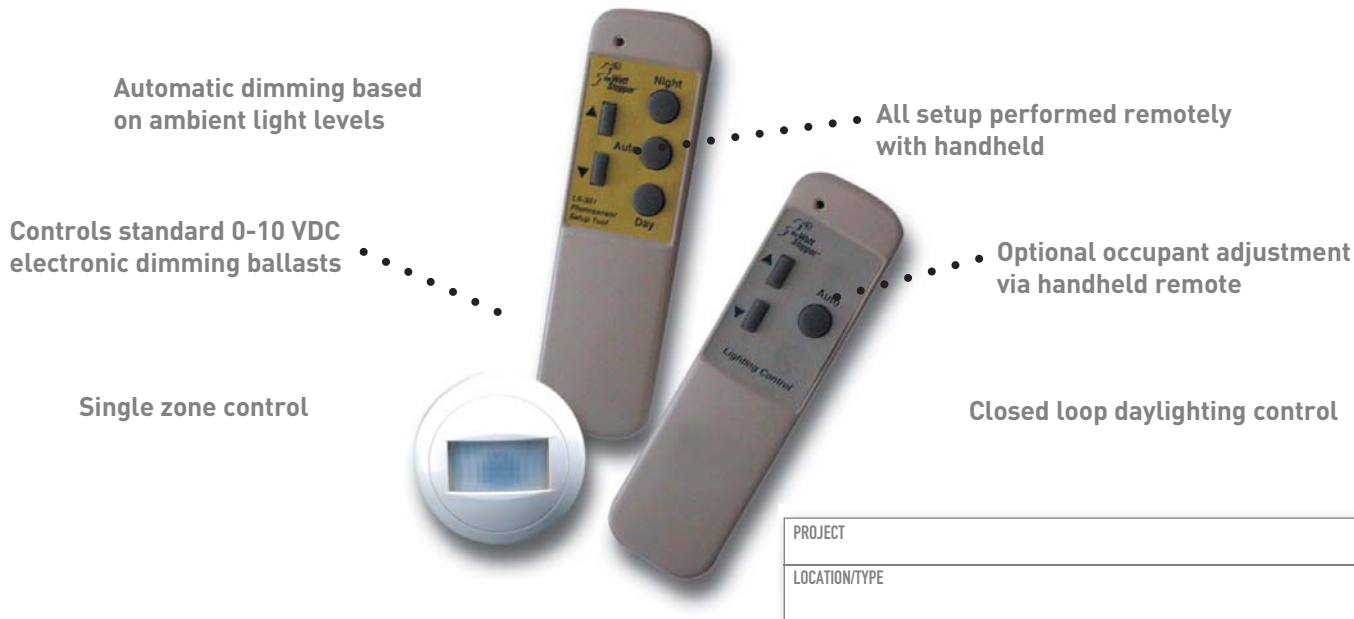
DT-300 Series Dual Technology Sensors have the flexibility to work in a variety of applications, where one technology alone could cause false triggers. Ideal applications include classrooms, open office spaces, large offices and computer rooms. The DT-300 Series mounting system makes them easy to install in ceiling tiles or to junction boxes, providing the flexibility to be used in a wide range of spaces.

Features

- Advanced control logic based on RISC microcontroller provides:
- Detection Signature Processing eliminates false triggers and provides immunity to RFI and EMI
- Walk-through mode turns lights off three minutes after the area is initially occupied – ideal for brief visits such as mail delivery
- Available with built-in light level sensor featuring simple, one-step setup
- Sensors work with low-voltage momentary switches to provide manual control
- Patented ultrasonic diffusion technology spreads coverage to a wider area
- LEDs indicate occupancy detection
- Uses plug terminal wiring system for quick and easy installation
- Eight occupancy logic options provide the ability to customize control to meet application needs
- Available with isolated relay for integration with BAS or HVAC
- Qualifies for ARRA-funded public works projects



LightSaver® LS-301 Dimming Photosensor



PROJECT
LOCATION/TYPE

Product Overview

Description

The LightSaver LS-301 is a closed loop, ceiling mount, low voltage indoor photosensor that works with standard, 0-10 VDC electronic dimming ballasts to dim lighting as daylight increases.

Operation

The LS-301 mounts on a ceiling and utilizes a spectral filtering system to measure daylight and electric light levels. A closed loop daylighting system, the LS-301 measures the total light level from daylight and electric light in the controlled area to adjust electric lighting levels. As the daylight contribution increases, the lights dim down. The photosensor utilizes sliding setpoint control, which responds to the different spatial distribution qualities of electric light and daylight. The LS-301 calculates the required light level for current daylight contribution based on two setpoints. One represents the target level when no daylight is present (night setpoint) and the other when significant daylight is present (day setpoint).

Adjustment via Handheld Remote Control

All LS-301 adjustments are made with one of two handheld remotes. The FDR-301-S provides five buttons for initial set-up, which is easily completed by first raising or lowering electric light levels to desired levels, then programming this target level into the photosensor. The LSR-301-P provides three buttons for occupants to adjust light levels. With this optional tool, users can increase target light levels by up to 25% or reduce them to the lamp/ballast minimum level. Pressing the "Auto" button returns the control to programmed levels.

Applications

The LS-301 is designed to blend into its surroundings when installed in any environment. It provides one zone of daylighting control in a private office or classroom. In these applications, the LS-301 can be combined with an occupancy sensor. Often, it is possible for the LS-301 to share a single power pack with occupancy sensor(s).

Features

- Provides precise control of lighting to maintain desired light level
- Extremely linear photocell response with greater than 1% accuracy
- Designed to measure light as the human eye perceives it, eliminating "overreporting" illumination levels provided by daylight
- California Title 24-2008 compliant
- Separate handheld remote controls for setup and occupant adjustment to prevent tampering
- Boosts energy savings by reducing maximum lamp output, often resulting in a 20% reduction or more compared with lights at full output
- Achieves lumen maintenance by holding target light level as lamp output decreases over time
- Qualifies for use on ARRA-funded public works projects



BAB 20W GU5.3 MR16 36D ICT

Product family description

Low-voltage halogen burner optically positioned in a glass reflector with or without front glass.

Features/Benefits

- Dichroic reflector coating is heat-transmitting and light-reflecting.
- UV-Block burner.
- Color temperature 3000K.
- Lifetime 3000 hours.
- Universal burning position.
- Variety of wattages and beam spreads.

Applications

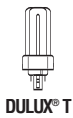
- Ideal for retail stores, hotels, restaurants, museums and art gallery lighting.

Notes

- Rated average life is the length of operation (in hours) at which point an average of 50% of the lamps will still be operational and 50% will not. (93)

Product data	
Product Number	378034
Full product name	BAB 20W GU5.3 MR16 36D ICT
Ordering Code	378034
Pack type	1 Lamp in a Folding Carton
Pieces per Sku	1
Skus/Case	50
Pack UPC	046677378035
EAN2US	
Case Bar Code	50046677378030
Successor Product number	
ANSI Code Halogen	BAB
Base	GU5.3
Bulb	MR16 [MR 16inch/50mm]
Execution	Open
Operating Position	Universal [Any or Universal (U)]
Packing Type	ICT [1 Lamp in a Folding Carton]
Packing Configuration	10X5F
Ordering Code	20MR16/FL36-BAB

PHILIPS



DULUX® D/E 4-PIN ECOLOGIC® COMPACT FLUORESCENT LAMPS

Nominal Wattage	Bulb	MOL		Base	Product Number	Ordering Abbreviation	NEMA Generic Designation	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
		(in)	(mm)									Initial	Mean	
26	T (T4)	5.2	124	GX24Q-3	20767	CF26DT/E/827/ECO	CFTR26W/GX24Q/827	50	12000	2700	82	1800	1548	1,2,5,6, 7,12,20
					20995	CF26DT/E/835/ECO/BL/1	CFTR26W/GX24Q/835	50	12000	3500	82	1800	1548	1,2,5,6, 7,12,20
32	T (T4)	5.8	147	GX24Q-3	20768	CF32DT/E/827/ECO	CFTR32W/GX24Q/827	50	12000	2700	82	2400	2064	1,2,5,6, 7,12,18,20

DULUX T/E/IN AMALGAM, 4-PIN ECOLOGIC COMPACT FLUORESCENT LAMPS

For electronic ballast for high and low temperature applications. Lamps have End-of-Lamp Life (EOL) Protection

Nominal Wattage	Bulb	MOL		Base	Product Number	Ordering Abbreviation	NEMA Generic Designation	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
		(in)	(mm)									Initial	Mean	
18	T (T4)	4.4	111	GX24Q-2	20875	CF18DT/E/IN/827/ECO	CFTR18W/GX24Q/827	50	12000	2700	82	1164	1001	1,2,5,6, 7,12,20,21
					20876	CF18DT/E/IN/830/ECO	CFTR18W/GX24Q/830	50	12000	3000	82	1164	1001	1,2,5,6, 7,12,20,21
					20877	CF18DT/E/IN/835/ECO	CFTR18W/GX24Q/835	50	12000	3500	82	1164	1001	1,2,5,6, 7,12,20,21
					20878	CF18DT/E/IN/841/ECO	CFTR18W/GX24Q/841	50	12000	4100	82	1164	1001	1,2,5,6, 7,12,20,21
26	T (T4)	5.0	126	GX24Q-3	20879	CF26DT/E/IN/827/ECO	CFTR26W/GX24Q/827	50	12000	2700	82	1746	1501	1,2,5,6, 7,12,20,21
					20880	CF26DT/E/IN/830/ECO	CFTR26W/GX24Q/830	50	12000	3000	82	1746	1501	1,2,5,6, 7,12,20,21
					20881	CF26DT/E/IN/835/ECO	CFTR26W/GX24Q/835	50	12000	3500	82	1746	1501	1,2,5,6, 7,12,20,21
					20882	CF26DT/E/IN/841/ECO	CFTR26W/GX24Q/841	50	12000	4100	82	1746	1501	1,2,5,6, 7,12,20,21
32	T (T4)	5.6	142	GX24Q-3	20883	CF32DT/E/IN/827/ECO	CFTR32W/GX24Q/827	50	12000	2700	82	2328	2002	1,2,5,6, 7,12,18,20,21
					20884	CF32DT/E/IN/830/ECO	CFTR32W/GX24Q/830	50	12000	3000	82	2328	2002	1,2,5,6, 7,12,18,20,21
					20885	CF32DT/E/IN/835/ECO	CFTR32W/GX24Q/835	50	12000	3500	82	2328	2002	1,2,5,6, 7,12,18,20,21
					20886	CF32DT/E/IN/841/ECO	CFTR32W/GX24Q/841	50	12000	4100	82	2328	2002	1,2,5,6, 7,12,18,20,21
42	T (T4)	6.5	163	GX24Q-4	20887	CF42DT/E/IN/827/ECO	CFTR42W/GX24Q/827	50	12000	2700	82	3104	2670	1,2,5,6, 7,12,18,20,21
					20888	CF42DT/E/IN/830/ECO	CFTR42W/GX24Q/830	50	12000	3000	82	3104	2670	1,2,5,6, 7,12,18,20,21
					20871	CF42DT/E/IN/835/ECO	CFTR42W/GX24Q/835	50	12000	3500	82	3104	2670	1,2,5,6, 7,12,18,20,21
					20890	CF42DT/E/IN/841/ECO	CFTR42W/GX24Q/841	50	12000	4100	82	3104	2670	1,2,5,6, 7,12,18,20,21
57	T (T4)	7.76	197	GX24Q-5	20895	CF57DT/E/IN/827/ECO	CFTR57W/GX24Q/827	50	12000	2700	82	4171	3587	1,2,5,6, 12,18,20,21
					20896	CF57DT/E/IN/830/ECO	CFTR57W/GX24Q/830	50	12000	3000	82	4171	3587	1,2,5,6, 12,18,20,21
					20897	CF57DT/E/IN/835/ECO	CFTR57W/GX24Q/835	50	12000	3500	82	4171	3587	1,2,5,6, 12,18,20,21



F32T8 TL830 XLL ALTO

Product family description

Extra long life, extra low mercury

Features/Benefits

- Extra Long Life
- Outstanding lumen performance
- Better for the environment
- Significantly reduce maintenance and recycling costs by extending the relamping cycle.
- Up to 67% longer life than an industry standard T8 lamp.
- Warranty period: 48 months
- 95% lumen maintenance and reduced lamp-end blackening
- Only 1.7mg of mercury with ALTO II™ Technology
- Reduced impact on the environment without sacrificing performance

Applications

- Ideal for applications where longer relamp cycles would be beneficial.

Notes

- Rated average life under specified test conditions with lamps turned off and restarted no more frequently than once every 3 operating hours. Lamp life is appreciably longer if lamps are started less frequently. (202)
- Average life under engineering data with lamps turned off and restarted once every 12 operating hours.(241)
- Approximate Initial Lumens. The lamp lumen output is based upon lamp performance after 100 hours of operating life, when the output is measured during operation on a reference ballast under standard laboratory conditions. (203)
- For expected lamp lumen output, commercial ballast manufacturers can advise the appropriate Ballast Factor for each of their ballasts when they are informed of the designated lamp. The Ballast Factor is a multiplier applied to the designated lamp lumen output. (204)
- Design Lumens are the approximate lamp lumen output at 40% of the lamp's Rated Average Life. This output is

PHILIPS

Philips EnduraLED™
Candle LED Lamps

*Ideal for wall sconces
and decorative fixtures*

EnduraLED™



Energy saving elegance

Philips EnduraLED™ candles offer decorative, energy-saving ambience with the elegant effect of incandescent candles.

The unique design provides light in all directions, giving lighting designers an alternative to incandescent sources.

High efficacy LED decorative light

- Instant-on light
- Emits virtually no UV/IR light in the beam
- Lasts 15,000 hours rated average life^{1,2}
- Supplies light in both clear and frosted designs
- Save over 13 watts of energy when compared to a 15W incandescent*
- Similar ambience as traditional incandescent candles
- Contains no mercury

Easy to experience

- Lowers maintenance costs by reducing re-lamp frequency
- Installs into existing candelabra base fixtures
- 3-year warranty period

(1,2 See back page for footnote.)

* 2.5W EnduraLED candle compared to a 15W incandescent. Light output from the 2.5W EnduraLED candle is only 30 lumens compared to 110 lumens for a typical 15W incandescent candle.

PHILIPS
sense and simplicity

Philips EnduraLED™ Candle LED Lamps

Ordering, Electrical and Technical Data (Subject to change without notice)

Product Number	Ordering Code	Nom. Watts	Volts	Lamps per SKU	Description	Bulb Type	Base	Rated Avg. Life (Hrs.) ^{1,2,3}	Approx. Lumens ⁴	CRI	Color Temp. (Kelvin)	MOL (In.)
40605-8	3BA9 END/CLWW I20V 8/1	2.5	120	1	EnduraLED BA9 2.5W Candelabra Base Clear Lamp	BA9	Candelabra	15,000	30	80	3000	4.1
40606-6	3BA9 END/FRWW I20V 8/1	2.5	120	1	EnduraLED BA9 2.5W Candelabra Base Frosted Lamp	BA9	Candelabra	15,000	30	80	3000	4.1
40607-4	3B10½END/CLWW I20V 8/1	2.5	120	1	EnduraLED B10½ 2.5W Candelabra Base Clear Lamp	B10½	Candelabra	15,000	30	80	3000	4.0
40608-2	3B10½END/FRWW I20V 8/1	2.5	120	1	EnduraLED B10½ 2.5W Candelabra Base Frosted Lamp	B10½	Candelabra	15,000	30	80	3000	4.0

Shipping Data (Subject to change without notice)

Product Number	SKU UPC (0-46677)	Outer Bar Code (5-00-46677)	Case Qty.	Case Weight (lbs.)	Case Cube (cu. ft.)	Pallet Qty.	SKUs Per Layer	Layers High	SKU Dimensions (W x D x H)(In.)	Case Dimensions (W x D x H)(In.)	Pallet Dimensions (W x D x H)(In.)
40605-8	40605-9	40605-4	8	0.8	0.06	3840	640	6	1.4 x 1.4 x 4.2	3.4 x 6.5 x 4.7	39.0 x 46.3 x 28.1
40606-6	40606-6	40606-1	8	0.8	0.06	3840	640	6	1.4 x 1.4 x 4.2	3.4 x 6.5 x 4.7	39.0 x 46.3 x 28.1
40607-4	40607-3	40607-8	8	0.8	0.06	3840	640	6	1.4 x 1.4 x 4.2	3.4 x 6.5 x 4.7	39.0 x 46.3 x 28.1
40608-2	40608-0	40608-5	8	0.8	0.06	3840	640	6	1.4 x 1.4 x 4.2	3.4 x 6.5 x 4.7	39.0 x 46.3 x 28.1

- 1) Rated average life is the length of operation (in hours) at which point an average of 50% of the lamps will still be operational and 50% will not.
- 2) Rated average life based on engineering testing and probability analysis.
- 3) Lifetime testing consistent with IES LM-80, Lumen Maintenance Procedure.
- 4) Photometric testing consistent with IES LM-79.

Energy Efficiency

Estimated Lighting Costs Using a Standard 15W Incandescent Candle	
Present Wattage	15 W
x Annual Operating Hours	3000 hrs
	= 45,000 watts per year
+1,000	= 45 kWh per year
x kWh rate of \$0.10	= \$5 per year
x 100 lamps per space	= \$450 annual energy cost per space
Estimated Lighting Costs Using a Philips 2.5W EnduraLED Candle	
Present Wattage	2.5 W
x Annual Operating Hours	3000 hrs
	= 7500 watts per year
+1,000	= 7.5 kWh per year
x kWh rate of \$0.10	= \$1 per year
x 100 lamps per space	= \$75 annual energy cost per space
Total Estimated Annual Energy Costs†	= \$375

† Based on 100 lamps per space operating at 3,000 hours per year.

This energy saving example shows an application of 100 lamps in a space currently using a 15W incandescent candle, operating 3,000 hours per year at a cost of \$0.10 per kWh.‡ Your actual costs may vary depending on your geographic region.

As you can see, replacing 100 15W incandescent lamps with the Philips EnduraLED 2.5W candle can provide significant energy cost savings of \$375 per year! Potential savings from the reduction in HVAC costs as a result of using a lower wattage lamp that emits less heat is an additional benefit not included in this example.

‡ Light output from the 2.5W EnduraLED candle is only 30 lumens compared to 110 lumens for a typical 15W incandescent candle.

WARNINGS AND CAUTIONS

- Suitable for use in open luminaires (fixtures).
- Do not use in outdoor fixtures.
- Do not use in enclosed fixtures.
- Not for use with dimmers.
- Do not use with emergency exit fixtures or emergency lights.
- Turn off power before changing lamp.

CAUTION: Risk of electric shock. Use in dry location only.

NOTES: This device complies with Part 18 of the FCC rule. This product may cause interference with other devices. If interference occurs, change the location of the products involved. This RFLD device complies with Canadian ICES-005.



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Philips Lighting
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1-800-555-0050
A Division of Philips Electronics Ltd.



MasterColor CDM-T

20W/830 T6 ICT

Product family description

Range of single-ended T6 high-efficiency ceramic metal halide lamps with a stable color over lifetime and a crisp, sparkling light.

Features / Benefits

- Excellent color rendering.
- Superior color stability over life within +/- 200K.
- Lamp to lamp color consistency over life.
- Higher lumen maintenance than standard metal halide.
- Warm (3K) or fresh white (4K) color impression.
- High lamp efficacy (up to 93 lumens per watt) for energy saving and low heat.
- Universal operating position.
- Compact lamp dimensions for high beam intensities.
- No shut off required in 24-hour-a-day/7-day-a-week operations (relamp fixtures at or before the end of rated life).
- Long lamp life compared to incandescent and halogen lamps.

Applications

- Accent and General lighting in retail, offices and public buildings. Decorative outdoor: floodlighting and pedestrian areas.

Notes

- Requires a ballast specified or approved for Philips Metal Halide lamp or one designed to the indicated ANSI Standard. A pulse ignitor is required. Sockets and wiring must withstand starting pulse. (391)
- Supply volts must be +/- 5% of rated ballast line volts for reactor type and +/- 10% for CWA or electronic ballasts. (392)
- UV filtered design (FadeBlock™). (396)
- Operate only on thermally protected ballasts (397)



MasterColor CDM-T

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