



# RH2S-LED

## LED Round Highbay



### IDEAL APPLICATIONS

- ✓ Warehouses
- ✓ Factories
- ✓ Gyms
- ✓ Industrial Applications
- ✓ Food and Beverage Processing
- ✓ Commercial Kitchens

### DESCRIPTION:

The RHS-LED Series of highbay luminaires are ruggedly designed, easy to install, and deliver a high lumen output ideal for illuminating warehouses, manufacturing facilities, recreational facilities, and gymnasiums. 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.

### FEATURES:

- Ruggedly designed with die cast aluminum body and polycarbonate lens. NEMA4X and NSF certified.
- Colour Selectable fixture allows Installer to choose between 3500K/4000K/5000K at the time of installation.
- The Lumen adjustable fixture allows Installer to select between 3 wattage settings:  
RH2S-LED200A150 - 200W/180W/150W  
RH2S-LED240A200 - 240W/220W/200W
- Easy to install with mounting hook and 2 meter cord for line voltage and 0.5 meter cord for 0-10V dimming.
- At each wattage setting, the brightness can be adjusted using the DC dimmer and remote control (sold separately).
- 12VDC Auxiliary available from fixture for lighting controls.
- Fixture can be suspended, pendant or yoke mounted. (Yoke sold as a separate accessory)
- Optional dual-functionality motion sensor/dimmer with easy plug-and-play install with no wiring needed. (More details on page 10)
- Optional smart lighting control available: Lutron Athena Wireless smart control allows zone and control changes digitally and wirelessly.
- Optional Bluetooth PIR motion & DLH sensor, programmable with ControlLED app to manage lighting controls.

SPECIFICATIONS	RH2S-LED200A150	RH2S-LED240A200
Watts (Maximum)	202.5 W	236.8 W
Lumens (Maximum)	29933 Lm	34833 Lm
Efficacy	147.8 Lm/W	147.1 Lm/W
Replaces Up To	450MH	750 MH
Colour Temp	VK - Colour Selectable (3500K/4000K/5000K)	
Voltage	120-347 V	
CRI	84	83
Dimming	0-10V Dim to Off	
THD	2.43%	3.57%
PF	0.999	
Beam Angle	90 Degrees	
LED Life (L78)	100,000 Hours	
Housing Finish	Matte Black	
Housing Details	Die Cast Aluminium	
Lens Details	Clear Polycarbonate Lens	
Mounting	Suspended*, Pendant, Yoke	
Cable Length	Input Power: 2m Cab Tire Cable (SJTW 3x18 AWG) Dimming and 12VDC AUX- 0.5m Cab Tire Cable (3x22 AWG)	
Operating Temp.	Without Motion Sensor: -40° to 50°C With Motion Sensor: -30°C to 50°C With Battery Backup: 0°C to 50°C	
Options Sold Separately	Yoke, Wire Guard, Polycarbonate/Aluminum Reflectors and Cover, Twistlock Motion Sensor/Wireless Dimmer and Remote Control, Emergency Battery Back-up, Junction Box Pendant Mount Kit, Adaptors for 1/2" NPT and 3/4" NPT Thread, Lutron Athena Wireless Lighting Control	
Certifications	cULus, Wet Location, IP65, DLC Premium, NEMA4X, NSF, 3G Vibration Tested, 5 Year Warranty	

Note: Specs shown are for 120V/4000K  
\*Standard Configuration

**CONTROLLED**



**Bluetooth**

## ORDERING GUIDE:

RH2S		H	VK	BLK	DIM	PCL	FS	N4X
Fixture	Wattage	Voltage	Colour Temp.	Finish	Dimming	Lens	NSF Certification	NEMA 4X Certification
	LED200A150 LED240A200	H - 120-347V	VK-Colour Selectable (3500K/4000K/5000K)	BLK - Matte Black	DIM - 0-10V Dimming	PCL - Polycarbonate Lens	FS - NSF	N4X - NEMA 4X

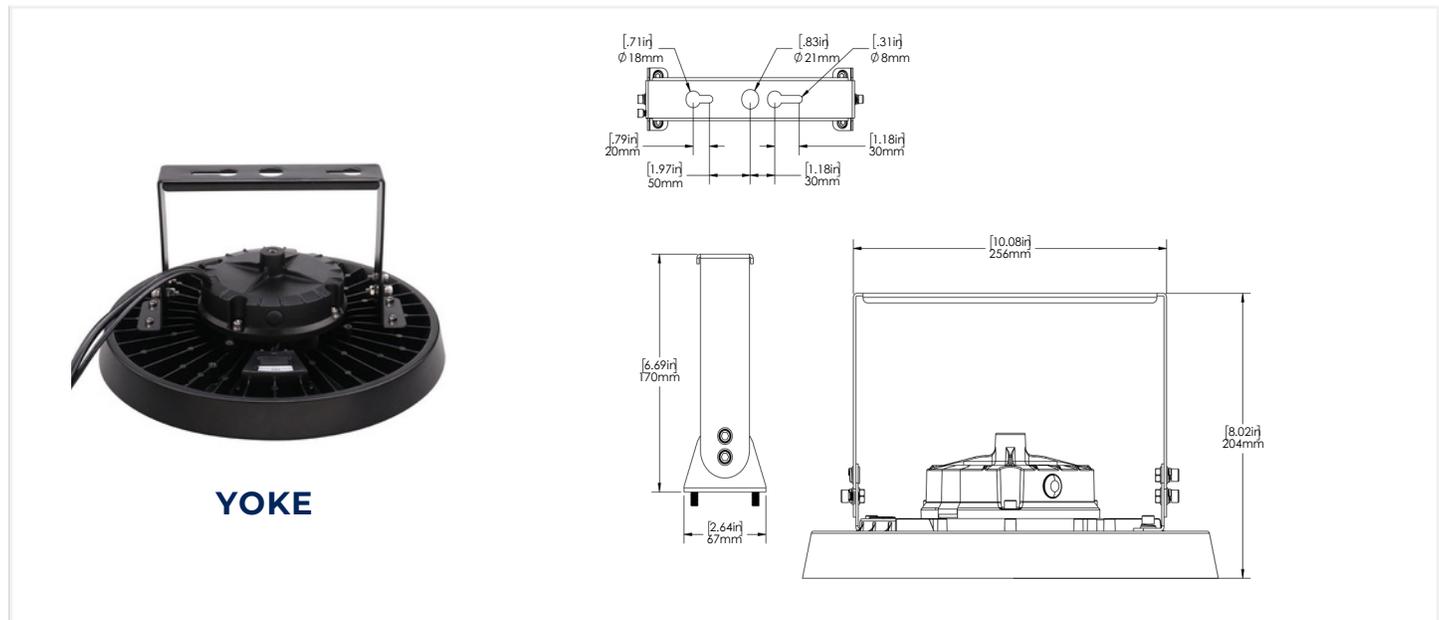
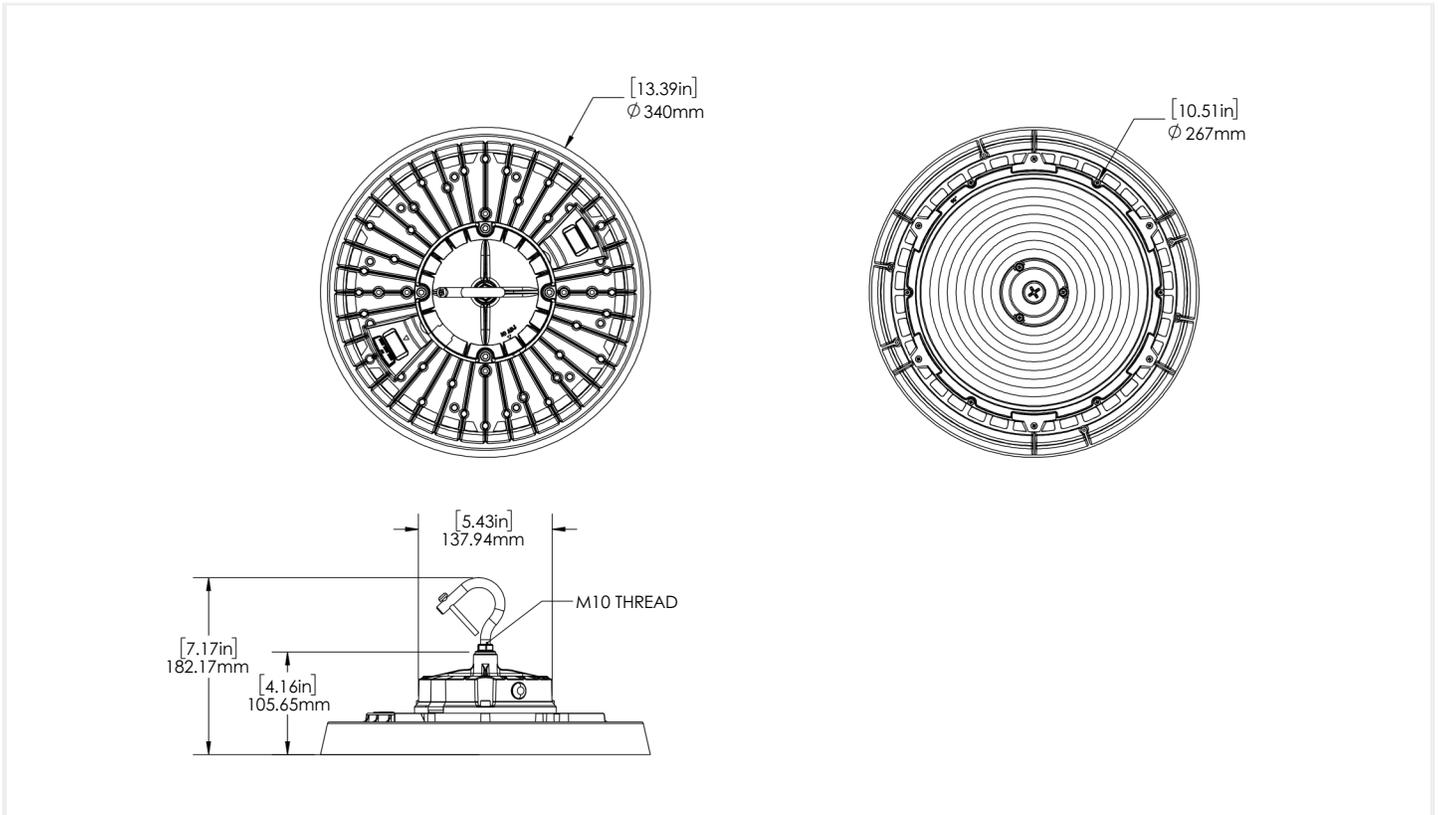
**Default Setting:** Maximum Wattage, 4000K

STOCK CODES	
081612	RH2S-LED200A150-H-VK-BLK-DIM-PCL-FS-N4X
081613	RH2S-LED240A200-H-VK-BLK-DIM-PCL-FS-N4X

ACCESSORIES SOLD SEPARATELY			
	002375 - RH2S STEEL WIRE GUARD		080909 - MICROWAVE SENSOR (50ft max height) 081300 - PIR SENSOR 1 (20ft max height) 081837 - PIR SENSOR 2 (40ft max height)
	081619 - RH2S ALUMINUM REFLECTOR		All motion sensors can be used as dimmer only.
	081621 - RH2S POLYCARBONATE REFLECTOR (CLEAR PRISMATIC)		080970 - MOTION SENSOR REMOTE CONTROL
	0081622 - RH1S/RH2S POLYCARBONATE REFLECTOR COVER		084210 - HIGHBAY BLUETOOTH PIR MOTION/DLH SENSOR & ADAPTER
	002327 - JUNCTION BOX PENDANT KIT BLK 002386 - JUNCTION BOX PENDANT KIT BLK W/AWNR*		140748 - M10-1/2" NPT ADAPTER NICKEL PLATED IRON BLK
	080577 - RH2S YOKE BLK		140750 - M10-3/4" NPT ADAPTER NICKEL PLATED IRON BLK
	002318 - 40W 120-347V EMERGENCY BATTERY BACKUP BLK		

\*Lutron Athena Wireless Node with RF only (A-WN-D01-RF-BL) is installed in the junction box. Gateway and controller not included.

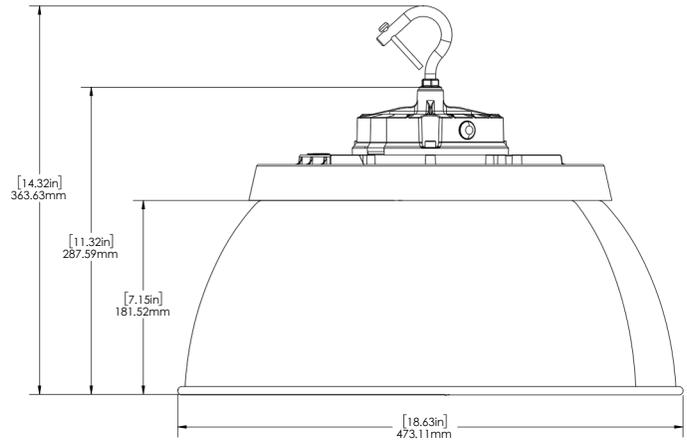
## DIMENSIONS:



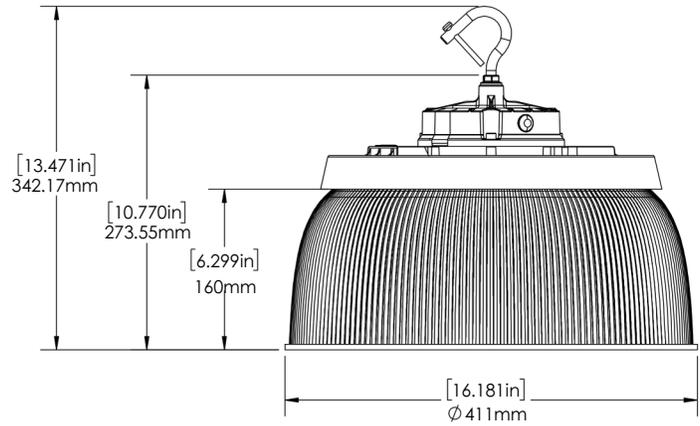
**DIMENSIONS:**



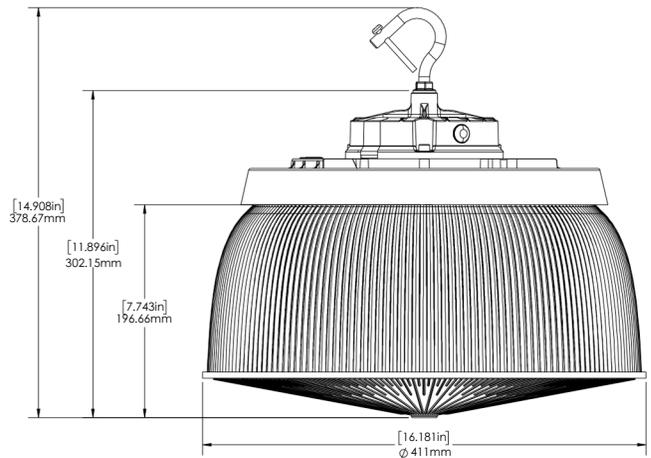
**ALUMINUM REFLECTOR**



**PC REFLECTOR  
(CLEAR PRISMATIC)**



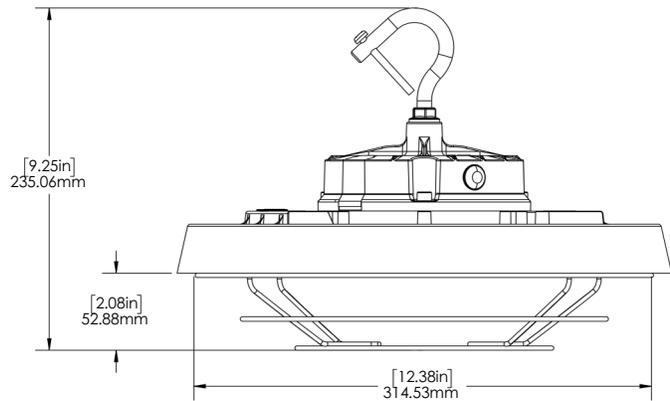
**PC REFLECTOR COVER**



## DIMENSIONS:

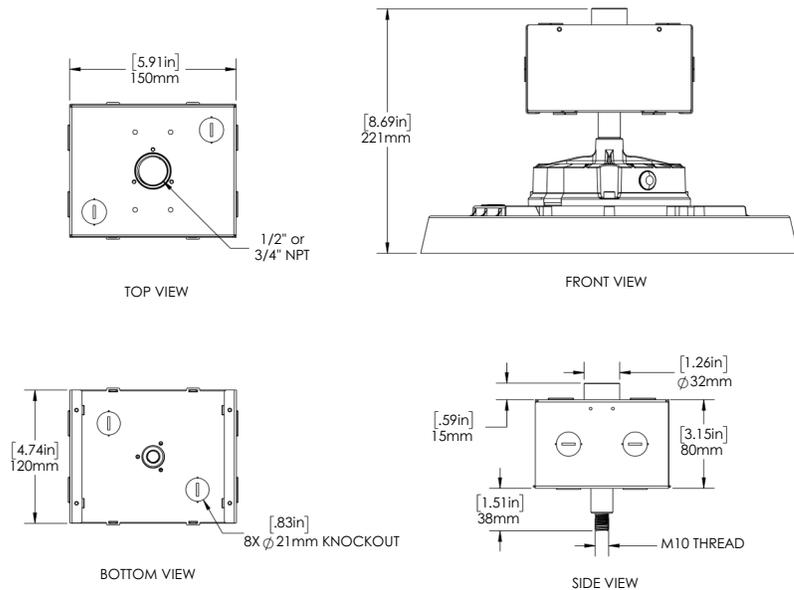


**WIRE  
GUARD**

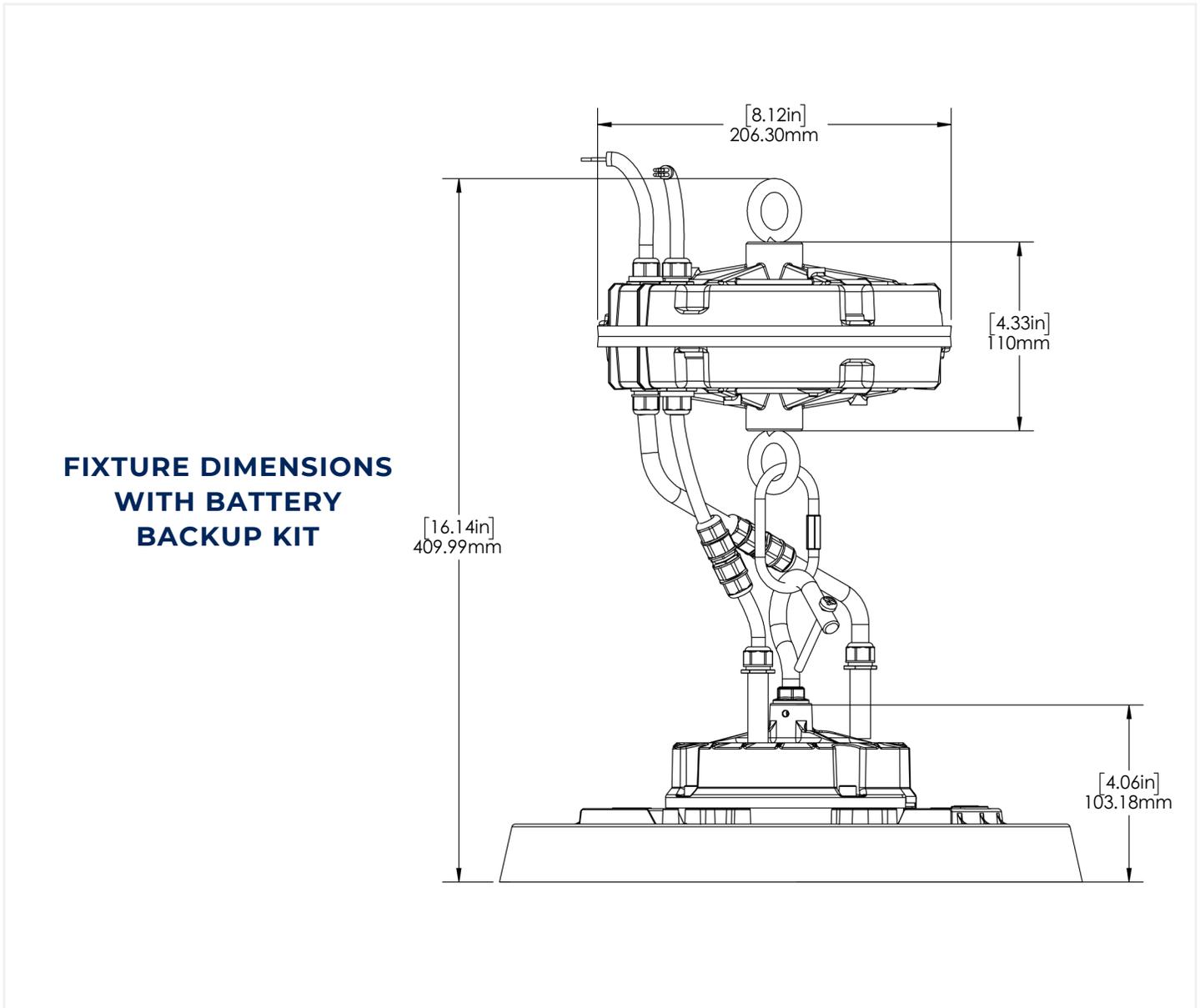


### JUNCTION BOX WITH 1/2" OR 3/4" NPT ADAPTER

Athena Wireless Node is installed in the junction box (not wet location rated) for the option with Lutron Athena Wireless Control system.



## DIMENSIONS:



**SPECIFICATIONS**

Model Number	Voltage (V)	Power (W)	Light Output (lm)	Efficacy (lm/W)	THD (%)	PF	CCT (K)	CRI
RH2S-LED200A150-H-VK-BLK-DIM-PCL-FS-N4X (3500K)	120-347	211.90	27906.6	131.70	2.45	0.999	3549	82
RH2S-LED200A150-H-VK-BLK-DIM-PCL-FS-N4X (4000K)	120-347	202.48	29932.5	147.83	2.43	0.999	4245	84
RH2S-LED200A150-H-VK-BLK-DIM-PCL-FS-N4X (5000K)	120-347	210.70	28232.3	133.99	2.62	0.999	5217	83
RH2S-LED240A200-H-VK-BLK-DIM-PCL-FS-N4X (3500K)	120-347	245.30	32370.8	131.96	3.58	0.999	3520	82
RH2S-LED240A200-H-VK-BLK-DIM-PCL-FS-N4X (4000K)	120-347	236.77	34833.3	147.12	3.57	0.999	4231	83
RH2S-LED240A200-H-VK-BLK-DIM-PCL-FS-N4X (5000K)	120-347	245.03	32628.5	133.16	3.41	0.999	5182	83

**AMPERAGE DRAW & SURGE PROTECTION**

	MAX. CURRENT (A)					SURGE PROTECTION (kV)
	120V	208V	240V	277V	347V	
RH2S-LED200A150	1.78A	1.03A	0.89A	0.77A	0.62A	6kV
RH2S-LED240A200	2.08A	1.2A	1.04A	0.9A	0.72A	

**LUMEN ADJUSTABLE SETTINGS**

RH2S-LED200A150			
WATTS (W)	200	180	150
LUMENS (Lm)	29933	26604	22065
RH2S-LED240A200			
WATTS (W)	240	220	200
LUMENS (Lm)	34833	32362	29420

Max power lumens are as per DLC reported listings. Other lumen values are calculated using the DLC max power reported efficacy.

**WEIGHT (LBS)**

RH2S-LED200A150	7.05
RH2S-LED240A200	

**LUMEN MAINTENANCE**

	50,000 Hours	75,000 Hours	100,000 Hours
RH2S-LED200A150	88.6%	83.5%	78.7%
RH2S-LED240A200			

Life hours are derived from IESNA LM-80 testing report and projected per IESNA TM-21 calculations.

**MOTION SENSOR SPECIFICATIONS - PROGRAM USING REMOTE CONTROL**

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

**MOTION SENSOR PROGRAMMING**

<b>Programming Tool</b>	Highbay Motion Sensor Remote Control
<b>Brightness</b>	70%/80%/90%/100%*
<b>Sensitivity</b>	20%/50%/75%/100%*
<b>Hold Time</b>	10s/1min*/10min/30min
<b>Daylight Sensor</b>	10Lux/30Lux/50Lux/100Lux/Disabled*
<b>Standby Dim</b>	10%/20%*/30%/50%
<b>Standby Time</b>	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.
- <sup>1</sup>When installed in the fixture, the system's ambient operating temperature is limited by the component with the lowest allowable range.

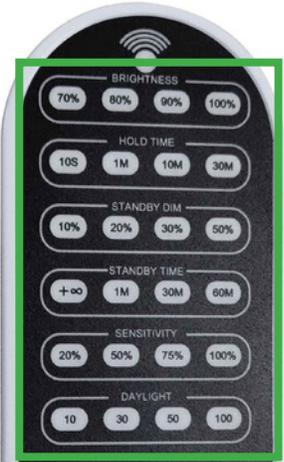
**BATTERY BACKUP SPECIFICATIONS**

<b>Input Power</b>	8W
<b>Input Voltage</b>	120-347V
<b>Output Power (Emergency Mode)</b>	40W
<b>Recharge Current</b>	0-500mA
<b>Recharge Time</b>	24 Hrs
<b>Discharge Time</b>	90 min
<b>Ambient Operating Temperature<sup>1</sup></b>	0°C to 50°C (32F to 122F)
<b>IP Rating</b>	IP65
<b>Installation</b>	Field installed - Suspension Mounted
<b>Light Output<sup>2</sup></b>	5880 lm



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

# DC MOTION SENSOR/DIMMER REMOTE CONTROL SETTINGS

SPECIFICATIONS	
<p>Top Section: Settings Display Area</p> 	<p><b>ON/OFF</b></p> <p>Long press until the brightness indicator light is on. Then press to permanently turn on and off the fixture.</p>
	<p><b>BRIGHTNESS</b></p> <p>Sets the highest light fixture brightness when motion is detected.</p>
<p>Bottom Section: Button Setting Area</p> 	<p><b>HOLD TIME</b></p> <p>The time the light fixture will remain at the brightness setting after it detects motion.</p>
	<p><b>STAND-BY DIM</b></p> <p>The dim level that the light fixture will dim down after the Hold Time has expired.</p>
	<p><b>STAND-BY TIME</b></p> <p>The time the light fixture will remain in the Stand-by dim state before it shuts off. To disable the light from shutting off, select the INFINITY icon.</p>
	<p><b>SENSITIVITY</b></p> <p>Sets the sensitivity to which the sensor will detect motion.</p>
	<p><b>DAYLIGHT</b></p> <p>The lux setting that the light fixture will turn on/off. If the ambient lux is more than the defined lux setting, the fixture &amp; sensor function will turn off and remain off until the ambient lux is below the setting. Long press until the daylight indicator light is on. Then press to select the desired lux setting.</p>
	<p><b>SEND</b></p> <p>Uploads the selected remote-control parameters to the light fixture sensor.</p>
	<p><b>RESET</b></p> <p>Resets the light fixture sensor parameters to the default settings.</p>
	<p><b>- / +</b></p> <p>Press to increase or decrease brightness from 0% to 100% at increments of 2%.</p>
	<p><b>TEST</b></p> <p>Press to test the sensor (hold time is 3s).</p>

Note: To switch from motion sensor mode to dimmer mode, long press the ON/OFF button until only the BRIGHTNESS option lights up. If all options light up, long press again. Then use the -/+ buttons to adjust the brightness.

## PROGRAMMING INSTRUCTIONS

- Press the ON/OFF button
- Select the desired settings
  - Select the brightness level by pressing the BRIGHTNESS button.
  - Select the hold time by pressing the HOLD TIME button.
  - Select the stand-by dim level by pressing the STANDBY DIM button.
  - Select the stand-by time by pressing the STANDBY TIME button.
  - Select the sensor sensitivity by pressing the SENSITIVITY button.
  - Optional: If daylight sensor is desired, long press the DAYLIGHT button and then choose the lux setting.
- Press SEND- the fixture responds by strobing.

# CONTROLLED

## BLUETOOTH PIR MOTION & DAYLIGHT HARVEST SENSOR

### FEATURES

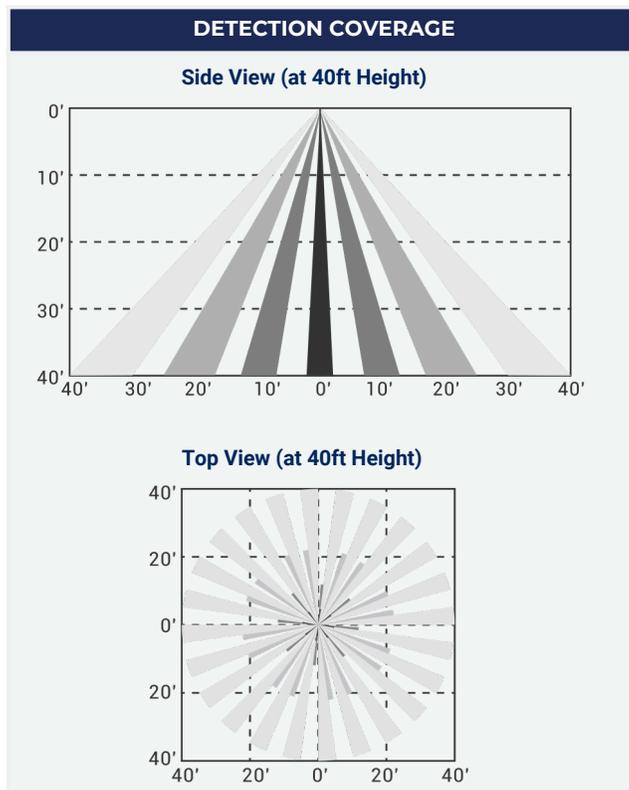
- PIR motion and daylight harvest sensor
- Easy wireless plug-and-play installation
- Bluetooth mesh network
- DLC - Networked Lighting Control (NLC) & Luminaire Level Lighting Control (LLLC)

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

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

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

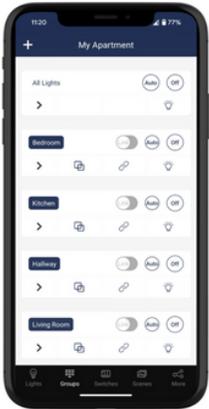
**Note:** Program the sensor with the desired settings using the Controlled Mobile App (please refer to the Controlled App manual for instructions).



# CONTROLLED



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!

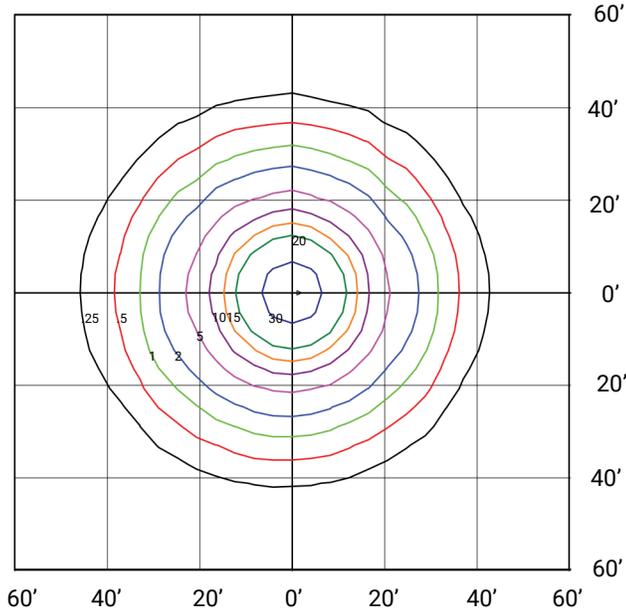


**Engineered by skilled hands,  
for skilled hands.**

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For more information, visit [rabdesign.ca](http://rabdesign.ca).

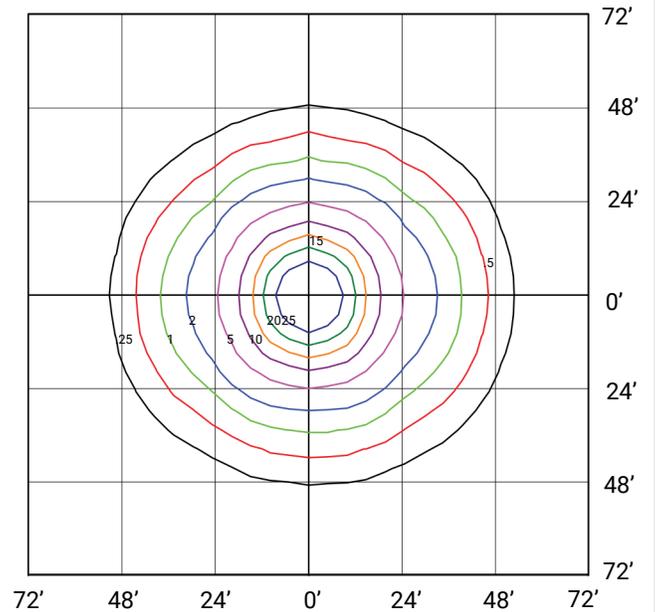
RH2S-LED200A150-H-VK-DIM-PCL-FS-N4X- (200W 4K)  
MOUNTED AT 20 FEET

Lumens 29777 Maximum Calculated Value 36.00 Fc



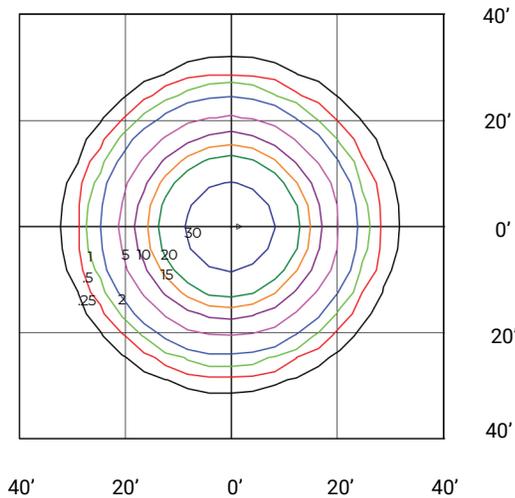
RH2S-LED240A200-H-VK-DIM-PCL-FS-N4X- (240W 4K)  
MOUNTED AT 24 FEET

Lumens 34997 Maximum Calculated Value 31.84 Fc



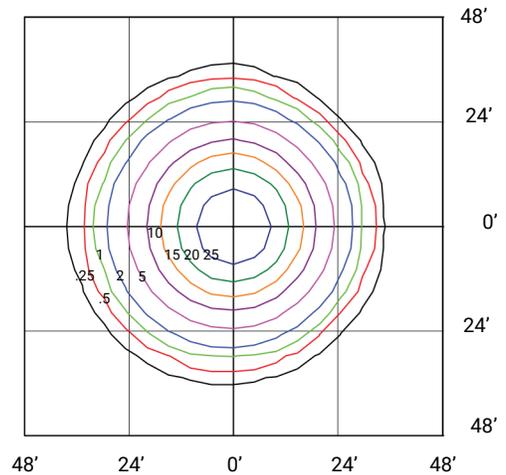
RH2S-LED200A150-H-VK-DIM-PCL-FS-N4X-ALUMINUM REFLECTOR (200W 4K)  
MOUNTED AT 20 FEET

Lumens 28156 Maximum Calculated Value 38.20 Fc



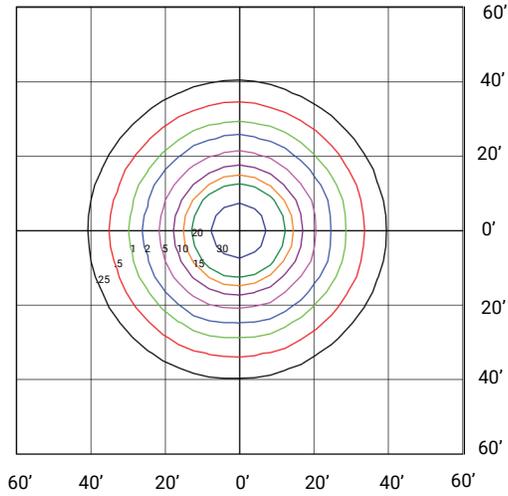
RH2S-LED240A200-H-VK-DIM-PCL-FS-N4X- ALUMINUM REFLECTOR (240W 4K)  
MOUNTED AT 24 FEET

Lumens 31753 Maximum Calculated Value 29.83 Fc



RH2S-LED200A150-H-VK-DIM-PCL-FS-N4X- POLYCARBONATE REFLECTOR (200W 4K)  
MOUNTED AT 20 FEET

Lumens 29375      Maximum Calculated Value 36.08 Fc



RH2S-LED240A200-H-VK-DIM-PCL-FS-N4X- POLYCARBONATE REFLECTOR (240W 4K)  
MOUNTED AT 24 FEET

Lumens 33785      Maximum Calculated Value 28.36 Fc

