

The
FLHQTM
Series

Field-adjustable CCT & Lumen
LED Linear Highbay





field-adjustable CCT & Lumen
LED Linear Highbay

PROJECT: _____

DATE: _____

TYPE: _____

PREPARED BY: _____



KEY FEATURES
Field-adjustable CCT & Lumen standard on all models
Compact design for easy deployment
Low glare, optional Aisle optics
Optional Bi-level motion and Networked lighting controls
Emergency backup option



TECHNICAL SPECIFICATIONS

COMPLIANCE

UL Listed

Suitable for Damp Location

IESNA LM79 & LM-80 Testing

PacLights LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

DLC Qualification

Selected models of this product are on the Design Lights Consortium (DLC) Qualified Products List and are eligible for rebates from DLC Member Utilities. To view our DLC qualified products, please consult the DLC Qualified Products List at www.design-lights.org/qpl

LED CHARACTERISTICS

LEDS

Long-life, high-efficacy, surface-mount LEDs

Lifespan

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

Color Rendering Index

>80

Color Uniformity

PacLights' range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017

OTHER

5-Year Limited Warranty**

The PacLights 5-year, limited warranty covers light output, driver performance and paint finish.

**PacLights's warranty is subject to all terms and conditions found at paclights.com/warranty

CONSTRUCTION

IP Rating

Suitable for Damp Location

Ambient Temperature

Suitable for 50° C (122° F) ambient temperature, minimum starting -40 F°/-40° C

Housing

Die-cast aluminum housing; stainless steel external hardware; silicone gasket.

Mounting Methods

- Aircraft cable kit, adjustable up to 48" (included)
- Surface hanger mounting kit (optional)
- 3/4" EMT conduit Pendant/surface mounting box (optional)

Green Technology

Mercury and UV free, and RoHS compliant.

Lens

Polycarbonate. UGR <28

ELECTRICAL

Drivers

0-10V dimming (dim-to-off)

Input Voltage: 120-277v AC (-UV models) or 277-480v AC (-HV models), 50-60 Hz

Power Factor > 0.95; THD < 20% ;

Surge protected L/N-PE:10 kV, L-N:6 kV

Wattage (adjustable):

- FLHQ-130 models: 130w / 105w / 90w
- FLHQ-210 models: 210w / 180w / 155w
- FLHQ-310 models: 310w / 270w / 240w

Input Current:

- FLHQ-130: 1.2A (120v); 0.6A (240v); 0.55A (277v); 0.3A (480v, -HV models)
- FLHQ-210: 2A (120v); 1A (240v); 0.85A (277v); 0.5A (480v, -HV models)
- FLHQ-310: 3A (120v); 1.5A (240v); 1.3A (277v); 0.8A (480v, -HV models)

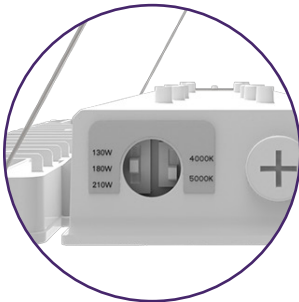
STANDARD FEATURES

Field Adjustable Lumen Output and CCT



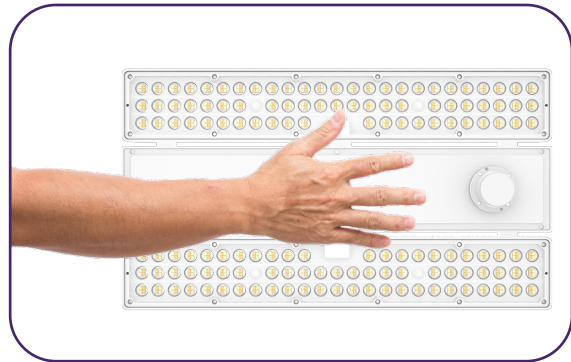
Select the desired output power or light color temperature by sliding the respective Output Power (wattage/lumen) or CCT Selection Switch up or down to the desired value. Both switches can be adjusted before, during and after installation. CCT can be adjusted to 4000K or 5000K, and output wattage can be adjusted to:

- FLHQ-130 models: 130w / 105w / 90w
- FLHQ-210 models: 210w / 180w / 155w
- FLHQ-310 models: 310w / 270w / 240w



Compact Size for Easy Deployment

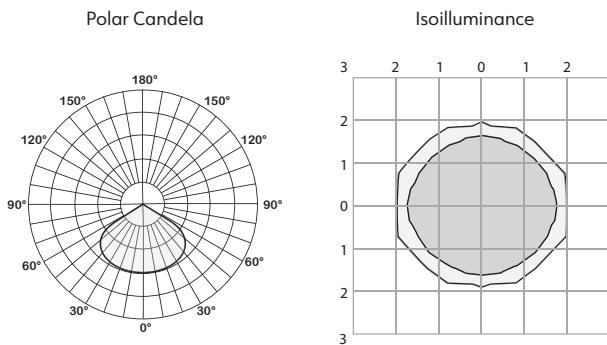
The small but sturdy FLHQ makes installation much faster, while providing the same lumen performance as a full-sized linear high bay. Even the largest model (FLHQ-310, max 310w) can be easily handled by only one hand, its compact design reduces time and labor cost on deployment.



PHOTOMETRIC Options

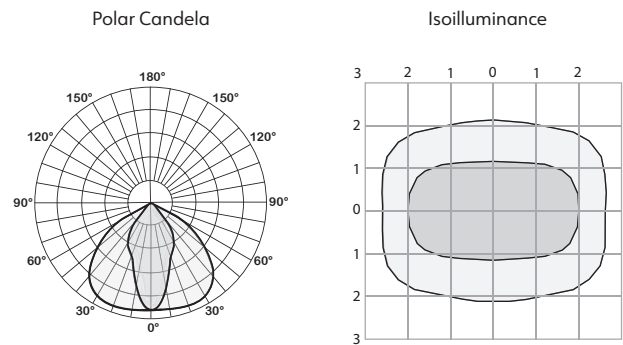
FLHQ has two optics options: Standard and Aisle distributions, for light distribution patterns needs in different applications. While the standard optic provides a low glare illumination over a large area, the aisle optic's rectangular distribution provides higher light level on shelves and aisles while maintaining the low glare output.

Standard Optic



Standard: 120° designed for typical applications.

Aisle Optic (option: -AL)



Aisle (option: -AL): 120° x 90° designed for long and narrow aisle.

Standard vs. Aisle Optic
in warehouse aisles application

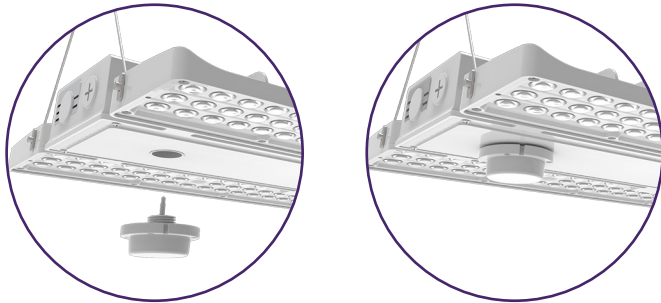


Standard Optic



Aisle Optic

CONTROL Options



All FLHQ models comes with AUX receptacle for easy twist-on installation of controls on site.

Microwave Bi-level Motion Control (option: -MCW)

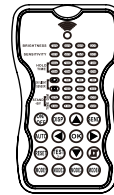


Microwave occupancy control detect motions even through plastic, glass and thin non-metal materials. It can be mounted as high as 40ft high and contains a signature 3-step dimming function, which is perfect for areas that require a light change notice totally switching off the light. Control parameters are adjustable by an optional wireless commissioning device.

Passive Infrared Bi-level Motion Control (option: -MCP)



A PIR sensor can detect changes in the amount of infrared radiation impinging upon it, which varies depending on the temperature and surface characteristics of the objects in front of the sensor. It can be mounted as high as 40 ft high and contains a signature 3-step dimming function, which is perfect for areas that require a light change notice totally switching off the light. Control parameters are adjustable by an optional wireless commissioning device.



Wireless commissioning device can be purchase separately to customize settings of -MCW/-MCD controls.

Motion and Daylight Harvesting Control (option: -MCD)



In addition to all the functions provided by a microwave bi-level occupancy control, daylight harvesting control also reduces electric light in building interiors when daylight is available.

Networked Lighting Controls (option: -WBP/-WBM/-WBN)



Network Lighting Controls (NLC) offer Luminaire Level Lighting Control (LLLC) based on Bluetooth-enabled Mesh Networking of Luminaires. Individual addressability enables luminaires to be communicated with each other within the zone/network. Luminaires can be grouped, trim and controlled by using the smart device app or connected wall switches. Scheduling, scene and sensors can be added for automation among the lights within the zone/group.

- **(-WBP)** Wireless bluetooth networked control with PIR occupancy and daylight harvesting sensor
- **(-WBM)** Wireless bluetooth networked control with microwave occupancy and photocell sensor
- **(-WBN)** Wireless bluetooth networked control (node only)



iOS/Andriod APP will be used to commissioning or customize settings of -WBP/-WBM/-WBN networked controls.

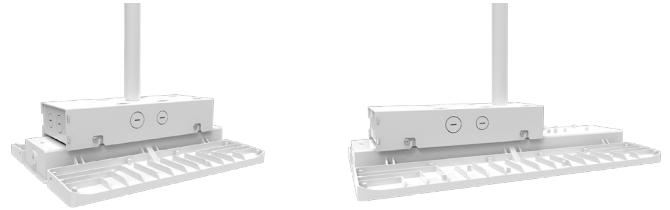
MOUNTING Options

Aircraft Cable Kit (standard)



One pair of aircraft cables are included, each length adjustable, up to 48"

Pendant/Surface Mounting Box (option: -PM)

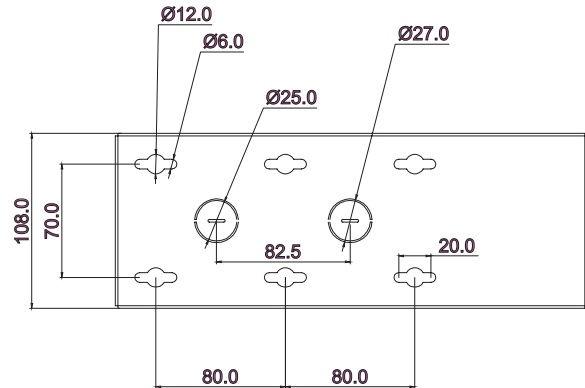
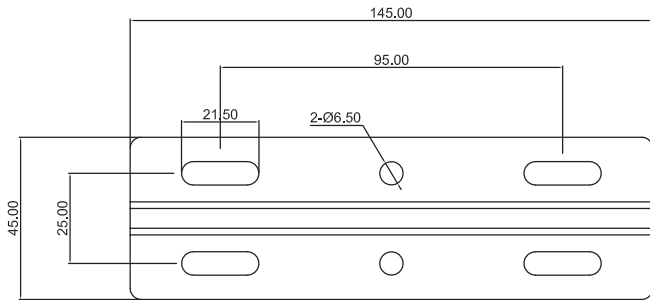


Surface Hanger Mounting Kit (option: -SM)

Comes in one pair of surface mounted hangers, suitable for leveled ceiling.



Junction box is suitable for conduit pendant mount or surface mount. Top knock-offs openings are for 3/4" EMT conduit (conduit not included).



EMERGENCY BACKUP Option

Emergency Battery Backup (option: -EM)



EMERGENCY BACKUP OPTION

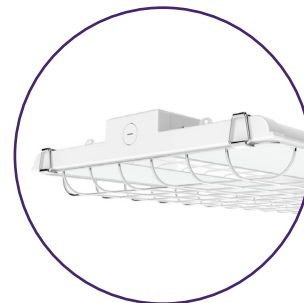
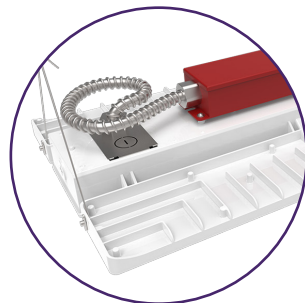
When there is a power outage, the emergency backup driver and battery will power the FLHQ to an brightness from 4,500 to 9,000 lumen for at least 90 mins *

WIREGUARD Option

Wireguard (option: -WG)

Optional wireguards can be attached to FLHQ High Bays to provide extra protection from physical damage.

EM SKU	Emergency Lumen
EMC-30	4,500
EMC-40	6,000
EMC-60	9,000

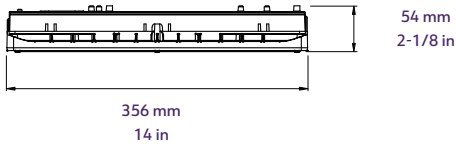
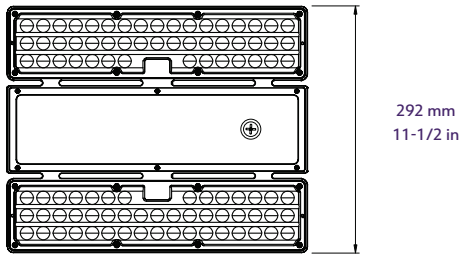


* 120-277v (-UV) models only; FLHQ-310-UV only works with EMC-40 or EMC-60

DIMENSIONS

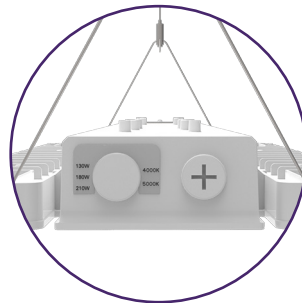
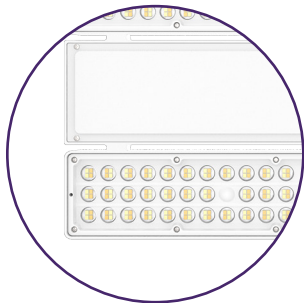
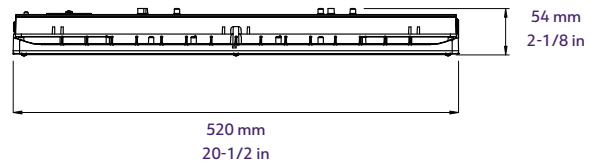
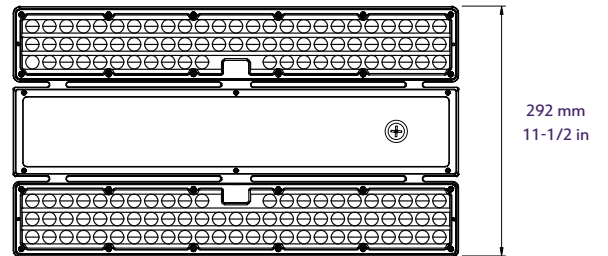
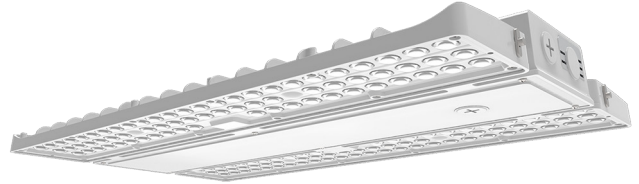
FLHQ - 130 / FLHQ - 210

weight 5.5 lbs



FLHQ - 310

weight 7.3 lbs



FINISHES	
standard	white

PERFORMANCE

FLHQ - 130

Output wattage field-adjustable to 130w/105w/90w

130W	4000K Neutral	5000K Daylight
LUMENS	20,150	20,410
LM/W	155	157

105W	4000K Neutral	5000K Daylight
LUMENS	16,275	16,485
LM/W	155	157

90W	4000K Neutral	5000K Daylight
LUMENS	13,950	14,130
LM/W	155	157

FLHQ - 210

Output wattage field-adjustable to 210w/180w/155w

210W	4000K Neutral	5000K Daylight
LUMENS	32,340	32,760
LM/W	154	156

180W	4000K Neutral	5000K Daylight
LUMENS	27,720	28,080
LM/W	154	156

155W	4000K Neutral	5000K Daylight
LUMENS	23,870	24,180
LM/W	154	156

FLHQ - 310

Output wattage field-adjustable to 310w/270w/240w

310W	4000K Neutral	5000K Daylight
LUMENS	47,430	48,050
LM/W	153	155

270W	4000K Neutral	5000K Daylight
LUMENS	41,310	41,850
LM/W	153	155

240W	4000K Neutral	5000K Daylight
LUMENS	36,720	37,200
LM/W	153	155

ORDERING INFORMATION

FLHQ™

Family	Model	Input Voltage	CCT	Options
FLHQ	<p>130 130w/105w/90w wattage field-adjustable</p> <p>210 210w/180w/155w wattage field-adjustable</p> <p>310 310w/270w/240w wattage field-adjustable</p>	<p>UV 120-277v</p> <p>HV 277-480v</p>	<p>40/50 4000K/5000K CCT field-adjustable</p>	<p>EM Emergency battery backup</p> <p>SM Surface hanger mount</p> <p>PM Pendant mount</p> <p>WG Wireguard</p> <p>AL Aisle optics</p> <p>MCW Microwave bi-level motion sensor control</p> <p>MCP PIR bi-level motion sensor control</p> <p>MCD Microwave bi-level motion + daylight sensor control</p> <p>WBP Wireless bluetooth networked control w/ PIR motion and daylight sensor (NLC)</p> <p>WBM Wireless bluetooth networked control w/ Microwave motion and daylight sensor (NLC)</p> <p>WBN Wireless bluetooth networked control (NLC)</p>

NETWORKED CONTROLS MADE EASY

Keilton Networked Controls, a DLC® Qualified Networked Lighting Controls Product, make it easy for facilities to save energy, improve occupancy comfort and achieve code compliance by adding Luminaire Level Lighting Controls (LLLC) to indoor and outdoor applications. It allows for easy field installation of sensors and network nodes with selected PacLights controls ready fixtures. Using the Keilton app, nodes can be commissioned without the need for a gateway or internet access.

Keilton® 

A Cost-Effective Decentralized Architecture
Direct Mobile Device Provisioning
Best-In-Class Scale, Performance & Reliability



FEATURES

- Luminaire Level Lighting Control (LLLC)
- Bluetooth-enabled Mesh Networking of Luminaires and Devices
- Individual Addressability, address individual or multiple luminaires
- High-end and Low-end Trim
- Zoning & Grouping
 - ◊ Add and control up to 100 devices per zone
 - ◊ Add unlimited zones to scale for bigger installation
 - ◊ Create unlimited groups (combination of sensor or network nodes) within a zone
 - ◊ Link and control the whole group or zone
- Scene control
 - ◊ Create and link scenes to individual lights or groups within a zone
 - ◊ Select scene with App or wall switch
- Time Scheduling for individual lights, groups or scenes
- Sensors integrated with BLE, occupancy and daylight sensing
- Multi-level Dimming, Daylight Harvesting and Occupancy controls
- Manual/Automatic ON/OFF and Automatic partial ON/OFF control capability
- Control via smart device App or wireless wall switch
- Secure commissioning with Keilton App
- Up to 100 ft node-to-node and 50 ft node-to-device
- Other control features to meet code compliance


Keilton and its logo is a trademark of Litetrace; **PacLights** and its logo is a trademark of PacLights, LLC
DLC and its logo is a trademark of DesignLights Consortium.
Keilton is the qualified system name listed on the DLC Networked Lighting Controls QPL.





NETWORKED CONTROLS for FLHQ series



NETWORKED NODES ONLY

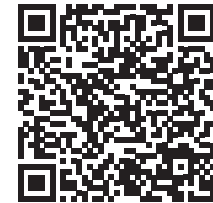
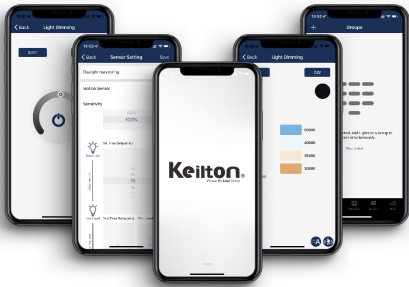
SKU	DESCRIPTION	FUNCTION	CONTROL ORDER CODE
KEILTON-WPPA102-AUX	 KEILTON WPPA102-AUX DC AUX BLUETOOTH MESH NODE	Enable network controlled - on & off, dim, trim, zone, group, scene & schedule, etc.	-WBN

NETWORKED NODES WITH SENSOR



SKU	DESCRIPTION	FUNCTION	CONTROL ORDER CODE
KEILTON-EFS106-AUX	 KEILTON EFS106-AUX DC AUX BLUETOOTH MESH NODE W/ PIR DLH SENSOR	Enable network controlled - on & off, dim, trim, zone, group, scene & schedule, etc. And, PIR occupancy & daylight (harvesting) sensing.	-WBP
KEILTON-EFS116-AUX	 KEILTON EFS116-AUX DC AUX BLUETOOTH MESH NODE W/ MICROWAVE PHOTOCELL SENSOR	Enable network controlled - on & off, dim, trim, zone, group, scene & schedule, etc. And, Microwave occupancy & photo sensing	-WBM

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COMMISSION & CONTROL SMART DEVICE APP



NETWORKED WALL SWITCH

SKU	DESCRIPTION	FUNCTION	APPLICATION
KEILTON-WP1025	 <p>KEILTON WP1025 BATTERY 5 BUTTON BLUETOOTH DIMMER SWITCH W/ SCENE CONTROLLER</p>	<p>Switch on/off, dim, or select up to 3 scenes, of an individual light or a group of lights (defined in the commissioning App). Battery powered.</p>	<p>Field installed, ideal for flexible or additional wall switch placement, indoor</p>
KEILTON-WP1017S	 <p>KEILTON WP1017S AC 7 BUTTON BLUETOOTH DIMMER SWITCH W/ SCENE CONTROLLER</p>	<p>Switch on/off, dim, or select up to 4 scenes, of an individual light or a group of lights (defined in the commissioning App). 120-277v AC powered.</p>	<p>Field installed, ideal for retrofitting existing wall switch, neutral wire (AC) is required, indoor</p>

OTHER

SKU	DESCRIPTION	FUNCTION	APPLICATION
KEILTON-CR01	 <p>KEILTON CR01 ENERGY MONITORING USB DONGLE W/ RTC</p>	<p>Records energy consumption of the assigned Zone. Offers real-time-clock (RTC) Sync of the Zone. USB (5v) powered, internal battery for RTC.</p>	<p>Field installed, one per Zone to satisfy energy audit, or to provide off-the-App time/schedule recovery from power-outage of the site.</p>

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