

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

EV04IND8GL 05L 35K xx DW xx FS xx

4" Wide x 96" linear pendant or surface mount for semi-direct illumination

Test Number

SP-01622

Test Date

11/15/2023

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

Summary of Results

Power

Input Watts	30.4 W
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Lumen Output

Output Lumens	3448
Efficacy	113.42 lm/W

Luminous Dimensions

0° - 180° Size	0.33
90° - 270° Size	8
Height	0.19

Spacing Criterion

Two luminaires, plane 0°	1.39
Two luminaires, plane 90°	1.23
Four luminaires	1.46

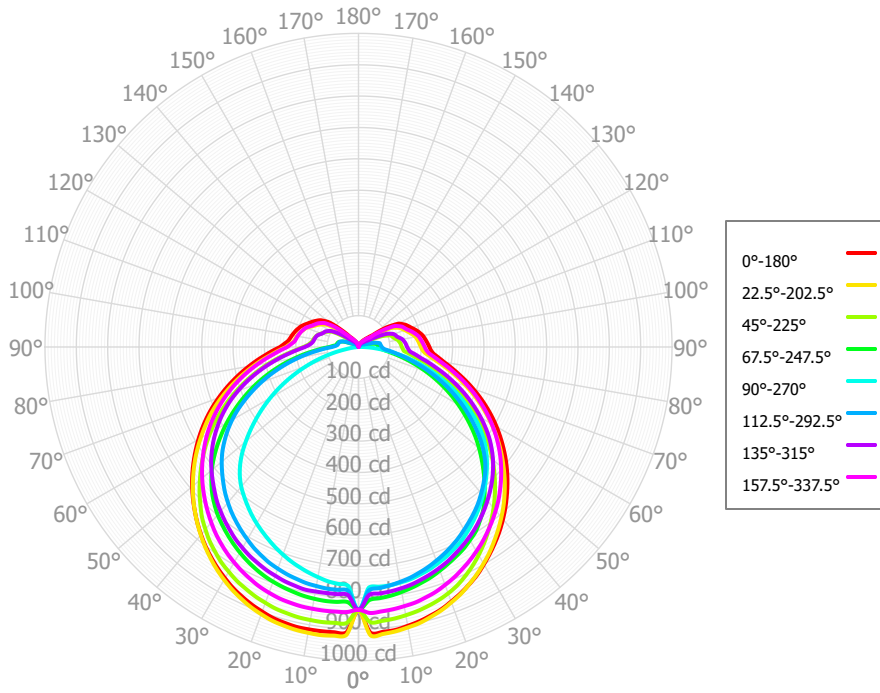
Full Beam Angle

0° - 180°	135°
90° - 270°	107°

IES File Header Contents

Keyword	Value
TEST	SP-01622
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	11/15/2023
ISSUEDATE	11/16/2023
LUMCAT	EV04IND8GL 05L 35K xx DW xx FS xx
LUMINAIRE	4" Wide x 96" linear pendant or surface mount for semi-direct illumination
OTHER	Diffuse White Acrylic Lens
OTHER	Matte White interior finish
OTHER	Beam Angle 135 deg x 107 deg
OTHER	2000 Source Lms/Ft
OTHER	80+ CRI
OTHER	CCT Output Multipliers: 30K x 0.98, 40K x 1.0
OTHER	Total Luminaire Watts is approximate
OTHER	This report prepared by Spectrum Lighting, Scaled from the EV04IND4GL 20L 35K

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	81.01	2.35%	90.00° - 100.00°	145.50	4.22%
10.00° - 20.00°	232.19	6.73%	100.00° - 110.00°	123.12	3.57%
20.00° - 30.00°	361.02	10.47%	100.00° - 120.00°	214.41	6.22%
30.00° - 40.00°	451.67	13.10%	120.00° - 130.00°	53.02	1.54%
40.00° - 50.00°	493.33	14.31%	130.00° - 140.00°	21.65	0.63%
50.00° - 60.00°	478.49	13.88%	140.00° - 150.00°	8.92	0.26%
60.00° - 70.00°	408.65	11.85%	150.00° - 160.00°	3.46	0.10%
70.00° - 80.00°	299.70	8.69%	160.00° - 170.00°	0.92	0.03%
80.00° - 90.00°	193.97	5.63%	170.00° - 180.00°	0.15	0.00%
0.00° - 90.00°	3000.02	87.01%	0.00° - 180.00°	3448.04	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°	838.37	838.37	838.37	838.37	838.37	838.37	838.37	838.37	838.37	838.37	838.37	838.37	838.37	838.37	838.37	838.37	838.37
2.50°	913.40	922.04	878.99	807.75	767.91	777.62	791.32	846.15	912.23	920.66	881.55	814.19	762.36	776.31	791.18	849.26	913.40
5.00°	911.83	918.43	876.76	803.78	767.52	777.38	791.36	847.19	913.28	924.07	883.17	816.09	758.28	771.80	788.95	846.58	911.83
7.50°	910.07	914.53	873.80	799.65	766.81	777.11	791.44	848.08	914.26	926.84	884.90	816.92	753.49	767.08	786.17	843.74	910.07
10.00°	903.24	908.20	868.93	793.26	763.14	774.25	791.89	847.81	914.59	925.71	884.28	815.38	745.27	761.01	781.71	839.48	903.24
12.50°	896.22	901.74	863.19	786.35	759.32	771.27	792.38	847.13	914.42	924.08	883.19	812.73	736.72	754.48	776.32	835.03	896.22
15.00°	887.07	891.17	855.66	778.18	752.27	765.68	788.05	844.19	910.79	920.25	879.58	808.05	726.97	745.61	768.58	827.17	887.07
17.50°	877.43	880.40	846.98	769.79	745.12	759.94	783.32	840.56	906.37	915.43	875.63	802.82	716.64	736.32	760.37	818.99	877.43
20.00°	864.19	866.73	836.34	759.07	735.49	752.41	776.44	834.13	898.16	907.13	868.37	796.73	704.57	725.40	751.17	807.67	864.19
22.50°	850.64	852.64	823.08	748.08	725.73	744.49	769.47	826.81	889.37	897.84	860.84	789.14	692.00	714.07	740.88	796.00	850.64
25.00°	835.53	835.17	806.02	736.80	714.39	733.73	760.51	816.60	878.40	885.81	850.89	779.59	678.23	701.53	728.70	782.15	835.53
27.50°	819.56	817.36	787.25	725.52	702.55	722.51	751.43	805.77	866.45	872.77	840.81	768.83	664.19	688.29	716.18	767.98	819.56
30.00°	800.23	797.60	766.41	711.21	686.99	708.92	740.07	793.29	851.63	857.41	827.67	756.73	649.63	673.39	703.20	752.34	800.23
32.50°	780.67	777.35	744.12	696.68	671.17	695.08	728.46	779.99	836.17	841.02	814.35	743.56	634.18	658.47	689.11	736.20	780.67
35.00°	760.38	754.98	720.34	675.48	654.03	680.27	714.20	764.94	819.20	822.70	797.36	729.40	617.25	643.52	673.66	718.25	760.38
37.50°	739.45	732.38	695.70	653.82	636.47	664.90	699.77	748.78	801.25	803.43	780.05	714.37	599.85	627.28	657.23	700.00	739.45
40.00°	716.90	709.00	670.31	624.83	617.26	647.84	684.24	730.64	781.36	782.68	759.57	698.65	581.78	608.95	639.76	680.87	716.90
42.50°	693.70	684.96	643.52	595.63	597.70	630.00	668.17	711.91	760.67	761.12	738.45	680.26	560.12	590.24	621.48	660.94	693.70
45.00°	669.15	659.11	615.70	564.52	577.04	610.18	649.47	692.32	738.69	738.49	713.16	660.07	534.23	571.00	602.47	639.09	669.15
47.50°	644.21	632.71	586.98	533.37	555.75	590.11	630.76	672.04	716.08	714.73	687.55	636.46	503.94	548.37	581.83	616.82	644.21
50.00°	618.60	605.11	557.69	501.99	532.86	569.51	612.07	650.89	692.60	689.71	660.39	610.93	469.31	521.77	559.99	593.72	618.60
52.50°	592.22	577.28	527.38	470.11	508.22	547.13	592.45	628.76	668.10	663.96	632.96	581.61	433.93	491.92	535.69	569.75	592.22
55.00°	564.71	549.02	496.53	436.06	479.91	521.64	570.19	605.57	642.42	637.51	604.56	550.55	397.90	458.78	509.83	544.41	564.71
57.50°	536.81	519.88	465.06	401.97	449.13	494.70	547.17	581.73	616.25	609.89	575.71	518.28	361.56	425.01	480.96	518.25	536.81
60.00°	508.41	489.40	433.33	367.77	414.09	465.68	522.30	557.30	589.61	581.34	545.51	485.56	324.98	390.69	450.51	490.97	508.41
62.50°	479.28	458.82	401.16	333.43	378.82	434.27	496.57	531.51	562.16	552.89	514.65	451.52	287.74	356.04	418.74	462.92	479.28
65.00°	449.38	428.12	368.83	298.72	343.24	399.99	469.15	504.66	534.03	524.51	482.23	417.08	250.10	321.17	386.39	433.97	449.38
67.50°	419.22	397.24	335.44	264.04	306.63	365.57	440.17	476.75	504.87	494.15	449.59	382.50	212.82	285.79	353.58	404.67	419.22
70.00°	388.82	366.16	301.75	229.42	268.76	330.98	408.61	448.16	474.99	462.66	416.54	347.87	175.70	250.11	320.61	375.02	388.82
72.50°	359.01	335.79	270.04	195.61	231.74	295.92	376.56	418.90	444.75	431.00	383.48	312.31	139.76	215.64	288.63	345.69	359.01
75.00°	329.62	306.06	238.76	163.28	195.60	260.43	343.82	389.27	414.31	399.27	350.39	276.58	104.30	181.77	256.92	316.61	329.62
77.50°	302.65	278.04	210.58	133.20	159.71	225.85	311.20	359.66	384.46	368.22	317.59	241.55	72.54	152.03	229.05	289.62	302.65
80.00°	277.21	251.37	182.89	106.62	124.05	191.93	278.72	330.04	354.90	337.45	285.22	206.59	42.03	124.03	202.02	264.04	277.21
82.50°	257.07	230.17	163.89	85.64	91.05	160.35	247.77	301.53	326.55	308.02	253.85	174.18	22.52	103.00	182.86	243.28	257.07
85.00°	239.77	212.56	145.77	71.91	60.02	130.22	218.36	273.42	298.69	279.01	223.67	141.95	5.92	84.31	164.92	225.33	239.77
87.50°	231.11	203.52	141.59	64.14	35.18	105.96	192.97	249.77	273.98	254.68	197.53	116.99	2.42	77.79	159.35	216.23	231.11
90.00°	226.21	199.14	138.24	62.94	14.16	84.72	170.93	227.45	250.34	231.47	175.40	92.37	1.50	74.45	155.13	211.36	226.21
92.50°	221.64	195.51	136.18	62.25	4.78	74.17	157.22	215.07	236.43	218.56	161.01	81.15	1.17	72.58	152.42	207.05	221.64
95.00°	217.19	192.22	134.10	62.04	1.53	68.25	149.32	204.96	225.08	207.56	153.07	70.49	0.92	71.03	149.79	202.97	217.19
97.50°	212.76	188.70	130.81	59.97	0.59	66.06	145.10	200.62	219.50	203.02	148.10	69.58	0.97	69.86	145.96	198.88	212.76
100.00°	208.34	185.10	127.32	56.45	0.65	65.15	143.07	197.24	215.12	199.29	145.27	68.56	1.03	68.74	142.02	194.78	208.34
102.50°	201.91	178.55	121.17	47.96	0.68	63.74	140.50	193.28	210.39	194.45	142.07	66.56	1.07	60.95	134.68	187.94	201.91
105.00°	195.04	171.09	115.39	36.13	0.71	62.18	137.67	189.26	205.62	189.53	138.65	63.99	1.12	52.50	127.60	180.42	195.04

Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

RCR	ptc	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%
	0	3998	3998	3998	3998	3853	3853	3853	3853	3582	3582	3582	3334	3334	3334	3107	3107	3000
	1	3574	3380	3207	3050	3431	3257	3100	2958	3026	2899	2782	2813	2711	2617	2617	2537	2443
	2	3220	2904	2644	2425	3083	2799	2562	2361	2602	2406	2237	2420	2259	2119	2251	2122	2006
	3	2918	2526	2223	1981	2790	2436	2158	1934	2267	2034	1842	2111	1916	1753	1965	1805	1734
	4	2659	2221	1900	1655	2542	2144	1848	1619	1999	1747	1548	1865	1652	1479	1739	1560	1499
	5	2437	1973	1648	1409	2330	1907	1605	1380	1781	1522	1324	1665	1443	1268	1556	1367	1314
	6	2244	1767	1447	1217	2147	1710	1411	1194	1601	1342	1148	1500	1275	1103	1405	1211	1165
	7	2076	1595	1284	1065	1987	1545	1253	1046	1451	1194	1008	1362	1138	970	1279	1083	1043
	8	1928	1450	1149	942	1848	1406	1123	926	1323	1073	894	1246	1024	862	1173	977	942
	9	1798	1326	1037	841	1725	1288	1014	827	1215	971	800	1146	929	773	1081	888	857
	10	1683	1219	942	757	1616	1185	923	745	1121	885	722	1060	848	698	1002	812	785

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	27.7 fc	27.1 ft
6.5 ft	19.8 fc	32.1 ft
7.5 ft	14.9 fc	37.0 ft
8.0 ft	13.1 fc	39.5 ft
10.0 ft	8.4 fc	49.3 ft
12.0 ft	5.8 fc	59.2 ft
14.0 ft	4.3 fc	69.0 ft
16.0 ft	3.3 fc	78.9 ft
20.0 ft	2.1 fc	98.6 ft
24.0 ft	1.5 fc	118.4 ft
28.0 ft	1.1 fc	138.1 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	3418	3418	3418
45.00°	2449	2493	3250
55.00°	2203	2199	3300
65.00°	1940	1864	3151
75.00°	1649	1457	2830
85.00°	1480	1167	2208

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	15.2	16.6	15.7	17.2	17.8	13.5	14.9	14.0	15.5	16.1
	3H	17.6	18.9	18.2	19.5	20.1	14.9	16.2	15.5	16.8	17.4
	4H	18.7	20.0	19.3	20.6	21.2	15.3	16.6	15.9	17.2	17.8
	6H	19.9	21.1	20.5	21.7	22.4	15.6	16.7	16.2	17.3	18.0
	8H	20.6	21.7	21.2	22.3	23.0	15.6	16.7	16.2	17.4	18.0
	12H	21.3	22.3	21.9	22.9	23.7	15.6	16.7	16.3	17.3	18.0
4H	2H	15.5	16.7	16.1	17.3	18.0	14.5	15.8	15.1	16.4	17.0
	3H	18.1	19.2	18.7	19.8	20.5	16.3	17.3	16.9	18.0	18.7
	4H	19.4	20.4	20.1	21.0	21.8	16.9	17.9	17.5	18.5	19.2
	6H	20.8	21.7	21.4	22.3	23.0	17.3	18.2	17.9	18.8	19.5
	8H	21.5	22.3	22.2	23.0	23.7	17.4	18.2	18.0	18.9	19.6
	12H	22.4	23.1	23.0	23.8	24.5	17.4	18.2	18.1	18.9	19.6
8H	4H	19.6	20.4	20.2	21.0	21.8	17.7	18.5	18.3	19.2	19.9
	6H	21.1	21.8	21.8	22.5	23.2	18.3	19.0	19.0	19.7	20.5
	8H	21.9	22.6	22.6	23.3	24.0	18.5	19.2	19.2	19.9	20.6
	12H	22.9	23.5	23.6	24.2	25.0	18.7	19.2	19.4	19.9	20.7
12H	4H	19.6	20.3	20.2	21.0	21.7	17.9	18.6	18.6	19.3	20.1
	6H	21.1	21.7	21.8	22.4	23.2	18.7	19.3	19.3	19.9	20.8
	8H	22.0	22.6	22.7	23.3	24.1	19.0	19.5	19.6	20.2	21.0

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0