



# **Dialight DC Crane Vigilant® LED High Bay** Technical Specification Sheet - Americas

APRIL 2023



# DC Crane Vigilant<sup>®</sup> LED High Bay - UL / CSA

**Technical Information** 

#### **Corded Model**



1.88

[47.75]

6|88

[174.75]

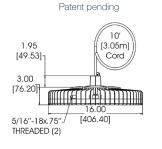
Mechanical Information: Fixture weight:

18 lbs (8.16kg) Shipping weight:

24 lbs (10.8kg) Mounting:

3/4" NPT - top Various Kits Power Cord:

10' 18 AWG STOOW / SOOW



#### Integrated Wiring Box Model

16.00

[406.40]

	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
.85	
1.15 [29.2] 2x 5/16-18 UNC 	

Dimensions in inches (mm)

16.00 [406.4]

**Certifications & Ratings:** 10 year warranty UL 1598/A

UL 8750

IP66/67

CSA C22.2 No. 250.0-08 NEMA 4X L70 rated for >150,000 hours

Variable Dimming: Variable Dimming Control: 0-10 VDC

variable Dimming Control:	0-10 VDC
Dimming Range:	10 VDC = 100% light output 0 VDC = <10% light output
Electrical Specification Operating Voltage:	s: 250-480 VDC (778 VDC short-term swell capacity)
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 rates 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:

Shock:

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

Up to 5G @ 10-150Hz for 750,000 cycles, per IEC 60068-2-6 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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rate





	Project Informat		Specifications	
Part Number:			] [	
Project:				
Fixture Type:		Date:	] [	

### **Ordering Information**

Dialight

**Ordering Information** 

V     -     -     U     -       I     I     I     I       Product     Junction     Cert.     N	-     -     -     Y       Lens     Beam     CCT & Oper.       Material     Dist.     CRI     Voltage				
Product Code	CCT & CRI	Controls	Electrical Accessories*		
V Vigilant <sup>®</sup> Ultra-Efficient	B Cool White 5000K - 70 CRI	D Continuous Dimming	N No Plug		
	C Cool White 5000K - 80 CRI	J IntelliLED Wireless	*Cord & plug options available upon request		
Junction Box	L Neutral White 4000K - 70 CRI	N No Option			
C Wiring Box	N Neutral White 4000K - 80 CRI	Q Microwave Occupancy Sensor 40' <sup>2</sup>			
E No Junction Box	Operating Voltage		Coatings		
Certification	Y 250-480 VDC <sup>3</sup>	Mounting Options	G Gray (RAL 7040)		
U UL 1598/A, CSA		H Hook			
Lens Material 4 Polycarbonate - Clear	Lumen Type <sup>1</sup>	N 3/4" NPT			
<ul><li>4 Polycarbonate - Clear</li><li>7 Tempered Glass - Clear</li></ul>	A 12,100 Lumens	P Secondary Retention Bracket			
L Polycarbonate Dome - Diffused	B 15,000 Lumens		Option		
	C 19,100 Lumens		N No Option		
Beam Distribution	E 26,300 Lumens	Power Cable			
E Aisle	F 30,900 Lumens	N No Cord (Wiring Box only)			
M Medium	H 35,700 Lumens	W 10' [3 meter] Power Cable			
N Narrow	J 41,300 Lumens <sup>3</sup>				

#### 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  $+55^{\circ}C$  (131°F).

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#### www.dialight.com

# DC Crane Vigilant® LED High Bay - UL / CSA

**Ordering Information - Corded Model** 

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Corded Model - 3/4" Conduit - 250-480 VDC										
Part Number	Lumens	Wattage	lm/W	Im/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



21° slope dust cover
HBXDC45
45° slope dust cover

60° slope dust cover

HBXDC60

**LBXLENP** • Polycarbonate dome lens replacement

- Yellow Aluminum
- Orange AluminumComes with 10
- Comes with 10
  indicator flags



HBXSB

• Stainless Steel (4x)

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# Lumen Tables - High Bay

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

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

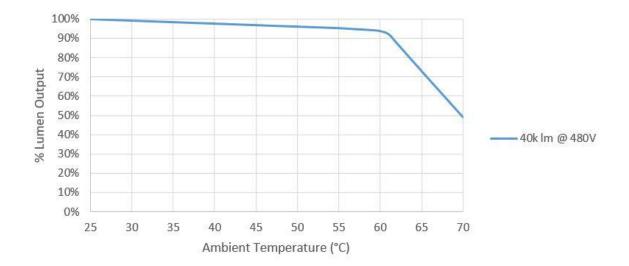
# Lumen Maintenance Factor

	% Lumen Output (40k Im @ 480V)											
Ambient Temp	Hours											
(°C)	0	15000	30000	45000	60000	75000	90000	100000	150000			
25	100%	96%	93%	90%	87%	84%	91%	80%	71%			
30	99%	96%	92%	89%	87%	84%	90%	79%	71%			
35	98%	95%	92%	89%	86%	83%	90%	79%	70%			
40	98%	94%	91%	88%	85%	82%	89%	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%			

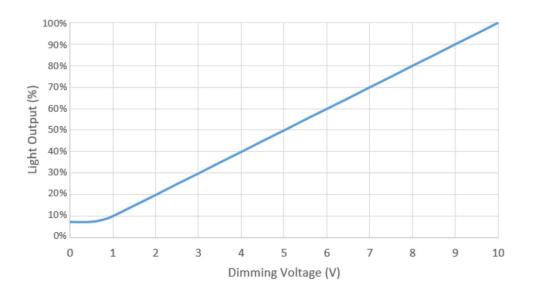
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# **Thermal Roll-Off**



## **Dimming Characterization 0-10V**

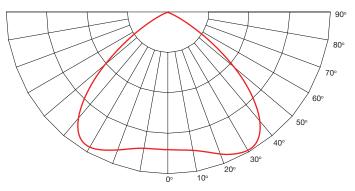


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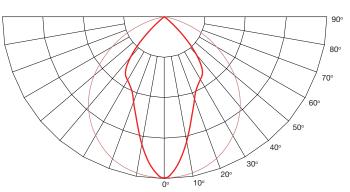


# **Beam Distribution**

### Medium

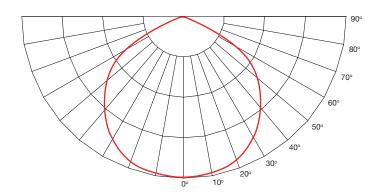


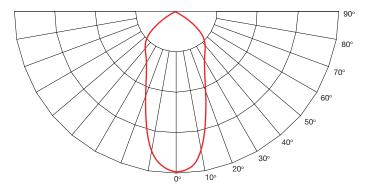
### Aisle



### Round







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# In-rush Current

### 250-480 VDC Models

Product Output	Max	Inrush C	Current @ Input	Voltage	Approximate Time Duration (T50) of Inrush Current				
	output	Wattage	250 VDC	347 VDC	480 VDC		250 VDC	347 VDC	480 VDC
	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
High Bay	High Bay 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	Maximum # of Lights per Breaker @ 250 VDC				um # of Lig ker @ 347		Maximum # of Lights per Breaker @ 480 VDC		
		Wattage	C10	B16	C16	C10	B16	C16	C10	B16	C16
	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
High Bay	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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