

## **Indoor Distribution Test Report**

# **Spectrum Lighting Inc.**

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## **Spectrum Lighting Photometric Lab**

### **Luminaire**

C0614LM 100L 35K WD DX NL CD XX  
Nom 6" diam x 14" H 100L Cylinder for Whole Foods project

### **Test Number**

SP-01024

### **Test Date**

1/15/2020

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

### Summary of Results

#### Power

Input Watts	74 W
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#### Lumen Output

Output Lumens	9036
Efficacy	122.11 lm/W

#### Luminous Dimensions

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

#### Spacing Criterion

Two luminaires, plane 0°	0.98
Two luminaires, plane 90°	0.98
Four luminaires	1

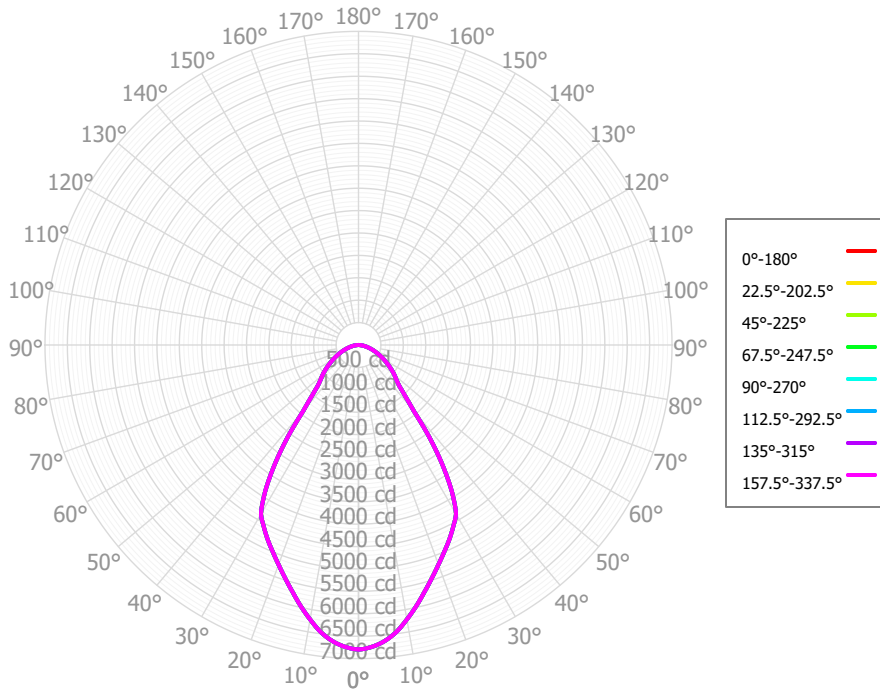
#### Full Beam Angle

0° - 180°	69°
90° - 270°	69°

### IES File Header Contents

Keyword	Value
TEST	SP-01024
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	1/15/2020
ISSUEDATE	2/5/2020
LUMCAT	C0614LM 100L 35K WD DX NL CD XX
LUMINAIRE	Nom 6" diam x 14" H 100L Cylinder for Whole Foods project
OTHER	Beam Angle: 68.8 degrees
OTHER	Wide Optic
LAMPCAT	N/A
LAMP	N/A
OTHER	CCT Output Multipliers: 27K x .934, 30K x .963, 40K x 1.02, 50K x 1.03
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°	628.84	6.96%	90.00° - 100.00°	1.35	0.01%
10.00° - 20.00°	1,600.95	17.72%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	2,202.73	24.38%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	1,987.80	22.00%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	1,043.22	11.55%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	759.78	8.41%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	495.57	5.48%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	251.34	2.78%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	64.23	0.71%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	9,034.44	99.99%	0.00° - 180.00°	9,035.79	100.00%



### Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

	pfc	20%	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%	10%	0%
	pw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	30%
RCR	0	10,757	10,757	10,757	10,757	10,506	10,506	10,506	10,506	10,039	10,039	10,039	9,612	9,612	9,612	9,219	9,219	9,219	9,034
	1	10,067	9,737	9,441	9,174	9,834	9,537	9,269	9,026	9,162	8,944	8,745	8,818	8,643	8,481	8,501	8,362	8,233	8,191
	2	9,381	8,803	8,325	7,923	9,163	8,640	8,203	7,832	8,334	7,970	7,655	8,052	7,751	7,486	7,792	7,545	7,325	7,389
	3	8,746	7,995	7,413	6,949	8,546	7,861	7,323	6,890	7,608	7,151	6,775	7,375	6,988	6,663	7,158	6,834	6,556	6,694
	4	8,168	7,298	6,662	6,175	7,984	7,187	6,594	6,135	6,977	6,464	6,058	6,782	6,340	5,982	6,600	6,222	5,908	6,097
	5	7,644	6,696	6,034	5,546	7,476	6,603	5,982	5,518	6,427	5,882	5,464	6,262	5,786	5,411	6,109	5,693	5,360	5,583
	6	7,168	6,172	5,503	5,023	7,015	6,093	5,463	5,004	5,944	5,384	4,965	5,805	5,308	4,928	5,674	5,235	4,891	5,136
	7	6,736	5,713	5,049	4,584	6,598	5,646	5,016	4,569	5,519	4,953	4,541	5,400	4,892	4,514	5,288	4,834	4,487	4,746
	8	6,345	5,308	4,656	4,208	6,219	5,251	4,630	4,197	5,142	4,579	4,177	5,040	4,529	4,156	4,943	4,481	4,136	4,404
	9	5,989	4,950	4,314	3,884	5,875	4,901	4,292	3,876	4,807	4,250	3,860	4,718	4,209	3,844	4,635	4,170	3,829	4,101
	10	5,665	4,632	4,013	3,602	5,562	4,589	3,995	3,595	4,507	3,960	3,583	4,430	3,926	3,571	4,357	3,894	3,559	3,832

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	224.7 fc	7.6 ft
6.5 ft	160.9 fc	8.9 ft
7.5 ft	120.8 fc	10.3 ft
8.0 ft	106.2 fc	11.0 ft
10.0 ft	68.0 fc	13.7 ft
12.0 ft	47.2 fc	16.5 ft
14.0 ft	34.7 fc	19.2 ft
16.0 ft	26.6 fc	22.0 ft
20.0 ft	17.0 fc	27.5 ft
24.0 ft	11.8 fc	33.0 ft
28.0 ft	8.7 fc	38.5 ft

### Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	372,627	372,627	372,627
45.00°	99,396	99,396	99,396
55.00°	81,044	81,044	81,044
65.00°	64,338	64,338	64,338
75.00°	49,235	49,235	49,235
85.00°	34,337	34,337	34,337

### UGR CIE 190:2010

<b>Ceiling reflectance</b>		<b>0.7</b>	<b>0.7</b>	<b>0.5</b>	<b>0.5</b>	<b>0.3</b>	<b>0.7</b>	<b>0.7</b>	<b>0.5</b>	<b>0.5</b>	<b>0.3</b>
<b>Wall reflectance</b>		<b>0.5</b>	<b>0.3</b>	<b>0.5</b>	<b>0.3</b>	<b>0.3</b>	<b>0.5</b>	<b>0.3</b>	<b>0.5</b>	<b>0.3</b>	<b>0.3</b>
<b>Plane reflectance</b>		<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>
<b>Room dimensions</b>		<b>Viewed crosswise</b>					<b>Viewed endwise</b>				
<b>2H</b>	<b>2H</b>	24.5	25.8	24.8	26.1	26.4	24.5	25.8	24.8	26.1	26.4
	<b>3H</b>	25.8	26.9	26.2	27.3	27.6	25.8	26.9	26.2	27.3	27.6
	<b>4H</b>	26.2	27.3	26.6	27.7	28.1	26.2	27.3	26.6	27.7	28.1
	<b>6H</b>	26.6	27.5	27.0	27.9	28.3	26.6	27.5	27.0	27.9	28.3
	<b>8H</b>	26.6	27.6	27.1	28.0	28.4	26.6	27.6	27.1	28.0	28.4
	<b>12H</b>	26.7	27.6	27.1	28.0	28.4	26.7	27.6	27.1	28.0	28.4
<b>4H</b>	<b>2H</b>	24.9	26.0	25.3	26.3	26.7	24.9	26.0	25.3	26.3	26.7
	<b>3H</b>	26.4	27.3	26.8	27.7	28.1	26.4	27.3	26.8	27.7	28.1
	<b>4H</b>	27.0	27.8	27.4	28.2	28.6	27.0	27.8	27.4	28.2	28.6
	<b>6H</b>	27.4	28.1	27.9	28.5	29.0	27.4	28.1	27.9	28.5	29.0
	<b>8H</b>	27.5	28.2	28.0	28.6	29.1	27.5	28.2	28.0	28.6	29.1
	<b>12H</b>	27.6	28.2	28.1	28.7	29.1	27.6	28.2	28.1	28.7	29.1
<b>8H</b>	<b>4H</b>	27.2	27.8	27.6	28.3	28.7	27.2	27.8	27.6	28.3	28.7
	<b>6H</b>	27.7	28.2	28.2	28.7	29.2	27.7	28.2	28.2	28.7	29.2
	<b>8H</b>	27.9	28.3	28.4	28.8	29.3	27.9	28.3	28.4	28.8	29.3
	<b>12H</b>	28.0	28.4	28.5	28.9	29.5	28.0	28.4	28.5	28.9	29.5
<b>12H</b>	<b>4H</b>	27.2	27.7	27.6	28.2	28.7	27.2	27.7	27.6	28.2	28.7
	<b>6H</b>	27.7	28.2	28.2	28.6	29.2	27.7	28.2	28.2	28.6	29.2
	<b>8H</b>	27.9	28.3	28.4	28.8	29.4	27.9	28.3	28.4	28.8	29.4

Corrected UGR values based on total output lumens

SHR = 1.0