

Indoor Distribution Test Report

Spectrum Lighting Inc.

994 Jefferson Street
Fall River, MA 02721
+1.508.678.2303

Spectrum Lighting Photometric Lab

Luminaire

CR2 835 15 xx xx RD2XF RB2BS xx RA2LS
Nom 2.5 inch dia cylinder with xtra wide flood optic and Solite lens

Test Number

SP-01275_3

Test Date

9/24/2021

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

Summary of Results

Power

Input Watts	19.5 W
-------------	--------

Lumen Output

Output Lumens	1823
Efficacy	93.5 lm/W

Luminous Dimensions

0° - 180° Size	-0.21
90° - 270° Size	-0.21
Height	0

Spacing Criterion

Two luminaires, plane 0°	0.93
Two luminaires, plane 90°	0.93
Four luminaires	0.86

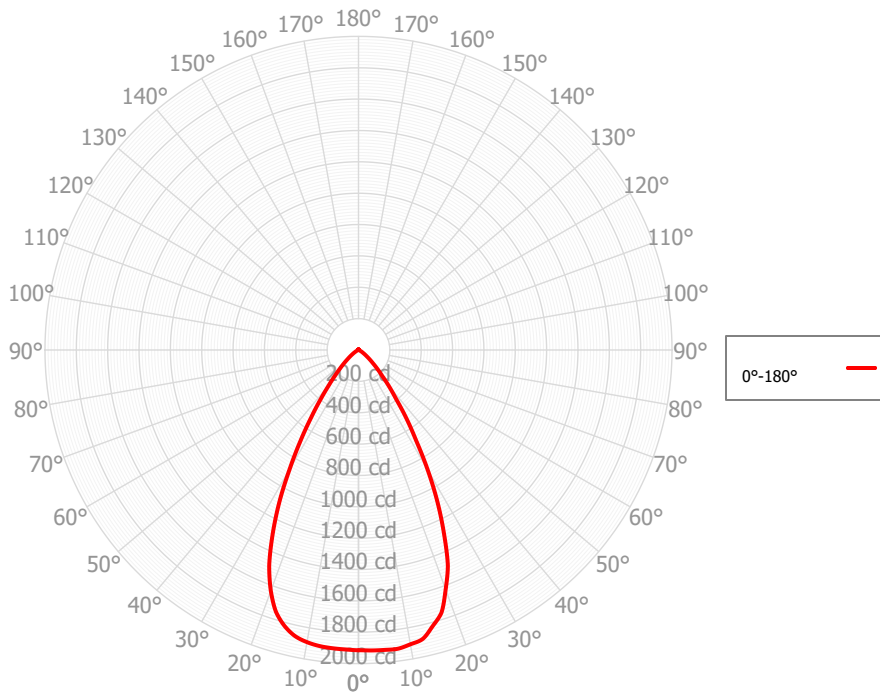
Full Beam Angle

0° - 180°	58°
90° - 270°	N/A°

IES File Header Contents

Keyword	Value
TEST	SP-01275_3
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	9/24/2021
ISSUEDATE	10/8/2021
LUMCAT	CR2 835 15 xx xx RD2XF RB2BS xx RA2LS
LUMINAIRE	Nom 2.5 inch dia cylinder with xtra wide flood optic and Solite lens
OTHER	Beam Angle: 58 deg
LAMPCAT	N/A
LAMP	N/A, 6mm LES
OTHER	80 CRI, 3500K tested
OTHER	LER (luminaire efficacy) = 93 lms / watt
OTHER	CCT Output Multipliers: 822 x 0.75, 827 x 0.93, 830 x 1.0, 840 x 1.0
OTHER	CCT Output Multipliers: 927 x 0.81, 930 x 0.81, 935 x 0.81, 940 x 0.87
OTHER	Total luminaire wattages are approximate
OTHER	This report prepared by Spectrum Lighting
_CRI	80+
_CCTMULT	822 x 0.75, 827 x 0.93, 830 x 1.0, 840 x 1.0
_CCTMULTA	927 x 0.81, 930 x 0.81, 935 x 0.81, 940 x 0.87
_LAMPMULT	N/A

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	185.21	10.16%	90.00° - 100.00°	1.80	0.10%
10.00° - 20.00°	507.21	27.82%	100.00° - 110.00°	1.78	0.10%
20.00° - 30.00°	580.85	31.86%	100.00° - 120.00°	3.59	0.20%
30.00° - 40.00°	337.64	18.52%	120.00° - 130.00°	1.64	0.09%
40.00° - 50.00°	134.88	7.40%	130.00° - 140.00°	1.62	0.09%
50.00° - 60.00°	46.49	2.55%	140.00° - 150.00°	1.34	0.07%
60.00° - 70.00°	13.96	0.77%	150.00° - 160.00°	0.95	0.05%
70.00° - 80.00°	3.40	0.19%	160.00° - 170.00°	0.58	0.03%
80.00° - 90.00°	1.85	0.10%	170.00° - 180.00°	0.19	0.01%
0.00° - 90.00°	1811.49	99.36%	0.00° - 180.00°	1823.22	100.00%

Candela Distribution

	0.00°	180.00°
0.00°	1915.42	1915.42
2.50°	1918.64	1912.36
5.00°	1920.59	1909.91
7.50°	1922.30	1904.92
10.00°	1906.54	1892.48
12.50°	1888.76	1869.49
15.00°	1825.00	1822.73
17.50°	1758.42	1751.16
20.00°	1625.76	1635.49
22.50°	1489.57	1488.51
25.00°	1289.43	1295.62
27.50°	1088.70	1093.15
30.00°	882.12	879.36
32.50°	683.70	691.38
35.00°	533.09	528.12
37.50°	394.37	398.59
40.00°	303.69	295.93
42.50°	222.37	221.69
45.00°	170.08	165.68
47.50°	124.12	124.57
50.00°	93.17	91.06
52.50°	66.85	67.77
55.00°	49.16	48.63
57.50°	35.03	35.65
60.00°	26.34	24.63
62.50°	18.88	18.61
65.00°	12.94	13.75
67.50°	8.57	9.71
70.00°	5.79	5.79
72.50°	3.77	4.44
75.00°	2.39	3.33
77.50°	1.81	2.57
80.00°	1.76	1.84
82.50°	1.87	1.55
85.00°	2.07	1.29
87.50°	1.96	1.40
90.00°	1.72	1.50
92.50°	1.66	1.56
95.00°	1.66	1.62
97.50°	1.67	1.71
100.00°	1.70	1.78
102.50°	1.64	1.78
105.00°	1.57	1.77
107.50°	1.55	1.74
110.00°	1.54	1.75
112.50°	1.56	1.85

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	2168	2168	2168	2168	2116	2116	2116	2116	2019	2019	2019	1931	1931	1931	1850	1850	1811
	1	2063	2011	1965	1923	2017	1971	1929	1891	1895	1861	1831	1825	1799	1774	1760	1740	1704
	2	1958	1866	1791	1728	1916	1834	1765	1707	1773	1717	1668	1717	1671	1631	1665	1628	1595
	3	1856	1736	1643	1569	1818	1709	1624	1555	1660	1588	1529	1614	1554	1503	1571	1521	1491
	4	1759	1618	1515	1436	1725	1596	1501	1427	1555	1474	1409	1517	1448	1391	1482	1423	1395
	5	1668	1512	1404	1323	1637	1494	1393	1317	1460	1372	1304	1428	1352	1291	1399	1332	1307
	6	1583	1417	1306	1226	1555	1402	1297	1221	1373	1281	1212	1346	1265	1203	1321	1250	1227
	7	1503	1331	1219	1141	1478	1318	1212	1137	1293	1199	1130	1271	1186	1123	1249	1174	1154
	8	1429	1253	1142	1066	1406	1242	1136	1063	1221	1126	1058	1201	1115	1052	1183	1105	1087
	9	1361	1182	1073	999	1340	1172	1068	997	1154	1059	993	1137	1051	989	1121	1042	1026
	10	1297	1118	1010	939	1278	1109	1007	937	1093	999	934	1079	992	931	1064	985	970

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	63.3 fc	3.1 ft
6.5 ft	45.3 fc	3.6 ft
7.5 ft	34.1 fc	4.2 ft
8.0 ft	29.9 fc	4.4 ft
10.0 ft	19.2 fc	5.6 ft
12.0 ft	13.3 fc	6.7 ft
14.0 ft	9.8 fc	7.8 ft
16.0 ft	7.5 fc	8.9 ft
20.0 ft	4.8 fc	11.1 ft
24.0 ft	3.3 fc	13.3 ft
28.0 ft	2.4 fc	15.5 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	595257	595257	595257
45.00°	74749	74266	73783
55.00°	26638	26565	26492
65.00°	9515	9663	9812
75.00°	2868	3151	3433
85.00°	7381	6688	5995

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	16.0	15.3	16.3	16.6	15.0	16.0	15.4	16.4	16.7
	3H	15.1	16.0	15.5	16.3	16.7	15.1	16.0	15.5	16.4	16.8
	4H	15.0	15.9	15.4	16.2	16.6	15.1	15.9	15.5	16.3	16.7
	6H	15.0	15.7	15.4	16.1	16.5	15.0	15.8	15.5	16.2	16.6
	8H	14.9	15.6	15.4	16.1	16.5	15.0	15.7	15.5	16.1	16.6
	12H	14.9	15.6	15.4	16.0	16.5	15.0	15.7	15.5	16.1	16.5
4H	2H	14.9	15.8	15.3	16.1	16.5	15.0	15.8	15.4	16.2	16.6
	3H	15.1	15.7	15.5	16.2	16.6	15.1	15.8	15.6	16.2	16.7
	4H	15.0	15.6	15.5	16.1	16.5	15.1	15.7	15.6	16.2	16.6
	6H	15.0	15.5	15.5	16.0	16.4	15.1	15.6	15.6	16.1	16.6
	8H	15.0	15.4	15.5	15.9	16.4	15.1	15.6	15.6	16.0	16.5
	12H	15.0	15.4	15.5	15.9	16.4	15.1	15.5	15.6	16.0	16.5
8H	4H	14.9	15.4	15.4	15.8	16.3	15.0	15.5	15.5	15.9	16.4
	6H	14.9	15.2	15.4	15.8	16.3	15.0	15.4	15.5	15.9	16.4
	8H	14.9	15.2	15.4	15.8	16.3	15.0	15.3	15.5	15.9	16.4
	12H	15.0	15.3	15.6	15.8	16.4	15.1	15.4	15.6	15.9	16.5
12H	4H	14.8	15.2	15.3	15.7	16.2	14.9	15.4	15.4	15.9	16.4
	6H	14.8	15.2	15.4	15.6	16.2	14.9	15.3	15.5	15.8	16.3
	8H	14.9	15.2	15.4	15.7	16.3	15.0	15.3	15.5	15.8	16.4

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0