

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

CF04XXPC 10L 35K WD XX CL XX
Nom 4" diam Gamma Cylinder, WD optic, clear glass lens

Test Number

SP-01070_M-10L

Test Date

1/31/2020

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

Summary of Results

Power

Input Watts	6.5 W
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Lumen Output

Output Lumens	744
Efficacy	114.4 lm/W

Luminous Dimensions

0° - 180° Size	-0.33
90° - 270° Size	-0.33
Height	0

Spacing Criterion

Two luminaires, plane 0°	0.81
Two luminaires, plane 90°	0.81
Four luminaires	0.79

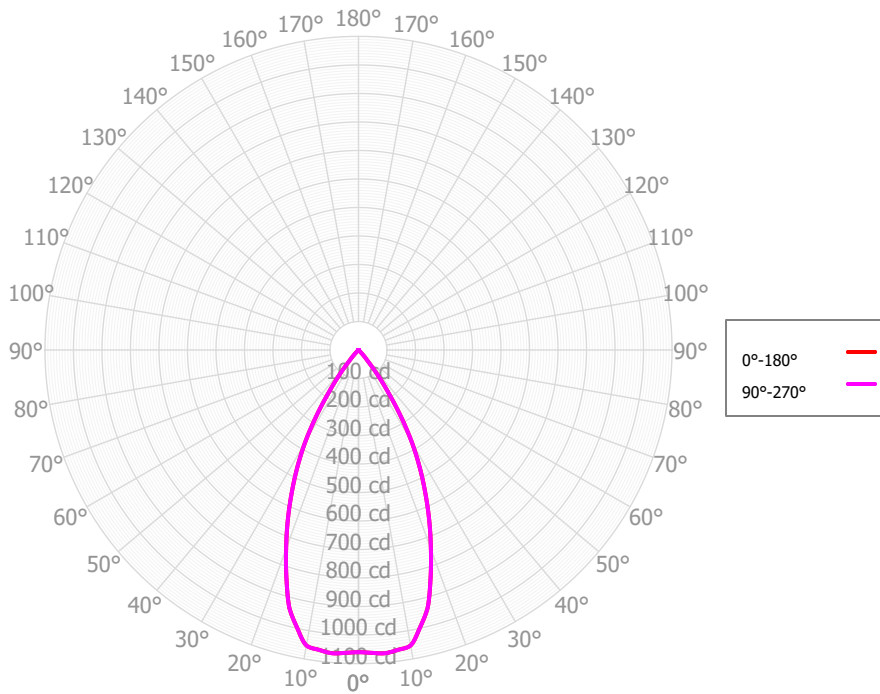
Full Beam Angle

0° - 180°	51°
90° - 270°	51°

IES File Header Contents

Keyword	Value
TEST	SP-01070_M-10L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	1/31/2020
ISSUEDATE	3/19/2020
LUMCAT	CF04XXPC 10L 35K WD XX CL XX
LUMINAIRE	Nom 4" diam Gamma Cylinder, WD optic, clear glass lens
OTHER	Beam Angle: 51.2 deg
LAMPCAT	N/A
LAMP	N/A
OTHER	CCT Output Multipliers: 27K x 0.972, 30K x 0.981, 40K x 1.04
OTHER	Total luminaire wattage is approximate
OTHER	This report prepared by Spectrum Lighting

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	103.38	13.90%	90.00° - 100.00°	0.07	0.01%
10.00° - 20.00°	254.83	34.27%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	251.90	33.88%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	118.27	15.91%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	11.81	1.59%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	1.21	0.16%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	0.92	0.12%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	1.01	0.14%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	0.72	0.10%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	744.05	100.06%	0.00° - 180.00°	744.11	100.07%

Candela Distribution

	0.00°	90.00°	180.00°
0.00°	1060.28	1060.28	1060.28
2.50°	1063.71	1063.71	1063.71
5.00°	1067.94	1067.94	1067.94
7.50°	1061.21	1061.21	1061.21
10.00°	1052.67	1052.67	1052.67
12.50°	997.27	997.27	997.27
15.00°	937.14	937.14	937.14
17.50°	840.65	840.65	840.65
20.00°	742.65	742.65	742.65
22.50°	648.90	648.90	648.90
25.00°	555.38	555.38	555.38
27.50°	465.76	465.76	465.76
30.00°	375.19	375.19	375.19
32.50°	276.74	276.74	276.74
35.00°	182.56	182.56	182.56
37.50°	111.76	111.76	111.76
40.00°	50.40	50.40	50.40
42.50°	26.21	26.21	26.21
45.00°	7.38	7.38	7.38
47.50°	4.30	4.30	4.30
50.00°	2.01	2.01	2.01
52.50°	1.57	1.57	1.57
55.00°	1.24	1.24	1.24
57.50°	1.11	1.11	1.11
60.00°	1.03	1.03	1.03
62.50°	0.99	0.99	0.99
65.00°	0.93	0.93	0.93
67.50°	0.84	0.84	0.84
70.00°	0.88	0.88	0.88
72.50°	1.00	1.00	1.00
75.00°	1.03	1.03	1.03
77.50°	0.96	0.96	0.96
80.00°	0.77	0.77	0.77
82.50°	0.70	0.70	0.70
85.00°	0.67	0.67	0.67
87.50°	0.65	0.65	0.65
90.00°	0.49	0.49	0.49
92.50°	0.00	0.00	0.00
95.00°	0.00	0.00	0.00
97.50°	0.00	0.00	0.00
100.00°	0.00	0.00	0.00
102.50°	0.00	0.00	0.00
105.00°	0.00	0.00	0.00
107.50°	0.00	0.00	0.00
110.00°	0.00	0.00	0.00
112.50°	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	886	886	886	886	865	865	865	865	827	827	827	792	792	792	759	759	744
	1	848	829	812	796	830	813	797	783	783	771	759	755	746	737	730	722	708
	2	811	777	750	727	794	765	740	718	741	720	703	719	702	688	699	685	672
	3	774	731	697	670	760	721	690	665	702	676	654	684	662	644	667	650	637
	4	740	689	651	623	727	681	646	619	665	635	612	650	625	605	637	616	604
	5	707	651	611	582	696	644	607	580	631	599	574	619	591	570	608	584	573
	6	676	616	575	546	666	610	572	545	599	566	541	589	560	537	580	554	545
	7	647	584	543	515	637	579	541	513	570	536	511	561	531	508	553	526	518
	8	619	554	514	486	611	550	512	485	543	508	483	535	504	481	529	500	492
	9	593	527	487	460	585	524	486	459	517	482	458	511	479	456	505	476	469
	10	568	502	463	437	561	499	462	436	494	459	435	488	456	434	483	454	447

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	35.1 fc	5.3 ft
6.5 ft	25.1 fc	6.2 ft
7.5 ft	18.8 fc	7.2 ft
8.0 ft	16.6 fc	7.7 ft
10.0 ft	10.6 fc	9.6 ft
12.0 ft	7.4 fc	11.5 ft
14.0 ft	5.4 fc	13.4 ft
16.0 ft	4.1 fc	15.3 ft
20.0 ft	2.7 fc	19.2 ft
24.0 ft	1.8 fc	23.0 ft
28.0 ft	1.4 fc	26.8 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	133436	133436	133436
45.00°	1313	1313	1313
55.00°	271	271	271
65.00°	276	276	276
75.00°	499	499	499
85.00°	967	967	967

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	-8.7	-7.8	-8.4	-7.5	-7.2	-8.7	-7.8	-8.4	-7.5	-7.2
	3H	-6.3	-5.5	-5.9	-5.2	-4.8	-6.3	-5.5	-5.9	-5.2	-4.8
	4H	-4.2	-3.5	-3.8	-3.1	-2.7	-4.2	-3.5	-3.8	-3.1	-2.7
	6H	-2.5	-1.8	-2.0	-1.4	-1.0	-2.5	-1.8	-2.0	-1.4	-1.0
	8H	-1.8	-1.1	-1.3	-0.7	-0.3	-1.8	-1.1	-1.3	-0.7	-0.3
	12H	-0.9	-0.3	-0.5	0.0	0.5	-0.9	-0.3	-0.5	0.0	0.5
4H	2H	-8.1	-7.3	-7.7	-7.0	-6.6	-8.1	-7.3	-7.7	-7.0	-6.6
	3H	-5.1	-4.5	-4.7	-4.1	-3.7	-5.1	-4.5	-4.7	-4.1	-3.7
	4H	-2.8	-2.3	-2.4	-1.9	-1.4	-2.8	-2.3	-2.4	-1.9	-1.4
	6H	-1.0	-0.6	-0.5	-0.1	0.4	-1.0	-0.6	-0.5	-0.1	0.4
	8H	-0.2	0.2	0.2	0.6	1.1	-0.2	0.2	0.2	0.6	1.1
	12H	0.7	1.0	1.2	1.5	2.0	0.7	1.0	1.2	1.5	2.0
8H	4H	-2.1	-1.7	-1.6	-1.2	-0.8	-2.1	-1.7	-1.6	-1.2	-0.8
	6H	-0.1	0.2	0.4	0.7	1.2	-0.1	0.2	0.4	0.7	1.2
	8H	0.8	1.1	1.3	1.6	2.1	0.8	1.1	1.3	1.6	2.1
	12H	1.9	2.2	2.4	2.7	3.3	1.9	2.2	2.4	2.7	3.3
12H	4H	-2.0	-1.6	-1.5	-1.1	-0.7	-2.0	-1.6	-1.5	-1.1	-0.7
	6H	0.1	0.4	0.6	0.8	1.4	0.1	0.4	0.6	0.8	1.4
	8H	1.1	1.4	1.6	1.9	2.4	1.1	1.4	1.6	1.9	2.4

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0