

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 RB2BD xx xx

Nom 2.5 inch dia cylinder with xtra wide flood optic and deep cutoff snoot

Test Number

SP-01275_1

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	1676
Efficacy	85.93 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.95
Two luminaires, plane 90°	0.95
Four luminaires	0.78

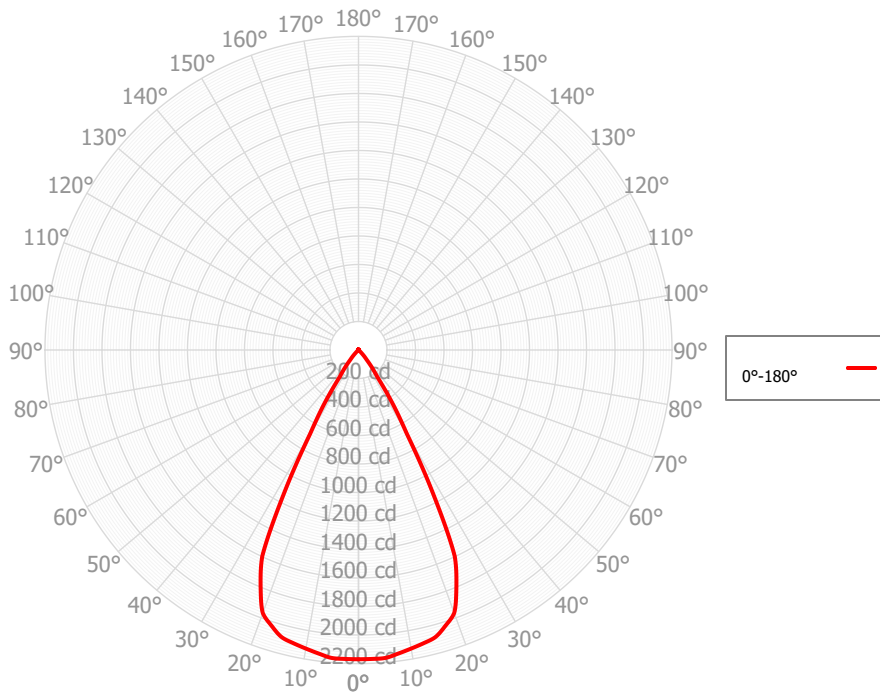
Full Beam Angle

0° - 180°	55°
90° - 270°	N/A°

IES File Header Contents

Keyword	Value
TEST	SP-01275_1
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 RB2BD xx xx
LUMINAIRE	Nom 2.5 inch dia cylinder with xtra wide flood optic and deep cutoff snoot
OTHER	Beam Angle: 55 deg
LAMPCAT	N/A
LAMP	N/A, 6mm LES
OTHER	80 CRI, 3500K tested
OTHER	LER (luminaire efficacy) = 86 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°	208.52	12.44%	90.00° - 100.00°	2.03	0.12%
10.00° - 20.00°	583.01	34.79%	100.00° - 110.00°	1.83	0.11%
20.00° - 30.00°	654.45	39.06%	100.00° - 120.00°	3.56	0.21%
30.00° - 40.00°	181.89	10.86%	120.00° - 130.00°	1.79	0.11%
40.00° - 50.00°	27.70	1.65%	130.00° - 140.00°	1.49	0.09%
50.00° - 60.00°	2.57	0.15%	140.00° - 150.00°	1.44	0.09%
60.00° - 70.00°	1.70	0.10%	150.00° - 160.00°	1.01	0.06%
70.00° - 80.00°	1.81	0.11%	160.00° - 170.00°	0.64	0.04%
80.00° - 90.00°	1.77	0.11%	170.00° - 180.00°	0.20	0.01%
0.00° - 90.00°	1663.42	99.27%	0.00° - 180.00°	1675.58	100.00%

Candela Distribution

	0.00°	180.00°
0.00°	2170.02	2170.02
2.50°	2170.02	2170.02
5.00°	2169.01	2169.01
7.50°	2148.23	2148.23
10.00°	2127.51	2127.51
12.50°	2107.87	2107.87
15.00°	2085.52	2085.52
17.50°	2029.15	2029.15
20.00°	1963.91	1963.91
22.50°	1795.19	1795.19
25.00°	1598.60	1598.60
27.50°	1125.33	1125.33
30.00°	677.08	677.08
32.50°	444.36	444.36
35.00°	229.16	229.16
37.50°	156.69	156.69
40.00°	89.19	89.19
42.50°	57.51	57.51
45.00°	28.40	28.40
47.50°	15.78	15.78
50.00°	4.75	4.75
52.50°	3.54	3.54
55.00°	2.46	2.46
57.50°	2.21	2.21
60.00°	1.97	1.97
62.50°	1.85	1.85
65.00°	1.72	1.72
67.50°	1.58	1.58
70.00°	1.50	1.50
72.50°	1.66	1.66
75.00°	1.78	1.78
77.50°	1.77	1.77
80.00°	1.76	1.76
82.50°	1.74	1.74
85.00°	1.68	1.68
87.50°	1.49	1.49
90.00°	1.41	1.41
92.50°	1.75	1.75
95.00°	2.01	2.01
97.50°	2.00	2.00
100.00°	1.96	1.96
102.50°	1.82	1.82
105.00°	1.69	1.69
107.50°	1.61	1.61
110.00°	1.59	1.59
112.50°	1.72	1.72

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	1992	1992	1992	1992	1944	1944	1944	1944	1855	1855	1855	1773	1773	1773	1699	1699	1663
	1	1907	1863	1825	1790	1865	1826	1792	1760	1757	1729	1704	1693	1671	1651	1634	1617	1584
	2	1823	1748	1686	1635	1786	1719	1663	1615	1663	1618	1578	1612	1575	1543	1565	1535	1505
	3	1743	1645	1569	1509	1709	1621	1552	1496	1576	1518	1471	1535	1487	1446	1496	1457	1428
	4	1666	1551	1467	1403	1636	1532	1454	1394	1495	1429	1377	1461	1405	1360	1429	1382	1356
	5	1592	1466	1377	1312	1565	1450	1367	1306	1419	1348	1293	1391	1329	1281	1365	1312	1288
	6	1522	1387	1297	1232	1498	1374	1289	1227	1349	1274	1218	1325	1259	1209	1303	1245	1224
	7	1456	1316	1224	1160	1435	1304	1218	1157	1283	1206	1150	1263	1194	1144	1244	1183	1163
	8	1394	1250	1159	1096	1374	1240	1154	1093	1221	1144	1088	1204	1134	1083	1188	1125	1107
	9	1335	1189	1098	1038	1318	1180	1094	1036	1164	1086	1032	1149	1079	1028	1135	1071	1055
	10	1280	1132	1043	984	1264	1125	1040	983	1111	1033	980	1098	1027	977	1086	1021	1006

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	71.7 fc	2.9 ft
6.5 ft	51.4 fc	3.4 ft
7.5 ft	38.6 fc	3.9 ft
8.0 ft	33.9 fc	4.2 ft
10.0 ft	21.7 fc	5.3 ft
12.0 ft	15.1 fc	6.3 ft
14.0 ft	11.1 fc	7.4 ft
16.0 ft	8.5 fc	8.4 ft
20.0 ft	5.4 fc	10.5 ft
24.0 ft	3.8 fc	12.6 ft
28.0 ft	2.8 fc	14.7 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	674381	674381	674381
45.00°	12483	12483	12483
55.00°	1334	1334	1334
65.00°	1263	1263	1263
75.00°	2142	2142	2142
85.00°	6007	6007	6007

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	-3.7	-2.8	-3.4	-2.5	-2.2	-3.7	-2.8	-3.4	-2.5	-2.2
	3H	-1.6	-0.8	-1.2	-0.5	-0.1	-1.6	-0.8	-1.2	-0.5	-0.1
	4H	0.2	0.9	0.6	1.3	1.7	0.2	0.9	0.6	1.3	1.7
	6H	2.2	2.9	2.7	3.3	3.7	2.2	2.9	2.7	3.3	3.7
	8H	3.4	4.0	3.8	4.4	4.8	3.4	4.0	3.8	4.4	4.8
	12H	4.6	5.2	5.0	5.6	6.0	4.6	5.2	5.0	5.6	6.0
4H	2H	-3.2	-2.4	-2.7	-2.1	-1.7	-3.2	-2.4	-2.7	-2.1	-1.7
	3H	-0.6	0.0	-0.2	0.4	0.8	-0.6	0.0	-0.2	0.4	0.8
	4H	1.4	2.0	1.9	2.4	2.9	1.4	2.0	1.9	2.4	2.9
	6H	3.7	4.2	4.2	4.6	5.1	3.7	4.2	4.2	4.6	5.1
	8H	4.9	5.4	5.4	5.8	6.3	4.9	5.4	5.4	5.8	6.3
	12H	6.3	6.6	6.8	7.1	7.6	6.3	6.6	6.8	7.1	7.6
8H	4H	2.2	2.6	2.7	3.1	3.6	2.2	2.6	2.7	3.1	3.6
	6H	4.7	5.1	5.3	5.6	6.1	4.7	5.1	5.3	5.6	6.1
	8H	6.1	6.4	6.7	7.0	7.5	6.1	6.4	6.7	7.0	7.5
	12H	7.7	7.9	8.2	8.5	9.1	7.7	7.9	8.2	8.5	9.1
12H	4H	2.4	2.8	2.9	3.3	3.8	2.4	2.8	2.9	3.3	3.8
	6H	5.1	5.4	5.6	5.8	6.4	5.1	5.4	5.6	5.8	6.4
	8H	6.6	6.8	7.1	7.3	7.9	6.6	6.8	7.1	7.3	7.9

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0