





Dialight® LED High Bay

Technical Specification Sheet - Americas



SafeSite® LED High Bay - UL / CSA

Class I, Div. 1 and Class I, Zone 1 - 100-277 VAC



Mechanical Information:

Fixture weight:

30 lbs (14 kg)

Shipping weight: 35 lbs (19 kg)

Mounting:

3/4" NPT - top

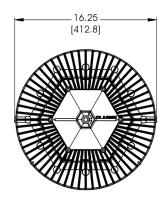
Various Kits

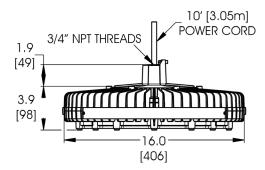
Power Cord:

10' 18 AWG STOOW

Class I, Div. 1 Groups C, D Class I, Div. 1 Groups B, C, D Class I Zone 1, Groups IIB Class I, Div. 2 Groups C, D Class II, Div. 1 Groups E, F, G Class II, Div. 2 Groups F, G

*Group B applies to HEP models only





Dimensions in inches (mm)

Temperature Ratings:

Ambient Temp Range

T4 Temp Code: -40°F to +149°F (-40°C to +65°C)

Ambient Temp Range

T5 Temp Code: -40°F to +131°F (-40°C to +50°C)

Certifications & Ratings:

10 year warranty

UL 844 (wet locations) NEMA 4X CSA 22.2 No. 137-M81 UL 8750

IP66/67 (100-277 Models) L70 rated for >150,000 hours

Variable Dimming:

Variable Dimming Control: 0-10 VDC

Dimming Range: 10 VDC = 100% light output

0 VDC = <5% light output

Electrical Specifications:

Operating voltage: 100-277 VAC, 120-250 VDC

Power consumption: See table

Operating temp: $-40^{\circ}\text{F to } +149^{\circ}\text{F } (-40^{\circ}\text{C to } +65^{\circ}\text{C})$

Harmonics: IEC 61000-3-2

Noise requirement /EMC: FCC Title 47, Subpart B, Section 15,

Class A device. RF Immunity; 10V/m,

80MHz-1GHz

Transient protection: Protection devices capable of handling

up to 6kA. Tested with 10kv/2 ohm combination wave, as per IEEE C62.41,

line-line and line-ground

THD: < 20% **Power factor:** >0.9

Cabling: STOOW 1.02mm 18 gauge AWG

Fusing: Internal

Construction:

Housing: Copper free aluminum **Finish:** Superior dual coat finish

Sealed polyester topcoat

Chemical-resistant epoxy primer

Lens: See table

Photometric Information:

CRI: 80

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

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

WARNING - INSTALLATION & SECONDARY RETENTION. Use of any Dialight products without proper installation (including secondary retention / netting) and periodic inspections could cause severe injury or death. Dialight recommends that all installations should use secondary retention / netting (appropriate to the installation environment) where applicable. It is the exclusive responsibility of the contractor, installer and/or end-user to: (a) determine the suitability of the product for its intended application; and, (b) ensure that the product is safely installed (with secondary retention / netting where appropriate) and in compliance with all applicable laws and regulations. To the extent permissible under applicable laws, Dialight disclaims all liability for personal injury and/or other damage resulting from any dislodgment or other dislocation of its products.



SafeSite® LED High Bay - UL / CSA

Class I, Div. 1 and Class I, Zone 1 - 100-277 VAC



Project I	nformation	Specif	ications	
Part Number:				
Project:				
·				
Fixture Type:	Date:			
Ordering Information				
HE - 7 -	2 -	- N - W	- N - G - N	
Product Lens	Beam CCT & Oper. Lum	en Mounting Power	Elect.	
Product Cert. Lens Code Material	Beam CCT & Oper. Lum Dist. CRI Voltage Typ		Access. Coatings No Option	
Product Code	Beam Distribution	Lumen Type	Power Cable	
HE High Bay 3/4" NPT	E Oval	A 9,500 Lumens	W 10' [3 meter] Power Cable	
	M Medium	B 12,500 Lumens		
	N Narrow	C 16,000 Lumens		
	W Wide	E 23,500 Lumens		
Certification			Electrical Accessories	
C UL 844, CID1, Class I, Zone 1	CCT & CRI		N No Plug	
M UL 844, CID1 Paint Spray	C Cool White 5000K - 80 CRI	Controls	- The ring	
P UL 844, CID1 Group B,	N Neutral White 4000K - 80 CRI	N No Option		
Class I, Zone 1				
			Coatings	
	Operating Voltage	Mounting Options	G Gray (RAL 7040)	
Long Material	2 100-277 VAC / 120-250 VDC	N Pendant 3/4" NPT		
Lens Material				
7 Glass - Clear		P Pendant 3/4" NPT with Safety Retention Tabs	Option	
			No Option	

Notes

1) Lumen type based on using a glass lens. See tables for lumens when changing lenses.



Ordering Information

SafeSite® LED High Bay Class I, Div. 1 and Class I, Zone 1 - 100-277 VAC



				Class I, Div. 1	and C	lass I, Zone	1 - 100-277 V	AC		
Part Number	Lumens	Wattage	lm/W	Certification	ССТ	Lens	Beam Distribution	Controls Option	Hardware Options	Wiring
HEC-7WC2-ENNW-NGN	23,500	186	126	CID1	CW	Glass - Clear	Wide	No controls	Pendant 3/4" NPT	10' Power Cable
HEC-7MC2-ENPW-NGN	23,500	186	126	CID1	CW	Glass - Clear	Medium	No controls	Pendant 3/4" NPT with Safety Tabs	10' Power Cable
HEM-7MC2-ENNW-NGN	23,500	186	126	Paint Spray	CW	Glass - Clear	Medium	No controls	Pendant 3/4" NPT	10' Power Cable
HEC-7MC2-CNNW-NGN	16,000	129	124	CID1	CW	Glass - Clear	Medium	No controls	Pendant 3/4" NPT	10' Power Cable
HEC-7WC2-CNVW-NGN	16,000	129	124	CID1	CW	Glass - Clear	Wide	No controls	Safety Bracket w/ SS 316 Forward Throw Bracket	10' Power Cable
HEC-7MC2-CNPW-NGN	16,000	129	124	CID1	CW	Glass - Clear	Medium	No controls	Pendant 3/4" NPT with Safety Tabs	10' Power Cable
HEC-7WC2-CNTW-NGN	16,000	129	124	CID1	CW	Glass - Clear	Wide	No controls	Safety Bracket w/ Locking Swivel Mount/Bracket SS316	10' Power Cable
HEC-7WC2-CNNW-NGN	16,000	129	124	CID1	CW	Glass - Clear	Wide	No controls	Pendant 3/4" NPT	10' Power Cable
HEC-7WC2-CNPW-NGN	16,000	129	124	CID1	CW	Glass - Clear	Wide	No controls	Pendant 3/4" NPT with Safety Tabs	10' Power Cable
HEM-7MC2-CNNW-NGN	16,000	129	124	Paint Spray	CW	Glass - Clear	Medium	No controls	Pendant 3/4" NPT	10' Power Cable
HEC-7MC2-BNNW-NGN	12,500	102	123	CID1	CW	Glass - Clear	Medium	No controls	Pendant 3/4" NPT	10' Power Cable
HEC-7WC2-BNPW-NGN	12,500	102	123	CID1	CW	Glass - Clear	Wide	No controls	Pendant 3/4" NPT with Safety Tabs	10' Power Cable
HEM-7WC2-BNNW-NGN	12,500	102	123	Paint Spray	CW	Glass - Clear	Wide	No controls	Pendant 3/4" NPT	10' Power Cable
HEC-7WC2-BNNW-NGN	12,500	102	123	CID1	CW	Glass - Clear	Wide	No controls	Pendant 3/4" NPT	10' Power Cable
HEC-7MC2-BNPW-NGN	12,500	102	123	CID1	CW	Glass - Clear	Medium	No controls	Pendant 3/4" NPT with Safety Tabs	10' Power Cable
HEM-7WN2-ANNW-NGN	9,500	80	119	Paint Spray	NW	Glass - Clear	Wide	No controls	Pendant 3/4" NPT	10' Power Cable
HEC-7MC2-ANNW-NGN	9,500	80	119	CID1	CW	Glass - Clear	Medium	No controls	Pendant 3/4" NPT	10' Power Cable
HEC-7WC2-ANNW-NGN	9,500	80	119	CID1	CW	Glass - Clear	Wide	No controls	Pendant 3/4" NPT	10' Power Cable
HEC-7MN2-ANNW-NGN	9,250	80	116	CID1	NW	Glass - Clear	Medium	No controls	Pendant 3/4" NPT	10' Power Cabl

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

0-10V dimming option available for products in the above table. Replace the ninth character $\underline{\mathbf{N}}$ with $\underline{\mathbf{D}}$. Ex: HEC-7WC2-E $\underline{\mathbf{N}}$ NW-NGN becomes HEC-7WC2-E $\underline{\mathbf{D}}$ NW-NGN.



Lumen Tables

			Vigilant High Bay	y 100-277 VAC,	120-250 VDC		
Lumen Letter	Wattage	Lens	Material	Diffused	Lumens 5000K CCT	Lumens 4000K CCT	Lumens 2700K CCT
	186	7	Glass	No	26,250	25,250	22,250
	186	Н	Glass	No	25,750	25000	21,250
	186	2	Acrylic	No	25,250	24500	21,750
E	186	4	Polycarbonate	No	25,250	24500	21,750
	186	3	Acrylic	Yes	24,750	24000	20,500
	186	5	Polycarbonate	Yes	24,750	24,000	20,500
	186	L	Polycarbonate Dome	Yes	24,500	23,750	20,250
	186	8	Glass	Yes	23,250	22500	19,125
	100	-		N.I.	10.500	10.750	45.750
	129	7	Glass	No	19,500	18,750	15,750
	129	2	Acrylic	No	18,750	18,000	15,250
	129	4	Polycarbonate	No	18,750	18,000	15,250
C	129	3	Acrylic	Yes	18,250	17,500	14,750
	129	5	Polycarbonate	Yes	18,250	17,500	14,750
	129	L	Polycarbonate Dome	Yes	18,000	17,500	14,750
	129	8	Glass	Yes	17,000	16,500	14,000
	102	7	Glass	No	14,250	13,750	11,750
	102	Н	Glass	No	14000	13,500	11,500
	102	2	Acrylic	No	13,750	13,250	11,000
	102	4	Polycarbonate	No	13,750	13,250	11,000
В	102	3	Acrylic	Yes	13,500	13,000	11,000
	102	5	Polycarbonate	Yes	13,500	13,000	11,000
	102	L	Polycarbonate Dome	Yes	13,250	12,750	10,750
	102	8	Glass	Yes	12,500	12,250	10,500
	80	7	Glass	No	11,250	11,000	9,500
	80	Н	Glass	No	11,000	10,750	9,250
	80	2	Acrylic	No	10,750	10,500	9,000
A	80	4	Polycarbonate	No	10,750	10,500	9,000
^	80	3	Acrylic	Yes	10,500	10,250	8,750
	80	5	Polycarbonate	Yes	10,500	10,250	8,750
	80	L	Polycarbonate Dome	Yes	10,250	9,950	8,500
	80	8	Glass	Yes	9,750	9,500	8,000

	SafeSite CID1 High Bay 100-277 VAC										
Lumen Letter	Wattage	Lens	Material	rial Diffused L		Lumens 4000K CCT	Lumens 2700K CCT				
E	186	7	Glass	No	23,500	22,750	20,000				
	186	8	Glass	Yes	20,750	20,250	17,250				
C	129	7	Glass	No	16,000	15,500	13,250				
	129	8	Glass	Yes	14,000	13,500	11,500				
В	102	7	Glass	No	12,500	12,250	10,500				
	102	8	Glass	Yes	11,000	10,750	9,250				
А	80	7	Glass	No	9,500	9,250	7,750				

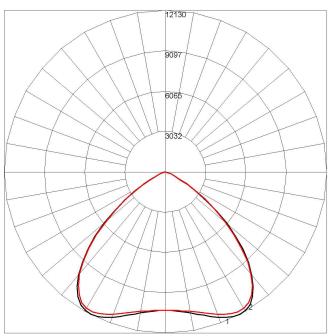
Notes

¹⁾ For models using transformers, add 12W for 480V & 29W for 347V



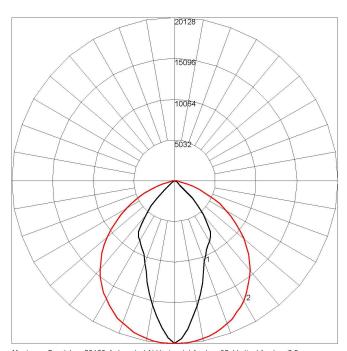
Beam Distribution

High Bay Medium



Maximum Candela = 12129.5 Located At Horizontal Angle = 0, Vertical Angle = 27.5 # 1 - Vertical Plane Through Horizontal Angles (0 - 180) # 2 - Vertical Plane Through Horizontal Angles (90 - 270)

High Bay Oval

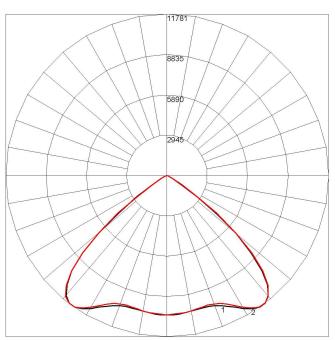


Maximum Candela = 20128.4 Located At Horizontal Angle = 85, Vertical Angle = 2.5 # 1 - Vertical Plane Through Horizontal Angles (0 - 180)

#2 - Vertical Plane Through Horizontal Angles (90 - 270)

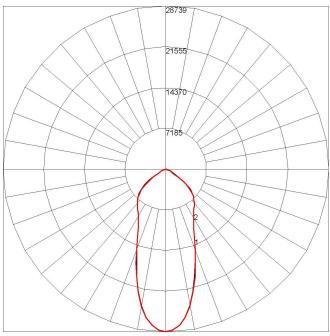
High Bay Wide





Maximum Candela = 11780.5 Located At Horizontal Angle = 90, Vertical Angle = 37.5 # 1 - Vertical Plane Through Horizontal Angles (0 - 180) # 2 - Vertical Plane Through Horizontal Angles (90 - 270)

High Bay Narrow



Maximum Candela = 28739.4 Located At Horizontal Angle = 0, Vertical Angle = 0

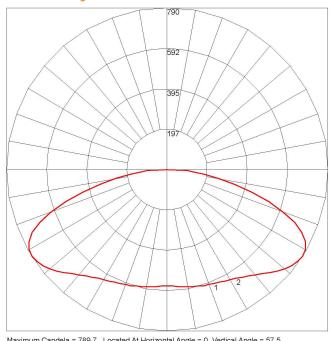
#1 - Vertical Plane Through Horizontal Angles (0 - 180)

#2 - Vertical Plane Through Horizontal Angles (90 - 270)



Beam Distribution

Low Bay Ultra Wide





Maximum Candela = 789.7 Located At Horizontal Angle = 9, Vertical Angle = 97.5 # 1 - Vertical Plane Through Horizontal Angles (97.5 + 97.

Inrush Currents

High Bay Models

LIE MA LAL	10/-44		In rush	n current @ input	voltage		Time duration of	of in rush current	@ input voltage
HE Models	vvatt	Watt	100V AC 230V AC 277V AC	120V AC	230V AC	277V AC			
26K	186		7.7A	14.8A	17.8A		2ms	2ms	2ms
18K	129		7.7A	14.8A	17.8A		2ms	2ms	2ms
14K	102		7.7A	14.8A	17.8A		2ms	2ms	2ms
11K	80		7.7A	14.8A	17.8A		2ms	2ms	2ms

Low Bay Models

			In rush	n current @ input	voltage	Time duration of	of in rush current @ input voltage		
LE Models	Watt		120V AC	230V AC	277V AC	120V AC	230V AC	277V AC	
18K	154		7.7A	14.8A	17.8A	2ms	2ms	2ms	
14K	114		7.7A	14.8A	17.8A	2ms	2ms	2ms	
9K	80		7.7A	14.8A	17.8A	2ms	2ms	2ms	
6K	56		7.7A	14.8A	17.8A	2ms	2ms	2ms	
4K	42		7.7A	14.8A	17.8A	2ms	2ms	2ms	



Inrush Currents

Passive Models

	347V			480	OV
Passive Electrical	Peak current (A)	T50 Duration (ms)		Peak current (A)	T50 Duration (ms)
26k	4	3		8	2
18k	3.5	3		6	2
14k	2	4		6	2
11k	2	4		6	2

CID1 Models

HEC/ HEM	Watt		In rush	n current @ input	voltage	Time duration of	of in rush current	@ input voltage	
HEP Models	VVatt	vvali		120V AC	230V AC	277V AC	120V AC	230V AC	277V AC
23K	186		7.7A	14.8A	17.8A	2mS	2mS	2mS	
18K	129		7.7A	14.8A	17.8A	2mS	2mS	2mS	
12K	102		7.7A	14.8A	17.8A	2mS	2mS	2mS	
9K	80		7.7A	14.8A	17.8A	2mS	2mS	2mS	

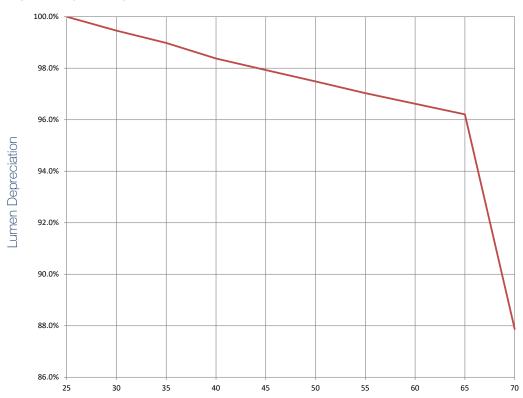
Lumen Maintenance Factor

	Vigilant High Bay (Hours)										
	Ambient	0	15000	30000	45000	60000	75000	90000	100000	150000	
	25	100%	98%	97%	96%	95%	94%	93%	92%	89%	
	30	99%	96%	95%	94%	93%	92%	91%	90%	87%	
Celsius	35	98%	95%	94%	93%	92%	91%	89%	89%	85%	
Oe	40	97%	94%	93%	92%	90%	89%	88%	87%	83%	
ent	45	96%	93%	91%	90%	89%	87%	86%	85%	80%	
Ambient	50	95%	92%	90%	88%	87%	85%	84%	83%	78%	
$ \triangleleft $	55	94%	90%	89%	87%	85%	83%	82%	81%	75%	
	60	93%	89%	87%	85%	83%	82%	80%	79%	73%	
	65	90%	85%	83%	80%	78%	76%	74%	73%	67%	

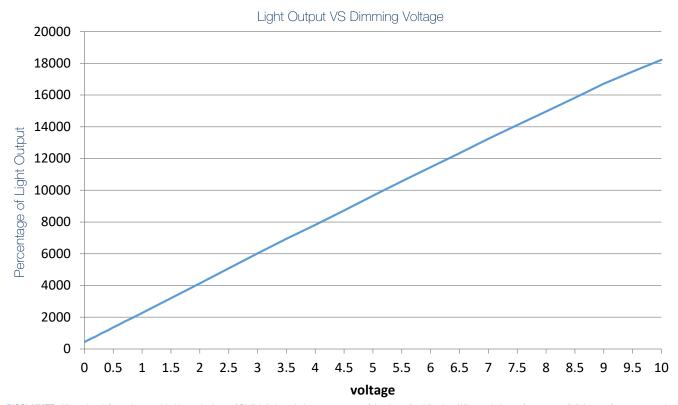
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Thermal Roll-Off



Dimming Characterization 0 - 10V





Vigilant® LED High Bay 347-480 VAC - UL / CSA



HLXW2-SS

316 stainless steel swivel bracket and cable gland

HLXW3-SS

• 316 Stainless Steel swivel bracket



HBXW3-SSL-316FT HBXW3-SSL-304FT

Stainless steel forward throw bracket



HBXHL

 Combination hook/loop



HBXCU

Ceiling / wall mount



HBXCG

Cable gland



HBXFLAG-Y HBXFLAG-O

- Yellow Aluminum
- Orange Aluminum



HBXSB316

Stainless Steel (4x)



HBXCAB48

• 48" long stainless steel safety rope (for use with safety bracket)



HBXLENGC

· Clear tempered glass

HBXLENPC

· Polycarbonate lens, clear

HBXLENAC

· Acrylic lens, clear

HBXLENPD

· Polycarbonate lens, diffused

HBXLENAD

· Acrylic lens, diffused

LBXLENP

· Polycarbonate dome lens



HBXREF16

Acrylic reflector



Н6Х-Н

 Hook option for 347/480V transformer models

SafeSite® LED High Bay - High Efficiency - UL 844



CID1 • CID2

HBXW1

- Wall mount HBXC1
- Ceiling mount



Classifications: CID2

HBXW2

· Swivel bracket and cable



HBXFLAG-Y HBXFLAG-O

- Yellow Aluminum
- Orange Aluminum



CID2

HBXCG

· Cable gland



Classifications: CID2

HBX-DUAL-BRCKT

Dual bracket



HBXSB 316

• Stainless steel (4x)



HBXCAB48

• 48" long stainless steel safety rope (for use with safety bracket)



CID1 • CID2

HBXW3-SSL-316

- · Stainless steel swivel bracket
- 316 Stainless steel

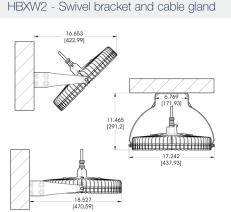
HBXW3-SSL-304

- · Stainless steel swivel bracket
- 304 Stainless steel

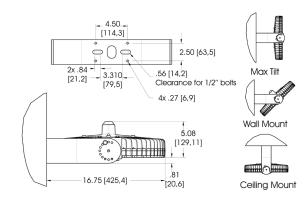


SafeSite® LED High Bay - High Efficiency - UL 844

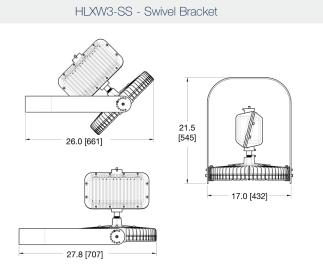
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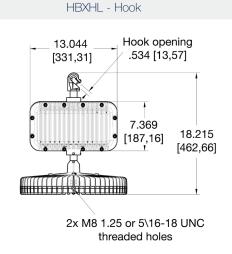


HBXW3-SSL-xxx - Stainless steel bracket



Vigilant® LED High Bay Passive Power Supply - UL / CSA







Hazardous Locations Ratings - UL

Fixed and portable fixtures for installation and use in hazardous (classified) locations Class I, Divisions 1 and 2, Groups A, B, C, and D; Class II, Division 1, Groups E, F, and G; Class II, Division 2, Groups F and G; and Class III, Divisions 1 and 2, in accordance with the National Electrical Code, NFPA 70

Classes

The classes define the general nature of hazardous material in the surrounding atmosphere.

Class	Hazardous Material in Surrounding Atmosphere
Class I	Hazardous because flammable gases or vapors are present in the air in quantities sufficient to produce explosive or ignitable mixtures
Class II	Hazardous because combustible or conductive dusts are present
Class III	Hazardous because ignitable fibers or flying's are present, but not likely to be in suspension in sufficient quantities to produce ignitable mixtures. Typical wood chips, cotton, flax and nylon. Group classifications are not applied to this class

Divisions

The division defines the probability of hazardous material being present in an ignitable concentration in the surrounding atmosphere.

Division	Presence of Hazardous Material
Division 1	The substance referred to by class is present during normal conditions
Division 2	The substance referred to by class is present only in abnormal conditions, such as a container failure or system breakdown

Groups

The group defines the hazardous material in the surrounding atmosphere.

Group	Hazardous Material in Surrounding Atmosphere
Group A	Acetylene
Group B	Hydrogen, fuel and combustible process gases containing more than 30% hydrogen by volume or gases of equivalent hazard such as butadiene, ethylene, oxide, propylene oxide and acrolein
Group C	Carbon monoxide, ether, hydrogen sulfide, morphline, cyclopropane, ethyl and ethylene or gases of equivalent hazard
Group D	Gasoline, acetone, ammonia, benzene, butane, cyclopropane, ethanol, hexane, methanol, methane, vinyl chloride, natural gas, naphtha, propane or gases of equivalent hazard
Group E	Combustible metal dusts, including aluminum, magnesium and their commercial alloys or other combustible dusts whose particle size, abrasiveness and conductivity present similar hazards in connection with electrical equipment
Group F	Carbonaceous dusts, carbon black, coal black, charcoal, coal or coke dusts that have more than 8% total entrapped volatiles or dusts that have been sesitized by other material so they present an explosion hazard
Group G	Flour dust, grain dust, flour, starch, sugar, wood, plastic and chemicals

Reference

http://www.engineeringtoolbox.com/hazardous-areas-classification-d_347.html

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brasil@dialight.com

WARNING / DISCLAIMERS:
Installation & secondary retention. The use of this product without proper installation (including secondary retention / netting) and periodic inspections, could cause severe injury or death. Dialight recommends that all installations should use secondary retention / netting (appropriate to the installation environment) as applicable. Dialight products are intended for ultimate purchase, installation and operation by knowledgeable persons trained in the functional assessment, installation, use and maintenance of such products and all customers (including but not limited to end customers) are responsible for assessing the suitability of Dialight products for any given installation requirement. It is the exclusive responsibility of the contractor, installer and/or end-user to: (a) determine the suitability of the product for its intended application; and, (b) ensure that the product is safely installed (with secondary retention / netting as appropriate) and in compliance with all applicable laws and regulations.

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