

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

IF03SMx xx 835 010 DLSPGP MW
Nom 3" Square Infinium recessed downlight

Test Number

SP-00764_2_M-010L

Test Date

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

Summary of Results

Power

Input Watts	9.3 W
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Lumen Output

Output Lumens	524
Efficacy	56.39 lm/W

Luminous Dimensions

0° - 180° Size	0.16
90° - 270° Size	0.16
Height	0

Spacing Criterion

Two luminaires, plane 0°	0.42
Two luminaires, plane 90°	0.44
Four luminaires	0.47

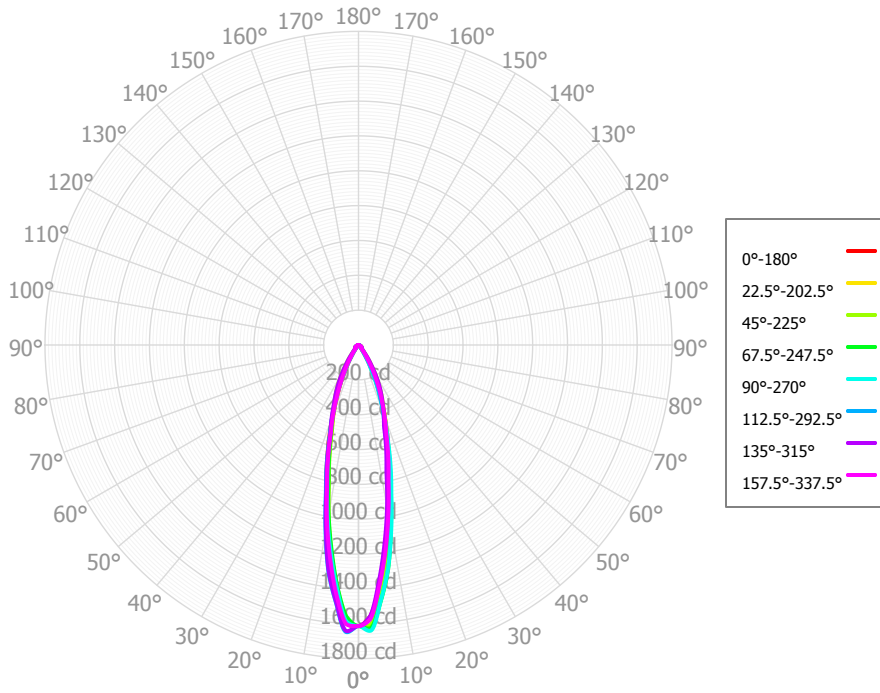
Full Beam Angle

0° - 180°	25°
90° - 270°	26°

IES File Header Contents

Keyword	Value
TEST	SP-00764_2_M-010L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
ISSUEDATE	2/11/2019
UPDATE	2/28/2019
LUMCAT	IF03SMx xx 835 010 DLSPGP MW
LUMINAIRE	Nom 3" Square Infinium recessed downlight
OTHER	Beam Angle: 25 degrees
OTHER	Narrow Flood optic, Solite Lens
OTHER	Aluminum bezel contains lens
LAMPCAT	N/A
LAMP	N/A, CRI: 80, Philips
OTHER	CCT Multiplier: 40K x 1.03
OTHER	Total luminaire wattage is approximate
OTHER	This report prepared by Spectrum Lighting, scaled from 20L

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	123.76	23.60%	90.00° - 100.00°	0.07	0.01%
10.00° - 20.00°	184.03	35.09%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	123.59	23.57%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	42.92	8.19%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	14.35	2.74%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	17.62	3.36%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	11.78	2.25%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	5.17	0.99%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	1.12	0.21%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	524.33	99.99%	0.00° - 180.00°	524.40	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°	1,613.58	1,613.58	1,613.58	1,613.58	1,613.58	1,613.58	1,613.58	1,613.58	1,613.58	1,613.58	1,613.58	1,613.58	1,613.58	1,613.58	1,613.58	1,613.58	1,613.58
2.50°	1,558.57	1,616.83	1,607.73	1,626.62	1,641.25	1,649.19	1,643.14	1,603.69	1,600.61	1,595.63	1,593.08	1,562.98	1,589.74	1,570.58	1,557.32	1,573.90	1,558.57
5.00°	1,385.81	1,421.37	1,429.04	1,473.80	1,471.83	1,484.89	1,479.16	1,443.61	1,431.70	1,396.95	1,406.64	1,393.39	1,408.94	1,377.05	1,356.96	1,383.05	1,385.81
7.50°	1,171.19	1,224.17	1,224.57	1,300.01	1,297.25	1,317.27	1,310.61	1,242.53	1,252.72	1,198.14	1,215.58	1,185.68	1,212.86	1,176.51	1,147.47	1,189.36	1,171.19
10.00°	987.74	1,020.84	1,007.25	1,068.93	1,080.95	1,089.08	1,079.33	1,038.49	1,045.16	991.01	995.41	988.02	1,020.95	977.63	944.53	985.40	987.74
12.50°	814.47	817.66	788.13	855.04	870.62	864.84	853.04	833.70	852.52	785.40	786.00	793.76	829.48	778.81	741.95	796.19	814.47
15.00°	675.35	679.40	643.02	687.31	708.57	703.39	691.65	676.96	700.66	645.43	640.35	649.01	685.50	638.68	612.78	658.01	675.35
17.50°	547.39	541.41	508.27	537.11	551.51	545.57	536.34	531.90	557.51	506.75	505.75	520.45	546.13	500.38	487.47	530.51	547.39
20.00°	437.79	447.93	433.28	433.16	432.01	445.71	452.26	425.05	437.32	415.94	433.00	424.61	440.26	414.89	423.62	439.98	437.79
22.50°	333.95	354.73	366.10	337.86	316.95	347.57	370.15	327.48	326.72	325.83	362.99	339.26	337.49	331.06	362.51	353.67	333.95
25.00°	249.49	282.30	308.00	264.56	233.07	273.71	310.13	251.26	241.43	258.09	308.28	264.44	254.18	261.82	307.04	281.39	249.49
27.50°	170.87	210.12	250.99	195.59	153.57	201.05	250.31	179.98	164.92	190.92	252.87	192.93	172.58	192.93	251.80	212.29	170.87
30.00°	115.67	153.10	192.99	137.43	104.84	144.50	192.69	127.95	110.79	138.64	193.73	137.04	119.28	139.01	194.18	153.57	115.67
32.50°	67.55	96.59	134.88	87.32	60.14	89.95	136.54	80.17	66.23	87.27	137.59	85.87	68.25	85.33	136.47	100.41	67.55
35.00°	43.41	64.96	93.76	56.96	42.07	60.66	94.61	53.33	45.19	59.27	96.59	56.60	46.92	58.89	96.97	65.00	43.41
37.50°	26.23	33.95	54.56	32.86	25.80	33.07	55.12	31.12	28.22	32.19	59.28	33.81	27.84	32.89	58.01	35.70	26.23
40.00°	19.21	24.70	37.38	23.63	20.69	24.99	38.41	22.63	21.22	25.05	40.59	24.02	21.36	24.79	41.96	25.14	19.21
42.50°	15.02	15.71	22.48	16.83	16.20	17.54	23.14	17.01	15.83	18.22	24.56	18.01	15.79	16.84	26.58	16.81	15.02
45.00°	13.93	14.90	19.41	15.71	15.60	17.07	20.79	15.67	14.23	16.84	21.31	17.25	15.25	16.77	22.80	15.17	13.93
47.50°	13.72	14.20	17.56	15.44	15.40	16.76	18.86	15.18	13.92	15.73	19.13	17.95	15.03	16.70	19.27	14.66	13.72
50.00°	16.10	16.77	18.87	17.14	17.56	18.08	20.51	17.36	16.54	19.44	21.92	19.77	17.64	18.42	20.95	17.47	16.10
52.50°	19.17	19.25	20.48	18.47	19.36	19.31	22.02	20.08	18.87	22.85	23.98	21.89	20.43	20.14	22.71	19.68	19.17
55.00°	19.96	19.40	19.67	18.97	19.17	19.77	22.40	20.98	20.53	21.64	22.71	20.92	20.00	19.42	21.10	20.18	19.96
57.50°	20.15	19.43	18.64	18.58	18.71	19.93	22.31	21.54	20.87	20.28	21.03	19.13	19.39	18.68	19.43	19.76	20.15
60.00°	18.19	16.70	16.07	16.24	16.79	17.43	18.69	18.66	18.32	16.72	17.57	16.32	17.88	15.95	16.09	16.76	18.19
62.50°	15.67	14.00	13.36	13.96	14.79	14.86	15.08	15.17	15.60	13.27	14.14	13.25	16.32	13.22	12.73	13.88	15.67
65.00°	12.97	11.64	11.04	11.83	12.42	11.75	11.53	11.84	12.50	11.16	10.86	11.71	13.53	10.89	10.20	11.33	12.97
67.50°	10.23	9.44	8.78	9.98	10.26	9.00	8.33	8.53	9.84	9.13	8.21	10.51	10.77	8.67	7.79	9.11	10.23
70.00°	8.69	8.13	7.62	8.56	8.76	7.69	6.43	6.92	7.84	7.49	7.22	8.26	8.98	7.28	6.56	7.46	8.69
72.50°	7.28	6.68	6.39	6.82	7.13	6.22	5.10	5.46	5.95	6.08	6.00	6.08	7.15	6.11	5.55	6.09	7.28
75.00°	5.99	5.01	5.00	4.90	5.36	4.57	4.46	4.25	4.16	4.98	4.59	4.54	5.24	5.29	4.92	4.89	5.99
77.50°	4.21	3.48	3.42	3.33	3.57	3.31	3.28	2.98	3.22	3.36	3.15	3.01	3.63	4.00	3.80	3.86	4.21
80.00°	2.57	2.40	2.09	2.15	2.23	2.27	2.40	1.79	2.36	2.11	2.14	1.85	2.19	2.51	2.63	2.85	2.57
82.50°	1.61	1.73	1.28	1.28	1.29	1.38	1.66	0.95	1.40	1.35	1.39	1.45	1.08	1.13	1.56	1.76	1.61
85.00°	0.51	0.98	0.79	0.65	0.70	0.71	0.82	0.81	0.68	0.68	0.64	0.88	0.69	0.68	0.74	0.76	0.51
87.50°	0.55	0.57	0.72	0.56	0.57	0.63	0.57	0.66	0.62	0.53	0.47	0.55	0.71	0.60	0.51	0.55	0.55
90.00°	0.57	0.55	0.63	0.56	0.49	0.51	0.59	0.60	0.45	0.37	0.42	0.44	0.51	0.36	0.45	0.56	0.57
92.50°	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
95.00°	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
97.50°	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
100.00°	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
102.50°	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
105.00°	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
107.50°	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
110.00°	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
112.50°	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%	0%
	pw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	30%
	0	624	624	624	624	610	610	610	610	583	583	583	558	558	558	535	535	524
	1	597	583	570	559	584	571	560	550	550	541	533	531	524	517	513	507	497
	2	570	546	526	509	558	537	519	503	520	505	492	504	492	482	490	480	472
	3	545	514	490	470	535	506	484	467	493	474	459	480	465	452	469	456	447
	4	522	486	459	439	513	480	456	437	469	448	432	459	441	427	449	434	426
	5	500	461	434	413	492	456	431	412	447	425	408	439	420	405	431	414	407
	6	481	439	411	392	473	435	409	390	428	405	388	421	401	385	414	396	390
	7	462	420	392	373	456	416	390	372	410	387	370	404	383	368	399	380	374
	8	445	402	375	356	440	399	373	355	394	370	354	389	368	352	384	365	359
	9	430	386	359	341	424	383	358	340	379	356	339	375	353	338	371	351	346
	10	415	371	345	327	410	369	344	327	365	342	326	361	340	325	358	339	334

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	53.3 fc	2.5 ft
6.5 ft	38.2 fc	2.9 ft
7.5 ft	28.7 fc	3.4 ft
8.0 ft	25.2 fc	3.6 ft
10.0 ft	16.1 fc	4.5 ft
12.0 ft	11.2 fc	5.4 ft
14.0 ft	8.2 fc	6.4 ft
16.0 ft	6.3 fc	7.3 ft
20.0 ft	4.0 fc	9.1 ft
24.0 ft	2.8 fc	10.9 ft
28.0 ft	2.1 fc	12.7 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	678,453	678,453	678,453
45.00°	8,286	11,540	9,275
55.00°	14,630	14,422	14,053
65.00°	12,908	10,982	12,356
75.00°	9,729	8,127	8,705
85.00°	2,460	3,808	3,363

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	17.3	18.3	17.6	18.6	18.9	17.2	18.2	17.6	18.5	18.8
	3H	18.3	19.2	18.7	19.5	19.9	18.3	19.2	18.7	19.5	19.9
	4H	18.7	19.5	19.1	19.9	20.3	18.6	19.5	19.0	19.8	20.2
	6H	18.9	19.6	19.3	20.0	20.4	18.7	19.5	19.2	19.9	20.3
	8H	18.9	19.6	19.3	20.0	20.4	18.7	19.4	19.2	19.8	20.3
	12H	18.9	19.5	19.3	19.9	20.4	18.7	19.4	19.1	19.8	20.2
4H	2H	17.4	18.3	17.9	18.6	19.0	17.4	18.3	17.8	18.6	19.0
	3H	18.6	19.3	19.1	19.7	20.1	18.7	19.4	19.1	19.8	20.2
	4H	19.1	19.7	19.5	20.2	20.6	19.1	19.7	19.5	20.1	20.5
	6H	19.4	19.9	19.9	20.4	20.8	19.2	19.8	19.7	20.2	20.7
	8H	19.4	19.9	19.9	20.4	20.8	19.2	19.7	19.7	20.2	20.6
	12H	19.4	19.8	19.9	20.3	20.8	19.2	19.6	19.7	20.1	20.6
8H	4H	19.2	19.7	19.6	20.1	20.6	19.1	19.6	19.6	20.0	20.5
	6H	19.5	19.9	20.0	20.4	20.9	19.3	19.7	19.8	20.2	20.7
	8H	19.6	19.9	20.1	20.5	21.0	19.3	19.7	19.9	20.2	20.7
	12H	19.6	19.9	20.1	20.4	21.0	19.4	19.7	19.9	20.2	20.7
12H	4H	19.1	19.6	19.6	20.0	20.5	19.0	19.5	19.5	20.0	20.4
	6H	19.5	19.8	20.0	20.3	20.9	19.3	19.6	19.8	20.1	20.6
	8H	19.6	19.9	20.1	20.4	21.0	19.3	19.6	19.9	20.1	20.7

Corrected UGR values based on total output lumens

SHR = 1.0