



# LHS-LED

## Linear Highbay



The LHS-LED Series of linear highbay luminaires is highly versatile with industry leading selectable features and a high lumen package while keeping a compact design and contractor-friendly installation. Its durability and high efficiency make it ideal for illuminating a wide range of industrial and commercial facilities and is an optimal one-to-one replacement for conventional lighting systems such as HID and fluorescent.

### IDEAL APPLICATIONS

- ✓

Warehouses
- ✓

Factories
- ✓

Gymnasiums
- ✓

Service Bays
- ✓

Retail stores
- ✓

Workshops

### SPECIFICATIONS

	LH1S-LED110A60	LH2S-LED165A100	LH3S-LED320A220
PERFORMANCE			
Light Output	15900/12400/9300 lm	23500/19900/15300 lm	46900/41000/33400 lm
	Lumen Selectable		
Efficacy	155 lm/W	153 lm/W	152 lm/W
CCT	3500/4000/5000K (CCT Selectable)		
Beam Distribution	Wide (90°x90°), Narrow (45°x90°) - Field Changeable		
Replaces Up to	250 MH	400 MH	1000 MH
LED Lifetime (L80)	>100,000 Hrs		
CRI	84	85	84
ELECTRICAL			
Wattage	105/80/60W	160/130/100W	320/270/220W
Voltage	120-347V		
Surge Protection	6kV (Built-in Driver) as per IEC/EN61000-4-5		
Power Factor	>0.99		
THD	<4%		
Cord	Pre-installed 10' Power Cable (3x18 AWG)		
Battery Backup	9W (Option Available)		

	LH1S-LED110A60	LH2S-LED165A100	LH3S-LED320A220
CONSTRUCTION			
Housing	Die-cast Aluminum		
Lens	Glare-free Polycarbonate		
Weight	Fixture & Cable	5.40 lbs	7.16 lbs
	2x2' T-Grid Mounting Plate	9.58 lbs	-
AMBIENT OPERATING TEMPERATURE			
Fixture: -40°C to 55°C			
Motion Sensor: -30°C to 55°C			
Battery Backup: 0°C to 55°C			
MOUNTING			
Suspension Mount - V-Hooks & Chain (Included), Aircraft Cable, Surface Mount, Pendant Mount & T-Grid Drop Ceiling Mount			
CERTIFICATIONS			
cULus Listed for Canada and USA, per UL 1598, CSA C22.2 No. 250.0			
DLC Premium			
CONTROLS			
0-10V Dimming (Dim to Off)			
PIR/ Microwave Motion Sensor/Dimmer (Dual Functionality)			

All reported values were tested at 120V and 4000K and shown for the highest lumen setting.

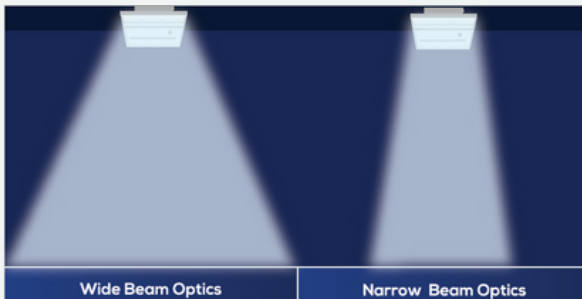
### FIELD CHANGEABLE OPTICS

#### TOOL-LESS SWAP IN LESS THAN 1 MIN

Take out 90°x90° wide beam optics (pre-installed)



Swap with 45°x90° narrow beam optics (included in the box)



LUMEN MAINTENANCE			MAX AMPERAGE DRAW (A)					
L90	L80	L70		120V	208V	240V	277V	347V
51,000 Hrs	105,000 Hrs	165,000 Hrs	LH1S-LED110A60	0.962	0.555	0.481	0.417	0.333
Life hours are derived from IESNA LM-80 testing report and projected per IESNA TM-21 calculations.			LH2S-LED165A100	1.467	0.846	0.733	0.635	0.507
			LH3S-LED320A220	2.933	1.692	1.467	1.271	1.014


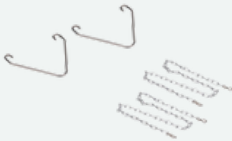
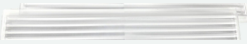
ORDERING GUIDE

		H	VK	CD	WHT	DIM		
Fixture	Wattage	Voltage	Colour Temp.	Beam Distribution	Finish	Dimming	Battery Backup	T-Grid Mounting
LH1S	LED110A60	H - 120-347V	VK - Colour Selectable (3500K/4000K /5000K)	CD - Field Changeable Distribution	WHT - White	DIM - 0-10V Dimming	BLANK - No Battery Backup	BLANK - Not for T-Grid Mounting
LH2S	LED165A100						BBK9 - 9W Battery Backup <sup>1</sup>	2x2' T-Grid - T-Grid Mounting for 2x2' Drop Ceiling <sup>2</sup>
LH3S	LED320A220							

<sup>1</sup> Battery Backup is for suspension mount and surface mount only.  
<sup>2</sup> Not offered for LH3S.

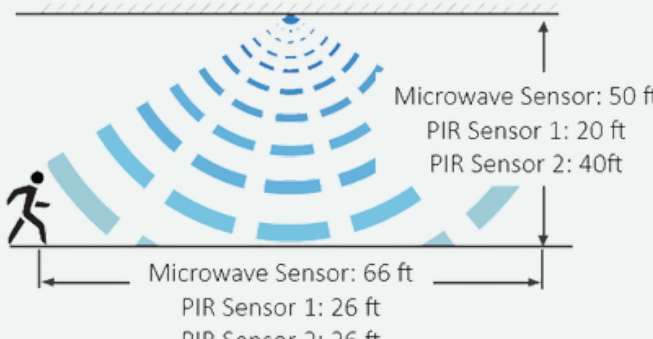
Default Setting: 4000K, Maximum Wattage & Wide Optics (90°x90°).

STOCK CODES	
081943	LH1S-LED110A60-H-VK-CD-WHT-DIM
081944	LH2S-LED165A100-H-VK-CD-WHT-DIM
081945	LH3S-LED320A220-H-VK-CD-WHT-DIM

INCLUDED IN THE BOX					
	PRE-INSTALLED 10 FT POWER CORD		V HOOKS & 6 FT SUSPENSION CHAIN		SPARE 45°x90° NARROW BEAM OPTICS (TOOL-LESS CHANGE IN FIELD)

ACCESSORIES SOLD SEPARATELY			
	081960 - AIRCRAFT CABLE - 10 ft Length		080909 - MICROWAVE SENSOR (50 ft max height) 081300 - PIR SENSOR 1 (20ft max height) 081837 - PIR SENSOR 2 (40ft max height) <i>Occupancy sensing can be disabled to use it as a dimmer only.</i>
	081958 - SURFACE MOUNT KIT		080970 - MOTION SENSOR REMOTE CONTROL
	081959 - PENDANT MOUNT KIT		081961 - LH1S WIRE GUARD 081962 - LH2S WIRE GUARD 081963 - LH3S WIRE GUARD

### MOTION SENSOR SPECIFICATIONS

Operating Voltage	12VDC
Operating Current	30mA
Output Voltage	0-10V
Stand-by Power	<0.5W
Maximum Mounting Height/Range	
Maximum Detection Angle	360°
IP Rating	IP65
Brightness	70%/80%/90%/100%*
Sensitivity	20%/50%/75%/100%*
Hold Time	10s/1min*/10min/30min
Daylight Threshold	10Lux/30Lux/50Lux/100Lux/Disabled*
Stand-by Time	1min*/30min/60min/+∞
Stand-by Dim Level	10%/20%*/30%/50%

Default settings marked with \*


Default Setting: After no motion for 1min (hold time), the fixture will dim from 100% (brightness) to 20% (stand-by dim level).

After no motion for another 1 min (stand-by time), the fixture will turn off.

For instructions on programming the motion sensor remote control, please see the Installation Instructions.

### BATTERY BACKUP SPECIFICATIONS

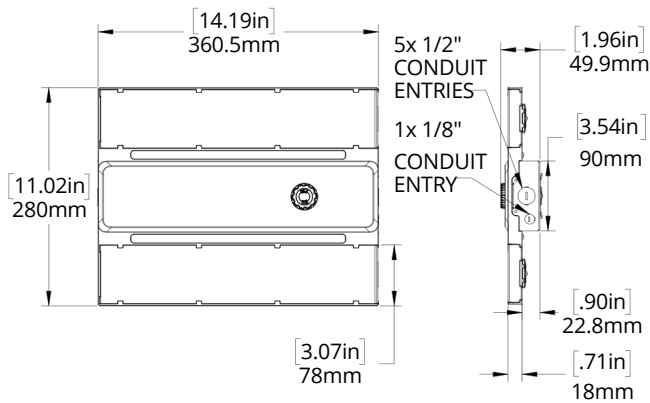
Input Power	8W
Input Voltage	120-347V
Output Power	9W
Recharge Current	0-500mA
Recharge Time	24 to 48 Hrs
Discharge Time	90 min
Service Life	50,000 Hrs
IP Rating	IP20
Installation	Factory installed in a junction box that comes mounted on the fixture



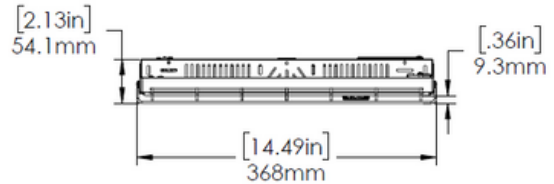
## DIMENSIONS

### LH1S-LED

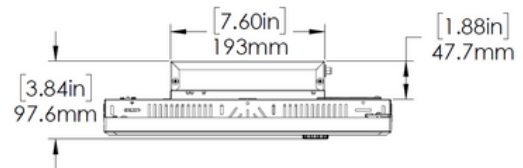
**LH1S Fixture**



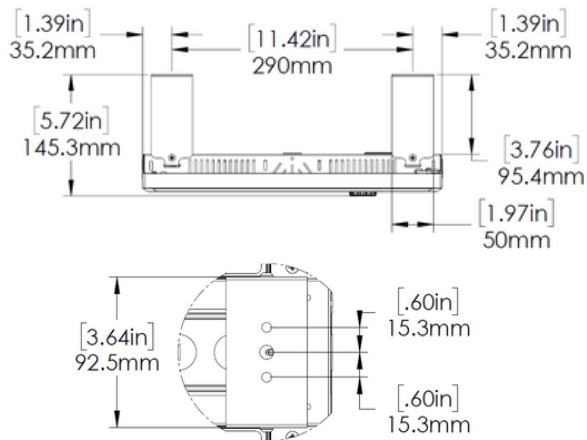
**LH1S Wire Guard**



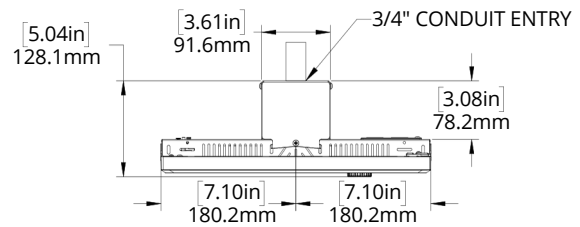
**LH1S Battery Backup**



**LH1S Surface Mount Kit**

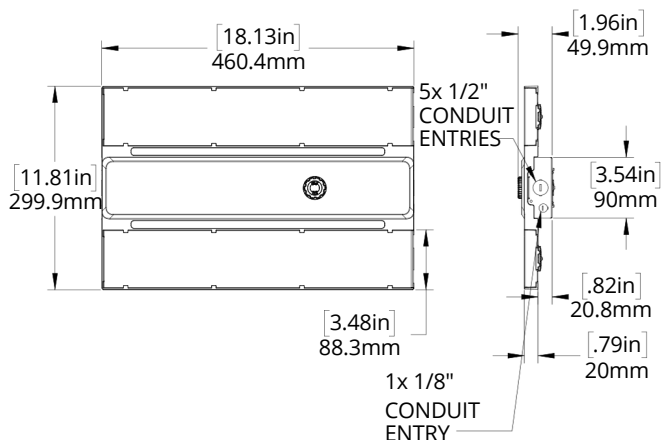


**LH1S Pendant Mount Kit**

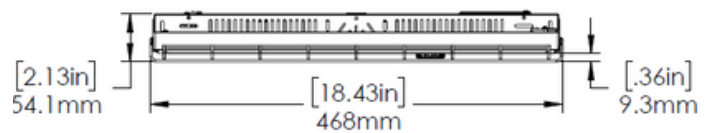


### LH2S-LED

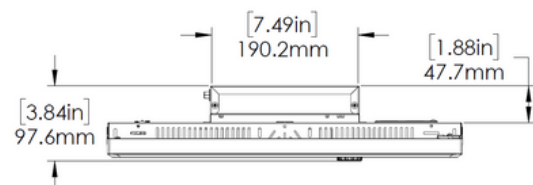
**LH2S Fixture**



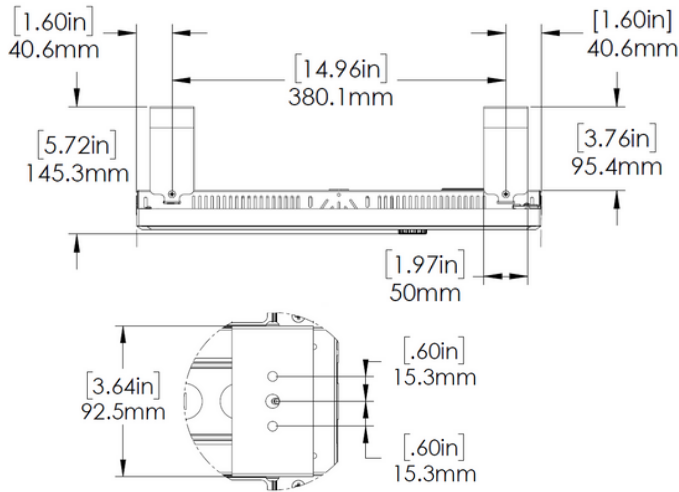
**LH2S Wire Guard**



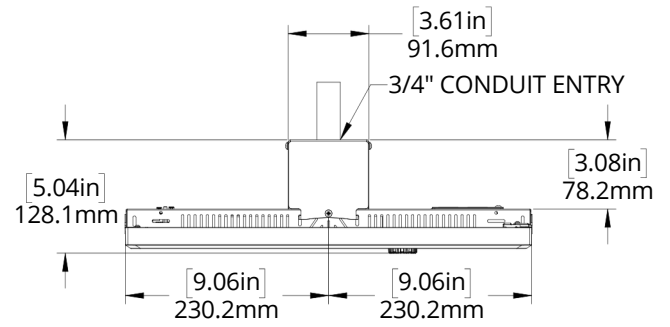
**LH2S Battery Backup**



**LH2S Surface Mount Kit**

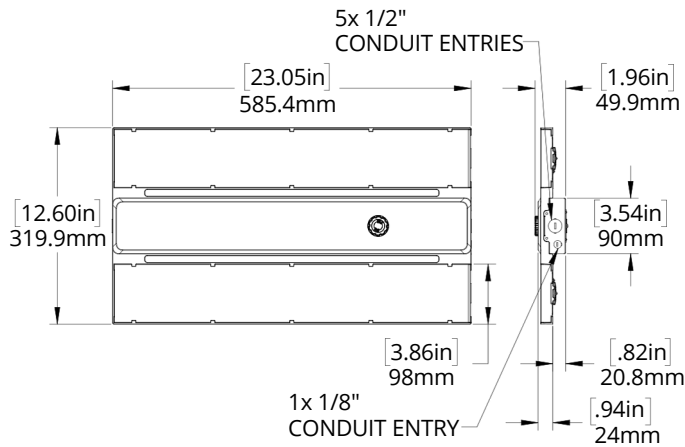


**LH2S Pendant Mount Kit**

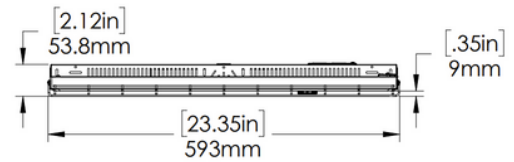


**LH3S-LED**

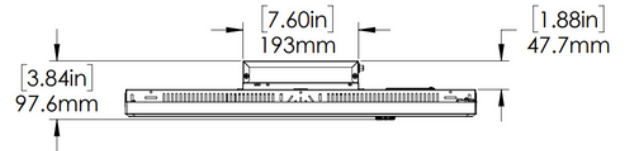
**LH3S Fixture**



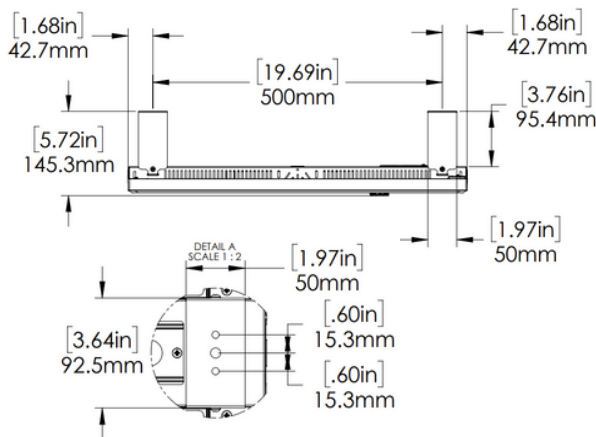
**LH3S Wire Guard**



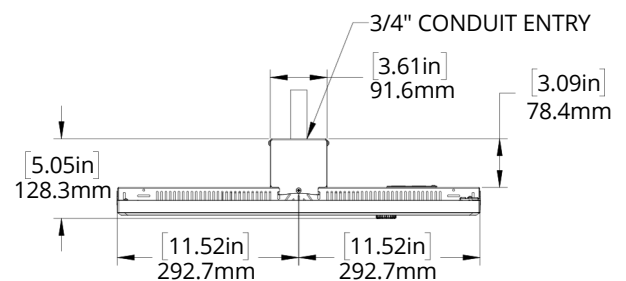
**LH3S Battery Backup**



**LH3S Surface Mount Kit**



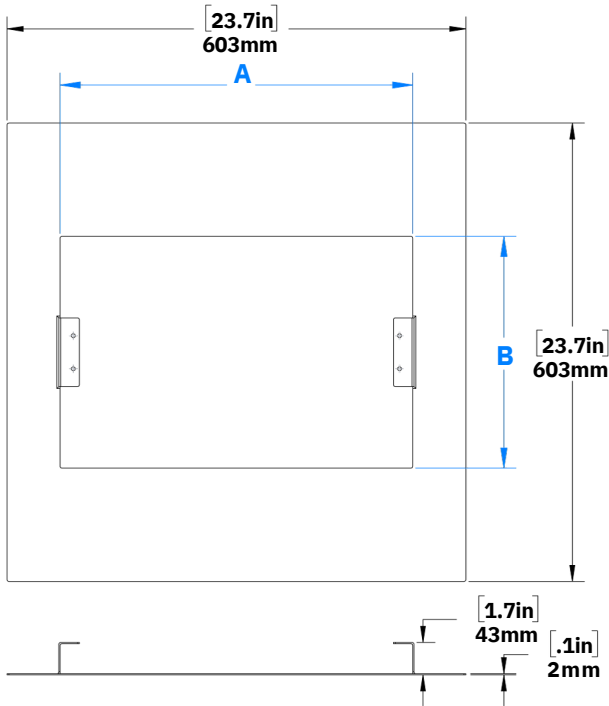
**LH3S Pendant Mount Kit**



FILLER PLATE FOR T-GRID DROP CEILING



FOR 2X2' T-GRID DROP CEILING



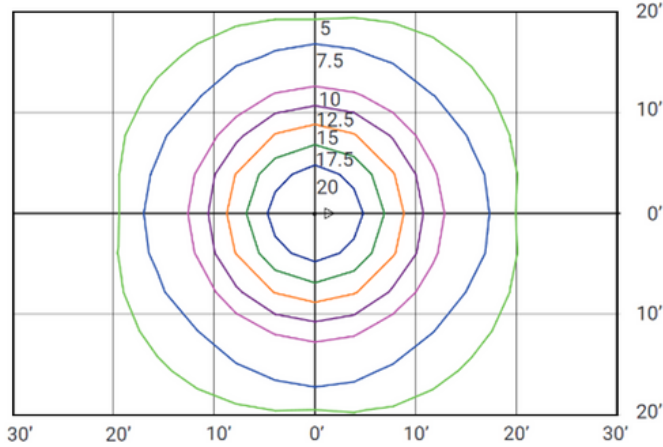
Model	A	B
LH1S	364mm [14.3in]	285mm [11.2in]
LH2S	464mm [18.3in]	305mm [12.0in]

**Note:** Fixture and T-Grid mounting plate assembly must be supported by suspension mounting directly on the ceiling surface.

## PHOTOMETRIC PLOTS

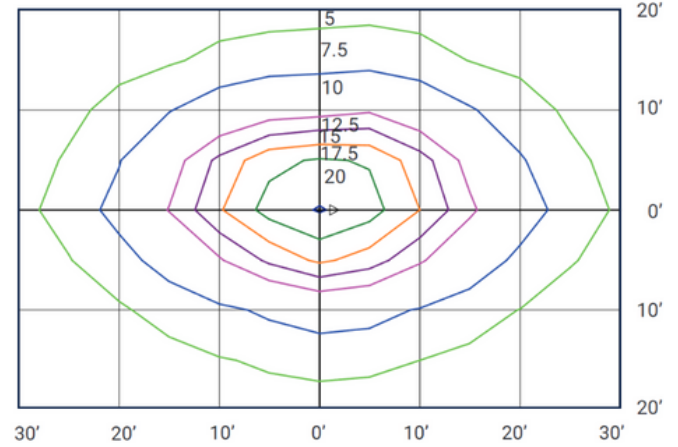
**LH1S-LED110A60 (90°x90°) MOUNTED AT 18 FT**

LUMENS: 15867.6 LM MAX CALCULATED VALUE: 22.88 FC



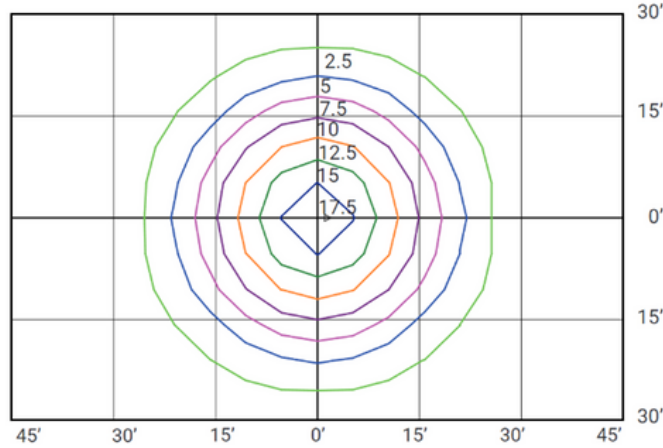
**LH1S-LED110A60 (45°x90°) MOUNTED AT 24 FT**

LUMENS: 15867.6 LM MAX CALCULATED VALUE: 22.88 FC



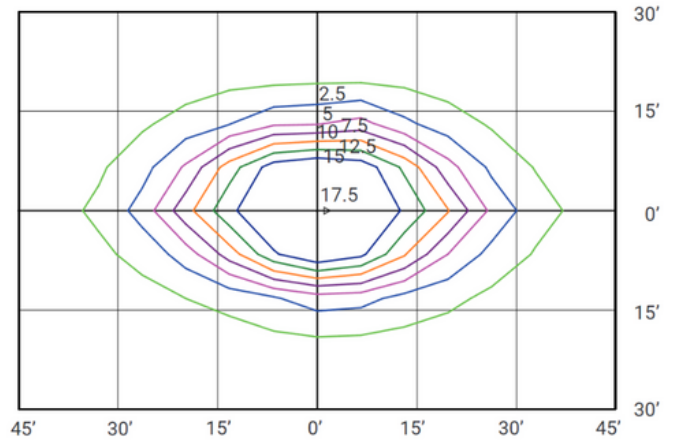
**LH2S-LED165A100 (90°x90°) MOUNTED AT 24 FT**

LUMENS: 23532.9 LM MAX CALCULATED VALUE: 19.13 FC



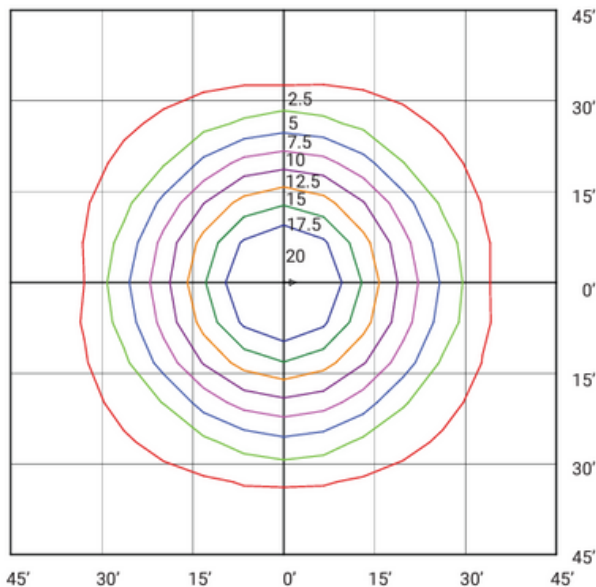
**LH2S-LED165A100 (45°x90°) MOUNTED AT 30 FT**

LUMENS: 23532.9 LM MAX CALCULATED VALUE: 21.90 FC



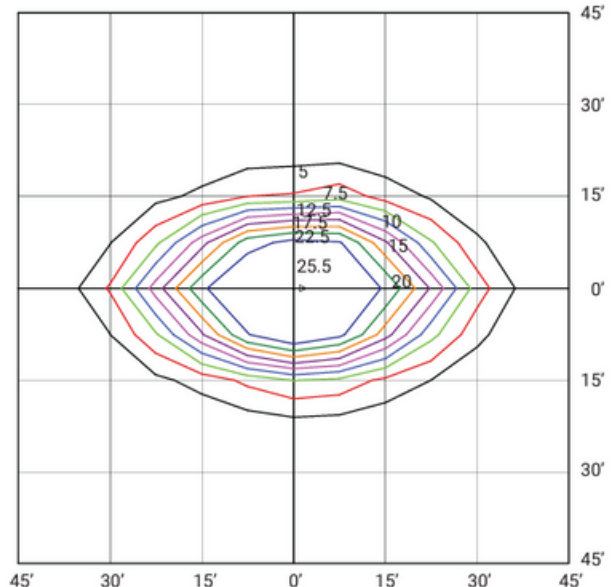
**LH3S-LED320A220 (90°x90°) MOUNTED AT 30 FEET**

LUMENS: 46880.3 LM MAX CALCULATED VALUE: 31.99 FC



**LH3S-LED320A220 (45°x90°) MOUNTED AT 36 FEET**

LUMENS: 46880.3 LM MAX CALCULATED VALUE: 31.99 FC



NOTE: Photometric plots are shown at the maximum lumen setting, 120V and 4000K.