

## **Indoor Distribution Test Report**

# **Spectrum Lighting Inc.**

994 Jefferson Street  
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## **Spectrum Lighting Photometric Lab**

### **Luminaire**

SS16LX-65L-35K-EX  
16" dia. Schoolhouse Shade Pendant, White Glass

### **Test Number**

SP-00372\_5\_M-LX-65L-35K (SP-00372\_11)

### **Test Date**

Tue Jun 17 2014

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

### Summary of Results

#### Power

Input Watts	56 W
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#### Lumen Output

Output Lumens	3215
Efficacy	57.41 lm/W

#### Luminous Dimensions

0° - 180° Size	-1.33
90° - 270° Size	-1.33
Height	0.75

#### Spacing Criterion

Two luminaires, plane 0°	1.31
Two luminaires, plane 90°	1.32
Four luminaires	1.49

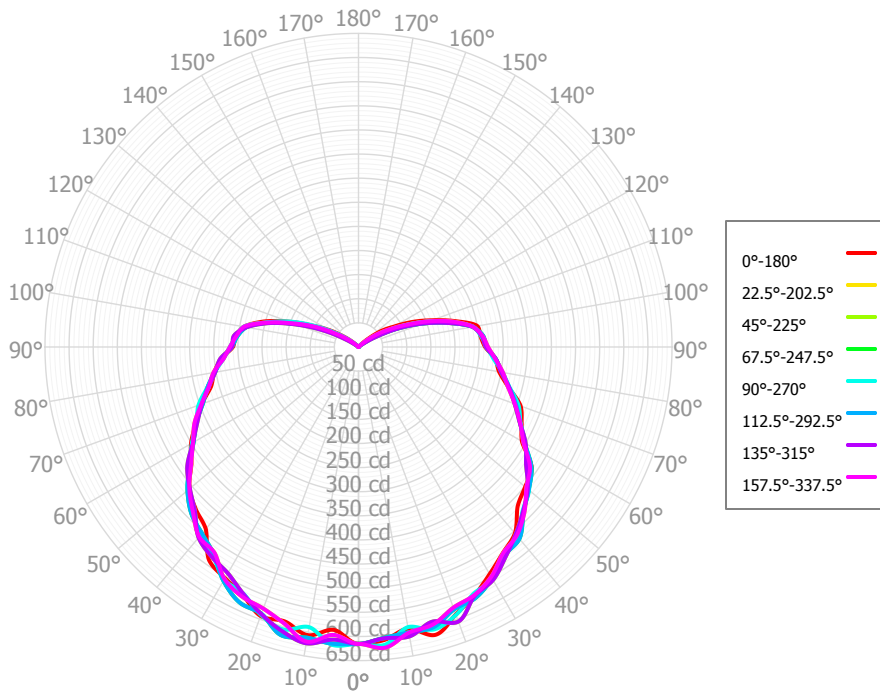
#### Full Beam Angle

0° - 180°	153°
90° - 270°	155°

### IES File Header Contents

Keyword	Value
TESTLAB	Photopia 3.2.11 see: <a href="http://www.ltiopics.com/ies">www.ltiopics.com/ies</a>
ISSUE DATE	
TEST	SP-00372_5_M-LX-65L-35K (SP-00372_11)
TEST DATE	Tue Jun 17 2014
UPDATE	Tue Jul 25 2017
MANUFAC	Spectrum lighting
LUMCAT	SS16LX-65L-35K-EX
LUMINAIRE	16" dia. Schoolhouse Shade Pendant, White Glass
OTHER	Remote driver compartment
LAMP	N/A
LAMPCAT	N/A
OTHER	Total Luminaire Wattage is approximate
OTHER	CCT Output Multipliers: 50K x 1.06, 40K x 1.03, 30K x 0.979, 27K x 0.959
OTHER	This report prepared by Spectrum Lighting, scaled from LEDGV-14W-40K-Gen1

### Candela Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	61.74	1.92%	90.00° - 100.00°	277.46	8.63%
10.00° - 20.00°	169.40	5.27%	100.00° - 110.00°	206.77	6.43%
20.00° - 30.00°	262.97	8.18%	100.00° - 120.00°	306.66	9.54%
30.00° - 40.00°	331.32	10.31%	120.00° - 130.00°	27.57	0.86%
40.00° - 50.00°	373.12	11.61%	130.00° - 140.00°	2.31	0.07%
50.00° - 60.00°	383.40	11.93%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	367.73	11.44%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	341.59	10.63%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	309.50	9.63%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	2,600.78	80.90%	0.00° - 180.00°	3,214.77	100.00%

### Candela Distribution

	0.00°	22.50°	45.00°	67.50°	90.00°	112.50°	135.00°	157.50°	180.00°	202.50°	225.00°	247.50°	270.00°	292.50°	315.00°	337.50°	360.00°
0.00°	615.57	615.57	615.57	615.57	615.57	615.57	615.57	615.57	615.57	615.57	615.57	615.57	615.57	615.57	615.57	615.57	615.57
5.00°	609.90	625.97	606.36	605.52	620.00	617.61	609.06	599.32	588.83	599.32	609.06	617.61	620.00	605.52	606.36	625.97	609.90
10.00°	592.86	601.45	609.19	600.74	589.85	612.07	623.80	620.22	606.63	620.22	623.80	612.07	589.85	600.74	609.19	601.45	592.86
15.00°	617.74	595.78	589.76	601.45	606.05	618.71	610.21	593.70	589.27	593.70	610.21	618.71	606.05	601.45	589.76	595.78	617.74
20.00°	590.07	575.10	605.70	579.00	591.09	588.65	589.27	577.09	593.43	577.09	589.27	588.65	591.09	579.00	605.70	575.10	590.07
25.00°	568.41	567.62	569.35	574.04	564.52	584.13	564.87	571.07	567.44	571.07	564.87	584.13	564.52	574.04	569.35	567.62	568.41
30.00°	543.75	550.17	557.79	553.98	556.68	559.91	541.72	555.53	553.54	555.53	541.72	559.91	556.68	553.98	557.79	550.17	543.75
35.00°	521.57	522.46	531.40	527.55	523.56	530.83	520.77	539.86	520.77	530.83	523.56	527.55	531.40	527.55	531.40	522.46	521.57
40.00°	504.44	510.37	506.96	519.05	512.94	504.84	515.77	513.73	492.62	513.73	515.77	504.84	512.94	519.05	506.96	510.37	504.44
45.00°	466.76	486.11	482.52	483.72	481.06	489.60	479.86	485.31	476.63	485.31	479.86	489.60	481.06	483.72	482.52	486.11	466.76
50.00°	451.13	454.40	458.12	460.74	461.58	462.82	456.44	457.81	457.73	457.81	456.44	462.82	461.58	460.74	458.12	454.40	451.13
55.00°	438.60	434.04	424.16	438.02	428.15	426.73	433.46	423.63	422.92	423.63	433.46	426.73	438.02	428.15	424.16	434.04	438.60
60.00°	391.22	394.68	400.17	397.47	398.79	394.85	396.05	395.92	400.96	395.92	396.05	394.85	398.79	397.47	400.17	394.68	391.22
65.00°	373.20	369.66	368.60	369.40	370.72	370.94	368.64	375.42	371.48	375.42	368.64	370.94	370.72	369.40	368.60	369.66	373.20
70.00°	357.66	344.95	344.47	347.48	353.10	343.45	345.35	346.64	345.57	346.64	345.35	343.45	353.10	347.48	344.47	344.95	357.66
75.00°	321.62	321.05	322.99	323.35	324.32	324.14	321.44	321.58	316.49	321.58	321.44	324.14	324.32	323.35	322.99	321.05	321.62
80.00°	296.07	304.00	300.24	301.70	302.85	302.40	301.70	305.28	303.56	305.28	301.70	302.40	302.85	301.70	300.24	304.00	296.07
85.00°	284.39	284.56	285.93	285.67	281.06	284.96	288.15	280.93	286.29	280.93	288.15	284.96	281.06	285.67	285.93	284.56	284.39
90.00°	262.64	268.62	264.24	264.46	266.54	262.69	262.33	266.72	260.48	266.72	262.33	262.69	266.54	264.46	264.24	268.62	262.64
95.00°	254.01	258.62	256.76	259.77	255.21	252.33	259.63	254.37	255.52	254.37	259.63	252.33	255.21	259.77	256.76	258.62	254.01
100.00°	250.20	241.22	240.64	240.46	241.79	236.48	235.81	241.53	241.26	241.53	235.81	236.48	241.79	240.46	240.64	241.22	250.20
105.00°	207.30	203.05	192.42	193.22	197.07	194.64	191.85	196.19	204.02	196.19	191.85	194.64	193.22	192.42	203.05	207.30	
110.00°	161.83	155.54	142.39	142.52	154.61	139.56	135.66	142.97	153.33	142.97	135.66	139.56	154.61	142.52	142.39	155.54	161.83
115.00°	122.60	107.99	91.47	92.27	107.41	92.67	82.09	99.58	104.00	99.58	82.09	92.67	107.41	92.27	91.47	107.99	122.60
120.00°	84.08	71.55	42.20	48.13	65.26	53.53	34.05	57.96	70.05	57.96	34.05	53.53	65.26	48.13	42.20	71.55	84.08
125.00°	58.53	43.48	12.22	20.01	34.45	23.33	6.95	30.15	39.45	30.15	6.95	23.33	34.45	20.01	12.22	43.48	58.53
130.00°	28.87	17.62	2.44	3.76	10.14	5.36	0.31	9.56	17.67	9.56	0.31	5.36	10.14	3.76	2.44	17.62	28.87
135.00°	8.06	3.32	0.00	0.04	0.13	0.04	0.00	0.13	1.20	0.13	0.00	0.04	0.13	0.04	0.00	3.32	8.06
140.00°	0.13	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.13
145.00°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.00°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.00°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.00°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.00°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
170.00°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
175.00°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.00°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 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%
	pw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%
	0	3,681	3,681	3,681	3,681	3,524	3,524	3,524	3,524	3,231	3,231	3,231	2,963	2,963	2,963	2,717	2,717	2,717
	1	3,224	3,017	2,832	2,665	3,067	2,882	2,715	2,563	2,628	2,492	2,369	2,394	2,286	2,186	2,179	2,094	2,014
	2	2,884	2,564	2,299	2,076	2,735	2,447	2,207	2,003	2,229	2,032	1,861	2,028	1,868	1,727	1,842	1,713	1,598
	3	2,604	2,215	1,915	1,675	2,466	2,116	1,841	1,620	1,928	1,700	1,512	1,755	1,566	1,407	1,594	1,439	1,307
	4	2,368	1,941	1,628	1,388	2,242	1,855	1,567	1,345	1,694	1,451	1,259	1,544	1,341	1,176	1,404	1,235	1,095
	5	2,168	1,719	1,406	1,175	2,052	1,645	1,356	1,139	1,505	1,259	1,070	1,375	1,166	1,002	1,254	1,077	936
	6	1,994	1,537	1,230	1,010	1,890	1,473	1,188	981	1,351	1,106	924	1,238	1,028	867	1,131	952	812
	7	1,844	1,385	1,088	880	1,748	1,330	1,053	856	1,223	983	808	1,123	915	760	1,030	851	714
	8	1,712	1,258	972	776	1,625	1,209	941	755	1,115	881	714	1,027	823	674	944	767	634
	9	1,596	1,149	876	691	1,517	1,106	849	673	1,023	796	638	945	746	603	871	697	568
	10	1,493	1,056	794	620	1,421	1,017	771	605	943	725	574	874	680	544	808	637	514

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	20.3 fc	48.3 ft
6.5 ft	14.6 fc	57.1 ft
7.5 ft	10.9 fc	65.9 ft
8.0 ft	9.6 fc	70.3 ft
10.0 ft	6.2 fc	87.9 ft
12.0 ft	4.3 fc	105.5 ft
14.0 ft	3.1 fc	123.1 ft
16.0 ft	2.4 fc	140.6 ft
20.0 ft	1.5 fc	175.8 ft
24.0 ft	1.1 fc	211.0 ft
28.0 ft	0.8 fc	246.1 ft

### Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
<b>0.00°</b>	4,769	4,769	4,769
<b>45.00°</b>	2,977	3,077	3,068
<b>55.00°</b>	2,925	2,829	2,855
<b>65.00°</b>	2,694	2,661	2,676
<b>75.00°</b>	2,617	2,628	2,639
<b>85.00°</b>	2,746	2,761	2,714

### UGR CIE 190:2010

Ceiling reflectance		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall reflectance		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Plane reflectance		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
2H	2H	-	-	-	-	-	-	-	-	-	-
	3H	-	-	-	-	-	-	-	-	-	-
	4H	-	-	-	-	-	-	-	-	-	-
	6H	-	-	-	-	-	-	-	-	-	-
	8H	-	-	-	-	-	-	-	-	-	-
	12H	-	-	-	-	-	-	-	-	-	-
4H	2H	-	-	-	-	-	-	-	-	-	-
	3H	-	-	-	-	-	-	-	-	-	-
	4H	-	-	-	-	-	-	-	-	-	-
	6H	-	-	-	-	-	-	-	-	-	-
	8H	-	-	-	-	-	-	-	-	-	-
	12H	-	-	-	-	-	-	-	-	-	-
8H	4H	-	-	-	-	-	-	-	-	-	-
	6H	-	-	-	-	-	-	-	-	-	-
	8H	-	-	-	-	-	-	-	-	-	-
	12H	-	-	-	-	-	-	-	-	-	-
12H	4H	-	-	-	-	-	-	-	-	-	-
	6H	-	-	-	-	-	-	-	-	-	-
	8H	-	-	-	-	-	-	-	-	-	-

Corrected UGR values based on total output lumens

SHR = 1.0