

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

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

Test Number

SP-00760_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	2047
Efficacy	100.34 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.4
Two luminaires, plane 90°	0.4
Four luminaires	0.43

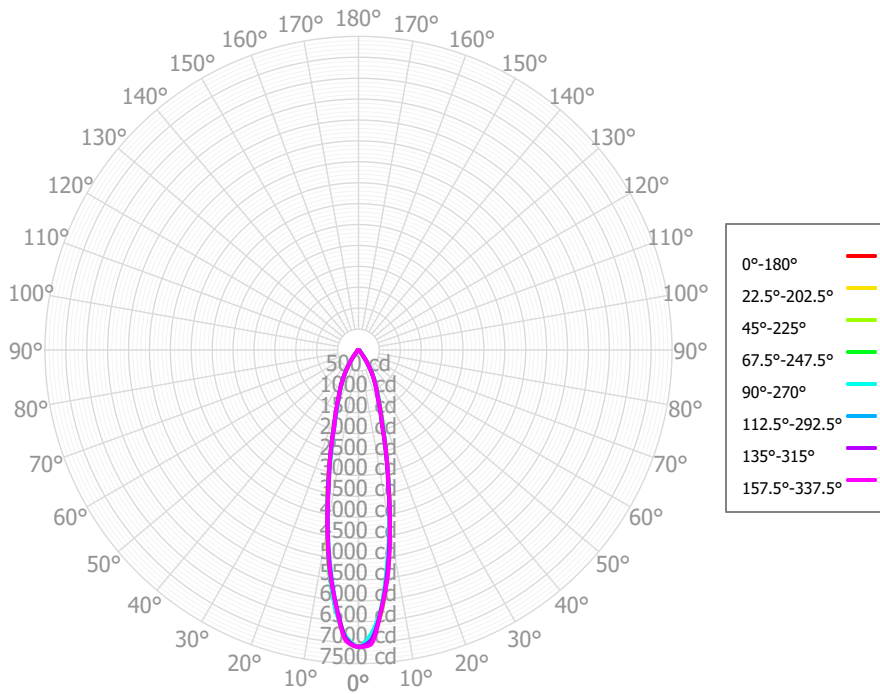
Full Beam Angle

0° - 180°	24°
90° - 270°	24°

IES File Header Contents

Keyword	Value
TEST	SP-00760_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 DLSPGP MW
LUMINAIRE	Nominal 3" diam round recessed Infinium downlight
OTHER	Beam Angle: 24 degrees
OTHER	Spot 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°	533.74	26.08%	90.00° - 100.00°	0.12	0.01%
10.00° - 20.00°	714.16	34.89%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	469.16	22.92%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	210.95	10.31%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	48.61	2.38%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	33.88	1.66%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	22.89	1.12%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	10.77	0.53%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	2.57	0.13%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	2046.73	99.99%	0.00° - 180.00°	2046.85	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°	7099.77	7099.77	7099.77	7099.77	7099.77	7099.77	7099.77	7099.77	7099.77	7099.77	7099.77	7099.77	7099.77	7099.77	7099.77	7099.77	7099.77
2.50°	6913.44	6949.78	6855.91	6860.00	6808.90	6913.84	6909.14	6963.16	6881.16	6944.71	6856.08	6910.98	6863.01	6991.60	6947.09	7042.45	6913.44
5.00°	6291.87	6235.46	6288.56	6207.09	6222.16	6129.16	6132.49	6152.09	6192.88	6203.29	6233.34	6220.43	6252.85	6222.23	6244.14	6248.82	6291.87
7.50°	5324.66	5313.22	5288.03	5232.25	5212.65	5190.35	5274.99	5269.73	5327.28	5364.12	5323.19	5342.86	5318.33	5375.13	5313.53	5411.85	5324.66
10.00°	4334.65	4321.78	4306.92	4269.75	4239.16	4230.79	4266.70	4280.72	4291.99	4320.69	4280.80	4284.13	4250.93	4303.48	4306.14	4337.03	4334.65
12.50°	3328.56	3310.07	3353.91	3315.99	3322.52	3267.28	3356.18	3284.85	3385.50	3373.35	3388.97	3364.48	3345.91	3319.01	3272.91	3322.05	3328.56
15.00°	2559.81	2587.57	2565.63	2566.45	2544.90	2567.26	2605.84	2599.10	2586.75	2598.90	2556.14	2562.58	2497.08	2547.24	2527.95	2566.04	2559.81
17.50°	1938.86	1935.77	1985.05	1942.46	1960.96	1906.58	1997.74	1924.13	1991.47	1962.91	1992.15	1973.92	1953.53	1899.56	1863.47	1893.83	1938.86
20.00°	1528.47	1563.60	1547.44	1537.51	1517.15	1552.53	1592.10	1578.18	1546.84	1545.97	1516.79	1545.08	1499.63	1514.64	1487.49	1516.51	1528.47
22.50°	1231.55	1245.83	1269.53	1249.03	1243.65	1231.17	1269.92	1237.48	1240.83	1219.33	1237.16	1242.13	1232.05	1197.07	1178.41	1186.93	1231.55
25.00°	1011.85	1032.51	1034.84	1027.86	1014.74	1033.56	1052.80	1034.59	1024.11	1016.93	1012.06	1021.33	1009.16	1002.21	982.03	999.54	1011.85
27.50°	828.53	835.18	842.36	837.95	833.86	844.74	851.52	833.17	832.24	829.38	828.44	826.54	822.94	816.00	806.27	815.95	828.53
30.00°	644.17	650.51	657.52	658.07	656.78	665.85	667.66	651.24	654.45	659.90	654.20	646.47	643.88	643.64	632.43	641.89	644.17
32.50°	459.41	467.23	479.19	482.16	483.28	487.29	494.96	473.12	487.15	494.35	486.38	479.13	478.93	477.59	458.85	474.01	459.41
35.00°	316.67	322.08	328.61	335.69	335.87	342.17	333.00	329.11	324.99	332.98	319.73	318.09	316.07	320.34	319.60	319.61	316.67
37.50°	188.16	179.61	198.98	199.21	210.23	199.61	212.84	195.69	215.29	212.53	213.95	207.78	209.38	198.87	183.77	193.77	188.16
40.00°	121.04	120.74	121.14	128.69	128.84	134.46	128.31	130.86	127.88	130.68	116.53	118.96	108.67	120.85	122.00	121.31	121.04
42.50°	71.54	64.96	77.37	76.76	79.69	72.65	79.02	74.38	84.03	80.52	81.18	77.62	74.29	70.17	64.74	70.01	71.54
45.00°	53.96	52.23	54.77	57.94	55.27	59.33	55.94	60.49	55.85	56.47	52.02	53.62	44.61	48.90	51.39	53.46	53.96
47.50°	43.84	39.93	44.44	46.88	46.51	47.04	45.95	48.87	47.15	45.62	48.05	44.01	40.34	38.09	39.35	42.36	43.84
50.00°	41.13	39.27	40.64	43.04	42.52	44.59	44.57	46.45	44.30	44.26	45.61	38.80	36.92	37.11	39.75	39.03	41.13
52.50°	39.83	38.56	40.11	40.54	41.18	42.25	43.82	43.79	42.26	41.67	41.89	37.08	36.69	35.63	40.06	37.06	39.83
55.00°	36.64	37.09	39.16	40.71	41.45	40.66	43.45	40.36	40.42	38.30	38.14	36.25	36.36	33.73	37.86	36.79	36.64
57.50°	33.18	35.48	38.02	41.26	42.50	38.70	38.65	36.32	35.90	35.29	35.24	33.30	32.48	31.38	35.41	34.17	33.18
60.00°	30.57	32.38	32.79	35.61	36.13	34.74	31.68	30.56	30.84	32.49	32.29	29.93	28.64	28.71	29.63	28.97	30.57
62.50°	28.05	29.26	26.05	29.31	26.66	30.25	27.95	25.73	25.90	27.95	28.08	26.03	25.29	25.08	24.12	24.87	28.05
65.00°	24.07	25.97	22.76	25.13	22.42	23.52	25.60	23.10	20.98	22.57	23.69	22.05	22.01	20.82	20.93	21.83	24.07
67.50°	20.01	22.28	20.54	21.07	20.01	17.92	20.92	19.60	18.18	17.76	17.77	19.30	19.18	17.72	17.86	18.80	20.01
70.00°	16.29	16.97	16.36	16.46	16.06	15.38	15.54	14.69	15.38	13.13	13.25	16.38	15.87	15.18	15.36	15.77	16.29
72.50°	13.08	13.17	11.94	12.64	11.81	13.21	13.40	11.63	11.61	11.17	11.70	12.05	11.64	13.14	13.19	12.60	13.08
75.00°	11.55	11.67	9.89	11.60	10.01	11.41	11.44	9.77	8.26	9.31	8.82	8.86	10.08	10.76	11.49	9.51	11.55
77.50°	8.91	8.50	7.32	8.88	8.20	8.92	9.61	8.95	5.58	7.49	5.99	6.68	8.47	7.14	7.82	7.21	8.91
80.00°	5.77	5.53	4.23	5.36	6.33	5.82	6.19	6.34	5.21	4.38	4.49	5.08	4.98	5.27	4.76	5.06	5.77
82.50°	2.94	3.65	2.90	2.82	2.64	3.12	2.99	3.30	2.77	2.50	2.33	2.15	1.85	2.90	3.05	3.24	2.94
85.00°	1.40	1.86	2.28	1.89	1.88	2.38	2.16	1.96	1.32	1.13	1.60	2.01	2.01	1.38	1.55	1.94	1.40
87.50°	1.49	1.68	2.21	1.47	1.10	1.64	2.26	2.13	2.09	1.49	1.26	1.60	1.48	2.24	1.63	1.94	1.49
90.00°	1.49	1.71	1.50	1.63	1.24	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.02	1.97	1.59	1.49
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	2437	2437	2437	2437	2380	2380	2380	2380	2274	2274	2274	2177	2177	2177	2089	2089	2047
	1	2336	2285	2240	2198	2287	2241	2201	2164	2159	2127	2097	2084	2058	2035	2014	1995	1955
	2	2239	2151	2079	2018	2196	2117	2051	1995	2052	1998	1952	1992	1948	1910	1936	1901	1865
	3	2148	2034	1946	1875	2109	2006	1925	1860	1954	1886	1831	1906	1850	1803	1861	1815	1781
	4	2063	1930	1833	1759	2028	1908	1818	1749	1865	1789	1729	1826	1761	1709	1790	1735	1703
	5	1983	1838	1736	1662	1952	1819	1725	1654	1785	1703	1640	1752	1682	1626	1722	1661	1632
	6	1908	1755	1652	1578	1881	1740	1643	1573	1711	1626	1562	1684	1609	1552	1659	1593	1567
	7	1839	1680	1577	1504	1814	1667	1570	1501	1643	1556	1493	1620	1543	1486	1599	1531	1506
	8	1774	1612	1510	1439	1752	1601	1504	1437	1580	1493	1431	1561	1483	1425	1543	1473	1450
	9	1713	1549	1449	1381	1693	1540	1444	1379	1523	1436	1375	1506	1427	1370	1491	1419	1398
	10	1656	1492	1394	1328	1638	1484	1390	1327	1469	1383	1323	1455	1376	1320	1442	1369	1350

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	234.7 fc	2.3 ft
6.5 ft	168.0 fc	2.7 ft
7.5 ft	126.2 fc	3.2 ft
8.0 ft	110.9 fc	3.4 ft
10.0 ft	71.0 fc	4.2 ft
12.0 ft	49.3 fc	5.1 ft
14.0 ft	36.2 fc	5.9 ft
16.0 ft	27.7 fc	6.8 ft
20.0 ft	17.7 fc	8.4 ft
24.0 ft	12.3 fc	10.1 ft
28.0 ft	9.1 fc	11.8 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	2432564	2432564	2432564
45.00°	26147	26540	26780
55.00°	21886	23393	24763
65.00°	19517	18452	18174
75.00°	15286	13099	13258
85.00°	5501	8946	7390

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	15.0	15.9	15.3	16.3	16.6	15.4	16.3	15.7	16.6	16.9
	3H	16.3	17.2	16.7	17.5	17.9	16.5	17.3	16.9	17.7	18.0
	4H	16.8	17.6	17.2	17.9	18.3	16.8	17.6	17.2	17.9	18.3
	6H	17.0	17.8	17.5	18.1	18.5	17.0	17.8	17.5	18.1	18.5
	8H	17.1	17.7	17.5	18.1	18.5	17.0	17.7	17.5	18.1	18.5
	12H	17.0	17.7	17.5	18.1	18.5	17.0	17.7	17.5	18.1	18.5
4H	2H	15.3	16.1	15.7	16.4	16.8	15.7	16.5	16.2	16.9	17.3
	3H	16.8	17.5	17.2	17.9	18.3	17.0	17.6	17.4	18.0	18.5
	4H	17.4	17.9	17.8	18.4	18.8	17.4	18.0	17.9	18.4	18.9
	6H	17.7	18.2	18.2	18.7	19.1	17.8	18.2	18.2	18.7	19.2
	8H	17.8	18.2	18.2	18.7	19.1	17.8	18.2	18.2	18.7	19.2
	12H	17.8	18.1	18.2	18.6	19.1	17.8	18.2	18.3	18.6	19.1
8H	4H	17.5	17.9	17.9	18.4	18.9	17.5	18.0	18.0	18.4	18.9
	6H	17.9	18.2	18.4	18.8	19.2	17.9	18.3	18.4	18.8	19.3
	8H	18.0	18.3	18.5	18.8	19.3	18.0	18.3	18.5	18.8	19.3
	12H	18.0	18.3	18.5	18.8	19.4	18.0	18.3	18.5	18.8	19.4
12H	4H	17.4	17.8	17.9	18.3	18.8	17.5	17.9	18.0	18.4	18.8
	6H	17.9	18.2	18.4	18.7	19.2	17.9	18.2	18.4	18.7	19.2
	8H	18.0	18.3	18.5	18.8	19.3	18.0	18.2	18.5	18.7	19.3

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0