# L304

#### **EXTERIOR | INTERIOR**

In-grade | For ground, ceilings, walls, and stairs

• Wet, Damp, and Dry location





Order	Ordering Information								Clear Form
Date : Project Type :	:					Quantity : Note :			
·	Specifications  Luminaire   Example Code: L304-2-W30H-N-C-[ ]-0-MK3-S-S6								
L304	Version  1 1W 2 2W	W22S 2200K 80+ W30H 3000K 90+ W27H 2700K 90+ W35H 3500K 90+ W41H 4100K 90+	SS super spot 8° S spot 12° N narrow flood 30° F flood 45° W wide flood 120°	C clear F frosted	Accessories 3 (optional)  LM louver, matte anodized LB louver, black anodized HM hex louver, matte anodized HB hex louver, black anodized AB angled louver, black anodized SB straight louver, black anodized RB ring louver, black anodized RB ring louver, black anodized	Internal Angle Bracket <sup>4</sup> 0 no angle 15 15° angle X custom	Mounting Kit <sup>s</sup> (optional)  MK1 vertical surface MK3 in-ground	Flange & Back Box 6  Octagonal Aluminum Back Box with: S standard flange depth: 2-7/8' (73mm) P paving stone flange depth: 5-1/2" (138mm) 7  Pipe 8: PIPE 1-5/8" PVC pipe length: 11-13/16" (300mm)  NB no back box or flange	Aluminum Finishes: MA matte clear anodized BA black anodized BZ bronze powder coated  Stainless Steel Finish: S6 stainless steel 316
	stem Components (Ordered Separately)  mote Driver : * Consult MP Lighting Website or Factory.								

#### **Important Notes**

#### Specification

- 1. Refer to pg.2 for Light Quality and Colour Consistency.
- See Light Distribution section for illustration of different combinations of beam angles and angle bracket. Super Spot beam angle is only available with clear lens, and is not available with louver accessories or angle brackets.
- 3. Louvers will be below the glass cover. Only available when there is no Internal Angle Bracket.
- 4. Internal angle bracket is factory set, and cannot be field adjusted.  $5^\circ$  increments to maximum of  $20^\circ$  without accessories.
- 5. Mounting kit is ordered separately. Please consult factory.
- For components included, refer to Luminaire Construction section. See pg.3 for back box and flange options.
- Paving stone flange is also recommended for a better cement/concrete flow.
- 8. Factory set length of 11-13/16" (300mm). Visit PIPE-C for details.
- Different finish options are only applicable to trim ring and not for LED module housing. Refer to
  Appendix or MP Lighting website for complete look of luminaire with different trim finish options.

#### Warranty Notes & Disclaimer

Malfunction and damage to product due to incompatible dimming system or misuse will not be covered under warranty. Consult MP Lighting for recommended drivers. If the fixture has an option to be installed with a dimming control system, consult a dimming system manufacturer with minimum load before installing. MP Lighting reserves the right, at its sole discretion, at any time and without notice, to make design changes to any of our products. Consult MP Lighting website for most updated documentation.

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#### Performance

Wattage	Forward Current	Power Consumption Budget per fixture (including driver)	LED output (Source)	Fixture Output (Delivered)
1W	350mA	1.3W	110 lm	27-63 lm
2W	700mA	2.6W	220 lm	49-119 lm

#### Application

Environment Dry / Damp / Wet Location approved. IP 68.

Drive Over Rating 9,700 lbs (4,400 kg)

Mounting Recessed: Designed to be cast into earth, gravel, or concrete or inserted into paving stones or pavers. Included

backbox, flange and level for direct burial or casting applications.

MK1 mounting kit (optional): Recommended for easy installation on vertical surfaces (e.g. stair risers, walls), and

downward-facing surfaces (e.g. ceilings, soffits). See "Mounting Options & Dimensions," or visit MK1

**MK3 mounting kit (optional):** Recommended for thicker concrete slab and paving stone in-ground installation. Custom rectangular electrical box option is available for stair riser&wall installation. See "Mounting Options &

Dimensions, " or visit MK3

# Electrical

Electrical Compatible with remote constant current DC driver, wiring in series.

Control On/off control or phase dimming or 0-10V dimming with appropriate remote dimmable driver.

#### **Luminaire Construction**

LED Light Source

W22S = CCT: 2200K, CRI (Ra): 80+, Colour Consistency: 3SDCM

W27H = CCT: 2700K, CRI (Ra): 90+, Colour Consistency: 2SDCM

W30H = CCT: 3000K, CRI (Ra): 90+, Colour Consistency: 2SDCM

W35H = CCT: 3500K, CRI (Ra): 90+, Colour Consistency: 2SDCM

W41H = CCT: 4100K, CRI (Ra): 90+, Colour Consistency: 3SDCM

Weight 1.8 lbs (0.816 kg). Typical Aluminum Insert & Back Box only.

Material Fixture: machined marine-grade aluminum, machined brass or machined stainless steel (316) with tempered glass

Supplied with Standard installation housing: Comes with an octagonal back box, a flange, an integral leveling device, a plastic cap,

gel filled wire nuts, and silicone grease.

Cable: 6" (152mm) factory-installed wire lead

Warranty & LED Life 5 years limited warranty

Estimated useful life of LED is 50,000 hours.

# Ordered Separately

System Components **Power supplies:** remote driver

Mounting kits: MK1 or MK3 (custom length rebar in MK3 supplied by contractors)

**Custom back boxes:** see Pg.3-4 Mounting Options & Dimensions.

## **Mounting Options & Dimensions**

#### **LED Insert Dimensions**

Fixture Top View 3D View Beam

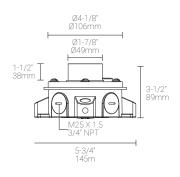
Sq. 7/8'
Sq. 22mm

trim 1/16'
2-5/16'
59mm
Sq. 2-3/16'
Sq. 2-3/16'
Sq. 56mm
Sq. 56mm
Beam

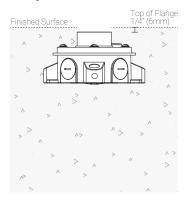
LED source

# In-ground Installation | Shown with MP Lighting Back Box & Standard Flange (Order Code: EBX-OCT1-CSMA)

Box with Standard Flange



Box with Standard Flange: During Concrete Installation

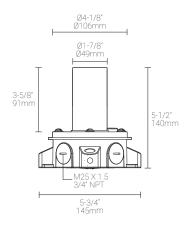


Box with Standard Flange: Complete Concrete Installation

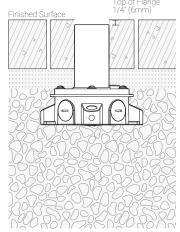


#### In-ground Installation | Shown with MP Lighting Back Box & Paving Stone Flange (Order Code: EBX-OCT1-CPMA)

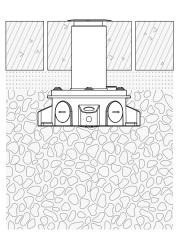
Box with Paving Stone Flange:



Box with Paving Stone Flange: During Paving Stone Installation



Box with Paving Stone Flange: Complete Paving Stone Installation

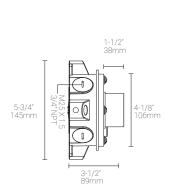


ED source

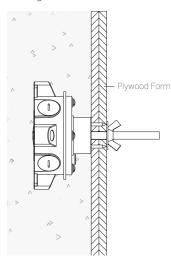
## Mounting Kits

#### MK1 (MK1-OCT1-C): Ceiling, Wall, and Stair Riser Installation | Shown with MP Lighting Back Box (Order Code: EBX-OCT1-CSMA)

Box with Standard Flange

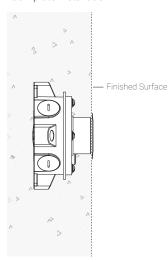


Box with Standard Flange & MK1: During Installation



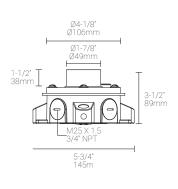
6" (152mm) threaded rod is supplied. Thread size: 3/8"-16

Box with Standard Flange: Complete Installation

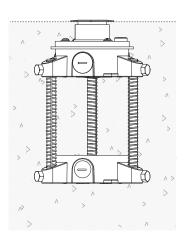


# MK3: In-ground Installation | Shown with MP Lighting Back Box (Order Code: EBX-OCT1-CSMA or EBX-OCT1-CPMA)

Back Box

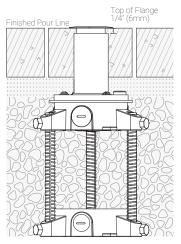


MK3 with Standard Flange and Back Box



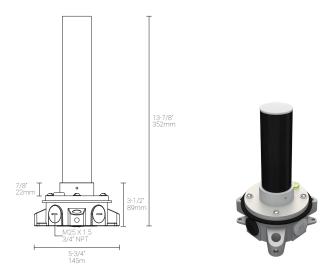
Rebar supplied by others. Recommended size: Ø1/2"

MK3 with Paving Stone Flange and Back Box



# EBX-OCT1-CPIPE

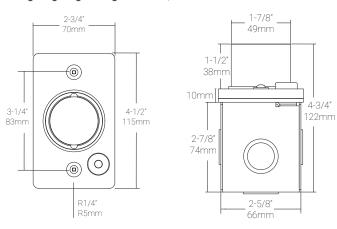
PIPE (PIPE-C): In-ground/Landscape Installation | Shown with MP Lighting Back Box (Order Code: EBX-OCT1-CPIPE)

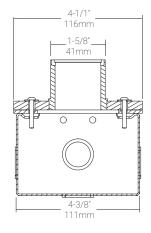


# Rectangular Back Box for Wall Installation | shown with standard flange

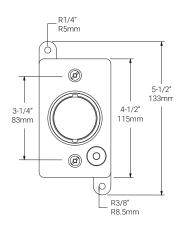
1. For wall Installation, custom rectangular electrical boxes are available as alternative options.

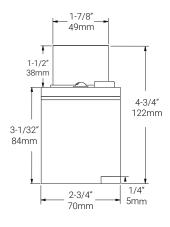
# MP Lighting Single Gang Back Box | Order Code: EBX-SGB1-CSMA

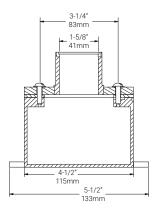




Scepter FD Back box | Order Code: EBX-SFD-CSMA

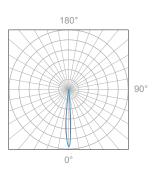






# 1W, 3000K, 90+ CRI

#### Polar Candela Distribution



#### Beam Width: 8°



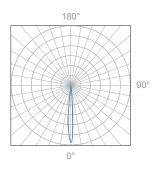
#### Illuminance at a Distance

Distance		Center Beam fc	Beam Width			
1.5ft	0.46m	537fc	0.2ft	0.06m	0.2ft	0.06m
3.0ft	0.91m	134fc	0.4ft	0.12m	0.5ft	0.15m
4.5ft	1.37m	59.6fc	0.6ft	0.18m	0.7ft	0.21m
6.0ft	1.83m	33.5fc	0.8ft	0.24m	0.9ft	0.27m
7.5ft	2.29m	21.5fc	1.1ft	0.33m	1.2ft	0.36m
9.0ft	2.74m	14.9fc	1.3ft	0.39m	1.4ft	0.42m

Delivered Lumen: 46.2 lm

■ Vertical Beam Spread: 8.1° ■ Horizontal Beam Spread: 8.8°

# Polar Candela Distribution



#### Beam Width: 12°



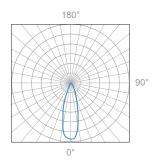
#### Illuminance at a Distance

			_				
Distance		Center Beam fc	Beam Width				
1.5ft	0.46m	424fc	0.3ft	0.09m	0.3ft	0.09m	
3.0ft	0.91m	140fc	0.6ft	0.18m	0.6ft	0.18m	
4.5ft	1.37m	62fc	0.9ft	0.27m	0.9ft	0.27m	
6.0ft	1.83m	35fc	1.3ft	0.39m	1.3ft	0.39m	
7.5ft	2.29m	23fc	1.6ft	0.48m	1.6ft	0.48m	
9.0ft	2.74m	16fc	1.9ft	0.58m	1.9ft	0.58m	

Delivered Lumen: 63.4 lm

■ Vertical Beam Spread: 12° ■ Horizontal Beam Spread: 12°

# Polar Candela Distribution



Beam Width: 30°



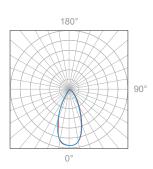
# Illuminance at a Distance

	Distance		Center Beam fc	Beam Width			
Ì	1.5ft	0.46m	82.3fc	0.8ft	0.24m	0.8ft	0.24m
	3.0ft	0.91m	20.6fc	1.6ft	0.49m	1.6ft	0.49m
	4.5ft	1.37m	9.14fc	2.4ft	0.73m	2.4ft	0.73m
	6.0ft	1.83m	5.14fc	3.2ft	0.98m	3.2ft	0.98m
	7.5ft	2.29m	3.29fc	4.0ft	1.22m	4.0ft	1.22m
	9.0ft	2.74m	2.29fc	4.7ft	1.43m	4.7ft	1.43m

#### Delivered Lumen: 65.8 lm

Vertical Beam Spread: 29.5°
Horizontal Beam Spread: 29.5°

## Polar Candela Distribution



Beam Width: 45°



# Illuminance at a Distance

Distance		Center Beam fc	Beam Width			
3.0ft	0.91m	12.1fc	2.6ft	0.79m	2.5ft	0.76m
6.0ft	1.83m	3.04fc	5.1ft	1.55m	5.1ft	1.55m
9.0ft	2.74m	1.35fc	7.7ft	2.34m	7.6ft	2.31m
12.0ft	3.65m	0.76fc	10.2ft	3.10m	10.1ft	3.07m
15.0ft	4.57m	0.49fc	12.8ft	3.90m	12.6ft	3.84m
18.0ft	5.48m	0.34fc	15.4ft	4.69m	15.2ft	4.63m

Delivered Lumen: 77.7 lm
■ Vertical Beam Spread: 46.2°
■ Horizontal Beam Spread: 45.7°

# 1W, 3000K, 90+ CRI

#### Polar Candela Distribution

90°

180°



#### Illuminance at a Distance

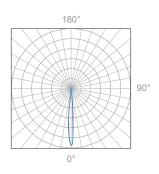
Dist	ance	Center Beam fc	Beam Width			
1.5ft	0.46m	11.3fc	4.1ft	1.25m	4.1ft	1.25m
3.0ft	0.91m	2.82fc	8.1ft	2.46m	8.1ft	2.46m
4.5ft	1.37m	1.26fc	12.2ft	3.71m	12.2ft	3.71m
6.0ft	1.83m	0.71fc	16.3ft	4.96m	16.3ft	4.96m
7.5ft	2.29m	0.45fc	20.3ft	6.18m	20.3ft	6.18m
9.0ft	2.74m	0.31fc	24.4ft	7.43m	24.4ft	7.43m

Delivered Lumen: 63 lm

■ Vertical Beam Spread : 107.1° ■ Horizontal Beam Spread : 107.1°

# 2W, 3000K, 90+ CRI

Polar Candela Distribution



Beam Width: 8°



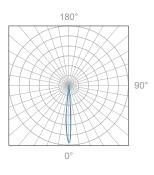
#### Illuminance at a Distance

Distance		Center Beam fc	Beam Width			
1.5ft	0.46m	1,015fc	0.2ft	0.06m	0.2ft	0.06m
3.0ft	0.91m	254fc	0.4ft	0.12m	0.4ft	0.12m
4.5ft	1.37m	113fc	0.7ft	0.21m	0.6ft	0.18m
6.0ft	1.83m	63.4fc	0.9ft	0.27m	0.9ft	0.27m
7.5ft	2.29m	40.6fc	1.1ft	0.33m	1.1ft	0.33m
9.0ft	2.74m	28.2fc	1.3ft	0.39m	1.3ft	0.39m

Delivered Lumen: 61.3 lm

■ Vertical Beam Spread: 8.5° ■ Horizontal Beam Spread: 8.2°

## Polar Candela Distribution



Beam Width: 12°



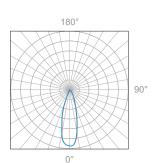
## Illuminance at a Distance

Dista	ance	Center Beam fc	Beam Width			
1.5ft	0.46m	774fc	0.3ft	0.09m	0.3ft	0.09m
3.0ft	0.91m	194fc	0.6ft	0.18m	0.6ft	0.18m
4.5ft	1.37m	86fc	0.9ft	0.27m	0.9ft	0.27m
6.0ft	1.83m	48.4fc	1.3ft	0.39m	1.3ft	0.39m
7.5ft	2.29m	31fc	1.6ft	0.48m	1.6ft	0.48m
9.0ft	2.74m	21.5fc	1.9ft	0.58m	1.9ft	0.58m

Delivered Lumen: 116.8 lm

■ Vertical Beam Spread: 12° ■ Horizontal Beam Spread: 12°

# Polar Candela Distribution



Beam Width: 30°



## Illuminance at a Distance

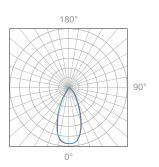
Dist	ance	Center Beam fc		Beam Width		
1.5ft	0.46m	152fc	0.8ft	0.24m	0.8ft	0.24m
3.0ft	0.91m	38fc	1.6ft	0.48m	1.6ft	0.48m
4.5ft	1.37m	16.9fc	2.4ft	0.73m	2.4ft	0.73m
6.0ft	1.83m	9.49fc	3.2ft	0.97m	3.2ft	0.97m
7.5ft	2.29m	6.07fc	4.0ft	1.22m	4.0ft	1.22m
9.0ft	2.74m	4.22fc	4.7ft	1.43m	4.7ft	1.43m

Delivered Lumen: 121 lm

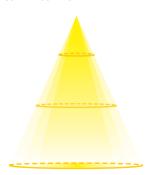
■ Vertical Beam Spread: 29.5° ■ Horizontal Beam Spread: 29.5°

# 2W, 3000K, 90+ CRI

#### Polar Candela Distribution



Beam Width: 45°



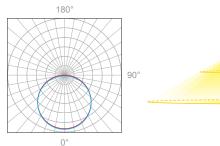
#### Illuminance at a Distance

Dist	ance	Center Beam fc	Beam Width			
3.0ft	0.91m	21.8fc	2.6ft	0.79m	2.6ft	0.79m
6.0ft	1.83m	5.45fc	5.2ft	1.58m	5.1ft	1.55m
9.0ft	2.74m	2.42fc	7.7ft	2.34m	7.7ft	2.34m
12.0ft	3.65m	1.36fc	10.3ft	3.13m	10.2ft	3.10m
15.0ft	4.57m	0.87fc	12.9ft	3.93m	12.8ft	3.90m
18.0ft	5.48m	0.61fc	15.5ft	4.72m	15.3ft	4.66m

Delivered Lumen: 139.1 lm

Vertical Beam Spread : 46.5°
Horizontal Beam Spread : 46.1°

## Polar Candela Distribution



# Beam Width: 120°



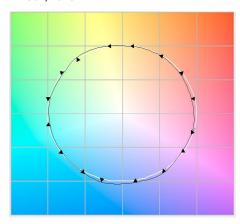
#### Illuminance at a Distance

Distance		Center Beam fc	Beam Width			
1.5ft	0.46m	21.3fc	4.1ft	1.25m	4.1ft	1.25m
3.0ft	0.91m	5.33fc	8.1ft	2.46m	8.1ft	2.46m
4.5ft	1.37m	2.37fc	12.2ft	3.71m	12.2ft	3.71m
6.0ft	1.83m	1.33fc	16.3ft	4.96m	16.3ft	4.96m
7.5ft	2.29m	0.85fc	20.3ft	6.18m	20.3ft	6.18m
9.0ft	2.74m	0.59fc	24.4ft	7.43m	24.4ft	7.43m

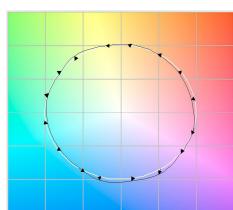
Delivered Lumen: 119 lm
■ Vertical Beam Spread: 107.1°
■ Horizontal Beam Spread: 107.1°

# TM30 Report

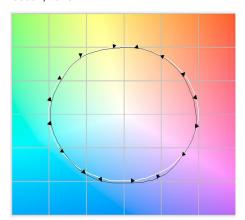
2700K, 90+CRI



3000K, 90+CRI

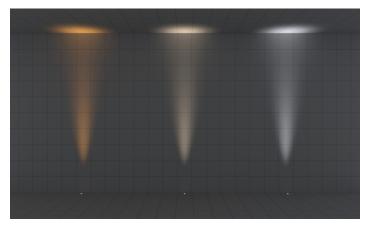


3500K, 90+CRI

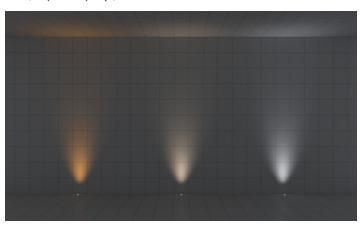


# Colour Temperature Comparison | 2200K, 2700K, 3000K

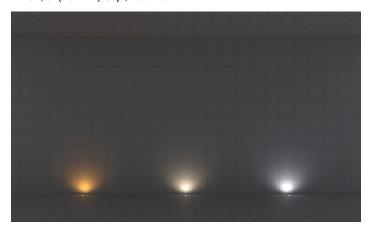
12° | 6" (152mm) Gap | 10ft Wall



30° | 6" (152mm) Gap | 10ft Wall

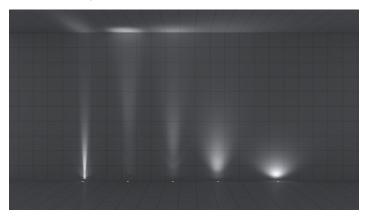


120° | 6" (152mm) Gap | 10ft Wall



# Light Distribution | 10ft Wall | Fixtures installed 6" (152mm) away from the wall

## L01 | 1W | 0° angle bracket | 10ft wall | Clear Lens | 3000K



## From left to right:

E elliptical 7°+36°

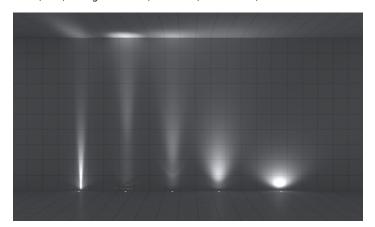
**SS** super spot 8°

S spot 12°

N narrow flood 30°

W wide flood 120°

## L01 | 2W | 0° angle bracket | 10ft wall | Clear Lens | 3000K



# From left to right:

E elliptical 7°+ 36°

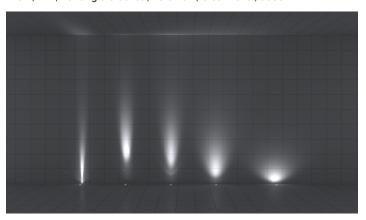
SS super spot 8°

**S** spot 12°

N narrow flood 30°

W wide flood 120°

## L01 | 1W | 10° angle bracket | 10ft wall | Clear Lens | 3000K



#### From left to right:

E elliptical 7°+36°

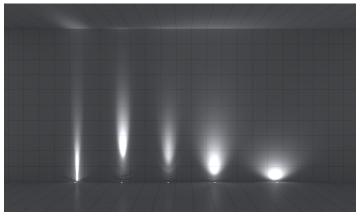
SS super spot 8°

S spot 12°

N narrow flood 30°

W wide flood 120°

## L01 | 2W | 10° angle bracket | 10ft wall | Clear Lens | 3000K



# From left to right:

E elliptical 7°+ 36°

SS super spot 8°

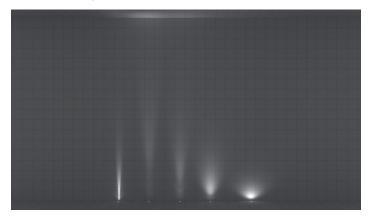
S spot 12°

N narrow flood 30°

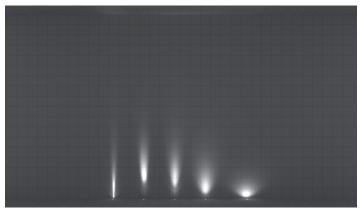
W wide flood 120°

# Light Distribution | 18ft Wall | Fixtures installed 6" (152mm) away from the wall

## L01 | 1W | 0° angle bracket | 18ft wall | Clear Lens | 3000K



## L01 | 1W | 10° angle bracket | 18ft wall | Clear Lens | 3000K



## From left to right:

E elliptical 7°+36°

SS super spot 8°

S spot 12°

N narrow flood 30°

W wide flood 120°

### m left to right:

From left to right:

E elliptical 7°+36°

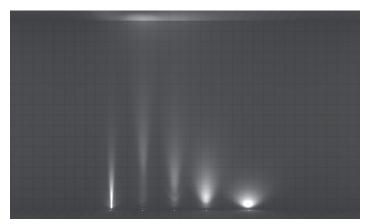
SS super spot 8°

S spot 12°

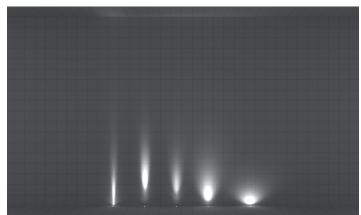
N narrow flood 30°

W wide flood 120°

#### L01 | 2W | 0° angle bracket | 18ft wall | Clear Lens | 3000K



## L01 | 2W | 10° angle bracket | 18ft wall | Clear Lens | 3000K



# From left to right:

E elliptical 7°+36°

SS super spot 8°

S spot 12°

N narrow flood 30°

W wide flood 120°

# From left to right:

E elliptical 7°+ 36°

SS super spot 8°

S spot 12°

N narrow flood 30°

W wide flood 120°

<sup>\*</sup> Images will appear darker when printed.

# Appendix

## **Aluminum Finishes**







MA matte clear anodized

BA black anodized

BZ bronze powder coated

## Stainless Steel Finishes



S6 stainless steel 316

#### Accessories









LM louver, matte clear anodized

LB louver, black anodized

 $\ensuremath{\mathbf{HM}}$  hex louver, matte clear anodized







**HB** hex louver, black anodized

AB angled louver, black anodized

SB straight louver, black anodized

QB square louver, black anodized

RB ring louver, black anodized

# **Lens Options**



C clear lens

F frosted