

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

CR2 835 15 xx xx RD2XF RB2BSA2 xx xx

Nom 2.5 inch dia cylinder with xtra wide flood optic and 2 inch acrylic style bezel

Test Number

SP-01275_4

Test Date

9/23/2021

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

Summary of Results

Power

Input Watts	19.5 W
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Lumen Output

Output Lumens	1693
Efficacy	86.81 lm/W

Luminous Dimensions

0° - 180° Size	-0.21
90° - 270° Size	-0.21
Height	0.17

Spacing Criterion

Two luminaires, plane 0°	0.62
Two luminaires, plane 90°	0.62
Four luminaires	0.7

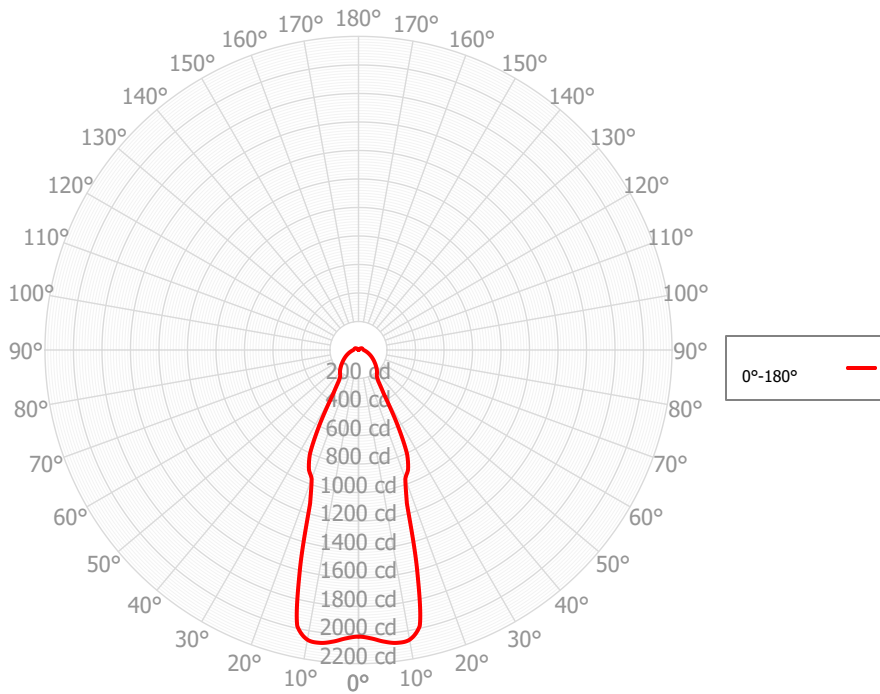
Full Beam Angle

0° - 180°	38°
90° - 270°	38°

IES File Header Contents

Keyword	Value
TEST	SP-01275_4
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	9/23/2021
ISSUEDATE	10/11/2021
LUMCAT	CR2 835 15 xx xx RD2XF RB2BSA2 xx xx
LUMINAIRE	Nom 2.5 inch dia cylinder with xtra wide flood optic and 2 inch acrylic style bezel
OTHER	Beam Angle: 38 deg
LAMPCAT	N/A
LAMP	N/A, 6mm LES
OTHER	80 CRI, 3500K tested
OTHER	LER (luminaire efficacy) = 87 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°	199.62	11.79%	90.00° - 100.00°	36.14	2.14%
10.00° - 20.00°	417.52	24.66%	100.00° - 110.00°	31.60	1.87%
20.00° - 30.00°	333.20	19.68%	100.00° - 120.00°	58.55	3.46%
30.00° - 40.00°	150.80	8.91%	120.00° - 130.00°	18.58	1.10%
40.00° - 50.00°	137.49	8.12%	130.00° - 140.00°	8.95	0.53%
50.00° - 60.00°	118.43	7.00%	140.00° - 150.00°	1.65	0.10%
60.00° - 70.00°	93.88	5.55%	150.00° - 160.00°	0.84	0.05%
70.00° - 80.00°	68.67	4.06%	160.00° - 170.00°	0.52	0.03%
80.00° - 90.00°	47.88	2.83%	170.00° - 180.00°	0.17	0.01%
0.00° - 90.00°	1567.48	92.59%	0.00° - 180.00°	1692.89	100.00%

Candela Distribution

	0.00°
0.00°	2011.55
2.50°	2025.63
5.00°	2054.29
7.50°	2072.89
10.00°	2064.45
12.50°	1984.68
15.00°	1584.94
17.50°	1129.41
20.00°	961.40
22.50°	908.67
25.00°	807.43
27.50°	592.07
30.00°	354.79
32.50°	258.54
35.00°	223.56
37.50°	212.53
40.00°	201.91
42.50°	190.70
45.00°	178.33
47.50°	166.23
50.00°	154.46
52.50°	142.59
55.00°	132.26
57.50°	121.84
60.00°	112.26
62.50°	103.27
65.00°	94.60
67.50°	86.27
70.00°	78.33
72.50°	71.35
75.00°	64.72
77.50°	58.43
80.00°	52.96
82.50°	47.85
85.00°	43.54
87.50°	39.45
90.00°	36.68
92.50°	34.13
95.00°	32.88
97.50°	31.73
100.00°	30.86
102.50°	30.07
105.00°	29.92
107.50°	29.65
110.00°	28.79
112.50°	28.00

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	1985	1985	1985	1985	1925	1925	1925	1925	1811	1811	1811	1708	1708	1708	1612	1612	1567
	1	1844	1777	1717	1663	1787	1727	1674	1625	1634	1591	1551	1548	1514	1482	1469	1442	1402
	2	1721	1611	1519	1442	1669	1569	1486	1416	1492	1424	1365	1420	1365	1317	1354	1310	1274
	3	1612	1473	1365	1279	1564	1438	1339	1260	1373	1291	1223	1313	1245	1188	1258	1202	1169
	4	1515	1357	1241	1153	1472	1328	1221	1139	1274	1183	1111	1223	1146	1085	1176	1112	1083
	5	1429	1259	1140	1053	1389	1235	1124	1042	1188	1093	1021	1145	1064	1000	1104	1035	1009
	6	1351	1175	1056	971	1316	1154	1043	962	1114	1017	946	1077	993	929	1042	970	947
	7	1281	1101	984	902	1249	1083	973	896	1049	952	882	1017	932	869	986	912	892
	8	1218	1037	923	844	1189	1021	913	839	991	896	827	963	878	816	937	862	843
	9	1160	979	869	794	1134	966	861	789	940	846	780	915	831	771	892	817	800
	10	1108	928	821	750	1083	916	815	746	893	801	738	872	789	730	851	776	761

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	66.5 fc	3.8 ft
6.5 ft	47.6 fc	4.4 ft
7.5 ft	35.8 fc	5.1 ft
8.0 ft	31.4 fc	5.5 ft
10.0 ft	20.1 fc	6.8 ft
12.0 ft	14.0 fc	8.2 ft
14.0 ft	10.3 fc	9.6 ft
16.0 ft	7.9 fc	10.9 ft
20.0 ft	5.0 fc	13.7 ft
24.0 ft	3.5 fc	16.4 ft
28.0 ft	2.6 fc	19.2 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	625132	625132	625132
45.00°	38596	38596	38596
55.00°	28989	28989	28989
65.00°	21668	21668	21668
75.00°	16034	16034	16034
85.00°	12146	12146	12146

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	-	-	-	-	-	-	-	-	-	-
	3H	-	-	-	-	-	-	-	-	-	-
	4H	-	-	-	-	-	-	-	-	-	-
	6H	-	-	-	-	-	-	-	-	-	-
	8H	-	-	-	-	-	-	-	-	-	-
	12H	-	-	-	-	-	-	-	-	-	-
4H	2H	-	-	-	-	-	-	-	-	-	-
	3H	-	-	-	-	-	-	-	-	-	-
	4H	-	-	-	-	-	-	-	-	-	-
	6H	-	-	-	-	-	-	-	-	-	-
	8H	-	-	-	-	-	-	-	-	-	-
	12H	-	-	-	-	-	-	-	-	-	-
8H	4H	-	-	-	-	-	-	-	-	-	-
	6H	-	-	-	-	-	-	-	-	-	-
	8H	-	-	-	-	-	-	-	-	-	-
	12H	-	-	-	-	-	-	-	-	-	-
12H	4H	-	-	-	-	-	-	-	-	-	-
	6H	-	-	-	-	-	-	-	-	-	-
	8H	-	-	-	-	-	-	-	-	-	-

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0