

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

CF06XXPC 10L 35K XW XX NL XX
Nom 6" diam Gamma Cylinder (damp location), no lens

Test Number

SP-01045_M-10L

Test Date

2/3/2020

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	758
Efficacy	116.64 lm/W

Luminous Dimensions

0° - 180° Size	-0.5
90° - 270° Size	-0.5
Height	0

Spacing Criterion

Two luminaires, plane 0°	1.21
Two luminaires, plane 90°	1.23
Four luminaires	1.12

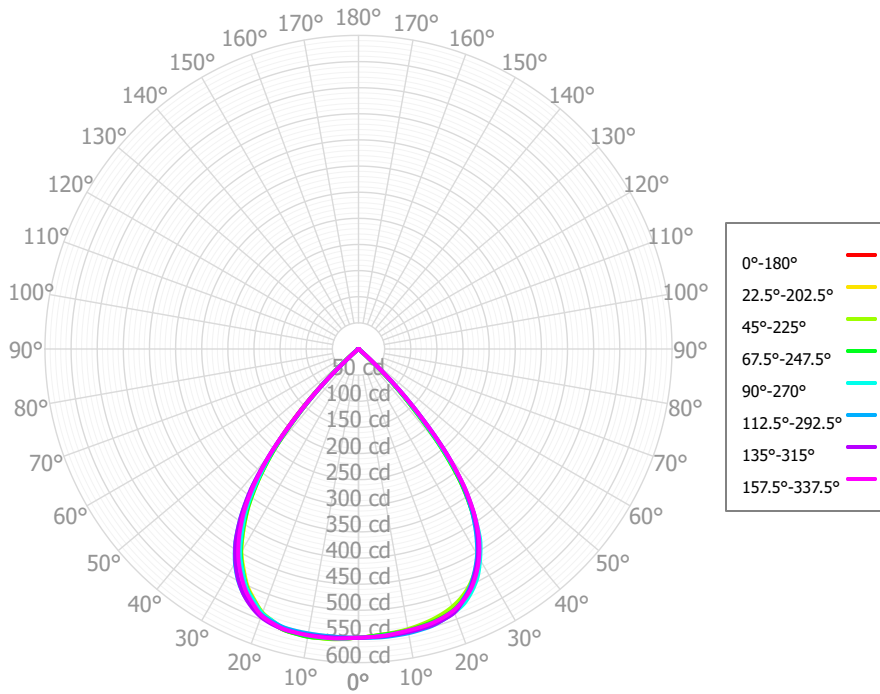
Full Beam Angle

0° - 180°	78°
90° - 270°	78°

IES File Header Contents

Keyword	Value
TEST	SP-01045_M-10L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	2/3/2020
ISSUEDATE	05/16/2022
LUMCAT	CF06XXPC 10L 35K XW XX NL XX
LUMINAIRE	Nom 6" diam Gamma Cylinder (damp location), no lens
OTHER	Beam angle: 76.4 deg
OTHER	XTRA Wide optic
LAMPCAT	N/A
LAMP	N/A
OTHER	CCT Output Multipliers: 27K x 0.97, 30K x 0.98, 40K x 1.04, 27HK x 0.78, 30HK x 0.82
OTHER	Total luminaire wattage is approximate
OTHER	This report prepared by Spectrum Lighting, scaled from 40L

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	53.57	7.07%	90.00° - 100.00°	0.03	0.00%
10.00° - 20.00°	154.70	20.40%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	231.64	30.55%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	230.44	30.39%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	82.64	10.90%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	2.54	0.33%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	1.16	0.15%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	0.99	0.13%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	0.46	0.06%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	758.16	100.00%	0.00° - 180.00°	758.18	100.00%

Candela Distribution

	0.00°	22.50°	45.00°	67.50°	90.00°	112.50°	135.00°	157.50°	180.00°	202.50°	225.00°	247.50°	270.00°	292.50°	315.00°	337.50°	360.00°
0.00°	552.62	552.62	552.62	552.62	552.62	552.62	552.62	552.62	552.62	552.62	552.62	552.62	552.62	552.62	552.62	552.62	552.62
2.50°	551.18	550.36	550.40	550.44	551.92	552.67	553.26	554.30	554.48	554.53	555.10	554.31	554.49	553.15	551.89	551.88	551.18
5.00°	549.68	548.86	548.25	548.69	550.85	552.52	554.33	555.95	556.00	556.92	557.55	556.29	555.67	553.44	551.80	550.96	549.68
7.50°	547.82	548.12	546.66	547.89	550.25	552.69	554.99	556.28	556.43	558.04	558.23	557.83	555.97	552.89	550.97	548.99	547.82
10.00°	545.94	546.34	544.60	546.73	549.38	552.81	555.57	556.54	556.88	558.79	558.79	559.22	556.04	552.26	550.09	547.08	545.94
12.50°	543.92	543.10	541.22	544.25	548.09	552.72	555.90	555.88	557.37	557.37	556.61	557.98	554.51	550.47	548.71	545.45	543.92
15.00°	541.71	539.66	537.24	541.45	545.88	551.58	555.15	554.61	555.76	555.53	554.07	556.07	552.68	548.21	547.10	543.14	541.71
17.50°	536.78	536.00	532.02	537.80	542.62	547.45	551.99	549.68	549.61	546.91	546.01	548.85	545.88	542.55	542.60	538.67	536.78
20.00°	531.02	528.90	524.91	531.65	536.40	541.66	545.80	542.64	539.89	537.60	536.99	540.06	538.57	535.20	536.68	532.40	531.02
22.50°	519.84	518.89	514.85	520.59	527.65	532.34	534.56	527.74	524.26	520.06	521.15	523.73	522.46	520.47	522.14	521.99	519.84
25.00°	506.84	504.06	500.76	505.35	512.46	518.95	519.07	510.50	505.24	501.97	503.57	505.30	505.79	503.68	505.94	507.89	506.84
27.50°	486.49	486.12	481.76	483.93	492.96	499.10	498.02	487.18	481.95	475.94	478.19	480.12	480.24	480.85	483.11	487.30	486.49
30.00°	462.40	459.48	456.08	457.23	465.33	472.78	470.90	459.98	452.91	448.65	449.37	451.05	453.42	454.08	457.44	461.64	462.40
32.50°	427.49	428.50	424.14	424.37	433.62	438.63	437.70	425.09	418.32	409.77	410.10	413.04	415.04	418.95	423.94	429.24	427.49
35.00°	384.80	380.51	378.04	378.68	385.89	392.96	392.45	383.09	374.75	368.46	366.28	369.01	373.81	377.97	383.78	386.58	384.80
37.50°	325.83	326.33	321.80	321.46	332.31	336.30	337.94	330.51	324.33	314.06	312.54	314.42	318.12	327.38	330.21	333.46	325.83
40.00°	255.59	249.38	246.40	246.25	254.43	262.32	264.68	263.68	259.49	253.96	249.79	250.68	257.26	263.25	264.77	263.63	255.59
42.50°	167.66	166.70	160.28	158.70	170.13	175.69	180.13	180.65	186.30	173.97	171.91	174.72	179.16	182.16	180.84	180.35	167.66
45.00°	93.42	92.93	88.84	87.78	94.85	100.89	104.43	105.75	112.62	101.33	103.17	106.37	106.62	107.71	105.43	105.29	93.42
47.50°	36.05	20.63	23.47	25.74	21.08	32.63	32.69	38.14	38.71	46.81	46.06	45.76	47.70	39.63	40.18	35.28	36.05
50.00°	6.15	8.24	5.46	5.47	8.45	8.32	9.78	7.89	13.58	9.72	14.00	14.46	8.60	7.90	6.93	8.96	6.15
52.50°	2.24	0.76	1.31	1.58	0.92	2.58	2.57	3.26	4.01	5.30	6.42	6.76	5.30	3.68	2.90	2.63	2.24
55.00°	0.59	0.55	0.47	0.65	0.71	1.19	1.26	1.62	2.37	2.75	2.71	3.73	3.36	2.14	1.15	0.86	0.59
57.50°	0.58	0.43	0.30	0.54	0.64	1.11	1.26	1.53	2.42	2.85	1.98	3.55	3.28	2.15	1.05	0.66	0.58
60.00°	0.55	0.44	0.39	0.53	0.72	0.96	1.14	1.42	2.33	2.72	1.59	3.25	2.85	1.92	0.96	0.57	0.55
62.50°	0.51	0.46	0.51	0.54	0.78	0.79	1.00	1.30	2.24	2.31	1.40	2.89	2.04	1.59	0.87	0.52	0.51
65.00°	0.52	0.48	0.42	0.53	0.70	0.72	0.90	1.36	2.22	2.19	1.35	2.62	1.53	1.28	0.84	0.50	0.52
67.50°	0.54	0.49	0.34	0.52	0.61	0.67	0.81	1.47	2.23	2.29	1.37	2.38	1.26	0.98	0.83	0.49	0.54
70.00°	0.48	0.47	0.34	0.54	0.54	0.60	0.84	1.61	2.48	2.59	1.16	2.20	1.13	0.93	0.66	0.49	0.48
72.50°	0.41	0.40	0.35	0.51	0.51	0.54	0.92	1.65	2.70	3.00	0.91	2.08	1.08	0.89	0.49	0.48	0.41
75.00°	0.39	0.28	0.34	0.40	0.52	0.53	1.07	1.34	2.86	2.69	0.75	2.35	1.20	0.83	0.64	0.45	0.39
77.50°	0.43	0.23	0.35	0.29	0.54	0.52	0.84	0.95	1.71	1.98	0.71	2.05	1.05	0.68	0.68	0.43	0.43
80.00°	0.47	0.27	0.33	0.27	0.47	0.47	0.59	0.61	0.83	0.86	0.73	1.35	0.62	0.56	0.60	0.47	0.47
82.50°	0.41	0.31	0.28	0.31	0.35	0.35	0.43	0.50	0.75	0.70	0.59	0.83	0.68	0.55	0.44	0.53	0.41
85.00°	0.31	0.30	0.27	0.28	0.30	0.24	0.39	0.41	0.52	0.65	0.68	0.69	0.42	0.47	0.39	0.39	0.31
87.50°	0.30	0.34	0.26	0.40	0.39	0.30	0.40	0.30	0.40	0.47	0.45	0.66	0.48	0.40	0.37	0.36	0.30
90.00°	0.21	0.00	0.00	0.00	0.00	0.31	0.00	0.21	0.34	0.27	0.29	0.30	0.31	0.23	0.26	0.29	0.21
92.50°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.00°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
97.50°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	903	903	903	903	882	882	882	882	842	842	842	807	807	807	774	774	758
	1	857	835	815	797	838	819	801	784	788	773	760	759	748	737	733	724	710
	2	811	771	738	711	794	758	728	703	733	709	687	710	690	672	689	673	659
	3	765	713	672	640	750	702	665	635	682	650	624	663	637	614	646	624	612
	4	722	660	614	580	708	651	609	576	634	598	569	619	588	563	604	578	567
	5	680	612	564	528	667	604	559	526	590	551	521	577	543	516	565	535	526
	6	642	568	519	483	630	562	515	482	550	509	478	539	503	475	529	497	488
	7	605	529	479	444	594	523	476	443	513	471	440	504	466	438	495	461	453
	8	571	493	443	410	562	488	441	409	480	437	407	472	433	405	464	429	422
	9	540	461	412	379	531	457	410	378	449	407	377	442	403	375	435	400	394
	10	511	431	383	352	503	428	382	351	421	379	350	415	376	349	409	374	368

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	18.3 fc	9.0 ft
6.5 ft	13.1 fc	10.6 ft
7.5 ft	9.8 fc	12.2 ft
8.0 ft	8.6 fc	13.0 ft
10.0 ft	5.5 fc	16.3 ft
12.0 ft	3.8 fc	19.6 ft
14.0 ft	2.8 fc	22.8 ft
16.0 ft	2.2 fc	26.1 ft
20.0 ft	1.4 fc	32.6 ft
24.0 ft	1.0 fc	39.1 ft
28.0 ft	0.7 fc	45.6 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	30295	30295	30295
45.00°	7242	6887	7353
55.00°	56	45	67
65.00°	67	55	90
75.00°	83	73	111
85.00°	192	171	187

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	-16.7	-15.6	-16.3	-15.3	-15.0	-6.0	-5.0	-5.7	-4.7	-4.4
	3H	-13.6	-12.7	-13.2	-12.4	-12.0	-4.8	-3.9	-4.4	-3.6	-3.2
	4H	-12.4	-11.6	-12.0	-11.2	-10.8	-4.0	-3.1	-3.6	-2.8	-2.4
	6H	-10.7	-9.9	-10.2	-9.5	-9.1	-3.3	-2.5	-2.8	-2.1	-1.7
	8H	-9.6	-8.9	-9.2	-8.5	-8.1	-3.0	-2.3	-2.6	-1.9	-1.5
	12H	-8.8	-8.1	-8.3	-7.7	-7.3	-2.9	-2.2	-2.4	-1.8	-1.4
4H	2H	-15.1	-14.3	-14.7	-14.0	-13.6	-6.0	-5.2	-5.6	-4.8	-4.4
	3H	-12.3	-11.6	-11.9	-11.2	-10.8	-4.3	-3.6	-3.8	-3.2	-2.8
	4H	-11.1	-10.5	-10.6	-10.0	-9.6	-2.7	-2.1	-2.3	-1.7	-1.3
	6H	-9.2	-8.7	-8.8	-8.3	-7.8	-1.7	-1.2	-1.2	-0.8	-0.3
	8H	-8.1	-7.6	-7.6	-7.1	-6.7	-1.5	-1.0	-1.0	-0.5	-0.1
	12H	-7.1	-6.7	-6.6	-6.2	-5.7	-1.2	-0.8	-0.7	-0.3	0.1
8H	4H	-10.1	-9.6	-9.6	-9.2	-8.7	-2.4	-1.9	-1.9	-1.4	-1.0
	6H	-8.1	-7.7	-7.6	-7.2	-6.7	-1.2	-0.8	-0.6	-0.3	0.2
	8H	-6.8	-6.5	-6.3	-6.0	-5.5	-0.8	-0.4	-0.2	0.1	0.6
	12H	-5.7	-5.4	-5.2	-4.9	-4.3	-0.4	-0.1	0.1	0.4	1.0
12H	4H	-9.9	-9.5	-9.4	-9.0	-8.5	-2.3	-1.9	-1.8	-1.4	-1.0
	6H	-7.8	-7.5	-7.3	-7.0	-6.5	-1.1	-0.8	-0.6	-0.3	0.3
	8H	-6.4	-6.1	-5.9	-5.6	-5.1	-0.6	-0.3	-0.1	0.2	0.7

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0