

# LITESPHERE 2.0



tivoli®



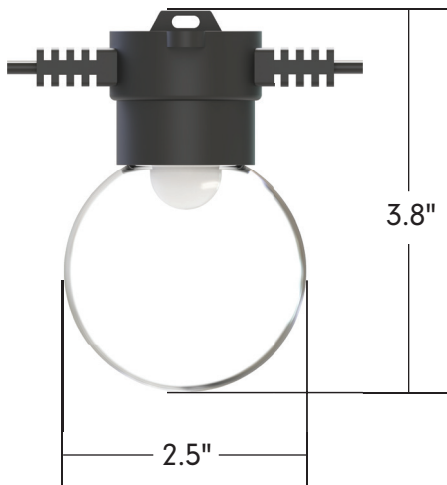
Project: \_\_\_\_\_ TYPE: \_\_\_\_\_

## Product Features

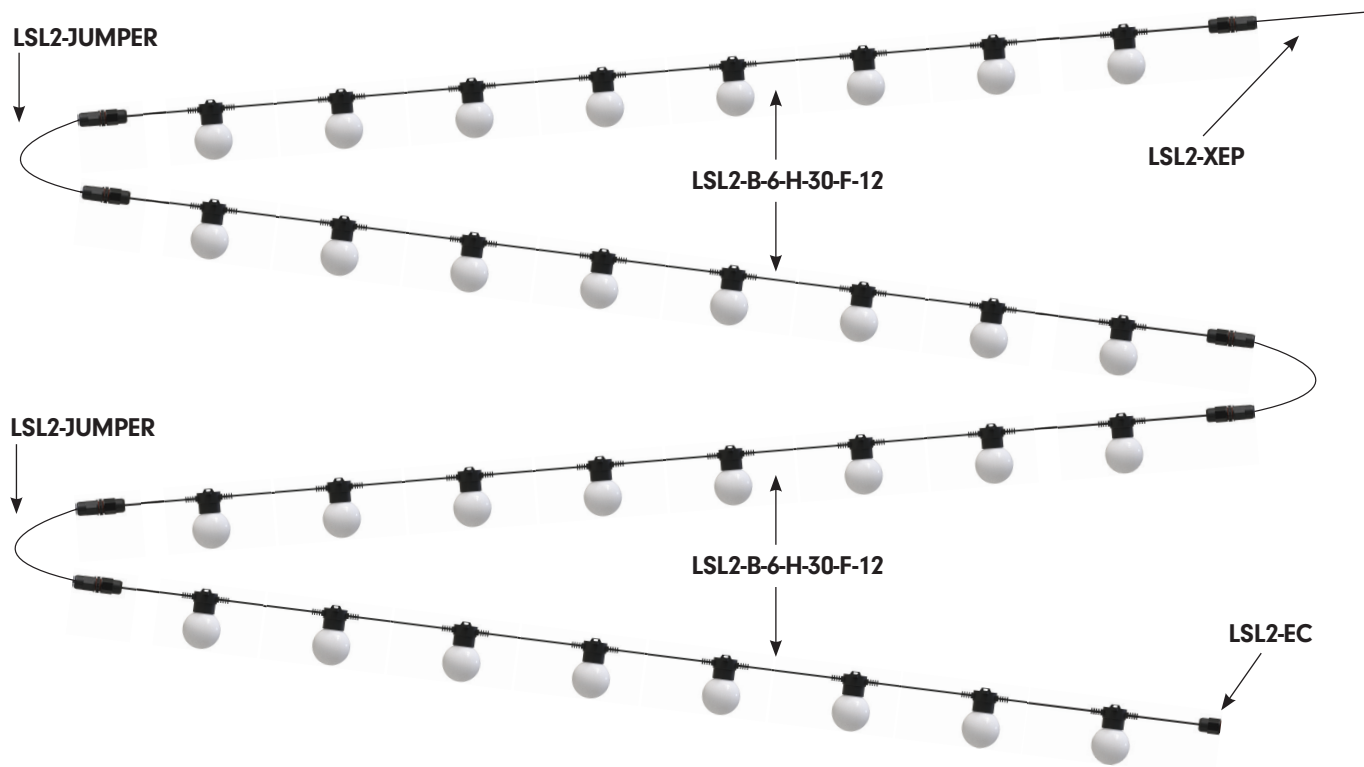
- Tivoli's next evolution of Litesphere delivers a robust specification-grade strand with factory molded standard spacing for consistent quality from start to finish
- Litesphere 2.0 design provides optional suspended mounting or a twist-off cap for surface applications
- 12V DC Low voltage system for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



## Dimensions



## 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
<b>LSL2</b> Litesphere 2.0	<b>B</b> Black <b>W</b> White	<b>06</b> 6" OC <b>12</b> 12" OC <b>18</b> 18" OC <b>24</b> 24" OC	<b>V</b> Very High Output <b>H</b> High Output <b>S</b> Standard Output	<b>19</b> 1900K <b>27</b> 2700K <b>30</b> 3000K <b>35</b> 3500K <b>40</b> 4000K <b>50</b> *5000K <b>AM</b> *Amber <b>RB</b> *Royal Blue <b>RD</b> *Red <b>GN</b> *Green <b>YL</b> *Yellow	<b>C</b> Clear <b>F</b> Frosted <b>O</b> Opal	<b>12</b> 12V DC

\*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

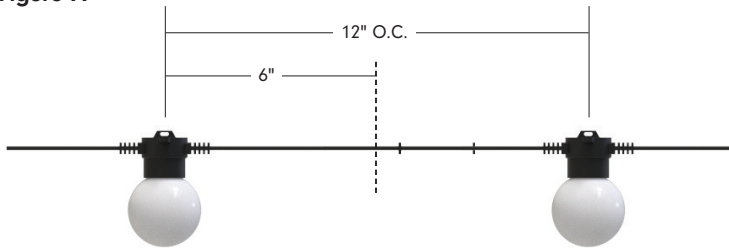
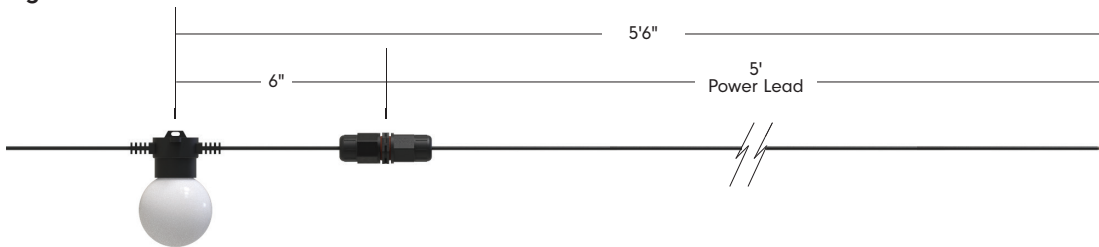


Figure B



### Jumper Order Guide

Figure A - All Litesphere 2.0 are evenly cut between globes according to specified spacing.  
 Figure B - Jumpers are added between the cuts, extending the total length of wire between globes.

**LSL2-JUMPER-X-XX**

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

Figure A

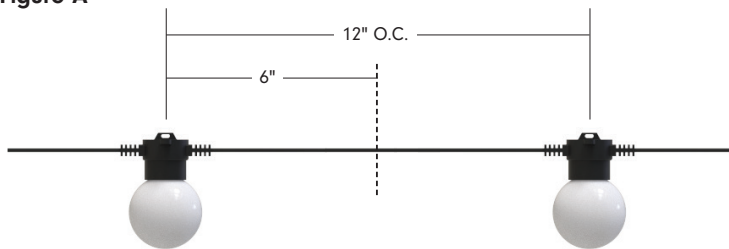
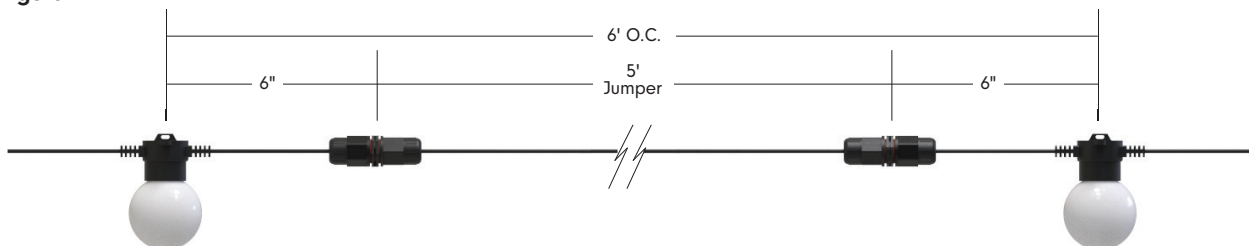


Figure B



## Specifications

### Output - Standard Brightness

On-Center Spacing	6"	12"	18"	24"
Lumens/ft	11	6	4	3
Watts/ft	.17	.09	.06	.04
Maximun Electrical Run	130'	180'	230'	250'

### Output - High Output

On-Center Spacing	6"	12"	18"	24"
Lumens/ft	29.9	15	10	7
Watts/ft	.46	.23	.15	.12
Maximun Electrical Run	80'	110'	130'	150'

### Output - Very High Output

On-Center Spacing	6"	12"	18"	24"
Lumens/ft	180	90.2	60	45
Watts/ft	1.92	.96	.64	.48
Maximun Electrical Run	30'	55'	70'	80'

### Weights

On-Center Spacing	6"	12"	18"	24"
lb/ft	0.33	0.20	0.24	0.28
lb/ft with catenary cable	0.35	0.22	0.26	0.30

### Output - Based on 3000K Clear Globe

Efficacy	Standard Brightness (40), High Output (46), Very High Output (94)
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### 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
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### Physical

Dimensions	2.5"W x 3.8"H
Socket Housing	PVC
American Wire Gauge	14 AWG
Globe	PE
Mounting	Surface Mount, Suspended
Operating Temperature	-20°C to 50°C (-4°F to 122°F)
Storage Temperature	-40°C to 80°C (-40°F to 176°F)

### Certification and Testing

Certification	cULus
Environment	Wet Location
IP Rating	IP67
Warranty	3 Years

## 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-60 Catenary Cable Kit - 60'**  
(1/8" Stainless Steel cable includes 2 cable locks for use with loads up to 200lbs)

**LS-CABLE-110 Catenary Cable Kit - 110'**  
(1/8" Stainless Steel cable includes 2 cable locks for use with loads up to 200lbs)

**LS-CABLE-500 Catenary Cable Kit - 500'**  
(1/8" Stainless Steel cable for use with loads up to 200lbs)



**LS-LOCK-4**  
Cable Lock for 1/8th inch cable, Heavy-duty lockable fasteners support loads up to 200 lbs. Can be easily adjusted without the use of tools. Includes (2) Locks, (1) cable release key.



**LS-TT**  
Catenary Cable Tensioning Tool up to 880lbs with minimal effort due to the 6:1 gear drive mechanism. Integral torque gauge controls the load applied to the wire, giving consistent tension every time and optimizing the life of the wire.



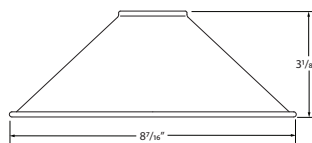
**LS-UVZP-XX-50**  
X = BK (Black), WH (White)  
50 pc Bag set. UV resistant, heavy duty ties. Maximum weight up to 100 lbs./per tie.



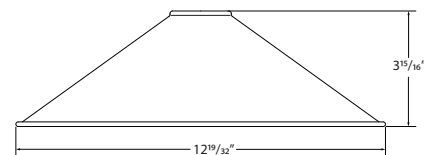
**LS-UVZP-XX-30**  
X = BK (Black), WH (White)  
30 pc Bag set. UV resistant, heavy duty ties. Maximum weight up to 100 lbs./per tie.

**Light Shades**

**HAT**



**SHADE-HT-BK-BK-8**  
Light Shade - HAT  
8.3" Black Top, Black Bottom  
Weight: 0.38 lb

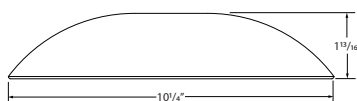


**SHADE-HT-BK-BK-13\***  
Light Shade - HAT  
12.6" Black Top, Black Bottom  
Weight: 1.06 lb

**SHADE-HT-BK-CO-13 \***  
Light Shade - HAT  
12.6" Black Top, Copper Bottom  
Weight: 1.06 lb

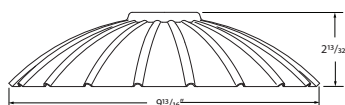
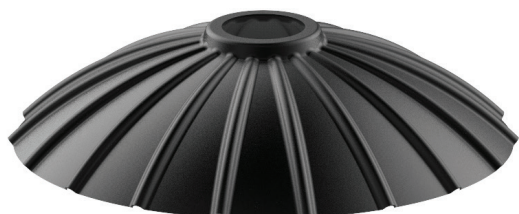
\*Consult factory for lead time and MOQ

**DISH**

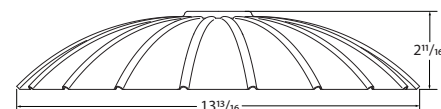


**SHADE-DS-BK-BK-10**  
Light Shade - DISH  
10.2" Black Top, Black Bottom  
Weight: 0.72 lb

**FLOWER**

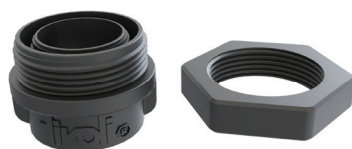


**SHADE-FL-BK-BK-10**  
Light Shade - FLOWER  
9.8" Light Shade, Black Top, Black Bottom  
Weight: 0.54 lb



**SHADE-FL-BK-BK-13**  
Light Shade - FLOWER  
13.8" Light Shade, Black Top, Black Bottom  
Weight: 1.1 lb

**Accessories**



**SHADE-LS2ADP-XX-01** 2.0 Light Shade Adapter  
X = BK (Black), WH (White)  
PVC Black Adapter - Sold individually.

**SHADE-LS2ADP-XX-25** 2.0 Light Shade Adapter  
X = BK (Black), WH (White)  
PVC Black Adapter Kit - Sold in packs of 25

**SHADE-LS2ADP-XX-50** 2.0 Light Shade Adapter  
X = BK (Black), WH (White)  
PVC Black Adapter Kit - Sold in packs of 50

## Replacement Parts



Very High Output



Standard & High Output



**LST-CG**  
Litesphere 2.0  
Clear globe  
sold each

**LST-OG**  
Litesphere 2.0  
Opal globe  
sold each



**LST-FG**  
Litesphere 2.0  
Frosted globe  
sold each



**LSL2-EC**  
Litesphere 2.0 End-Cap  
Weight: 0.0375 lb  
sold each

- LSL-19-V-12**  
12V Wedge base  
1900K
- LSL-27-V-12**  
12V Wedge base  
2700K
- LSL-30-V-12**  
12V Wedge base  
3000K
- LSL-35-V-12**  
12V Wedge base  
3500K
- LSL-40-V-12**  
12V Wedge base  
4000K
- LSL-50-V-12**  
12V Wedge base  
5000K

- LSL-AM-V-12**  
12V Wedge base  
Amber
- LSL-RD-V-12**  
12V Wedge base  
Red
- LSL-RB-V-12**  
12V Wedge base  
Royal Blue
- LSL-GN-V-12**  
12V Wedge base  
Green
- LSL-YL-V-12**  
12V Wedge base  
Yellow

- STANDARD**
- LSL-19-S-12**  
12V Wedge base  
1900K
- LSL-27-S-12**  
12V Wedge base  
2700K
- LSL-30-S-12**  
12V Wedge base  
3000K
- LSL-35-S-12**  
12V Wedge base  
3500K
- LSL-40-S-12**  
12V Wedge base  
4000K

- HIGH OUTPUT**
- LSL-19-H-12**  
12V Wedge base  
1900K
- LSL-27-H-12**  
12V Wedge base  
2700K
- LSL-30-H-12**  
12V Wedge base  
3000K
- LSL-35-H-12**  
12V Wedge base  
3500K
- LSL-40-H-12**  
12V Wedge base  
4000K

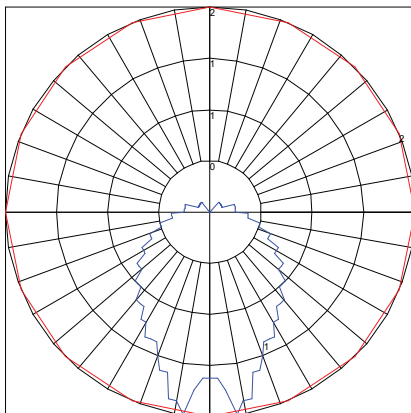
## Photometrics

### Frosted Globe - Based on 3000K LED

#### Standard Brightness

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	

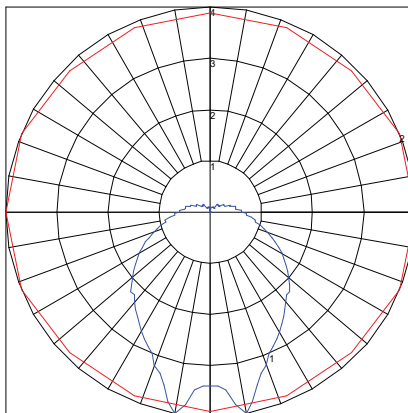


Maximum Candela = 1.6 Located At Horizontal Angle = 0, Vertical Angle = 7.5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (7.5) (Through Max. Cd.)

#### High Output

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	

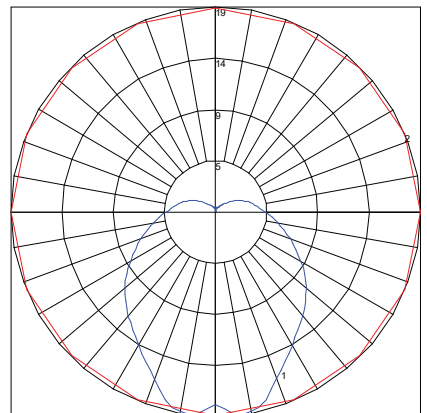


Maximum Candela = 4 Located At Horizontal Angle = 0, Vertical Angle = 10  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (10) (Through Max. Cd.)

#### Very High Output

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.)



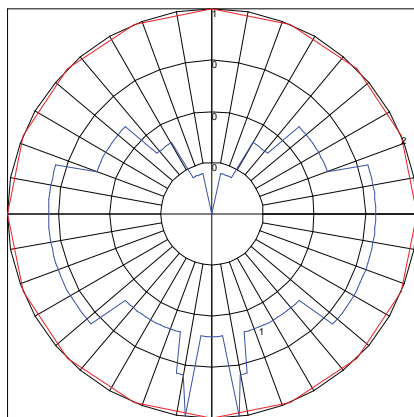
## Photometrics

### Opal Globe - Based on 3000K LED

#### Standard Brightness

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

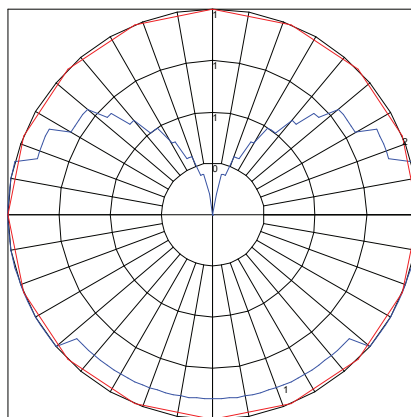


Maximum Candela = .5 Located At Horizontal Angle = 0, Vertical Angle = 7.5  
 # 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
 # 2 - Horizontal Cone Through Vertical Angle (7.5) (Through Max. Cd.)

#### High Output

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

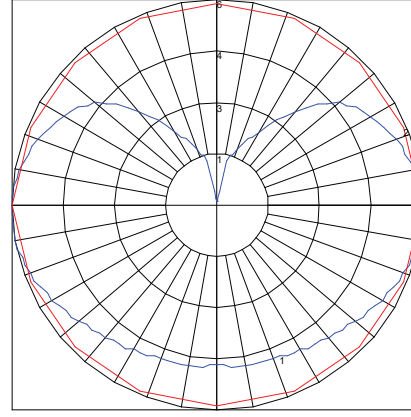


Maximum Candela = 1 Located At Horizontal Angle = 0, Vertical Angle = 50  
 # 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
 # 2 - Horizontal Cone Through Vertical Angle (50) (Through Max. Cd.)

#### Very High Output

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



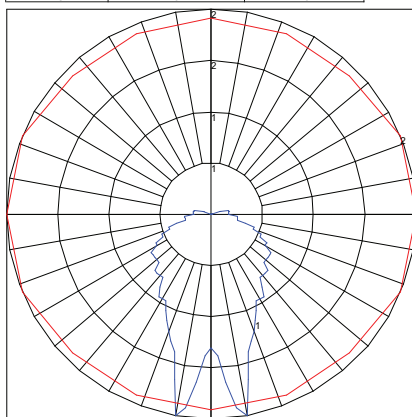
Maximum Candela = 5.9 Located At Horizontal Angle = 0, Vertical Angle = 77.5  
 # 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
 # 2 - Horizontal Cone Through Vertical Angle (77.5) (Through Max. Cd.)

### Clear Globe - Based on 3000K LED

#### Standard Brightness

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

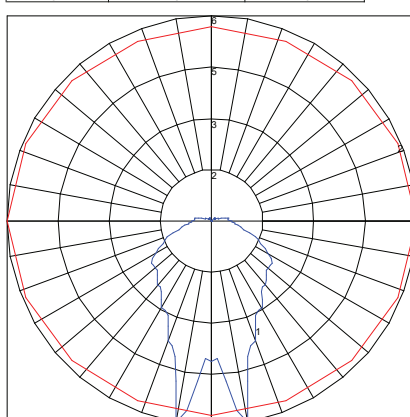


Maximum Candela = 2.3 Located At Horizontal Angle = 0, Vertical Angle = 10  
 # 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
 # 2 - Horizontal Cone Through Vertical Angle (10) (Through Max. Cd.)

#### High Output

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

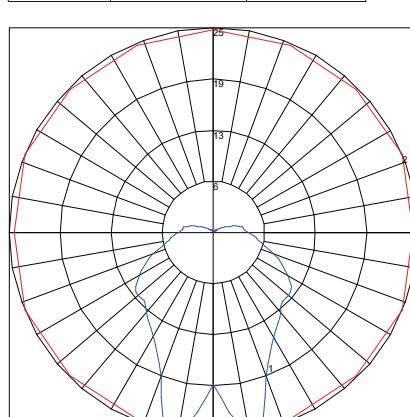


Maximum Candela = 6.1 Located At Horizontal Angle = 0, Vertical Angle = 10  
 # 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
 # 2 - Horizontal Cone Through Vertical Angle (10) (Through Max. Cd.)

#### Very High Output

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.)

**Power Supplies**
**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 5ø60 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 5ø60 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

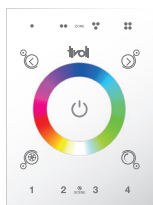
**ADNM - DMX MULTI ADDRESS**

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 5ø60 Hz	12V DC	2	2x60W	5A
	ADNM-240-3-5-12-DIN-3				3	3x60W	3x5A

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

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	12VDC	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

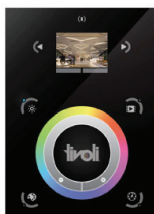
## Controls



Touchscreen

### TVOQ-1-WH

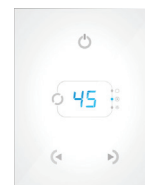
WH (White only)  
512 DMX channel, 16 scene,  
4 zone, glass touch screen



Touchscreen

### TVOQ-10-XX-7

XX = BK (Black), WH (White)  
1024 DMX channel, 500 scene,  
10 zone, glass touch screen



Touchscreen

### TVOQ-2-XX

XX = BK (Black), WH (White)  
512 DMX channel, 99 scene,  
1 zone, glass touch screen