

Indoor Distribution Test Report

Spectrum Lighting Inc.

994 Jefferson Street
Fall River, MA 02721
+1.508.678.2303

Spectrum Lighting Photometric Lab

Luminaire

IF03SSx IC 835 015 N11 DLWFGP MW
Nom 3" Square Infinium recessed downlight

Test Number

SP-00781_2_M-015L

Test Date

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

Summary of Results

Power

Input Watts	10.2 W
-------------	--------

Lumen Output

Output Lumens	706
Efficacy	69.19 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.84
Two luminaires, plane 90°	0.84
Four luminaires	0.86

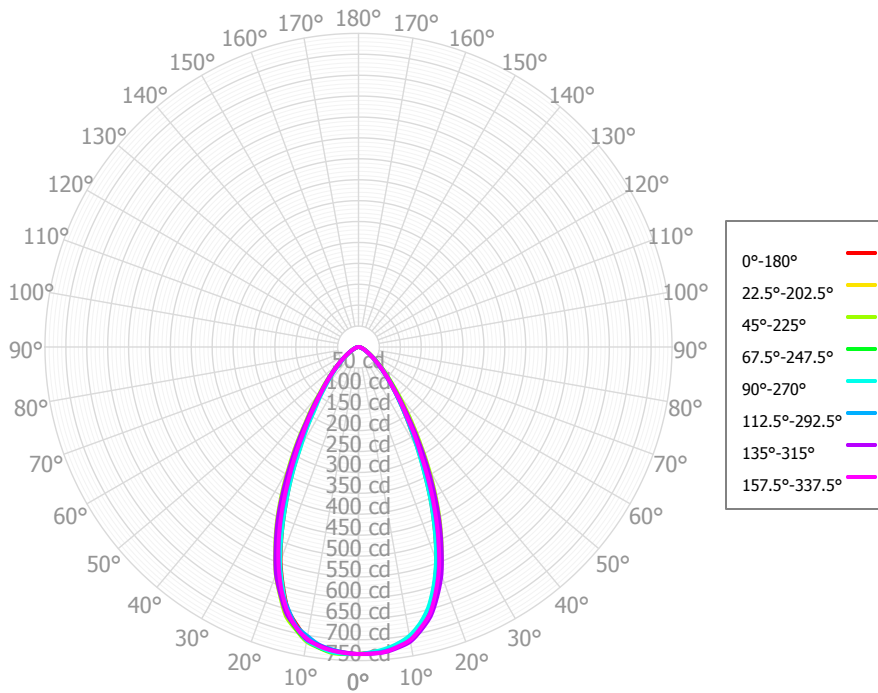
Full Beam Angle

0° - 180°	53°
90° - 270°	53°

IES File Header Contents

Keyword	Value
TEST	SP-00781_2_M-015L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
ISSUEDATE	2/11/2019
UPDATE	4/4/2019
LUMCAT	IF03SSx IC 835 015 N11 DLWFGP MW
LUMINAIRE	Nom 3" Square Infinium recessed downlight
OTHER	Beam Angle: 54 degrees
OTHER	Wide Flood optic, Solite Lens
OTHER	Aluminum bezel contains lens
LAMPCAT	N/A
LAMP	N/A, CRI: 80, Philips
OTHER	CCT Multiplier: 27K x 0.95, 30K x 0.98, 40K x 1.03
OTHER	Total luminaire wattage is approximate, +2W for thermal protection
OTHER	This report prepared by Spectrum Lighting, scaled from 20L
_CRI	80
_CCTMULT	27K x 0.95, 30K x 0.98, 40K x 1.03
_LAMPMULT	07L x 0.40, 10L x 0.56

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	69.99	9.92%	90.00° - 100.00°	0.07	0.01%
10.00° - 20.00°	180.93	25.64%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	196.19	27.80%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	128.86	18.26%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	70.45	9.98%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	34.88	4.94%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	16.06	2.28%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	6.76	0.96%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	1.51	0.21%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	705.63	99.99%	0.00° - 180.00°	705.69	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°	734.47	734.47	734.47	734.47	734.47	734.47	734.47	734.47	734.47	734.47	734.47	734.47	734.47	734.47	734.47	734.47	734.47
2.50°	732.30	732.69	732.60	731.60	730.71	732.33	731.63	733.06	732.32	734.01	735.22	734.68	734.48	733.78	734.16	734.23	732.30
5.00°	728.80	728.52	728.61	727.68	725.07	726.10	728.14	728.94	730.84	730.14	734.50	732.56	732.73	729.87	732.66	731.74	728.80
7.50°	720.53	719.19	720.54	716.85	715.80	718.50	719.78	721.92	720.87	723.71	725.70	724.94	723.78	723.52	725.48	723.08	720.53
10.00°	706.27	705.19	708.50	704.41	701.53	702.35	711.04	708.42	707.77	709.00	715.46	712.44	713.00	711.90	715.53	711.46	706.27
12.50°	683.57	681.49	687.05	680.34	677.93	684.44	687.32	687.60	681.37	689.23	692.38	690.29	685.54	692.45	693.24	688.17	683.57
15.00°	649.28	650.65	659.63	654.39	645.08	649.38	662.46	655.05	651.23	655.50	667.82	659.79	654.98	659.50	666.79	660.32	649.28
17.50°	601.73	606.68	620.98	609.12	598.11	611.97	620.80	611.66	600.60	614.69	623.76	615.77	602.95	616.81	626.12	614.58	601.73
20.00°	544.64	554.89	575.51	561.89	542.78	555.84	577.26	558.73	545.59	559.70	578.52	563.80	548.38	560.13	579.90	563.51	544.64
22.50°	478.39	494.28	519.55	498.10	477.09	498.16	518.08	498.61	478.77	499.05	520.34	501.26	479.18	497.80	519.16	499.62	478.39
25.00°	411.91	429.34	460.32	433.53	410.22	429.89	457.73	434.03	410.26	432.92	461.85	436.35	409.08	428.85	456.75	432.93	411.91
27.50°	345.24	365.25	396.94	368.80	342.12	361.54	391.15	366.63	346.19	365.12	397.42	368.87	342.84	361.60	390.90	366.66	345.24
30.00°	286.63	301.51	335.38	304.78	283.47	301.27	326.40	305.81	282.49	305.64	333.59	306.81	277.33	295.96	326.98	300.44	286.63
32.50°	233.15	250.05	275.70	253.19	232.86	242.25	268.54	248.31	234.72	248.13	276.00	249.61	228.73	240.34	266.34	248.65	233.15
35.00°	192.28	202.24	225.23	203.35	192.27	200.36	214.87	203.10	187.81	204.89	220.90	203.33	181.76	192.74	213.08	198.19	192.28
37.50°	158.05	167.07	182.65	169.16	158.63	160.31	173.60	162.86	157.87	164.00	181.19	165.15	151.96	156.62	169.93	163.53	158.05
40.00°	130.79	134.78	148.07	136.61	131.66	133.96	137.42	134.34	128.55	136.31	143.97	134.75	123.41	127.94	134.74	129.55	130.79
42.50°	106.43	111.39	119.14	113.32	108.55	108.94	112.94	109.54	107.42	109.93	117.89	109.02	102.93	104.61	108.45	108.39	106.43
45.00°	87.84	89.38	96.59	91.51	89.33	90.41	91.41	90.52	86.98	91.11	93.95	89.08	83.41	84.08	87.32	87.60	87.84
47.50°	71.10	74.58	77.68	75.73	71.89	73.06	75.25	72.87	71.89	72.68	77.06	72.00	68.17	68.96	71.02	72.68	71.10
50.00°	58.57	60.45	62.80	61.06	58.55	60.05	60.83	59.91	57.48	59.29	61.59	59.08	54.02	56.15	57.32	58.17	58.57
52.50°	47.11	49.04	49.77	49.80	46.68	47.83	49.04	47.73	46.56	46.16	49.68	47.77	43.50	45.90	45.61	47.05	47.11
55.00°	38.62	37.81	40.39	39.73	37.51	37.76	38.99	38.85	36.52	37.74	39.04	38.41	34.28	36.49	36.39	36.59	38.62
57.50°	30.67	31.51	32.35	32.45	29.11	29.22	31.07	30.33	29.68	29.64	31.00	29.63	28.39	29.36	28.71	29.84	30.67
60.00°	25.31	25.35	26.21	26.09	23.51	24.02	24.51	24.71	23.43	24.35	24.21	23.60	22.93	22.79	23.52	23.62	25.31
62.50°	20.23	21.22	20.61	21.48	18.47	19.19	19.30	19.24	18.86	19.26	19.45	18.21	18.33	19.13	19.59	19.50	20.23
65.00°	16.94	17.28	17.43	16.95	15.13	15.01	15.02	15.82	14.64	15.37	15.66	15.44	14.63	16.00	15.61	15.84	16.94
67.50°	13.77	14.75	14.77	12.53	12.02	11.55	11.48	12.49	11.12	11.99	13.08	13.07	12.28	12.87	11.62	13.45	13.77
70.00°	10.89	12.27	11.52	10.01	8.99	8.92	9.07	9.79	8.72	10.15	10.52	10.10	10.28	9.84	10.09	11.07	10.89
72.50°	8.32	9.94	8.61	9.11	6.39	7.16	7.16	7.59	7.46	8.29	7.96	7.56	8.55	8.06	9.05	8.69	8.32
75.00°	6.51	7.75	7.24	7.21	5.28	5.71	6.10	6.17	5.79	6.42	6.43	6.21	5.49	6.30	7.21	6.64	6.51
77.50°	4.69	5.57	5.64	5.25	3.99	4.08	4.25	4.34	4.00	4.47	4.83	4.70	3.28	4.57	5.24	4.81	4.69
80.00°	3.22	2.95	3.93	3.52	2.64	2.61	2.30	3.25	2.24	2.88	3.18	3.10	2.31	2.77	3.25	3.25	3.22
82.50°	2.35	1.88	2.38	1.54	1.41	1.45	1.56	2.54	1.50	1.69	2.08	1.66	1.58	1.60	1.69	2.18	2.35
85.00°	1.10	1.08	1.41	1.05	0.75	0.91	0.99	1.13	1.23	1.15	1.15	1.06	1.09	1.18	0.63	1.09	1.10
87.50°	0.94	1.01	0.99	1.26	0.91	0.78	0.68	0.82	1.04	1.05	0.84	0.95	0.88	0.98	1.04	0.95	0.94
90.00°	1.01	1.02	1.06	1.19	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.96	0.89	0.78	1.01
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	840	840	840	840	821	821	821	821	784	784	784	751	751	751	720	720	706
	1	796	774	754	737	778	759	741	725	730	716	703	692	682	679	670	662	657
	2	751	713	681	654	735	700	671	647	677	653	633	656	636	619	636	620	608
	3	708	658	619	588	694	648	612	583	629	599	574	611	586	565	595	574	563
	4	668	610	567	534	655	601	562	531	586	551	524	571	542	518	558	533	522
	5	631	567	522	489	619	560	518	487	547	510	482	535	503	478	524	496	486
	6	597	529	483	450	586	523	480	449	512	474	446	502	468	442	492	463	454
	7	566	495	449	417	556	490	447	416	481	442	414	472	437	411	464	433	425
	8	537	465	420	388	528	461	418	387	453	414	386	445	410	384	438	406	400
	9	510	438	393	363	502	434	391	362	427	388	361	421	385	360	414	382	376
	10	486	413	370	341	478	410	368	340	404	366	339	398	363	338	393	360	355

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	24.3 fc	5.5 ft
6.5 ft	17.4 fc	6.5 ft
7.5 ft	13.1 fc	7.5 ft
8.0 ft	11.5 fc	8.0 ft
10.0 ft	7.3 fc	10.0 ft
12.0 ft	5.1 fc	12.0 ft
14.0 ft	3.7 fc	14.0 ft
16.0 ft	2.9 fc	16.0 ft
20.0 ft	1.8 fc	20.0 ft
24.0 ft	1.3 fc	24.1 ft
28.0 ft	0.9 fc	28.1 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	308,819	308,819	308,819
45.00°	52,230	57,437	53,116
55.00°	28,313	29,609	27,500
65.00°	16,857	17,346	15,054
75.00°	10,575	11,763	8,572
85.00°	5,328	6,794	3,628

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	19.1	20.3	19.5	20.6	20.9	18.8	20.0	19.2	20.3	20.6
	3H	20.0	21.0	20.4	21.3	21.7	19.5	20.5	19.9	20.9	21.2
	4H	20.2	21.2	20.6	21.5	21.9	19.7	20.6	20.1	21.0	21.4
	6H	20.3	21.2	20.8	21.6	22.0	19.8	20.6	20.2	21.0	21.4
	8H	20.3	21.2	20.8	21.5	22.0	19.7	20.5	20.2	20.9	21.3
	12H	20.3	21.1	20.8	21.5	21.9	19.7	20.5	20.1	20.9	21.3
4H	2H	19.4	20.3	19.8	20.6	21.0	19.0	20.0	19.4	20.3	20.7
	3H	20.4	21.2	20.8	21.6	22.0	19.9	20.6	20.3	21.0	21.4
	4H	20.7	21.4	21.2	21.8	22.3	20.1	20.8	20.6	21.2	21.7
	6H	20.9	21.5	21.4	21.9	22.4	20.2	20.8	20.7	21.3	21.7
	8H	20.9	21.5	21.4	21.9	22.4	20.2	20.8	20.7	21.2	21.7
	12H	20.9	21.4	21.4	21.9	22.4	20.2	20.7	20.7	21.2	21.6
8H	4H	20.8	21.3	21.3	21.8	22.3	20.2	20.7	20.6	21.1	21.6
	6H	21.0	21.5	21.5	22.0	22.4	20.3	20.8	20.8	21.3	21.7
	8H	21.1	21.5	21.6	22.0	22.5	20.3	20.7	20.9	21.2	21.7
	12H	21.1	21.4	21.6	21.9	22.5	20.3	20.7	20.9	21.2	21.8
12H	4H	20.8	21.2	21.2	21.7	22.2	20.1	20.6	20.6	21.1	21.6
	6H	21.0	21.4	21.5	21.9	22.4	20.3	20.7	20.8	21.2	21.7
	8H	21.1	21.4	21.6	21.9	22.5	20.3	20.7	20.9	21.2	21.7

Corrected UGR values based on total output lumens

SHR = 1.0