



Hazardous C1D1

Explosive Environment Fixtures

Holophane® LED Hazardous C1D1 fixtures

Designed for hazardous environments, the C1D1 portfolio from Holophane is ideal for environments where explosive and flammable gas, liquids, or vapors are present in normal operating conditions. They are also known for their outstanding thermal shock and impact resistant construction.

With an extensive and versatile hazardous portfolio, the C1D1 product portfolio compliments Holophane's expansive product portfolio. The C1D1 portfolio provides a robust offering of lumen packages and distributions. With multiple mounting options per fixture, there is an option to fit every space. Options available for battery backup, visually comfortable frosted optic, and marine listing.



	HEXF	HEXF1	HEXS	HEXSEM	HETZ
Performance Packages	9000 – 18650 lumens	3000-8000 lumens	3500 – 10000 lumens	7500 – 10260 lumens	2400 – 16000 lumens
LPW	120 – 125	126 – 156	88 – 120	95 – 128	102 – 125
Ambient	-40C to 55C	-40C to 54C	-40C to 60C	-20C to 45C	-20C to 40C
Surge	10kV standard	10kV standard	10kV standard	10kV standard	10kV standard
Voltage	120-277v 347-480v	120-277v 347-480v	120-277v 347-480v	120-277v	120-277v 277-480v
T-Codes (C1D1)	T6	T6	T6	T6	T6
Mountings	5	4	5	5	4
Distributions	3	3	2	3	2
C1D1 Listing	Groups C, D	Groups B, C, D	Groups C, D	Groups C, D	Groups C, D
Weight	~34 lbs.	~12 lbs.	16 – 24 lbs.	~27 lbs.	28 – 80 lbs.

T Codes & Ignition Temperature:

Each liquid, gas, vapor and dust will have a specific ignition temperature. In order to ensure proper use of luminaires and equipment both the NEC and IEC use temperature ratings called, “T Codes.” NEC Article 500 and 505 indicate that T Code rating of luminaires shall not exceed ignition temperature of the specific gas and vapors encountered in the environment; or shall be less than the ignition temperature of dusts encountered in the environment.

T Codes & Temperature					
Division 1, Division 2			Zone 0, Zone 1, Zone 2		
T Code	Maximum Surface Temperature		T Code	Maximum Surface Temperature	
T1	450°C	842°F	T1	≤450°C	≤842°F
T2	300°C	572°F	T2	≤300°C	≤572°F
T2A	280°C	536°F			
T2B	260°C	500°F			
T2C	230°C	446°F			
T2D	215°C	419°F			
T3	200°C	392°F	T3	≤200°C	≤392°F
T3A	180°C	356°F			
T3B	165°C	329°F			
T3C	160°C	320°F			
T4	135°C	275°F	T4	≤135°C	
T4A	120°C	248°F			
T5	100°C	212°F	T5	≤100°C	≤212°F
T6	85°C	185°F	T6	≤85°C	≤185°F

The following definition is from Article 500 of the NEC Handbook:

The Ignition Temperature of a solid, liquid, or gaseous substance is the minimum temperature required to initiate or cause self-sustained combustion independent of heating or heated element. Flash Point is the temperature at which the material gives off vapors that ignite when the temperature reaches the ignition temperature, provided the air-fuel ratio is within the proper range.

Group	Atmosphere	Ignition Temperature (AIT)		Flash Point	
		C	F	C	F
A	Acetylene	305	581		
B	Acrolein	235	455		
	Butadeine	420	788	-76	-104.8
	Ethylene Oxide	429	804.2	-20	-4
	Hydrogen	520	968		
	Propylene Oxide	449	840.2	-37	-34.6
C	Propyl Nitrate	175	347	20	68
	Acetaldehyde	175	347	-38	-36.4
	Allyl Alcohol	378	712.4	22	71.6
	n-Butyraldehyde	218	424.4	-12	10.4
	Diethyl Ether	160	320	-45	-49
	Diethylamine	312	593.6	-28	-18.4
	Epichlorohydrin	411	771.8	33	91.4
	Ethylene	450	842		
	Ethylenimine	320	725	-11	12.2
	Ethyl Mercaptan	300	572	-18	-0.4
	Hydrogen Sulfide	260	500	0	32
	Acetic Acid	464	867.2	43	109.4
D	n-Butyl Acetate	421	789.8	22	71.6
	Ethane	472	881.6	-29	-20.2
	Ethanol	363	685.4	13	55.4
	Ethyl Acetate	427	800.6	-4	24.8
	Gasoline	280	536	-46	-50.8
	Methane	630	1166	-223	-369.4
	Methanol	385	725	12	53.6
	Propane	450	842	-104	-155.2
	Propylene	455	851	-108	-162.4

Environmental and Illumination Considerations

When choosing a new lighting system for long term success, it is critical to consider the following:

- Safety Requirements** – consider all the ways your lighting system needs to promote a safe environment
- Physical Limitations** – design around your space to light the correct areas well
- Maintenance Requirements** – minimize maintenance by choosing the right solution
- Light Levels** – design the right horizontal or vertical illumination to get the task done
- Uniformity** – uniform lighting enhances visibility and greater visual comfort
- Glare** – excessive glare can lead to visual discomfort and compromise both general visibility and visual contrast
- Color Rendering** – the ability of the light source to represent the true colors of an object
- Correlated Color Temperature (CCT)** – the right Kelvin temp can give you a cooler or warmer feeling space

Hazardous Low Bay & Flood

The HEXF and HEXF1 hazardous products provide high performance and reliability in a variety of low bay and flood lighting applications. They each offer high levels of visibility and uniformity without shadows and glare. These solutions meet the specific needs of many environments, from production process areas to petroleum refining facilities, solvent extraction plants and textile mills.

HEXF1

- **3 Lumen Packages**
 - 3100 – 8500
- **MVOLT & HVOLT**
 - HVOLT only on 7000 lumen
- **Mountings:**
 - Yoke (wall/flood)
 - Ceiling
 - Pendant
 - Stanchion
- **-20°C to 45°C**
- **Comes standard with: (1) ¾" NPT hub, 3ft whip w/ dimming, 10kV surge**
- **Listings:**
 - C1D1 (GRP B,C,D) = T6, C1D2 (GRP A-D), C2D1 (GRP E,F,G), C2D2 (GRP F,G), C3
 - IP66, NEMA 3 & 4x



HEXF

- **3 lumen packages**
 - 9700 – 18650 lumens
- **MVOLT & HVOLT**
- **Mountings:**
 - Wall/Flood
 - Ceiling
 - Pendant
 - Stanchion
- **-40°C TO 55°C Ambient**
- **Comes standard with: (3) ¾" NPT hubs, 3ft, 3-wire whip, 10kV surge**
- **Listings:**
 - C1D1 (GRP C,D) = T6, C1D2 (GRP A-D), C2D2 (GRP F,G), C3
 - IP66, NEMA 3 & 4x



HEXS

Hazardous Linear

The HEXS is a heavy-duty, explosion-proof linear LED fixture designed for hazardous environments where flammable gases or vapors, flammable liquids, combustible dust and/or ignitable fibers may exist. This versatile solution is suitable for wet locations and marine environments with saltwater spray. It is available in two-foot and four-foot configurations to meet the needs of your specific application.



- **2 Sizes – 2 Lumen Packages**
 - 2ft = 3500-5040 lumens
 - 4ft = 7500-10260 lumens
- **MVOLT & HVOLT**
- **Mountings:**
 - Ceiling/Wall
 - Pendant
 - Hanging
 - Pole
- **-40°C TO 60°C Ambient**
- **Comes standard with: (3) ¾" NPT hubs, 3ft, 3-wire whip, 10kV surge, yoke bracket installed**
- **Listings:**
 - C1D1 (GRP C,D) = T6, C1D2 (GRP A-D)
 - IP66, NEMA 3 & 4x



HEXSEM

Hazardous Linear with Battery Backup

The HEXSEM is a linear solution that also provides an emergency backup battery for all C1D1 hazardous environments. With directional mounting and multiple lumen options, the fixture provides ambient lighting for hazardous and wet locations, while enhancing safety and security during power outage situations. It is available in a variety of mounting configurations to suit your specific application needs.



- **Emergency battery version**
- **4ft = 7500-10260 lumens**
- **MVOLT**
- **Mountings:**
 - Ceiling/Wall
 - Pendant
 - Hanging
 - Pole
- **-20°C TO 45°C Ambient**
- **Comes standard with: (3) ¾" NPT hubs, 3ft, 3-wire whip, 10kV surge, yoke bracket installed**
- **Listings:**
 - C1D1 (GRP C,D) = T6
 - C1D2 (GRP C,D)
 - IP66, NEMA 3 & 4x



HET

Hazardous Tubular Linear

With a tubular design, the HET hazardous fixture is built to withstand the harshest environments without sacrificing performance. The HET is designed with precise optical control to maximize flexibility in application design and installation. Designed for durability, the robust materials of the HET allow operation in a wide range of ambient temperatures.



- **Emergency battery version**
- **4ft = 7500-10260 lumens**
- **MVOLT**
- **Mountings:**
 - Ceiling/Wall
- **-20°C TO 45°C Ambient**
- **Comes standard with: (3) ¾" NPT hubs, 3ft, 3-wire whip, 10kV surge, yoke bracket installed**
- **Listings:**
 - C1D1 (GRP C,D) = T6
 - C1D2 (GRP C,D)
 - IP66, NEMA 3 & 4x





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Contact your local Holophane factory sales representative for application assistance, and computer-aided design and cost studies.

Warranty Five-year limited warranty.
Full warranty terms located at
[www.acuitybrands.com/
CustomerResources/
Terms_and_conditions.aspx](http://www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx)

Visit our web site at www.holophane.com

*Product specifications may change without notice.
Please contact your local Holophane factory sales representative for the latest product information.*