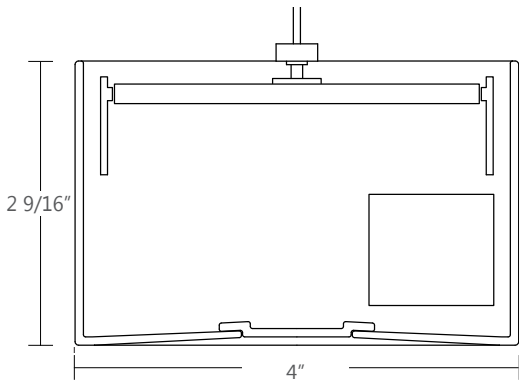


Shown with VL optic



Project \_\_\_\_\_

Type \_\_\_\_\_

Notes \_\_\_\_\_

### PERFORMANCE PER LINEAR FOOT AT 3500K

DISTRIBUTION	NOMINAL LUMEN OUTPUT		INPUT WATTS	EFFICACY
	UP	DOWN		
90up/10down at 1250 lm/ft	1125 lm/ft	125 lm/ft	47 W	106 lm/W
90up/10down at 1000 lm/ft	900 lm/ft	100 lm/ft	39 W	106 lm/W
90up/10down at 750 lm/ft	675 lm/ft	75 lm/ft	29 W	106 lm/W

REFER TO PHOTOMETRIC DATA SECTION FOR EXACT VALUES



\*Check the latest update on the DLC website for complete information. Not all versions may be DLC qualified.



### Ordering Guide

TWRLED	SL 90/10	NOMINAL LUMENS/FT	CRI	COLOR TEMP.
<b>PRODUCT ID</b>	<b>LIGHT ENGINE</b>			
<b>TWRLED</b> rectilinear pendant led	<b>SL 90/10</b> surroundlite 90%up/10%down	<b>1250</b> 1250 lm/ft - Maximum <b>750</b> 750 lm/ft - Minimum	<b>80</b> 80 CRI <b>90</b> 90 CRI	<b>30</b> 3000 K <b>35</b> 3500 K <b>40</b> 4000 K
		Outputs between listed min and max are available. Consult factory for outputs outside of the listed range. Applies to both UP & DOWN.	Applies to both UP & DOWN.	Applies to both UP & DOWN.

SHIELDING	FIXTURE LENGTH (FT)	FINISH	VOLTAGE	DRIVER
<b>VL</b> VL optic	<b>3</b> 3' <b>4</b> 4' <b>6</b> 6' <b>8</b> 8' <b>12</b> 12' <b>S #</b> System Run	<b>AP</b> aluminum paint <b>W</b> white <b>BLK</b> black <b>C</b> custom	<b>120</b> 120 V <b>277</b> 277 V <b>347</b> 347 V <b>UNV</b> universal	<b>DP</b> dimming (0-10V) 1% <b>LT</b> lutron (1) <b>BI</b> bi-level dimming <b>O</b> other (2)
				(1) Specify system (2) Please consult factory; see page 2

CIRCUITS	MOUNTING/SUSPENSION	BATTERY (OPTIONAL)	OTHER (OPTIONAL)	IC CONTROLS (OPTIONAL)
<b>1</b> 1 circuit <b>2</b> 2 circuits (3) <b>2A/B</b> 2 circuit (3) alternating/4ft emergency section (4) <b>+E(#)</b> night light section (4) <b>+NL(#)</b> generator transfer device (4)	<b>CA(#)</b> drywall+cable length (36" std.) <b>CT9(#)</b> TB/TG 9/16+cable length (36" std.) <b>CT15(#)</b> TB/TG15/16+cable length (36" std.) <b>CTS(#)</b> ST+cable length (36" std.) <b>SA(#)</b> drywall+stem length >48" (18" std.) <b>+SM</b> seismic option	<b>B#</b> battery pack (integral)	<b>F</b> fuse	<b>DS#</b> daylight sensor <b>OS#</b> occupancy sensor <b>DOS#</b> daylight & occupancy sensor <b>EN#</b> enlightened integral (5) <b>ENR#</b> enlightened remote (5) <b>WC#</b> wireless control dimming
(3) Use with minimum 8ft length (4) Specify quantity	See Ceiling Mount Guide for more details	For minimum 48" long fixture only Not available with 347V Please consult factory	Requires 120V or 277V	(5) Please consult factory Specify quantity. Requires 8" blank See integrated controls guide for more details.

CUSTOM (OPTIONAL)
<b>C</b> custom
Please specify

## ● SURROUNDLITE TECHNOLOGY

Twig with SurroundLite provides the flexibility of high efficacy spherical three dimensional wide batwing distributions and shielding options that all result in true lighting effectiveness. TWIG is only 2-9/16" depth with integral driver and a light guide with proper cutoff and no view of bugs or dust particles.

An innovative technology to get much more out of LEDs: Axis SurroundLite is based on the fundamental physics of how light interacts with matter. The specially engineered lightguide is made of precisely coded and aligned molecules that shape LED output in all three dimensions.

With SurroundLite extra-wide, multidimensional light distribution, light is directed in all three planes and sent in every corner of the room. SurroundLite brings the promise of balanced brightness, facilitating lighting design.

## ● SURROUNDLITE BENEFITS



### Glare Mitigation

VL Optic and lenses yield lower luminance on the luminaire's light-emitting area.

### Reduced 'Cave Effect', Increased Perceived Brightness

Wide 3D batwing uplight distribution lights up corners.  
Lighting at seam between ceiling and wall.  
3D light distribution from luminaire extremities lights up adjacent spaces and vertical planes

### Use of Fewer Luminaires

The 3D nature of light distribution is well suited to checkerboard patterns, reducing the need for continuous rows.

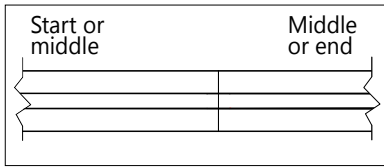
### Better Facial Modeling / Facial Recognition

Reflected light from illuminated surfaces within the space results in soft fill light on the vertical plane.

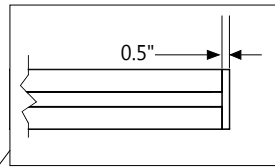
### No Streaks or Hot Spots of Light

Axis SurroundLite technology spreads out light uniformly versus Lambertian distributions that put an intensity of light directly above and below the luminaire.

### ● LENGTHS

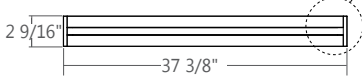


For all fixture lengths

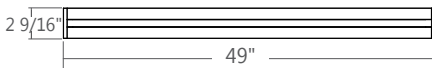


For all fixture lengths

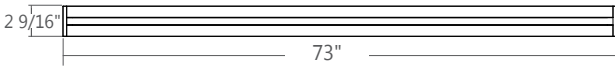
#### TWIG 3ft (3)



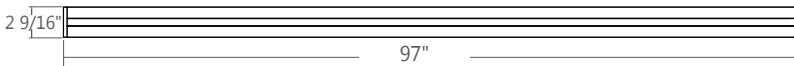
#### TWIG 4ft



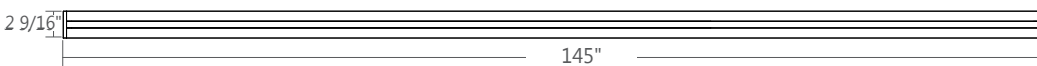
#### TWIG 6ft



#### TWIG 8ft continuous



#### TWIG 12ft continuous



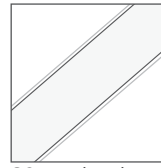
### ● SYSTEMS (S#)

Runs of TWIG that are greater than 8ft in length are designated as systems (S#). This means that the run is comprised of a combination 4ft and/or 8ft sections to be assembled on site using our joining system. For more information on systems and joining, please refer to the TWIG installation sheets available at: [www.axislighting.com](http://www.axislighting.com) under 'Downloads' tab.

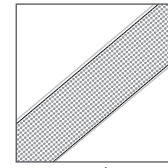
### ● WEIGHT

<b>TWIG 3 ft</b>	7.2lbs / 3.3 kg
<b>TWIG 4 ft</b>	9.6lbs / 4.4 kg
<b>TWIG 6 ft</b>	14.4lbs / 6.6 kg
<b>TWIG 8 ft</b>	19.2lbs / 8.7 kg
<b>TWIG 12 ft</b>	28.8lbs / 13.1 kg

### ● OPTIC



SO spotless lens



VL VL optic

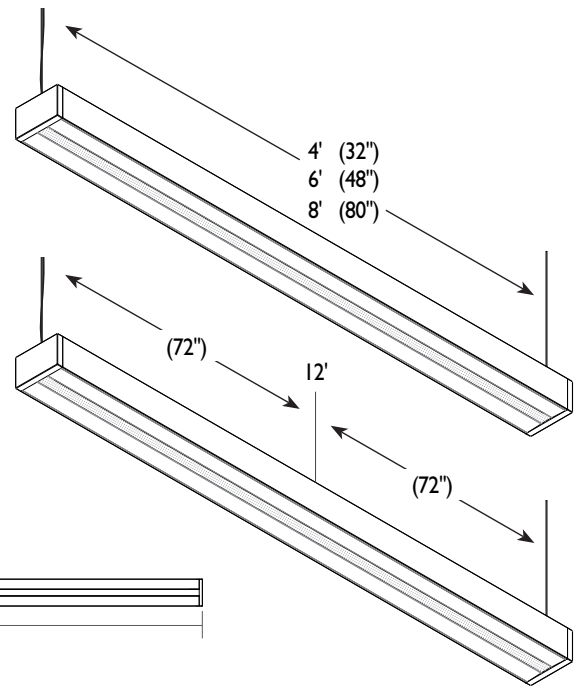
### ● SUSPENSION / MOUNTING SPACING

Between Mounting Points:

<b>TWIG 3'</b>	<b>(36 3/8")</b>
<b>TWIG 4'</b>	<b>(48")</b>
<b>TWIG 6'</b>	<b>(72")</b>
<b>TWIG 8'</b>	<b>(96")</b>
<b>TWIG 12'</b>	<b>(72")</b>

Standard Suspension Length (Adjustable):

**CABLE: 36"**  
**STEM: 18"**




**i** Row configuration and mounting spacing file is available at: [www.axislighting.com](http://www.axislighting.com) under 'Downloads' tab.

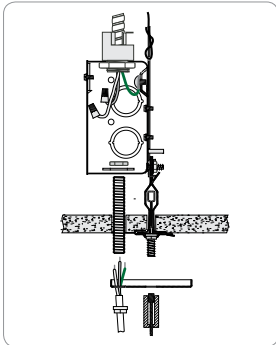
### ● FINISH

Aluminum paint, Powder Coated and custom finishes are also available.

### ● APPROVALS

Certified to UL and CSA standards   
Suitable for damp locations.

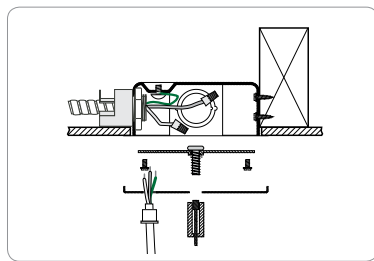
### ● MOUNTING OPTIONS



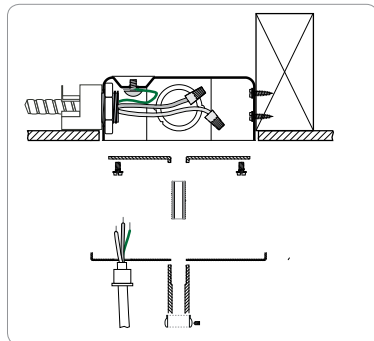
**CT TILE CEILING - ON GRID**

**i** Mounting options are also available for slope ceiling and seismic bracing.

Installation sheets for all mounting options are available at: [www.axislighting.com](http://www.axislighting.com) under 'Downloads' tab.



**CA DRYWALL CEILING**



**SA STEM MOUNT IN DRYWALL CEILING**

### ● OTHER MOUNTING OPTIONS

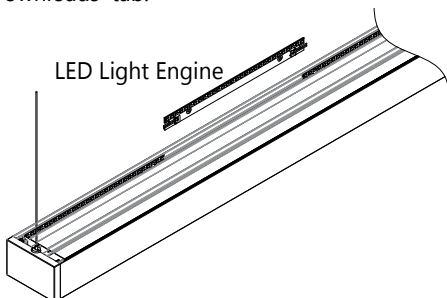
TWIG is also available as a wall mount.

**i** Specification sheets for wall mounted TWIG luminaires are available at: [www.axislighting.com](http://www.axislighting.com) under 'Downloads' tab.

### ● LED UPGRADE / REPLACEMENT

All LED light engines used are field replaceable and upgradable to ensure the lighting system will last for years. Future-proof design comes with easy access to LED light engines from above using quick connectors (included in luminaire) and a screwdriver.

**i** For more information on LED light engine upgrade and replacement, please refer to the TWIG LED Light Engine Replacement sheet available at: [www.axislighting.com](http://www.axislighting.com) under 'Downloads' tab.



### ● LED SYSTEM

<b>CRI</b>	Minimum 80 or 90 color rendering index
<b>CCT</b>	Choice of 3000K, 3500K and 4000K color temperature with a great color consistency (within 3-step MacAdam ellipse). Both within fixture and fixture to fixture.
<b>LED life</b>	Minimum 50,000h with 85% of lumen maintenance in 25°C ambient temperature, in compliance with IES LM-80 testing measurements.
<b>Thermal Management</b>	Aluminum housing acting as the heat spreader to maximize life.
<b>Environment</b>	Dry and damp rated in operating ambient temperatures of 0-40°C (32-104°F)

### ● CONSTRUCTION

<b>Housing</b>	Extruded aluminum (0.075" nominal)
<b>End Cap</b>	Die cast aluminum (0.10" nominal)
<b>Joiners</b>	Die cast aluminum (0.10" nominal)
<b>Top Brackets</b>	Die formed steel painted
<b>VL<sub>optic</sub>™</b>	PMMA Precision formed microconical structure; 92 percent transmission that cuts off glare above 55 degrees
<b>Spotless Lens</b>	Uniform frosted acrylic lens
<b>Reflectors</b>	Specular reflective aluminum

### ● ELECTRICAL

<b>Lutron driver*</b>	LDE1 - EcoSystem H-Series (1%) LDE5 - EcoSystem 5-Series (5%) LTE - Hi-Lume® A-series 2Wires Forward Phase (1%) *Consult factory
<b>Other drivers</b>	DALI - Digital Addressable Lighting Interface DMX - Digital Multiplex LV - line voltage - Advance Mark 10 Xitanium SR - For wireless sensor
<b>Emergency</b>	Integral emergency battery pack or emergency circuit optional.
<b>Input Voltage</b>	120V, 277V, 347V, UNV.

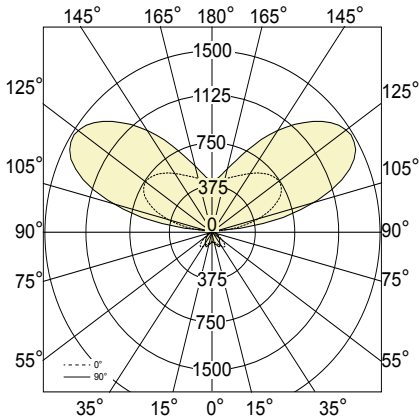
**i** Incorporating these components may have limitations or affect the length of the luminaire. Please contact factory for more details.

### ● PHOTOMETRIC DATA

#### VL LENS (VL)

TWRLED-SL90/10-1250-80-35-VL-4-4-W-120-D-1 (at 3440K)

#### PHOTOMETRIC CURVE



**Lumen/ft up: 1168 lm/ft**  
**Lumen/ft down: 88 lm/ft**  
**Total lumens: 5026 lm (for 4ft)**  
**Input Watts: 47 W**  
**Efficacy: 106 lm/W**

IES FILE: TWRLED-SL-90-10-1250-80-35-VL-4-4-W-120-D-1.IES

TESTED ACCORDING TO IES LM-79-2008

#### CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles				
	0	22.5	45	67.5	90
0	91	91	91	91	91
5	91	92	94	96	96
15	100	105	111	115	116
25	123	130	140	144	144
35	159	164	141	120	113
45	153	132	106	87	81
55	62	58	50	43	40
65	24	24	22	18	18
75	8	8	7	6	6
85	0	0	0	0	0
90	0	0	0	0	0
95	148	159	189	237	256
105	460	524	681	884	978
115	671	775	1003	1284	1408
125	726	847	1094	1354	1464
135	670	777	997	1204	1281
145	578	652	808	957	1012
155	500	542	624	705	736
165	447	464	495	526	536
175	420	428	431	434	434
180	421	421	421	421	421

#### ZONAL LUMENS

Zone	Lumens
0	
0-10	9
10-20	32
20-30	63
30-40	87
40-50	82
50-60	46
60-70	22
70-80	8
80-90	0
90	
90-100	221
100-110	733
110-120	1004
120-130	977
130-140	764
140-150	507
150-160	291
160-170	142
170-180	42
180	

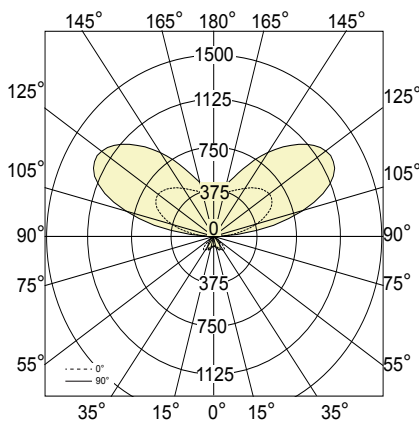
#### LUMINANCE DATA (CD/M<sup>2</sup>)

Vertical Angle	Horizontal Angles		
	0	45	90
45	7266	5043	3850
55	3610	2941	2340
65	1905	1724	1452
75	1037	889	741
85	0	0	0

#### VL LENS (VL)

TWRLED-SL90/10-1000-80-35-VL-4-4-W-120-D-1 (at 3440K)

#### PHOTOMETRIC CURVE



**Lumen/ft up: 959 lm/ft**  
**Lumen/ft down: 72 lm/ft**  
**Total lumens: 4123 lm (for 4ft)**  
**Input Watts: 39 W**  
**Efficacy: 106 lm/W**

IES FILE: TWRLED-SL-90-10-1000-80-35-VL-4-4-W-120-D-1.IES

TESTED ACCORDING TO IES LM-79-2008

#### CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles				
	0	22.5	45	67.5	90
0	75	75	75	75	75
5	75	76	77	79	79
15	82	86	91	95	95
25	101	107	115	118	118
35	130	135	116	98	93
45	125	109	87	71	66
55	51	48	41	36	33
65	20	20	18	15	15
75	7	7	6	5	5
85	0	0	0	0	0
90	0	0	0	0	0
95	122	130	155	195	210
105	377	430	559	725	802
115	550	636	823	1053	1155
125	595	695	898	1111	1201
135	549	637	818	987	1051
145	475	534	663	785	830
155	410	445	512	578	604
165	367	381	406	431	440
175	344	351	354	356	356
180	345	345	345	345	345

#### ZONAL LUMENS

Zone	Lumens
0	
0-10	8
10-20	26
20-30	52
30-40	72
40-50	67
50-60	38
60-70	18
70-80	6
80-90	0
90	
90-100	181
100-110	601
110-120	824
120-130	802
130-140	627
140-150	416
150-160	239
160-170	117
170-180	34
180	

#### LUMINANCE DATA (CD/M<sup>2</sup>)

Vertical Angle	Horizontal Angles		
	0	45	90
45	5961	4137	3158
55	2961	2413	1919
65	1563	1414	1191
75	851	729	608
85	0	0	0

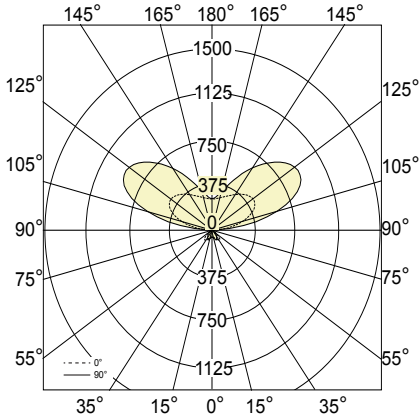
**i** All IES files are available for download at: [www.axislighting.com](http://www.axislighting.com)

### ● PHOTOMETRIC DATA

#### VL LENS (VL)

TWRLED-SL90/10-750-80-35-VL-  
4-4-W-120-D-1 (at 3440K)

#### PHOTOMETRIC CURVE



**Lumen/ft up: 711 lm/ft**  
**Lumen/ft down: 54 lm/ft**  
**Total lumens: 3058 lm (for 4ft)**  
**Input Watts: 29 W**  
**Efficacy: 106 lm/W**

IES FILE: TWRLED-SL-90-10-750-80-35-VL-4-4-W-120-D-1.IES

TESTED ACCORDING TO IES LM-79-2008

#### CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles				
	0	22.5	45	67.5	90
0	56	56	56	56	56
5	56	56	57	58	58
15	61	64	67	70	71
25	75	79	85	87	87
35	96	100	86	73	69
45	93	81	65	53	49
55	37	35	31	26	24
65	15	15	13	11	11
75	5	5	4	3	3
85	0	0	0	0	0
90	0	0	0	0	0
95	90	96	115	144	155
105	280	319	414	538	595
115	408	471	610	781	856
125	441	515	666	824	890
135	407	473	607	732	779
145	352	396	491	582	616
155	304	330	380	429	448
165	272	282	301	320	326
175	255	260	262	264	264
180	256	256	256	256	256

#### ZONAL LUMENS

Zone	Lumens
0	
0-10	6
10-20	19
20-30	38
30-40	53
40-50	50
50-60	28
60-70	13
70-80	5
80-90	0
90	
90-100	134
100-110	446
110-120	611
120-130	594
130-140	465
140-150	308
150-160	177
160-170	87
170-180	25
180	

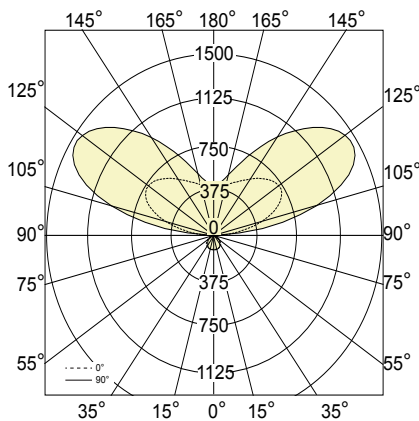
#### LUMINANCE DATA (CD/M<sup>2</sup>)

Vertical Angle	Horizontal Angles		
	0	45	90
45	4420	3067	2342
55	2196	1789	1423
65	1159	1049	883
75	631	541	451
85	0	0	0

#### SPOTLESS LENS (SO)

TWRLED-SL90/10-1250-80-35-SO-  
4-4-W-120-D-1 (at 3445K)

#### PHOTOMETRIC CURVE



**Lumen/ft up: 1161 lm/ft**  
**Lumen/ft down: 87 lm/ft**  
**Total lumens: 4992 lm (for 4ft)**  
**Input Watts: 47 W**  
**Efficacy: 106 lm/W**

IES FILE: TWRLED-SL-90-10-1250-80-35-SO-4-4-W-120-D-1.IES

TESTED ACCORDING TO IES LM-79-2008

#### CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles				
	0	22.5	45	67.5	90
0	116	116	116	116	116
5	116	116	118	118	119
15	118	118	118	119	118
25	115	115	115	113	111
35	107	107	105	99	96
45	91	91	86	80	76
55	67	68	62	56	54
65	42	41	35	31	29
75	16	15	10	8	7
85	0	0	0	0	0
90	0	0	0	0	0
95	141	152	181	225	241
105	454	521	681	880	966
115	669	777	1009	1285	1401
125	725	851	1101	1359	1459
135	669	780	1002	1205	1277
145	575	653	808	954	1004
155	494	537	620	698	726
165	442	460	491	520	529
175	418	424	427	429	429
180	418	418	418	418	418

#### ZONAL LUMENS

Zone	Lumens
0	
0-10	11
10-20	33
20-30	53
30-40	64
40-50	66
50-60	55
60-70	35
70-80	12
80-90	0
90	
90-100	213
100-110	728
110-120	1006
120-130	980
130-140	765
140-150	506
150-160	289
160-170	141
170-180	41
180	

#### LUMINANCE DATA (CD/M<sup>2</sup>)

Vertical Angle	Horizontal Angles		
	0	45	90
45	4338	4067	3633
55	3944	3610	3142
65	3357	2813	2268
75	2074	1333	889
85	0	0	0

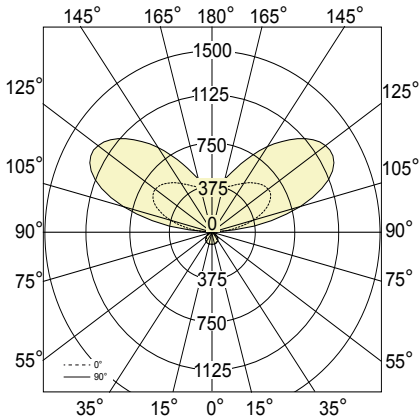
**i** All IES files are available for download at: [www.axislighting.com](http://www.axislighting.com)

### ● PHOTOMETRIC DATA

#### SPOTLESS LENS (SO)

TWRLED-SL90/10-1000-80-35-SO-4-4-W-120-D-1 (at 3445K)

##### PHOTOMETRIC CURVE



**Lumen/ft up: 952 lm/ft**  
**Lumen/ft down: 72 lm/ft**  
**Total lumens: 4096 lm (for 4ft)**  
**Input Watts: 39 W**  
**Efficacy: 106 lm/W**

IES FILE: TWRLED-SL-90-10-1000-80-35-SO-4-4-W-120-D-1.IES

TESTED ACCORDING TO IES LM-79-2008

#### CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles				
	0	22.5	45	67.5	90
0	95	95	95	95	95
5	95	95	96	96	97
15	96	96	96	97	96
25	95	95	95	93	91
35	88	88	86	81	79
45	75	75	70	66	63
55	55	56	51	46	44
65	35	34	29	25	23
75	13	12	8	7	6
85	0	0	0	0	0
90	0	0	0	0	0
95	116	124	149	184	197
105	373	428	559	722	793
115	548	637	827	1054	1149
125	594	698	903	1115	1197
135	548	640	822	988	1047
145	472	535	663	782	824
155	405	441	508	573	595
165	362	377	402	427	434
175	343	348	350	352	352
180	343	343	343	343	343

#### ZONAL LUMENS

Zone	Lumens
0	
0-10	9
10-20	27
20-30	43
30-40	53
40-50	54
50-60	45
60-70	29
70-80	10
80-90	0
90	
90-100	174
100-110	597
110-120	825
120-130	804
130-140	628
140-150	415
150-160	237
160-170	116
170-180	34
180	

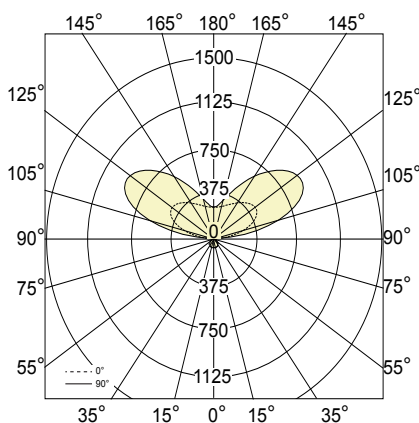
#### LUMINANCE DATA (CD/M<sup>2</sup>)

Vertical Angle	Horizontal Angles		
	0	45	90
45	3559	3336	2980
55	3236	2961	2577
65	2754	2307	1861
75	1701	1094	729
85	0	0	0

#### SPOTLESS LENS (SO)

TWRLED-SL90/10-750-80-35-SO-4-4-W-120-D-1 (at 3445K)

##### PHOTOMETRIC CURVE



**Lumen/ft up: 706 lm/ft**  
**Lumen/ft down: 53 lm/ft**  
**Total lumens: 3037 lm (for 4ft)**  
**Input Watts: 29 W**  
**Efficacy: 106 lm/W**

IES FILE: TWRLED-SL-90-10-750-80-35-SO-4-4-W-120-D-1.IES

TESTED ACCORDING TO IES LM-79-2008

#### CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles				
	0	22.5	45	67.5	90
0	71	71	71	71	71
5	71	71	71	71	72
15	71	71	71	72	71
25	70	70	70	69	67
35	65	65	64	60	58
45	56	56	52	49	46
55	41	42	37	34	33
65	26	25	22	19	17
75	10	9	6	5	4
85	0	0	0	0	0
90	0	0	0	0	0
95	86	92	110	137	146
105	276	317	414	535	588
115	407	473	613	781	852
125	441	518	670	827	888
135	407	475	609	733	777
145	350	397	491	580	611
155	301	327	377	425	441
165	269	280	298	316	322
175	254	258	260	261	261
180	254	254	254	254	254

#### ZONAL LUMENS

Zone	Lumens
0	
0-10	7
10-20	20
20-30	32
30-40	39
40-50	40
50-60	33
60-70	21
70-80	7
80-90	0
90	
90-100	129
100-110	443
110-120	612
120-130	596
130-140	466
140-150	308
150-160	176
160-170	86
170-180	25
180	

#### LUMINANCE DATA (CD/M<sup>2</sup>)

Vertical Angle	Horizontal Angles		
	0	45	90
45	2639	2474	2210
55	2399	2196	1911
65	2042	1711	1380
75	1262	811	541
85	0	0	0

**i** All IES files are available for download at: [www.axislighting.com](http://www.axislighting.com)