# NONMETALLIC LIGHT FIXTURES



# Sceptalight LED

**Technical Information** 



ELECTRICAL SYSTEMS

• LED Light Fixtures



www.ipexna.com

Notes:	

# Sceptalight<sup>™</sup> Nonmetallic Light Fixtures

- CSA certified to U.S. standards for wet location use CSA C22.2 no 250.0/UL 1598
- CSA certified to U.S. standards for use in hazardous locations.
  (Approved for hazardous locations only when factory-assembled with heat-treated globe and not applicable to LEDs.)
  UL 844
- LEDs approved for NEMA 4X and IP66 CSA C22.2 no 250.0/UL 1598
- LED Light Engine: CSA C22.2 no 250.1/UL 1598C

Use Sceptalight fixtures in all types of indoor or outdoor agricultural, marine and industrial applications. Typical applications include:

The fixtures are ideal for illuminating walkways, bridges, tunnels, refrigeration coolers and task areas where corrosion of metallic fixtures are a concern – like the food processing industry and car washes. They are also well suited for security, warning, deterrent, directional or general-purpose area lighting. 'Hazardous Location' ratings permit use in many industrial applications as well.

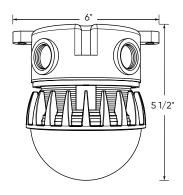
- · Agricultural facilities
- Water & Sewage treatment plants
- · Off-shore & marine

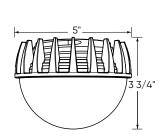
- Manufacturing facilities
- Chemical plants

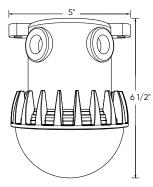
· Mining facilities

• Petrochemical processing

# Product Dimensions: Ceiling Mount







#### Wet Location Use

Wet Locations are defined as locations in which liquids may drip, splash or flow on or against electrical equipment. This can include places subject

to saturation with water and other liquids such as vehicle washing areas and unprotected locations exposed to weather.

## Hazardous Location Use

Sceptalight fixtures are listed and approved for 'Hazardous Location' use in:

Class I, Div. 2 Groups A, B, C, & D Class II, Div. 2 Groups F & G

The following information is provided as an overview of Hazardous Location environments only. Refer to the NEC for the complete requirements of Hazardous Locations.

The determination of a Hazardous Location (Class and Division) is the responsibility of the project engineer just as it is the installer's responsibility to be both knowledgeable and certified to perform work in hazardous locations. Always consult with the local electrical inspection authority regarding appropriate use and installation of products.

Hazardous Locations are areas classified according to the nature of the hazard and divided into divisions that further define the potential hazard based on conditions that exist.

Class I: In Class I locations, flammable gases or vapors are or may be present in the air in sufficient quantities that they may ignite or become explosive.

Class II: In Class II locations, it is the presence of combustible or electrically conductive dusts that pose the hazard.

Division 2: In Division 2 locations, the potential hazard is confined in containers or in a closed system and/or the area has positive ventilation that normally prevents the gases, vapors or dusts from reaching ignitable concentrations.

Explosive characteristics of gases, vapors or dusts vary with the specific material; it is therefore necessary that equipment installed within the hazardous location is identified for the specific group of gas, vapor or dust for which it is approved.

GROUP A	GROUP B	GROUP C	GROUP D	GROUP F	GROUP G
Acetylene	Hydrogen	Ethylene	Propane	Carbon Black Dust	Flour Dust
	Ethylene Oxide	Hydrogen Sulfide	Natural Gas	Coal Dust	Starch Dust
	Butadiene	Diethyl Ether	Alcohol	Coke Dust	Grain Dust
	Propylene Oxide	Acetaldehyde	Ammonia		and Other Dusts
		Cyclopropane	Benzine		of Similar
			Butane		Characteristics
			Acetone		
			Gasoline		
			Lacquer Solvent Vapors		

Tested according to IES procedures. Test distance exceeds five times the greatest luminous opening of luminaire. Dec. 8, 2004

<sup>&</sup>lt;sup>1</sup> Dowcorning.com – rubber physical and chemical properties

<sup>&</sup>lt;sup>2</sup> Dupont.com – product information Rynite® PET

#### Threaded Hub Connection

Many of the diverse threaded conduit fitting products are tapered to ensure tight connections are made. To avoid potential for stress cracking as a result of over-tightening, install the terminal adapter fitting into the hub 1/2 turn past hand-tight. Teflon® tape or Teflon® pipe dope may be used to ensure a watertight connection.

LUMEN OUTPUT	1575 LM
INPUT VOLTAGE	120 VAC
FREQUENCY	60 HZ
NOMINAL POWER	15 W
COLOR TEMPERATURE 5000 K	5000 K
POWER FACTOR	> 0.98
TOTAL HARMONIC DISTORTION	10.50%
OPERATING TEMPERATURE	-40°C to 40°C
DIMMABILITY RANGE	down to 5%
CRI	> 80

# Bonding

As stated in the NEC, metal raceways are required to meet the ground-fault current performance requirements of 250.4 (A) & (B), which states that "non-current carrying conductive materials enclosing electrical conductors or equipment, or forming part of such equipment, shall be connected together and to the electrical supply source in a manner that establishes an effective ground-fault current path".

Several methods for effective bonding are provided within section 250 of the NEC for various types of applications, such as; Bonding at the Service (250.92 (A) & (B)), Bonding Other Enclosures (250.96), Bonding in Hazardous (Classified) Locations (250.100), etc. Each of these applications requires different bonding methods to establish the necessary ground-fault current path.

The NEC indicates that for all applications and locations that the Sceptalight nonmetallic light fixtures will be used, bonding-type locknuts and bushings can be used to bond a metal raceway.

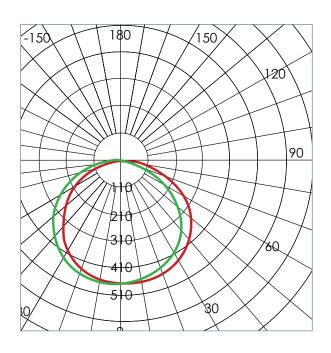
The Underwriters Laboratories General Information Directory (commonly referred to as the UL White Book) describes bonding bushings and grounding bushings as follows:

Bonding Bushing: A bonding bushing provides a means to make a reliable connection between a metal conduit and an enclosure. This means is typically one or more set screws.

Grounding Bushing: Provide a means to make a bonding connection between a conduit and enclosure, and also have some mechanism for connecting a bonding wire.

# Certified IESNA LM-79 Test Report for LLED-15/LVPE-LED/LVPF-LED

Sceptalight LED products include the LLED-15 Retrofit Light Engine and LVPE-LED and LVPF-LED light fixture models. One LLED-15 Light Engine 15W 120v frosted globe. For photometric data visit ipexna.com.



#### **CANDLEPOWER SUMMARY**

	HORIZONTAL									
	ANGLE	0	22.5	45	67.5	90				
	0	542.7	542.7	542.7	542.7	542.7				
	5	539.5	538.5	537.9	537.8	538.0				
	10	533.6	531.9	530.7	529.9	530.9				
	15	524.5	522.0	520.1	519.5	520.4				
	20	511.7	507.7	505.0	504.0	505.7				
	25	494.1	489.2	485.0	484.3	486.8				
	30	471.9	465.6	460.7	459.7	462.8				
Ä	35	445.1	437.0	431.2	430.0	434.4				
VERTICAL	40	412.6	402.5	395.5	394.1	399.5				
VE	45	372.6	360.0	351.7	350.4	355.7				
	50	323.7	310.4	301.9	300.1	305.4				
	55	272.8	259.2	250.4	248.5	254.6				
	60	222.2	207.3	198.4	196.2	202.0				
	65	170.7	157.5	149.4	147.4	152.0				
	70	124.6	114.5	108.0	106.6	110.4				
	75	87.7	81.1	76.9	76.0	77.9				
	80	62.1	58.7	56.6	56.1	56.9				
	85	46.1	44.3	43.4	43.3	43.8				
	90	35.4	34.2	34.0	34.1	34.8				

## AVERAGE LUMINANCE DATA

ANGLE	LUMINANCE
0	17955
45	11624
55	10405
65	8802
75	6423
85	5585

# ZONAL, LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0 - 40	670	39.30
0 - 60	1222	71.70
0 - 80	1573	92.40
0 - 90	1657	97.30
0 – 180	1703	100.00

# COEFFICIENTS OF UTILIZATION ZONAL CAVITY METHOD EFFECTIVE FLOOR CAVITY REFLECTANCE = .20

CC		80			70			50			30			10		0
WALL	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																
0	1.18	1.18	1.18	1.15	1.15	1.15	1.10	1.10	1.10	1.04	1.04	1.04	.00	.00	.00	.97
1	1.01	.96	.92	.99	.94	.90	.94	.90	.87	.89	.86	.84	.85	.83	.81	.78
2	.87	.80	.74	.85	.78	.73	.81	.75	.70	.77	.73	.68	.74	.70	.66	.64
3	.76	.68	.61	.74	.66	.60	.71	.64	.58	.68	.62	.57	.65	.60	.56	.53
4	.67	.58	.51	.66	.57	.50	.63	.55	.49	.60	.54	.48	.58	.52	.47	.45
5	.60	.50	.44	.59	.50	.43	.56	.48	.42	.54	.47	.42	.52	.46	.41	.39
6	.54	.44	.38	.53	.44	.38	.51	.43	.37	.49	.42	.36	.47	.41	.36	.34
7	.49	.40	.33	.48	.39	.33	.46	.38	.33	.44	.37	.32	.43	.36	.32	.30
8	.44	.36	.29	.43	.35	.29	.42	.34	.29	.40	.34	.29	.39	.33	.28	.26
9	.41	.32	.26	.40	.32	.26	.38	.31	.26	.37	.30	.26	.36	.30	.25	.24
10	.37	.29	.24	.37	.29	.24	.36	.28	.24	.34	.28	.23	.33	.27	.23	.21

Tested according to IES procedures. Test distance exceeds five times the greatest luminous opening of luminaire. Determined in accordance with current IES published procedures Luminaire input watts = 15 Laboratory result may not be representative of field performance.

Notes:		

# SALES AND CUSTOMER SERVICE

Customers call IPEX Electrical Inc. Toll free: (866) 473-9462 www.ipexna.com

#### About IPEX by Aliaxis

As leading suppliers of thermoplastic piping systems, IPEX by Aliaxis provides our customers with some of the world's largest and most comprehensive product lines. All IPEX by Aliaxis products are backed by more than 50 years of experience. With state-of-the-art manufacturing facilities and distribution centers across North America, we have earned a reputation for product innovation, quality, end-user focus and performance.

Markets served by IPEX by Aliaxis products are:

- · Electrical systems
- Telecommunications and utility piping systems
- PVC, CPVC, PP, PVDF, PE, ABS, and PEX pipe and fittings
- · Industrial process piping systems
- Municipal pressure and gravity piping systems
- · Plumbing and mechanical piping systems
- · Electrofusion systems for gas and water
- Industrial, plumbing and electrical cements
- Irrigation systems

Sceptalight™ is manufactured by IPEX Electrical Inc. Sceptalight™ is a registered trademark of IPEX Branding Inc.

This literature is published in good faith and is believed to be reliable. However it does not represent and/or warrant in any manner the information and suggestions contained in this brochure. Data presented is the result of laboratory tests and field experience.

A policy of ongoing product improvement is maintained. This may result in modifications of features and/or specifications without notice.



