

## Indoor Distribution Test Report

# Spectrum Lighting Inc.

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## Spectrum Lighting Photometric Lab

### Luminaire

SGE6LEDOS 30L 35K DS101 AR6223OS MW SO 1FGR  
Nom 6" diam illumitech decorative trim recessed downlight

### Test Number

SP-00918

### Test Date

The results contained in this report pertain only to this IES file.

### Summary of Results

#### Power

Input Watts	29.6 W
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#### Lumen Output

Output Lumens	2365
Efficacy	79.89 lm/W

#### Luminous Dimensions

0° - 180° Size	-0.5
90° - 270° Size	-0.5
Height	0

#### Spacing Criterion

Two luminaires, plane 0°	0.94
Two luminaires, plane 90°	0.94
Four luminaires	0.86

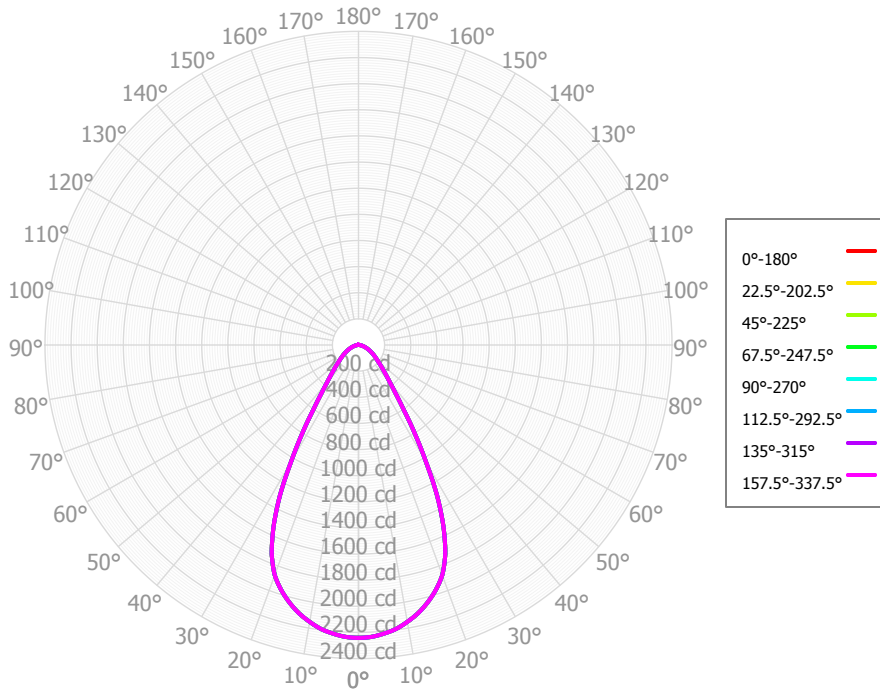
#### Full Beam Angle

0° - 180°	58°
90° - 270°	58°

### IES File Header Contents

Keyword	Value
TEST	SP-00918
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
ISSUEDATE	10/9/2018
UPDATE	8/19/2019
LUMCAT	SGE6LEDOS 30L 35K DS101 AR6223OS MW SO 1FGR
LUMINAIRE	Nom 6" diam illumitech decorative trim recessed downlight
OTHER	Solite lens, Frosted Glass Ring
LAMPCAT	N/A
LAMP	N/A
OTHER	CCT Output Multipliers: 27K x 0.89, 30K x 0.95, 40K x 1.03
OTHER	Total luminaire wattage is approximate
OTHER	This report prepared by Spectrum Lighting

### Candela Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	212.78	9.00%	90.00° - 100.00°	3.99	0.17%
10.00° - 20.00°	570.87	24.14%	100.00° - 110.00°	3.26	0.14%
20.00° - 30.00°	684.47	28.94%	100.00° - 120.00°	5.46	0.23%
30.00° - 40.00°	393.03	16.62%	120.00° - 130.00°	1.31	0.06%
40.00° - 50.00°	209.04	8.84%	130.00° - 140.00°	1.05	0.04%
50.00° - 60.00°	136.83	5.79%	140.00° - 150.00°	0.85	0.04%
60.00° - 70.00°	86.07	3.64%	150.00° - 160.00°	0.63	0.03%
70.00° - 80.00°	43.99	1.86%	160.00° - 170.00°	0.40	0.02%
80.00° - 90.00°	13.93	0.59%	170.00° - 180.00°	0.14	0.01%
0.00° - 90.00°	2,351.01	99.41%	0.00° - 180.00°	2,364.85	100.00%



### Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

RCR	pfc	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	0%	
	pcc	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	10%	0%
	pw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	30%
	0	2,812	2,812	2,812	2,812	2,745	2,745	2,745	2,745	2,620	2,620	2,620	2,505	2,505	2,505	2,400	2,400	2,400	2,351
	1	2,651	2,573	2,503	2,440	2,590	2,520	2,457	2,400	2,420	2,370	2,323	2,329	2,288	2,251	2,245	2,213	2,183	2,167
	2	2,493	2,357	2,244	2,150	2,436	2,314	2,211	2,124	2,233	2,148	2,075	2,159	2,089	2,028	2,090	2,033	1,983	1,991
	3	2,345	2,168	2,031	1,922	2,293	2,133	2,006	1,905	2,066	1,960	1,872	2,005	1,915	1,840	1,948	1,873	1,809	1,835
	4	2,208	2,003	1,853	1,738	2,161	1,974	1,834	1,726	1,919	1,799	1,704	1,868	1,765	1,682	1,821	1,733	1,660	1,698
	5	2,083	1,858	1,702	1,586	2,040	1,834	1,688	1,578	1,788	1,660	1,562	1,746	1,634	1,546	1,706	1,609	1,531	1,578
	6	1,968	1,731	1,572	1,458	1,929	1,711	1,561	1,452	1,672	1,540	1,441	1,636	1,519	1,429	1,602	1,499	1,418	1,471
	7	1,862	1,618	1,460	1,349	1,827	1,601	1,451	1,345	1,568	1,434	1,336	1,537	1,417	1,327	1,508	1,401	1,319	1,376
	8	1,765	1,517	1,361	1,254	1,734	1,502	1,354	1,251	1,474	1,340	1,244	1,448	1,326	1,238	1,423	1,313	1,231	1,291
	9	1,676	1,427	1,274	1,171	1,648	1,414	1,268	1,168	1,390	1,257	1,163	1,367	1,245	1,158	1,345	1,234	1,153	1,214
	10	1,594	1,345	1,196	1,097	1,568	1,334	1,192	1,095	1,313	1,182	1,091	1,293	1,173	1,087	1,274	1,163	1,083	1,145

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	74.1 fc	6.1 ft
6.5 ft	53.1 fc	7.3 ft
7.5 ft	39.9 fc	8.4 ft
8.0 ft	35.0 fc	8.9 ft
10.0 ft	22.4 fc	11.2 ft
12.0 ft	15.6 fc	13.4 ft
14.0 ft	11.4 fc	15.6 ft
16.0 ft	8.8 fc	17.9 ft
20.0 ft	5.6 fc	22.3 ft
24.0 ft	3.9 fc	26.8 ft
28.0 ft	2.9 fc	31.3 ft

### Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
<b>0.00°</b>	122,886	122,886	122,886
<b>45.00°</b>	20,569	20,569	20,569
<b>55.00°</b>	14,515	14,515	14,515
<b>65.00°</b>	11,163	11,163	11,163
<b>75.00°</b>	8,654	8,654	8,654
<b>85.00°</b>	7,357	7,357	7,357

### UGR CIE 190:2010

<b>Ceiling reflectance</b>		<b>0.7</b>	<b>0.7</b>	<b>0.5</b>	<b>0.5</b>	<b>0.3</b>	<b>0.7</b>	<b>0.7</b>	<b>0.5</b>	<b>0.5</b>	<b>0.3</b>
<b>Wall reflectance</b>		<b>0.5</b>	<b>0.3</b>	<b>0.5</b>	<b>0.3</b>	<b>0.3</b>	<b>0.5</b>	<b>0.3</b>	<b>0.5</b>	<b>0.3</b>	<b>0.3</b>
<b>Plane reflectance</b>		<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>
<b>Room dimensions</b>		<b>Viewed crosswise</b>					<b>Viewed endwise</b>				
<b>2H</b>	<b>2H</b>	17.2	18.4	17.6	18.7	19.0	17.2	18.4	17.6	18.7	19.0
	<b>3H</b>	18.5	19.5	18.8	19.8	20.2	18.5	19.5	18.8	19.8	20.2
	<b>4H</b>	18.9	19.9	19.3	20.2	20.6	18.9	19.9	19.3	20.2	20.6
	<b>6H</b>	19.2	20.1	19.6	20.5	20.9	19.2	20.1	19.6	20.5	20.9
	<b>8H</b>	19.3	20.2	19.8	20.6	21.0	19.3	20.2	19.8	20.6	21.0
	<b>12H</b>	19.4	20.2	19.8	20.6	21.0	19.4	20.2	19.8	20.6	21.0
<b>4H</b>	<b>2H</b>	17.6	18.6	18.0	18.9	19.3	17.6	18.6	18.0	18.9	19.3
	<b>3H</b>	19.0	19.8	19.5	20.3	20.7	19.0	19.8	19.5	20.3	20.7
	<b>4H</b>	19.6	20.3	20.0	20.7	21.2	19.6	20.3	20.0	20.7	21.2
	<b>6H</b>	20.0	20.6	20.5	21.1	21.6	20.0	20.6	20.5	21.1	21.6
	<b>8H</b>	20.2	20.7	20.7	21.2	21.7	20.2	20.7	20.7	21.2	21.7
	<b>12H</b>	20.3	20.8	20.8	21.3	21.8	20.3	20.8	20.8	21.3	21.8
<b>8H</b>	<b>4H</b>	19.8	20.3	20.2	20.8	21.3	19.8	20.3	20.2	20.8	21.3
	<b>6H</b>	20.3	20.8	20.8	21.3	21.8	20.3	20.8	20.8	21.3	21.8
	<b>8H</b>	20.5	20.9	21.1	21.5	22.0	20.5	20.9	21.1	21.5	22.0
	<b>12H</b>	20.7	21.1	21.2	21.6	22.2	20.7	21.1	21.2	21.6	22.2
<b>12H</b>	<b>4H</b>	19.7	20.3	20.2	20.7	21.2	19.7	20.3	20.2	20.7	21.2
	<b>6H</b>	20.3	20.7	20.9	21.2	21.8	20.3	20.7	20.9	21.2	21.8
	<b>8H</b>	20.6	21.0	21.1	21.5	22.1	20.6	21.0	21.1	21.5	22.1

Corrected UGR values based on total output lumens

SHR = 1.0