

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

CR2 835 20 xx xx RD2XF RB2BS xx xx

Nom 2.5 inch dia cylinder with xtra wide flood optic and standard black bezel

Test Number

SP-01275_9

Test Date

9/23/2021

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

Summary of Results

Power

Input Watts	27 W
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Lumen Output

Output Lumens	2490
Efficacy	92.22 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	1.04
Two luminaires, plane 90°	1.04
Four luminaires	0.88

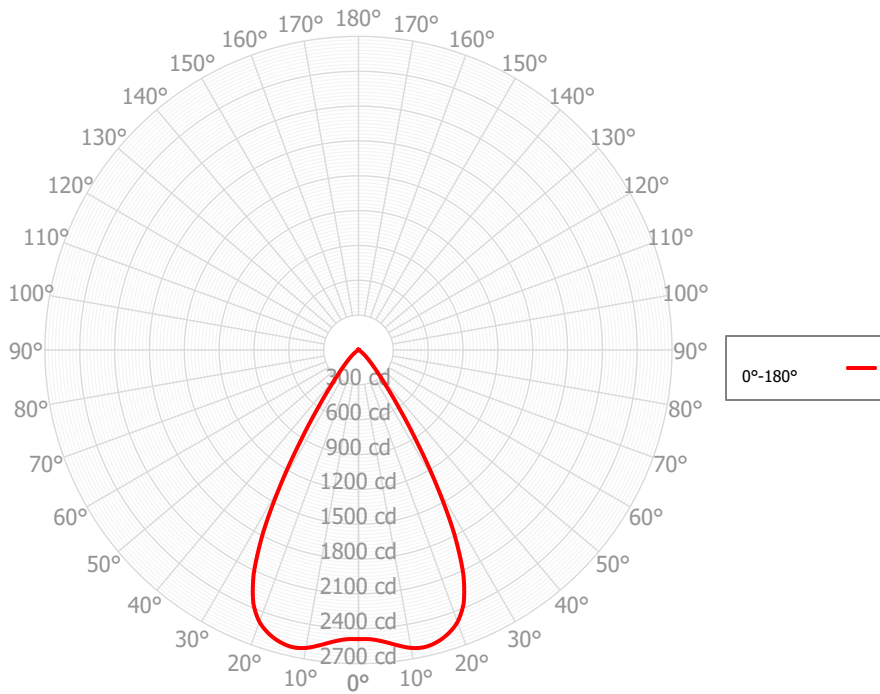
Full Beam Angle

0° - 180°	60°
90° - 270°	60°

IES File Header Contents

Keyword	Value
TEST	SP-01275_9
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	9/23/2021
ISSUEDATE	11/4/2021
LUMCAT	CR2 835 20 xx xx RD2XF RB2BS xx xx
LUMINAIRE	Nom 2.5 inch dia cylinder with xtra wide flood optic and standard black bezel
OTHER	Beam Angle: xx deg
LAMPCAT	N/A
LAMP	N/A, 6mm LES
OTHER	80 CRI, 3500K tested
OTHER	LER (luminaire efficacy) = xx 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

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	247.59	9.94%	90.00° - 100.00°	1.51	0.06%
10.00° - 20.00°	730.52	29.34%	100.00° - 110.00°	1.50	0.06%
20.00° - 30.00°	931.18	37.40%	100.00° - 120.00°	2.91	0.12%
30.00° - 40.00°	413.86	16.62%	120.00° - 130.00°	1.44	0.06%
40.00° - 50.00°	112.11	4.50%	130.00° - 140.00°	1.42	0.06%
50.00° - 60.00°	32.89	1.32%	140.00° - 150.00°	1.20	0.05%
60.00° - 70.00°	8.27	0.33%	150.00° - 160.00°	0.99	0.04%
70.00° - 80.00°	1.97	0.08%	160.00° - 170.00°	0.59	0.02%
80.00° - 90.00°	1.43	0.06%	170.00° - 180.00°	0.20	0.01%
0.00° - 90.00°	2479.81	99.59%	0.00° - 180.00°	2490.07	100.00%

Candela Distribution

	0.00°
0.00°	2490.22
2.50°	2494.11
5.00°	2521.95
7.50°	2564.78
10.00°	2605.35
12.50°	2621.02
15.00°	2604.86
17.50°	2563.34
20.00°	2492.95
22.50°	2365.08
25.00°	2138.83
27.50°	1786.96
30.00°	1345.52
32.50°	926.08
35.00°	606.05
37.50°	397.26
40.00°	268.42
42.50°	188.65
45.00°	135.56
47.50°	98.38
50.00°	70.12
52.50°	49.37
55.00°	33.83
57.50°	22.86
60.00°	16.05
62.50°	11.57
65.00°	7.87
67.50°	4.91
70.00°	2.77
72.50°	2.11
75.00°	1.73
77.50°	1.56
80.00°	1.40
82.50°	1.25
85.00°	1.28
87.50°	1.34
90.00°	1.36
92.50°	1.36
95.00°	1.38
97.50°	1.40
100.00°	1.42
102.50°	1.43
105.00°	1.43
107.50°	1.43
110.00°	1.33
112.50°	1.23

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	2962	2962	2962	2962	2892	2892	2892	2892	2761	2761	2761	2641	2641	2641	2531	2531	2480
	1	2826	2758	2697	2642	2764	2703	2649	2599	2601	2557	2518	2507	2473	2441	2420	2393	2345
	2	2690	2571	2472	2390	2634	2527	2438	2362	2445	2372	2309	2370	2310	2258	2300	2252	2207
	3	2558	2401	2280	2183	2508	2366	2254	2165	2299	2206	2129	2238	2160	2094	2181	2116	2075
	4	2432	2248	2113	2010	2386	2219	2094	1997	2164	2057	1973	2113	2022	1949	2066	1989	1951
	5	2312	2108	1966	1861	2271	2084	1952	1852	2039	1923	1835	1997	1896	1818	1957	1871	1836
	6	2199	1982	1836	1731	2162	1962	1825	1725	1923	1803	1712	1888	1781	1700	1855	1761	1730
	7	2093	1866	1720	1617	2059	1849	1710	1612	1817	1693	1603	1787	1676	1594	1758	1660	1632
	8	1993	1761	1615	1514	1963	1746	1608	1511	1719	1593	1504	1693	1580	1497	1668	1566	1541
	9	1900	1665	1520	1423	1873	1652	1514	1420	1628	1503	1415	1606	1491	1409	1584	1480	1457
	10	1813	1576	1434	1340	1788	1565	1429	1338	1544	1420	1334	1525	1410	1329	1506	1401	1380

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	82.3 fc	6.4 ft
6.5 ft	58.9 fc	7.6 ft
7.5 ft	44.3 fc	8.7 ft
8.0 ft	38.9 fc	9.3 ft
10.0 ft	24.9 fc	11.6 ft
12.0 ft	17.3 fc	14.0 ft
14.0 ft	12.7 fc	16.3 ft
16.0 ft	9.7 fc	18.6 ft
20.0 ft	6.2 fc	23.3 ft
24.0 ft	4.3 fc	27.9 ft
28.0 ft	3.2 fc	32.6 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	773889	773889	773889
45.00°	59579	59579	59579
55.00°	18330	18330	18330
65.00°	5786	5786	5786
75.00°	2072	2072	2072
85.00°	4553	4553	4553

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	11.0	11.9	11.3	12.3	12.6	11.0	11.9	11.3	12.3	12.6
	3H	11.0	11.8	11.4	12.2	12.5	11.0	11.8	11.4	12.2	12.5
	4H	10.9	11.7	11.3	12.1	12.5	10.9	11.7	11.3	12.1	12.5
	6H	10.9	11.6	11.3	12.0	12.4	10.9	11.6	11.3	12.0	12.4
	8H	10.9	11.5	11.3	11.9	12.3	10.9	11.5	11.3	11.9	12.3
	12H	10.9	11.5	11.3	11.9	12.3	10.9	11.5	11.3	11.9	12.3
4H	2H	10.9	11.7	11.3	12.0	12.4	10.9	11.7	11.3	12.0	12.4
	3H	10.9	11.5	11.3	12.0	12.4	10.9	11.5	11.3	12.0	12.4
	4H	10.9	11.4	11.3	11.9	12.3	10.9	11.4	11.3	11.9	12.3
	6H	10.9	11.3	11.3	11.8	12.3	10.9	11.3	11.3	11.8	12.3
	8H	10.8	11.3	11.3	11.8	12.2	10.8	11.3	11.3	11.8	12.2
	12H	10.9	11.3	11.4	11.8	12.3	10.9	11.3	11.4	11.8	12.3
8H	4H	10.7	11.2	11.2	11.6	12.1	10.7	11.2	11.2	11.6	12.1
	6H	10.7	11.1	11.3	11.6	12.1	10.7	11.1	11.3	11.6	12.1
	8H	10.8	11.1	11.3	11.6	12.1	10.8	11.1	11.3	11.6	12.1
	12H	10.9	11.2	11.5	11.7	12.3	10.9	11.2	11.5	11.7	12.3
12H	4H	10.7	11.0	11.2	11.5	12.0	10.7	11.0	11.2	11.5	12.0
	6H	10.7	11.0	11.2	11.5	12.1	10.7	11.0	11.2	11.5	12.1
	8H	10.8	11.1	11.3	11.6	12.1	10.8	11.1	11.3	11.6	12.1

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0