

Indoor Distribution Test Report

Spectrum Lighting Inc.

994 Jefferson Street
Fall River, MA 02721
+1.508.678.2303

Spectrum Lighting Photometric Lab

Luminaire

SS16LX-140L-35K-EX
16" dia. Schoolhouse Shade Pendant, White Glass

Test Number

SP-00372_5_M-LX-100L-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	112 W
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Lumen Output

Output Lumens	6509
Efficacy	58.11 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

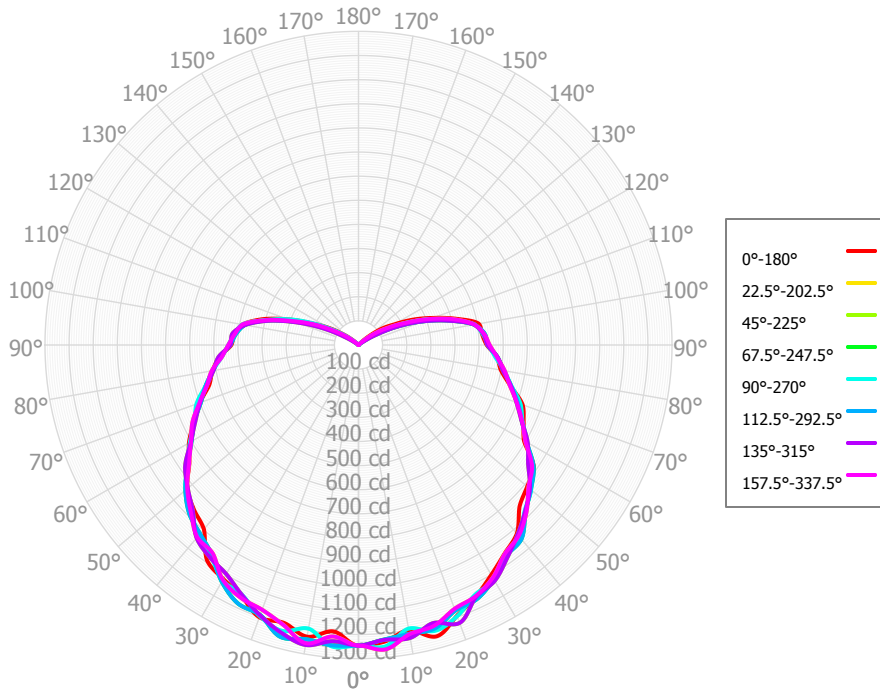
Full Beam Angle

0° - 180°	153°
90° - 270°	155°

IES File Header Contents

Keyword	Value
TESTLAB	Photopia 3.2.11 see: www.lti-optics.com/ies
ISSUEDATE	4/24/2019
TEST	SP-00372_5_M-LX-100L-35K (SP-00372_11)
TESTDATE	Tue Jun 17 2014
UPDATE	Tue Jul 25 2017
MANUFAC	Spectrum lighting
LUMCAT	SS16LX-140L-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
_CRI	85+
_CCTMULT	27K x 0.96, 30K x 0.98, 40K x 1.03, 50K x 1.06
_LAMPMULT	65L x 0.67, 100L x 1.0

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	124.99	1.92%	90.00° - 100.00°	561.74	8.63%
10.00° - 20.00°	342.96	5.27%	100.00° - 110.00°	418.63	6.43%
20.00° - 30.00°	532.42	8.18%	100.00° - 120.00°	620.87	9.54%
30.00° - 40.00°	670.79	10.31%	120.00° - 130.00°	55.82	0.86%
40.00° - 50.00°	755.42	11.61%	130.00° - 140.00°	4.67	0.07%
50.00° - 60.00°	776.24	11.93%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	744.52	11.44%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	691.59	10.63%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	626.62	9.63%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	5,265.54	80.90%	0.00° - 180.00°	6,508.64	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°	1,246.28	1,246.28	1,246.28	1,246.28	1,246.28	1,246.28	1,246.28	1,246.28	1,246.28	1,246.28	1,246.28	1,246.28	1,246.28	1,246.28	1,246.28	1,246.28	1,246.28
5.00°	1,234.81	1,267.35	1,227.64	1,225.94	1,255.25	1,250.41	1,233.11	1,213.39	1,192.14	1,213.39	1,233.11	1,250.41	1,255.25	1,225.94	1,227.64	1,267.35	1,234.81
10.00°	1,200.30	1,217.69	1,233.37	1,216.25	1,194.20	1,239.20	1,262.96	1,255.70	1,228.18	1,255.70	1,262.96	1,239.20	1,194.20	1,216.25	1,233.37	1,217.69	1,200.30
15.00°	1,250.68	1,206.21	1,194.02	1,217.69	1,227.01	1,252.65	1,235.44	1,202.00	1,193.04	1,202.00	1,235.44	1,252.65	1,227.01	1,217.69	1,194.02	1,206.21	1,250.68
20.00°	1,194.65	1,164.35	1,226.29	1,172.24	1,196.71	1,191.78	1,193.04	1,168.39	1,201.46	1,168.39	1,193.04	1,191.78	1,196.71	1,172.24	1,226.29	1,164.35	1,194.65
25.00°	1,150.82	1,149.20	1,152.70	1,162.20	1,142.93	1,182.64	1,143.64	1,156.19	1,148.84	1,156.19	1,143.64	1,182.64	1,142.93	1,162.20	1,152.70	1,149.20	1,150.82
30.00°	1,100.89	1,113.88	1,129.30	1,121.59	1,127.06	1,133.60	1,096.76	1,124.73	1,120.70	1,124.73	1,096.76	1,133.60	1,127.06	1,121.59	1,129.30	1,113.88	1,100.89
35.00°	1,055.98	1,057.77	1,075.88	1,068.08	1,067.90	1,060.01	1,074.71	1,054.36	1,093.00	1,054.36	1,074.71	1,060.01	1,067.90	1,068.08	1,075.88	1,057.77	1,055.98
40.00°	1,021.28	1,033.30	1,026.39	1,050.87	1,038.50	1,022.09	1,044.23	1,040.11	997.35	1,040.11	1,044.23	1,022.09	1,038.50	1,050.87	1,026.39	1,033.30	1,021.28
45.00°	945.00	984.17	976.91	979.33	973.95	991.25	971.53	982.56	964.99	982.56	971.53	991.25	973.95	979.33	976.91	984.17	945.00
50.00°	913.36	919.99	927.52	932.81	934.51	937.02	924.11	926.89	926.71	926.89	924.11	937.02	934.51	932.81	927.52	919.99	913.36
55.00°	887.99	878.75	858.76	886.82	866.83	863.96	877.59	857.69	856.25	857.69	877.59	863.96	866.83	886.82	858.76	878.75	887.99
60.00°	792.07	799.06	810.18	804.71	807.40	799.42	801.84	801.57	811.79	801.57	801.84	799.42	807.40	804.71	810.18	799.06	792.07
65.00°	755.59	748.42	746.26	747.88	750.57	751.02	746.35	760.07	752.09	760.07	746.35	751.02	750.57	747.88	746.26	748.42	755.59
70.00°	724.12	698.40	697.41	703.51	714.89	695.35	699.20	701.80	699.65	701.80	699.20	695.35	714.89	703.51	697.41	698.40	724.12
75.00°	651.15	649.99	653.93	654.65	656.62	656.26	650.80	651.06	640.76	651.06	650.80	656.26	656.62	654.65	653.93	649.99	651.15
80.00°	599.43	615.48	607.86	610.82	613.15	612.25	610.82	618.08	614.58	618.08	610.82	612.25	613.15	610.82	607.86	615.48	599.43
85.00°	575.77	576.12	578.90	578.37	569.04	576.93	583.39	568.77	579.62	568.77	583.39	576.93	569.04	578.37	578.90	576.12	575.77
90.00°	531.75	543.85	534.98	535.43	539.64	531.84	531.13	540.00	527.36	540.00	531.13	531.84	539.64	535.43	534.98	543.85	531.75
95.00°	514.27	523.59	519.83	525.93	516.69	510.87	525.66	514.99	517.32	514.99	525.66	510.87	516.69	525.93	519.83	523.59	514.27
100.00°	506.56	488.37	487.20	486.84	489.53	478.77	477.43	488.99	488.46	488.99	477.43	488.77	489.53	486.84	487.20	488.37	506.56
105.00°	419.70	411.10	389.58	391.19	398.99	394.06	388.42	397.20	413.07	397.20	388.42	394.06	398.99	391.19	389.58	411.10	419.70
110.00°	327.64	314.91	288.29	288.56	313.03	282.55	274.66	289.45	310.43	289.45	274.66	282.55	313.03	288.56	288.29	314.91	327.64
115.00°	248.22	218.64	185.20	186.81	217.47	187.62	166.19	201.60	210.57	201.60	166.19	187.62	217.47	186.81	185.20	218.64	248.22
120.00°	170.23	144.86	85.43	97.44	132.13	108.38	68.93	117.34	141.81	117.34	68.93	108.38	132.13	97.44	85.43	144.86	170.23
125.00°	118.51	88.03	24.74	40.52	69.74	47.24	14.07	61.05	79.87	61.05	14.07	47.24	69.74	40.52	24.74	88.03	118.51
130.00°	58.45	35.68	4.93	7.62	20.53	10.85	0.63	19.36	35.77	19.36	0.63	10.85	20.53	7.62	4.93	35.68	58.45
135.00°	16.31	6.72	0.00	0.09	0.27	0.09	0.00	0.27	2.42	0.27	0.00	0.09	0.27	0.09	0.00	6.72	16.31
140.00°	0.27	0.09	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	0.09	0.27
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.

	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%	0%
	pw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	30%
RCR	0	7,452	7,452	7,452	7,452	7,135	7,135	7,135	7,135	6,541	6,541	6,541	5,998	5,998	5,998	5,500	5,500	5,266
	1	6,527	6,109	5,734	5,396	6,210	5,834	5,496	5,189	5,320	5,046	4,795	4,848	4,629	4,426	4,412	4,240	4,036
	2	5,839	5,190	4,654	4,203	5,538	4,955	4,468	4,055	4,514	4,114	3,769	4,106	3,781	3,496	3,730	3,468	3,235
	3	5,272	4,485	3,876	3,392	4,992	4,284	3,727	3,279	3,904	3,441	3,061	3,553	3,171	2,850	3,227	2,914	2,646
	4	4,795	3,929	3,295	2,811	4,539	3,756	3,173	2,723	3,429	2,938	2,550	3,125	2,714	2,381	2,843	2,501	2,218
	5	4,388	3,481	2,846	2,378	4,155	3,331	2,745	2,307	3,048	2,549	2,166	2,784	2,361	2,029	2,538	2,181	1,895
	6	4,038	3,112	2,491	2,045	3,826	2,982	2,405	1,986	2,736	2,240	1,870	2,506	2,081	1,756	2,291	1,928	1,644
	7	3,732	2,805	2,204	1,782	3,540	2,692	2,131	1,733	2,476	1,990	1,635	2,275	1,853	1,539	2,085	1,722	1,445
	8	3,465	2,546	1,968	1,571	3,290	2,447	1,906	1,529	2,257	1,784	1,446	2,079	1,666	1,364	1,912	1,552	1,283
	9	3,230	2,326	1,773	1,398	3,071	2,239	1,718	1,362	2,071	1,612	1,291	1,913	1,510	1,220	1,764	1,410	1,151
	10	3,023	2,138	1,608	1,255	2,877	2,060	1,561	1,224	1,910	1,468	1,162	1,769	1,378	1,101	1,636	1,290	1,040

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	41.2 fc	48.3 ft
6.5 ft	29.5 fc	57.1 ft
7.5 ft	22.2 fc	65.9 ft
8.0 ft	19.5 fc	70.3 ft
10.0 ft	12.5 fc	87.9 ft
12.0 ft	8.7 fc	105.5 ft
14.0 ft	6.4 fc	123.1 ft
16.0 ft	4.9 fc	140.6 ft
20.0 ft	3.1 fc	175.8 ft
24.0 ft	2.2 fc	211.0 ft
28.0 ft	1.6 fc	246.1 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	9,656	9,656	9,656
45.00°	6,027	6,231	6,212
55.00°	5,922	5,727	5,781
65.00°	5,454	5,387	5,418
75.00°	5,297	5,320	5,342
85.00°	5,559	5,590	5,494

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