

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

CF04XXPC 10L 35K XW XX NL XX
Nom 4" diam Gamma Cylinder, XW optic, no lens

Test Number

SP-01071_1_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	814
Efficacy	125.24 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	0.99
Two luminaires, plane 90°	0.99
Four luminaires	0.9

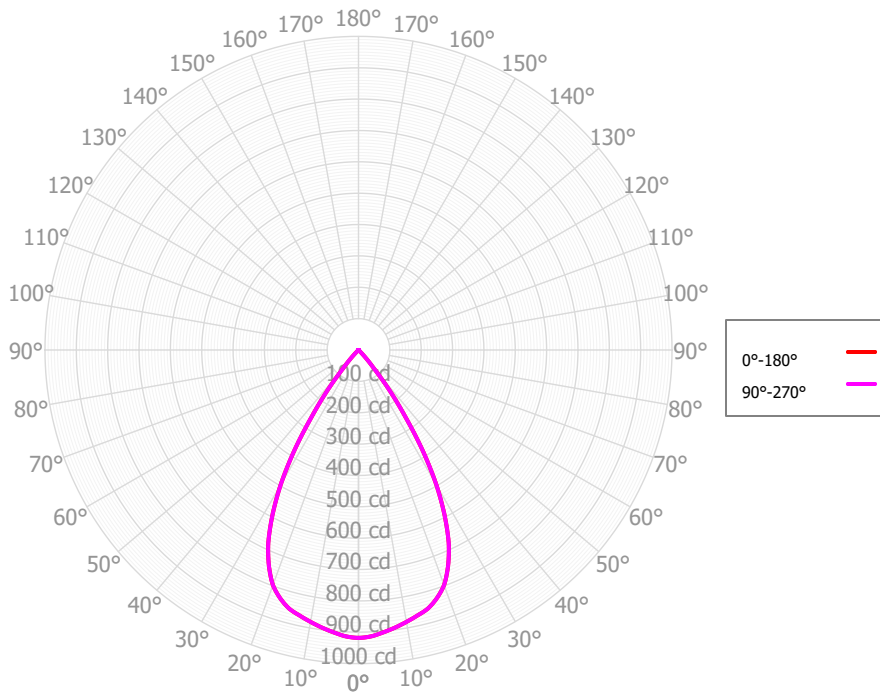
Full Beam Angle

0° - 180°	62°
90° - 270°	62°

IES File Header Contents

Keyword	Value
TEST	SP-01071_1_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 XW XX NL XX
LUMINAIRE	Nom 4" diam Gamma Cylinder, XW optic, no lens
OTHER	Beam Angle: 61.9 deg
LAMPCAT	N/A
LAMP	N/A
OTHER	CCT Output Multipliers: 27K x 0.972, 30K x 0.981, 40K x 1.04, 27HK x 0.89, 30HK x 0.83
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°	87.29	10.72%	90.00° - 100.00°	0.06	0.01%
10.00° - 20.00°	238.90	29.35%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	304.00	37.34%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	165.63	20.35%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	15.59	1.91%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	0.76	0.09%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	0.79	0.10%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	0.79	0.10%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	0.71	0.09%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	814.45	100.05%	0.00° - 180.00°	814.51	100.06%

Candela Distribution

	0.00°	90.00°	180.00°
0.00°	918.26	918.26	918.26
2.50°	914.37	914.37	914.37
5.00°	904.25	904.25	904.25
7.50°	893.12	893.12	893.12
10.00°	880.65	880.65	880.65
12.50°	867.64	867.64	867.64
15.00°	854.04	854.04	854.04
17.50°	830.38	830.38	830.38
20.00°	797.97	797.97	797.97
22.50°	746.41	746.41	746.41
25.00°	681.21	681.21	681.21
27.50°	595.05	595.05	595.05
30.00°	496.82	496.82	496.82
32.50°	382.90	382.90	382.90
35.00°	261.78	261.78	261.78
37.50°	164.20	164.20	164.20
40.00°	75.12	75.12	75.12
42.50°	35.28	35.28	35.28
45.00°	8.85	8.85	8.85
47.50°	2.98	2.98	2.98
50.00°	1.13	1.13	1.13
52.50°	0.85	0.85	0.85
55.00°	0.77	0.77	0.77
57.50°	0.79	0.79	0.79
60.00°	0.82	0.82	0.82
62.50°	0.82	0.82	0.82
65.00°	0.83	0.83	0.83
67.50°	0.77	0.77	0.77
70.00°	0.73	0.73	0.73
72.50°	0.78	0.78	0.78
75.00°	0.77	0.77	0.77
77.50°	0.71	0.71	0.71
80.00°	0.74	0.74	0.74
82.50°	0.71	0.71	0.71
85.00°	0.65	0.65	0.65
87.50°	0.64	0.64	0.64
90.00°	0.43	0.43	0.43
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	970	970	970	970	947	947	947	947	905	905	905	866	866	866	831	831	814
	1	926	905	885	867	906	887	870	854	854	840	827	824	813	803	796	788	772
	2	883	845	814	787	865	831	803	778	805	782	761	781	762	745	758	743	729
	3	841	791	753	722	825	780	744	716	759	729	704	739	714	694	721	701	687
	4	801	742	699	666	787	733	693	662	716	682	655	700	671	647	685	660	648
	5	763	698	652	619	750	690	648	616	676	639	610	662	630	605	650	622	611
	6	726	657	610	577	715	650	607	575	638	600	571	627	593	567	617	587	576
	7	692	619	572	539	681	614	569	538	604	564	535	594	559	532	585	554	544
	8	660	585	538	506	650	580	536	505	572	531	503	564	527	501	556	523	515
	9	629	553	507	476	620	550	505	475	542	502	473	535	498	472	528	495	487
	10	601	524	479	448	593	521	477	448	515	474	447	508	471	445	503	469	462

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	30.4 fc	6.6 ft
6.5 ft	21.7 fc	7.8 ft
7.5 ft	16.3 fc	9.0 ft
8.0 ft	14.3 fc	9.5 ft
10.0 ft	9.2 fc	11.9 ft
12.0 ft	6.4 fc	14.3 ft
14.0 ft	4.7 fc	16.7 ft
16.0 ft	3.6 fc	19.1 ft
20.0 ft	2.3 fc	23.9 ft
24.0 ft	1.6 fc	28.6 ft
28.0 ft	1.2 fc	33.4 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	115562	115562	115562
45.00°	1574	1574	1574
55.00°	170	170	170
65.00°	246	246	246
75.00°	377	377	377
85.00°	945	945	945

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	-11.4	-10.5	-11.0	-10.2	-9.8	-11.4	-10.5	-11.0	-10.2	-9.8
	3H	-8.1	-7.3	-7.7	-7.0	-6.6	-8.1	-7.3	-7.7	-7.0	-6.6
	4H	-6.2	-5.4	-5.8	-5.1	-4.7	-6.2	-5.4	-5.8	-5.1	-4.7
	6H	-4.3	-3.6	-3.9	-3.3	-2.9	-4.3	-3.6	-3.9	-3.3	-2.9
	8H	-3.3	-2.6	-2.8	-2.2	-1.8	-3.3	-2.6	-2.8	-2.2	-1.8
	12H	-2.2	-1.6	-1.7	-1.2	-0.7	-2.2	-1.6	-1.7	-1.2	-0.7
4H	2H	-10.3	-9.5	-9.9	-9.2	-8.8	-10.3	-9.5	-9.9	-9.2	-8.8
	3H	-6.8	-6.2	-6.4	-5.8	-5.4	-6.8	-6.2	-6.4	-5.8	-5.4
	4H	-4.8	-4.3	-4.4	-3.9	-3.4	-4.8	-4.3	-4.4	-3.9	-3.4
	6H	-2.8	-2.3	-2.3	-1.9	-1.4	-2.8	-2.3	-2.3	-1.9	-1.4
	8H	-1.7	-1.2	-1.2	-0.8	-0.3	-1.7	-1.2	-1.2	-0.8	-0.3
	12H	-0.5	-0.1	0.0	0.4	0.9	-0.5	-0.1	0.0	0.4	0.9
8H	4H	-4.1	-3.7	-3.6	-3.2	-2.8	-4.1	-3.7	-3.6	-3.2	-2.8
	6H	-1.8	-1.5	-1.3	-1.0	-0.5	-1.8	-1.5	-1.3	-1.0	-0.5
	8H	-0.5	-0.2	0.0	0.3	0.8	-0.5	-0.2	0.0	0.3	0.8
	12H	0.9	1.2	1.4	1.7	2.2	0.9	1.2	1.4	1.7	2.2
12H	4H	-3.9	-3.6	-3.4	-3.1	-2.6	-3.9	-3.6	-3.4	-3.1	-2.6
	6H	-1.5	-1.2	-1.0	-0.7	-0.2	-1.5	-1.2	-1.0	-0.7	-0.2
	8H	-0.1	0.2	0.4	0.7	1.3	-0.1	0.2	0.4	0.7	1.3

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0