

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

IF03RMx xx 835 010 DLFLGP MW
Nominal 3" diam round recessed Infinium downlight

Test Number

SP-00758_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	751
Efficacy	80.77 lm/W

Luminous Dimensions

0° - 180° Size	-0.2
90° - 270° Size	-0.2
Height	0

Spacing Criterion

Two luminaires, plane 0°	0.6
Two luminaires, plane 90°	0.61
Four luminaires	0.64

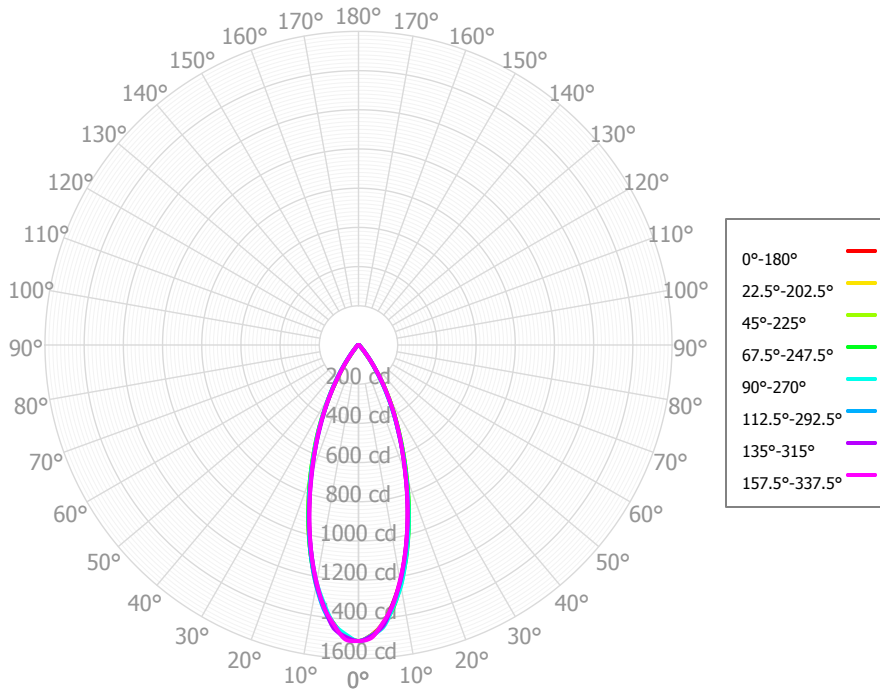
Full Beam Angle

0° - 180°	38°
90° - 270°	38°

IES File Header Contents

Keyword	Value
TEST	SP-00758_2_M-010L
TESTLAB	Spectrum Lighting Photometric lab, VLS-245-981
MANUFAC	Spectrum Lighting
ISSUEDATE	2/8/2019
UPDATE	2/27/2019
LUMCAT	IF03RMx xx 835 010 DLFLGP MW
LUMINAIRE	Nominal 3" diam round recessed Infinium downlight
OTHER	Beam Angle: 38 degrees
OTHER	Flood optic, Solite lens
OTHER	Aluminum bezel contains lens
LAMPCAT	N/A
LAMP	N/A, CRI: 80, Philips
OTHER	CCT Multipliers: 40K x 1.03
OTHER	Total luminaire wattages 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°	131.92	17.56%	90.00° - 100.00°	0.05	0.01%
10.00° - 20.00°	266.55	35.48%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	218.38	29.07%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	92.92	12.37%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	20.61	2.74%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	9.30	1.24%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	6.61	0.88%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	3.85	0.51%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	0.98	0.13%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	751.11	99.99%	0.00° - 180.00°	751.16	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°	1,510.81	1,510.81	1,510.81	1,510.81	1,510.81	1,510.81	1,510.81	1,510.81	1,510.81	1,510.81	1,510.81	1,510.81	1,510.81	1,510.81	1,510.81	1,510.81	1,510.81
2.50°	1,482.63	1,490.36	1,483.29	1,492.43	1,484.93	1,500.13	1,490.98	1,505.05	1,488.82	1,496.18	1,484.65	1,492.09	1,478.58	1,491.73	1,486.12	1,496.67	1,482.63
5.00°	1,428.21	1,424.35	1,439.82	1,432.34	1,446.45	1,443.09	1,451.61	1,433.02	1,439.28	1,433.60	1,440.73	1,428.94	1,432.24	1,427.92	1,439.43	1,423.57	1,428.21
7.50°	1,333.99	1,341.78	1,344.46	1,355.29	1,351.42	1,360.25	1,346.17	1,352.36	1,345.02	1,353.57	1,346.67	1,351.06	1,335.04	1,341.01	1,335.44	1,340.74	1,333.99
10.00°	1,224.33	1,227.77	1,241.69	1,241.28	1,249.63	1,245.49	1,238.70	1,229.49	1,235.48	1,238.00	1,243.36	1,236.76	1,230.12	1,226.28	1,226.86	1,220.15	1,224.33
12.50°	1,097.15	1,106.54	1,114.22	1,120.42	1,117.65	1,116.60	1,102.66	1,104.04	1,105.39	1,113.66	1,115.23	1,115.13	1,102.44	1,102.01	1,094.77	1,096.13	1,097.15
15.00°	964.78	973.96	984.80	987.48	983.90	977.71	966.47	965.67	971.71	977.05	984.80	982.58	973.18	968.39	962.10	962.14	964.78
17.50°	832.53	841.97	849.74	854.00	844.44	835.32	828.65	827.71	834.12	838.34	849.38	848.54	840.34	835.31	827.26	829.68	832.53
20.00°	700.29	710.70	714.95	719.76	705.83	705.03	693.69	702.14	706.17	713.27	719.54	721.83	711.98	702.67	697.58	700.76	700.29
22.50°	587.27	591.81	598.43	597.23	588.60	577.99	577.75	578.45	587.07	589.63	599.32	595.66	591.99	584.46	582.41	582.00	587.27
25.00°	477.19	485.68	483.83	488.40	473.38	471.07	465.31	473.89	476.81	480.58	485.06	486.46	480.23	475.85	474.51	481.92	477.19
27.50°	389.20	390.31	393.44	389.03	378.06	367.99	369.08	371.39	373.12	372.31	379.07	378.13	380.81	380.58	382.74	387.24	389.20
30.00°	303.15	304.25	304.50	298.80	285.46	283.21	277.53	281.53	279.71	280.17	282.45	287.81	290.57	292.42	296.25	300.56	303.15
32.50°	224.36	225.25	226.08	219.07	210.18	200.74	201.65	196.86	192.46	189.64	196.71	199.75	211.47	217.08	219.22	221.21	224.36
35.00°	146.27	151.19	152.10	147.58	140.27	142.14	134.24	135.14	128.68	128.71	129.31	138.14	145.73	147.32	152.16	150.91	146.27
37.50°	97.89	97.79	99.88	96.09	93.68	85.17	88.86	81.60	76.50	71.48	79.22	80.73	93.55	100.13	99.47	96.85	97.89
40.00°	51.64	56.07	55.08	57.47	53.97	58.69	52.82	54.56	49.01	49.17	47.78	53.29	58.44	60.54	61.07	59.11	51.64
42.50°	35.76	34.54	36.46	35.19	36.19	33.21	36.13	32.85	31.09	29.18	30.66	29.43	37.43	40.43	39.85	35.71	35.76
45.00°	21.10	22.37	21.52	21.47	22.00	24.52	23.79	24.35	23.04	22.54	21.00	22.45	24.71	25.22	25.68	24.04	21.10
47.50°	16.36	16.28	16.58	15.29	16.95	16.38	18.67	17.90	17.91	16.80	16.11	16.48	17.54	18.54	18.39	16.99	16.36
50.00°	12.11	12.38	12.46	12.24	12.93	14.37	14.68	15.55	14.84	14.69	13.05	13.96	13.68	13.44	13.79	13.11	12.11
52.50°	10.42	10.80	10.13	10.61	10.97	12.44	12.22	13.40	12.23	12.66	10.91	11.76	11.65	11.60	11.32	11.00	10.42
55.00°	8.94	9.86	8.53	9.45	9.66	11.03	10.46	11.56	11.21	10.91	10.04	10.42	10.13	10.15	9.90	9.86	8.94
57.50°	8.22	8.90	8.19	8.59	9.37	9.69	9.50	10.04	10.43	9.38	9.68	9.01	8.82	8.99	9.19	8.91	8.22
60.00°	7.50	7.93	7.58	7.80	8.74	8.70	8.54	8.94	9.35	8.36	8.42	7.45	7.92	7.84	8.43	8.05	7.50
62.50°	6.85	7.30	6.60	7.40	7.64	7.74	7.59	7.83	8.24	7.42	6.87	6.31	7.16	7.55	7.66	7.68	6.85
65.00°	6.22	6.72	6.03	7.06	6.95	6.88	6.56	6.71	6.65	6.65	6.33	5.89	6.53	7.24	6.87	7.48	6.22
67.50°	5.63	6.00	5.91	6.10	6.68	6.07	5.46	5.70	5.21	5.75	6.00	5.41	5.93	6.48	6.08	6.82	5.63
70.00°	5.11	5.25	5.51	5.10	5.78	5.32	4.61	4.77	4.90	4.71	4.69	4.87	5.46	5.68	5.86	6.05	5.11
72.50°	4.68	4.30	4.89	4.40	4.46	4.50	3.82	4.01	4.18	4.21	3.55	4.40	4.88	4.75	5.76	4.80	4.68
75.00°	3.84	3.63	4.42	3.70	3.57	3.65	2.94	3.26	2.96	3.73	2.78	3.77	3.98	4.04	4.84	3.67	3.84
77.50°	2.82	3.38	3.73	3.01	2.65	3.15	2.08	2.46	2.39	2.66	2.23	2.39	3.16	3.52	3.76	2.82	2.82
80.00°	1.85	2.54	2.29	2.18	1.55	1.93	1.40	1.58	1.66	1.51	1.66	1.57	2.03	2.68	2.49	2.03	1.85
82.50°	1.10	1.51	1.47	1.30	0.78	0.88	0.95	1.00	0.95	0.80	0.99	0.85	0.94	1.39	1.21	1.19	1.10
85.00°	0.72	0.80	1.00	0.79	0.58	0.73	0.66	0.66	0.56	0.63	0.85	0.60	0.71	0.78	0.77	0.66	0.72
87.50°	0.60	0.86	0.73	0.74	0.53	0.62	0.56	0.53	0.66	0.57	0.73	0.70	0.60	0.83	0.72	0.61	0.60
90.00°	0.59	0.68	0.68	0.74	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85	0.58	0.81	0.59
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	894	894	894	894	873	873	873	873	835	835	835	799	799	799	766	766	751
	1	855	836	818	802	837	820	804	790	789	777	765	762	752	743	736	728	714
	2	817	784	756	732	801	771	745	724	747	726	708	725	708	693	704	691	677
	3	781	737	703	676	767	727	696	670	708	681	660	690	668	649	673	655	643
	4	747	696	658	629	734	688	653	626	672	642	618	657	632	611	644	622	611
	5	715	659	619	590	704	652	615	587	639	607	582	627	599	577	615	591	581
	6	685	625	585	556	675	619	581	554	609	575	550	598	569	547	589	563	554
	7	657	594	554	526	648	590	551	524	581	546	521	572	542	519	564	537	528
	8	630	567	526	499	622	562	524	498	555	520	496	547	516	494	541	513	505
	9	606	541	501	474	598	537	500	474	531	496	472	525	493	471	519	490	483
	10	582	517	478	453	575	514	477	452	509	474	451	503	472	450	498	469	463

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	49.9 fc	3.8 ft
6.5 ft	35.8 fc	4.5 ft
7.5 ft	26.9 fc	5.2 ft
8.0 ft	23.6 fc	5.5 ft
10.0 ft	15.1 fc	6.9 ft
12.0 ft	10.5 fc	8.3 ft
14.0 ft	7.7 fc	9.7 ft
16.0 ft	5.9 fc	11.0 ft
20.0 ft	3.8 fc	13.8 ft
24.0 ft	2.6 fc	16.6 ft
28.0 ft	1.9 fc	19.3 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	517,641	517,641	517,641
45.00°	10,226	10,426	10,662
55.00°	5,343	5,095	5,769
65.00°	5,040	4,885	5,633
75.00°	5,082	5,854	4,726
85.00°	2,826	3,925	2,285

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	9.0	9.9	9.3	10.2	10.5	9.4	10.3	9.7	10.6	10.9
	3H	10.9	11.7	11.3	12.0	12.4	11.1	11.9	11.5	12.3	12.6
	4H	11.6	12.4	12.0	12.7	13.1	11.7	12.5	12.1	12.9	13.3
	6H	12.0	12.7	12.4	13.1	13.5	12.1	12.8	12.5	13.2	13.6
	8H	12.1	12.7	12.5	13.1	13.5	12.1	12.8	12.6	13.2	13.6
	12H	12.1	12.7	12.5	13.1	13.5	12.1	12.8	12.6	13.1	13.6
4H	2H	9.5	10.2	9.9	10.6	11.0	9.8	10.6	10.2	10.9	11.3
	3H	11.7	12.3	12.1	12.7	13.1	11.7	12.3	12.1	12.7	13.1
	4H	12.5	13.0	12.9	13.5	13.9	12.5	13.0	12.9	13.5	13.9
	6H	13.0	13.5	13.5	13.9	14.4	12.9	13.4	13.4	13.9	14.3
	8H	13.1	13.6	13.6	14.0	14.5	13.0	13.4	13.4	13.9	14.3
	12H	13.1	13.5	13.6	14.0	14.5	13.0	13.3	13.5	13.8	14.3
8H	4H	12.8	13.3	13.3	13.7	14.2	12.6	13.0	13.0	13.5	13.9
	6H	13.5	13.8	14.0	14.4	14.8	13.1	13.4	13.6	14.0	14.4
	8H	13.6	14.0	14.2	14.5	15.0	13.2	13.5	13.7	14.0	14.5
	12H	13.7	14.0	14.3	14.5	15.1	13.2	13.5	13.7	14.0	14.6
12H	4H	12.8	13.2	13.3	13.7	14.2	12.5	12.9	13.0	13.4	13.9
	6H	13.5	13.8	14.1	14.3	14.9	13.1	13.4	13.6	13.9	14.4
	8H	13.7	14.0	14.2	14.5	15.1	13.2	13.4	13.7	13.9	14.5

Corrected UGR values based on total output lumens

SHR = 1.0