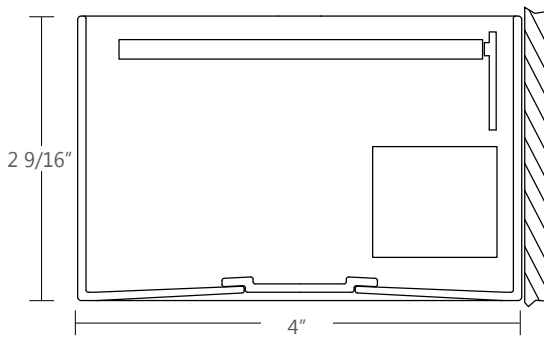


Shown with VL optic

Project \_\_\_\_\_

Type \_\_\_\_\_

Notes \_\_\_\_\_



### PERFORMANCE PER LINEAR FOOT AT 3500K WITH VL SHEILDING

DISTRIBUTION	NOMINAL LUMEN OUTPUT		INPUT WATTS	EFFICACY
	UP	DOWN		
90up/10down at 1250 lm/ft	1091 lm/ft	146 lm/ft	41 W	120 lm/W
90up/10down at 1000 lm/ft	872 lm/ft	117 lm/ft	33 W	120 lm/W
90up/10down at 750 lm/ft	654 lm/ft	88 lm/ft	25 W	120 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

TWRWLED	SL 90/10	NOMINAL LUMENS/FT	CRI	COLOR TEMPERATURE
<b>PRODUCT ID</b>	<b>LIGHT ENGINE</b>			
<b>TWRWLED</b> Rectilinear Wall LED	<b>SL 90/10</b> surroundlite 90%up/10%down	<b>750</b> 750 lm/ft - Minimum <b>1250</b> 1250 lm/ft - Maximum	<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>AP</b> aluminum paint	<b>120</b> 120 V	<b>DP</b> dimming (0-10V) 1%
<b>SO</b> spotless lens	<b>4</b> 4'	<b>W</b> white	<b>277</b> 277 V	<b>LT</b> lutron <sup>(1)</sup>
	<b>6</b> 6'	<b>BLK</b> black	<b>347</b> 347 V	<b>BI</b> bi-level dimming
	<b>8</b> 8'	<b>C</b> custom	<b>UNV</b> universal	<b>O</b> other <sup>(2)</sup>
	<b>12</b> 12'			
	<b>S #</b> System Run			
				(1) Specify system (2) Please consult factory; see page 2

CIRCUITS	BATTERY (OPTIONAL)	OTHER (OPTIONAL)	IC CONTROLS (OPTIONAL)	CUSTOM (OPTIONAL)
<b>1</b> 1 circuit	<b>B#</b> battery pack (integral)	<b>F</b> fuse	<b>DS#</b> daylight sensor	<b>C</b> custom
<b>2</b> 2 circuits <sup>(5)</sup>			<b>OS#</b> occupancy sensor	
<b>2A/B</b> 2 circuit alternating/4ft <sup>(3)</sup>			<b>DOS#</b> daylight & occupancy sensor	
<b>+E(#)</b> emergency section <sup>(4)</sup>			<b>EN#</b> Enlighted integral <sup>(5)</sup>	
<b>+NL(#)</b> night light section <sup>(4)</sup>			<b>ENR#</b> Enlighted remote <sup>(5)</sup>	
<b>+GTD(#)</b> generator transfer device <sup>(4)</sup>			<b>WC#</b> wireless control dimming	
(3) Use with minimum 8ft length (4) Specify quantity	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.	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



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

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

**Glare Mitigation**

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

**Use of Fewer Luminaires**

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

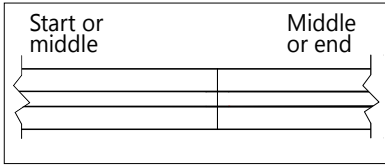
**Better Facial Modeling / Facial Recognition**

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

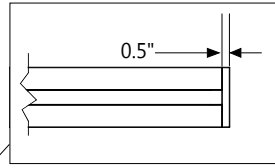
**No Streaks or Hot Spots of Light**

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

### ● LENGTHS

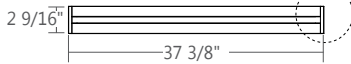


For all fixture lengths

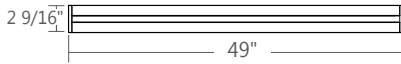


For all fixture lengths

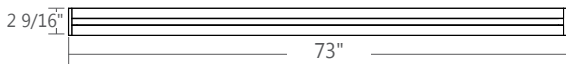
#### TWIG 3ft (3)



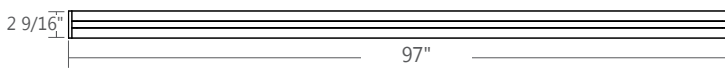
#### TWIG 4ft



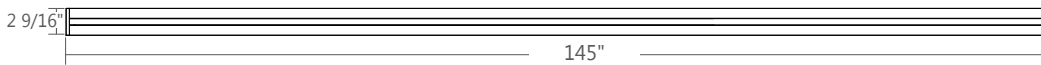
#### TWIG 6ft



#### TWIG 8ft continuous



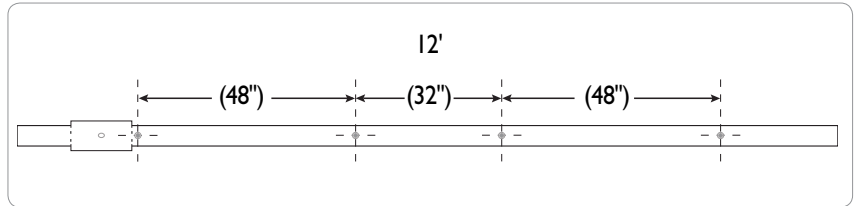
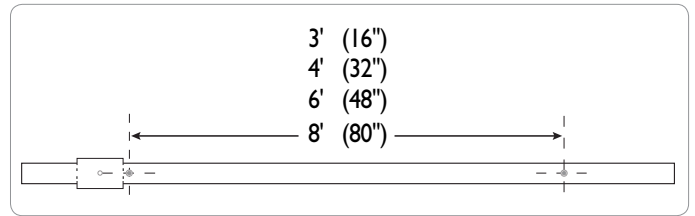
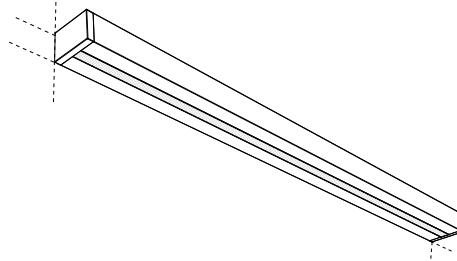
#### TWIG 12ft continuous



### ● SUSPENSION / MOUNTING SPACING

Between Mounting Points:

- TWIG 3ft (16")
- TWIG 4ft (32")
- TWIG 6ft (48")
- TWIG 8ft (80")
- TWIG 12ft (48")



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

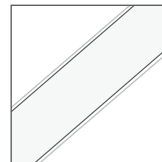
### ● SYSTEMS (S#)

Runs of TWIG that are greater than 12ft 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.

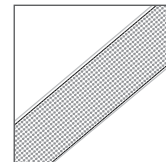
### ● WEIGHT

<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

### ● 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 sink to maximize life.
<b>Environment</b>	Dry and damp rated in operating ambient temperatures of 0-40°C (32-104F)

### ● 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.

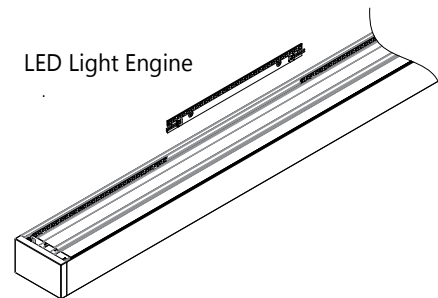
### ● CONSTRUCTION

<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>V<sub>L</sub>optic™</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

### ● 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.



### ● FINISH

Aluminum paint, powder coated and custom finishes are also available.

### ● APPROVALS

Certified to UL and CSA standards  
Suitable for damp locations.

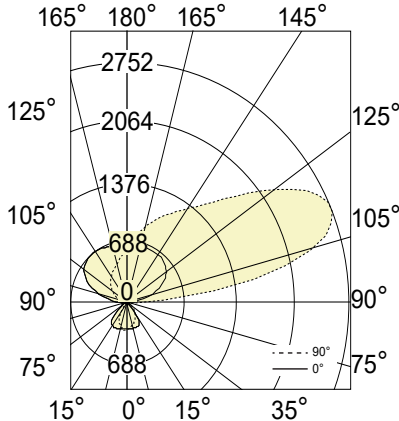


### ● PHOTOMETRIC DATA

#### VL LENS (VL)

TWRWLED-SL90-10-1250-80-35-VL-4-W-UNV-DP-1

#### PHOTOMETRIC CURVE



**Lumen/ft up: 1091 lm/ft**  
**Lumen/ft down: 146 lm/ft**  
**Total lumens: 4950 lm (for 4ft)**  
**Input Watts: 41 W**  
**Efficacy: 120 lm/W**

IES FILE: TWRWLED-SL90-10-1250-80-35-VL-4-W-UNV-DP-1

TESTED ACCORDING TO IES LM-79-2008

#### CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles				
	0	22.5	45	67.5	90
0	300	300	300	300	300
5	299	292	286	281	280
15	302	280	260	246	243
25	306	267	228	207	203
35	292	237	185	165	160
45	189	166	127	113	110
55	62	75	63	57	56
65	31	36	36	34	35
75	18	21	22	21	21
85	8	8	9	8	8
90	1	1	1	1	0
95	63	246	461	512	448
105	290	602	1234	2077	2347
115	496	789	1344	2304	2744
125	617	889	1282	1918	2282
135	671	915	1182	1510	1685
145	687	888	1085	1254	1328
155	680	834	972	1076	1115
165	665	759	843	901	922
175	652	682	709	728	734
180	648	648	648	648	648

#### ZONAL LUMENS

Zone	Lumens
0	
0-10	28
10-20	81
20-30	120
30-40	135
40-50	105
50-60	56
60-70	33
70-80	20
80-90	8
90	
90-100	239
100-110	756
110-120	879
120-130	782
130-140	630
140-150	482
150-160	337
160-170	195
170-180	63
180	

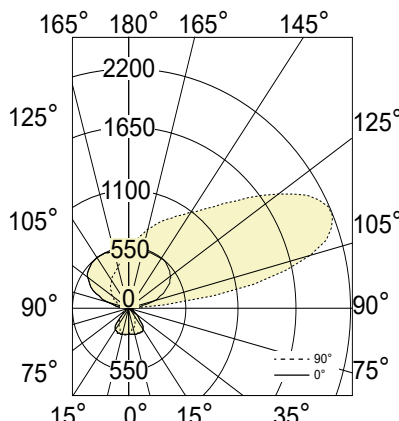
#### LUMINANCE DATA (CD/M<sup>2</sup>)

Vertical Angle	Horizontal Angles		
	0	45	90
45	7304	4900	4258
55	2950	3015	2671
65	2029	2305	2262
75	1950	2275	2195
85	2448	2801	2448

#### VL LENS (VL)

TWRWLED-SL90-10-1000-80-35-VL-4-W-UNV-DP-1

#### PHOTOMETRIC CURVE



**Lumen/ft up: 872 lm/ft**  
**Lumen/ft down: 117 lm/ft**  
**Total lumens: 3957 lm (for 4ft)**  
**Input Watts: 33 W**  
**Efficacy: 120 lm/W**

TWRWLED-SL90-10-1000-80-35-VL-4-W-UNV-DP-1

TESTED ACCORDING TO IES LM-79-2008

#### CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles				
	0	22.5	45	67.5	90
0	240	240	240	240	240
5	239	233	228	225	224
15	242	224	208	197	194
25	244	214	182	166	162
35	234	189	148	132	128
45	151	133	101	90	88
55	50	60	51	46	45
65	25	29	29	27	28
75	15	17	17	17	17
85	6	6	7	7	6
90	1	1	0	0	0
95	50	197	369	409	358
105	232	481	987	1660	1876
115	396	631	1074	1842	2194
125	494	710	1025	1533	1824
135	537	731	945	1207	1347
145	549	710	867	1002	1062
155	544	666	777	860	891
165	531	607	674	720	737
175	521	545	567	582	587
180	518	518	518	518	518

#### ZONAL LUMENS

Zone	Lumens
0	
0-10	23
10-20	65
20-30	96
30-40	108
40-50	84
50-60	45
60-70	26
70-80	16
80-90	6
90	
90-100	191
100-110	605
110-120	703
120-130	625
130-140	504
140-150	385
150-160	270
160-170	156
170-180	50
180	

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

Vertical Angle	Horizontal Angles		
	0	45	90
45	5839	3917	3404
55	2359	2410	2136
65	1622	1843	1808
75	1559	1818	1755
85	1957	2239	1957

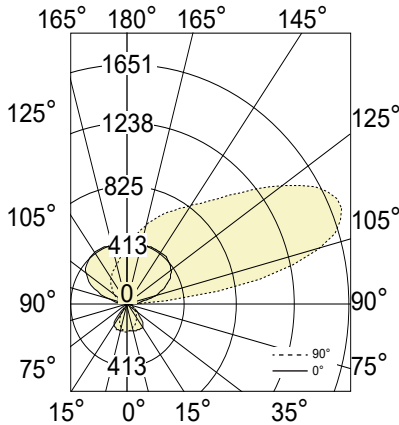
**i** All IES files are available for download at: [www.axislighting.com](http://www.axislighting.com)

### ● PHOTOMETRIC DATA

#### VL LENS (VL)

TWRWLED-SL90-10-750-80-35-VL-4-W-DP-1

#### PHOTOMETRIC CURVE



**Lumen/ft up: 654 lm/ft**  
**Lumen/ft down: 88 lm/ft**  
**Total lumens: 2969 lm (for 4ft)**  
**Input Watts: 25 W**  
**Efficacy: 120 lm/W**

IES FILE: TWRWLED-SL90-10-750-80-35-VL-4-W-UNV-DP-1.IES

TESTED ACCORDING TO IES LM-79-2008

#### CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles				
	0	22.5	45	67.5	90
0	180	180	180	180	180
5	179	175	171	169	168
15	181	168	156	148	146
25	183	160	137	124	122
35	175	142	111	99	96
45	113	100	76	68	66
55	37	45	38	34	34
65	19	22	21	20	21
75	11	13	13	13	12
85	5	5	5	5	5
90	1	0	0	0	0
95	38	148	277	307	268
105	174	361	740	1246	1408
115	297	473	806	1382	1646
125	370	533	769	1151	1369
135	403	549	709	906	1011
145	412	532	651	752	796
155	408	500	583	645	669
165	399	455	506	540	553
175	391	409	425	437	440
180	389	389	389	389	389

#### ZONAL LUMENS

Zone	Lumens
0	
0-10	17
10-20	48
20-30	72
30-40	81
40-50	63
50-60	33
60-70	20
70-80	12
80-90	5
90	
90-100	143
100-110	454
110-120	527
120-130	469
130-140	378
140-150	289
150-160	202
160-170	117
170-180	38
180	

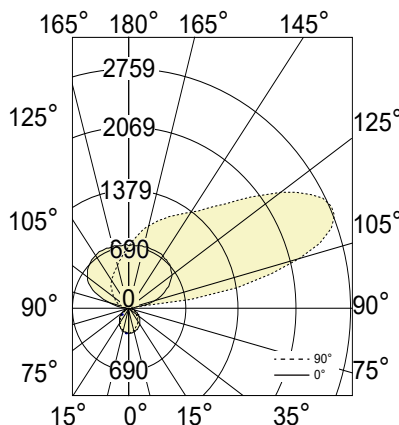
#### LUMINANCE DATA (CD/M<sup>2</sup>)

Vertical Angle	Horizontal Angles		
	0	45	90
45	4381	2939	2554
55	1770	1808	1602
65	1217	1383	1357
75	1169	1364	1317
85	1468	1680	1468

#### SO LENS (SPOTLESS)

TWRWLED-SL90-10-1250-80-35-SO-4-W-UNV-DP-1

#### PHOTOMETRIC CURVE



**Lumen/ft up: 1094 lm/ft**  
**Lumen/ft down: 177 lm/ft**  
**Total lumens: 5082 lm (for 4ft)**  
**Input Watts: 41 W**  
**Efficacy: 124 lm/W**

IES FILE: TWRWLED-SL90-10-1250-80-35-SO-4-W-UNV-DP-1

TESTED ACCORDING TO IES LM-79-2008

#### CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles				
	0	22.5	45	67.5	90
0	284	284	284	284	284
5	282	279	277	276	276
15	272	264	256	251	249
25	251	240	227	218	215
35	220	206	191	181	178
45	179	167	152	143	140
55	135	124	113	105	103
65	89	83	75	70	68
75	48	44	40	37	36
85	14	12	11	10	10
90	2	1	0	0	0
95	67	223	350	151	27
105	300	599	1213	1957	2169
115	508	792	1344	2319	2759
125	635	898	1283	1923	2292
135	697	932	1187	1507	1685
145	724	920	1103	1263	1335
155	729	883	1014	1110	1147
165	724	822	906	962	983
175	720	752	780	800	807
180	716	716	716	716	716

#### ZONAL LUMENS

Zone	Lumens
0	
0-10	27
10-20	76
20-30	111
30-40	128
40-50	126
50-60	107
60-70	77
70-80	43
80-90	12
90	
90-100	189
100-110	732
110-120	888
120-130	793
130-140	641
140-150	497
150-160	355
160-170	211
170-180	69
180	

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

Vertical Angle	Horizontal Angles		
	0	45	90
45	8006	6796	6239
55	7403	6212	5658
65	6681	5604	5077
75	5816	4891	4424
85	4950	3971	3509

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

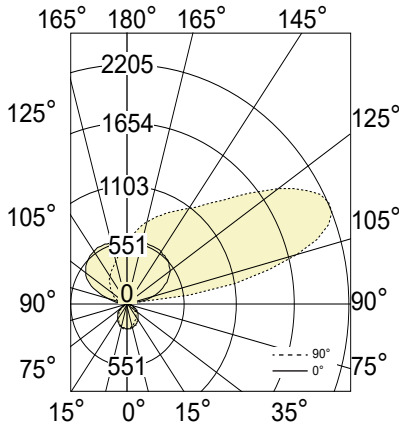


### ● PHOTOMETRIC DATA

#### SO LENS (SPOTLESS)

TWRWLED-SL90-10-1000-80-35-SO-4-W-UNV-DP-1

#### PHOTOMETRIC CURVE



Lumen/ft up: 874 lm/ft  
 Lumen/ft down: 142 lm/ft  
 Total lumens: 4063 lm (for 4ft)  
 Input Watts: 33 W  
 Efficacy: 124 lm/W

IES FILE: TWRWLED-SL90-10-1000-80-35-SO-4-W-UNV-DP-1.IES

TESTED ACCORDING TO IES LM-79-2008

#### CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles				
	0	22.5	45	67.5	90
0	227	227	227	227	227
5	225	223	222	221	220
15	217	211	205	200	199
25	201	191	181	174	172
35	176	165	153	145	142
45	143	133	122	114	112
55	108	99	90	84	82
65	72	66	60	56	54
75	38	35	32	30	29
85	11	10	9	8	8
90	2	1	0	0	0
95	53	178	280	121	21
105	240	479	970	1564	1734
115	406	633	1075	1854	2205
125	507	718	1026	1537	1833
135	557	745	949	1204	1347
145	579	736	881	1009	1067
155	583	705	811	887	917
165	579	657	724	769	786
175	575	601	623	639	645
180	572	572	572	572	572

#### ZONAL LUMENS

Zone	Lumens
0	
0-10	21
10-20	60
20-30	89
30-40	102
40-50	101
50-60	86
60-70	62
70-80	34
80-90	10
90	
90-100	151
100-110	585
110-120	710
120-130	634
130-140	512
140-150	397
150-160	284
160-170	169
170-180	55
180	

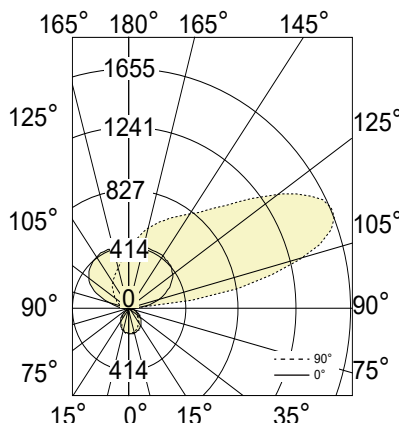
#### LUMINANCE DATA (CD/M<sup>2</sup>)

Vertical Angle	Horizontal Angles		
	0	45	90
45	6400	5433	4988
55	5918	4966	4523
65	5341	4480	4058
75	4650	3910	3537
85	3957	3175	2805

#### SO LENS (SPOTLESS)

TWRWLED-SL90-10-750-80-35-SO-4-W-UNV-DP-1

#### PHOTOMETRIC CURVE



Lumen/ft up: 656 lm/ft  
 Lumen/ft down: 106 lm/ft  
 Total lumens: 3048 lm (for 4ft)  
 Input Watts: 25 W  
 Efficacy: 124 lm/W

IES FILE: TWRWLED-SL90-10-750-80-35-SO-4-W-UNV-DP-1.IES

TESTED ACCORDING TO IES LM-79-2008

#### CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles				
	0	22.5	45	67.5	90
0	170	170	170	170	170
5	169	168	166	165	165
15	163	158	154	150	149
25	151	144	136	131	129
35	132	124	115	108	107
45	108	100	91	86	84
55	81	75	68	63	62
65	54	50	45	42	41
75	29	26	24	22	22
85	8	7	7	6	6
90	1	0	0	0	0
95	40	133	210	91	16
105	180	359	728	1174	1301
115	305	475	806	1391	1655
125	381	538	769	1153	1375
135	418	559	712	904	1010
145	434	552	661	757	801
155	437	529	608	666	688
165	434	493	543	577	590
175	432	451	468	480	484
180	429	429	429	429	429

#### ZONAL LUMENS

Zone	Lumens
0	
0-10	16
10-20	45
20-30	67
30-40	77
40-50	75
50-60	64
60-70	46
70-80	26
80-90	7
90	
90-100	114
100-110	439
110-120	533
120-130	475
130-140	384
140-150	298
150-160	213
160-170	127
170-180	41
180	

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

Vertical Angle	Horizontal Angles		
	0	45	90
45	4802	4076	3742
55	4440	3726	3394
65	4007	3361	3045
75	3489	2934	2654
85	2969	2382	2105

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