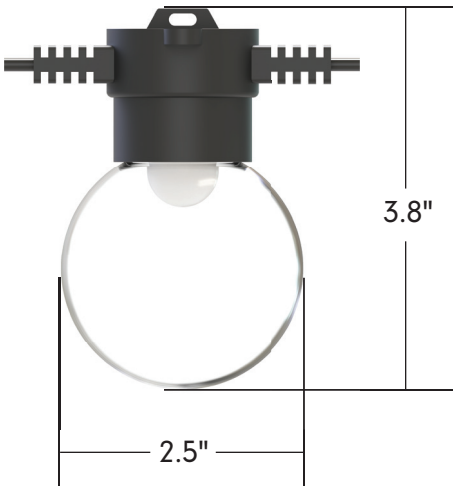
LITESPHERE2.0

Project: _____ TYPE: _____

- Tivoli's next evolution of Litesphere delivers a robust specification-grade strand with factory molded standard spacing for consistent quality from start to finish
- Shatterproof PE globe
- Litesphere 2.0 design provides optional suspended mounting or a twist-off cap for surface applications
- Available DarkSky option with added light shade
- 12V DC Low voltage system for long runs
- IP67
- cULus
- 3 Year warranty

Dimensions



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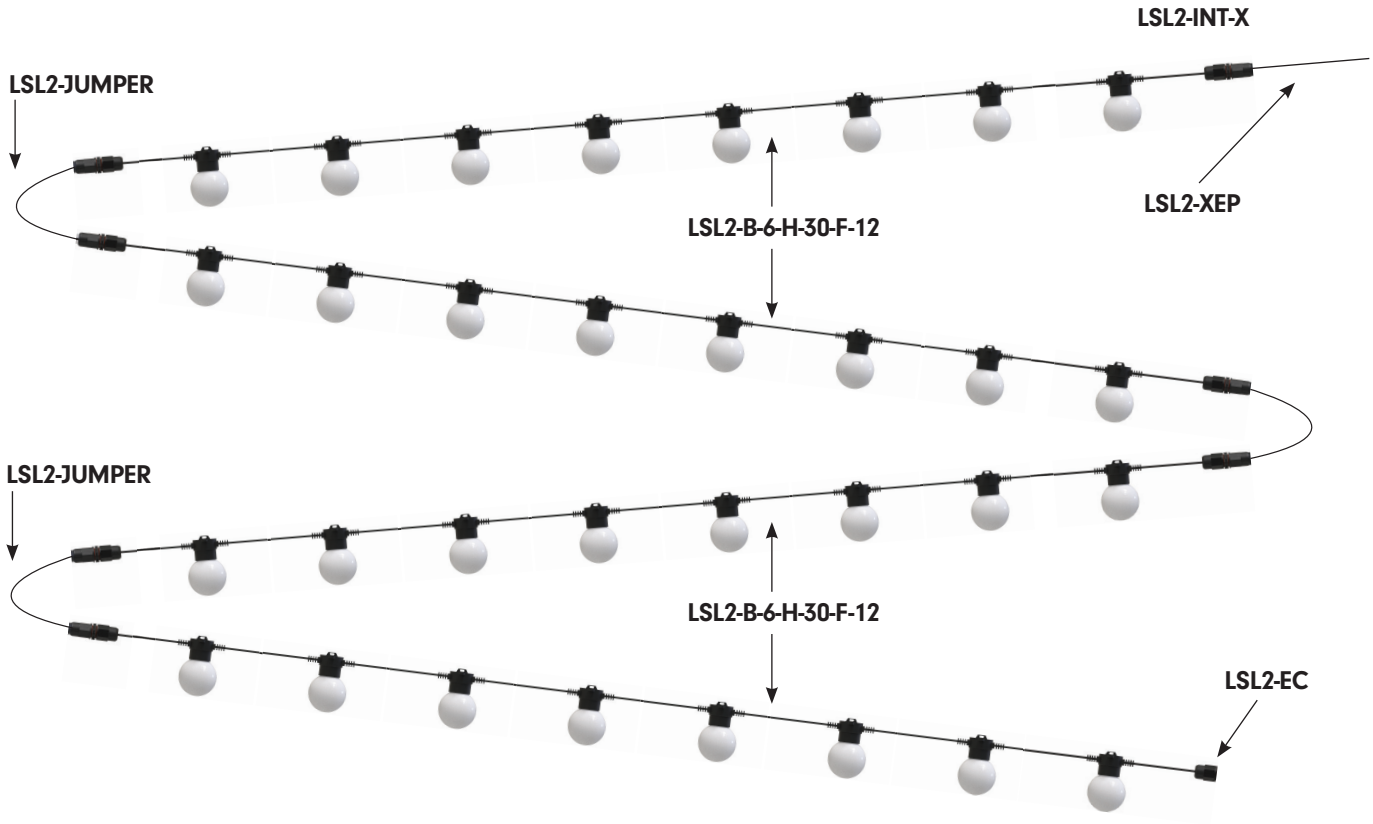
System Configuration Example



Strand Order Guide

Note: For suspension application, a catenary cable is required for proper installation. Please contact Tivoli for recommendations on unique mounting applications.

Product	Wire	Spacing	LED Type	LED Color	Globe	Voltage
LSL2						
Litesphere 2.0	**B** Black	**06** 6″ OC	**V** Very High Output	**19** 1900K	**C** Clear	**12** 12V DC
	W White	**12** 12″ OC	**H** High Output	**27** 2700K	**F** Frosted	
		18 18″ OC	**S** Standard Output	**30** 3000K	**O** Opal	
		24 24″ OC		**35** 3500K	**R** Red	
		36 36" OC		**40** 4000K	**N** Orange	
		48 48" OC		**50** 5000K*	**Y** Yellow	
				AM Amber*	**G** Green	
				RB Royal Blue*	**B** Blue	
				RD Red*	**P** Purple	
				GN Green*	**Z** Varried Colors	
				YL Yellow*		
				TS Turtle Safe*		

*Available in VHO LED only

Power Lead Order Guide

Figure A - All Litesphere 2.0 are evenly cut between globes according to specified spacing.
Figure B - Power leads are added to the end cut, extending the total length of the power lead.

LSL2-XEP-X-XX
X = **B** (Black), **W** (White)
XX = **05** (5'), **10** (10'), **15** (15'), **20** (20'), **25** (25')
For custom length consult factory

Figure A

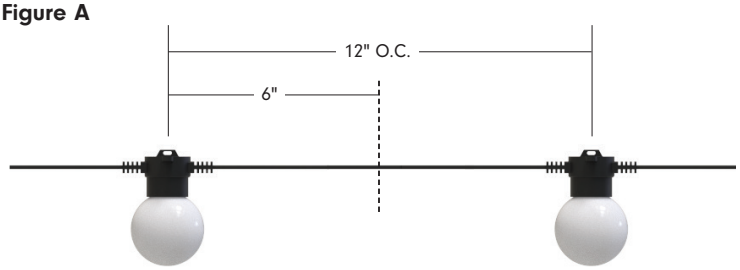
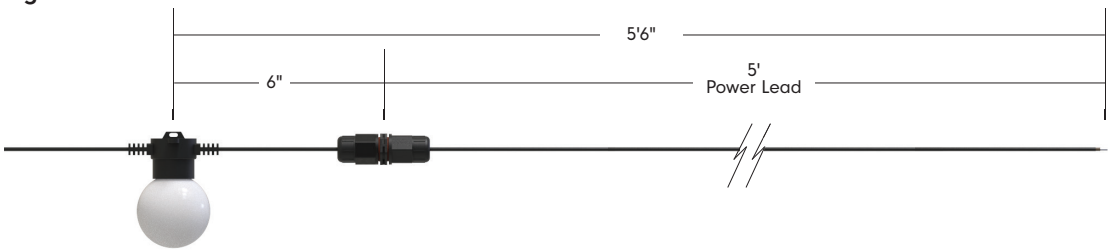


Figure B



Jumper Order Guide

LSL2-JUMPER-X-XX
X = **B** (Black), **W** (White)
XX = **05** (5'), **10** (10')
For custom length, consult factory

Figure A

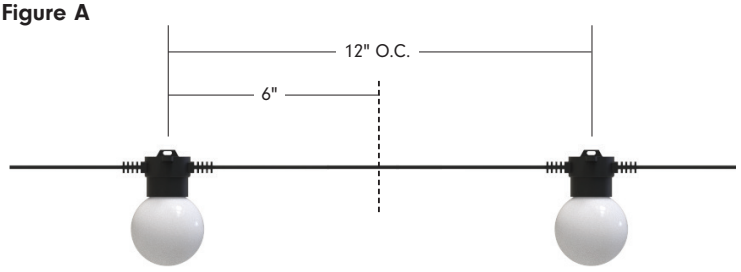
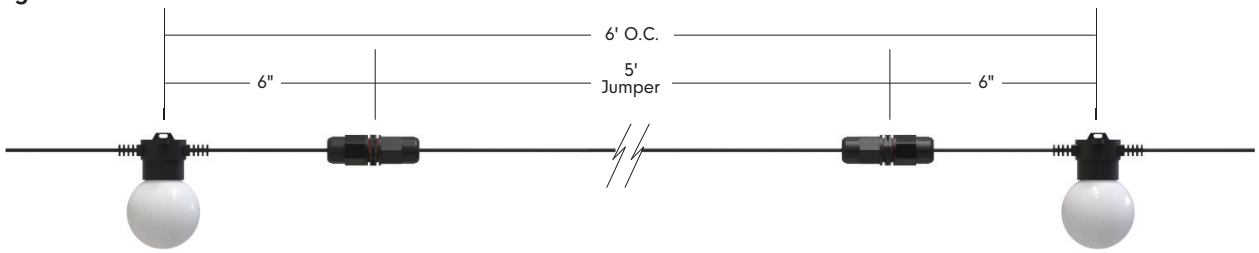


Figure B



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Specifications

Output - Standard Brightness	6"	12"	18"	24"	36"	48"
Lumens/ft	11	6	4	3	2	N/A
Watts/ft	0.17	0.09	0.06	0.04	0.03	0.02
CRI (30K Opal Globe)	84.8					
Maximun Electrical Run	130'	180'	230'	250'	275'	275'

Output - High Output	6"	12"	18"	24"	36"	48"
Lumens/ft	29.9	15	10	7	5	N/A
Watts/ft	0.46	0.23	0.15	0.12	0.08	0.05
CRI (30K Opal Globe)	83.8					
Maximun Electrical Run	80'	110'	130'	150'	175'	200'

Output - Very High Output	6"	12"	18"	24"	36"	48"
Lumens/ft	180	90.2	60	45	30	N/A
Watts/ft	1.92	0.96	0.64	0.48	0.32	0.24
CRI (30K Opal Globe)	83.9					
Maximun Electrical Run	30'	55'	70'	80'	90	100'

Output - Based on 3000K Clear Globe	
Efficacy	Standard Brightness (40), High Output (46), Very High Output (94)
Electrical	
Input Voltage	12V DC
Power Consumption (W/LED)	Standard Brightness (.09), High Output (.23), Very High Output (.96)
Control	
Control System	0-10V, ELV, MLV, DMX 512 (Dim to 1% with an Infinity power supply and a 0-10V Lutron Diva dimmer)
Physical	
Dimensions	2.5"W x 3.8"H
Socket Housing	PVC
American Wire Gauge	14 AWG
Globe	PE (Shatterproof)
Mounting	Surface Mount, Suspended
Operating Temperature	-20°C to 50°C (-4°F to 122°F)
Storage Temperature	-40°C to 65°C (-40°F to 149°F)
Certification and Testing	
Certification	cULus
Environment	Wet Location
Lumen Maintenance (L70) Hours	70,000
IP Rating	IP67
Warranty	3 Years

Weights & EPA

EPA	6"	12"	18"	24"
Standard	0.10	0.06	0.05	0.04
Hat 8"	N/A	0.53	0.37	0.28
Hat 13"	N/A	N/A	0.93	0.71
Dish 10"	N/A	0.82	0.55	0.42
Flower 10"	N/A	0.82	0.55	0.42
Flower 13"	N/A	N/A	0.93	0.71

Weights	6"	12"	18"	24"	36"	48"
lb/ft	0.33	0.28	0.24	0.20	0.17	0.13
lb/ft with catenary cable	0.35	0.30	0.26	0.22	0.19	0.15

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Mounting Options

SURFACE/FLUSH

For surface mount applications, remove the top suspension-plate by turning counter-clockwise until off. Place socket flush against the desired surface and mount using proper screws according to substrate.

SUSPENDED

Suspended mounting will use a combination of LS-Cable, LS-Locks with LS-UVZP. Tension the cable wire with our LS-TT (Tension Tool) for desired sag (Please adhere to local city code for suspended application).

Note: For suspension application, a catenary cable is required for proper installation.
Please contact Tivoli for recommendations on unique mounting applications.

Mounting Accessories

LS-CABLE-X
X = **60** (60'), **110** (110'), **500** (500')
1/8" Galvanized cable includes (2) cable locks for use with loads up to 200lbs
Note: 500' no locks included

LS-LOCK-X
X = **2** (2 pcs), **4** (4 pcs)
Includes (1) release key
Cable Lock for 1/8" cable, support loads up to 200 lbs.

LS-TT
Cable tensioning tool up to 880lbs with 6:1 gear drive with integral torque gauge controls

LS-UVZP-BK-XX
XX = **30** (30 pcs), **50** (50 pcs)
Black UV resistant, heavy duty ties maximum weight up to 100 lbs./per tie

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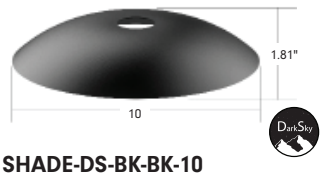
Light Shade Accessories

Hat

SHADE-HT-BK-XX-XX
XX = **BK** (black), **CO*** (copper)
XX = **8** (8.3"), **13**** (12.6")
Black top, black/copper bottom
Weight: 0.46 lb (8),1.2 lb (13)

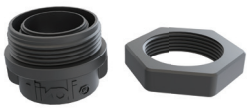
Dish



SHADE-DS-BK-BK-10
10.2"
Black top, black bottom
Weight: 0.76 lb

Flower

SHADE-FL-BK-BK-XX
XX = **10** (9.8"), **13** (13.8")
Black top, black bottom
Weight: 0.63 lb (10), 1.48 lb (13)



SHADE-ADP-LSL2-XX-XX
XX = **BK** (Black), **WH** (White)
XX = **01** (1 pc), **25** (25 pcs), **50** (pcs)
PVC shade adapters black

*Only available for 13 (Hat) **Consult factory for lead time and MOQ

Replacement Parts

LSL-XX-V-12
XX = **19, 27, 30, 35, 40, 50, AM, RD, RB, GR, YL, TS**
12V VHO Wedge Base LED
Sold each

LSL-XX-X-12
XX = **19, 27, 30, 35, 40**
X = **S** (standard), **H** (high output)
12V Wedge base

LST-XX
XX = **CG** (Clear Globe), **FG** (Frosted Globe), **OG** (Opal Globe), **OR** (Orange Globe), **YG** (Yellow Globe), **GG** (Green Globe), **BG** (Blue Globe), **PG** (Purple Globe) Shatterproof globes

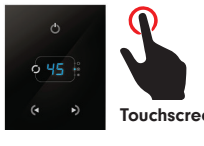
LSL2-EC-X
X = **B** (black), **W** (white)
Litesphere 2.0 End-Cap
Weight: 0.0375 lb
sold each

LSL2-INT-X
X = **B** (black), **W** (white)
Connector to join the LSL2 strand together
sold each

In-Wall Controls

TVOQ-1-WH
White

TVOQ-10-XX-7
XX = **BK** (Black), **WH** (White)



TVOQ-2-BK
Black

Photometrics

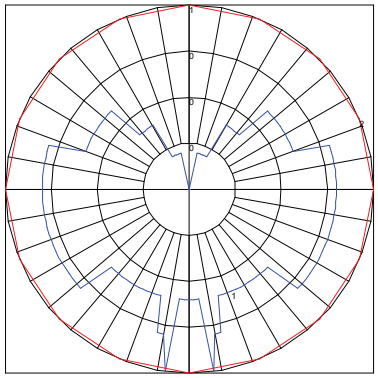
Note: Based on 3000K

Standard Brightness

Opal Globe

PHOTOMETRIC AND ELECTRICAL MEASUREMENTS - DISTRIBUTION METHOD (25°C +/- 1°C)

POLAR GRAPH AND MAXIMUM CANDELA INTENSITY		
Maximum Candela	Location - Horizontal Angle	Location - Vertical Angle
0.5	0	7.5

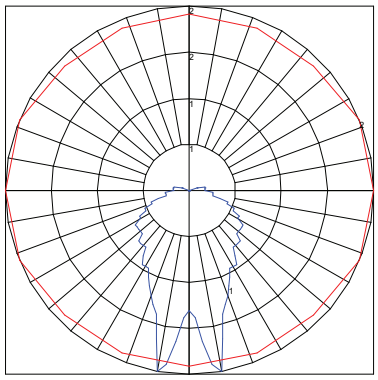


Maximum Candela = .5 Located At Horizontal Angle = 0, Vertical Angle = 7.5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (7.5) (Through Max. Cd.)

Clear Globe

PHOTOMETRIC AND ELECTRICAL MEASUREMENTS - DISTRIBUTION METHOD (25°C +/- 1°C)

POLAR GRAPH AND MAXIMUM CANDELA INTENSITY		
Maximum Candela	Location - Horizontal Angle	Location - Vertical Angle
2.3	0	10

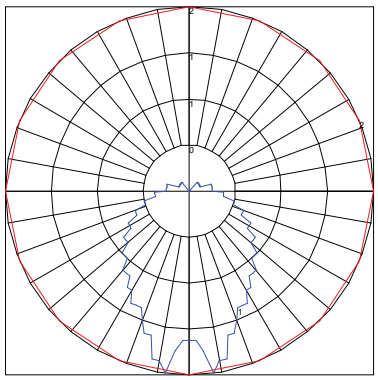


Maximum Candela = 2.3 Located At Horizontal Angle = 0, Vertical Angle = 10
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (10) (Through Max. Cd.)

Frosted Globe

PHOTOMETRIC AND ELECTRICAL MEASUREMENTS - DISTRIBUTION METHOD (25°C +/- 1°C)

POLAR GRAPH AND MAXIMUM CANDELA INTENSITY		
Maximum Candela	Location - Horizontal Angle	Location - Vertical Angle
1.6	0	7.5



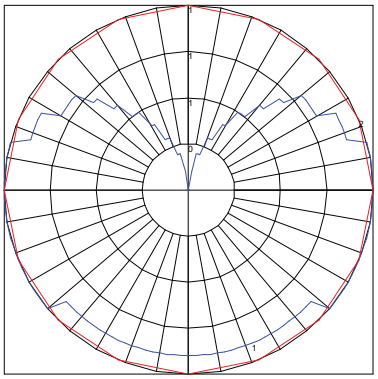
Maximum Candela = 1.6 Located At Horizontal Angle = 0, Vertical Angle = 7.5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (7.5) (Through Max. Cd.)

High Output

Opal Globe

PHOTOMETRIC AND ELECTRICAL MEASUREMENTS - DISTRIBUTION METHOD (25°C +/- 1°C)

POLAR GRAPH AND MAXIMUM CANDELA INTENSITY		
Maximum Candela	Location - Horizontal Angle	Location - Vertical Angle
1	0	50

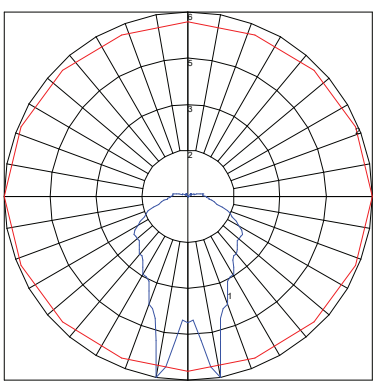


Maximum Candela = 1 Located At Horizontal Angle = 0, Vertical Angle = 50
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (50) (Through Max. Cd.)

Clear Globe

PHOTOMETRIC AND ELECTRICAL MEASUREMENTS - DISTRIBUTION METHOD (25°C +/- 1°C)

POLAR GRAPH AND MAXIMUM CANDELA INTENSITY		
Maximum Candela	Location - Horizontal Angle	Location - Vertical Angle
6.1	0	10

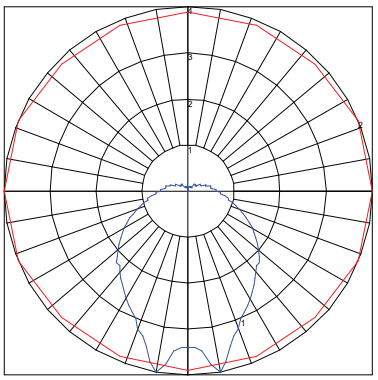


Maximum Candela = 6.1 Located At Horizontal Angle = 0, Vertical Angle = 10
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (10) (Through Max. Cd.)

Frosted Globe

PHOTOMETRIC AND ELECTRICAL MEASUREMENTS - DISTRIBUTION METHOD (25°C +/- 1°C)

POLAR GRAPH AND MAXIMUM CANDELA INTENSITY		
Maximum Candela	Location - Horizontal Angle	Location - Vertical Angle
4	0	10



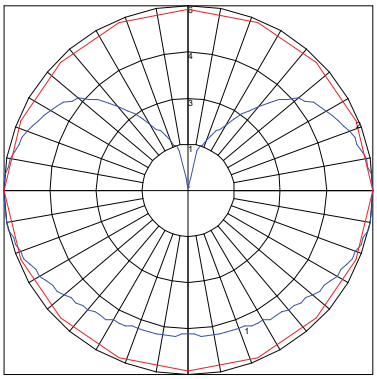
Maximum Candela = 4 Located At Horizontal Angle = 0, Vertical Angle = 10
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (10) (Through Max. Cd.)

High Output

Opal Globe

PHOTOMETRIC AND ELECTRICAL MEASUREMENTS - DISTRIBUTION METHOD (25°C +/- 1°C)

POLAR GRAPH AND MAXIMUM CANDELA INTENSITY		
Maximum Candela	Location - Horizontal Angle	Location - Vertical Angle
5.9	0	77.5

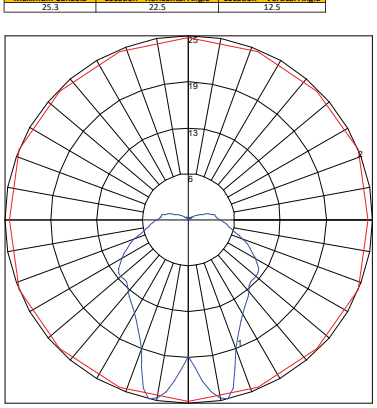


Maximum Candela = 5.9 Located At Horizontal Angle = 0, Vertical Angle = 77.5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (77.5) (Through Max. Cd.)

Clear Globe

PHOTOMETRIC AND ELECTRICAL MEASUREMENTS - DISTRIBUTION METHOD (25°C +/- 1°C)

POLAR GRAPH AND MAXIMUM CANDELA INTENSITY		
Maximum Candela	Location - Horizontal Angle	Location - Vertical Angle
25.3	22.5	12.5

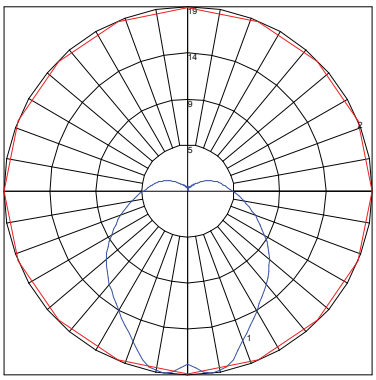


Maximum Candela = 25.3 Located At Horizontal Angle = 22.5, Vertical Angle = 12.5
1 - Vertical Plane Through Horizontal Angles (22.5 - 202.5) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (12.5) (Through Max. Cd.)

Frosted Globe

PHOTOMETRIC AND ELECTRICAL MEASUREMENTS - DISTRIBUTION METHOD (25°C +/- 1°C)

POLAR GRAPH AND MAXIMUM CANDELA INTENSITY		
Maximum Candela	Location - Horizontal Angle	Location - Vertical Angle
18.5	0	7.5



Maximum Candela = 18.5 Located At Horizontal Angle = 0, Vertical Angle = 7.5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (7.5) (Through Max. Cd.)

Power Supplies

ADNM - NON DIMMING

DESCRIPTION	CAT NO	APPLICATION	PRIMARY VOLTAGE	SECONDARY VOLTAGE	CIRCUIT BREAKERS	MAX LOAD	CIRCUIT CAPACITY
ADNM Series Class 2 Transformer	ADNM-60-1-5-12-D	Indoor / Outdoor	100-277V AC 50/60 HZ	12V DC	1	60W	5A
	ADNM-80-1-5-12-D				1	60W	5A
	ADNM-150-2-5-12-D				2	2x60W	2x5A
	ADNM-240-3-5-12-D				3	3x60W	3x5A
	ADNM-320-4-5-12-D				4	4x60W	4x5A

ADNM - 0-10V DIMMING

DESCRIPTION	CAT NO	APPLICATION	PRIMARY VOLTAGE	SECONDARY VOLTAGE	CIRCUIT BREAKERS	MAX LOAD	CIRCUIT CAPACITY
ADNM Series Class 2 Transformer	ADNM-60-1-5-12-DOT	Indoor / Outdoor	100-277V AC 50/60 HZ	12V DC	1	60W	5A
	ADNM-80-1-5-12-DOT				1	60W	5A
	ADNM-150-2-5-12-DOT				2	2x60W	2x5A
	ADNM-240-3-5-12-DOT				3	3x60W	3x5A
	ADNM-320-4-5-12-DOT				4	4x60W	4x5A

ADNM - DMX SINGLE ADDRESS

DESCRIPTION	CAT NO	APPLICATION	PRIMARY VOLTAGE	SECONDARY VOLTAGE	CIRCUIT BREAKERS	MAX LOAD	CIRCUIT CAPACITY
ADNM Series Class 2 Transformer	ADNM-60-1-5-12-DIN	Indoor / Outdoor	100-277V AC 50/60 HZ	12V DC	1	60W	5A
	ADNM-80-1-5-12-DIN				1	60W	5A
	ADNM-150-2-5-12-DIN				2	2x60W	2x5A
	ADNM-240-3-5-12-DIN				3	3x60W	3x5A
	ADNM-320-4-5-12-DIN				4	4x60W	4x5A

ADNM - DMX MULTI ADDRESS

DESCRIPTION	CAT NO	APPLICATION	PRIMARY VOLTAGE	SECONDARY VOLTAGE	CIRCUIT BREAKERS	MAX LOAD	CIRCUIT CAPACITY
ADNM Series Class 2 Transformer	ADNM-150-2-5-12-DIN-2	Indoor / Damp	100-277V AC 5o/60 Hz	12V DC	2	2x60W	5A
	ADNM-240-3-5-12-din-3				3	3x60W	3x5A

INFINITY - MLV / ELV / 0-10V / PWM / TRIAC

Dim to 1% with a 0-10V Lutron Diva dimmer (by others)

DESCRIPTION	CAT NO	APPLICATION	PRIMARY VOLTAGE	SECONDARY VOLTAGE	CIRCUIT BREAKERS	MAX LOAD	MIN LOAD	CIRCUIT CAPACITY
Infinity Series Class 2 Transformer	INF-J-30-1-2.5-12	Indoor / Outdoor	100 - 277V AC	12V DC	1	30W	3W	2.5A
	INF-J-60-1-5-12				1	60W	6W	5A
	INF-J-180-3-5-12				3	3x60W	3x6W	3x5A
	INF-J-300-5-5-12				5	5x60W	5x6W	5x5A

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