

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

IF03SSx IC 835 010 N11 DLWFGN MW
Nom 3" Square Infinium recessed downlight

Test Number

SP-00765_1_M-010L

Test Date

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

Summary of Results

Power

Input Watts	7.3 W
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Lumen Output

Output Lumens	558
Efficacy	76.45 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.9
Two luminaires, plane 90°	0.9
Four luminaires	0.9

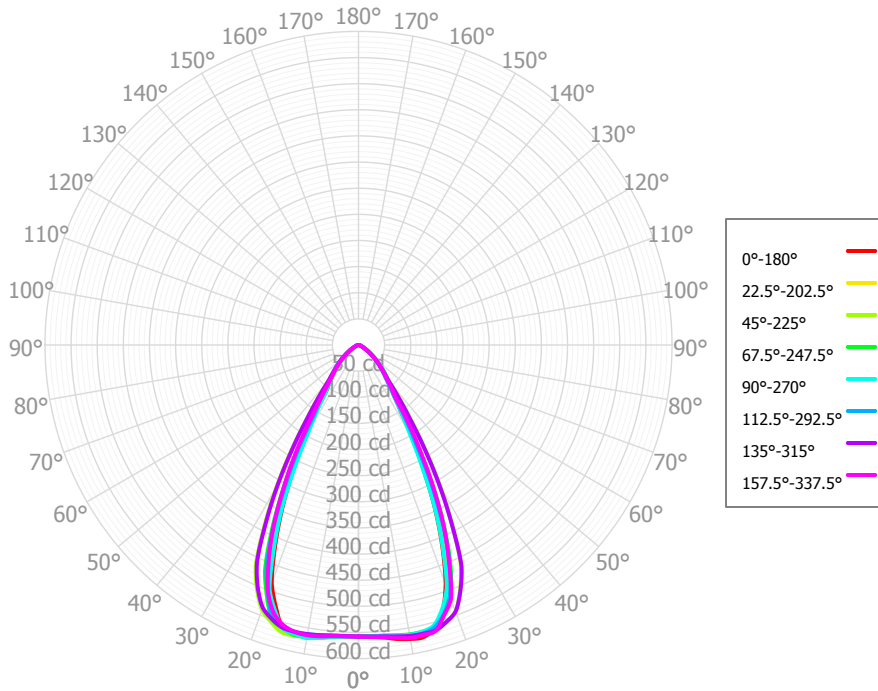
Full Beam Angle

0° - 180°	54°
90° - 270°	54°

IES File Header Contents

Keyword	Value
TEST	SP-00765_1_M-010L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
ISSUEDATE	2/11/2019
UPDATE	3/11/2019
LUMCAT	IF03SSx IC 835 010 N11 DLWFGN MW
LUMINAIRE	Nom 3" Square Infinium recessed downlight
OTHER	Beam Angle: 54 degrees
OTHER	Wide Flood optic, Open aperture / no lens
OTHER	Aluminum bezel
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°	54.51	9.77%	90.00° - 100.00°	0.04	0.01%
10.00° - 20.00°	155.71	27.90%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	175.48	31.44%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	89.64	16.06%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	46.85	8.39%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	23.30	4.17%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	8.56	1.53%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	3.14	0.56%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	0.88	0.16%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	558.07	99.99%	0.00° - 180.00°	558.11	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°	558.01	558.01	558.01	558.01	558.01	558.01	558.01	558.01	558.01	558.01	558.01	558.01	558.01	558.01	558.01	558.01	558.01
2.50°	559.09	558.17	558.71	557.49	558.30	557.32	557.74	558.26	558.69	558.21	559.71	558.70	559.53	559.10	558.51	559.46	559.09
5.00°	561.88	560.31	558.55	558.63	558.28	558.35	558.20	559.27	560.32	560.59	560.52	561.26	560.39	561.36	559.68	561.33	561.88
7.50°	567.42	563.41	561.09	560.20	561.10	560.20	560.25	562.44	564.12	564.58	564.43	564.61	564.82	563.90	562.54	565.18	567.42
10.00°	571.25	567.13	563.54	562.32	563.29	561.75	562.03	564.05	568.74	566.61	568.10	566.65	569.11	566.81	565.28	569.45	571.25
12.50°	572.75	567.11	565.17	562.22	562.18	563.18	562.04	562.34	565.71	566.94	569.43	568.15	566.12	565.66	566.29	568.65	572.75
15.00°	561.34	565.17	565.29	559.73	556.05	556.26	560.31	555.19	560.36	558.79	568.75	560.63	561.11	560.17	566.07	567.15	561.34
17.50°	535.47	541.07	556.80	542.98	531.18	546.64	550.20	538.48	526.13	544.65	555.76	550.27	532.28	541.43	556.52	543.17	535.47
20.00°	487.81	507.66	543.04	513.51	494.09	506.80	535.28	505.59	485.50	505.23	539.26	512.14	497.72	511.15	543.10	517.45	487.81
22.50°	420.20	449.11	508.08	461.03	422.58	459.70	503.58	449.68	417.65	450.95	507.22	467.43	424.47	456.77	509.55	453.72	420.20
25.00°	347.40	382.38	463.09	391.82	347.97	385.11	459.89	385.96	345.70	383.64	464.83	393.32	349.44	385.05	466.32	388.65	347.40
27.50°	270.61	310.46	387.46	315.70	266.29	305.66	384.42	313.19	271.00	310.21	388.81	314.25	265.86	307.31	387.01	313.94	270.61
30.00°	206.67	237.29	312.47	235.47	197.28	231.66	309.11	243.31	196.03	239.68	313.07	238.21	190.82	226.01	308.95	240.28	206.67
32.50°	150.72	180.27	239.02	177.08	151.13	158.27	234.15	176.24	150.86	170.23	238.01	162.48	145.44	167.69	234.45	179.90	150.72
35.00°	119.22	126.11	174.65	129.30	117.06	127.01	169.60	129.58	107.22	128.72	171.90	126.48	108.23	120.20	168.90	124.09	119.22
37.50°	99.90	104.26	127.55	103.49	100.56	97.92	122.89	99.12	92.08	95.35	123.97	92.42	92.65	95.49	123.69	102.76	99.90
40.00°	85.97	86.00	92.52	86.05	86.66	84.83	88.79	79.92	77.29	79.26	87.89	79.59	78.80	79.35	89.02	83.13	85.97
42.50°	74.23	74.28	76.25	73.61	75.95	71.97	72.44	67.98	68.31	66.82	71.12	66.92	68.67	68.27	73.36	71.90	74.23
45.00°	63.51	62.90	62.87	62.64	65.09	62.36	59.36	57.87	59.20	57.05	57.37	57.16	58.35	58.67	59.87	61.11	63.51
47.50°	53.12	53.08	53.20	52.90	54.10	52.71	50.10	48.74	49.02	47.68	47.62	47.57	47.72	48.95	49.56	51.93	53.12
50.00°	42.67	43.33	43.62	43.42	43.97	42.74	41.54	40.41	39.14	38.96	38.96	39.58	38.24	39.20	40.22	42.84	42.67
52.50°	32.19	34.76	34.14	34.63	34.56	33.19	33.64	32.41	30.89	30.29	31.50	31.67	30.37	31.52	32.04	34.02	32.19
55.00°	25.75	26.50	26.35	25.94	26.82	26.17	26.41	25.99	23.41	23.62	24.78	24.27	23.57	24.14	25.04	26.05	25.75
57.50°	19.99	21.07	20.01	20.17	20.23	19.61	19.72	20.09	18.91	17.06	18.74	17.50	18.01	18.77	19.21	19.95	19.99
60.00°	15.64	15.88	15.09	14.67	15.40	15.02	14.65	15.78	14.60	13.49	14.10	13.36	13.62	13.58	14.50	14.61	15.64
62.50°	11.44	12.19	11.19	11.36	11.53	10.91	10.63	11.87	10.83	10.00	10.48	9.69	10.34	10.13	10.67	10.62	11.44
65.00°	8.82	8.86	8.39	8.17	9.01	8.30	7.92	8.79	7.81	7.83	7.64	7.53	7.92	6.80	8.07	7.51	8.82
67.50°	6.37	6.96	6.21	6.30	7.06	6.04	5.87	5.86	6.41	5.88	5.25	5.72	6.14	6.11	6.30	5.62	6.37
70.00°	5.42	5.33	4.87	4.63	5.65	4.45	4.31	4.76	5.01	4.97	4.07	4.59	4.73	5.31	4.61	4.29	5.42
72.50°	4.39	4.18	3.81	3.78	4.41	3.39	2.93	3.75	3.60	4.02	3.27	3.68	3.52	4.05	2.96	3.39	4.39
75.00°	3.14	3.23	2.99	3.02	3.57	2.68	2.06	2.78	3.01	3.02	2.71	2.91	3.03	2.92	2.55	2.55	3.14
77.50°	2.40	2.41	2.22	2.34	2.59	2.11	1.67	2.05	2.38	2.21	2.20	2.17	2.15	1.95	1.99	1.87	2.40
80.00°	1.80	1.81	1.58	1.56	1.53	1.58	1.47	1.52	1.43	1.52	1.61	1.50	1.22	1.68	1.28	1.40	1.80
82.50°	1.16	1.13	1.29	1.17	0.74	1.01	1.07	1.17	0.77	1.07	0.88	0.95	0.81	1.12	0.92	1.01	1.16
85.00°	0.64	0.87	0.87	0.78	0.54	0.60	0.71	0.69	0.57	0.79	0.67	0.64	0.57	0.80	0.92	0.64	0.64
87.50°	0.72	0.61	0.58	0.73	0.57	0.57	0.56	0.54	0.60	0.66	0.65	0.61	0.67	0.45	0.54	0.53	0.72
90.00°	0.41	0.49	0.55	0.53	0.56	0.00	0.00	0.69	0.00	0.00	0.00	0.00	0.00	0.46	0.53	0.18	0.41
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	664	664	664	664	649	649	649	649	620	620	620	594	594	594	569	569	558
	1	631	615	600	587	617	603	589	577	580	569	559	559	551	543	540	533	527
	2	597	568	545	524	585	559	537	518	541	523	507	524	509	496	508	496	486
	3	565	527	498	474	554	519	492	470	504	482	463	491	472	455	478	462	453
	4	535	490	458	433	525	484	454	430	472	446	425	460	438	420	450	431	423
	5	507	458	423	398	497	452	420	396	442	414	393	433	408	389	424	403	395
	6	480	428	393	368	472	424	391	367	415	386	364	407	381	362	400	377	370
	7	456	402	367	342	448	398	365	341	391	361	339	384	357	338	378	354	348
	8	433	378	343	320	426	375	342	319	369	339	317	363	336	316	357	333	327
	9	412	357	322	299	406	354	321	299	348	319	298	343	316	297	339	314	309
	10	393	337	304	281	387	335	303	281	330	301	280	326	299	279	321	297	292

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	18.4 fc	5.6 ft
6.5 ft	13.2 fc	6.6 ft
7.5 ft	9.9 fc	7.6 ft
8.0 ft	8.7 fc	8.1 ft
10.0 ft	5.6 fc	10.2 ft
12.0 ft	3.9 fc	12.2 ft
14.0 ft	2.8 fc	14.2 ft
16.0 ft	2.2 fc	16.3 ft
20.0 ft	1.4 fc	20.3 ft
24.0 ft	1.0 fc	24.4 ft
28.0 ft	0.7 fc	28.5 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	234,622	234,622	234,622
45.00°	37,767	37,384	38,705
55.00°	18,878	19,317	19,663
65.00°	8,780	8,344	8,959
75.00°	5,107	4,853	5,793
85.00°	3,098	4,215	2,616

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	17.2	18.3	17.5	18.6	18.9	16.6	17.6	16.9	18.0	18.3
	3H	17.5	18.5	17.9	18.8	19.2	17.0	17.9	17.3	18.2	18.6
	4H	17.6	18.5	18.0	18.8	19.2	17.1	18.0	17.5	18.3	18.7
	6H	17.6	18.4	18.1	18.8	19.2	17.1	17.9	17.5	18.3	18.7
	8H	17.6	18.4	18.1	18.8	19.2	17.1	17.9	17.5	18.2	18.7
	12H	17.6	18.3	18.0	18.7	19.2	17.1	17.8	17.5	18.2	18.6
4H	2H	17.2	18.1	17.6	18.4	18.8	16.6	17.5	17.0	17.8	18.2
	3H	17.6	18.3	18.0	18.7	19.1	17.1	17.8	17.5	18.2	18.6
	4H	17.8	18.4	18.2	18.8	19.3	17.2	17.9	17.7	18.3	18.8
	6H	17.8	18.4	18.3	18.8	19.3	17.3	17.9	17.8	18.3	18.8
	8H	17.9	18.4	18.3	18.8	19.3	17.3	17.8	17.8	18.3	18.8
	12H	17.8	18.3	18.3	18.8	19.3	17.3	17.7	17.8	18.2	18.7
8H	4H	17.7	18.2	18.2	18.7	19.1	17.2	17.7	17.7	18.1	18.6
	6H	17.8	18.2	18.3	18.7	19.2	17.3	17.7	17.8	18.2	18.7
	8H	17.9	18.2	18.4	18.7	19.2	17.3	17.7	17.9	18.2	18.7
	12H	17.9	18.2	18.4	18.7	19.3	17.3	17.7	17.9	18.2	18.7
12H	4H	17.7	18.1	18.1	18.6	19.1	17.1	17.6	17.6	18.1	18.6
	6H	17.8	18.2	18.3	18.6	19.2	17.3	17.7	17.8	18.1	18.7
	8H	17.9	18.2	18.4	18.7	19.2	17.3	17.6	17.8	18.1	18.7

Corrected UGR values based on total output lumens

SHR = 1.0