Dialight



Dialight DC Crane Vigilant® LED High Bay

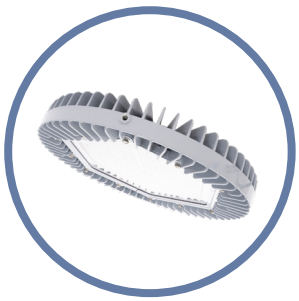
Technical Specification Sheet - Americas

NOVEMBER 2024

DC Crane Vigilant® LED High Bay - UL / CSA

Technical Information

Corded Model



Mechanical Information:

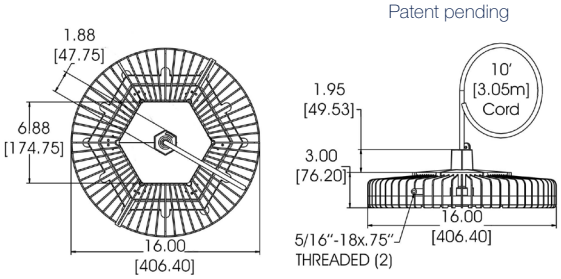
Fixture weight:
18 lbs (8.16kg)

Shipping weight:
24 lbs (10.8kg)

Mounting:
3/4" NPT - top
Various Kits

Power Cord:
10' 18 AWG STOOW / SOOW

Patent pending



Integrated Wiring Box Model



Mechanical Information:

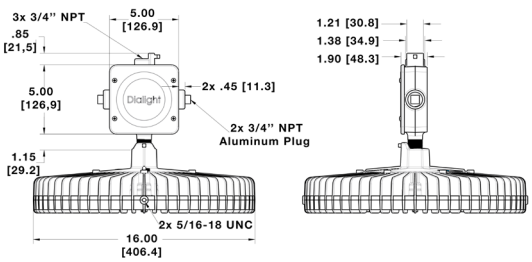
Fixture weight:
20 lbs (9 kg)

Shipping weight:
26 lbs (12 kg)

Mounting:
3/4" NPT or Hook

Wiring Box Cable Entries:
(2x) 3/4" NPT





Dimensions in inches (mm)

Certifications & Ratings:

10 year warranty

UL 1598/A	CSA C22.2 No. 250.0-08
UL 8750	NEMA 4X
IP66/67	L70 rated for >150,000 hours

Variable Dimming:

Variable Dimming Control: 0-10 VDC

Dimming Range: 10 VDC = 100% light output
0 VDC = <10% light output

Electrical Specifications:

Operating Voltage: 250-480 VDC
Tested to 745 VDC at 3rd party lab
Short term swell capacity up to 778 VDC

Total system power consumption: See table

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

Harmonics: IEC 61000-3-2 Class C

Noise requirement /EMC: FCC Title 47, Subpart B, Section 15, class A device. RF Immunity; 10V/m, 80MHz-1GHz

Transient protection: 250-480 VDC models tested to withstand up to 6kV/3kA per IEEE C62.41

THD: <20%

Power Factor: >0.9

Fusing: Internal

Power Supply:

ALT: (accelerated life testing) Over 15 yr equivalent at 24/7 service

MTBF: (mean time between failures) Over 300 years with annual failure rate less than 0.3% expected

Driver: Fully potted and sealed for superior protection

Construction:

Housing: Copper free aluminum

Finish: Superior dual coat finish
Sealed polyester topcoat
Chemical-resistant epoxy primer

Lens: See table

Vibration: Up to 5G @ 10-150Hz for 750,000 cycles, per IEC 60068-2-6 for luminaire only

Shock: 50G half-sine for 3 cycles, per IEC 60068-2-27 for luminaire only

Photometric Information:

CRI: 80, 70

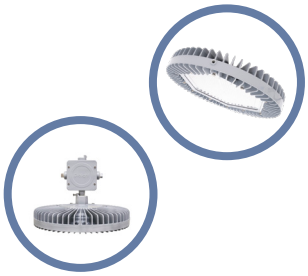
CCT: 5000K (cool white)
4000K (neutral white)

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

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DC Crane Vigilant® LED High Bay - UL / CSA

Ordering Information



Project Information		
Part Number:		
Project:		
Fixture Type:		Date:

Specifications

Ordering Information

V	-		-	U	-		-		-		-	Y	-		-		-		-		-	N	-	G	-	N
Product Code		Junction Box		Cert.		Lens Material		Beam Dist.		CCT & CRI		Oper. Voltage		Lumen Type		Controls		Mounting Options		Power Cable		Elect. Access.		Coatings		No Option

Product Code

V	Vigilant® Ultra-Efficient

Junction Box

C	Wiring Box
E	No Junction Box

Certification

U	UL 1598/A, CSA

Lens Material

4	Polycarbonate - Clear
7	Tempered Glass - Clear
L	Polycarbonate Dome - Diffused

Beam Distribution

E	Aisle
M	Medium
N	Narrow
R	High Efficacy Round

CCT & CRI

B	Cool White 5000K - 70 CRI
C	Cool White 5000K - 80 CRI
L	Neutral White 4000K - 70 CRI
N	Neutral White 4000K - 80 CRI

Operating Voltage

Y	250-480 VDC[3]

Lumen Type[1]

A	12,100 Lumens
B	15,000 Lumens
C	19,100 Lumens
E	26,300 Lumens
F	30,900 Lumens
H	35,700 Lumens
J	41,300 Lumens[3]

Controls

D	Continuous Dimming
J	IntelliLED Wireless
N	No Option
Q	Microwave Occupancy Sensor 40'[2]

Mounting Options

H	Hook
N	3/4" NPT
P	Secondary Retention Bracket

Power Cable

N	No Cord (Wiring Box only)
W	10' [3 meter] Power Cable

Electrical Accessories*

N	No Plug

*Cord & plug options available upon request

Coatings

G	Gray (RAL 7040)

Option

N	No Option

Notes

1) Lumen type based on using a glass lens, round optic, 70 CRI. See page 14 for output of other options.

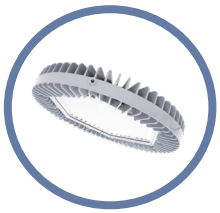
2) Occupancy Sensor models are dry locations only and are IP6X rated with a -20°C to +65°C ambient temperature range.

3) When ordering Operating Voltage = (Y) and Lumen Type = (J), maximum ambient temperature is +55°C (131°F).

DISCLAIMER. All product information provided is, to the best of Dialight's knowledge, accurate as of the date of publication. When ordering, refer to *www.dialight.com* for current versions of: (a) relevant product documentation (including the relevant product data sheets); (b) Dialight terms and conditions of sale; and, (c) the relevant product warranty. To the extent that any contract is deemed formed between Dialight and the purchaser of Dialight products and/or an end-user, versions of documents available at *www.dialight.com* as at the date of sale shall be the versions incorporated therein. In the event of any discrepancy between this document or information provided at *www.dialight.com*, the latter shall prevail.

DC Crane Vigilant® LED High Bay - UL / CSA

Ordering Information - Corded Model



Corded Model - 3/4” Conduit - 250-480 VDC								
Part Number	Lumens	Wattage	lm/W	CCT, CRI	Lens	Beam Distribution	Hardware Options	Wiring
VEU-7MCY-CNNW-NGN	17,300	100	173	CW, 80CRI	Glass	Medium	Pendant 3/4" NPT	10' Power Cable
VEU-7MCY-ENNW-NGN	23,800	140	170	CW, 80CRI	Glass	Medium	Pendant 3/4" NPT	10' Power Cable
VEU-7MCY-FNNW-NGN	28,000	165	170	CW, 80CRI	Glass	Medium	Pendant 3/4" NPT	10' Power Cable
VEU-7MCY-HNNW-NGN	32,300	195	166	CW, 80CRI	Glass	Medium	Pendant 3/4" NPT	10' Power Cable
VEU-7MCY-JNNW-NGN	37,400	230	163	CW, 80CRI	Glass	Medium	Pendant 3/4" NPT	10' Power Cable

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

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Accessories



HBXW3-SSL-316
HBXW3-SSL-304
- Stainless steel bracket



HBXCAB48
- 48” long stainless steel safety rope (for use with safety bracket)
- 2 pieces per kit



HBXCG
- Cable gland



HBXDC
- 21° slope dust cover

HBXDC45
- 45° slope dust cover

HBXDC60
- 60° slope dust cover



LBXLENP
- Polycarbonate dome lens replacement



HBXSB
- Stainless Steel (4x)

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Lumen Tables - High Bay

DC Crane Vigilant LED High Bay 250-480 VDC					
Output	Wattage	Optic	Lens Material	70 CRI, 5000K / 4000K CCT	
				Lumen Output	lm/W
J	230	High Efficacy Round	Glass	41,300	180
H	195			35,700	183
F	165			30,900	187
E	140			26,300	188
C	96			19,100	200
B	80			15,000	188
A	65			12,100	186

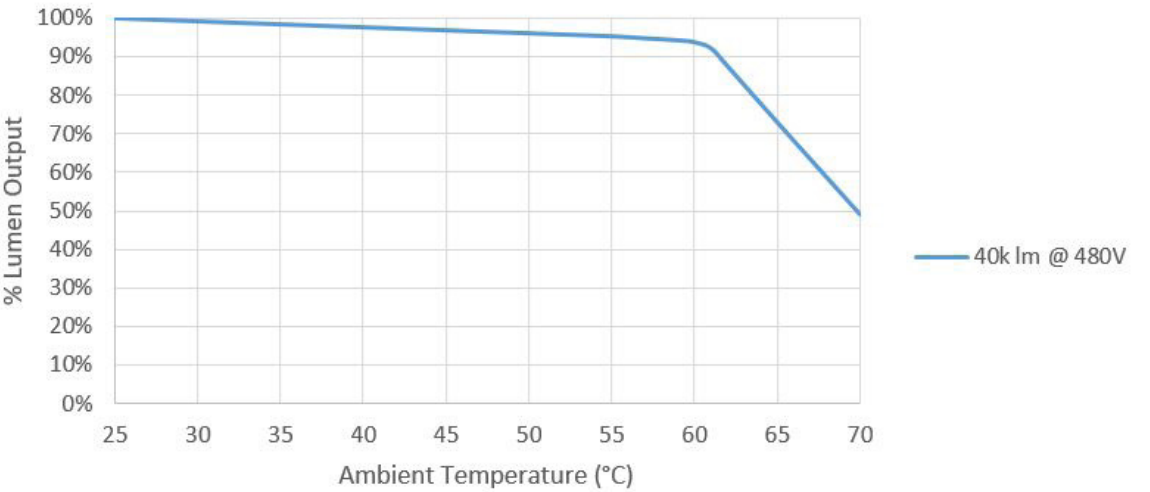
Variable	Type	Scale Factor
Lens	Glass - Clear	100%
	Acrylic - Clear	100%
	Polycarbonate - Clear	99%
	Polycarbonate - Dome Diffused	98%
Optic	Round	100%
	Narrow	97%
	Medium	95%
	Aisle	92%
CCT & CRI	CW 70 CRI	100%
	NW 70 CRI	100%
	CW 80 CRI	96%
	NW 80 CRI	96%

Lumen Maintenance Factor

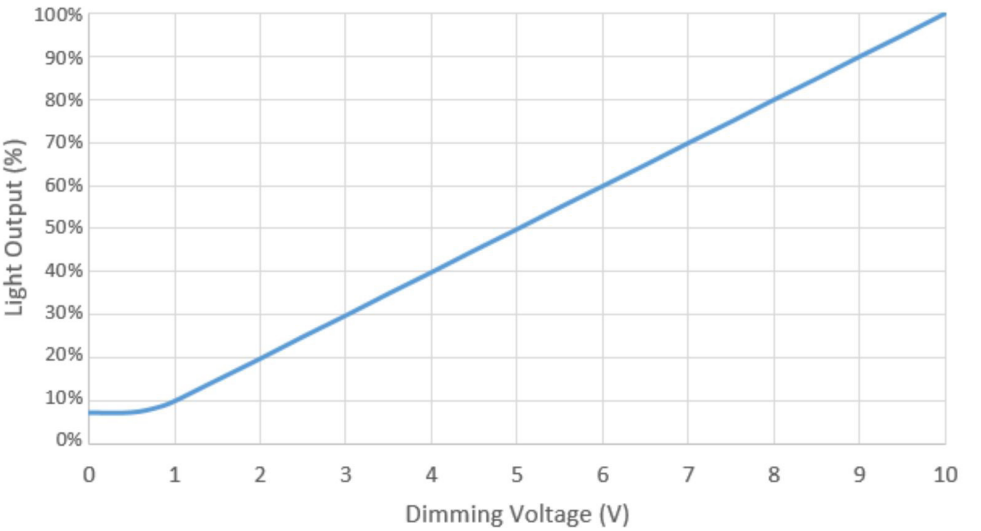
% Lumen Output (40k lm @ 480V)									
Ambient Temp (°C)	Hours								
	0	15000	30000	45000	60000	75000	90000	100000	150000
25	100%	96%	93%	90%	87%	84%	81%	80%	71%
30	99%	96%	92%	89%	87%	84%	80%	79%	71%
35	98%	95%	92%	89%	86%	83%	80%	79%	70%
40	98%	94%	91%	88%	85%	82%	79%	78%	70%
45	97%	93%	90%	87%	84%	81%	79%	77%	69%
50	96%	92%	89%	86%	83%	80%	78%	76%	67%
55	95%	91%	88%	85%	82%	79%	77%	75%	66%
60	94%	90%	87%	84%	81%	78%	75%	73%	65%
65	73%	70%	67%	65%	63%	60%	58%	56%	50%

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Thermal Roll-Off



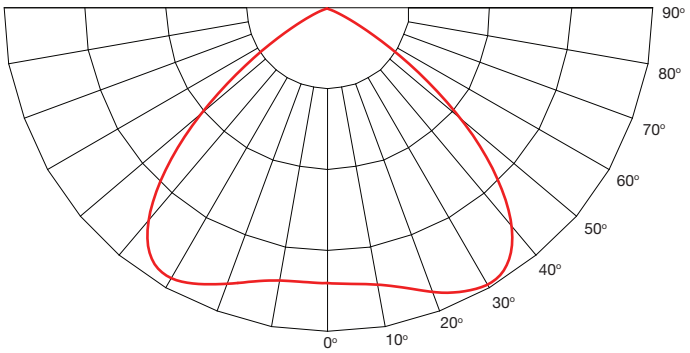
Dimming Characterization 0-10V



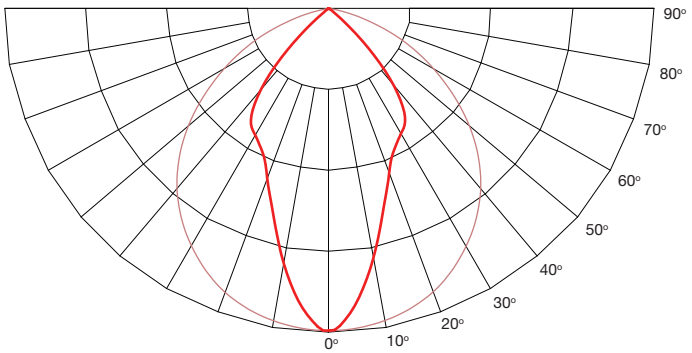
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Beam Distribution

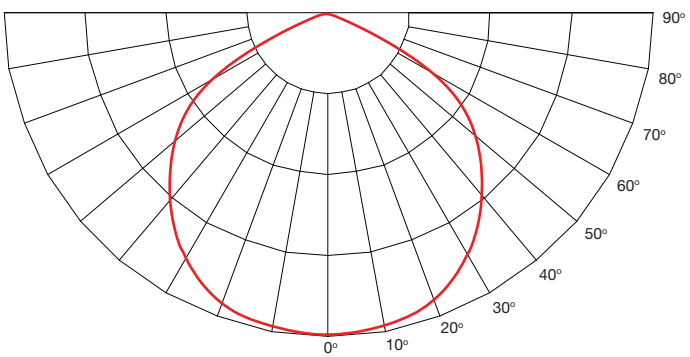
Medium



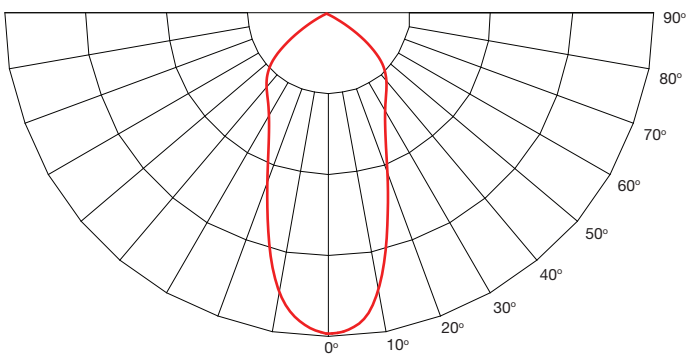
Aisle



Round



Narrow



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In-rush Current

250-480 VDC Models

Product	Output	Max Wattage	Inrush Current @ Input Voltage			Approximate Time Duration (T50) of Inrush Current		
			250 VDC	347 VDC	480 VDC	250 VDC	347 VDC	480 VDC
High Bay	11k	69	2.9	4.1	5.7	1.5	1.5	1.5
	14k	84	2.9	4.1	5.7	1.5	1.5	1.5
	18k	108	2.9	4.1	5.7	1.5	1.5	1.5
	26k	160	2.9	4.1	5.7	1.5	1.5	1.5
	30k	189	2.9	4.1	5.7	1.5	1.5	1.5
	35k	221	2.9	4.1	5.7	1.5	1.5	1.5
	40k	261	2.9	4.1	5.7	1.5	1.5	1.5

Breakers

250-480 VDC Models

Product	Output	Max Wattage	Maximum # of Lights per Breaker @ 250 VDC			Maximum # of Lights per Breaker @ 347 VDC			Maximum # of Lights per Breaker @ 480 VDC		
			C10	B16	C16	C10	B16	C16	C10	B16	C16
High Bay	11k	69	23	38	38	33	52	52	45	72	72
	14k	84	19	31	31	27	43	43	37	59	59
	18k	108	15	24	24	21	33	33	29	46	46
	26k	160	10	16	16	14	22	22	19	31	31
	30k	189	6	9	9	8	13	13	11	17	17
	35k	221	7	12	12	10	16	16	14	23	23
	40k	261	6	10	10	9	14	14	12	19	19

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