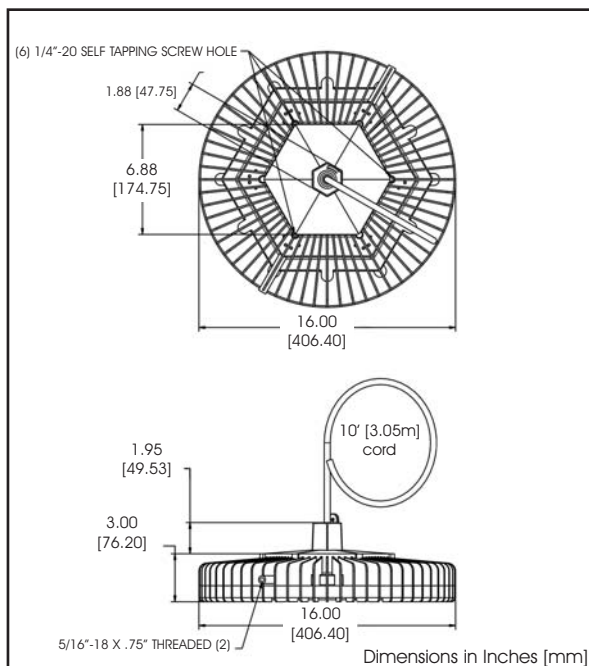


DuroSite™ High Bay Lighting
LED White Lighting Brochure
for Industrial Applications



DuroSite™ Series LED High Bay Fixture



Certifications & Ratings:

- ▷ UL1598
- ▷ CSA 22.2 #250
- ▷ CE
- ▷ UL1598A
- ▷ IP66
- ▷ NEMA 4X (Polycarbonate Lens Only)

Order Codes:

Part Number	Certification	Description	Optic	Initial Fixture Lumens
HB2C4M	UL 1598A	Clear Polycarbonate	Narrow Circular	10,800
HB2C4K	UL 1598A	Clear Polycarbonate	Narrow Circular	10,000
HB7C4M	UL 1598A	Clear Polycarbonate	Narrow Oval	10,900*
HB1C4N	UL 1598 - Dry Location	Clear Acrylic	Narrow Circular	11,600
HB6C4M	UL 1598 - Dry Location	Clear Acrylic	Narrow Oval	11,500*
HB5C4M	UL 1598 - Dry Location	Diffused Acrylic	Narrow Circular	10,800
HB1C4J	UL 1598 - Dry Location	Clear Acrylic	Narrow Circular	10,600
HB3C4G	UL 1598 - Dry Location	Diffused Acrylic	Medium Circular	7,800

* Based on simulated data

Application:

First to market, the Dialight HB series LED High Bay luminaire was designed specifically to replace conventional lighting in a wide variety of industrial applications, both indoor and outdoor. It's low profile light weight design and versatile mounting options make it ideal for many applications such as warehouse, garage, 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)
Mounting:	(1) 3/4" NPT Threaded OR (2) 5/16"-18 x .75" NPT Thread

Electrical specifications:

Operating Voltage:	100-277VAC, 50/60 Hz
Total System Power Consumption:	150W
Operating Temp:	-40°F to +149°F (-40°C to +65°C)
Harmonics:	IEC 6100-3-2
Surge / Lightning Protection:	1 kV line to line 2 kV line to ground
THD:	<5% (120VAC) <10% (230/240VAC) <12% (277VAC)
Power Factor:	> 0.9

Construction:

Body:	Powder Coated Aluminum
Lens:	Acrylic (UL1598 Dry Location versions) Polycarbonate (UL1598A versions)

Photometric Information:

CRI (typ):	70
CCT (typ):	6000K (cool white)

DuroSite™ High Bay Lighting



Features & Benefits

- ▷ 80% lumen maintenance after 60,000 hours
- ▷ 77lm/w (LM-79) certified
- ▷ Significant energy savings
- ▷ Instant on/off
- ▷ Maintenance free
- ▷ Mercury free
- ▷ Superior light quality
- ▷ Dark Sky Compliant
- ▷ No heat or UV
- ▷ Simple installation
- ▷ Universal input (100 -277), 50/60Hz
- ▷ Resistant to shock and vibration
- ▷ Temperature compensation technology for long life
- ▷ Copper free aluminum
- ▷ Dark-Sky Compliant

*DuroSite Series LED High Bay Fixture Competitive Analysis (less than 1 year payback period)

Fixture Type	Dialight DuroSite Series LED High Bay (150W)	(6) T5HO Fluorescent (324W)	Metal Halide (400W)	High Pressure Sodium (400W)
Total System Wattage	150W	389W	480W	480W
Avg. Lamp Life	60,000	30,000	20,000	24,000
Dialight fixture savings comparison				
Annual Energy Savings		\$13,500	\$18,771	\$18,771
Lifetime Relamp & Maintenance Savings		\$19,706	\$29,559	\$29,559
Annual kWh Savings		123,486 kWh	170,646 kWh	170,646 kWh
Annual CO₂ Emission Reduction (in tons)		106	146	146

Typical Applications

- ▷ Warehouse
- ▷ Manufacturing
- ▷ Cold Storage
- ▷ Canopy
- ▷ Gymnasium
- ▷ Tunnels



*All figures are typical and based on calculations provided by the United States Department of Energy

Based on a warehouse installation of 59 units. The full case study is available online at:
http://www.dialight.com/News/Details/frontline_case_study

Designed in the U.S.A
 Meets Buy American requirements
 under the American Recovery and
 Reinvestment Act 2009

HB2C4M Series High Bay Fixture Light Measurement Data

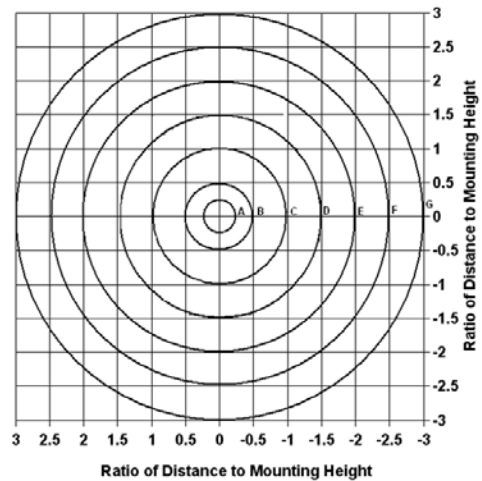
Illuminance for Day or High Light Level conditions (Photopic Footcandles)

Mounting Height (ft)	Zones						
	A	B	C	D	E	F	G
8	52.30	39.40	22.40	7.50	2.00	0.80	0.30
12	23.24	17.51	9.96	3.33	0.89	0.36	0.13
16	13.08	9.85	5.60	1.88	0.50	0.20	0.08
20	8.37	6.30	3.58	1.20	0.32	0.13	0.05
25	5.36	4.03	2.29	0.77	0.20	0.08	0.03
30	3.72	2.80	1.59	0.53	0.14	0.06	0.02
40	2.09	1.58	0.90	0.30	0.08	0.03	0.01

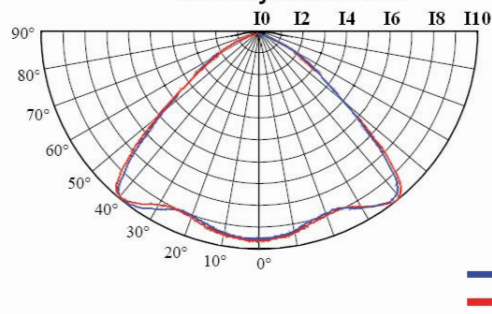
Illuminance for Night or Low Light Level conditions (Scotopic Footcandles)

Mounting Height (ft)	Zones						
	A	B	C	D	E	F	G
8	119.24	89.83	51.07	17.10	4.56	1.82	0.68
12	53.00	39.93	22.70	7.60	2.03	0.81	0.30
16	29.81	22.46	12.77	4.28	1.14	0.46	0.17
20	19.08	14.37	8.17	2.74	0.73	0.29	0.11
25	12.21	9.20	5.23	1.75	0.47	0.19	0.07
30	8.48	6.39	3.63	1.22	0.32	0.13	0.05
40	4.77	3.59	2.04	0.68	0.18	0.07	0.03

Illuminance Chart



Intensity Distribution



24,617 Total Lumens for Night or Low Light Level Conditions (scotopic)

10,797 Total Lumens for Day or High Light Level Conditions (photopic)

Intensity Values for Day or High Light Level Conditions (Photopic Candelas)

I0	I2	I4	I6	I8	I10
0	745	1490	2234	2980	3724

Intensity Values for Night or Low Light Level Conditions (Scotopic Candelas)

I0	I2	I4	I6	I8	I10
0	1670	3397	5093	6590	8490

***Typical Example of 100' x 100' Room
(Based on 30' Mounting Height)**

Number of Fixtures	Illuminance (footcandles)
9	9
16	15
20	19

*Ceiling Reflectance = 0.8
Wall Reflectance = 0.5
Floor Reflectance = 0.2
Work Plane Height = 2.5'

HB2C4K Series High Bay Fixture Light Measurement Data

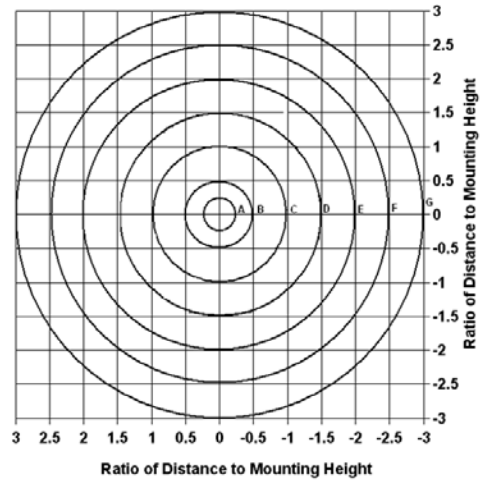
Illuminance for Day or High Ambient Light Level conditions (Photopic Footcandles)

Mounting Height (ft)	Zones						
	A	B	C	D	E	F	G
8	53.01	38.41	21.02	5.58	1.67	0.56	0.19
12	23.56	17.07	9.34	2.48	0.74	0.25	0.08
16	13.25	9.60	5.25	1.40	0.42	0.14	0.05
20	9.20	6.67	3.65	0.97	0.26	0.10	0.03
25	5.89	4.26	2.34	0.62	0.17	0.06	0.02
30	4.09	2.96	1.62	0.43	0.12	0.04	0.01
40	2.30	1.67	0.91	0.24	0.07	0.02	0.01

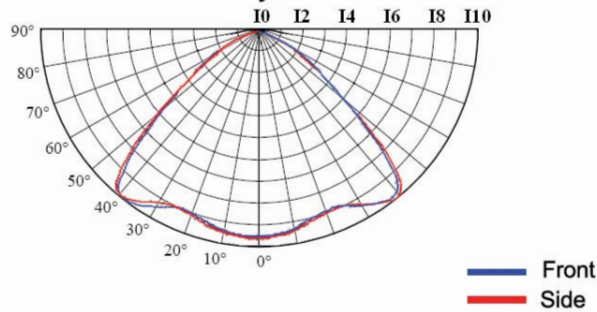
Illuminance for Night or Low Ambient Light Level conditions (Scotopic Footcandles)

Mounting Height (ft)	Zones						
	A	B	C	D	E	F	G
8	120.86	87.57	47.92	12.73	3.82	1.27	0.42
12	53.72	38.92	21.30	5.66	1.70	0.57	0.19
16	30.22	21.89	11.98	3.18	0.95	0.32	0.11
20	20.98	15.20	8.32	2.21	0.59	0.22	0.07
25	13.43	9.71	5.33	1.41	0.38	0.14	0.05
30	9.33	6.76	3.70	0.98	0.26	0.10	0.03
40	5.25	3.80	2.08	0.55	0.15	0.06	0.02

Illuminance Chart



Intensity Distribution



22,764 Total Lumens for Night or Low Light Level Conditions (scotopic)

9,984 Total Lumens for Day or High Light Level Conditions (photopic)

Intensity Values for Day or High Ambient Light Level Conditions (Photopic Candelas)

I0	I2	I4	I6	I8	I10
0	730	1468	2200	2936	3670

Intensity Values for Night or Low Ambient Light Level Conditions (Scotopic Candelas)

I0	I2	I4	I6	I8	I10
0	1665	3350	5015	6700	8370

*Typical Example of 100' x 100' Room (Based on 30' Mounting Height)

Number of Fixtures	Illuminance (footcandles)
9	7
16	12.5
20	16

*Ceiling Reflectance = 0.8
Wall Reflectance = 0.5
Floor Reflectance = 0.2
Work Plane Height = 2.5'

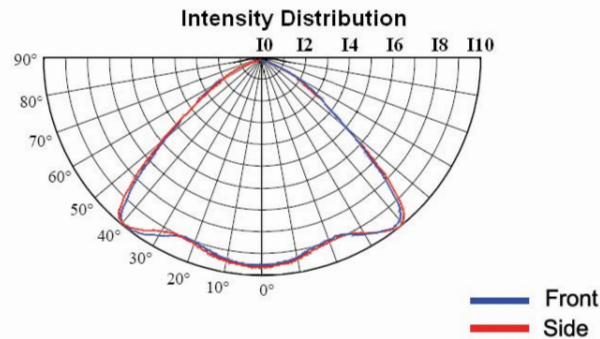
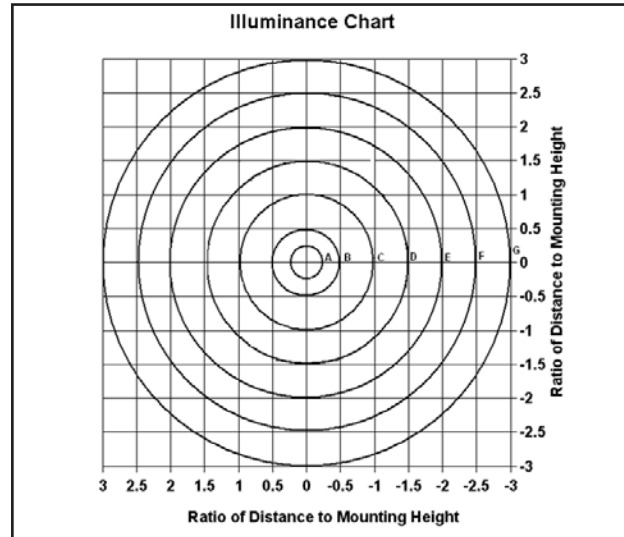
HB1C4N Series High Bay Fixture Light Measurement Data

ILLUMINANCE for Day or High Light Level conditions (Photopic Footcandles)

	Zones						
	A	B	C	D	E	F	G
Mounting Height (ft)							
8	56.00	42.00	24.20	8.40	2.30	0.90	0.40
12	24.89	18.67	10.76	3.73	1.02	0.40	0.18
16	14.00	10.50	6.05	2.10	0.58	0.23	0.10
20	8.96	6.72	3.87	1.34	0.37	0.14	0.06
25	5.73	4.30	2.48	0.86	0.24	0.09	0.04
30	3.98	2.99	1.72	0.60	0.16	0.06	0.03
40	2.24	1.68	0.97	0.34	0.09	0.04	0.02

ILLUMINANCE for Night or Low Light Level conditions (Scotopic Footcandles)

	Zones						
	A	B	C	D	E	F	G
Mounting Height (ft)							
8	127.68	95.76	55.18	19.15	5.24	2.05	0.91
12	56.75	42.56	24.52	8.51	2.33	0.91	0.41
16	31.92	23.94	13.79	4.79	1.31	0.51	0.23
20	20.43	15.32	8.83	3.06	0.84	0.33	0.15
25	13.07	9.81	5.65	1.96	0.54	0.21	0.09
30	9.08	6.81	3.92	1.36	0.37	0.15	0.06
40	5.11	3.83	2.21	0.77	0.21	0.08	0.04



26,391 Total Lumens for Night or Low Light Level Conditions (scotopic)

11,575 Total Lumens for Day or High Light Level Conditions (photopic)

Intensity Values for Day or High Light Level Conditions (Photopic Candelas)

I0	I2	I4	I6	I8	I10	11900 photopic lumens
0	800	1600	2400	3200	4000	

Intensity Values for Night or Low Light Level Conditions (Scotopic Candelas)

I0	I2	I4	I6	I8	I10	27130 Scotopic lumens
0	1820	3650	5470	7300	9120	

*Typical Example of 100' x 100' Room (Based on 30' Mounting Height)

Number of Fixtures	Illuminance (footcandles)
9	8
16	14
20	17.5

*Ceiling Reflectance = 0.8
Wall Reflectance=0.5
Floor Reflectance=0.2
Work Plane Height = 2.5'

HB5C4M Series High Bay Fixture Light Measurement Data

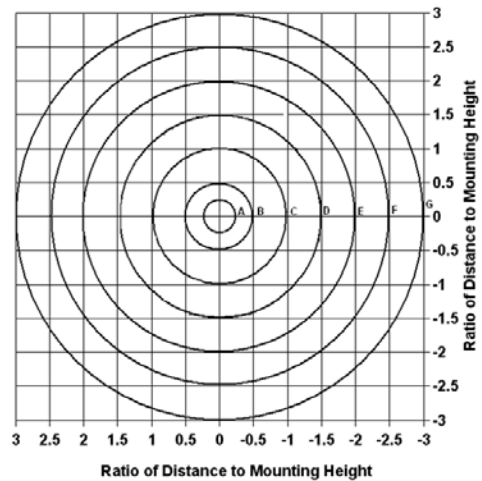
Illuminance for Day or High Light Level conditions (Photopic Footcandles)

Mounting Height (ft)	Zones						
	A	B	C	D	E	F	G
8	56.50	42.00	19.40	7.00	2.60	1.10	0.50
12	25.11	18.67	8.62	3.11	1.16	0.49	0.22
16	14.13	10.50	4.85	1.75	0.65	0.28	0.13
20	9.04	6.72	3.10	1.12	0.42	0.18	0.08
25	5.79	4.30	1.99	0.72	0.27	0.11	0.05
30	4.02	2.99	1.38	0.50	0.18	0.08	0.04
40	2.26	1.68	0.78	0.28	0.10	0.04	0.02

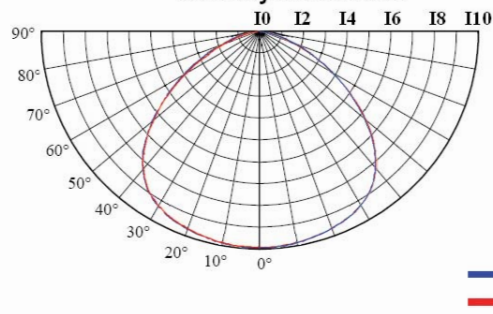
Illuminance for Night or Low Light Level conditions (Scotopic Footcandles)

Mounting Height (ft)	Zones						
	A	B	C	D	E	F	G
8	128.82	95.76	44.23	15.96	5.93	2.51	1.14
12	57.25	42.56	19.66	7.09	2.63	1.11	0.51
16	32.21	23.94	11.06	3.99	1.48	0.63	0.29
20	20.61	15.32	7.08	2.55	0.95	0.40	0.18
25	13.19	9.81	4.53	1.63	0.61	0.26	0.12
30	9.16	6.81	3.15	1.13	0.42	0.18	0.08
40	5.15	3.83	1.77	0.64	0.24	0.10	0.05

Illuminance Chart



Intensity Distribution



24,530 Total Lumens for Night or Low Light Level Conditions (scotopic)

10,759 Total Lumens for Day or High Light Level Conditions (photopic)

Intensity Values for Day or High Light Level Conditions (Photopic Candelas)

I0	I2	I4	I6	I8	I10
0	770	1530	2300	3075	3845

Intensity Values for Night or Low Light Level Conditions (Scotopic Candelas)

I0	I2	I4	I6	I8	I10
0	1750	3490	5245	7000	8760

***Typical Example of 100' x 100' Room
(Based on 30' Mounting Height)**

Number of Fixtures	Illuminance (footcandles)
9	8
16	14
20	17.5

*Ceiling Reflectance = 0.8
Wall Reflectance=0.5
Floor Reflectance=0.2
Work Plane Height = 2.5'

HB1C4J Series High Bay Fixture Light Measurement Data

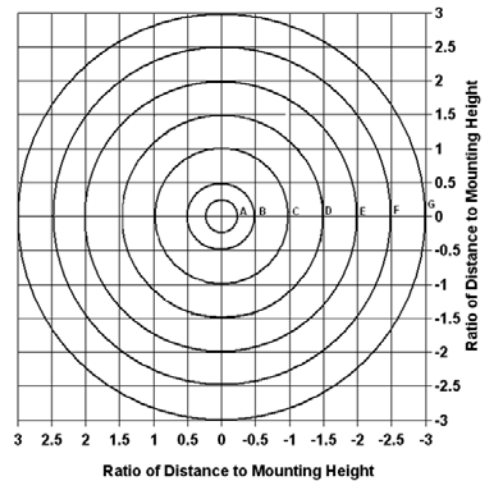
Illuminance for Day or High Ambient Light Level conditions (Photopic Footcandles)

Mounting Height (ft)	Zones						
	A	B	C	D	E	F	G
8	57.00	41.30	22.60	6.00	1.60	0.60	0.20
12	25.33	18.36	10.04	2.67	0.71	0.27	0.09
16	14.25	10.33	5.65	1.50	0.40	0.15	0.05
20	9.12	6.61	3.62	0.96	0.26	0.10	0.03
25	5.84	4.23	2.31	0.61	0.16	0.06	0.02
30	4.05	2.94	1.61	0.43	0.11	0.04	0.01
40	2.28	1.65	0.90	0.24	0.06	0.02	0.01

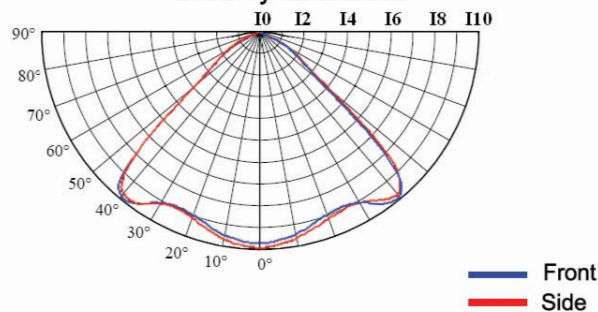
Illuminance for Night or Low Ambient Light Level conditions (Scotopic Footcandles)

Mounting Height (ft)	Zones						
	A	B	C	D	E	F	G
8	129.96	94.16	51.53	13.68	3.65	1.37	0.46
12	57.76	41.85	22.90	6.08	1.62	0.61	0.20
16	32.49	23.54	12.88	3.42	0.91	0.34	0.11
20	20.79	15.07	8.24	2.19	0.58	0.22	0.07
25	13.31	9.64	5.28	1.40	0.37	0.14	0.05
30	9.24	6.70	3.66	0.97	0.26	0.10	0.03
40	5.20	3.77	2.06	0.55	0.15	0.05	0.02

Illuminance Chart



Intensity Distribution



24,159 Total Lumens for Night or Low Light Level Conditions (scotopic)

10,596 Total Lumens for Day or High Light Level Conditions (photopic)

Intensity Values for Day or High Ambient Light Level Conditions (Photopic Candelas)

I0	I2	I4	I6	I8	I10
0	790	1580	2370	3160	3950

Intensity Values for Night or Low Ambient Light Level Conditions (Scotopic Candelas)

I0	I2	I4	I6	I8	I10
0	1800	3600	5400	7200	9000

***Typical Example of 100' x 100' Room
(Based on 30' Mounting Height)**

Number of Fixtures	Illuminance (footcandles)
9	8
16	14
25	17.5

*Ceiling Reflectance = 0.8
Wall Reflectance = 0.5
Floor Reflectance = 0.2
Work Plane Height = 2.5'

HB3C4G Series High Bay Fixture Light Measurement Data

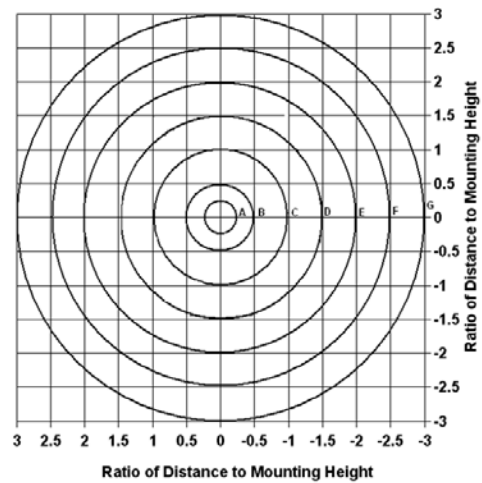
Illuminance for Day or High Ambient Light Level conditions (Photopic Footcandle Zones)

Mounting Height (ft)	A	B	C	D	E	F	G
8	38.40	28.80	15.80	4.90	1.50	0.60	0.30
12	17.07	12.80	7.02	2.18	0.67	0.27	0.13
16	9.60	7.20	3.95	1.23	0.38	0.15	0.08
20	6.14	4.61	2.53	0.78	0.24	0.10	0.05
25	3.93	2.95	1.62	0.50	0.15	0.06	0.03
30	2.73	2.05	1.12	0.35	0.11	0.04	0.02
40	1.54	1.15	0.63	0.20	0.06	0.02	0.01

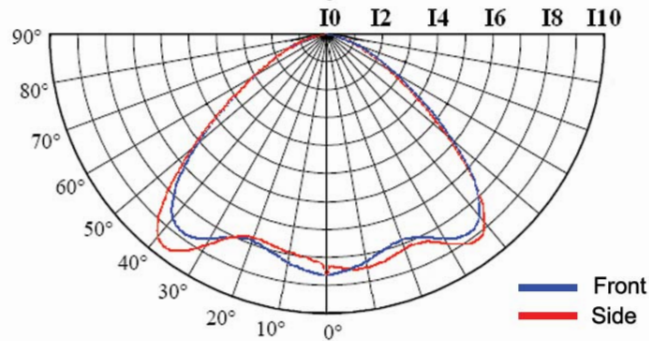
Illuminance for Night or Low Ambient Light Level conditions (Scotopic Footcandle Zones)

Mounting Height (ft)	A	B	C	D	E	F	G
8	87.55	65.66	36.02	11.17	3.42	1.37	0.68
12	38.91	29.18	16.01	4.97	1.52	0.61	0.30
16	21.89	16.42	9.01	2.79	0.86	0.34	0.17
20	14.01	10.51	5.76	1.79	0.55	0.22	0.11
25	8.97	6.72	3.69	1.14	0.35	0.14	0.07
30	6.23	4.67	2.56	0.79	0.24	0.10	0.05
40	3.50	2.63	1.44	0.45	0.14	0.05	0.03

Illuminance Chart



Intensity Distribution



17,890 Total Lumens for Night or Low Light Level Conditions (scotopic)

7,845 Total Lumens for Day or High Light Level Conditions (photopic)

Intensity Values for Day or High Light Level Conditions (Photopic Candelas)

I0	I2	I4	I6	I8	I10
0	575	1150	1725	2300	2875

Intensity Values for Night or Low Light Level Conditions (Scotopic Candelas)

I0	I2	I4	I6	I8	I10
0	1300	2620	3930	5240	6550

*Typical Example of 100' x 100' Room
(Based on 30' Mounting Height)

Number of Fixtures	Illuminance (footcandles)
9	6
16	10
25	16

*Ceiling Reflectance = 0.8
Wall Reflectance=0.5
Floor Reflectance=0.2
Work Plane Height = 2.5'

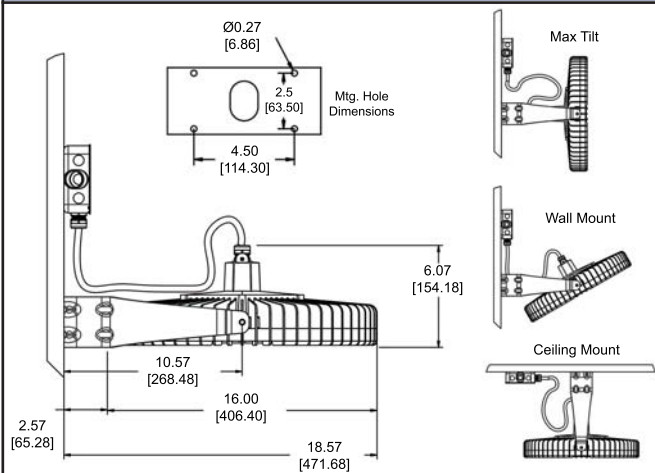
DuroSite™ High Bay Fixture Mounting Options & Accessories

	Part Number	Description	Kit Includes	UL1598	UL1598A
	No Part Number	Pendant Mount (Conduit supplied by installer)	Conduit supplied by installer	X	X
	HBXW2	Swivel Bracket and Cable Gland	Swivel Bracket Bracket to fixture hardware Cable Gland	X	X
	HBXCU	Ceiling Mount	Swivel Hanger Cover 3" Conduit Nipple	X	
	HBXCG	Cable Gland	Cable Gland	X	X
	HBXLP-*	Loop and Plug	Hanger Loop 277/480 Twist Lock Plug	X	
	HBXHP-*	Hook and Plug	Hanger Hook 277/480 Twist Lock Plug	X	
	HBXB1	Power Box Pendant Mount 277VAC	Pendant mount 277VAC	X	
	HBXB3	Power Box Pendant Mount 480VAC	Pendant mount 480VAC	X	
	HBXB2	Power Box Ceiling Mount 277VAC	Ceiling mount 277VAC	X	
	HBXB4	Power Box Ceiling Mount 480VAC	Ceiling mount 480VAC	X	
	HBXT2	Junction Box with Transformer 347-480VAC to 240VAC	NEMA Box with Integrated Transformer	X	X

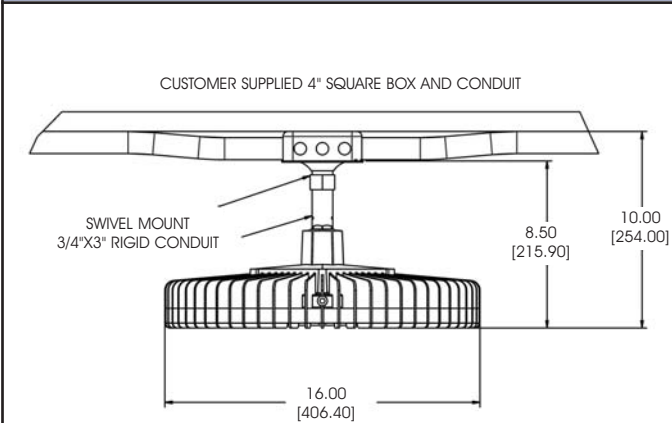
*Specify voltage and current draw at time of PO.

HB Series High Bay Fixture Mounting Options & Accessories

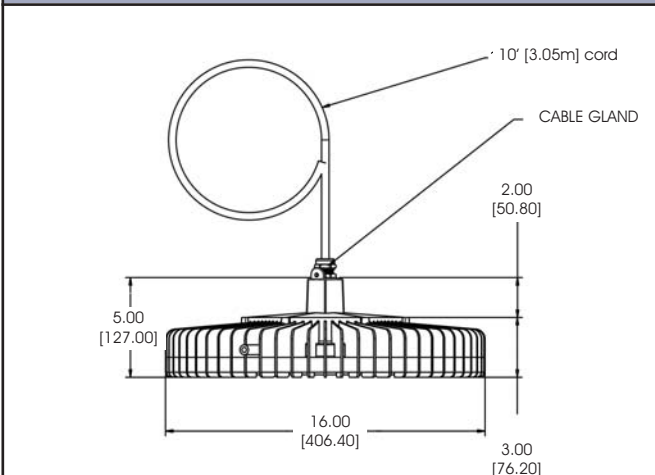
HBXW2 - Swivel Bracket and Cable Gland



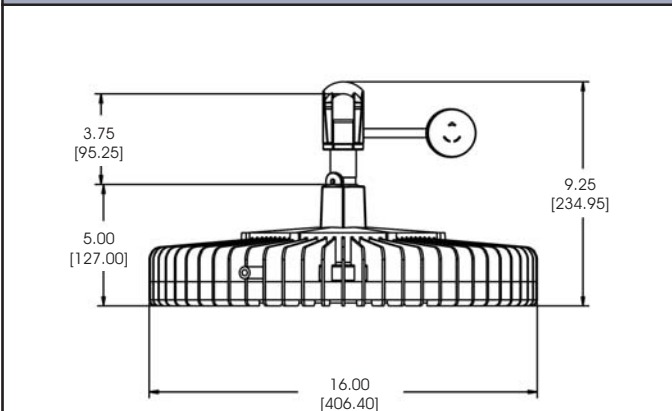
HBXCU - Ceiling Mount



HBXCG - Cable Gland



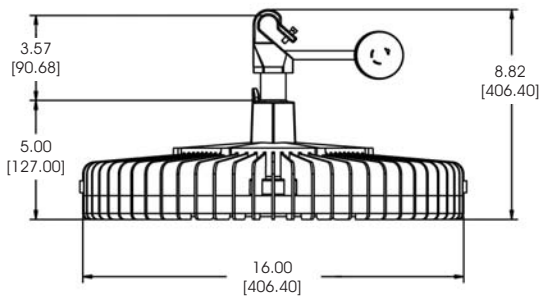
HBXLP-* - Loop and Plug



*Specify voltage and current draw at time of PO.

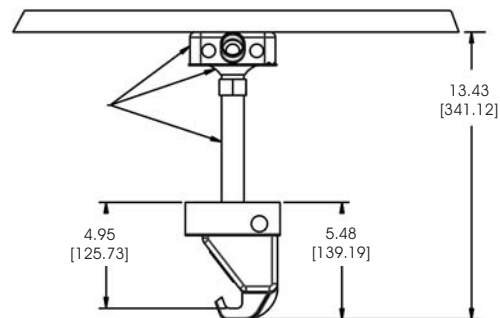
HB Series High Bay Fixture Mounting Options & Accessories

HBXHP-* - Hook and Plug

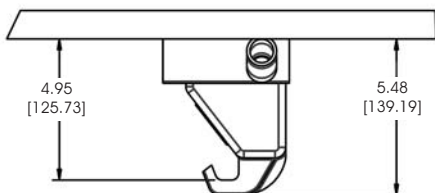


*Specify voltage and current draw at time of PO.

HBXB1 & HBXB3 - Power Box Pendant Mount



HBXB2 & HBXB4 - Power Box Ceiling Mount



The most current version of this document will always be available at:
www.dialight.com/Assets/Brochures_And_Catalogs/Illumination/MDEXHBX001.pdf