

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

IF03RMx xx PC 835 030 DLSPGC MW

Test Number

SP-00760_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	1974
Efficacy	96.78 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.38
Two luminaires, plane 90°	0.38
Four luminaires	0.41

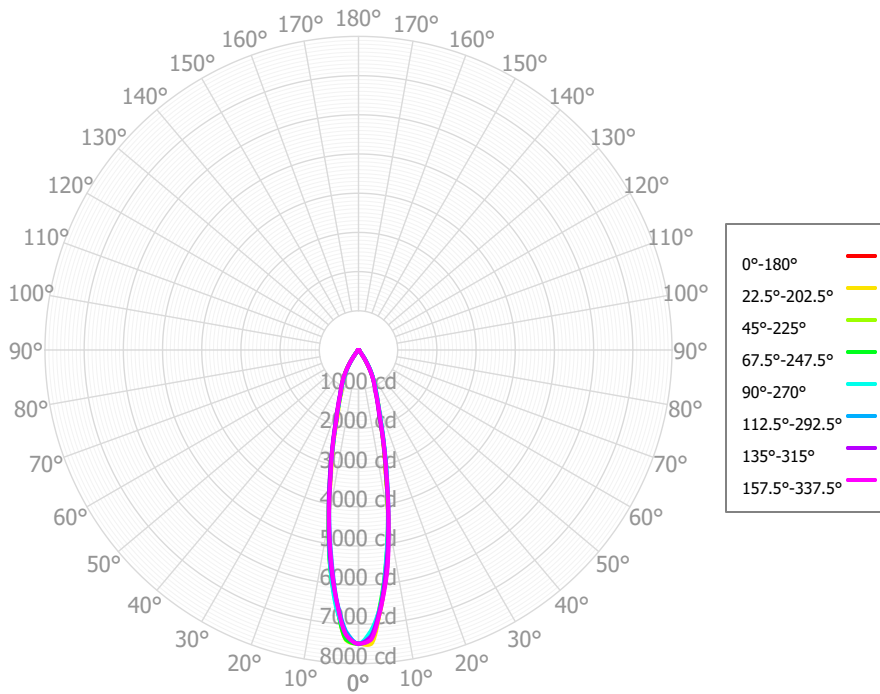
Full Beam Angle

0° - 180°	23°
90° - 270°	23°

IES File Header Contents

Keyword	Value
TEST	SP-00760_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 DLSPGC MW
LUMINIARE	Nominal 3" diam round recessed Infinium downlight
OTHER	Beam Angle: 23 degrees
OTHER	Spot optic, Clear glass 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°	554.53	28.09%	90.00° - 100.00°	0.13	0.01%
10.00° - 20.00°	699.64	35.44%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	452.93	22.94%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	185.46	9.39%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	28.99	1.47%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	28.60	1.45%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	15.50	0.78%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	6.11	0.31%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	2.42	0.12%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	1974.18	99.99%	0.00° - 180.00°	1974.31	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°	7494.74	7494.74	7494.74	7494.74	7494.74	7494.74	7494.74	7494.74	7494.74	7494.74	7494.74	7494.74	7494.74	7494.74	7494.74	7494.74	7494.74
2.50°	7364.34	7504.31	7276.91	7378.70	7180.05	7195.93	7277.95	7275.40	7294.81	7405.53	7261.24	7388.61	7244.18	7314.21	7311.28	7396.14	7364.34
5.00°	6590.38	6563.84	6570.50	6466.90	6528.55	6400.19	6426.26	6427.79	6474.51	6441.41	6530.58	6504.43	6583.30	6542.21	6545.82	6590.14	6590.38
7.50°	5482.70	5599.78	5424.60	5427.55	5394.58	5317.60	5476.15	5369.90	5514.22	5458.67	5546.64	5563.36	5549.35	5597.31	5488.68	5650.77	5482.70
10.00°	4352.94	4381.30	4323.86	4348.78	4324.74	4302.45	4374.34	4322.72	4359.84	4334.53	4360.98	4394.71	4364.38	4406.66	4385.28	4416.21	4352.94
12.50°	3212.90	3221.44	3260.90	3265.69	3355.48	3317.83	3395.85	3278.38	3351.62	3228.39	3369.43	3317.25	3389.03	3367.81	3262.78	3321.61	3212.90
15.00°	2432.02	2492.20	2455.63	2514.05	2533.29	2551.18	2584.26	2539.15	2521.73	2481.20	2511.89	2542.81	2486.11	2516.06	2459.20	2495.57	2432.02
17.50°	1792.81	1821.22	1840.09	1786.33	1910.64	1869.45	1955.46	1864.66	1895.50	1768.92	1906.11	1874.95	1929.49	1876.27	1768.19	1833.19	1792.81
20.00°	1424.80	1477.33	1443.92	1467.20	1456.70	1488.57	1541.36	1508.70	1485.22	1443.94	1452.70	1500.82	1471.61	1466.77	1398.75	1440.65	1424.80
22.50°	1147.91	1162.45	1187.48	1162.06	1204.26	1205.54	1238.65	1206.18	1196.51	1139.61	1180.61	1185.20	1212.18	1168.46	1123.19	1135.23	1147.91
25.00°	948.03	974.44	973.72	979.22	988.31	1005.30	1049.68	1024.86	1021.49	995.69	1002.80	1005.31	999.45	975.19	933.10	955.78	948.03
27.50°	769.45	785.22	783.74	796.33	810.25	827.60	863.26	858.33	852.96	846.98	835.05	825.67	808.19	787.79	763.20	771.92	769.45
30.00°	574.58	591.79	595.70	612.15	634.34	649.68	679.15	672.36	689.70	670.96	671.83	646.51	620.88	605.28	579.58	582.52	574.58
32.50°	376.01	405.53	408.57	430.38	460.41	471.72	499.55	484.75	509.88	494.46	492.83	470.63	445.22	431.03	393.34	402.43	376.01
35.00°	230.97	240.50	258.01	281.15	307.01	313.86	323.50	315.51	318.21	315.82	307.81	300.40	271.17	262.73	247.57	232.46	230.97
37.50°	95.40	110.35	122.48	141.70	169.96	159.48	192.40	147.08	184.90	160.77	185.27	166.14	161.77	150.49	107.56	120.95	95.40
40.00°	58.70	66.66	66.67	89.98	91.17	96.21	92.21	89.89	87.66	91.70	82.56	86.09	58.71	73.28	66.69	65.56	58.70
42.50°	34.89	35.52	38.36	44.15	53.15	44.53	46.30	35.13	45.13	37.41	46.14	37.68	40.99	39.10	36.02	36.60	34.89
45.00°	30.43	31.21	30.99	35.97	36.47	36.10	32.62	28.57	31.70	28.28	27.30	30.57	28.17	28.41	29.29	29.68	30.43
47.50°	27.76	28.33	29.58	29.60	32.69	31.33	28.62	22.74	26.90	22.42	24.53	27.20	26.79	26.22	24.06	26.44	27.76
50.00°	30.36	28.09	31.68	32.06	32.05	33.11	29.64	28.48	26.07	24.89	25.15	28.14	25.75	28.01	25.69	25.92	30.36
52.50°	33.23	29.65	34.60	34.93	33.04	35.20	32.98	33.87	28.98	27.35	29.27	29.38	29.74	28.86	27.52	29.23	33.23
55.00°	35.04	34.09	37.16	39.41	36.54	35.96	37.36	35.70	33.35	29.77	33.96	30.95	33.33	29.34	29.25	34.99	35.04
57.50°	36.71	34.36	39.66	41.05	41.17	36.53	34.34	36.38	32.83	29.99	31.26	29.13	27.84	26.71	30.62	33.45	36.71
60.00°	31.18	28.90	32.02	33.53	34.19	28.21	28.57	29.03	30.69	26.08	27.67	24.37	22.30	23.03	24.06	27.84	31.18
62.50°	25.49	22.68	22.95	25.65	22.79	20.02	21.19	21.87	23.56	20.89	21.88	19.30	16.26	17.04	17.58	20.83	25.49
65.00°	16.91	15.55	16.94	16.80	14.99	13.91	13.31	15.75	15.06	13.60	15.91	14.00	10.87	10.41	12.16	13.15	16.91
67.50°	9.13	10.19	11.23	10.06	8.36	8.47	9.24	10.72	11.37	9.26	12.47	9.47	9.28	8.49	7.55	9.45	9.13
70.00°	6.57	6.47	8.52	7.51	6.91	7.11	6.00	9.10	8.63	8.35	9.58	5.37	8.35	7.46	7.11	7.16	6.57
72.50°	5.05	5.18	6.23	6.19	6.43	5.96	5.62	7.87	7.70	6.86	8.97	5.99	8.65	5.75	6.64	5.19	5.05
75.00°	5.32	4.87	5.34	5.97	4.83	5.14	5.16	7.07	6.75	5.31	7.39	6.73	7.57	4.66	6.13	4.07	5.32
77.50°	4.86	4.64	4.59	4.84	4.14	5.82	4.56	5.21	5.77	5.41	5.21	6.04	5.82	4.57	4.64	4.82	4.86
80.00°	4.00	3.80	3.95	3.75	4.40	5.70	4.20	3.82	6.64	4.26	3.71	4.01	3.70	3.47	3.49	3.37	4.00
82.50°	2.89	2.37	3.41	2.79	2.98	3.80	2.87	2.91	3.91	2.62	2.46	2.12	1.91	2.14	2.70	2.11	2.89
85.00°	2.14	1.22	2.44	2.04	2.04	1.59	1.98	1.82	2.07	1.45	1.48	1.89	2.18	1.56	1.46	1.83	2.14
87.50°	1.87	1.61	1.85	2.21	2.04	1.41	1.39	1.38	1.36	1.19	1.86	2.45	1.84	1.93	2.21	1.88	1.87
90.00°	2.08	1.68	1.66	1.88	1.20	1.77	0.00	0.73	0.00	0.00	0.00	0.00	0.00	0.72	1.88	1.03	2.08
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	2350	2350	2350	2350	2296	2296	2296	2296	2194	2194	2194	2100	2100	2100	2014	2014	1974
	1	2258	2210	2167	2129	2210	2168	2130	2095	2089	2059	2031	2016	1992	1971	1949	1931	1893
	2	2168	2086	2019	1962	2126	2053	1992	1940	1991	1941	1898	1933	1893	1858	1880	1848	1812
	3	2084	1978	1896	1831	2047	1951	1876	1816	1901	1839	1787	1855	1803	1760	1812	1770	1737
	4	2005	1882	1792	1723	1972	1860	1777	1713	1820	1749	1693	1783	1723	1674	1748	1697	1666
	5	1931	1796	1702	1632	1902	1779	1691	1625	1746	1670	1611	1715	1649	1598	1686	1630	1601
	6	1862	1719	1623	1554	1836	1704	1615	1549	1677	1598	1539	1651	1582	1529	1628	1567	1541
	7	1797	1649	1553	1486	1774	1637	1546	1482	1614	1533	1475	1592	1521	1468	1572	1509	1485
	8	1736	1585	1490	1425	1715	1575	1485	1422	1556	1475	1417	1537	1465	1411	1520	1455	1433
	9	1679	1527	1433	1370	1661	1518	1429	1368	1502	1421	1364	1486	1412	1360	1471	1405	1384
	10	1626	1473	1381	1320	1609	1466	1378	1319	1451	1371	1316	1438	1364	1312	1425	1358	1339

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	247.8 fc	2.2 ft
6.5 ft	177.4 fc	2.6 ft
7.5 ft	133.2 fc	3.0 ft
8.0 ft	117.1 fc	3.2 ft
10.0 ft	74.9 fc	4.0 ft
12.0 ft	52.0 fc	4.8 ft
14.0 ft	38.2 fc	5.6 ft
16.0 ft	29.3 fc	6.5 ft
20.0 ft	18.7 fc	8.1 ft
24.0 ft	13.0 fc	9.7 ft
28.0 ft	9.6 fc	11.3 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	2567893	2567893	2567893
45.00°	14747	15016	17671
55.00°	20931	22200	21829
65.00°	13709	13737	12156
75.00°	7044	7073	6398
85.00°	8428	9579	8026

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	15.1	16.0	15.5	16.3	16.7	14.9	15.8	15.2	16.1	16.4
	3H	15.3	16.1	15.6	16.4	16.8	15.0	15.9	15.4	16.2	16.6
	4H	15.3	16.1	15.7	16.4	16.8	15.2	15.9	15.6	16.3	16.7
	6H	15.4	16.1	15.8	16.5	16.9	15.3	16.0	15.8	16.4	16.8
	8H	15.4	16.1	15.9	16.5	16.9	15.4	16.0	15.8	16.4	16.8
	12H	15.5	16.1	15.9	16.5	16.9	15.4	16.0	15.8	16.4	16.8
4H	2H	15.1	15.9	15.5	16.2	16.6	14.9	15.6	15.3	16.0	16.4
	3H	15.3	16.0	15.7	16.4	16.8	15.1	15.8	15.6	16.2	16.6
	4H	15.4	16.0	15.9	16.4	16.8	15.4	15.9	15.8	16.4	16.8
	6H	15.6	16.1	16.1	16.6	17.0	15.7	16.2	16.2	16.6	17.1
	8H	15.7	16.1	16.2	16.6	17.1	15.8	16.2	16.3	16.7	17.1
	12H	15.7	16.1	16.2	16.6	17.1	15.8	16.2	16.3	16.7	17.2
8H	4H	15.4	15.8	15.9	16.3	16.8	15.4	15.8	15.9	16.3	16.8
	6H	15.7	16.0	16.2	16.5	17.0	15.8	16.2	16.4	16.7	17.2
	8H	15.8	16.1	16.3	16.6	17.1	16.0	16.3	16.5	16.8	17.3
	12H	15.9	16.2	16.4	16.7	17.3	16.1	16.4	16.6	16.9	17.5
12H	4H	15.4	15.7	15.8	16.2	16.7	15.4	15.7	15.9	16.2	16.7
	6H	15.7	16.0	16.2	16.5	17.0	15.8	16.1	16.4	16.6	17.2
	8H	15.8	16.1	16.3	16.6	17.2	16.0	16.3	16.5	16.8	17.4

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0