

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

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

Test Number

SP-00778_2_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	503
Efficacy	68.86 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.65
Two luminaires, plane 90°	0.65
Four luminaires	0.69

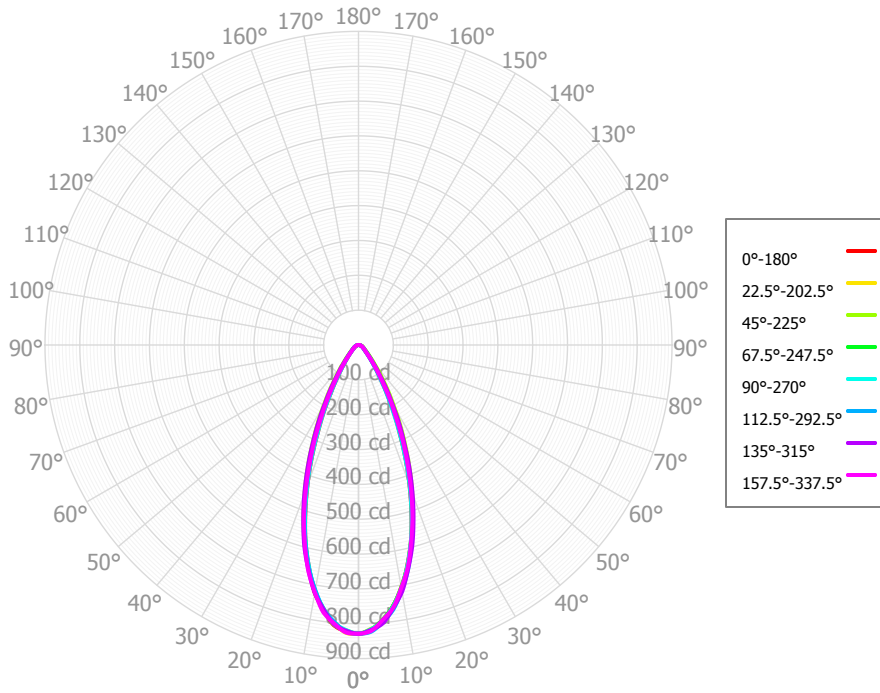
Full Beam Angle

0° - 180°	41°
90° - 270°	41°

IES File Header Contents

Keyword	Value
TEST	SP-00778_2_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 DLFLGP MW
LUMINAIRE	Nom 3" Square Infinium recessed downlight
OTHER	Beam Angle: 41 degrees
OTHER	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°	74.50	14.82%	90.00° - 100.00°	0.04	0.01%
10.00° - 20.00°	160.88	32.00%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	134.92	26.84%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	66.14	13.16%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	29.49	5.87%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	17.07	3.40%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	11.73	2.33%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	6.59	1.31%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	1.34	0.27%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	502.65	99.99%	0.00° - 180.00°	502.70	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°	828.80	828.80	828.80	828.80	828.80	828.80	828.80	828.80	828.80	828.80	828.80	828.80	828.80	828.80	828.80	828.80	828.80
2.50°	818.19	821.17	815.92	818.28	817.42	823.86	821.00	826.04	822.51	826.89	820.02	822.98	819.05	823.88	818.85	821.84	818.19
5.00°	798.66	792.07	799.25	792.02	796.60	798.11	805.49	802.32	807.77	800.42	806.53	800.20	801.64	798.23	801.96	792.62	798.66
7.50°	756.38	759.21	756.30	756.84	757.99	766.74	765.67	773.93	766.12	771.24	764.57	768.58	763.91	765.85	761.61	760.88	756.38
10.00°	710.93	706.07	712.64	706.58	710.04	714.45	722.62	721.23	722.99	716.92	720.75	717.50	716.73	715.07	719.72	707.78	710.93
12.50°	647.73	650.22	651.75	650.03	649.00	657.91	662.61	665.03	655.55	661.07	659.15	659.12	654.75	658.60	658.33	653.27	647.73
15.00°	581.96	582.69	590.22	584.16	581.40	588.18	600.14	593.83	587.38	588.21	596.24	589.77	586.74	588.87	596.36	584.05	581.96
17.50°	505.02	513.41	520.40	514.61	505.85	516.42	527.28	520.81	507.88	514.93	524.29	516.92	509.66	516.73	525.02	514.39	505.02
20.00°	428.30	437.93	450.80	440.34	429.10	439.79	454.36	441.52	428.48	438.30	452.49	441.15	429.48	439.73	453.67	439.89	428.30
22.50°	352.39	364.54	383.11	368.40	351.07	362.61	381.21	364.32	351.26	362.04	381.50	364.62	352.61	364.54	381.87	365.63	352.39
25.00°	280.62	297.28	316.74	299.08	279.90	293.59	310.82	293.05	275.34	294.20	312.70	296.66	276.66	292.48	310.90	297.49	280.62
27.50°	221.29	234.60	258.69	237.46	215.19	225.18	248.34	227.31	215.67	227.86	253.07	230.51	215.79	227.43	250.41	230.62	221.29
30.00°	167.54	183.52	203.26	183.48	163.69	175.51	190.95	175.28	158.57	179.32	197.05	179.73	158.49	172.97	191.68	180.03	167.54
32.50°	127.76	138.51	160.68	139.95	122.96	126.51	146.22	129.80	122.25	132.87	153.47	131.49	121.38	128.17	147.97	131.69	127.76
35.00°	94.00	106.54	121.30	105.44	92.75	99.29	107.55	98.04	88.48	103.46	114.62	101.92	87.99	96.15	106.74	102.06	94.00
37.50°	72.99	79.74	94.55	80.10	70.09	72.50	81.62	71.92	69.68	75.93	89.42	74.58	69.11	71.32	81.15	74.27	72.99
40.00°	55.42	62.41	70.70	61.81	54.11	57.82	60.23	55.91	52.45	59.89	67.47	59.65	52.21	54.77	57.89	58.16	55.42
42.50°	44.27	48.22	56.15	49.01	42.34	43.61	47.03	42.76	42.69	45.36	53.39	45.74	42.26	42.52	45.92	43.45	44.27
45.00°	34.93	39.13	43.56	39.84	34.18	36.32	36.46	34.15	33.83	37.90	41.48	37.06	33.02	34.64	35.09	35.44	34.93
47.50°	28.48	31.81	36.31	32.84	27.96	29.28	30.07	27.40	28.38	30.91	34.14	28.63	27.71	28.34	28.77	28.46	28.48
50.00°	23.70	26.97	29.89	27.09	23.69	24.63	25.05	23.20	23.32	25.69	27.79	25.14	22.64	23.45	23.37	25.43	23.70
52.50°	21.23	23.02	25.43	23.29	20.35	20.29	21.93	19.80	19.45	21.13	23.25	21.71	19.92	20.02	20.92	22.34	21.23
55.00°	19.07	20.14	21.60	20.48	17.75	18.11	19.16	17.38	16.10	18.66	19.49	18.73	17.25	17.73	18.55	19.05	19.07
57.50°	17.30	17.96	19.02	18.34	15.45	16.06	16.82	15.72	14.11	16.21	16.95	15.84	15.23	15.87	16.35	16.26	17.30
60.00°	15.46	16.51	16.95	16.49	13.71	14.68	14.68	14.86	12.52	13.81	14.91	14.58	13.26	14.31	14.40	14.83	15.46
62.50°	13.53	15.03	15.75	14.76	12.16	13.20	12.76	13.08	11.80	11.73	13.60	13.26	12.29	13.10	13.03	13.45	13.53
65.00°	12.27	13.52	14.41	13.08	11.33	11.29	10.92	10.46	10.65	10.38	12.14	11.39	11.31	12.09	11.53	12.20	12.27
67.50°	11.62	12.27	12.87	11.81	10.70	9.68	9.14	8.96	8.79	9.07	10.53	9.64	10.17	10.82	9.76	10.90	11.62
70.00°	10.42	11.21	11.45	10.66	9.25	8.76	7.78	8.17	7.47	7.81	8.67	8.34	8.93	9.42	8.49	9.51	10.42
72.50°	8.87	9.60	10.14	8.95	7.70	7.70	6.61	6.67	6.59	6.73	6.70	6.96	7.49	8.15	7.81	8.21	8.87
75.00°	6.94	7.79	8.43	7.26	6.24	6.51	5.98	5.00	4.78	5.61	5.85	5.51	5.85	6.67	7.09	6.99	6.94
77.50°	5.07	5.81	6.55	5.70	4.48	4.05	4.69	3.21	3.32	3.80	4.65	3.93	4.17	4.40	6.12	5.23	5.07
80.00°	3.42	4.23	4.45	3.46	2.61	2.62	2.95	2.29	2.27	2.44	3.10	2.56	2.57	3.05	4.26	3.64	3.42
82.50°	1.87	2.54	2.49	1.78	1.53	1.78	1.45	1.34	1.15	1.70	1.50	1.44	1.21	1.86	2.10	2.14	1.87
85.00°	0.70	0.96	1.16	0.83	0.69	0.96	0.78	0.65	0.62	0.86	0.80	0.69	0.66	0.92	1.01	0.81	0.70
87.50°	0.61	0.68	0.58	0.84	0.54	0.71	0.60	0.56	0.55	0.63	0.64	0.59	0.66	0.64	0.78	0.69	0.61
90.00°	0.50	0.55	0.61	0.72	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.58	0.74	0.56	0.50
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	598	598	598	598	585	585	585	585	559	559	559	535	535	535	513	513	503
	1	569	554	541	529	556	543	532	521	523	514	505	504	497	490	487	481	476
	2	540	515	494	476	529	506	487	471	490	474	460	474	462	450	460	450	441
	3	513	480	454	434	503	473	449	430	459	440	423	447	431	417	436	422	410
	4	487	449	421	400	478	443	417	397	433	410	393	422	403	388	413	397	383
	5	464	422	393	371	456	417	390	369	408	384	366	400	379	363	392	374	360
	6	442	398	368	347	435	394	366	346	387	362	343	379	358	341	373	354	339
	7	422	376	347	326	416	373	345	325	367	342	323	361	338	321	355	335	320
	8	404	357	328	307	398	354	326	307	349	323	305	344	321	304	339	318	303
	9	386	339	310	291	381	337	309	290	332	307	289	328	305	288	324	303	287
	10	370	323	295	276	365	321	294	276	317	292	275	313	290	274	310	289	274

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	27.4 fc	4.1 ft
6.5 ft	19.6 fc	4.9 ft
7.5 ft	14.7 fc	5.6 ft
8.0 ft	12.9 fc	6.0 ft
10.0 ft	8.3 fc	7.5 ft
12.0 ft	5.8 fc	9.0 ft
14.0 ft	4.2 fc	10.4 ft
16.0 ft	3.2 fc	11.9 ft
20.0 ft	2.1 fc	14.9 ft
24.0 ft	1.4 fc	17.9 ft
28.0 ft	1.1 fc	20.9 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	348,481	348,481	348,481
45.00°	20,769	25,904	20,323
55.00°	13,981	15,833	13,012
65.00°	12,208	14,337	11,272
75.00°	11,272	13,695	10,142
85.00°	3,376	5,600	3,349

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	16.4	17.5	16.8	17.8	18.1	15.9	16.9	16.2	17.3	17.6
	3H	18.3	19.3	18.7	19.6	20.0	17.5	18.5	17.9	18.8	19.2
	4H	19.0	19.9	19.4	20.2	20.6	18.1	19.0	18.5	19.4	19.8
	6H	19.3	20.1	19.8	20.5	20.9	18.4	19.2	18.8	19.6	20.0
	8H	19.4	20.2	19.8	20.5	21.0	18.4	19.2	18.9	19.6	20.0
	12H	19.4	20.1	19.8	20.5	20.9	18.4	19.1	18.8	19.5	19.9
4H	2H	17.0	17.9	17.4	18.2	18.6	16.4	17.3	16.8	17.6	18.0
	3H	19.1	19.8	19.5	20.2	20.6	18.2	18.9	18.6	19.3	19.7
	4H	19.9	20.5	20.3	21.0	21.4	18.9	19.6	19.4	20.0	20.4
	6H	20.4	20.9	20.8	21.4	21.8	19.3	19.8	19.7	20.3	20.7
	8H	20.4	20.9	20.9	21.4	21.9	19.3	19.8	19.8	20.3	20.7
	12H	20.4	20.9	20.9	21.4	21.8	19.3	19.7	19.8	20.2	20.7
8H	4H	20.2	20.7	20.7	21.1	21.6	19.1	19.6	19.6	20.1	20.5
	6H	20.8	21.2	21.3	21.7	22.2	19.5	19.9	20.0	20.4	20.9
	8H	20.9	21.2	21.4	21.8	22.3	19.6	19.9	20.1	20.5	21.0
	12H	20.9	21.2	21.4	21.7	22.3	19.6	19.9	20.1	20.4	21.0
12H	4H	20.2	20.6	20.7	21.1	21.6	19.1	19.5	19.6	20.0	20.5
	6H	20.8	21.1	21.3	21.6	22.2	19.5	19.9	20.0	20.3	20.9
	8H	20.9	21.2	21.4	21.7	22.3	19.6	19.9	20.1	20.4	21.0

Corrected UGR values based on total output lumens

SHR = 1.0