



Patent Pending

DuroSite® LED High Bay - UL
for Indoor and Outdoor Industrial Applications

DuroSite[®] LED High Bay - UL for Indoor and Outdoor Industrial Applications



Case Study: Diamond Pet Foods (Manufacturing)

Dialight's LED High Bay Lighting Fixtures

See full case study at www.dialight.com

About Dialight

Dialight (LSE: DIA.L) is leading the energy efficient LED lighting revolution around the world for industrial and hazardous areas as well as transportation and infrastructure applications. For 40 years it has been committed to the development of LED lighting solutions that enable organizations to vastly reduce energy use and maintenance needs, improve safety, ease disposal and reduce CO₂ emissions.

History at a Glance

- 1938 - Dialight founded in Brooklyn, NY
- 1971 - LED Circuit Board Indicator
- 1994 - LED Transit Vehicle Signals
- 1995 - LED Traffic Signals
- 2000 - FAA certified LED Obstruction Lights
- 2007 - LED Lighting for Hazardous Locations
- 2009 - LED High Bay Fixtures
- 2012 - Full performance 10-year warranty
- 2013 - Controls for LED Lighting
- 2014 125lm / W High Bay

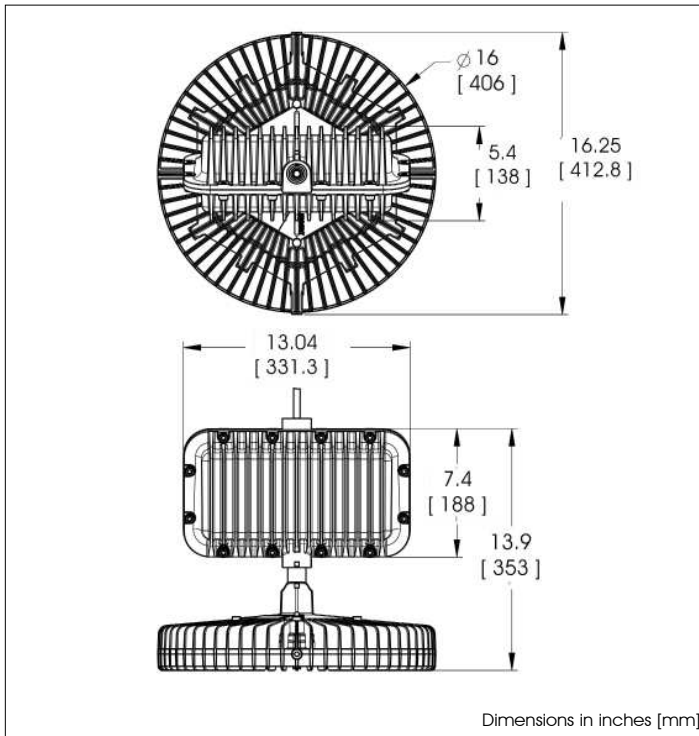
Typical Applications

- Oil, Gas & Petrochemical
- Power Generation
- Mining
- Chemical
- Pharmaceutical
- Water & Sewage
- Food & Beverage
- Manufacturing
- Warehousing
- Cold Storage

Complete your own Return on Investment calculation at: www.dialight.com/tcoCalculator/Vigilant_HighBay



DuroSite® LED High Bay 25,000 Lumens



Certifications & Ratings:

- UL 1598/A
- CSA 22 #250
- ABS Design Assessed: #13-HS104321D
- NEMA 4X (Pending)
- IP66
- Dark Sky Compliant

Features & Benefits

- 10 year full performance warranty
- L70 rated for >100,000 hours @ 25°C
- Instant on/off
- Mercury free
- No UV or IR
- Produces minimal heat compared to traditional fixtures
- Resistant to shock and vibration
- Temperature compensation technology for long life

Application:

Dialight's DuroSite® LED High Bay fixture was designed specifically to replace conventional lighting in a wide variety of industrial applications; both indoor and outdoor. Its low profile light weight design and versatile mounting options make it ideal for many applications such as warehouse, garage, aisle, cold storage, bridge, tunnel and general area lighting.

All of Dialight's long life LED luminaires are designed to meet the most demanding specification criteria while offering maximum energy savings, reduced maintenance costs, and a superior quality of light.

Mechanical Information

Fixture Weight:	30 lbs (13.6 kg)
Shipping Weight:	35 lbs (15.88 kg)
Mounting:	(1) 3/4" NPT - top (2) 5/16"-18 x .75" UNC - side
Cabling:	10' (3.5m) STOOV Power Cord

Electrical specifications

Operating Voltage:	100 - 277V AC or 347 - 480V AC (consult with factory)
Total System Power Consumption:	See table on page 6
Operating Temp:	-40°F to +149°F (-40°C to +65°C)
Harmonics:	IEC 61000-3-2
Noise Requirements/ EMC:	FCC Title 47, Subpart B, Section 15, class A device. RF Immunity; 10V/m, 80MHz-1GHz
Transient Protection:	10kV/2 ohm, 1.2/50us, 8/20us combination wave, as per IEEE C62.41, line-line and line-ground

THD: <20%

Power Factor: > 0.9

Fusing: Internal on black wire

Construction

Housing:	Powder coated aluminum
Finish:	Superior dual coat finish Sealed polyester topcoat Chemical-resistant epoxy prime
Lens:	Tempered glass

Photometric Information

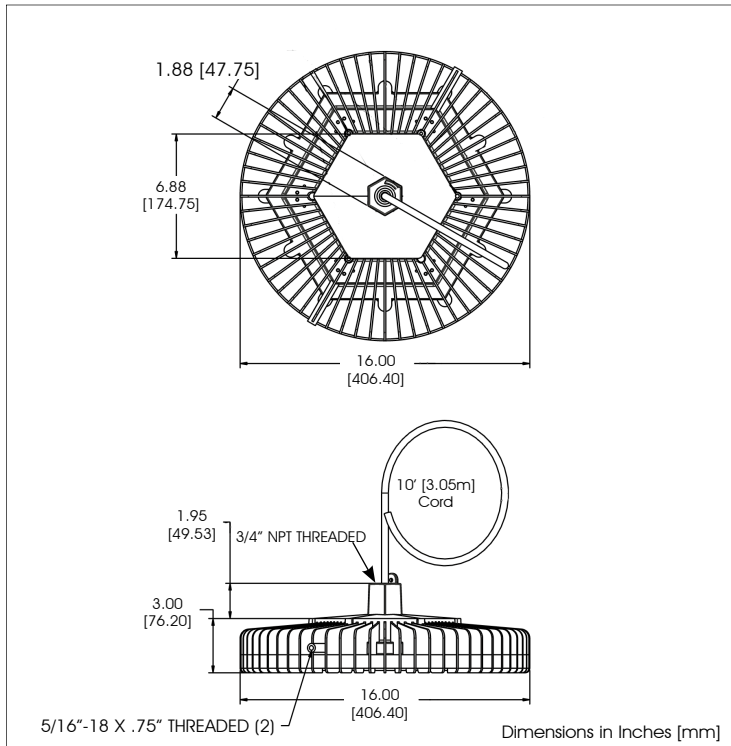
CRI:	>70
CCT:	5000K (cool white) 4000K (neutral white)

All values typical unless otherwise stated
Lumen values are typical (tolerance +/- 10%)



DuroSite® LED High Bay

8,500 - 17,000 Lumens



Certifications & Ratings

- UL 1598 (acrylic lens models)
- UL 1598A (polycarbonate lens and tempered glass)
- CSA 22 #250
- ABS Design Assessed: # 12-HS950618-PDA
- NEMA 4X
- IP66
- Dark Sky Compliant

Features & Benefits

- 10 year full performance warranty available on specific models
- 5 year full performance warranty standard
- L70 rated for > 100,000 hours @ 25°C ambient
- Up to 103lm/W
- Significant energy savings
- Instant on/off
- Maintenance free
- Mercury free
- No UV or IR
- Resistant to shock and vibration

Application:

Dialight's DuroSite® LED High Bay fixture was designed specifically to replace conventional lighting in a wide variety of industrial applications; both indoor and outdoor. Its low profile light weight design and versatile mounting options make it ideal for many applications such as warehouse, garage, aisle, cold storage, bridge, tunnel and general area lighting.

All of Dialight's long life LED luminaires are designed to meet the most demanding specification criteria while offering maximum energy savings, reduced maintenance costs, and a superior quality of light.

Mechanical Information

Fixture Weight:	17 lbs (7.7 kg)
Shipping Weight:	23 lbs (10.43 kg)
Mounting:	(1) 3/4" NPT - top (2) 5/16"-18 x .75" UNC - side
Cabling:	10' (3.5m) STOOV Power Cord

Electrical specifications

Operating Voltage:	100 – 277V AC or 347 – 480V AC (consult with factory)
Total System Power Consumption:	See table
Operating Temp:	-40°F to +149°F (-40°C to +65°C)
Harmonics:	IEC 61000-3-2
Noise Requirements/ EMC:	FCC Title 47, Subpart B, Section 15, class A device. RF Immunity; 10V/m, 80MHz-1GHz
Transient Protection:	6kV/2 ohm, 1.2/50us, 8/20us combination wave, as per IEEE C62.41, line-line and line-ground
THD:	<20%
Power Factor:	> 0.9

Fusing: Internal on black wire

Construction

Housing:	Copper free aluminum
Finish:	Superior dual coat finish Sealed polyester topcoat Chemical-resistant epoxy prime
Lens:	Acrylic - UL 1598 dry location only Polycarbonate - UL1598A wet location Polycarbonate dome lens , Tempered glass

Photometric Information

CRI:	>70
CCT:	5000K (cool white) 4000K (neutral white)

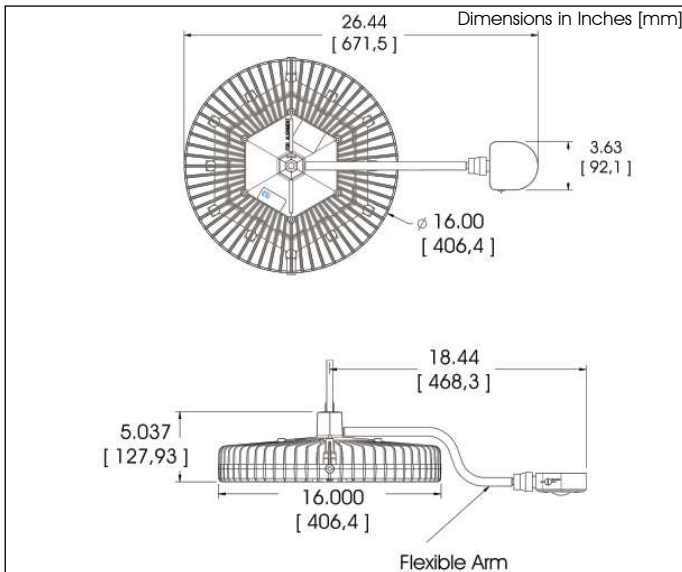
All values typical unless otherwise stated
Lumen values are typical (tolerance +/- 10%)

DuroSite® LED High Bay Occupancy Sensor



Occupancy Sensor:

Dialight offers a range of DuroSite LED High Bay fixtures with an attached occupancy sensor to enable increased energy savings and enhanced ROI. Other industrial lighting sources such as Metal Halide and Sodium Vapor lamps do not offer this capability.



Mechanical, Electrical and Photometric information is the same as on page 3 except where detail is provided

Fixture Weight: 19 lbs (11.34kg)

Container Weight: 25 lbs (8.62kg)

Sensor Mounting: Attached to the base of the neck using a semi-rigid flexible conduit

Occupancy Sensor: Wet location Wattstopper HB350W (120 – 277V AC) or HB340W (347-480V AC)

Sensor Timing: 30 seconds to 20 minutes

Sensor Lens Options: Comes complete with interchangeable lenses for multiple mounting heights and sensor patterns

Operating Temperature: -40°F to +149°F (-40°C to +65°C)

Features and Benefits

- No additional electrical connections required for installation
- Flexible conduit permitting the positioning of the occupancy sensor for optimal coverage
- Interchangeable sensor lens for high bay, low bay, or aisle applications



DuroSite® LED High Bay

Variable Dimming (0-10V DC) & STEP Dimming High Bays



STEP Dimming Mode

The variable dimming High Bays may also be configured to operate in a single STEP Dimming configuration. When the dimming control conductors are connected together, the light output will be reduced to approximately 15% of the maximum light output. The total fixture power consumption will also be reduced to approximately 20% (30 W). Connecting the leads together can be accomplished with a common wall switch.

Mechanical, Electrical and Photometric information is the same as on page 3 except where detail is provided

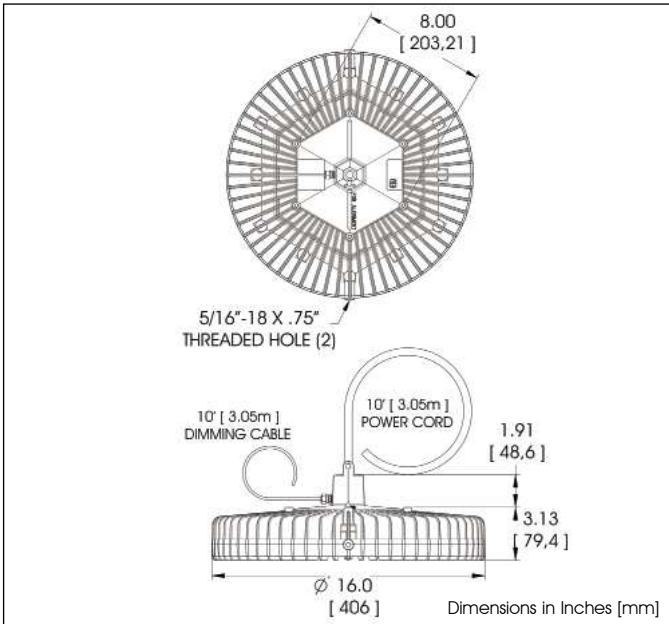
Variable Dimming Cable: Two conductor cable

Power Cable: Three conductor cable

Dimming Cable Position: Side of the neck through a cable gland

Variable Dimming Control: 0-10V DC active

Dimming Range: 10V DC = 100% light output
0V DC = 15% light output



Features and Benefits

- 10' plenum rated dimming control cable pre-installed
- Dimming cabling independent of fixture wiring
- Multiple High Bays can be connected to the same dimmer
- May also be configured to operate in a single STEP Dimming configuration



Ordering Information

Part Number	Warranty	Fixture Lumens	Wattage	LPW	UL 1598A, IP66, NEMA - 4X CSA 22.2 #250, Marine Wet Locations	Lens		Optical Pattern	
						Clear	Diffused	Circular	Aisle
Standard models									
HLGC4KN10YR	10yr	25,000	270	93	•	Tempered Glass		•	
HBGCMP	10yr	17,500	170	103	•	Tempered Glass		•	
HBGC4P	10yr	15,000	146	103	•	Tempered Glass		•	
HBEC4P	10yr	13,000	150	90	•	Tempered Glass			•
HB2C4P	10yr	13,000	146	90	•	Polycarbonate		•	
HB6C4M	5yr	11,750	146	80		Tempered Glass			•
HB7C4M	5yr	11,750	146	80	•	Tempered Glass			•
HB1C4J	5yr	11,000	146	75		Acrylic		•	
HB2C4M	5yr	10,750	146	74	•	Polycarbonate		•	
HB2C4K	5yr	10,500	146	72	•	Polycarbonate		•	
HBWC4L	10yr	8,500	107	79	•		Polycarbonate Dome	Wide	
HB4C4L	5yr	8,500	124	69	•		Polycarbonate	•	
Occupancy Sensor models ¹									
HLGC1KS10YR	5yr	25,000	270	93	•	Tempered Glass		•	
HB6C4T	5yr	11,750	146	80		Tempered Glass			•
HB7C1T	5yr	11,750	146	80	•	Tempered Glass			•
HB1C4T	5yr	11,500	146	79		Acrylic		•	
HB2C4T	5yr	10,750	146	74	•	Polycarbonate		•	
Variable Dimming models									
HB7C4Y	5yr	11,750	146	80	•	Tempered Glass			•
HB6C4Y	5yr	11,750	146	80		Tempered Glass			•
STEP Dimming / Occupancy Sensor									
HBGCQQ	5yr	17,500	170	103	•	Tempered Glass		•	
HBGC1Q	5yr	15,000	146	103	•	Tempered Glass		•	

Notes for all models:

¹ Polycarbonate and tempered glass lens units meet IP 66 when installed using conduit or an IP66 approved cable gland at the 3/4 NPT. Dialight offers IP66 approved cable glands as part of accessories HBXW2 and HBXCG.

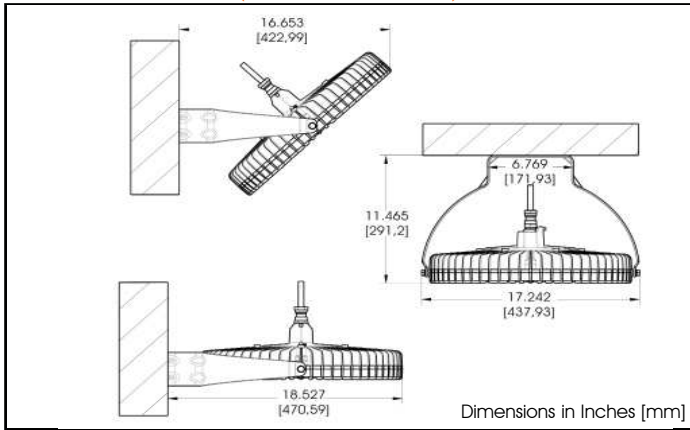
² Part numbers with occupancy sensor that will be installed with Hook or Loop (HBXH or HBXL) accessories will require a counter balance installed prior to shipment. Consult factory. For Dialight's complete list of DLC qualified products, please click this link: www.dialight.com/DLC

Options and Accessories

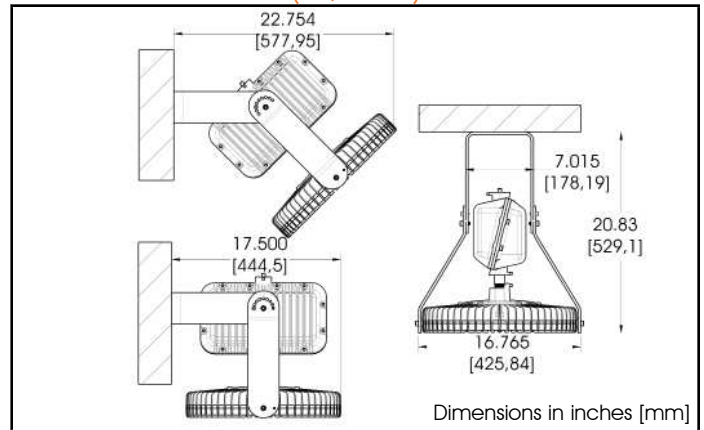
	Part Number	Description	Kit Includes	Compatibility	
				8,500 - 17,000lm	25,000lm
	No Part Number	Pendant Mount (Conduit supplied by installer)	Conduit supplied by installer	•	•
	HBXW2	Swivel Bracket and Cable Gland	Swivel Bracket Bracket to fixture hardware Cable Gland (1/2") Reducer (3/4" to 1/2")	•	
	HBXW3	Swivel Bracket	Swivel Bracket Bracket to Fixture Hardware	•	
	HLXW2	Swivel Bracket and Cable Gland	Swivel Bracket Bracket to fixture hardware Cable Gland (1/2") Reducer (3/4" to 1/2")		•
	HLXW3	Swivel Bracket	Swivel Bracket Bracket to Fixture Hardware		•
	HBXDUALBRCKT	Dual bracket	Junction Box	•	
	HBXCU	Ceiling Mount	Swivel Hanger Cover 3" Conduit Nipple	•	•
	HBXCXG	Cable Gland	Cable Gland (1/2") Reducer (3/4" to 1/2")	•	•
	HBXL	Loop	Hanger Loop (GE LOOPM353) See note 4 on page 5 when ordering with Occupancy Sensor Models	•	•
	HBXH	Hook	Hanger Hook (GE HOOKM353) See note 4 on page 5 when ordering with Occupancy Sensor Models	•	•
	HBXLENGC	Tempered Glass	Lens, replacement clips, screws, gasket	•	•
	HBXLENAC	Acrylic Lens, Clear	Lens, replacement screws, gasket	•	
	HBXLENAD	Acrylic Lens, Diffused		•	
	HBXLENPC	Polycarbonate Lens, Clear	Lens, replacement screws, gasket	•	
	HBXLENDP	Polycarbonate Lens, Diffused		•	
	HBXREF22	22" Acrylic Reflector (Must be ordered with High Bay, not a retrofit option)	Reflector, brackets, screws	•	
	HBXDC	Dust Cover	Dust cover, clamp, spacer	•	

Options and Accessories

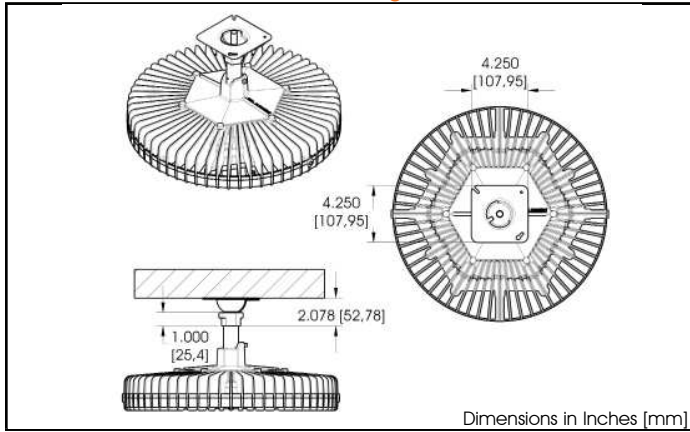
HBXW2 - Swivel Bracket and Cable Gland
(8,000 - 17,000lm)



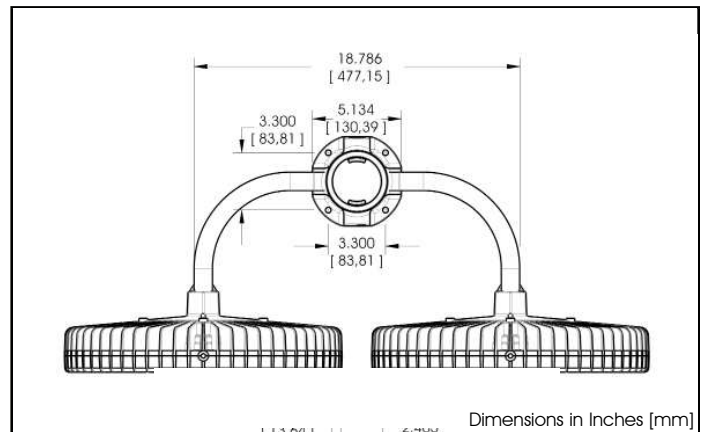
HLXW3 - Swivel Bracket
(25,000lm)



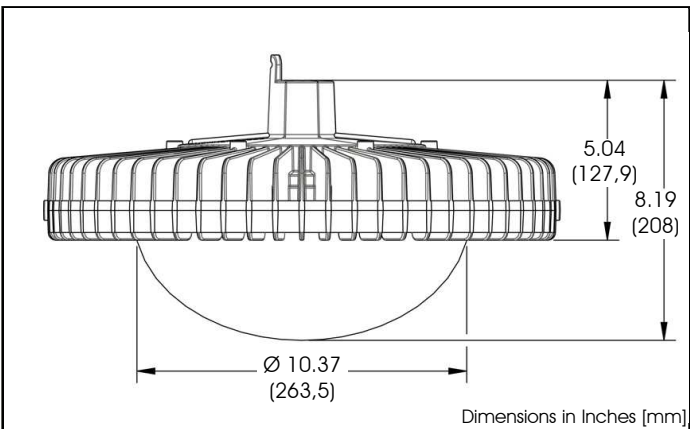
HBXCU - Ceiling Mount



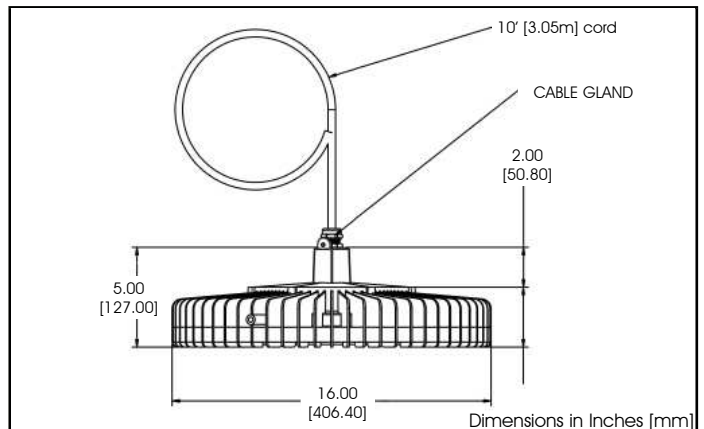
HBXDUALBRCKT - Dual Bracket



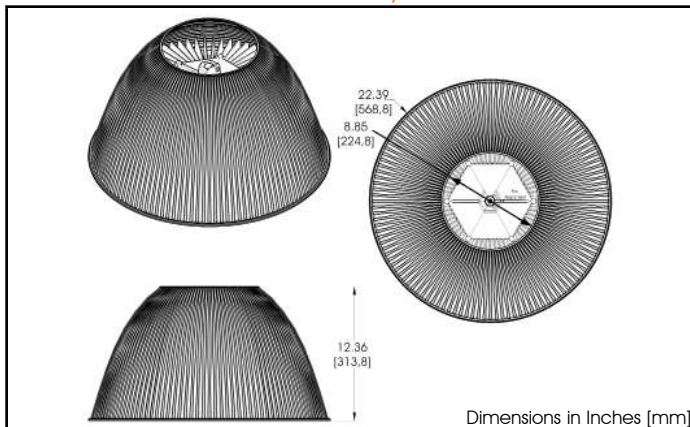
LBXLENP - Dome Lens



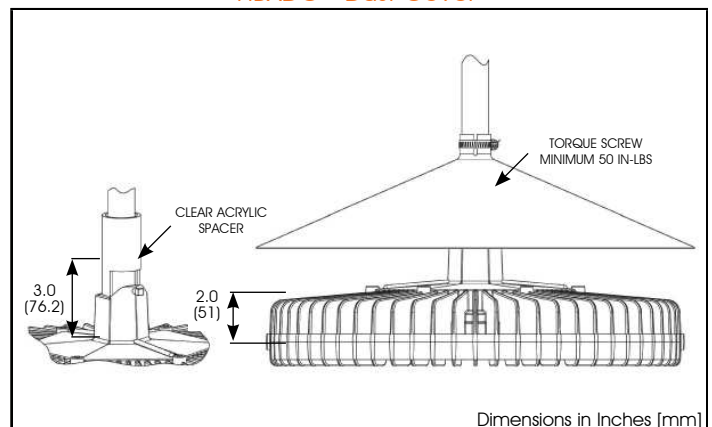
HBXCG - Cable Gland



HBXREF22 - 22" Acrylic Reflector



HBXDC - Dust Cover

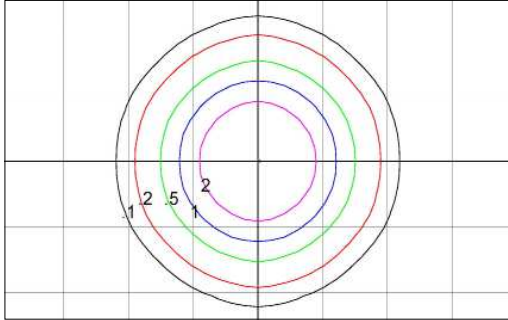


Mounting Height

Lumens	Wattage	lm/W	Mounting Heights
25,000	270	93	80'
17,500	170	103	
15,000	146	103	
13,000	150	90	
10,500	146	72	
8,500	124	69	

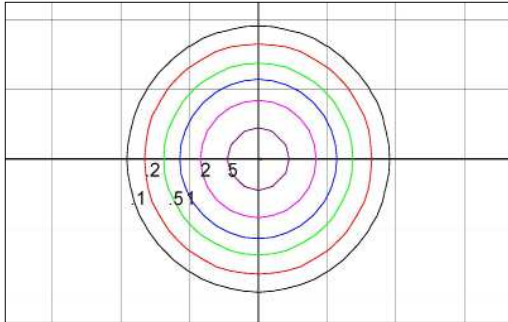
Iso-Illuminance

HLGC4KN-10YR - Circular Pattern



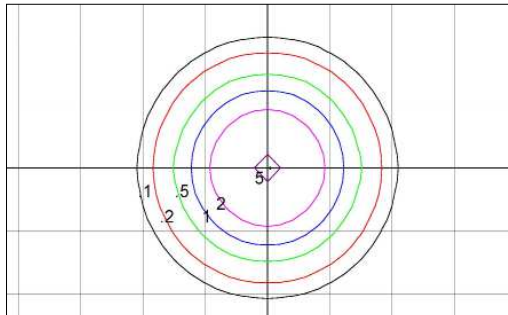
Examples shown is mounted at 40ft
Distance of grid is equal to Mounting Height

HBGCMP - Circular Pattern



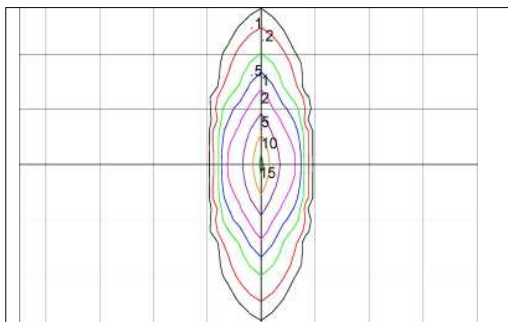
Examples shown is mounted at 35ft
Distance of grid is equal to Mounting Height

HBGC4P - Circular pattern



Examples shown is mounted at 30ft
Distance of grid is equal to Mounting Height

HBEC4P - Aisle Pattern



Examples shown is mounted at 30ft
Distance of grid is equal to Mounting Height

25,000 lumen model

Mounting Height	Multiplier
10	16.000
15'	7.111
20'	4.000
25'	2.560
30'	1.778
35'	1.306
40'	1.000
45'	0.790
50'	0.640

17,500 lumen model

Mounting Height	Multiplier
10	12.250
15'	5.44
20'	3.063
25'	1.960
30'	1.361
35'	1.000
40'	0.766
45'	0.605
50'	0.490

15,000 lumen model

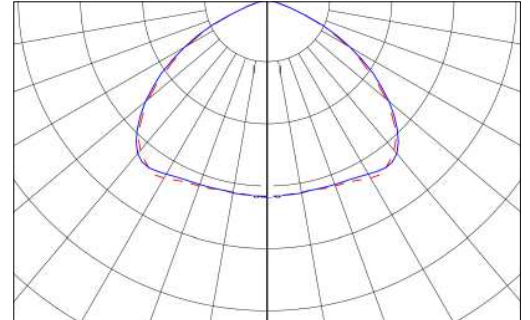
Mounting Height	Multiplier
10'	9.000
15'	4.000
20'	2.250
25'	1.440
30'	1.000
35'	0.735
40'	0.563
45'	0.444
50'	0.360

15,000 lumen model

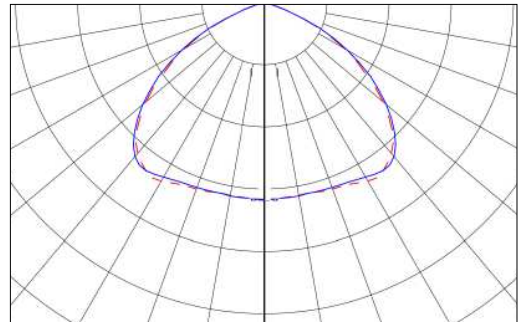
Mounting Height	Multiplier
10'	9.000
15'	4.000
20'	2.250
25'	1.440
30'	1.000
35'	0.735
40'	0.563
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Candela Plots

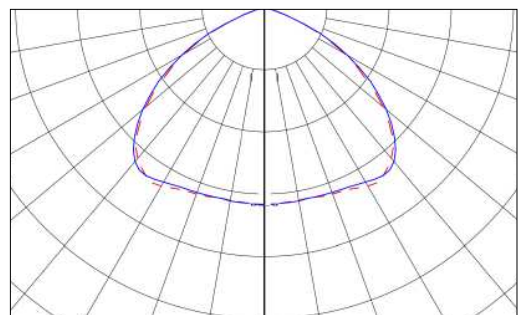
HLGC4KN-10YR - Circular Pattern



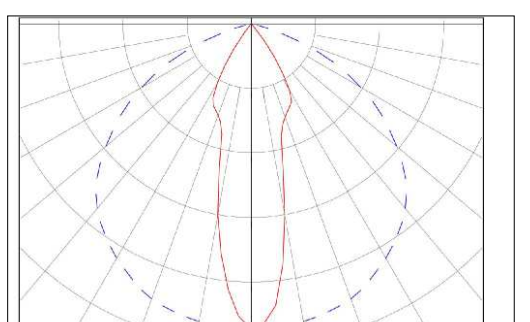
HBGCMP - Circular Pattern



HBGC4P - Circular Pattern



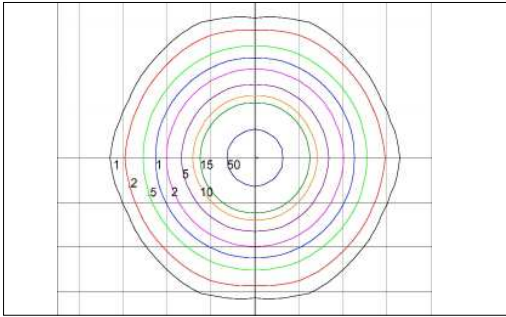
HBEC4M - Aisle Pattern



Measurement Data

Iso-Illuminance

HB2C4P - Circular pattern



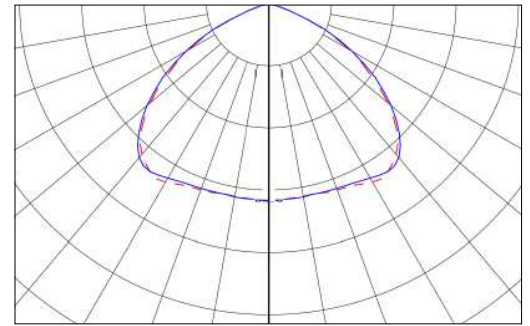
Examples shown is mounted at 25ft
Distance of grid is equal to Mounting Height

13,000 lumen model

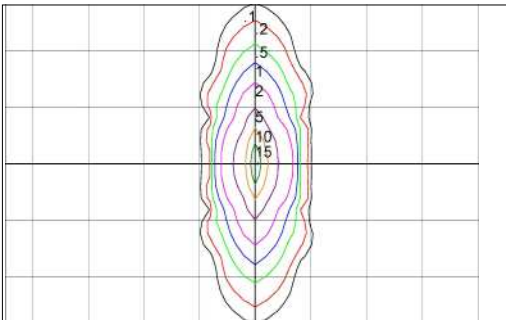
Mounting Height	Multiplier
10'	6.250
15'	2.778
20'	1.563
25'	1.000
30'	0.694
35'	0.510
40'	0.391
45'	0.309
50'	0.250

Candela Plots

HB2C4P - Circular Pattern



HB6C4M - Aisle Pattern

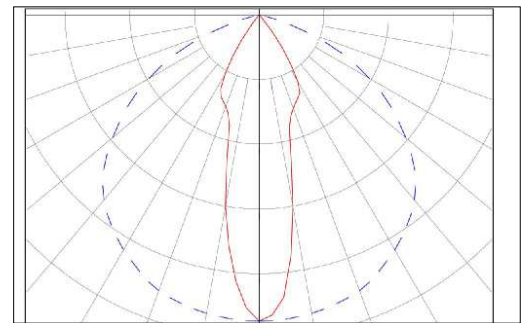


Examples shown is mounted at 25ft
Distance of grid is equal to Mounting Height

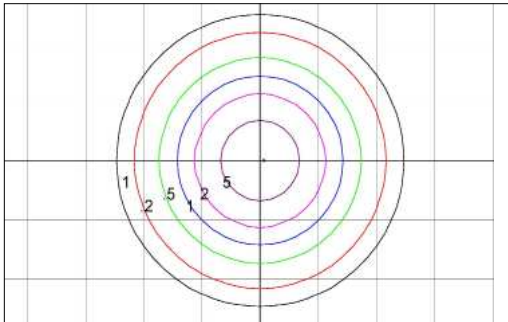
13,000 lumen model

Mounting Height	Multiplier
10'	6.250
15'	2.778
20'	1.563
25'	1.000
30'	0.694
35'	0.510
40'	0.391
45'	0.309
50'	0.250

HB6C4M - Aisle Pattern



HB2C4M - Circular Pattern

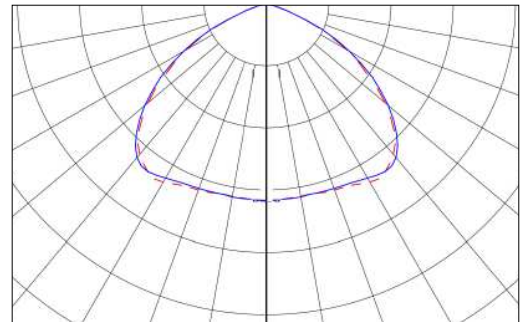


Examples shown is mounted at 20ft
Distance of grid is equal to Mounting Height

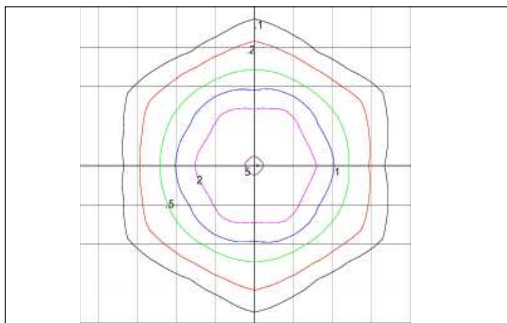
10,500 lumen model

Mounting Height	Multiplier
10'	4.000
15'	1.778
20'	1.000
25'	0.640
30'	0.444
35'	0.327
40'	0.250
45'	0.198
50'	0.160

HB2C4M - Circular Pattern



HBWC4L - Wide Pattern

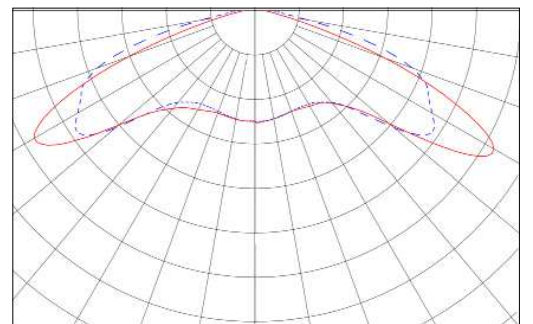


Examples shown is mounted at 15ft
Distance of grid is equal to Mounting Height

8,500 lumen model

Mounting Height	Multiplier
10'	2.250
15'	1.000
20'	0.563
25'	0.360
30'	0.250
35'	0.184
40'	0.141
45'	0.111
50'	0.090

HBWC4L - Wide Pattern



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for Indoor and Outdoor Industrial Applications

