



LHS-LED

Linear Highbay



The LHS-LED series delivers versatile, high-efficiency linear highbay luminaires with selectable features and a compact design. Durable and contractor-friendly, it's perfect for industrial and commercial applications, replacing HID and fluorescent systems. With ControlLED capability, it integrates plug-and-play motion and daylight sensors wirelessly and with bluetooth mesh network, providing advanced lighting control without hubs or gateways.

IDEAL APPLICATIONS

- Warehouses
- Factories
- Gymnasiums
- Service Bays
- Retail stores
- Workshops

SPECIFICATIONS

	LH1S-LED110A60	LH2S-LED165A100	LH3S-LED320A220		LH1S-LED110A60	LH2S-LED165A100	LH3S-LED320A220
PERFORMANCE				CONSTRUCTION			
Light Output	15900/12400/9300 lm	23500/19900/15300 lm	46900/41000/33400 lm	Housing	Die-cast Aluminum		
	Lumen Selectable			Lens	Glare-free Polycarbonate		
Efficacy	155 lm/W	153 lm/W	152 lm/W	Weight	Fixture & Cable	5.40 lbs	7.16 lbs
CCT	3500/4000/5000K (CCT Selectable)				2x2' T-Grid Mounting Plate	6.49 lbs	5.71 lbs
Beam Distribution	Wide (90°x90°), Narrow (45°x90°) - Field Changeable				2x4' T-Grid Mounting Plate	14.58 lbs	13.90 lbs
Replaces Up to	250 MH	400 MH	1000 MH	AMBIENT OPERATING TEMPERATURE			
LED Lifetime (L80)	>100,000 Hrs			-40°C to 55°C (-40°F to 131°F)			
CRI	84	85	84	MOUNTING			
ELECTRICAL				Suspension Mount - V-Hooks & Chain (Included), Aircraft Cable, Surface Mount, Pendant Mount & T-Grid Drop Ceiling Mount			
Wattage	105/80/60W	160/130/100W	320/270/220W	CERTIFICATIONS			
Voltage	120-347V			cULus Listed for Canada and USA, per UL 1598, CSA C22.2 No. 250.0			
Surge Protection	6kV (Built-in Driver) as per IEC/EN61000-4-5			DLC Premium			
Power Factor	>0.99			CONTROLS			
THD	<4%			0-10V Dimming (Dim to Off)			
Cord	Pre-installed 10' Power Cable (3x18 AWG)			PIR/Microwave Motion Sensor/Dimmer with Remote Control			
Battery Backup	9W (Option Available)			Bluetooth PIR Motion & Daylight Harvest Sensor			
Note: Electrical and light performance data is based on LM79 test							

Note: Electrical and light performance data is based on LM79 test reports, measured at maximum wattage, 4000K, and 120V.

FIELD CHANGEABLE OPTICS

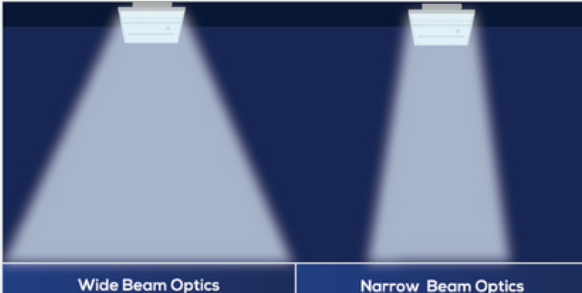


TOOL-LESS SWAP IN LESS THAN 1 MIN

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



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



CONTROLLED

UL

CERTIFIED

SAFETY US/CA

E361278

DLC

LISTED

PREMIUM

Lumen Adjustable

CCT

3.5K/4K/5K

120-347V

IP20

RATED

5

YEAR WARRANTY

Bluetooth

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


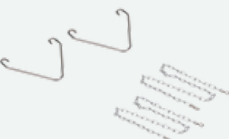
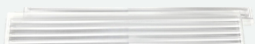
Fixture	Wattage	Voltage	Colour Temp.	Beam Distribution	Finish	Dimming	Battery Backup	T-Grid Mounting
LH1S	LED110A60	H - 120-347V	VK - Colour Selectable (3500K/4000K /5000K)	CD - Field Changeable Distribution	WHT - White	DIM - 0-10V Dimming	BLANK - No Battery Backup	BLANK - Not for T-Grid Mounting
LH2S	LED165A100						BBK9 - 9W Battery Backup ¹	2x2TGrid - T-Grid Mounting for 2x2' Drop Ceiling ²
LH3S	LED320A220							2x4TGrid - T-Grid Mounting for 2x4' Drop Ceiling

¹ Battery Backup is for suspension mount and surface mount only.

² Offered with LH1S and LH2S only.

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

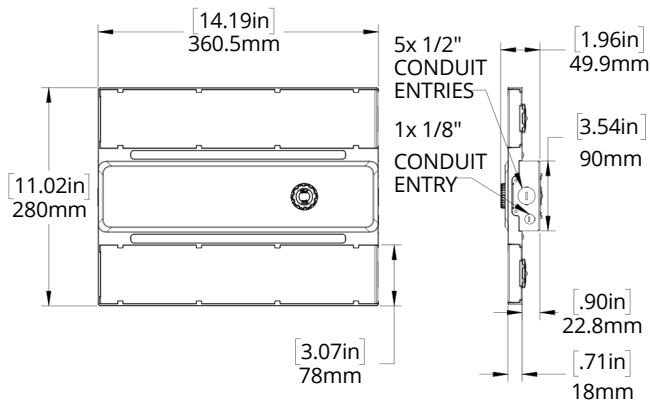
INCLUDED IN THE BOX					
	PRE-INSTALLED 10 FT POWER CORD		V HOOKS & 6 FT SUSPENSION CHAIN		SPARE 45°x90° NARROW BEAM OPTICS (TOOL-LESS CHANGE IN FIELD)

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		084210 - HIGHBAY BLUETOOTH PIR MOTION/DLH SENSOR & ADAPTER
	081961 - LH1S WIRE GUARD 081962 - LH2S WIRE GUARD 081963 - LH3S WIRE GUARD		

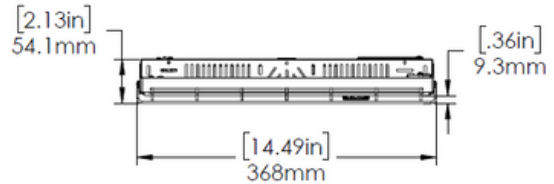
DIMENSIONS

LH1S-LED

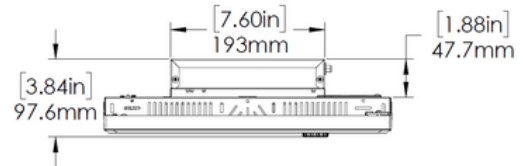
LH1S Fixture



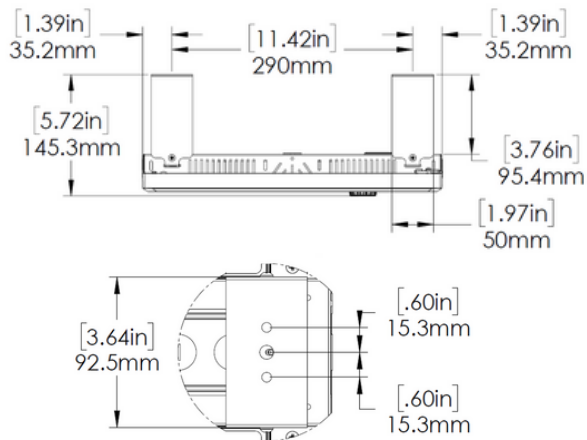
LH1S Wire Guard



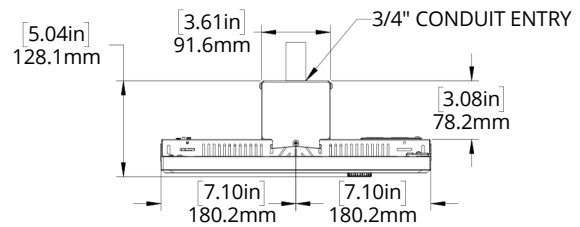
LH1S Battery Backup



LH1S Surface Mount Kit

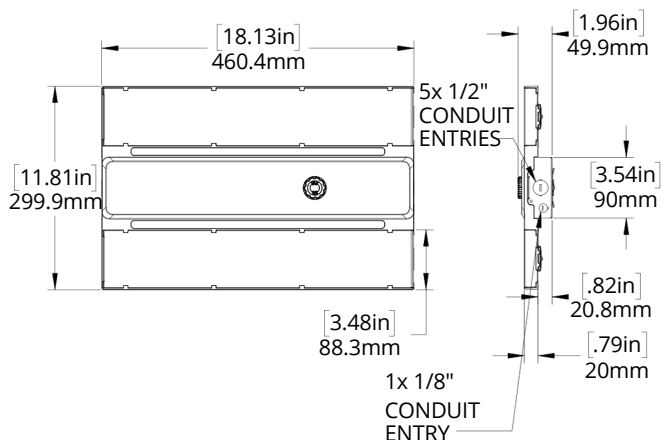


LH1S Pendant Mount Kit

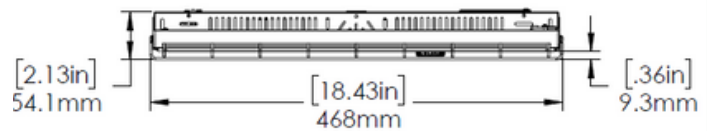


LH2S-LED

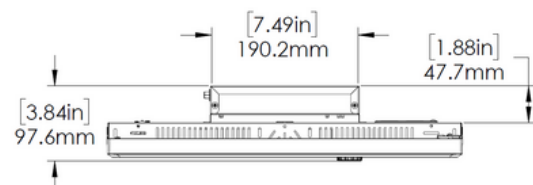
LH2S Fixture



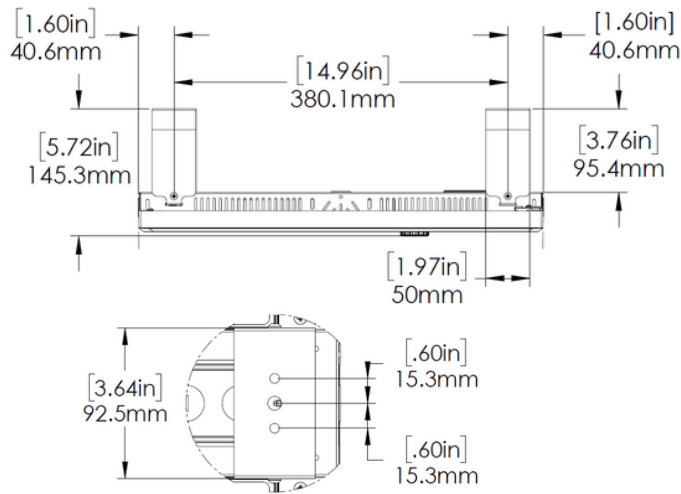
LH2S Wire Guard



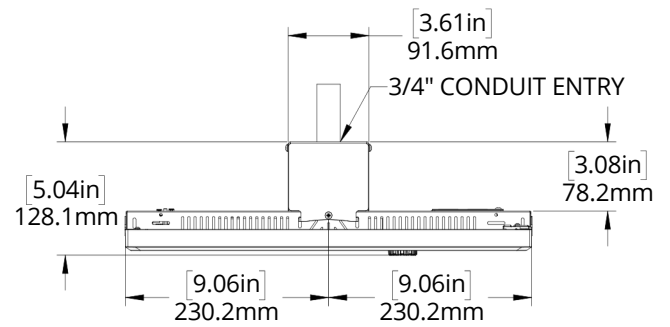
LH2S Battery Backup



LH2S Surface Mount Kit

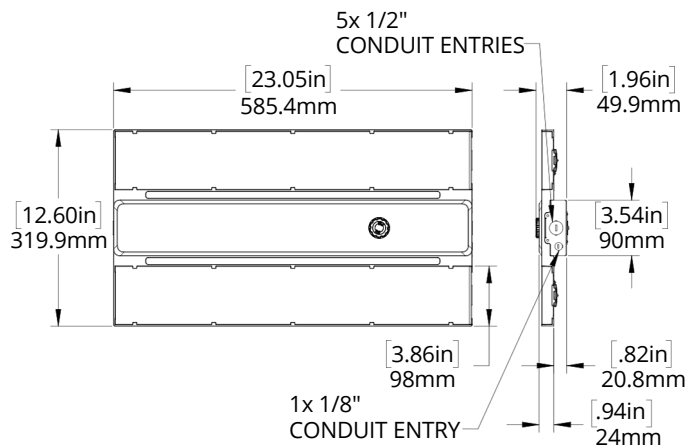


LH2S Pendant Mount Kit

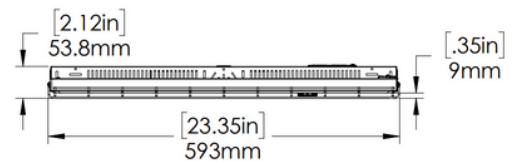


LH3S-LED

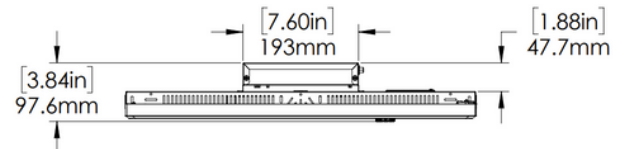
LH3S Fixture



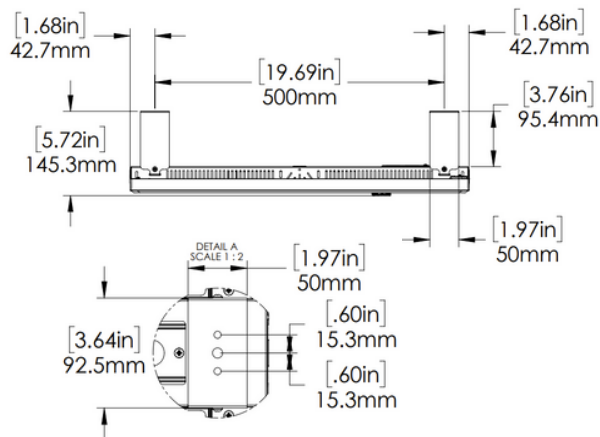
LH3S Wire Guard



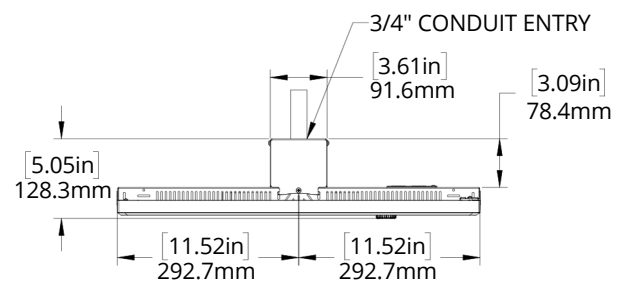
LH3S Battery Backup



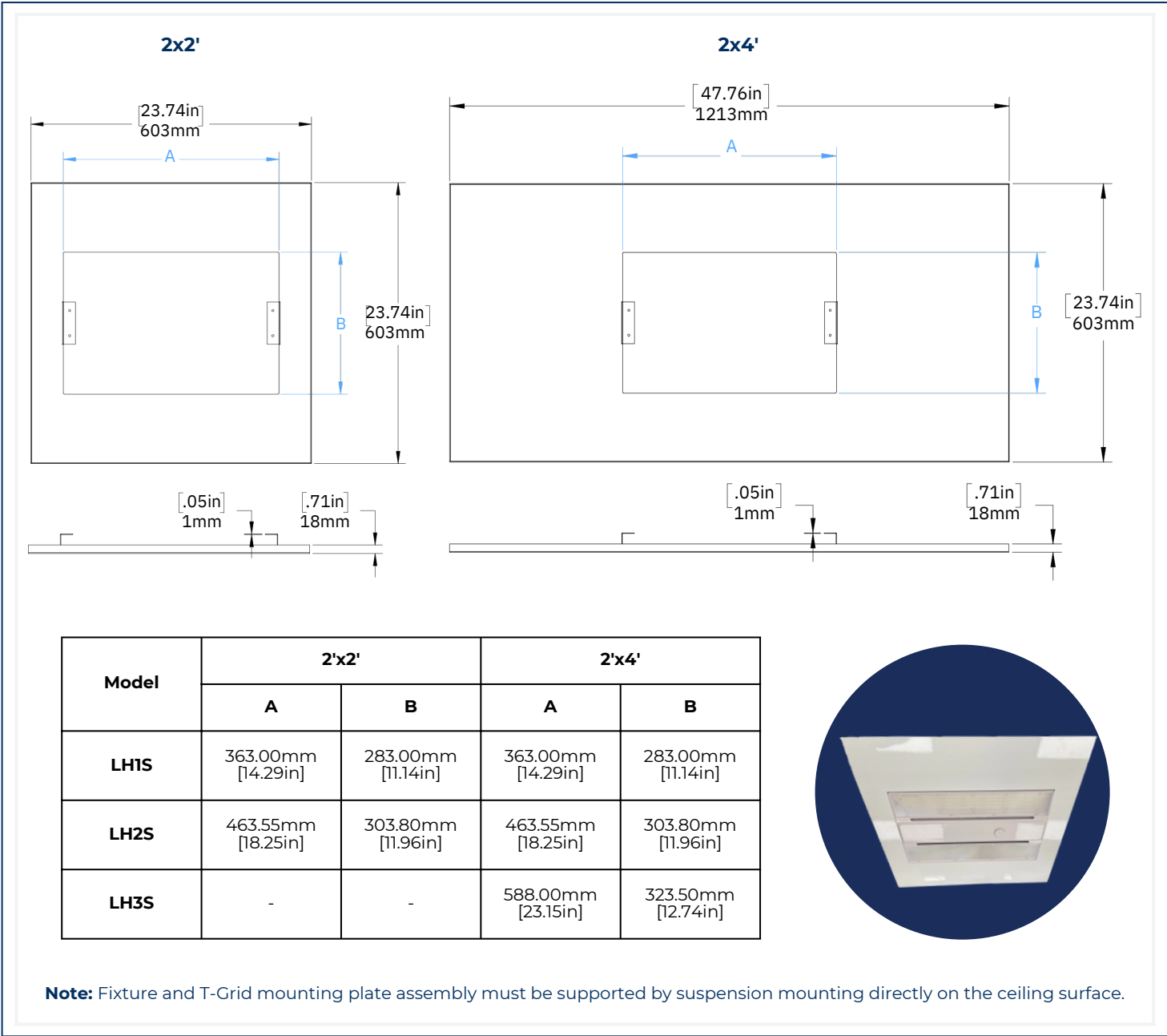
LH3S Surface Mount Kit



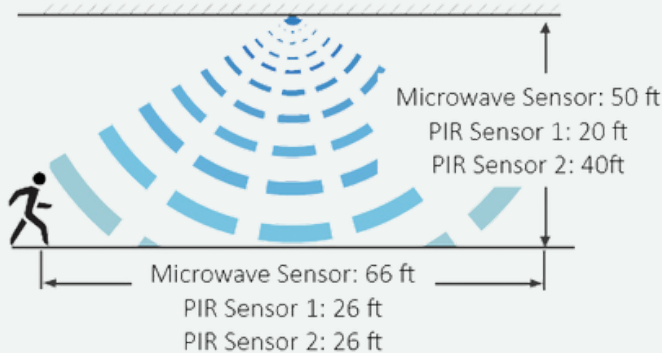
LH3S Pendant Mount Kit



FILLER PLATE FOR T-GRID DROP CEILING



MOTION SENSOR SPECIFICATIONS - PROGRAM USING REMOTE CONTROL

Sensor Type	Microwave & PIR
Microwave Frequency	5.8GHz +/- 75MHz
Operating Voltage	12VDC
Operating Current	30mA
Output Voltage	0-10V
Stand-by Power	<0.5W
Detection Range	 <p>Microwave Sensor: 50 ft PIR Sensor 1: 20 ft PIR Sensor 2: 40ft</p> <p>Microwave Sensor: 66 ft PIR Sensor 1: 26 ft PIR Sensor 2: 26 ft</p>
Maximum Detection Angle	360°
Ambient Operating Temperature ¹	-30°C to 60°C (-22F to 140F)
Indoor/Outdoor Use	Both Indoor & Outdoor
IP Rating	IP65
Installation	Field installed - Wireless Plug & Play

MOTION SENSOR PROGRAMMING

Programming Tool	Highbay Motion Sensor Remote Control
Brightness	70%/80%/90%/100%*
Sensitivity	20%/50%/75%/100%*
Hold Time	10s/1min*/10min/30min
Daylight Sensor	10Lux/30Lux/50Lux/100Lux/Disabled*
Standby Dim	10%/20%*/30%/50%
Standby Time	1min*/30min/60min/+∞

- 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.
- ¹When installed in the fixture, the system's ambient operating temperature is limited by the component with the lowest allowable range.

BATTERY BACKUP SPECIFICATIONS

Input Power	8W
Input Voltage	120-347V
Output Power (Emergency Mode)	9W
Recharge Current	0-500mA
Recharge Time	24 to 48 Hrs
Discharge Time	90 min
Ambient Operating Temperature ¹	0°C to 60°C (32F to 140F)
Service Life	50,000 Hrs
IP Rating	IP20
Installation	Factory installed in a junction box that comes mounted on the fixture
Light Output ²	1400 lm



- ¹When installed in the fixture, the system's ambient operating temperature is limited by the component with the lowest allowable range.
- ²Lumen output with emergency battery backup can be calculated by multiplying the battery output power with the efficacy of fixture.

CONTROLLED

BLUETOOTH PIR MOTION & DAYLIGHT HARVEST SENSOR

FEATURES

- PIR motion and daylight harvest sensor
- Easy wireless plug-and-play installation
- Bluetooth mesh network
- DLC - Networked Lighting Control (NLC) & Luminaire Level Lighting Control (LLLC)

SPECIFICATIONS	
Input Voltage	12VDC
Input Current	50mA Max.
Input Power	0.6W
Output Current	10mA Max. Sinking Current
Output Power	0.1W
Dimming	Class 2, 0-10VDC
Bluetooth Transmit	328ft Max.
Radio Frequency	2.4GHz ±75MHz
Bluetooth Version	5.0
Housing Material	Polycarbonate (UL 94-5VA)
Housing Finish	White
Detection Range	40-80ft
Mounting Height	20-40ft
Indoor/Outdoor Use	Both Indoor & Outdoor Use
Operating Temperature¹	-30°C to 55°C (-22°F to 131°F)
Storage Temperature	-30°C to 85°C (-22°F to 185°F)
IP Rating	IP66 (Wet Location)
Installation	The audio jack to 3-PIN adaptor is pre-installed on the sensor for quick twist-lock installation ¹

¹When installed in the fixture, the system's ambient operating temperature is limited by the component with the lowest allowable range.

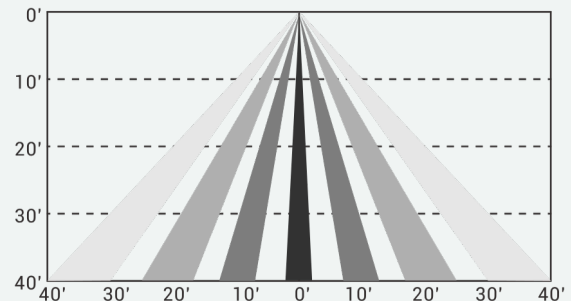
DEFAULT SETTINGS	
Motion Sensor	ON
Mode	Occupancy
High End Trim	100%
Sensitivity	High
Hold Time (T1)	20 min
Standby Dim	50%
Standby Time (T2)	1 min
Photocell	Off
Linkage	Off
Linkage Level	100%

Note: Program the sensor with the desired settings using the Controlled Mobile App (please refer to the Controlled App manual for instructions).

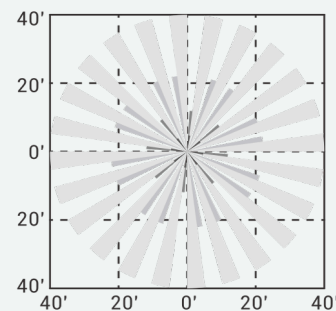


DETECTION COVERAGE

Side View (at 40ft Height)



Top View (at 40ft Height)



Bluetooth

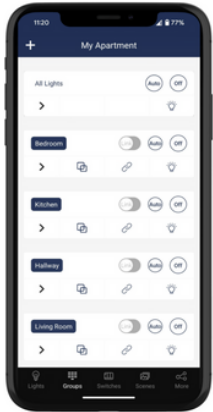


SPECIFICATIONS & COMMISSIONING

CONTROLLED

RAB
DESIGN

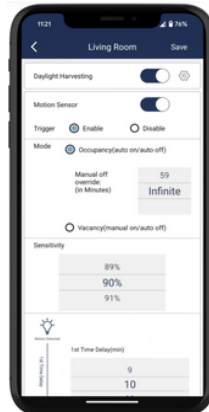
ControlLED Network Lighting Controls (NLC) delivers secure, wireless lighting management with Bluetooth Mesh and the ControlLED App. Integrated sensors enable automatic adjustments for comfort, safety, and efficiency.



Organized Workspaces:
Create Zones, Groups and Group linkages.



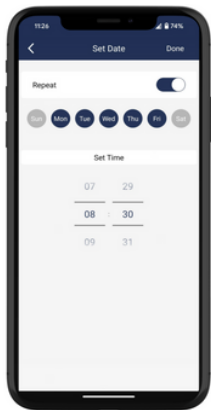
Dimming Lights:
Set dim level for groups or individual lights.



Motion and Daylight Harvest Sensors:
Custom sensor settings for groups or individual lights.



Scenes:
Create custom scenes for different scenarios.



Schedules:
Create custom schedules for recurring events.



Share Access:
Share access using QR codes.

Get the App!



RAB
DESIGN

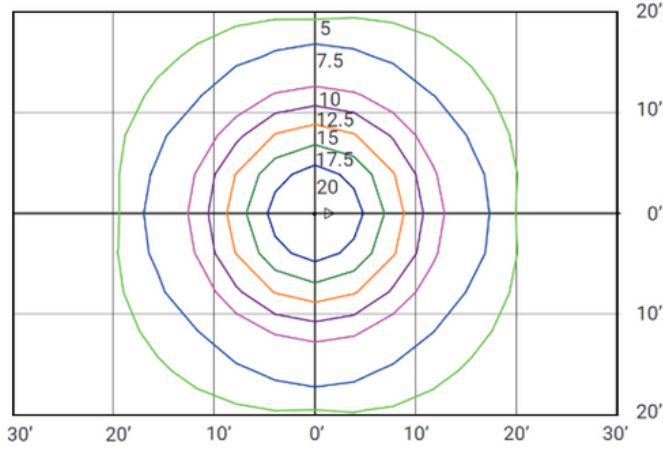
**Engineered by skilled hands,
for skilled hands.**

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PHOTOMETRIC PLOTS

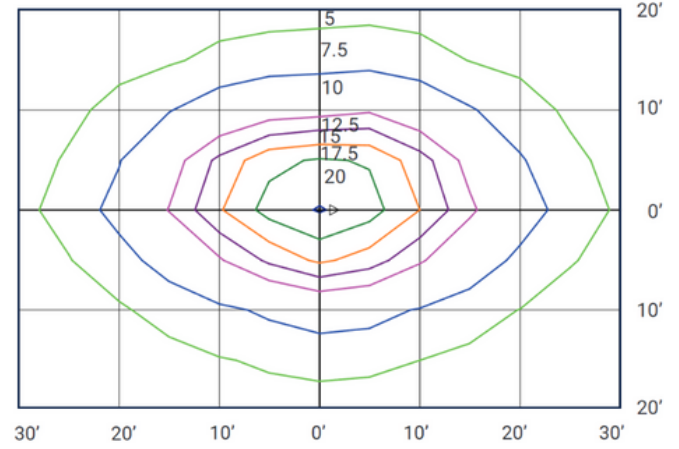
LH1S-LED110A60 (90°x90°) MOUNTED AT 18 FT

LUMENS: 15867.6 LM MAX CALCULATED VALUE: 22.88 FC



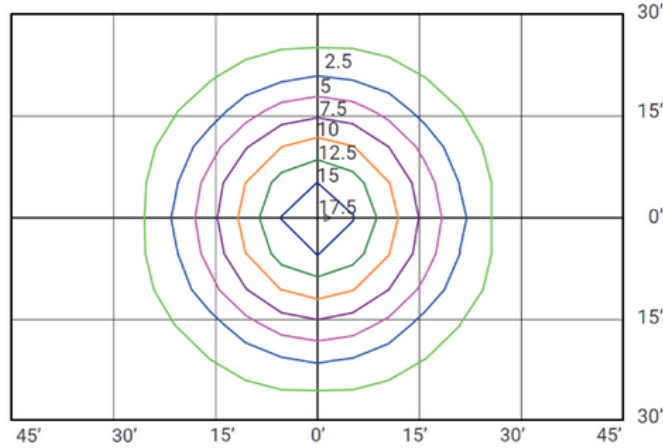
LH1S-LED110A60 (45°x90°) MOUNTED AT 24 FT

LUMENS: 15867.6 LM MAX CALCULATED VALUE: 22.88 FC



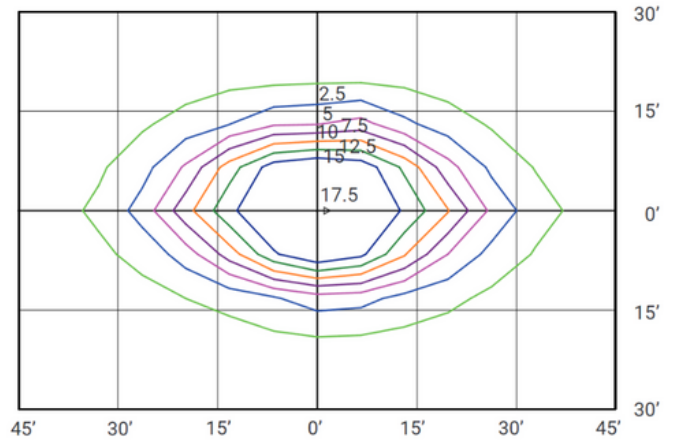
LH2S-LED165A100 (90°x90°) MOUNTED AT 24 FT

LUMENS: 23532.9 LM MAX CALCULATED VALUE: 19.13 FC



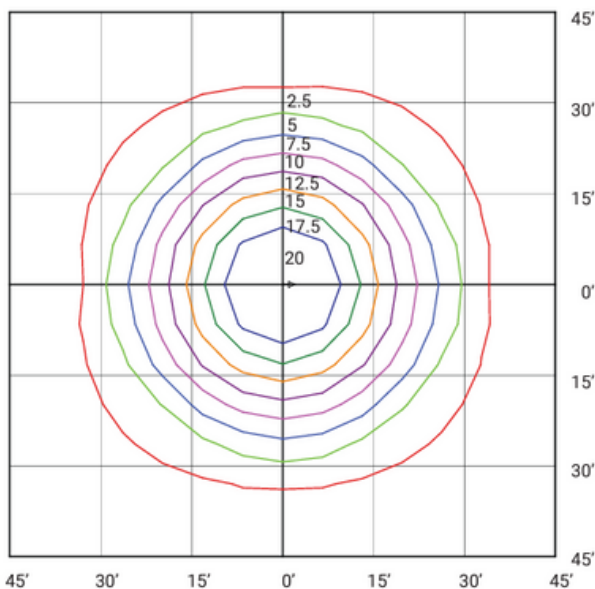
LH2S-LED165A100 (45°x90°) MOUNTED AT 30 FT

LUMENS: 23532.9 LM MAX CALCULATED VALUE: 21.90 FC



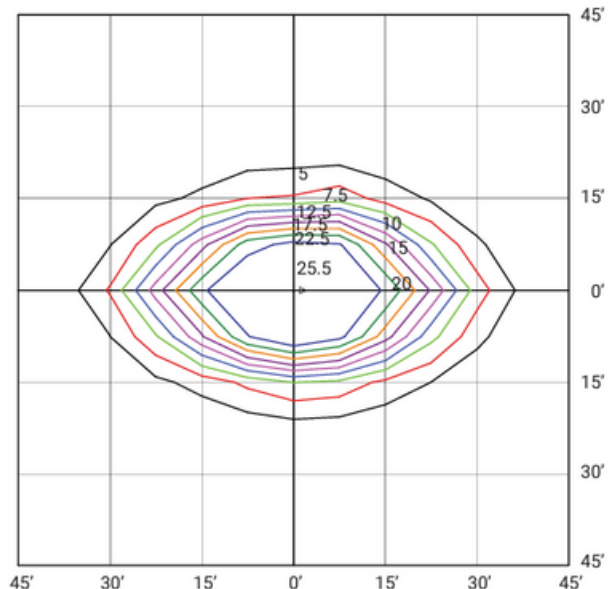
LH3S-LED320A220 (90°x90°) MOUNTED AT 30 FEET

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.