

Indoor Distribution Test Report

Spectrum Lighting Inc.

994 Jefferson Street
Fall River, MA 02721
+1.508.678.2303

Spectrum Lighting Photometric Lab

Luminaire

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

Test Number

SP-00761_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	1804
Efficacy	88.42 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.96
Two luminaires, plane 90°	0.96
Four luminaires	0.9

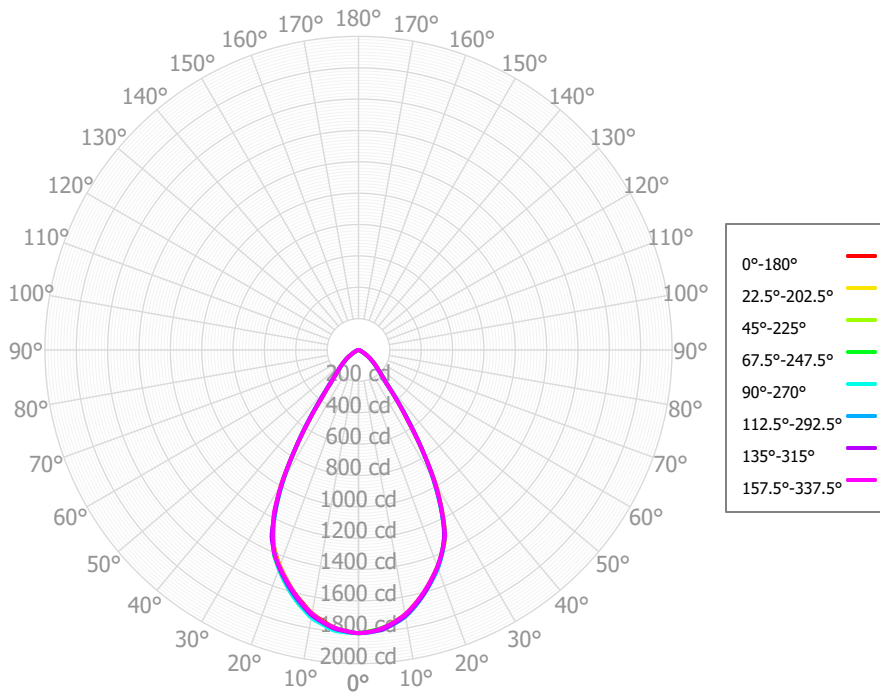
Full Beam Angle

0° - 180°	62°
90° - 270°	61°

IES File Header Contents

Keyword	Value
TEST	SP-00761_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 DLWFGC MW
LUMINAIRE	Nominal 3" diam round recessed Infinium downlight
OTHER	Beam Angle: 62 degrees
OTHER	Wide flood 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°	170.41	9.45%	90.00° - 100.00°	0.10	0.01%
10.00° - 20.00°	450.11	24.95%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	577.79	32.03%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	356.39	19.76%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	144.03	7.99%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	73.15	4.06%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	23.73	1.32%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	6.12	0.34%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	1.93	0.11%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	1803.65	99.99%	0.00° - 180.00°	1803.76	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°	1806.08	1806.08	1806.08	1806.08	1806.08	1806.08	1806.08	1806.08	1806.08	1806.08	1806.08	1806.08	1806.08	1806.08	1806.08	1806.08	1806.08
2.50°	1796.46	1795.10	1796.34	1795.72	1799.63	1798.12	1795.93	1795.42	1794.65	1796.31	1795.33	1802.24	1803.40	1802.19	1799.23	1798.68	1796.46
5.00°	1781.43	1779.82	1780.17	1778.05	1787.23	1781.09	1783.64	1776.79	1778.18	1780.12	1779.72	1786.85	1795.91	1787.97	1788.50	1779.53	1781.43
7.50°	1748.86	1748.41	1749.78	1752.41	1758.35	1754.99	1751.44	1749.84	1742.54	1748.30	1751.73	1762.97	1765.59	1761.17	1757.71	1749.92	1748.86
10.00°	1713.58	1710.88	1716.80	1717.63	1724.49	1717.22	1718.06	1708.57	1705.75	1708.49	1716.98	1724.78	1734.12	1726.26	1722.19	1711.66	1713.58
12.50°	1660.61	1658.86	1661.97	1669.28	1669.04	1669.47	1662.19	1657.71	1651.62	1657.73	1666.60	1679.87	1678.98	1674.34	1668.14	1660.67	1660.61
15.00°	1605.21	1602.59	1604.63	1607.93	1611.52	1611.96	1605.78	1599.24	1596.33	1599.90	1610.89	1620.78	1623.11	1613.66	1610.57	1601.16	1605.21
17.50°	1538.82	1539.22	1538.28	1543.19	1547.29	1547.49	1542.79	1536.62	1531.98	1534.18	1545.39	1556.49	1555.70	1548.26	1542.73	1537.66	1538.82
20.00°	1470.91	1474.29	1471.37	1475.83	1478.88	1477.94	1478.49	1471.08	1465.93	1465.70	1476.18	1484.39	1486.52	1480.95	1471.96	1471.97	1470.91
22.50°	1397.97	1394.12	1391.20	1391.09	1400.04	1405.48	1401.08	1404.27	1391.06	1394.64	1401.34	1410.13	1401.91	1395.29	1394.57	1391.83	1397.97
25.00°	1303.57	1311.71	1307.12	1295.41	1294.78	1286.80	1311.70	1292.96	1300.49	1288.78	1294.28	1288.13	1304.47	1303.68	1292.29	1305.35	1303.57
27.50°	1152.99	1145.20	1139.61	1141.11	1136.82	1146.92	1145.57	1166.52	1150.45	1156.51	1147.67	1156.18	1136.95	1140.02	1143.84	1147.57	1152.99
30.00°	979.36	971.40	968.03	956.27	961.55	961.74	970.84	971.68	980.84	972.14	967.79	961.61	961.84	959.11	970.36	965.50	979.36
32.50°	758.46	754.37	754.10	758.44	758.25	759.77	758.57	759.13	755.55	755.83	754.68	758.43	757.49	757.92	759.59	757.80	758.46
35.00°	559.19	537.47	549.29	555.26	570.82	573.49	560.19	566.39	550.41	561.84	562.57	569.77	564.07	553.39	566.78	543.30	559.19
37.50°	395.31	399.30	400.85	408.25	404.16	391.59	406.34	377.37	390.53	379.13	388.05	382.25	403.39	407.15	395.67	399.79	395.31
40.00°	278.31	267.44	271.72	278.94	287.10	297.42	280.70	290.76	269.31	280.83	280.82	294.57	274.69	267.21	280.16	269.65	278.31
42.50°	225.15	223.43	224.64	219.90	223.57	220.91	226.88	216.37	218.13	216.08	219.27	210.90	220.00	218.87	220.89	218.59	225.15
45.00°	184.09	181.49	181.87	177.93	178.90	184.72	181.66	183.29	177.03	177.38	178.84	180.44	175.02	175.06	178.33	177.02	184.09
47.50°	156.43	155.50	153.18	150.18	151.03	154.21	153.66	152.79	150.62	146.60	149.94	150.37	147.83	148.71	149.52	150.95	156.43
50.00°	130.24	129.70	126.11	124.83	125.38	129.94	127.74	128.66	125.80	123.72	125.06	125.25	122.18	122.56	124.11	125.92	130.24
52.50°	105.39	104.88	103.07	101.64	101.34	106.14	105.17	104.64	102.91	102.68	101.97	100.79	98.85	100.07	100.97	103.01	105.39
55.00°	83.40	81.33	81.10	78.67	80.45	82.08	83.20	81.67	81.35	81.14	80.31	81.20	78.24	78.24	79.91	80.27	83.40
57.50°	63.58	62.45	61.19	60.58	61.44	58.24	62.04	59.59	61.13	59.52	59.15	62.12	60.97	62.26	60.01	61.28	63.58
60.00°	46.99	45.22	44.05	42.76	45.88	43.85	44.90	46.74	44.90	44.56	45.33	45.46	45.45	46.61	44.06	42.94	46.99
62.50°	32.38	32.65	31.38	31.82	31.98	29.97	32.12	34.24	31.90	30.22	33.41	30.68	31.66	32.73	29.84	31.72	32.38
65.00°	23.11	22.21	21.68	21.26	22.77	22.10	22.45	24.03	22.21	21.50	23.42	22.52	21.87	20.54	20.78	21.17	23.11
67.50°	16.42	16.29	15.81	16.02	15.31	14.75	15.37	15.09	14.63	13.48	13.80	15.52	15.25	14.89	13.49	14.55	16.42
70.00°	11.45	11.35	11.07	11.10	10.91	9.59	10.44	9.97	10.65	10.63	11.34	10.95	10.27	10.23	9.68	9.43	11.45
72.50°	7.09	7.54	7.22	7.28	7.26	6.18	6.51	6.99	7.92	7.89	8.55	7.21	6.11	7.40	6.73	7.76	7.09
75.00°	4.98	5.45	5.74	5.17	4.90	4.71	4.70	6.01	6.45	5.32	4.52	4.13	4.67	5.67	5.65	5.98	4.98
77.50°	3.35	4.14	4.46	4.41	3.68	4.18	3.46	4.01	4.49	3.78	3.73	3.35	3.70	4.45	4.29	4.20	3.35
80.00°	2.30	3.54	2.74	3.90	3.24	3.43	2.81	3.02	2.65	2.99	3.28	2.96	2.94	3.07	2.78	2.88	2.30
82.50°	1.86	1.96	2.09	2.38	1.78	1.98	2.44	2.33	1.93	2.56	2.00	2.32	1.80	1.94	1.76	2.40	1.86
85.00°	1.91	1.49	1.87	1.56	1.97	1.36	1.68	1.50	1.58	1.76	1.12	1.47	1.14	1.72	1.88	1.96	1.91
87.50°	1.45	1.72	1.22	1.45	1.52	0.82	1.52	1.35	1.69	1.73	1.59	1.21	1.63	1.33	1.64	1.59	1.45
90.00°	1.79	1.51	1.01	1.44	1.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.58	1.68	1.40	1.79
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	2147	2147	2147	2147	2097	2097	2097	2097	2004	2004	2004	1919	1919	1919	1840	1840	1804
	1	2040	1987	1939	1896	1995	1947	1905	1866	1874	1840	1808	1807	1779	1754	1745	1723	1689
	2	1930	1836	1759	1693	1889	1805	1734	1674	1746	1688	1637	1692	1644	1602	1641	1603	1571
	3	1824	1701	1605	1529	1787	1675	1587	1516	1627	1553	1492	1583	1521	1468	1542	1490	1461
	4	1725	1580	1473	1392	1691	1559	1460	1384	1519	1434	1367	1482	1410	1351	1448	1386	1360
	5	1631	1471	1359	1277	1601	1454	1349	1271	1421	1329	1259	1390	1310	1248	1361	1292	1269
	6	1544	1374	1260	1178	1517	1359	1252	1174	1332	1236	1165	1306	1221	1157	1281	1207	1186
	7	1463	1287	1172	1092	1438	1274	1166	1089	1251	1153	1083	1229	1142	1077	1208	1130	1111
	8	1388	1208	1094	1016	1366	1197	1089	1014	1177	1079	1009	1158	1070	1005	1140	1060	1043
	9	1319	1137	1025	949	1299	1128	1021	948	1110	1013	944	1094	1005	941	1078	997	981
	10	1255	1072	963	890	1236	1064	959	888	1049	953	886	1035	946	883	1021	940	926

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	59.7 fc	6.6 ft
6.5 ft	42.7 fc	7.7 ft
7.5 ft	32.1 fc	8.9 ft
8.0 ft	28.2 fc	9.5 ft
10.0 ft	18.1 fc	11.9 ft
12.0 ft	12.5 fc	14.3 ft
14.0 ft	9.2 fc	16.7 ft
16.0 ft	7.1 fc	19.1 ft
20.0 ft	4.5 fc	23.8 ft
24.0 ft	3.1 fc	28.6 ft
28.0 ft	2.3 fc	33.4 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	618808	618808	618808
45.00°	89202	88124	86684
55.00°	49821	48442	48057
65.00°	18736	17578	18457
75.00°	6595	7602	6488
85.00°	7492	7354	7732

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	19.3	20.4	19.6	20.7	21.0	19.1	20.2	19.5	20.5	20.8
	3H	19.4	20.4	19.8	20.7	21.1	19.2	20.2	19.6	20.5	20.9
	4H	19.4	20.3	19.8	20.6	21.0	19.2	20.1	19.6	20.4	20.8
	6H	19.3	20.1	19.7	20.5	20.9	19.1	19.9	19.5	20.3	20.7
	8H	19.3	20.0	19.7	20.4	20.8	19.1	19.8	19.5	20.2	20.6
	12H	19.3	20.0	19.7	20.4	20.8	19.1	19.8	19.5	20.2	20.6
4H	2H	19.2	20.1	19.6	20.4	20.8	19.1	19.9	19.5	20.3	20.7
	3H	19.4	20.1	19.8	20.5	20.9	19.2	20.0	19.7	20.4	20.8
	4H	19.4	20.0	19.8	20.4	20.9	19.2	19.8	19.6	20.3	20.7
	6H	19.4	19.9	19.8	20.3	20.8	19.2	19.7	19.7	20.2	20.6
	8H	19.3	19.8	19.8	20.3	20.7	19.1	19.6	19.6	20.1	20.6
	12H	19.3	19.7	19.8	20.2	20.7	19.1	19.5	19.6	20.0	20.5
8H	4H	19.3	19.8	19.8	20.2	20.7	19.1	19.6	19.6	20.0	20.5
	6H	19.3	19.7	19.8	20.2	20.6	19.1	19.5	19.6	20.0	20.5
	8H	19.2	19.6	19.8	20.1	20.6	19.1	19.4	19.6	19.9	20.4
	12H	19.2	19.5	19.7	20.0	20.6	19.0	19.4	19.6	19.9	20.4
12H	4H	19.2	19.7	19.7	20.1	20.6	19.0	19.5	19.5	20.0	20.4
	6H	19.2	19.6	19.7	20.0	20.6	19.0	19.4	19.6	19.9	20.4
	8H	19.2	19.5	19.7	20.0	20.6	19.0	19.3	19.5	19.8	20.4

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0