

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

IF03RMx xx PC 835 030 DLFLGP MW
Nominal 3" diam round recessed Infinium downlight

Test Number

SP-00758_2_M-30L

Test Date

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

Summary of Results

Power

Input Watts	20.4 W
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Lumen Output

Output Lumens	2012
Efficacy	98.63 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

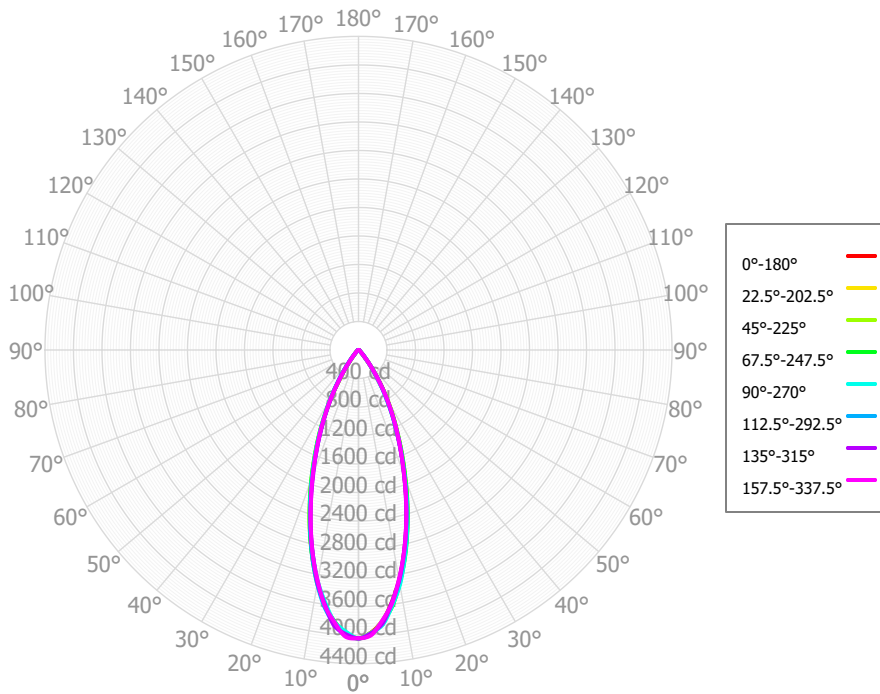
Full Beam Angle

0° - 180°	38°
90° - 270°	38°

IES File Header Contents

Keyword	Value
TEST	SP-00758_2_M-30L
TESTLAB	Spectrum Lighting Photometric lab, VLS-245-981
MANUFAC	Spectrum Lighting
ISSUEDATE	2/8/2019
UPDATE	2/18/2021
LUMCAT	IF03RMx xx PC 835 030 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: 27K x 0.96, 30K x 0.98, 40K x 1.04
OTHER	Total luminaire wattages is approximate
OTHER	This report prepared by Spectrum Lighting, scaled from 20L
_CRI	80
_CCTMULT	27K x 0.96, 30K x 0.98, 40K x 1.04
_CCTMULTA	27HK x 0.87, 30HK x 0.81
_LAMPMULT	N/A. 30L only

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	353.35	17.56%	90.00° - 100.00°	0.13	0.01%
10.00° - 20.00°	713.96	35.48%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	584.95	29.07%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	248.89	12.37%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	55.20	2.74%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	24.92	1.24%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	17.69	0.88%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	10.31	0.51%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	2.62	0.13%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	2011.91	99.99%	0.00° - 180.00°	2012.03	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°	4046.80	4046.80	4046.80	4046.80	4046.80	4046.80	4046.80	4046.80	4046.80	4046.80	4046.80	4046.80	4046.80	4046.80	4046.80	4046.80	4046.80
2.50°	3971.34	3992.05	3973.10	3997.58	3977.49	4018.22	3993.70	4031.37	3987.92	4007.62	3976.73	3996.67	3960.49	3995.69	3980.67	4008.93	3971.34
5.00°	3825.57	3815.23	3856.67	3836.62	3874.43	3865.43	3888.23	3838.45	3855.21	3840.01	3859.11	3827.51	3836.35	3824.80	3855.62	3813.13	3825.57
7.50°	3573.19	3594.06	3601.22	3630.25	3619.88	3643.52	3605.82	3622.38	3602.74	3625.63	3607.16	3618.90	3576.01	3591.99	3577.08	3591.26	3573.19
10.00°	3279.45	3288.67	3325.96	3324.87	3347.24	3336.13	3317.95	3293.29	3309.33	3316.06	3330.42	3312.74	3294.96	3284.69	3286.23	3268.27	3279.45
12.50°	2938.78	2963.94	2984.53	3001.12	2993.71	2990.90	2953.55	2957.25	2960.87	2983.01	2987.22	2986.96	2952.96	2951.82	2932.42	2936.07	2938.78
15.00°	2584.24	2608.83	2637.86	2645.04	2635.44	2618.87	2588.75	2586.63	2602.80	2617.11	2637.85	2631.90	2606.75	2593.91	2577.05	2577.17	2584.24
17.50°	2229.98	2255.27	2276.08	2287.50	2261.91	2237.46	2219.61	2217.08	2234.24	2245.56	2275.11	2272.87	2250.91	2237.44	2215.87	2222.35	2229.98
20.00°	1875.78	1903.67	1915.03	1927.92	1890.61	1888.49	1858.10	1880.74	1891.54	1910.55	1927.34	1933.47	1907.10	1882.15	1868.53	1877.05	1875.78
22.50°	1573.05	1585.19	1602.93	1599.73	1576.60	1548.19	1547.53	1549.42	1572.51	1579.38	1605.33	1595.51	1585.68	1565.53	1560.03	1558.92	1573.05
25.00°	1278.18	1300.93	1295.98	1308.21	1267.97	1261.81	1246.38	1269.35	1277.16	1287.26	1299.27	1303.02	1286.34	1274.59	1271.00	1290.86	1278.18
27.50°	1042.49	1045.48	1053.86	1042.05	1012.65	985.68	988.62	994.81	999.44	997.26	1015.36	1012.84	1020.02	1019.40	1025.20	1037.26	1042.49
30.00°	812.01	814.97	815.63	800.35	764.63	758.59	743.37	754.10	749.22	750.45	756.56	770.91	778.31	783.28	793.54	805.08	812.01
32.50°	600.95	603.34	605.58	586.80	562.97	537.70	540.14	527.32	515.52	507.96	526.90	535.04	566.45	581.46	587.20	592.52	600.95
35.00°	391.81	404.96	407.41	395.30	375.72	380.73	359.56	361.98	344.67	344.75	346.35	370.01	390.35	394.61	407.57	404.21	391.81
37.50°	262.19	261.93	267.55	257.37	250.94	228.14	238.02	218.58	204.92	191.47	212.20	216.23	250.57	268.19	266.44	259.41	262.19
40.00°	138.31	150.18	147.54	153.93	144.57	157.20	141.47	146.14	131.27	131.72	127.99	142.75	156.53	162.17	163.58	158.34	138.31
42.50°	95.78	92.51	97.67	94.25	96.93	88.96	96.77	87.98	83.28	78.15	82.13	78.82	100.26	108.30	106.75	95.66	95.78
45.00°	56.53	59.92	57.63	57.51	58.94	65.67	63.73	65.23	61.72	60.38	56.25	60.14	66.19	67.54	68.78	64.39	56.53
47.50°	43.81	43.60	44.41	40.97	45.39	43.87	50.01	47.95	47.98	45.01	43.16	44.14	46.98	49.65	49.27	45.52	43.81
50.00°	32.43	33.16	33.38	32.78	34.62	38.49	39.31	41.66	39.75	39.34	34.94	37.39	36.64	36.00	36.94	35.10	32.43
52.50°	27.92	28.94	27.13	28.43	29.38	33.32	32.72	35.89	32.76	33.90	29.23	31.49	31.21	31.08	30.32	29.45	27.92
55.00°	23.96	26.42	22.84	25.33	25.87	29.54	28.03	30.97	30.02	29.22	26.90	27.91	27.12	27.18	26.53	26.41	23.96
57.50°	22.00	23.83	21.93	23.01	25.11	25.97	25.45	26.90	27.93	25.12	25.93	24.14	23.63	24.07	24.61	23.88	22.00
60.00°	20.10	21.23	20.31	20.89	23.42	23.30	22.88	23.94	25.03	22.38	22.56	19.96	21.22	21.00	22.59	21.56	20.10
62.50°	18.35	19.55	17.69	19.81	20.48	20.72	20.34	20.97	22.07	19.88	18.41	16.91	19.18	20.22	20.52	20.57	18.35
65.00°	16.65	17.99	16.14	18.90	18.61	18.44	17.56	17.98	17.81	17.80	16.96	15.78	17.49	19.40	18.41	20.04	16.65
67.50°	15.08	16.06	15.82	16.33	17.89	16.25	14.63	15.28	13.96	15.40	16.08	14.49	15.89	17.36	16.28	18.27	15.08
70.00°	13.69	14.07	14.75	13.66	15.49	14.26	12.34	12.77	13.13	12.62	12.57	13.04	14.62	15.23	15.71	16.19	13.69
72.50°	12.54	11.52	13.09	11.78	11.96	12.05	10.23	10.73	11.21	11.27	9.50	11.79	13.06	12.72	15.43	12.87	12.54
75.00°	10.28	9.72	11.84	9.91	9.56	9.78	7.88	8.72	7.93	9.99	7.45	10.10	10.65	10.81	12.98	9.82	10.28
77.50°	7.54	9.05	9.98	8.06	7.11	8.44	5.58	6.59	6.41	7.12	5.98	6.41	8.46	9.42	10.07	7.55	7.54
80.00°	4.95	6.79	6.13	5.83	4.17	5.17	3.76	4.24	4.45	4.05	4.46	4.21	5.43	7.18	6.66	5.45	4.95
82.50°	2.96	4.04	3.92	3.47	2.08	2.35	2.53	2.68	2.53	2.13	2.65	2.27	2.53	3.72	3.23	3.18	2.96
85.00°	1.93	2.14	2.67	2.12	1.56	1.95	1.77	1.77	1.49	1.69	2.28	1.60	1.90	2.08	2.07	1.76	1.93
87.50°	1.62	2.29	1.96	1.98	1.42	1.65	1.51	1.42	1.77	1.53	1.96	1.87	1.59	2.22	1.92	1.64	1.62
90.00°	1.57	1.83	1.81	1.99	1.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.27	1.54	2.16	1.57
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	2395	2395	2395	2395	2340	2340	2340	2340	2236	2236	2236	2140	2140	2140	2053	2053	2012
	1	2291	2239	2192	2150	2242	2196	2154	2115	2115	2081	2050	2040	2014	1989	1971	1951	1932
	2	2190	2099	2024	1961	2146	2065	1997	1939	2000	1945	1896	1941	1896	1856	1886	1850	1817
	3	2093	1975	1883	1810	2054	1947	1863	1796	1895	1825	1767	1847	1789	1740	1803	1755	1721
	4	2002	1864	1763	1686	1967	1842	1748	1676	1799	1719	1656	1760	1692	1637	1724	1666	1636
	5	1916	1764	1658	1580	1885	1746	1647	1573	1711	1625	1559	1679	1604	1546	1649	1584	1556
	6	1835	1674	1566	1488	1808	1659	1557	1483	1630	1540	1474	1603	1524	1464	1578	1508	1483
	7	1760	1592	1484	1408	1735	1579	1477	1404	1555	1464	1397	1532	1451	1390	1511	1438	1415
	8	1689	1517	1410	1336	1666	1507	1404	1333	1486	1394	1328	1466	1383	1322	1448	1373	1352
	9	1622	1449	1343	1271	1602	1440	1338	1269	1422	1329	1265	1405	1321	1261	1389	1313	1293
	10	1560	1386	1282	1212	1541	1378	1278	1211	1362	1271	1207	1348	1264	1204	1334	1257	1239

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	133.8 fc	3.8 ft
6.5 ft	95.8 fc	4.5 ft
7.5 ft	71.9 fc	5.2 ft
8.0 ft	63.2 fc	5.5 ft
10.0 ft	40.5 fc	6.9 ft
12.0 ft	28.1 fc	8.3 ft
14.0 ft	20.6 fc	9.7 ft
16.0 ft	15.8 fc	11.0 ft
20.0 ft	10.1 fc	13.8 ft
24.0 ft	7.0 fc	16.6 ft
28.0 ft	5.2 fc	19.3 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	1386539	1386539	1386539
45.00°	27391	27926	28559
55.00°	14312	13646	15452
65.00°	13499	13084	15087
75.00°	13611	15680	12660
85.00°	7571	10512	6120

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	12.4	13.3	12.8	13.7	14.0	12.8	13.7	13.1	14.1	14.4
	3H	14.3	15.1	14.7	15.5	15.8	14.5	15.4	14.9	15.7	16.1
	4H	15.0	15.8	15.4	16.1	16.5	15.2	15.9	15.6	16.3	16.7
	6H	15.4	16.1	15.8	16.5	16.9	15.5	16.2	15.9	16.6	17.0
	8H	15.5	16.1	15.9	16.5	16.9	15.5	16.2	16.0	16.6	17.0
	12H	15.5	16.1	15.9	16.5	17.0	15.5	16.2	16.0	16.6	17.0
4H	2H	12.9	13.7	13.3	14.0	14.4	13.2	14.0	13.6	14.3	14.7
	3H	15.1	15.7	15.5	16.1	16.5	15.1	15.7	15.5	16.2	16.6
	4H	15.9	16.5	16.3	16.9	17.3	15.9	16.5	16.3	16.9	17.3
	6H	16.4	16.9	16.9	17.4	17.8	16.3	16.8	16.8	17.3	17.8
	8H	16.5	17.0	17.0	17.4	17.9	16.4	16.8	16.9	17.3	17.8
	12H	16.6	17.0	17.1	17.4	17.9	16.4	16.8	16.9	17.3	17.7
8H	4H	16.3	16.7	16.7	17.2	17.6	16.0	16.4	16.5	16.9	17.4
	6H	16.9	17.3	17.4	17.8	18.3	16.5	16.9	17.0	17.4	17.9
	8H	17.1	17.4	17.6	17.9	18.4	16.6	16.9	17.1	17.4	17.9
	12H	17.2	17.4	17.7	17.9	18.5	16.6	16.9	17.2	17.4	18.0
12H	4H	16.3	16.6	16.7	17.1	17.6	15.9	16.3	16.4	16.8	17.3
	6H	16.9	17.3	17.5	17.7	18.3	16.5	16.8	17.0	17.3	17.8
	8H	17.1	17.4	17.7	17.9	18.5	16.6	16.9	17.1	17.4	17.9

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0