

# ULW-10874

## Lightwave 2 Straight Bollard

**LIGMAN**  
LIGHTING USA

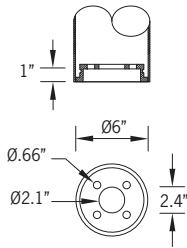
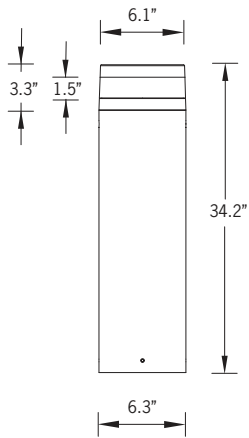


27w LED 475 Lumens

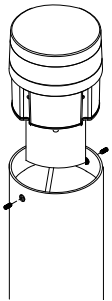
IP65 • Suitable For Wet Locations

IK08 • Impact Resistant (Vandal Resistant)

Weight 16.5 lbs

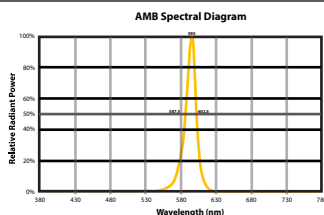


Mounting Detail



IP65 - Internal top access driver housing, prewired with SO cord and waterproof cable gland for easy installation.

### CITY OF FLAGSTAFF & TURTLE FRIENDLY COMPLIANT



#### Narrow-Spectrum Amber LEDs

Peak wavelength between 585 & 595 nanometers and a full width of 50% power no greater than 15 nanometers.

### Construction

#### Aluminum

Less than 0.1% copper content - Marine Grade 6060 extruded & LM6 Aluminum High Pressure die casting provides excellent mechanical strength, clean detailed product lines and excellent heat dissipation.

#### Pre paint

8 step degrease and phosphate process that includes deoxidizing and etching as well as a zinc and nickel phosphate process before product painting.

#### Memory Retentive - Silicon Gasket

Provided with special injection molded "fit for purpose" long life high temperature memory retentive silicon gaskets. Maintains the gaskets exact profile and seal over years of use and compression.

#### Thermal management

LM6 Aluminum is used for its excellent mechanical strength and thermal dissipation properties in low and high ambient temperatures. The superior thermal heat sink design by Ligman used in conjunction with the driver, controls thermals below critical temperature range to ensure maximum luminous flux output, as well as providing long LED service life and ensuring less than 10% lumen depreciation at 50,000 hours.

#### Surge Suppression

Standard 10kv surge suppressor provided with all fixtures.

#### BUG Rating

B0 - U3 - G1

#### Finishing

All Ligman products go through an extensive finishing process that includes fettling to improve paint adherence.

#### Paint

UV Stabilized 4.9Mil thick powder coat paint and baked at 200 Deg C. This process ensures that Ligman products can withstand harsh environments. Rated for use in natatoriums.

#### Inspired by Nature Finishes

The Inspired by nature Finishing is a unique system of decorative powder coating. Our metal decoration process can easily transform the appearance of metal or aluminum product into a wood grain finish.

This patented technology enables the simulation of wood grain, and even marble or granite finish through the use of decorative powder coating.

The wood grain finish is so realistic that it's almost indistinguishable from real wood, even from a close visual inspection. The system of coating permeates the entire thickness of the coat and as a result, the coating cannot be removed by normal rubbing, chipping, or scratching.

#### The Coating Process

After pre-treatment the prepared parts are powder coated with a specially formulated polyurethane powder. This powder provides protection against wear, abrasion, impact and corrosion and acts as the relief base color for the finalized metal decoration.

The component is then wrapped with a sheet of non-porous film with the selected decoration pattern printed on it using special high temperature inks.

This printed film transfer is vacuum-sealed to the surface for a complete thermo print and then transferred into a customized oven. The oven transforms the ink into different forms within the paint layer before it becomes solid. Finally, the film is removed, and a vivid timber look on aluminum remains.

Wood grain coating can create beautiful wood-looking products of any sort. There are over 300 combinations of designs currently in use. Wood grains can be made with different colors, designs, etc.

Our powder coatings are certified for indoor and outdoor applications and are backed by a comprehensive warranty. These coatings rise to the highest conceivable standard of performance excellence and design innovation.

#### Added Benefits

- Resistance to salt-acid room, accelerated aging
- Boiling water, lime and condensed water resistant
- Anti-Graffiti, Anti-Slip, Anti-Microbial, Anti-Scratch
- Super durable (UV resistant)
- TGIC free (non-toxic)

#### Hardware

Provided Hardware is Marine grade 316 Stainless steel.

#### Anti Seize Screw Holes

Tapped holes are infused with a special anti seize compound designed to prevent seizure of threaded connections, due to electrolysis from heat, corrosive atmospheres and moisture.

#### High Impact Acrylic Lens

Manufactured with Ultra High Impact, Naturally UV Stabilized Extruded Acrylic.

#### Optics & LED

Precise optic design provides exceptional light control and precise distribution of light. LED CRI > 80

#### Lumen - Maintenance Life

L80 /B10 at 50,000 hours (This means that at least 90% of the LED still achieve 80% of their original flux)

### Wide-distribution bollard fixture.

Clean and effortlessly simple design bollard family with perfectly controlled wide-reaching light throw.

The innovative reflector technology of the Lightwave bollard guarantees a high degree of efficiency and optimal visual comfort. Lightwave has been developed to have excellent controlled downward light providing wide spacing ratios. The Lightwave is available in a straight or tapered shape design with two different heights.

The Lightwave Bollard comes standard with a unique waterproof internal driver housing compartment that is situated at the top of the pole to stop water and dust from entering the electrical components. This fixture is supplied completely wired with powercord and waterproof gland from the driver enclosure to the base of the bollard ensuring quick trouble-free installation. Custom bollard heights are available, please specify. Color temperature 2700K, 3000K, 3500K and 4000K. Custom wattages can be provided to suit customer and Title 24 requirements. (Specify total watts per fixture)

All Ligman fixtures can be manufactured using a special pre-treatment and coating process that ensures the fixture can be installed in natatoriums as well as environments with high concentrations of chlorine or salt and still maintain the 5 year warranty. For this natatorium rated process please specify NAT in options.

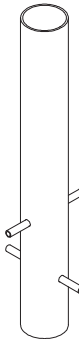
### Security Bollard: ( Lightwave 2 )

This Bollard is available as a traffic rated security bollard. This optional design includes a 1/4" wall thickness galvanized steel security pole with 2 1" galvanized cross support rods that are embedded into concrete.

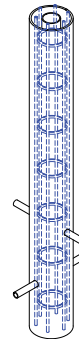
The standard security bollard provides restraint of vehicular traffic in unauthorized areas. Impact calculations shows this bollard will stop a 5,500lb/2.75 tons vehicle, travelling at 30mph. For additional strength, the galvanized pole can be filled with concrete up to the waterproof driver housing to provide a solid concrete barrier.

A K4 rated security bollard is also available. This bollard is provided with internal reinforcement and is to be filled with concrete at the job site by others. This bollard will stop a 15,000lb vehicle traveling at 30mph.

### Additional Options (Consult Factory For Pricing)



A12891  
Traffic Rated  
Security Bollard



SBK4  
K4 Rated  
Security Bollard



A91591  
Lockable In Use GFCI  
Receptacle Outlet Box



10  
10" Bollard Height

PROJECT					DATE	
QUANTITY		TYPE		NOTE		

ORDERING EXAMPLE || ULW - 10874 - 27w - W30 - 02 - 120/277v - Options

ULW-10874				
LAMP	LED COLOR	FINISH COLOR	VOLTAGE	
27w LED 475 Lumens	W27 - 2700K W30 - 3000K W35 - 3500K W40 - 4000K	01 - BLACK RAL 9011 02 - DARK GREY RAL 7043 03 - WHITE RAL 9003 04 - METALLIC SILVER RAL 9006 05 - MATTE SILVER RAL 9006 06 - LIGMAN BRONZE 07 - CUSTOM RAL	120/277v Other - Specify	
<div>INSPIRED BY NATURE FINISHES</div> <div>SW01 - OAK FINISH SW02 - WALNUT FINISH SW03- PINE FINISH DF - DOUGLAS FIR FINISH CW - CHERRY WOOD FINISH NW - NATIONAL WALNUT FINISH SU01 - CONCRETE FINISH SU02 - SOFTSCAPE FINISH SU03 - STONE FINISH SU04 - CORTEN FINISH</div> <div>THERE IS AN ADDITIONAL COST FOR THESE FINISHES</div>				

ADDITIONAL OPTIONS		

- NAT - Natatorium Rated

HGT - Custom Bollard Height [Specify HGT=XX"]

DIM - 0-10v Dimming

AMB - Turtle Friendly Amber LED
- A12891 - Security Bollard

SBK4 - K4 Rated Security Bollard

A91591 - Lockable In Use GFCI Receptacle Outlet Box

More Custom Finishes Available Upon Request

Consult factory for pricing and lead times




Example: Inspired by Nature Finish

# Lightwave Product Family



Lightwave 1

- ULW-10871-27w-475lm [22.2"]
- ULW-10872-27w-475lm [34.2"]



Lightwave 2

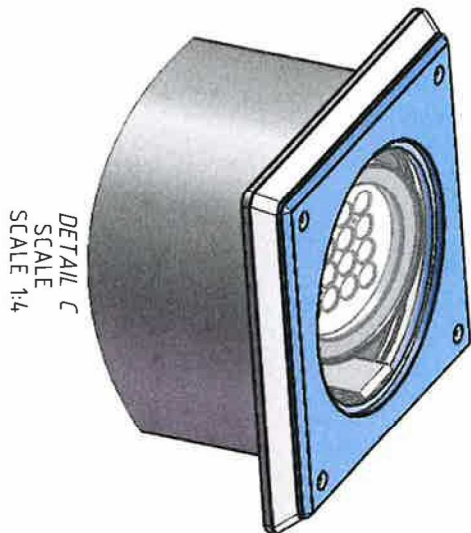
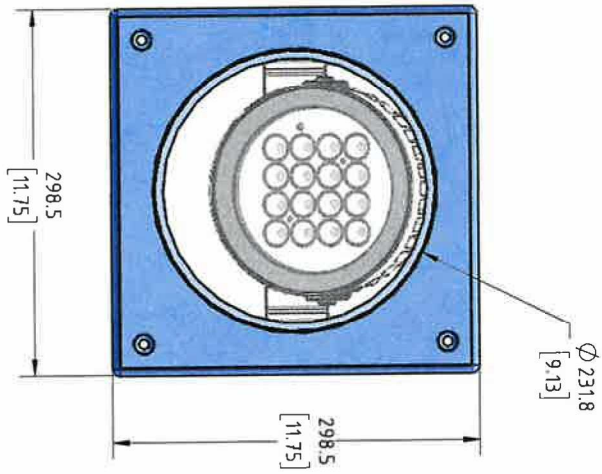
- ULW-10873-27w-475lm [22.2"]
- ULW-10874-27w-475lm [34.2"]



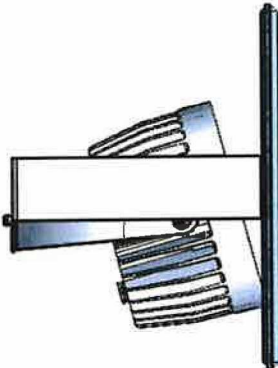
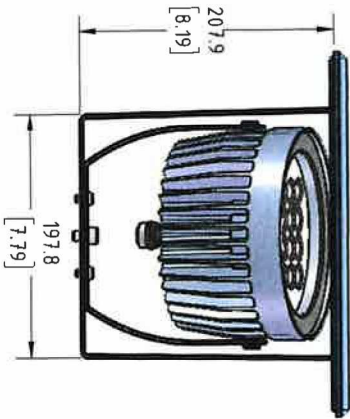
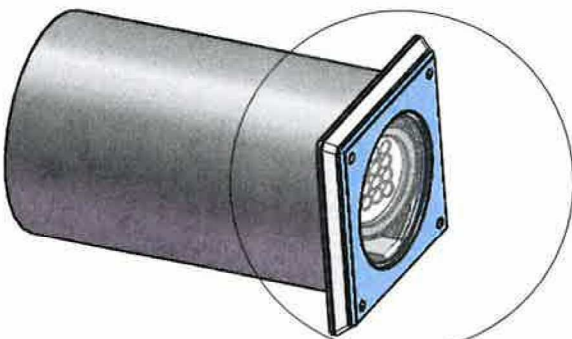
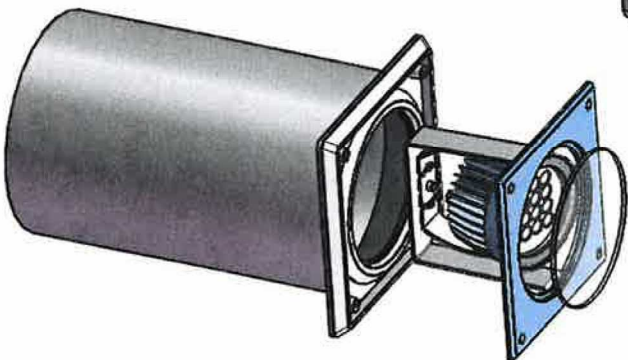
Lightwave 3

- ULW-30001-20w-285lm

RETROFIT @ STATUE  
IN GRADE FIXTURES



DETAIL C  
SCALE 1:4



UNLESS OTHERWISE SPECIFIED		NAME	DATE
TOLERANCES (DIMENSIONS)		ZSB	4.21.25
FRACTIONS, DECIMALS			
ANGLES			
HATCH			
DIMENSIONS			
PERPENDICULAR OR 45° FROM			
DATA UNLESS SPECIFIED			
INTERPRET DIMENSIONS			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			
HATCH			

# alphabet

## THETA HANDRAIL

### SNAP IN STANDARD WHITE



#### DESCRIPTION

Theta Handrail features a patented design with a collapsible thread. With one easy push, the module snaps securely into the rail. Removal is only possible with a unique extraction tool. Most cost effective rail solution on the market. Field or OEM handrail installation. Series shunt bypass ensures remaining operate if single puck failure.

#### HOUSING

- Extremely durable 316 stainless steel marine grade electro-polished housing, with 3.5" (90mm) 20AWG wire leads.

#### MOUNTING

- Install in metal surfaces only for proper thermal dissipation. Luminaire is for use in non-insulated recessed surfaces
- Rail Size - min. D 1-3/8", 35mm
- Rail Wall Thickness - min. 1/16", 1.5mm
- Curved or flat mounting surfaces
- Aperture for Flat face - 15mm or 15mm + (16mm x 0.5mm) counterbore (required for flush finish)
- Aperture for Curved face - 15mm or 15mm + (16mm x 1.5mm) counterbore (required for flush finish)

#### ELECTRICAL/LED

- 3Vdc, 500mA, 1.5W (Remote Driver Required) see pages 9-10
- Cool splice connector included
- Ambient operating temperature: -40°C to + 55°C
- Series shunt bypass ensures remaining operate if single puck failure
- 15 Puck maximum per driver

#### LISTING

- ETLus Listed to UL2108 (suitable for wet locations)
- cETL Listed to CSA C22.2 #250.0
- Impact tested to IK10 (EN62262) PC lens only
- IP65 rated with PC lens
- IP67 rated with Borosilicate glass lens
- IP68 rated to 6.5ft at 24hrs (NOT FOR PERMANENT SUBMERSION)
- ADA Compliant when using handrail diameter 1-7/16" (36mm) to 2" (50.8mm) O.D
- 3000k or warmer must be selected for International Dark-Sky Association approval.

#### LED INFO

- LED: Cree Xlamp®XP-G3 (applicable for Standard White)
- Cree Xlamp® XP-GA (Amber-590nm \*Dominant Wavelength\* complies with Wildlife and Marine Turtle safe-lighting requirements)
- Duv: 0.001
- CCT: 2200K, 2700K, 3000K, 3500K, 4000K, amber
- CRI: >80
- Lumen Maintenance: L<sub>90</sub>> 90,700 hrs (Standard White)
- Warranty: 5 year limited warranty

PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

#### ORDERING CODE

SERIES	750S	snap puck
CCT	22K 27K 30K 35K 40K AMB BL GR RD	2200K 2700K 3000K 3500K 4000K amber blue green red
BEAM	ST <sup>1</sup> VA <sup>1</sup> WD DRA UNI <sup>2,3,4</sup>	70° standard 75° asymmetric 105° wide 70° deep regress asymmetric 65° high uniformity asymmetric
LENS	PC BG IP68 <sup>5</sup>	polycarbonate borosilicate glass - IP67 optically clear polyurethane - IP68
BEZEL COLOR	AG SF	anti-glare coating - black (0.56) electropolished stainless steel (1.00)
FACE TYPE	CF FF	curved face flat face

#### ORDERING CODE

Follow the steps to specify your fixture, example:

750S - 27K - ST - PC - SF - FF

LUMENS FOR ST/VA/WD BEAM OPTION	
LUMENS (LM)	CCT (K)
120	2200
165	2700
170	3000
175	3500
180	4000
145	amber

LUMENS FOR DRA BEAM OPTION	
LUMENS (LM)	CCT (K)
100	2200
130	2700
135	3000
140	3500
145	4000
115	amber

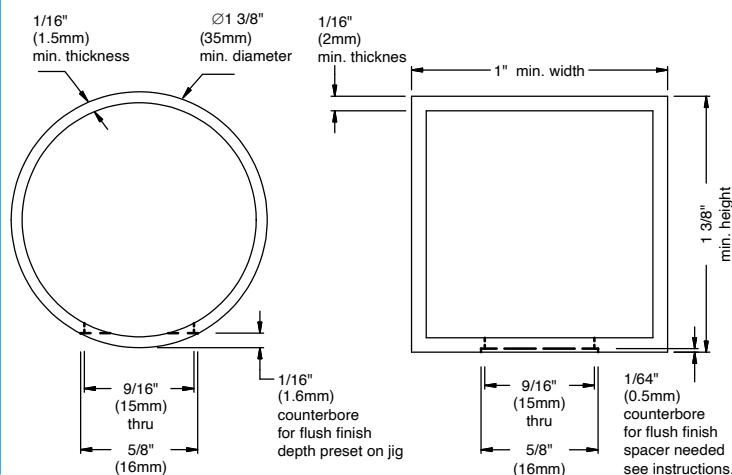
LUMENS FOR IP68 LENS OPTION	
LUMENS (LM)	CCT (K)
90	2200
115	2700
120	3000
125	3500
130	4000
102	amber

LUMENS FOR UNI BEAM OPTION	
LUMENS (LM)	CCT (K)
100	2200
130	2700
135	3000
140	3500
145	4000

See page 9 for Design Guide.

#### NOTES

1. ST 60° and VA 85° when using IP68 Lens.
2. UNI not available with Lens, omit code. IP68 rated.
3. Not vandal resistant or IK10 rated.
4. AG coating not available with UNI.
5. IP68 lensing not available with AG color option.



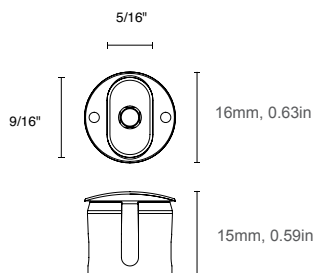
# alphabet

PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

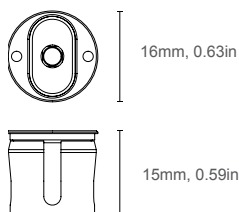
## STANDARD WHITE - STANDARD BEAM

THETA Handrail Standard has an elliptical symmetric distribution. For installation in handrail, mounting is typically at 30° from the vertical axis of the handrail underside. Snap is available in a range of distributions and special angles on request. Asymmetrical beam, see page 3.

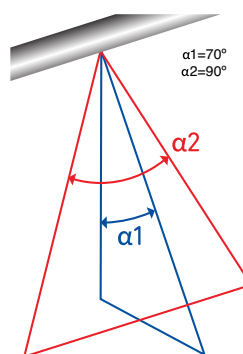
ST  
CURVED FACE DETAIL



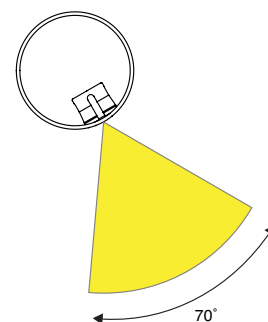
ST  
FLAT FACE DETAIL



ST  
BEAM ALPHA 3000K

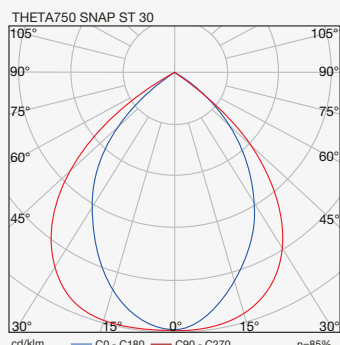


ST  
STANDARD BEAM

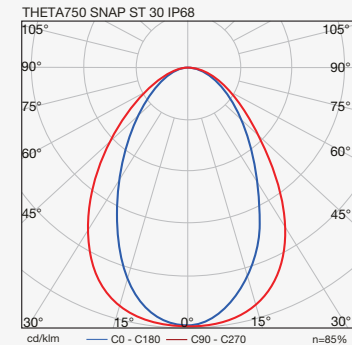


Elliptical symmetric distribution for typical mounting at 30° from vertical.

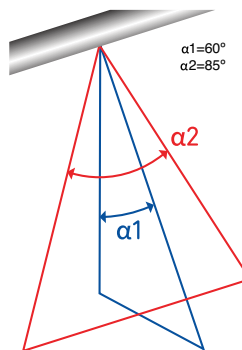
ST 30  
STANDARD SYMMETRICAL BEAM 3000K



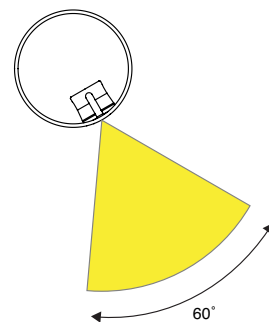
ST 30 IP68  
STANDARD SYMMETRICAL BEAM 3000K



ST - STANDARD WHITE  
IP68 BEAM ALPHA 3000K



ST - STANDARD WHITE  
STANDARD BEAM IP68



Elliptical symmetric distribution for typical mounting at 30° from vertical.

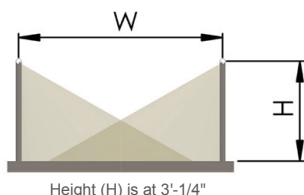
## SPACING GUIDE

The following guide is intended to help designers and engineers with desired foot-candles levels.

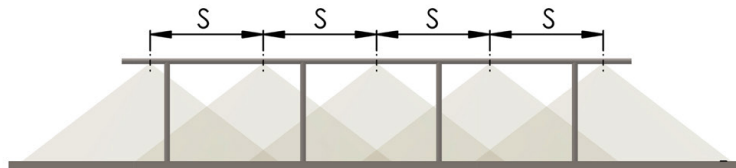
The drawing to the right shows a typical installation into a handrail.

The tables list the average foot-candles at a variety of path widths and LED spacings

### TYPICAL INSTALLATION



Height (H) is at 3'-1/4"



### STANDARD WHITE - STANDARD BEAM - SF BEZEL WITH PC OR BG LENS: LIGHT FROM BOTH SIDES

PATH WIDTH (W)	4ft	6.5ft	10ft	13ft
LED SPACING (S)	fc	fc	fc	fc
1.5ft	32	19	13	10
3ft	16	10	6	5
6.5ft	8	5	3	2

For IP68 or AG bezel apply (0.59) multiplier to fc  
fc = average foot-candles  
CCT = 3000K

NOTE: Calculations indicated are with LED module installed at 30° offset from vertical down axis.

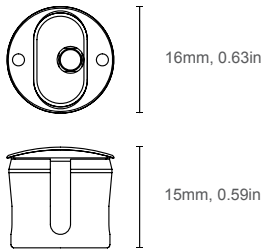
# alphabet

PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

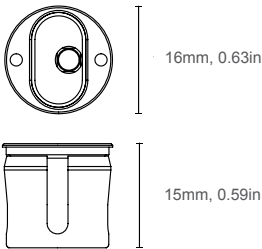
## STANDARD WHITE - ASYMMETRICAL BEAM

THETA Handrail Asymmetric has an elliptical asymmetric distribution. Designed for insertion at 0-10 degrees from the vertical axis of the handrail underside. The asymmetric beam illuminates the path but keeps the light source out of sight. Snap is available in a range of standard distributions and special angles on request.

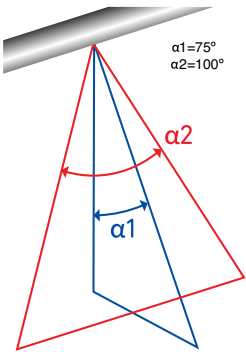
VA  
CURVED FACE DETAIL



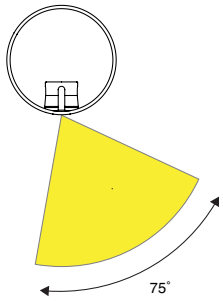
VA  
FLAT FACE DETAIL



VA  
BEAM ALPHA 3000K

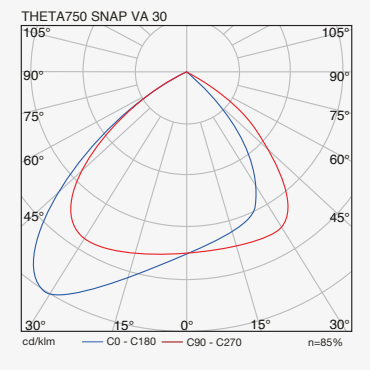


VA  
ASYMMETRICAL BEAM

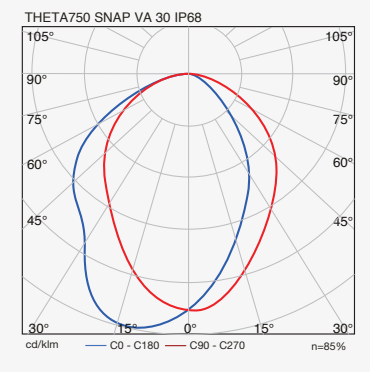


Elliptical asymmetric distribution displayed here with a vertical mount.

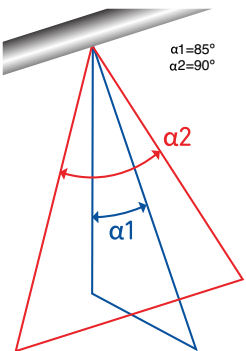
VA 30  
ASYMMETRICAL BEAM 3000K



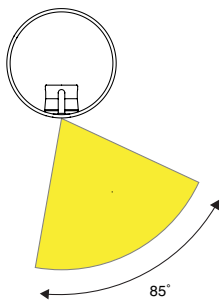
VA 30 IP68  
ASYMMETRICAL BEAM 3000K



VA - STANDARD WHITE  
IP68 BEAM ALPHA 3000K



VA - STANDARD WHITE  
ASYMMETRICAL BEAM IP68

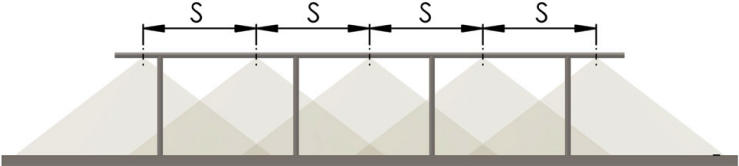
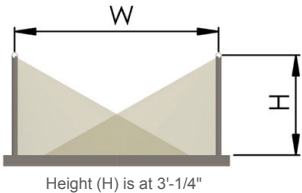


Elliptical asymmetric distribution displayed here with a vertical mount.

## SPACING GUIDE

The following guide is intended to help designers and engineers with desired foot-candles levels. The drawing to the right shows a typical installation into a handrail. The tables list the average foot-candles at a variety of path widths and LED spacings

### TYPICAL INSTALLATION



### STANDARD WHITE - ASYMMETRICAL BEAM - SF BEZEL WITH PC OR BG LENS: LIGHT FROM BOTH SIDES

PATH WIDTH (W)	4ft	6.5ft	10ft	13ft
LED SPACING (S)	fc	fc	fc	fc
1.5ft	27	16	11	8
3ft	14	8	5	4
6.5ft	7	4	3	2

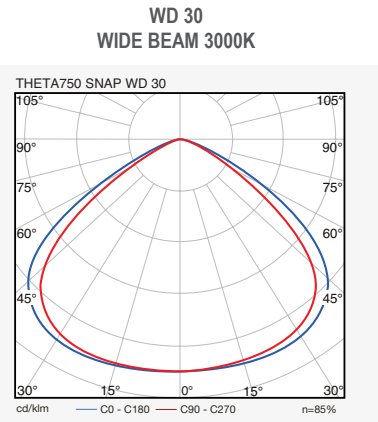
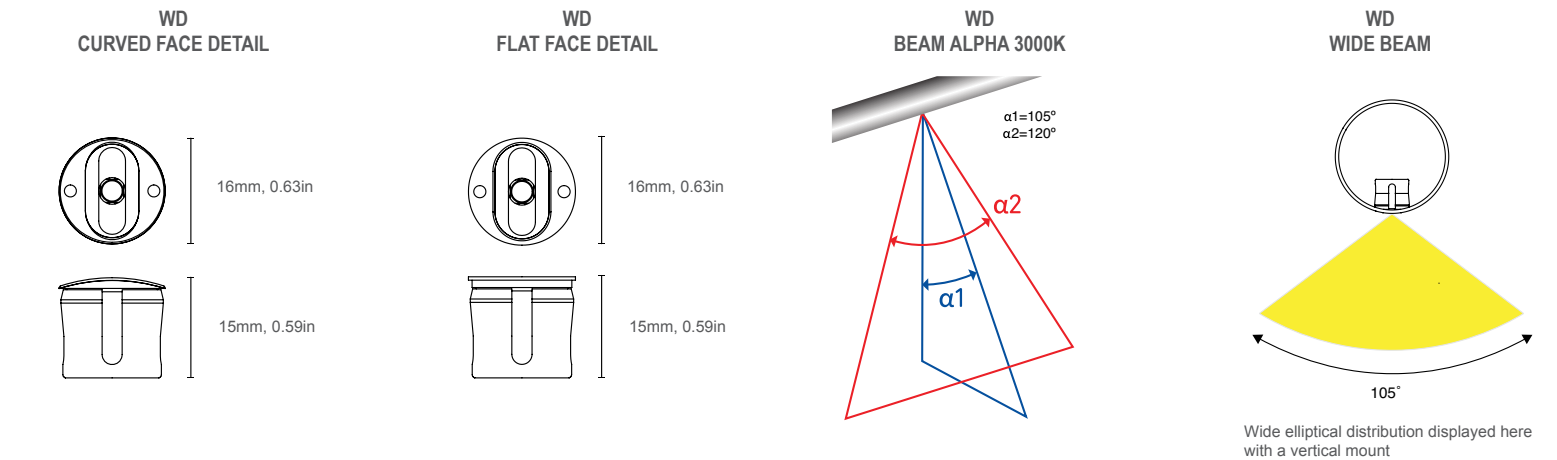
For IP68 or AG bezel apply (0.59) multiplier to fc  
fc = average foot-candles  
CCT = 3000K  
NOTE: Calculations indicated are with LED module in vertical down position.

# alphabet

PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

## STANDARD WHITE - WIDE BEAM

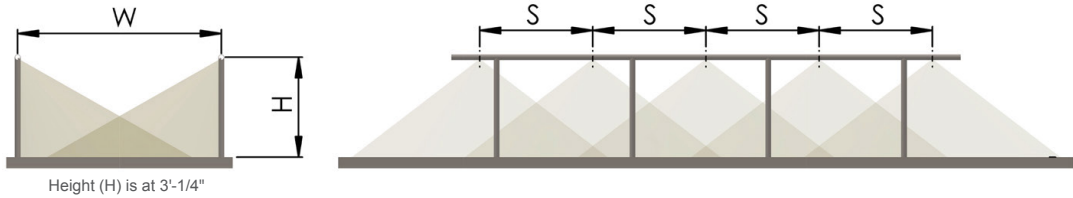
THETA Handrail Wide has a specially designed very wide elliptical distribution with no sharp cut off. Typical for mounting in the underside of a handrail at vertical down position.



## SPACING GUIDE

The following guide is intended to help designers and engineers with desired foot-candles levels. The drawing to the right shows a typical installation into a handrail. The tables list the average foot-candles at a variety of path widths and LED spacings

### TYPICAL INSTALLATION



## STANDARD WHITE - WIDE BEAM - SF BEZEL WITH PC OR BG LENS: LIGHT FROM BOTH SIDES

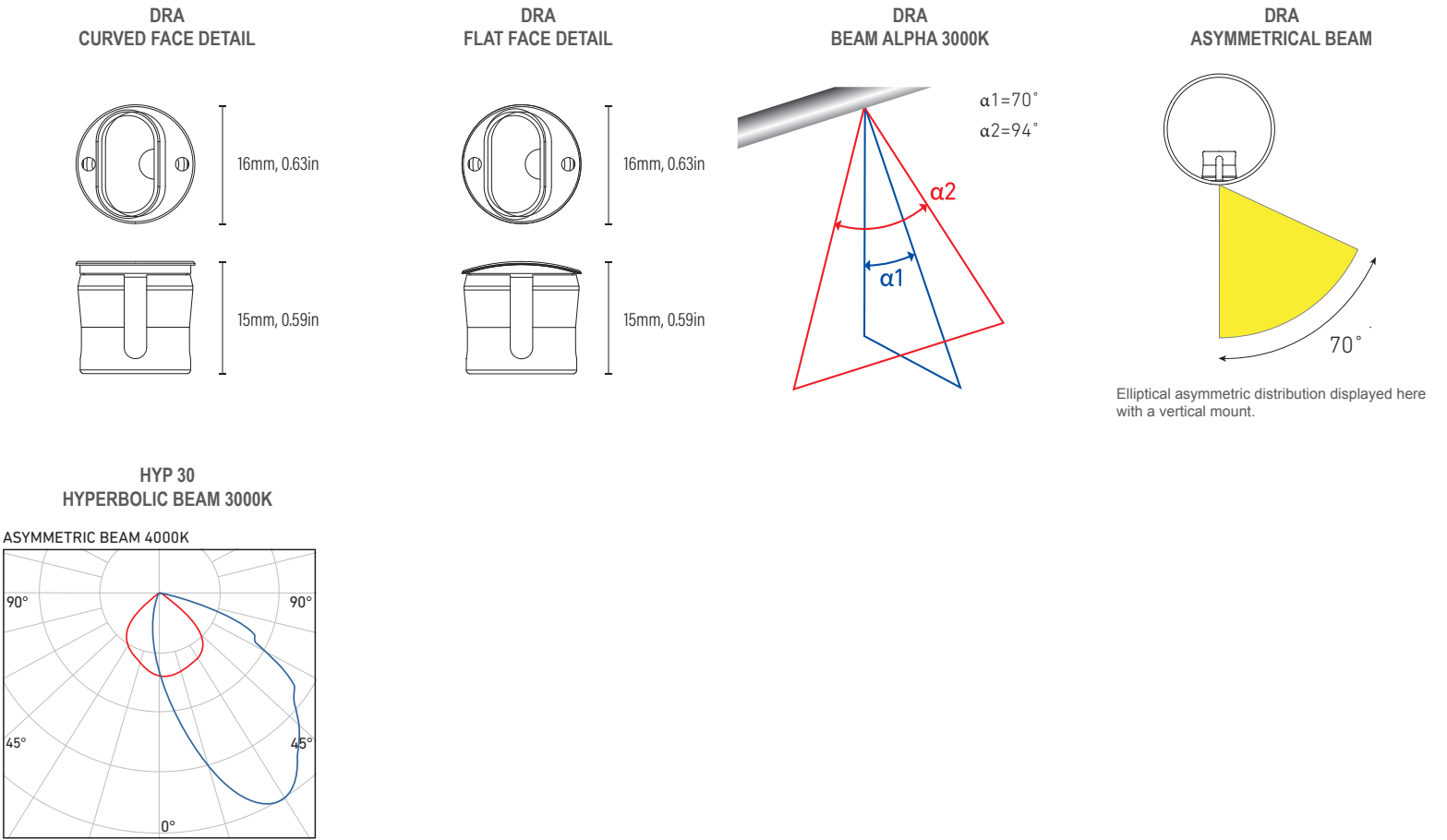
PATH WIDTH (W)	4ft	6.5ft	10ft	13ft
LED SPACING (S)	fc	fc	fc	fc
1.5ft	21	12	8	6
3ft	10	6	4	3
6.5ft	5	3	2	1.5

For IP68 or AG bezel apply (0.60) multiplier to fc  
fc = average foot-candles  
CCT = 3000K  
NOTE: Calculations indicated are with LED module in vertical down position.

PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

STANDARD WHITE - DEEP REGRESS ASYMMETRIC BEAM

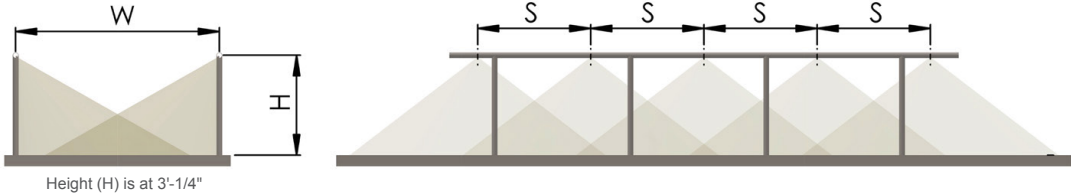
THETA Handrail Deep Regress has an elliptical asymmetric distribution. Designed for insertion at 0-10 degrees from the vertical axis of the handrail underside. The asymmetric beam illuminates the path but keeps the light source out of sight. Hyperbolic is available in a range of standard distributions and special angles on request.



SPACING GUIDE

The following guide is intended to help designers and engineers with desired foot-candles levels. The drawing to the right shows a typical installation into a handrail. The tables list the average foot-candles at a variety of path widths and LED spacings

TYPICAL INSTALLATION



STANDARD WHITE - DEEP REGRESS ASYMMETRIC BEAM - SF BEZEL WITH PC OR BG LENS: LIGHT FROM BOTH SIDES

PATH WIDTH (W)	4ft	6.5ft	10ft	13ft
LED SPACING (S)	fc	fc	fc	fc
1.5ft	25	15	10	8
3ft	13	8	5	4
6.5ft	6	5	2.5	2

For IP68 or AG bezel apply (0.60) multiplier to fc  
fc = average foot-candles  
CCT = 3000K  
NOTE: Calculations indicated are with LED module in vertical down position.

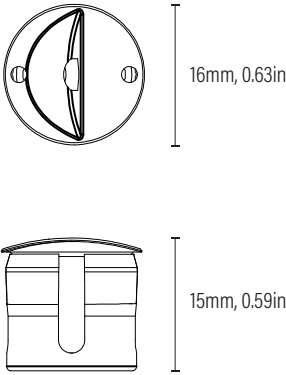
# alphabet

PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

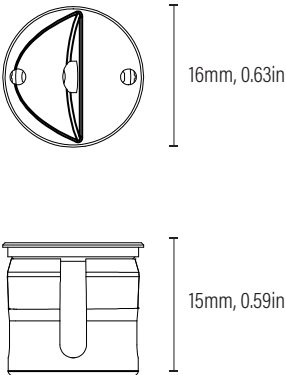
## STANDARD WHITE - UNI BEAM

THETA Handrail UNI has a high uniformity asymmetric distribution. Designed for insertion at 0 degrees from the vertical axis of the handrail underside. UNI applications are best where uniformity is required with long distances between pucks and/or between rails.

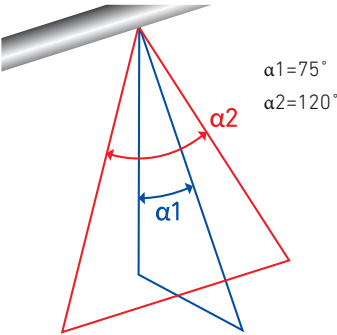
UNI  
CURVED FACE DETAIL



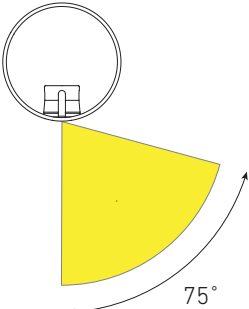
UNI  
FLAT FACE DETAIL



UNI  
BEAM ALPHA 3000K

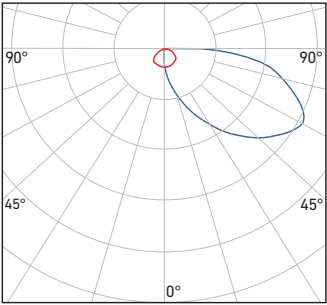


UNI  
ASYMMETRICAL BEAM



Elliptical asymmetric distribution displayed here with a vertical mount.

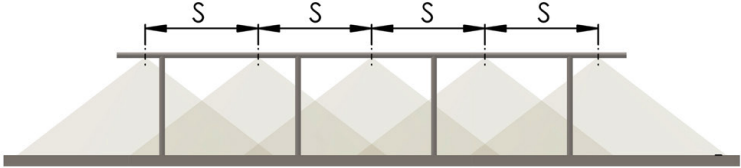
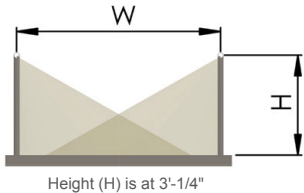
UNI  
ELLIPTICAL ASYMMETRIC BEAM 3000K



## SPACING GUIDE

The following guide is intended to help designers and engineers with desired foot-candles levels. The drawing to the right shows a typical installation into a handrail. The tables list the average foot-candles at a variety of path widths and LED spacings

### TYPICAL INSTALLATION



### STANDARD WHITE - UNI ELLIPTICAL ASYMMETRIC BEAM : LIGHT FROM BOTH SIDES

PATH WIDTH (W)	4ft	6.5ft	10ft	13ft
LED SPACING (S)	fc	fc	fc	fc
1.5ft	27	16	11	8
3ft	13.5	8	5	4
6.5ft	6	4	3	2

fc = average foot-candles  
CCT = 3000K  
NOTE: Calculations indicated are with LED module in vertical down position.

PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

THETA HANDRAIL TOOL KIT - FOR ROUND OR SQUARE HANDRAIL



Product Number: 750-TOOL KIT THETA SNAP

- 1 1 x Drill Jig unit pre-installed with 1 x 15 and 16mm cutters
- 2 1 x Flat Face Spacer (for use ONLY with Flat face / Square Pipe).  
Not Shown.
- 3 1 x Drilling manual (this guide)
- 4 2 x 15mm cutters (spares)
- 5 1 x 16mm cutter (spare)
- 6 1 x Cutter removal tool (double-sided)
- 7 1 x 2mm Allen (hex) key
- 8 2 x cutting lubricant
- 9 1 x AF 10mm nut driver
- 10 1 x 10mm wrench
- 11 1 x Insertion pliers
- 12 1 x File

\* Not shown, wire crimping pliers.

Purchases

- It is strongly recommended to purchase a kit or multiple kits for larger projects or projects with several phases.
- Additional drill bits jig assemblies can be purchased at nominal cost to replace worn or ineffective parts. CONSULT FACTORY.

NO TOOL KIT REQUIRED - FOR FLAT SURFACES

- Drill 15mm hole in mounting surface

PROJECT INFORMATION		
JOB NAME		TYPE
ORDERING CODE		

## REMOTE DRIVE - 0-10V ORDERING CODE

PART NUMBER	P70414	LED driver with box
CURRENT	500	500mA
DIMMING	ECO SOLO	1% 0.1%

ORDERING CODE

Follow the steps to specify your fixture, example:  
**P70414 - 500 - ECO**

See Wiring Diagram on page 2.

### MAXIMUM PUCK WIRING DISTANCE (15 PUCKS AT 500MA)

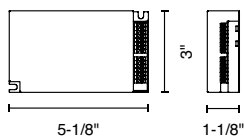
PUCKS	AWG VALUE	DISTANCE <sup>1</sup> (FT)
15	20	300
15	18	600

### MAXIMUM WIRING DISTANCE FROM DRIVER TO THE FIRST PUCK

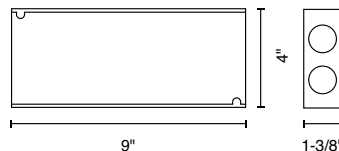
AWG VALUE	DISTANCE (FT)
18	150
16	250
14	400
12	600
10	1000

#### NOTES

1. Maximum wiring distance from the first to the last puck.



ECO or SOLO 561/S



Box

## REMOTE DRIVE - DALI ORDERING CODE

PART NUMBER	P70469	LED driver with box
CURRENT	500	500mA
DIMMING	ECO SOLO	1% 0.1%

ORDERING CODE

Follow the steps to specify your fixture, example:  
**P70469 - 500 - ECO**

See Wiring Diagram on page 2.

### MAXIMUM PUCK WIRING DISTANCE (15 PUCKS AT 500MA)

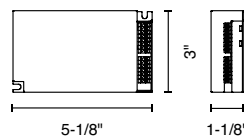
PUCKS	AWG VALUE	DISTANCE <sup>1</sup> (FT)
15	20	300
15	18	600

### MAXIMUM WIRING DISTANCE FROM DRIVER TO THE FIRST PUCK

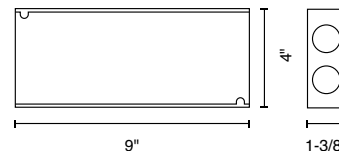
AWG VALUE	DISTANCE (FT)
18	150
16	250
14	400
12	600
10	1000

#### NOTES

1. Maximum wiring distance from the first to the last puck.



ECO or SOLO 561/S



Box

## DESCRIPTION

- 0-10V dimmable protocol LED drive with smooth flicker free dimming

## TECHNICAL SPECS

- 120-277Vac, 50/60Hz input
- 50W max output
- 500mA DC constant current output per channel
- 2-55Vdc output per channel
- ECO 1% dimming - 1 channel output
- Solo 0.1% dimming - 2 channel output
- 0-10V compatible
- Operating temperature: -4°F to 122°F
- Class II rated
- Suitable for use in damp and dry locations
- Short circuit protection
- Overload protection
- Over-voltage protection
- Thermal protection
- Box: Length = 9", Width = 4", Height = 1-3/8"
- Driver: Length = 5-1/8", Width = 3", Height = 1-1/8"

## LISTINGS

- ETLus Listed to UL2108 (suitable for dry and damp locations)
- cETL Listed to CSA C22.2 #250.0

## DESCRIPTION

- DALI dimmable protocol LED drive with smooth flicker free dimming

## TECHNICAL SPECS

- 120-277Vac, 50/60Hz input
- 50W max output
- 500mA DC constant current output per channel
- 2-55Vdc output per channel
- ECO 1% dimming - 1 channel output
- Solo 0.1% dimming - 2 channel output
- DALI compatible
- Operating temperature: -4°F to 122°F
- Class II rated
- Suitable for use in damp and dry locations
- Short circuit protection
- Overload protection
- Over-voltage protection
- Thermal protection
- Box: Length = 9", Width = 4", Height = 1-3/8"
- Driver: Length = 5-1/8", Width = 3", Height = 1-1/8"

## LISTINGS

- ETLus Listed to UL2108 (suitable for dry and damp locations)
- cETL Listed to CSA C22.2 #250.0

PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

# AURORALIGHT

PROJECT:

SKU #:

TYPE:

## LUMISTEP

STW612106

The Lumistep is a surface-mounted LED wall light that offers excellent illumination of walls and walkways mounted at 24 to 36" height or subtle, well-distributed light when mounted low on a stair riser.

- Dual listed for interior and exterior wet location use
- Thermally Integrated® w/ Copper Core Technology®
- Cree LED™ XP-L® High Density
- Ideal for stairs, pathways and architecture
- LED Adjustability: light source adjustable from 0° to 35° relative to horizontal

### CONFIGURATOR:

LED

FINISH

STW612106 — (2701) 2700K 1W  
(2703) 2700K 3W  
(3001) 3000K 1W  
(3003) 3000K 3W  
**( ) = Most common configuration**

**(NAT) Natural Brass**  
(BLP) Bronze Living Patina  
(BLPX) Extra Dark BLP  
(NI) Nickel PVD

FIXTURE DIMENSIONS	L6-1/2" x W1-1/8" x H2-1/4"
LIGHT SOURCE	Integrated LED
COLOR TEMPERATURES	2700K, 3000K
WATTAGES	1W, 3W
CRI (RA)	80 CRI, 90 CRI
VOLTAGE	12V
DELIVERED LUMENS	110lm (3000K)
DIMMABLE	Yes, Dim to <10% via Transformer
DRIVER	Yes, 12V Integral Constant Current
TRANSFORMER	12V AC/DC (Supplied by others)
MOUNT	Included Backplate
FINISH	Included Natural Brass
MATERIAL	Brass
WIRE LENGTH	24"
LOCATION	Exterior Damp
CERTIFICATIONS	UL, IP66, Dark Sky

\*For complete warranty terms, please visit: [www.auroralight.com/warranty/](http://www.auroralight.com/warranty/)

P. 760.931.2910

O. 2742 Loker Ave. W Carlsbad CA 92010

W. [www.auroralight.com](http://www.auroralight.com)



### AVAILABLE FINISHES:



NAT  
Natural Brass



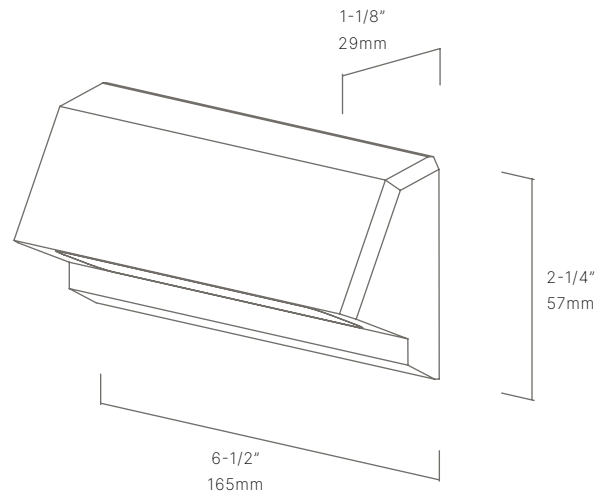
BLP  
Bronze Living  
Patina



BLPX  
Extra Dark Bronze  
Living Patina



NI  
Nickel PVD

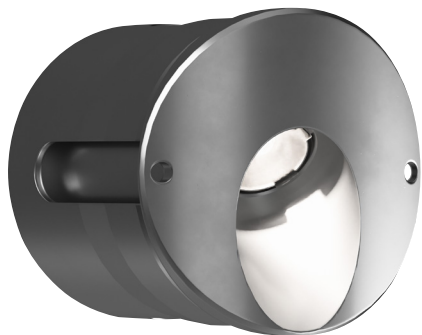


MADE IN USA  
WITH DOMESTIC & IMPORTED MATERIALS



## THETA MEGA PUCK

SPOT STANDARD WHITE



### FEATURES

- Vandal resistant spot, 45° cut off angle
- IP67 + Marine Grade
- Features a patented design with a collapsible thread
- Easy install & can only be removed with a unique extraction tool
- Zero up light

### HOUSING

- Durable marine grade anodized aluminum housing, with 3.5" (90mm) 20AWG wire leads.

### MOUNTING

- Luminaire is for use in non-insulated recessed surfaces
- Install in round and square structural framing
- Curved or flat mounting surfaces
- Framing wall thickness - min. 1/16", 2mm
- Cylindrical framing size - min. 2", 50mm OD to 5-7/8", 150mm OD max
- 30mm hole cutout opening for curved or flat surfaces
- Not for in-ground use
- Concrete pour installation coming soon

### ELECTRICAL/LED

- 12Vdc, 400mA-700mA, 5W-9W constant current
- 8 puck maximum per driver, constant current (400mA)
- 700mA metallic substrate / 500mA non-metallic substrate
- 24V - 10W constant voltage input
- 25 puck maximum per driver, constant voltage
- Metallic substrate only

### LISTING

- ETLus Listed to UL2108 (suitable for wet locations)
- cETL Listed to CSA C22.2 #250.0
- Impact tested to IK10 (EN62262)
- IP67 rated with PC lens
- 3000k or warmer must be selected for International Dark-Sky Association approval.
- BUG rating: B0-U1-G0

### LED INFO

- 80+ CRI: SDCM = 3-step MacAdam Ellipse, Lumen Maintenance: L<sub>90</sub> >100,000 hrs
- 90+ CRI: SDCM = 3-step MacAdam Ellipse, Lumen Maintenance: L<sub>90</sub> >100,000 hrs
- Cree Xlamp® XP-GA (Amber-590nm "Dominant Wavelength" complies with Wildlife and Marine Turtle safe-lighting requirements)

PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

### ORDERING CODE

SERIES	THETAM	mega puck
TYPE	S	spot
CCT	27K	2700K (0.96)
	30K	3000K (1.00)
	35K	3500K (1.02)
	40K	4000K (1.05)
	AMB	amber (0.59)
	RD	red (0.49)
	GR	green (0.97)
	BL	blue (0.23)
CRI	80	80 CRI (1.00)
	90	90 CRI (0.85)
BEAM	25D	25 degrees (0.96)
	40D	40 degrees (1.00)
	60D	60 degrees (0.79)
FINISH	AL	anodized aluminum (1.00)
	AB	anodized black (0.95)
FACE TYPE	CF	curved face
	FF	flat face
	CF75 <sup>1</sup>	curved face 75
VOLTAGE	CC <sup>2</sup>	constant current
	CV <sup>3</sup>	constant voltage

### ORDERING CODE

Follow the steps to specify your fixture, example:

THETAM - S - 30K - 80 - 25D - AB - FF - CV

### NOTES

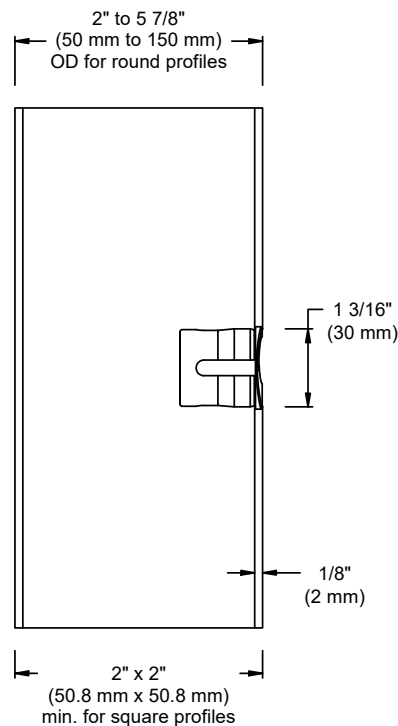
1. Recommended for 2" (50mm) to 4" (100mm) diameters.
2. Specify driver on page 3.
3. Specify driver on page 4.

#### CONSTANT CURRENT

LUMENS (3000K)	CURRENT	LED WATTAGE	SUBSTRATE
380	400	5W	NON-METALLIC/METALLIC
450	500	6W	
510	600	7.5W	METALLIC
570	700	8.5W	

#### CONSTANT VOLTAGE

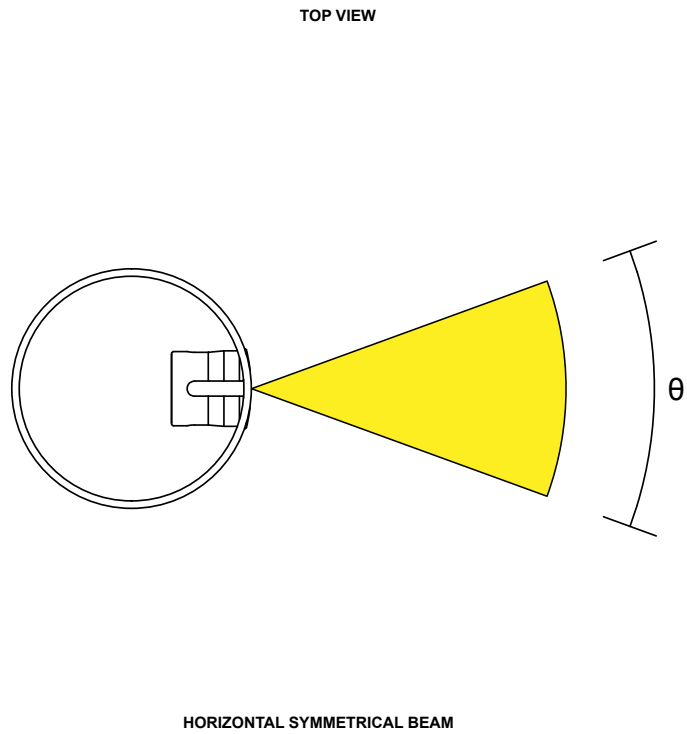
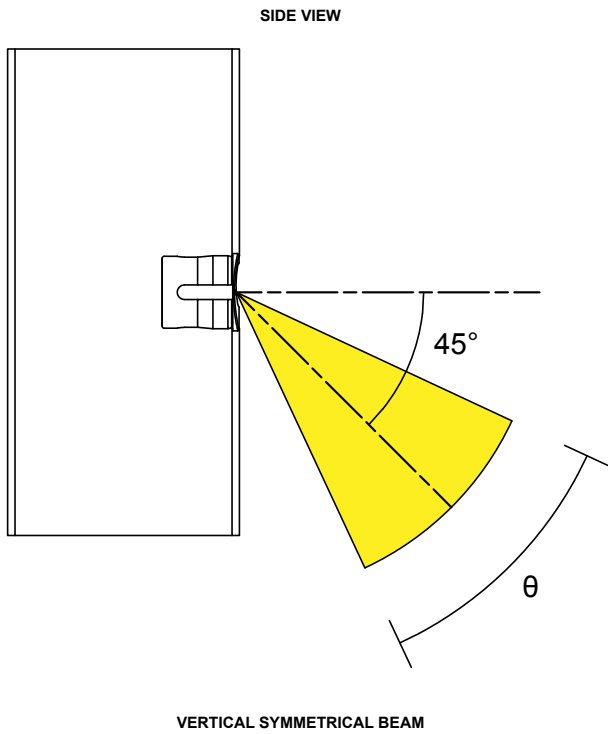
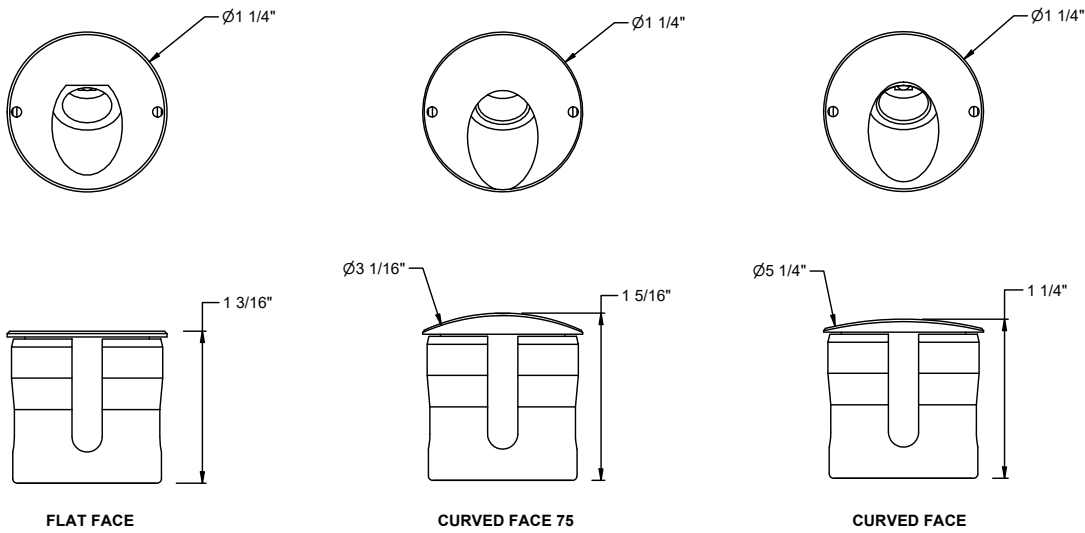
SW (LED)	POWER		SUBSTRATE
DELIVERED LM	W	LPW	METALLIC
570	10	57	



# alphabet

PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

## MEGA PUCK APERTURE - DETAILS



PROJECT INFORMATION		
JOB NAME		TYPE
ORDERING CODE		

## REMOTE DRIVER - 0-10V ORDERING CODE

PART NUMBER	P70414	LED driver with box
CURRENT	400	400mA
	500	500mA
	600	600mA
	700	700mA
DIMMING	ECO	1%
	SOLO	0.1%

ORDERING CODE

Follow the steps to specify your fixture, example:

**P70414 - 500 - ECO**

See Wiring Diagram on page 5

### MAXIMUM PUCK WIRING DISTANCE

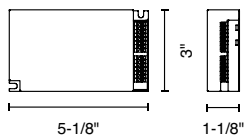
AWG VALUE	DISTANCE <sup>1</sup> (FT)
20	300
18	600

#### NOTES

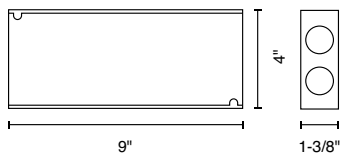
1. Maximum wiring distance from driver to the first puck.

### MAXIMUM WIRING DISTANCE FROM DRIVER TO THE FIRST PUCK

AWG VALUE	DISTANCE (FT)
18	150
16	250
14	400
12	600
10	1000



ECO or SOLO 561/S



Box

## DESCRIPTION

-0-10V dimmable protocol LED drive with smooth flicker free dimming

## TECHNICAL SPECS

- 120-277Vac, 50/60Hz input
- 50W max output
- 700mA max DC constant current output per channel
- 2-55Vdc output per channel
- ECO 1% dimming - 1 channel output
- Solo 0.1% dimming - 2 channel output
- 0-10V compatible
- Operating temperature: -4°F to 122°F
- Class II rated
- Suitable for use in damp and dry locations
- Short circuit protection
- Overload protection
- Over-voltage protection
- Thermal protection

## LISTINGS

- ETLus Listed to UL2108 (suitable for dry and damp locations)
- cETL Listed to CSA C22.2 #250.0

DIMMING TYPE	mA	PUCK NUMBER
ECO	400-700mA	4
SOLO	700mA	4
SOLO	600mA	6
SOLO	500mA	6
SOLO	400mA	8

## REMOTE DRIVER - DALI ORDERING CODE

PART NUMBER	P70469	LED driver with box
CURRENT	400	400mA
	500	500mA
	600	600mA
	700	700mA
DIMMING	ECO	1%
	SOLO	0.1%

ORDERING CODE

Follow the steps to specify your fixture, example:

**P70469 - 500 - ECO**

See Wiring Diagram on page 5

### MAXIMUM PUCK WIRING DISTANCE

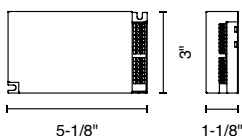
AWG VALUE	DISTANCE <sup>1</sup> (FT)
20	300
18	600

#### NOTES

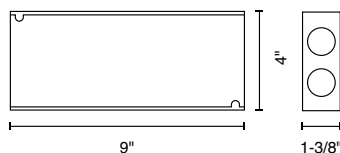
1. Maximum wiring distance from driver to the first puck.

### MAXIMUM WIRING DISTANCE FROM DRIVER TO THE FIRST PUCK

AWG VALUE	DISTANCE (FT)
18	150
16	250
14	400
12	600
10	1000



ECO or SOLO 561/S



Box

## DESCRIPTION

-DALI-2 dimmable protocol LED drive with smooth flicker free dimming

## TECHNICAL SPECS

- 120-277Vac, 50/60Hz input
- 50W max output
- 700mA max DC constant current output per channel
- 2-55Vdc output per channel
- ECO 1% dimming - 1 channel output
- Solo 0.1% dimming - 2 channel output
- DALI compatible
- Operating temperature: -4°F to 122°F
- Class II rated
- Suitable for use in damp and dry locations
- Short circuit protection
- Overload protection
- Over-voltage protection
- Thermal protection

## LISTINGS

- ETLus Listed to UL2108 (suitable for dry and damp locations)
- cETL Listed to CSA C22.2 #250.0

DIMMING TYPE	mA	PUCK NUMBER
ECO	400-700mA	4
SOLO	700mA	4
SOLO	600mA	6
SOLO	500mA	6
SOLO	400mA	8

PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

## REMOTE DRIVER - 10V ORDERING CODE

PART NUMBER	P70571	LED driver with box
VOLTAGE	24	24V
DIMMING	10V	0-10V dimming to 10%
ELECTRICAL OPTIONS	100 100-2 150 150-2 240 320 <sup>1</sup>	100W 2X 100W 150W 2X 150W 240W 320W

ORDERING CODE

Follow the steps to specify your fixture, example:  
P70571 - 24 - 10V - 150

See wiring diagram on page 5.

### NOTES

1. 320W driver dimming performance of 15% at 25 pucks and 20% at 20 pucks.

#### MAXIMUM WIRING DISTANCE FROM DRIVER TO START OF RUN LENGTH AT VARIOUS LOADS

NO. OF MEGA PUCKS	5	10	15	20	25
AWG VALUE	DISTANCE (FT)				
10	100	100	75	60	40
12	100	75	50	40	30
14	75	50	35	25	20

#### MAXIMUM MEGA PUCKS PER DRIVER

DISTANCE	200 FT OR LESS FOR ALL OPTIONS BELOW
DRIVER OUTPUT	NO. OF MEGA PUCKS
100W	1 TO 7
150W	8 TO 11
240W*	12 TO 17
320W*	21 TO 25 AT 15% DIM18 TO 20 AT 20% DIM

### NOTE

\*Must use driver with allowable range of Mega Puck to achieve specified dimming performance.  
Example: 320W driver with 10 pucks will not dim to the specified percentage.

### DESCRIPTION

- Meanwell ELG-100 Class 2 Power Supply
- Meanwell ELG-150 / 240 or HLG-320H Class 1 Power Supply
- 0-10V Dimmable to 10% with 100W / 150W and 240W drivers
- 0-10V Dimmable to 15% with 320W at 25 pucks and 20% at 20 pucks
- 12"x12"x4" Indoor or Outdoor metal housing
- 1/2 KOs, 3/4 KOs, 1 KOs, 1-1/4 KOs and (4x) mounting holes

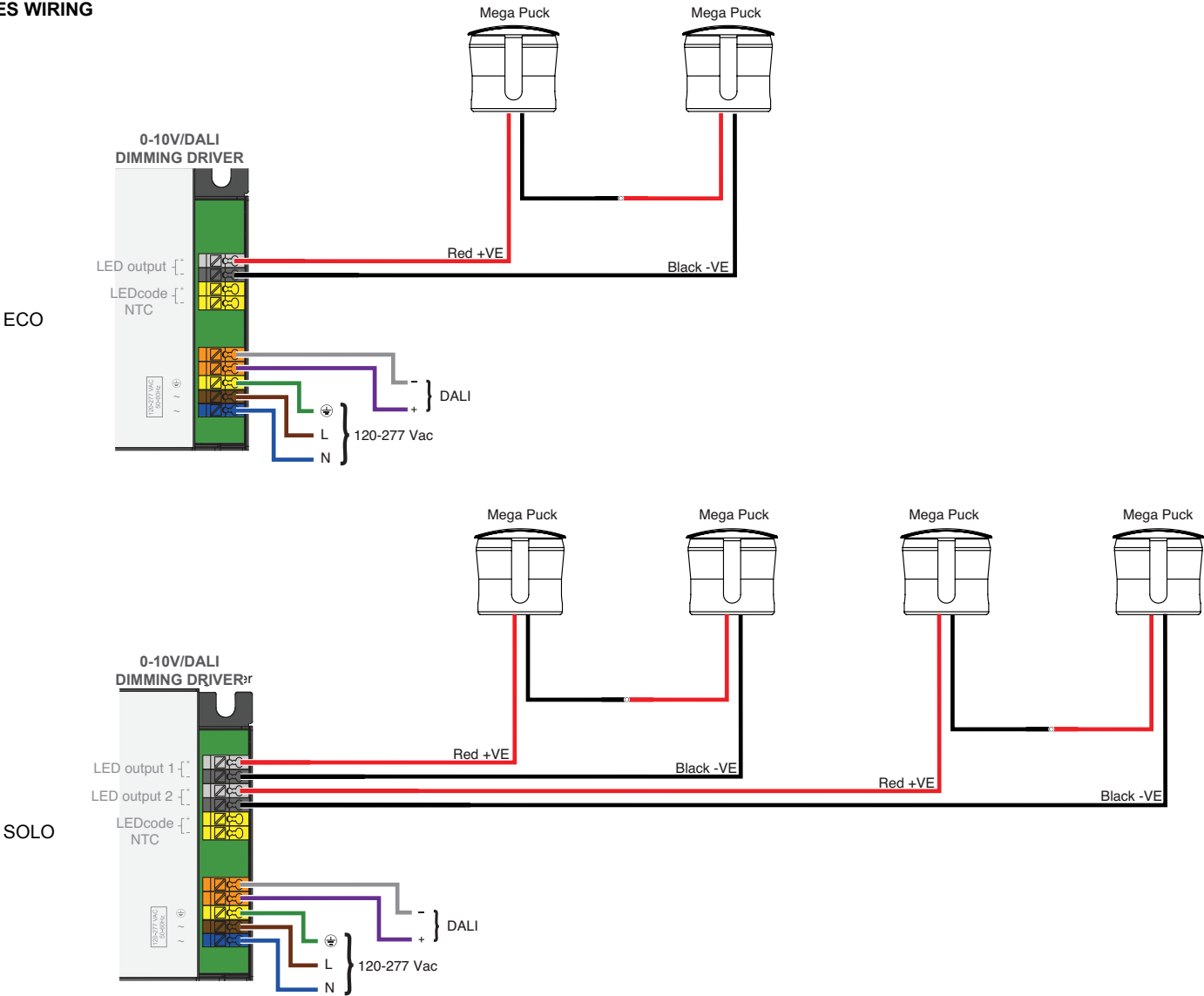
### ELECTRICAL/CONTROLS

- 90-305 VAC, 47-63Hz input
- 100W / 150W / 240W / 320W max output
- Ambient temperature @ full load: -40°C / -40°F to +60°C / 140°F
- NEMA 3R enclosure
- Outdoor rated: Rainproof
- Short circuit protection
- Overload protection
- Over-voltage protection
- Thermal protection
- Built in PFC function
- Box: Length = 12", Height = 12", Width = 4"

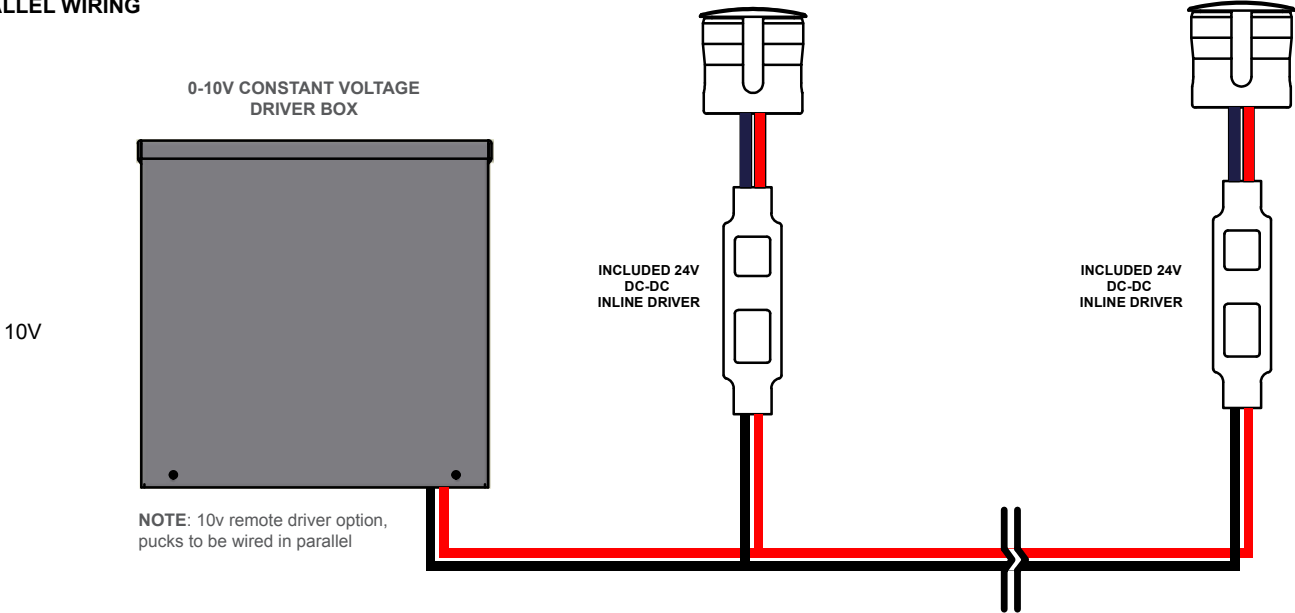
PROJECT INFORMATION			
JOB NAME		TYPE	
ORDERING CODE			

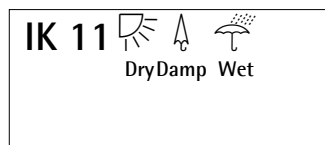
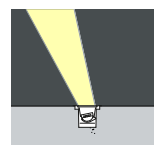
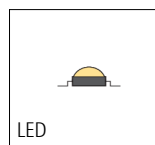
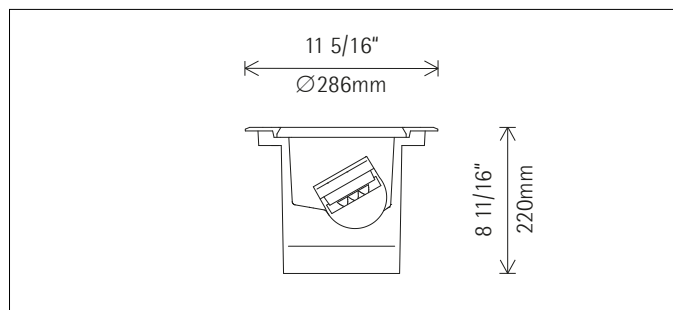
## WIRING DIAGRAM

### SERIES WIRING



### PARALLEL WIRING





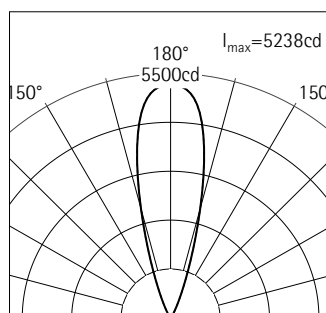
## B2000076

LED module: 18.2W 2152lm 3000K  
warm white  
0-10V dimmable  
Version 1  
Size 5  
Covered mounting detail  
Spherolit lens, flood

## Product description

Housing: polymer, black.  
Longitudinally watertight cable  
5xAWG14, L 31 1/2" / 800mm.  
Control gear 120V/277V, 60Hz,  
dimmable.  
LED module: high-power LEDs.  
Collimating lens made of optical  
polymer. 0°-30° tilt, 360° rotation.  
Screw-fastened cover ring with flush  
safety glass: stainless steel. Safety glass:  
5/8" / 15mm, clear.  
Lens unit: polymer, black. Spherolit lens  
made of optical polymer.  
Installation with separate connection  
sleeve.  
Mounting in recessed housing: Can be  
driven over in vehicles with pneumatic

tyres. Load 11240lbf / 50kN.  
Mounting in hollow floor: mounting kit  
to be ordered separately.  
Photobiological safety: RG2 min 0.3m.  
Dimming with external dimmers  
possible (0-10V).  
Suitable for wet location (IP68):  
dust-proof.  
Weight 11.33lbs / 5.14kg  
Available from 2nd quarter 2025  
Version with 3000K CRI 97 or 2700K,  
3500K, 4000K CRI 92 available on  
request.



h(ft)	E(fc)	D
		29°
3'0"	582	1'6"
6'0"	146	3'1"
9'0"	65	4'7"
12'0"	36	6'2"
15'0"	23	7'8"

## Technical data

Luminous flux of the luminaire	1422lm
Connected load	21.8W
Luminaire efficacy	65lm/W
Color deviation	1.5 SDCM
Color rendition index	CRI 92
Lumen maintenance (LED manufacturer specifications)	L90/B10 >50000h L90 >100000h
LED failure rate	0.1% >50000h
TLA (Temporal Light Artefacts)	SVM ≤ 0.4; PstLM ≤ 1
LMF	E
Temperature on the cover glass	99°F / 37°C

For your regional contact in the ERCO  
Sales network click here  
[www.erco.com/contact](http://www.erco.com/contact)

Technical region: 120V/60Hz,  
277V/60Hz  
We reserve the right to make technical  
and design changes.  
Edition: 14.04.2025  
Current version under  
[www.erco.com/B2000076](http://www.erco.com/B2000076)

## Planning data

### Melanopic light effect

Art. no.	Spectrum	MR	MDER
B2000076 (indirect)	3000K CRI 92	0.53	0.48

MR Melanopic factor (of luminous radiation)  $a_{mel,v}$   
MDER Melanopic Daylight Efficacy Ratio  $[\gamma]_{mel,v,D65}$

Multiplying the illuminance with the melanopic daylight efficacy ratio MDER gives the melanopic equivalent daylight illuminance MEDI. (MEDI Melanopic Equivalent Daylight Illuminance  $[lx] E_{v,med,D65} [lx]$ ).

Cleaning (a)	1				2				3			
Ambient conditions	P	C	N	D	P	C	N	D	P	C	N	D
LMF	0.96	0.94	0.90	0.86	0.93	0.91	0.86	0.81	0.92	0.90	0.84	0.79
Hours of operation (h)	1000	5000	10000	20000	30000	40000	50000					
LLMF	1.00	0.99	0.98	0.96	0.94	0.92	0.90					
LSF	1	1	1	1	1	1	1					

MF LMFxRSMFxLLMFxLSF  
MF Maintenance Factor  
LMF Luminaire Maintenance Factor  
RSMF Room Surface Maintenance Factor  
LLMF Lamp Lumens Maintenance Factor  
LSF Lamp Survival Factor  
P Room pure  
C Room clean  
N Room normal  
D Room dirty

### Technical data based on international standards and directives

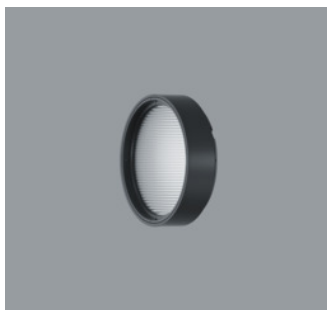
IEC 60598	Luminaires – Parts 1 + 2: General requirements, particular requirements and tests
IEC 62031	LED modules for general lighting – Safety specifications
IEC 62471	Photobiological safety of lamps and lamp systems
UL 1598	Luminaires
UL 1574	Standard for Track Lighting Systems
UL 8750	Standard for Light Emitting Diode (LED) Equipment for Use in Lighting Products
IES LM-79-08	Electrical and Photometric Measurements of Solid-State Lighting Products
IES LM-80-08	Measuring Lumen Maintenance of LED Light Sources
CIE 13	Method of measuring and specifying color rendering properties of light sources

All technical data are subject to industry standard tolerances.

See also [www.erco.com/erco-led](http://www.erco.com/erco-led)

For explanations of the symbols and abbreviations used and other general information, see [www.erco.com/symbols](http://www.erco.com/symbols)

## Accessories



**AC002074**  
Lens unit spot  
Polymer, black lacquered, can be rotated through 360°. Replacement without tools.  
Spherolit lens made of optical polymer.  
Weight 0.31lbs / 0.14kg



**AC006001**  
Softening lens  
Filter holder: polymer, black, can be rotated through 360°. Replacement without tools.  
Weight 0.15lbs / 0.07kg



**AC002072**  
Lens unit flood  
Polymer, black lacquered, can be rotated through 360°. Replacement without tools.  
Spherolit lens made of optical polymer.  
Weight 0.31lbs / 0.14kg



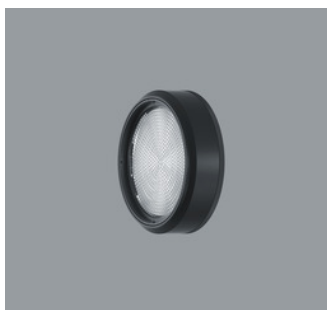
**AC006026**  
Sculpture lens  
Filter holder: polymer, black, can be rotated through 360°. Replacement without tools.  
Weight 0.15lbs / 0.07kg



**AC002073**  
Lens unit oval flood  
Polymer, black lacquered, can be rotated through 360°. Replacement without tools.  
Spherolit lens made of optical polymer.  
Weight 0.31lbs / 0.14kg



**AC006032**  
Cold Filter  
Filter holder: polymer, black, can be rotated through 360°. Replacement without tools.  
Weight 0.15lbs / 0.07kg



**AC002119**  
Lens unit zoom spot  
Polymer, black lacquered, can be rotated through 360°. Replacement without tools.  
Anti-reflective zoom lens made of optical polymer, infinitely focusable.  
Weight 0.20lbs / 0.09kg



**AC006030**  
Cold Filter Plus  
Filter holder: polymer, black, can be rotated through 360°. Replacement without tools.  
Weight 0.15lbs / 0.07kg



**AC002121**  
Lens unit zoom oval  
Polymer, black lacquered, can be rotated through 360°. Replacement without tools.  
Anti-reflective zoom lens made of optical polymer, infinitely focusable.  
Weight 0.20lbs / 0.09kg



**AC006028**  
Warm Filter  
Filter holder: polymer, black, can be rotated through 360°. Replacement without tools.  
Weight 0.15lbs / 0.07kg

## Accessories



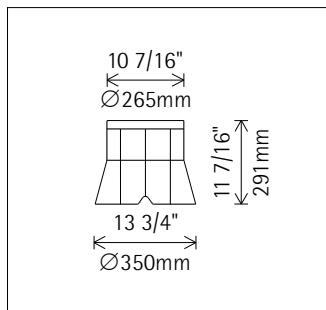
**AC006012**  
Warm Filter Plus  
Filter holder: polymer, black, can be rotated through 360°. Replacement without tools.  
Weight 0.15lbs / 0.07kg



**33964.000**  
Recessed housing  
Polymer, black.  
4 cable entries.  
Load 11240lb.wt / 50kN.



**AC006029**  
Skintone Filter  
Filter holder: polymer, black, can be rotated through 360°. Replacement without tools.  
Weight 0.15lbs / 0.07kg



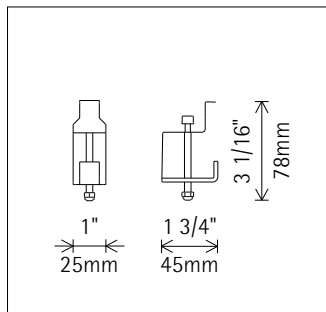
**AC006023**  
Blue Light Filter  
Filter holder: polymer, black, can be rotated through 360°. Replacement without tools.  
Weight 0.15lbs / 0.07kg



**33988.000**  
Mounting kit  
Mounting in hollow floors.  
3 mounting brackets: stainless steel.  
Clamp extension 7/16" - 1 13/16" / 11-46mm.  
Load 4500lb.wt / 20kN.  
Floor aperture:  
Size 5: ø 10 1/16" / 255mm  
Size 7: ø 11 9/16" / 293mm



**AC004025**  
Honeycomb anti-glare screen  
Aluminum, powder-coated black, polymer outer.  
Weight 0.12lbs / 0.06kg



**33958.023**  
Connection sleeve  
for cable diameters of 0.25" - 0.80".  
Polymer conduit, two-part PUR cast resin.  
Length 5 15/16" / 150mm.  
Width 1 1/4" / 32mm.  
Height 2 3/8" / 59mm.  
Weight 0.99lbs / 0.45kg