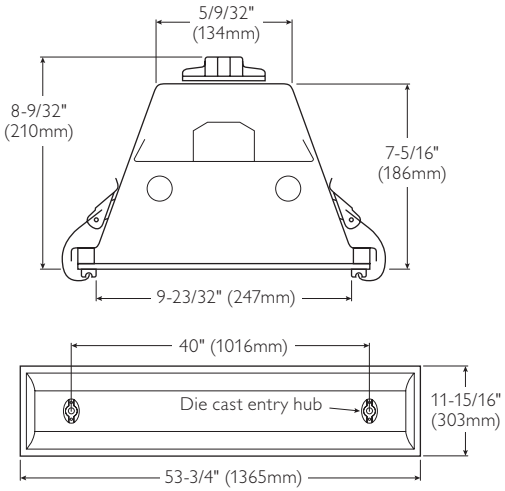
Hazardline HSCXT Series

Enclosed Industrial Fluorescent, T8



Ordering Information

Hazardline	Classification	Lamp Qty.	Lamp / Fixture Length	Voltage	Ballast Type		Options
HSC	XT		32			–	
Enclosed Industrial Fluorescent	Class I, Division 2 Class II, III	**2** = 2 Lamps **3** = 3 Lamps (No 3 lamp 48HO)	(by others) **32** = 32W T8 (Nominal 48")	**120** = 120v **277** = 277v **UNV** = 120-277v			Add appropriate suffix to catalog no.

Ballast Type	<10THD
1-2 Lamp Elec. T8 Instant Start	**HI**
1-3 Lamp Elec. T8 Instant Start	**H3**

Note: For T8 **UNV**, you must use **HI** Ballast Code.

Features

- For hazardous locations.
- Same fixture meets Class I, II, III and Wet Location requirements.
- UL-Listed Class I, Division 2, Groups A, B, C and D locations.
- UL-Listed Class II, Division 1 and 2, Groups F and G and Class III, Division 1 and 2 locations.
- UL Listed for wet locations.
- Non-corrosive cULus listed polymeric composite body suitable for 40°C ambient temperature.
- Meets UL 844 static discharge requirements.
- Meets UL 746C impact test requirements.
- Meets UL 94-5VA fire rating.
- Stainless steel door with tempered glass lens.
- Stainless spring steel toggle clamps to secure lens door frame.
- One-piece silicone rubber gasketing.

Job Information **Type:**

Job Name:

Cat. No.:

Notes:

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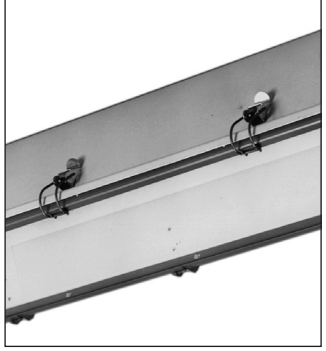
Additional Features

Removable power channel

Heavy-duty hinged door

Dust tight construction



1/2" NPT top and end die-cast aluminum suspension hubs (4 per fixture)

Specifications

Materials: Chassis is non-corrosive one-piece seamless molded composite body suitable for 40°C ambient temperatures, with 1/2" NPT (2 on top of body and 1 at each end of body) fully gasketed and fastened to body with two 1/4" #20 machine screws and lock washers within the fixture body.

Wireway: Full-length rigidly formed wireway cover with all electrical components retained to body with captive screws for easy removal and can be suspended with safety-chains for convenient handling and service.

Finish: Body–white polymeric composite with 85% minimum reflectivity.

Power Channel/Reflector–phosphate primed, baked white acrylic enamel with minimum 86% reflectivity.

Lens Frame: Stainless steel, non-corrosive, frame gasketed with silicone rubber, securely attached to frame. Hinges both sides.

Lens: 3/16" thick tempered glass.

Lens Frame Clamps: Stainless spring steel toggle clamps.

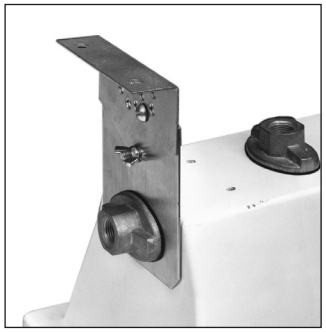
Electrical: Thermally protected class "P" ballast C.B.M. approved, non PCB. If wire entry is within 3" of ballast, use wire suitable for at least 90°.

Labels: I.B.E.W. and cULus.

This product may have a mercury containing lamp. Manage in accord with Disposal. Laws. See: www.lamprecycle.org

Options & Accessories

45° Adjustable Stainless Steel Quadrant Brackets: Two sturdy "L" type adjustable mounts with gaskets for field installation at top and side ends of fixture. Permit housing to be permanently surface mounted and adjusted up to 45° in either direction in 5° increments. Provide widespread directed illumination where tasks are not fixed. Specify Bracket Catalog Number: **NKH45**.



Job Information	Type:

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Class I, Division 2 Locations

A Class I, Division 2 location is a location: (1) in which volatile flammable liquids or flammable gases are handled, processed, or used, but in which the liquids, vapors, or gases will normally be confined within closed containers or closed systems from which they can escape only in case of accidental rupture or breakdown of such containers or systems, or in case of abnormal operation of equipment, or (2) in which concentrations of ignitable gases or vapors are normally prevented by positive mechanical ventilation, but which might become hazardous through failure or abnormal operation of the ventilating equipment; or (3) that is adjacent to a Class I, Division 1 location, and to which concentrations of ignitable gases or vapors might occasionally be communicated unless such communication is prevented by adequate positive-pressure ventilation from a source of clean air, and effective safeguards against ventilation failure are provided.

This classification usually includes locations where volatile flammable liquids or flammable gases or vapors are used, but which, in the judgment of the authority having jurisdiction, would become hazardous only in case of an accident or of some unusual operating condition, The quantity of hazardous material that might escape in case of accident, the adequacy of ventilating equipment, the total area involved, and the record of the industry or business with respect to explosions or fires are all factors that merit consideration in determining the classification and extent of each location.

Piping without valves, checks, meters, and similar devices would not ordinarily introduce a hazardous condition even though used for flammable liquids or gases. Locations used for the storage of flammable liquids or of liquefied or compressed gases in sealed containers would not normally be considered hazardous unless subject to other hazardous conditions also.

Electrical conduits and their associated enclosures separated from process fluids by a single seal or barrier shall be classed as a Division 2 location if the outside of the conduit and enclosures is an unclassified location.

Typical Class I Locations:

- Petroleum refineries, and gasoline storage and dispensing areas.
- Industrial firms that use flammable liquids in dip tanks for parts cleaning or other operations.
- Petrochemical companies that manufacture chemicals from gas and oil.
- Dry cleaning plants where vapors from cleaning fluids can be present.
- Companies that have spraying areas where they coat products with liquid paint or plastics.
- Aircraft hangers and fuel servicing areas.
- Utility gas plants and operations involving storage and handling of liquefied petroleum gas or natural gas.

Typical Class II Locations

- Grain elevators, flour and feed mills.
- Plants that have chemical or metallurgical processes, producers of plastics, medicines and fireworks, etc.
- Producers of starch or candies.
- Spice-grinding plants, sugar plants and cocoa plants.
- Coal preparation plants and other carbon-handling or processing area**s.**

Typical Class III Locations

- Textile mills, cotton gins, cotton seed mills and flax processing plants.
- Any plant that shapes, pulverizes or cuts wood and creates sawdust or flyings.

Note: fibers and flyings are not likely to be suspended in the air, but can collect around machinery or on lighting fixtures and where heat, a spark or hot metal can ignite them.

Job Information	**Type:**

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Ignitable Dust Locations

The following hazardous location definitions pertinent to HAZARDLINE are excerpted from Article 500 of the 1990 National Electrical Code.

Class II Locations

Class II locations are those that are hazardous because of the presence of combustible dust. Class II locations shall include those specified in (a) and (b) below.

(a) Class II, Division 1

A Class II, Division 1 location is a location; (1) in which combustible dust is in the air under normal operating conditions, in quantities sufficient to produce explosive or ignitable mixtures; or (2) where mechanical failure or abnormal operation of machinery or equipment might cause such explosive or ignitable mixtures to be produced, and might also provide a source of ignition through simultaneous failure of electrical equipment, operation of protection devices, or from other causes; or (3) in which combustible dusts of an electrically conductive nature may be present in hazardous quantities.

Combustible dusts which are electrically non-conductive include dusts produced in the handling and processing of grain and grain products, pulverized sugar and cocoa, dried egg and milk powders, pulverized spices, starch and pastes, potato and woodflour, oil meal from beans and seed, dried hay, and other organic materials which may produce combustible dusts when processed or handled. Electrically conductive dusts are dusts with a resistivity less than 105 ohm-centimeter.

(b) Class II, Division 2

A Class II, Division 2 location is a location where combustible dust is not normally in the air in quantities sufficient to produce explosive or ignitable mixtures, and dust accumulations are normally insufficient to interfere with the normal operation of electrical equipment or other apparatus, but combustible dust may be in suspension in the air as a result of infrequent malfunctioning of handling or processing equipment and where combustible dust accumulations on, in, or in the vicinity of the electrical equipment may be sufficient to interfere with the safe dissipation of heat from electrical equipment or may be ignitable by abnormal operation or failure of electrical equipment.

The quantity of combustible dust that may be present and the adequacy of dust removal systems are factors that merit consideration in determining the classification and may result in an unclassified area.

Where products such as seed are handled in a manner which produces low quantities of dust, the amount of dust deposited may not warrant classification.

Group F Atmospheres:

Atmospheres containing carbon black, charcoal, coal or coke dusts which have more than 8 percent total volatile material (coal and coke dusts per ADTM 3175-82) or atmospheres containing these dusts sensitized by other materials so that they present an explosion hazard, and having resistivity greater than 102 ohm-centimeter but equal to or less than 108 ohm centimeter.

Group G Atmospheres:

Atmospheres containing combustible dusts having resistivity of 108 ohm centimeter or greater.

Job Information	Type:

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Ignitable Dust Locations (continued)

Class III Locations

Class III locations are those that are hazardous because of the presence of easily ignitable fibers of flyings, but in which such fibers or flyings are not likely to be in suspension in the air in quantities sufficient to produce ignitable mixtures. Class III locations shall include those specified in (a) and (b) below.

(a) Class III, Division 1

A Class III, Division 1 location is a location in which easily ignitable fibers or materials producing combustible flyings are handled, manufactured, or used.

Such locations usually include some parts of rayon, cotton, and other textile mills; combustible fiber manufacturing and processing plants; cotton gins and cotton-seed mills; flax-processing plants, clothing manufacturing plants; woodworking plants; and establishments and industries involving similar hazardous processes or conditions.

Easily ignitable fibers and flyings include rayon, cotton (including cotton linters and cotton waste), sisal or henequen, istle, jute, hemp, tow, cocoa fiber, oakum, baled waste kapok, Spanish moss, excelsior and other materials of similar nature.

(b) Class III, Division 2

A Class III, Division 2 location is a location in which easily ignitable fibers are stored or handled.

Exception: In process of Manufacture.

CAUTION:

HAZARDLINE is not UL-listed for Group E: Atmospheres containing combustible metal dusts regardless of resistivity, or other combustible dusts of similarly hazardous characteristics having resistivity of less than 102 ohm-centimeter.

CAUTION:

HAZARDLINE Class I, Division 2 is not listed for Division 1 applications where the hazardous atmosphere is expected to be present continuously or periodically during normal operations or frequently because of repair or maintenance operations. For such locations, only appropriate UL-listed explosion-proof equipment is permitted.

Job Information	Type:

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Photometry

Model No. HSCXT232120HI

Report Number: G95008
Catalog Number: HSCXT232120HI
Lamps: (2) F032T8
Luminaire: Hazardline enclosed industrial fluorescent.
Ballast: B232I120RH
Report is based on 2850 lumens per lamp.
Efficiency: 72.7%
CIE Type: Direct - Indirect

Plane:	0-Deg.	90-Deg.
Spacing Criteria:	1.3	1.3
Plane:	0-Deg.	90-Deg.
Luminous Length:	52.080	10.080

Candela Distribution

Vertical Angle	Horizontal Angle 0	45	90	Zonal Lumens
0	1511	1511	1511	
5	1498	1505	1515	143
15	1447	1468	1489	415
25	1347	1392	1439	644
35	1199	1279	1276	786
45	1005	1068	978	794
55	763	753	767	692
65	474	504	492	488
75	178	156	100	166
85	8	9	8	15
90	0	0	0	

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixt.
0- 30	1202	21.1	29.0
0- 40	1989	34.9	48.0
0- 60	3474	61.0	83.3
0- 90	4144	72.7	100.0
90-180	0	0.0	0.0
0-180	4144	72.7	100.0

Coefficients of Utilization

Ceiling	80%			50%			30%		
Wall	70	50	30	50	30	10	50	30	10
RC / RW	Zonal Cavity Method Effective Floor Reflectance = 20%								
1	80	77	74	72	70	68	69	68	66
2	73	67	63	63	60	57	61	58	56
3	67	59	54	56	52	48	54	50	47
4	61	53	47	50	45	41	48	44	40
5	56	47	41	45	40	36	43	39	35
6	52	42	36	40	35	31	39	35	31
7	48	38	32	37	31	28	36	31	27
8	45	35	29	34	28	25	33	28	24
9	42	32	26	31	26	22	30	25	22
10	39	30	24	29	24	20	28	23	20

Room Cavity Ratio

Average Luminance data in candela / sq. meter

Angle	0°	45°	90°
45	4195.	4458.	4082.
55	3926.	3875.	3947.
65	3310.	3520.	3436.
75	2030.	1779.	1140.
85	271.	305.	271.

Thermal Performance Of HSCXT Fixtures

Catalog number	Lamps		Ambient temp. °C	"T" Numbers	Fixture Temperature
	Quantity	Type			
HSCXT232	2	T8	40	T-4A	120°C (248°F)
HSCXT332	3	T8	40	T-4A	120°C (248°F)

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HSCXT Series April 24, 2012

Job Information **Type:**