HHSL1

Applications

The HARRIS HHSL1 is an innovative high bay and is **industry leading with up to 197 LPW**. The low profile design offers energy savings, low maintenance, and control options for low or high bay settings in industrial, commercial, and retail applications.

Project Name:	
Catalog Number:	
Type:	
Note:	
Date:	

HHSL1A1HEUNVND850LAFGPF
[Lens Option Shown]

Up 197 LPW!

Construction & Design

- Narrow lightweight 2' and 4' I-Frame aluminum body allows for optimal thermal management and ease of handling during installation
- Available with four different light distribution types: No lens, acrylic frosted general lens, acrylic frosted narrow lens, and acrylic clear focus lens

Additional Options

- Rigid and suspended mounting options
- Field installed precision fit fixture wireguard available for 2' and 4' fixture lengths
- Field or factory installed Battery Back Up available in 10w or 20w
- Single or bulk pack available
- High ambient operating range up to 65°C
- More available, see factory and field installed fixture options

Electrical

- Available in 120v-277v, 347v and 480v
- 6 kV/3 kA surge protection standard, 20 kV/10 kA surge protection available
- Power Factor >0.9*
- Total Harmonic Distortion < 20%*

*Note: Varies based on option

Control and Sensor Options

- Factory installed control and sensor options
- Control and sensor options are available to be installed in the field
- Manual Programming Sensors
- Remote Programming Sensors
- Onsite Network Programming
- Internet/Cloud Based Network Programming

Lumen Maintenance

See lumen maintenance table on page 2

Fixture Certifications & Listings

- Buy American Act Compliant
- UL/cUL Listed
- UL Damp Listed
- UL 1598 65°C
- DesignLights Consortium® Premium qualified luminaire
- Visit the DLC® QPL for listed models

Patent Information

Orion is serious about intellectual property. This product may be covered by one or more patents. Patent information available at http://www.orionlighting.com/about/patents

Warranty

See Orion's Product Limited Warranty for more details and information

Performance Information, 277v, 5000K, $\geq$ 80 CRI[1]

Nominal Lumen Code	Input Current	Wattage	No Lens		LAFG		LAFN		LACF	
			Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens	LPW
2'										
A1	0.17A	48w	9,525lm	196	8,848lm	183	8,734lm	180	8,781lm	181
B1	0.24A	67w	12,975lm	195	11,931lm	179	11,765lm	177	11,786lm	177
C1	0.28A	77w	14,857lm	194	13,885lm	181	13,368lm	175	13,595lm	178
D1	0.38A	106w	20,646lm	195	19,033lm	179	18,930lm	178	18,765lm	177
4'										
E1	0.44A	120w	23,779lm	197	22,073lm	182	21,577lm	179	21,618lm	179
F1	0.55A	153w	30,013lm	196	27,831lm	181	27,284lm	178	27,325lm	178
G1	0.77A	212w	40,310lm	190	38,056lm	179	37,033lm	174	37,188lm	175
H1	0.86A	237w	44,249lm	187	41,210lm	174	40,238lm	170	40,600lm	172

Lumen Maintenance with No Lens[2]

Nominal Lumen Code	Fixture Size	Nominal Lumens	Operating Temperature	Calculated Lumen Maintenance		
				L70	L80	L90
A1	2'	9,000	25℃	233,000	146,000	68,000
			55℃	224,000	135,000	64,000
			65℃	192,000	120,000	57,000
B1	2'	12,000	25℃	233,000	146,000	68,000
			55℃	224,000	135,000	58,000
			65℃	183,000	115,000	54,000
C1	2'	15,000	25℃	233,000	146,000	68,000
			55℃	223,000	135,000	58,000
			65℃	183,000	115,000	54,000
D1	2'	20,000	25℃	219,000	136,000	62,000
			55℃	204,000	126,000	57,000
			65℃	137,000	85,000	39,000
E1	4'	24,000	25℃	233,000	146,000	68,000
			55℃	224,000	135,000	64,000
			65℃	184,000	115,000	54,000
F1	4'	29,000	25℃	233,000	146,000	68,000
			55℃	222,000	138,000	64,000
			65℃	174,000	109,000	52,000
G1	4'	40,000	25℃	219,000	136,000	62,000
			55℃	204,000	126,000	57,000
H1	4'	45,000	25℃	219,000	136,000	62,000
			55℃	202,000	125,000	56,000

Additional Specification Information

[1] Actual performance may vary by up to ±10% of values listed; facility factors and fixture options can affect performance values

[2] Calculated hours based on TM-21 projections and components used at the time of testing. Warranty is not associated with Calculated Lumen Maintenance

Ordering Information Example (NOTE: No dashes or spaces unless noted below)

HHSL1A1HEUNVND850LAFGHWTSMSL2-SP

Ordering Information (Enter Selected Catalog Number Below)

Series	Nominal Lumen Code[3]	Performance Efficacy	Voltage	Fixture Type	CRI; Color Temp	Lens Options	Power Connection Options	Fixture Options	Factory Installed Control Options	Packaging Options
HHSL1= HARRIS LED High Bay Star Line, Gen 1	**2'** **A1**= 9,000lm **B1**= 12,000lm **C1**= 15,000lm **D1**= 20,000lm **4'** **E1**= 24,000lm **F1**= 29,000lm **G1**= 40,000lm[4] **H1**= 45,000lm[4]	**HE**= High Efficacy	**UNV**= 120v-277v **347**= 347v[4] **480**= 480v[4]	**FD**= Factory Wired for Dimming Applications **ND**= Factory Wired for ON/OFF Applications, Dimming capable if required	**840**= 80CRI; 4000K **850**= 80CRI; 5000K	**(Blank)**= No Lens **LAFG**= Lens, Acrylic Frosted General Distribution **LAFN**= Lens, Acrylic Frosted 50° Narrow Aisle Distribution **LACF**= Lens, Acrylic Clear 35° Focus Distribution	(See below for part numbers and descriptions)	**(Blank)**= No Option **TS**= Additional 20 kV/10 kA Surge Protection **BB10**= Battery Back Up, 10w[4,6] **BB20**= Battery Back Up, 20w[4,6] **OE**= Orange End Panels **HT65**= 65°C High Ambient Operating Temp	(See Page 4 for part numbers and descriptions)	**(Blank)**= Bulk Pack **-SP**= Single Pack

Power Connection Options

No Cord Included - Order Separately

HW=
Hardwire (includes dimming leads)

PF=
Platform Connector (requires purchase of platform power cord-sold separately)

ML=
Mate-N-Lok Connector (requires purchase of Mate-N-Lok power cord-sold separately) [5]

Cord Included

06W=
6' White Whip Attached, No Plug

11W=
11' White Whip Attached, No Plug

06B=
6' Black Whip Attached, No Plug

11B=
11' Black Whip Attached, No Plug

Additional Specification Information

[3] For actual lumens, see performance table

[4] Not available with **HT65** option

[5] Feature/accessory option is only available with **ND** driver type unless ordered with an integrated dimming control

[6] Multiply 10w by the lumens per watt (LPW) of the fixture to calculate lumen output in emergency mode

3

Factory Installed Control Options

(Blank)=
No Control Options

Integrated in Fixture Body:

EN2=
Enlighted Connected Lighting Sensor: Network Lighting Control Component, PIR Occupancy Sensor, Daylight Harvesting, High End Trim, Dimming Modes, Luminaire Level Lighting Control, Wireless Zones, Modified IEEE 802.15.4.1, BLE Radio, Temperature Sensor, Scene Control, Demand Response, Data Collection, BMS Integration, Cloud Access[4, 9]

EN3=
Enlighted IoT: All Features of EN2 - Network Lighting Control PLUS access to Apps: Space Management, Asset Tracking, and Contact Tracing Apps[4, 9]

WSxxB=
Integrated, Wattstopper PIR Occupancy Sensor, HIGH/LOW/OFF, 0-10V Dimming, Switching Photocell, IR Remote Programmable, 360°[7, 8, 9]

End Mounted:

MSL2=
End Mounted Control, On/Off Only[5, 7]

MCxx=
End Mounted Control, On/Off/Daylight 0-10v Manual Programmable[4, 7, 8, 9, 10]

WBxx=
PIR Occupancy Sensor, HIGH/LOW/OFF, 0-10V Dimming, Switching Photocell, Bluetooth, Mobile App Programmable, 360°[4, 7, 8, 9]

Accessories (Factory Installed)

**Sensor
(ENx)**

**Sensor
(WSxxB)**

**Sensor
(WBxx)**

**Orange End Cap
(OE)**

**Sensor
(MSL2/MCxx)**

**Battery Back Up
(BB)**

**No Lens Option
((blank) D1 Shown)**

Additional Specification Information

[4] Not available with **HT65** option

[5] Feature/accessory option is only available with **ND** driver type unless ordered with an integrated dimming control

[7] For more information about these options go to our controls landing page

[8] "**xx**" in part number is a place holder for lens height of sensor. Either "20" or "40" can be included at end of part number to replace the "xx" placeholder

[9] Fixture/accessory option is only available with **FD** driver type

[10] Not compatible with **480** (480v) fixture models

Physical Information[11]

Nominal Lumen Code	Length	Width	Depth	Weight
A1/B1/C1/D1	23.75"	15.00"	3.16"	6.00-11.00lbs.
E1/F1/G1/H1	45.75"	15.00"	3.16"	11.00-17.00lbs.

Ambient Operating Temperatures[12]

Nominal Lumen Code	All Voltages	With Battery Back Up
All Lumen Packages	-20ºC to 55ºC [-4ºF to 131ºF]	0ºC to 55ºC [32ºF to 131ºF]
Nominal Lumen Code	120-277v	With Battery Back Up
A1/B1/C1/D1/E1/F1 with HT65 Option	-20ºC to 65ºC [-4ºF to 149ºF]	Not available

Sensor Type	Operating Range
ENx	0ºC to 50ºC (32ºF to 122ºF)
WSxxB	-20ºC to 65ºC (-4ºF to 149ºF)
MSL2	-10ºC to 65ºC (14ºF to 149ºF)
MCxx	-10ºC to 50ºC (-30ºF to 122ºF)
WBxx	-40ºC to 60ºC (-4ºF to 140ºF)

Accessories (Field Installed)

Suspended Mounting Options	
ECAB19	19" Cables with Snap Hooks (2 Required per Fixture)
ECAB31	31" Cables with Snap Hooks (2 Required per Fixture)
HW-FC008	Hanging cable, Set of Two: Adjustable 180", Loop, Y-Fit with Snap Hooks (1 Set per Fixture)
LED-HHSL1-PMR01-KIT	Pendant Mounting Bracket Kit for **UNV** HHSL1 Style Fixtures, Galvanized Steel (Available for Hardwired [**HW**] models only)
LED-HHSL1-PMR01-KIT-480	Pendant Mounting Bracket Kit for **347/480** HHSL1 Style Fixtures, Galvanized Steel (Available for Hardwired [**HW**] models only)
Rigid Mounting Option	
H131SET	Rigid/Flush and Threaded Rod Mounting Bracket Set (Raw Galvanized Steel-also available in white, add **-W** to the end of the part number)
Battery Back Up Options*	
LSLH-UNV-BBxx-KIT	Field Installed Battery Back Up Kit for LSLH and HHSL **UNV HW** (120v-277v hardwired) fixtures
LSLH-347-BBxx-KIT	Field Installed Battery Back Up Kit for LSLH and HHSL **347 HW** (347v hardwired) fixtures
LSLH-480-BBxx-KIT	Field Installed Battery Back Up Kit for LSLH and HHSL **480 HW** (480v hardwired) fixtures

*To order 10w battery back up kit, change"**xx**" to "**10".** To order 20w battery back up change "**xx**" to "**20".** Example: LSLH-UNV-BB10-KIT

Wireguard Options*	
LED-HHSL-WG01-KIT	Field Installed Wireguard Kit for **A1/B1/C1/D1** 2' Fixtures without an End Mounted Sensor, Bulk Pack
LED-HHSL-WG02-KIT	Field Installed Wireguard Kit for **E1/F1/G1/H1** 4' Fixtures without an End Mounted Sensor, Bulk Pack
LED-HHSL-WG03-KIT	Field Installed Wireguard Kit for **A1/B1/C1/D1** 2' Fixtures with an End Mounted Sensor, Bulk Pack
LED-HHSL-WG04-KIT	Field Installed Wireguard Kit for **E1/F1/G1/H1** 4' Fixtures with an End Mounted Sensor, Bulk Pack

*Add **"-SP"** at the end of the Wireguard Options order logic for Single Pack.

End Mounted Sensor Options[13] *	
OEMS1300P[5]	End Mounted On/Off Only Sensor, 120v-277v, Normal Temp/Dry, High Bay, Low Bay & Aisle Lenses, 4-Pin Platform Input, 4-Pin Platform Output
OEMS1330P[5]	End Mounted On/Off Only Sensor, 120v-277v, Cold Temp/Damp, High Bay, Low Bay & Aisle Lenses, 4-Pin Platform Input, 4-Pin Output
OEMS1370P[5]	End Mounted On/Off Only Sensor, 480v, Normal Temp/Dry, High Bay, Low Bay & Aisle Lenses, 5-Pin Platform Input, 5-Pin Platform Output
OEMS1360P	Plug 'N Play End Mounted Remote Programmable On/Dim/Off & Ambient Sensor, 120v-277v, Cold & Normal Temp, 20'-40' Lens, 4-Pin Platform Input, 5-Pin Platform Output (Requires FSIR-100 Sensor Configuration Tool - Not Included)
OEMS1368P	Plug 'N Play End Mounted Remote Programmable On/Dim/Off & Ambient Sensor, 347v/480v, Cold & Normal Temp, 20'-40' Lens, 5-Pin Platform Input, 5-Pin Platform Output (Requires FSIR-100 Sensor Configuration Tool - Not Included)
OEMS1380P	Plug 'N Play End Mounted Bluetooth App Programmable On/Dim/Off & Ambient Sensor, 120v-277v, Cold & Normal Temp, 20'-40' Lens, 4-Pin Platform Input, 5-Pin Platform Output
FSIR-100	Hand-Held Sensor Configuration Tool Required for Adjusting Default Factory Settings, Including Hi/Low/Off Modes and Sensitivity/Time Delay/Cut Off (Ordered Separately-To Be Used with **OEMS1360P**/**OEMS1368P** or embedded **WS20B**/**WS40B**)

*For more information on our OEMS1 style sensors, or additional sensor options, click here for Dimming Sensors and click here for Non-Dimming Sensors.

Additional Specification Information

[5] Feature/accessory option is only available with **ND** driver type unless ordered with an integrated dimming control

[11] Weight will vary based on option selection

[12] Ambient operating range when suspended 12" from the ceiling

[13] All Sensors come standard with a Raw Aluminum housing finish. Dark Gray and White housings are available. For Dark Gray add "**-DG**". For a White Housing add "**-WH**" at the end of the sensor part number
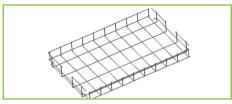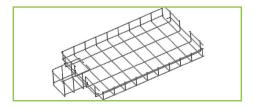
Accessories (Field Installed)

Battery Back Up
(LSLH-xxx-BBxx-KIT)

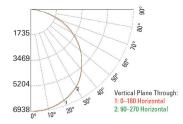**Fixture Wireguard**
(LED-HHSL-WG0x-KIT)

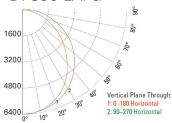**Fixture Wireguard with End Mounted Sensor Wireguard**
(LED-HHSL-WG0x-KIT)

Photometrics

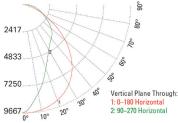Visit orionlighting.com to obtain all .IES files

D1 850 No Lens

1735
3469
5204
6938

D1 850 LAFG

1600
3200
4800
6400

Vertical Plane Through:
1: 0–180 Horizontal
2: 90–270 Horizontal

D1 850 LAFN

2417
4833
7250
9667

Vertical Plane Through:
1: 0–180 Horizontal
2: 90–270 Horizontal

D1 850 LACF

2889
5779
8668
11557

Vertical Plane Through:
1: 0–180 Horizontal
2: 90–270 Horizontal