RIG-A-LITE

HAZARDOUS LOCATION & LIGHTING FUNDAMENTALS

For Complete Information, refer to the National Electric Code (NEC)

CLASSES

Division 1, Always Present

GROUPS Class I

Areas where inflammable gases or vapors may be present in sufficient quantities to produce explosive or flammable mixture.

Areas where the hazardous condition normally present either continuously or periodically.

DIVISIONS

Class II, Dust

Class I, Gases

Areas where combustible dust are present.

Class III, Fibers Areas where ignitable fibers or flyings are present in sufficient quantities to produce ignitable mixtures.

Division 2, Not Normally Present

Areas where the hazardous condition is present due to accidental rupture, breakage or unusual faulty operation of a closed container or system.

Group A - Acetylene Group B - Hydrogen Group C - Ether Group D - Gasoline Class II

Group E - Metal Dust Group F - Coal Dust Group G - Grain Dust

CLASSIFICATION OF HAZARDOUS AREAS	CLASSIF	ICATION CON	MPARISON	TEMP	ERATUR	RE MARKINGS
IEC publication 60079-10 defines the guidelines for classifying hazardous areas. Instead of using Classes and Divisions, the term Zones is used as defined	Hazardous Material	NEC U.S. Standards	IEC Standards	Maximun Operating Temperatures		Temperature (T) Code or Identification Number*
below. Zone 0 - Zone 0 is an area in which an explosive gas-air mixture is continuously		Class I, Division 1	Zone 0 & Zone 1			
present or present for long periods. (This is comparable to Class I, Division 1 areas as defined by the National Electric Code). Generally, most industrial users	Gas or			°C	°F	
try to keep all electrical equipment out of Zone 0 areas. The only equipment approved for use in Zone 0 applications is intrinsically safe equipment.	Vapor	Class I, Division 2	Zone 2	450 300	840 572	T1 T2
Zone 1 - Zone 1 is defined as an area in which an explosive gas-air moisture is likely to occur in normal operations. Zone 1 is also comparable to Class I, Division 1 applications.	Dust	Class II, Division 1	Zone 20	260 230 215	536 500 446	T2A T2B T2C T2D T3
Zone 2 - Defined as an area in which an explosive gas-air mixture is not likely to occur and if it does, it is only for a short period of time. (This is comparable to Class I, Division 2 location area as defined by the NEC.)		Class II, Division 2	Zone 21, 22		446 419 392	
Zone 20 - A place in which an explosive dust atmosphere is continually present.		Class III, Division 1	Zone 20, 21	180	356	T3A
Zone 21 - A place in which an explosive dust atmosphere is likely to occur in normal operation occasionally.	Ethana an			165 160	329 320	T3B T3C
Zone 22 - A place in which an explosive dust atmosphere is not likely to occur in normal operation, but if it does only occurs for short periods.	Fibers or Flyings			135 120	275 248	T4 T4A
Note: Class III locations (fibers and flyings) are covered in Zone 20, 21+22		Class III, Division 2	Zone 22	100	212	T5
areas.				85	185	Т6
			* Based on 40° (104°F) ambient			

LED LIGHTING PRODUCTS - FOR INFORMATION, CALL (713) 943-0340

Linear



Flood







High-/Mid-bay









Area



HAZLJ





SAFJ



XHBF



Globe and Guard



Exit and Emergency









ENCLOSURE TYPES					UL STANDARDS	
Enclosure Type	Intended	l Use	Equivalent IP Code Rating	Number	Title	
1	Indoor use, limited amounts of falling d	irt	10	781	Portable electrical lighting units	
3	Indoor or outdoor use, rain, sleet, wind of ice	blown dust, external formation	54		for use in hazardous (classified)	
3R	Indoor or outdoor use, rain, sleet, exter	nal formation of ice	14		locations	
3S	Indoor or outdoor use, rain, sleet, wind operable when ice laded	blown dust, external mechanisms	54			
4	Indoor or outdoor use, wind blown dust directed water, external formation of ice		56	844	Electrical lighting fixtures for	
4X	Indoor or outdoor use, wind blown dust directed water, corrosion, external form		56		use in hazardous (classified) locations	
5	Indoor use, settling airborne dust, fallin	g dirt, noncorrosive liquids	52			
6	Indoor or outdoor use, hose directed w external formation of ice	ater, temporary submersion,	67			
6P	Indoor or outdoor use, hose directed w external formation of ice	ater, prolonged submersion,	67	924	Emergency lighting and power	
7	Indoor use, Class I, Division 1, Groups A, B, C and D hazardous locations, air break equipment				equipment	
8	Indoor use, Class I, Division 1, Groups locations, oil-immersed equipment	A, B, C and D hazardous				
9	Indoor use, Class II, Division 1, Groups air-break equipment	E, F and G hazardous locations,				
10	Mining applications			1598*	Luminaires	
12	Indoor use, circulating dust, falling dirt, dripping noncorrosive liquids		52			
12K	Indoor use, circulating dust, falling dirt, provided with knockouts	irculating dust, falling dirt, dripping noncorrosive liquids, knockouts				
13	Indoor use, lint, dust, spraying of water	, oil and noncorrosive coolant	54	1598A**	Marine Supplement	
INGRESS PROTECTION (IP) CODES						
	First Number (Solid Objects)		Second Number (Water)			
0	No Protection	0	No Protection	1		
1	Objects Greater than 50mm	1	Vertically Dripping Water	0750	Orfoto of LED Emilion and	
2	Objects Greater than 12.5mm	2	75° to 90° Dripping Water	8750	Safety of LED Equipment	
3	Objects Greater than 2.5mm	3	Sprayed Water			
4	Objects Greater than 1mm	4	Splashed Water			
5	Dust Protected	5	Water Jets	ļ		
6	Dust Tight	6	Powerful Water Jets Effects of Immersion Indefinite Immersion	* Replaces 1570, 1571 & 1572 ** Replaces 595		

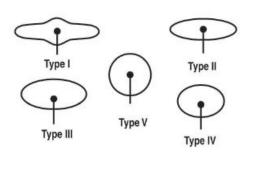
FOR TECHNICAL INFORMATION AND ASSISTANCE CALL (713) 943-0340

NEMA & ANSI/IES FLOODLIGHT BEAM DESCRIPTIONS

Asymmetrical beam floodlights may be designated by a combination of horizontal and vertical beam spreads in that order; a floodlight with a horizontal beam spread of 75 degrees (Type 5) and a vertical beam of 35 degrees (Type 3) would be designated as Type 5x3 floodlight.

Beam Spread Degrees	NEMA Type
10 up to 18	1
18 up to 29	2
29 up to 46	3
46 up to 70	4
70 up to 100	5
100 up to 130	6
130 and up	7

ANSI/IES LATERAL LIGHT DISTRIBUTIONS



AZZ LIGHTING SYSTEMS

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