

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

IF03SMx xx PC 835 030 DLFLGP MW
Nom 3" Square Infinium recessed downlight

Test Number

SP-00762_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	1347
Efficacy	66.01 lm/W

Luminous Dimensions

0° - 180° Size	0.16
90° - 270° Size	0.16
Height	0

Spacing Criterion

Two luminaires, plane 0°	0.65
Two luminaires, plane 90°	0.65
Four luminaires	0.69

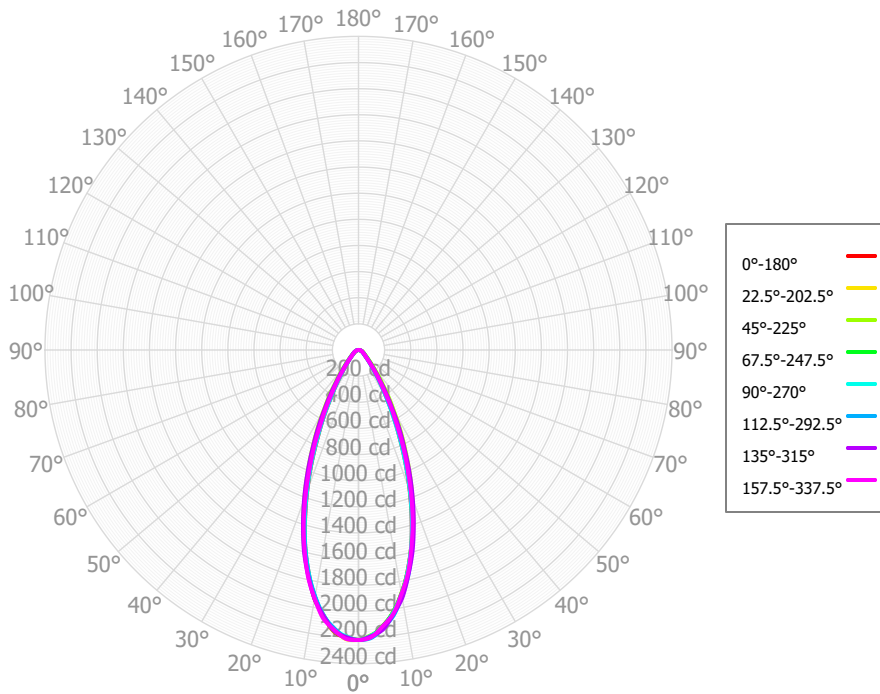
Full Beam Angle

0° - 180°	41°
90° - 270°	41°

IES File Header Contents

Keyword	Value
TEST	SP-00762_2_M-30L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
ISSUEDATE	2/11/2019
UPDATE	2/17/2021
LUMCAT	IF03SMx xx PC 835 030 DLFLGP MW
LUMINAIRE	Nom 3" Square Infinium recessed downlight
OTHER	Beam Angle: 41 degrees
OTHER	Flood optic, Solite Lens
OTHER	Aluminum bezel contains lens
LAMPCAT	N/A
LAMP	N/A, CRI: 80, Philips
OTHER	CCT Multiplier: 27K x 0.96, 30K x 0.98, 40K x 1.04
OTHER	Total luminaire wattage is approximate
OTHER	This report prepared by Spectrum Lighting, scaled from 20L
_CRI	80
_LAMPMULT	N/A, 30L only
_CCTMULT	27K x 0.96, 30K x 0.98, 40K x 1.04
_CCTMULTA	27HK x 0.87, 30HK x 0.81

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	199.56	14.82%	90.00° - 100.00°	0.11	0.01%
10.00° - 20.00°	430.92	32.00%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	361.40	26.84%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	177.15	13.16%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	78.98	5.87%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	45.72	3.40%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	31.43	2.33%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	17.66	1.31%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	3.58	0.27%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	1346.39	99.99%	0.00° - 180.00°	1346.51	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°	2219.99	2219.99	2219.99	2219.99	2219.99	2219.99	2219.99	2219.99	2219.99	2219.99	2219.99	2219.99	2219.99	2219.99	2219.99	2219.99	2219.99
2.50°	2191.57	2199.57	2185.51	2191.81	2189.52	2206.76	2199.12	2212.62	2203.14	2214.90	2196.49	2204.40	2193.89	2206.82	2193.34	2201.35	2191.57
5.00°	2139.27	2121.61	2140.85	2121.48	2133.74	2137.79	2157.57	2149.06	2163.66	2143.97	2160.36	2143.41	2147.24	2138.12	2148.10	2123.08	2139.27
7.50°	2026.01	2033.60	2025.80	2027.26	2030.32	2053.78	2050.91	2073.03	2052.11	2065.82	2047.96	2058.70	2046.20	2051.39	2040.02	2038.08	2026.01
10.00°	1904.28	1891.25	1908.86	1892.62	1901.88	1913.72	1935.59	1931.87	1936.58	1920.32	1930.57	1921.87	1919.82	1915.35	1927.83	1895.84	1904.28
12.50°	1734.99	1741.66	1745.76	1741.14	1738.39	1762.25	1774.86	1781.34	1755.94	1770.73	1765.57	1765.51	1753.80	1764.12	1763.39	1749.82	1734.99
15.00°	1558.83	1560.77	1580.96	1564.73	1557.33	1575.48	1607.52	1590.61	1573.34	1575.56	1597.07	1579.73	1571.62	1577.34	1597.41	1564.42	1558.83
17.50°	1352.72	1375.21	1393.93	1378.43	1354.96	1383.26	1412.36	1395.03	1360.38	1379.28	1404.35	1384.61	1365.15	1384.10	1406.31	1377.83	1352.72
20.00°	1147.23	1173.02	1207.49	1179.48	1149.38	1178.01	1217.03	1182.65	1147.71	1174.02	1212.04	1181.65	1150.40	1177.86	1215.18	1178.28	1147.23
22.50°	943.90	976.45	1026.18	986.77	940.36	971.29	1021.09	975.85	940.86	969.74	1021.87	976.66	944.49	976.46	1022.87	979.36	943.90
25.00°	751.66	796.29	848.42	801.11	749.73	786.40	832.56	784.95	737.52	788.04	837.59	794.63	741.05	783.43	832.77	796.86	751.66
27.50°	592.74	628.38	692.92	636.06	576.41	603.16	665.20	608.87	577.70	610.33	677.85	617.43	578.02	609.19	670.75	617.74	592.74
30.00°	448.76	491.56	544.45	491.45	438.45	470.11	511.49	469.50	424.74	480.33	527.80	481.41	424.52	463.32	513.42	482.23	448.76
32.50°	342.23	371.02	430.41	374.87	329.36	338.88	391.67	347.67	327.46	355.89	411.08	352.22	325.12	343.30	396.36	352.74	342.23
35.00°	251.80	285.38	324.91	282.42	248.44	265.97	288.08	262.61	236.99	277.12	307.01	273.00	235.68	257.53	285.91	273.38	251.80
37.50°	195.51	213.60	253.27	214.55	187.73	194.20	218.61	192.66	186.65	203.37	239.53	199.77	185.10	191.04	217.36	198.93	195.51
40.00°	148.44	167.16	189.37	165.58	144.94	154.87	161.34	149.76	140.49	160.42	180.74	159.79	139.84	146.70	155.07	155.80	148.44
42.50°	118.58	129.15	150.41	131.27	113.42	116.81	125.98	114.53	114.34	121.51	143.00	122.51	113.20	113.90	122.99	116.37	118.58
45.00°	93.55	104.81	116.69	106.72	91.55	97.29	97.66	91.48	90.60	101.53	111.12	99.27	88.44	92.79	94.00	94.93	93.55
47.50°	76.29	85.21	97.25	87.97	74.88	78.42	80.54	73.40	76.02	82.80	91.44	76.67	74.22	75.91	77.07	76.24	76.29
50.00°	63.49	72.24	80.06	72.55	63.46	65.96	67.10	62.13	62.47	68.82	74.44	67.35	60.65	62.81	62.59	68.12	63.49
52.50°	56.87	61.66	68.11	62.37	54.50	54.35	58.74	53.05	52.11	56.61	62.28	58.15	53.35	53.64	56.05	59.85	56.87
55.00°	51.09	53.96	57.85	54.85	47.54	48.51	51.33	46.56	43.12	49.99	52.21	50.17	46.21	47.49	49.68	51.04	51.09
57.50°	46.35	48.10	50.95	49.12	41.39	43.02	45.04	42.10	37.80	43.43	45.39	42.44	40.81	42.52	43.79	43.57	46.35
60.00°	41.41	44.22	45.40	44.16	36.73	39.33	39.32	39.81	33.53	36.99	39.95	39.06	35.52	38.34	38.57	39.73	41.41
62.50°	36.25	40.26	42.18	39.53	32.58	35.36	34.19	35.05	31.60	31.43	36.43	35.52	32.93	35.09	34.91	36.04	36.25
65.00°	32.87	36.23	38.60	35.02	30.35	30.25	29.25	28.01	28.54	27.82	32.53	30.52	30.28	32.40	30.88	32.69	32.87
67.50°	31.14	32.87	34.47	31.64	28.65	25.93	24.49	24.00	23.54	24.30	28.22	25.83	27.23	28.98	26.13	29.19	31.14
70.00°	27.91	30.02	30.66	28.56	24.78	23.46	20.83	21.89	20.00	20.93	23.23	22.33	23.93	25.23	22.73	25.46	27.91
72.50°	23.75	25.71	27.15	23.96	20.63	20.64	17.70	17.87	17.64	18.03	17.95	18.64	20.05	21.83	20.93	22.00	23.75
75.00°	18.59	20.85	22.58	19.44	16.72	17.45	16.03	13.39	12.80	15.02	15.66	14.76	15.68	17.86	19.00	18.72	18.59
77.50°	13.58	15.56	17.54	15.27	11.99	10.83	12.56	8.59	8.90	10.19	12.46	10.53	11.16	11.79	16.39	14.00	13.58
80.00°	9.16	11.32	11.93	9.26	7.00	7.03	7.90	6.14	6.08	6.53	8.30	6.85	6.87	8.18	11.42	9.74	9.16
82.50°	5.00	6.81	6.68	4.77	4.09	4.77	3.88	3.59	3.07	4.56	4.02	3.85	3.24	4.98	5.63	5.73	5.00
85.00°	1.87	2.57	3.11	2.21	1.86	2.56	2.08	1.75	1.65	2.29	2.13	1.84	1.76	2.47	2.70	2.18	1.87
87.50°	1.63	1.82	1.55	2.24	1.44	1.90	1.61	1.49	1.47	1.68	1.72	1.58	1.77	1.71	2.09	1.84	1.63
90.00°	1.34	1.46	1.62	1.92	1.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.56	1.99	1.49	1.34
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	1603	1603	1603	1603	1566	1566	1566	1566	1496	1496	1496	1432	1432	1432	1374	1374	1346
	1	1524	1485	1450	1418	1491	1456	1424	1396	1401	1376	1353	1351	1331	1312	1304	1289	1263
	2	1446	1378	1322	1275	1416	1355	1304	1261	1311	1269	1233	1271	1236	1206	1233	1206	1182
	3	1373	1285	1217	1162	1346	1266	1203	1153	1231	1178	1134	1198	1153	1116	1167	1131	1099
	4	1306	1203	1128	1071	1281	1188	1118	1064	1159	1099	1051	1132	1080	1039	1106	1063	1043
	5	1243	1131	1052	994	1221	1118	1045	990	1094	1030	981	1071	1016	972	1050	1002	984
	6	1185	1066	986	929	1165	1055	980	926	1035	969	920	1016	958	913	999	947	931
	7	1131	1008	929	873	1113	999	924	870	982	915	866	966	906	861	951	898	883
	8	1081	956	877	823	1065	948	874	821	934	866	818	920	859	814	907	852	839
	9	1035	909	831	779	1020	902	828	778	890	822	775	878	817	773	867	811	799
	10	992	866	790	740	979	860	788	739	849	783	737	839	778	735	829	773	762

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	73.4 fc	4.1 ft
6.5 ft	52.5 fc	4.9 ft
7.5 ft	39.5 fc	5.6 ft
8.0 ft	34.7 fc	6.0 ft
10.0 ft	22.2 fc	7.5 ft
12.0 ft	15.4 fc	9.0 ft
14.0 ft	11.3 fc	10.4 ft
16.0 ft	8.7 fc	11.9 ft
20.0 ft	5.5 fc	14.9 ft
24.0 ft	3.9 fc	17.9 ft
28.0 ft	2.8 fc	20.9 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	933430	933430	933430
45.00°	55630	69385	54437
55.00°	37450	42409	34852
65.00°	32701	38403	30192
75.00°	30193	36683	27167
85.00°	9044	15000	8971

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	19.9	20.9	20.2	21.2	21.6	19.3	20.4	19.7	20.7	21.0
	3H	21.7	22.7	22.1	23.0	23.4	21.0	21.9	21.3	22.2	22.6
	4H	22.4	23.3	22.8	23.6	24.0	21.6	22.4	22.0	22.8	23.2
	6H	22.8	23.6	23.2	23.9	24.3	21.8	22.6	22.2	23.0	23.4
	8H	22.8	23.6	23.2	24.0	24.4	21.9	22.6	22.3	23.0	23.4
	12H	22.8	23.5	23.2	23.9	24.3	21.8	22.6	22.3	22.9	23.4
4H	2H	20.4	21.3	20.8	21.7	22.0	19.8	20.7	20.2	21.0	21.4
	3H	22.5	23.2	22.9	23.6	24.1	21.6	22.4	22.1	22.8	23.2
	4H	23.3	24.0	23.8	24.4	24.8	22.4	23.0	22.8	23.4	23.9
	6H	23.8	24.3	24.3	24.8	25.3	22.7	23.2	23.2	23.7	24.2
	8H	23.9	24.4	24.3	24.8	25.3	22.7	23.2	23.2	23.7	24.2
	12H	23.9	24.3	24.3	24.8	25.3	22.7	23.2	23.2	23.6	24.1
8H	4H	23.6	24.1	24.1	24.6	25.0	22.5	23.0	23.0	23.5	24.0
	6H	24.2	24.6	24.7	25.1	25.6	22.9	23.3	23.4	23.8	24.3
	8H	24.3	24.7	24.8	25.2	25.7	23.0	23.4	23.5	23.9	24.4
	12H	24.3	24.6	24.9	25.1	25.7	23.0	23.3	23.5	23.8	24.4
12H	4H	23.6	24.0	24.1	24.5	25.0	22.5	22.9	23.0	23.4	23.9
	6H	24.2	24.6	24.7	25.0	25.6	22.9	23.3	23.5	23.8	24.3
	8H	24.3	24.7	24.9	25.2	25.7	23.0	23.3	23.5	23.8	24.4

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0