

## **Indoor Distribution Test Report**

# **Spectrum Lighting Inc.**

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## **Spectrum Lighting Photometric Lab**

### **Luminaire**

C0614LM 137L 35K MD DX NL CD XX

Nom 6" diam x 14" H 137L Cylinder for Whole Foods project

### **Test Number**

SP-00999

### **Test Date**

1/15/2020

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

### Summary of Results

#### Power

Input Watts	106 W
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#### Lumen Output

Output Lumens	10247
Efficacy	96.67 lm/W

#### Luminous Dimensions

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

#### Spacing Criterion

Two luminaires, plane 0°	0.71
Two luminaires, plane 90°	0.71
Four luminaires	0.77

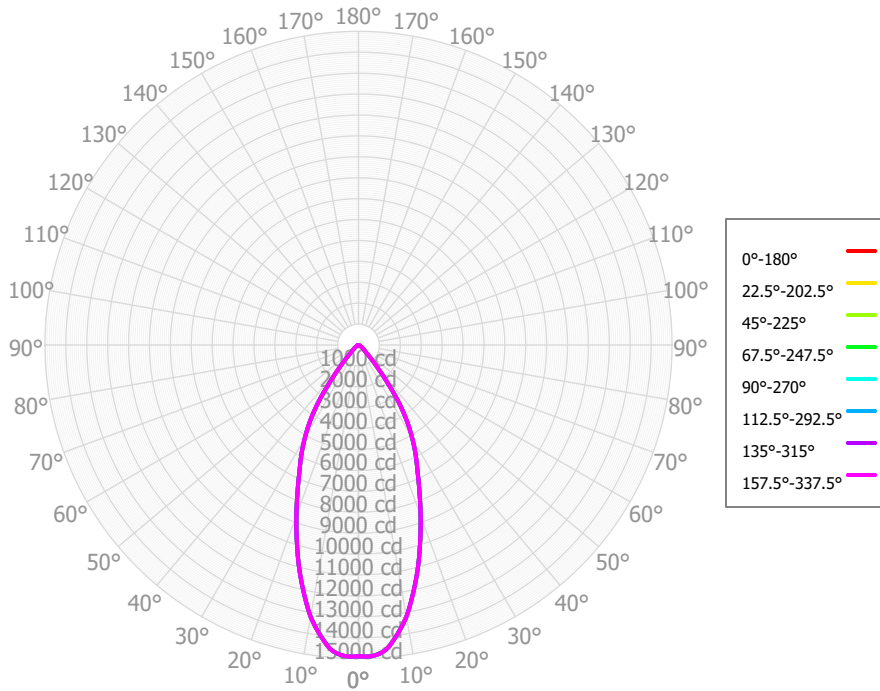
#### Full Beam Angle

0° - 180°	46°
90° - 270°	46°

### IES File Header Contents

Keyword	Value
TEST	SP-00999
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	1/15/2020
ISSUEDATE	2/5/2020
LUMCAT	C0614LM 137L 35K MD DX NL CD XX
LUMINAIRE	Nom 6" diam x 14" H 137L Cylinder for Whole Foods project
OTHER	Beam Angle: 45.9 degrees
OTHER	Medium 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
_CRI	82
_CCTMULT	27K x .934, 30K x .963, 40K x 1.02, 50K x 1.03
_LAMPMULT	100L x .799, 120L x .906

**Candela Polar Plot**



**Zonal Lumen Summary**

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	1,366.20	13.33%	90.00° - 100.00°	0.14	0.00%
10.00° - 20.00°	3,029.52	29.56%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	3,082.15	30.08%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	2,025.90	19.77%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	512.39	5.00%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	170.47	1.66%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	50.45	0.49%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	8.20	0.08%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	1.73	0.02%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	10,247.00	100.00%	0.00° - 180.00°	10,247.14	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%
	pcc	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	10%
	pw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%
RCR	0	12,199	12,199	12,199	12,199	11,915	11,915	11,915	11,915	11,386	11,386	11,386	10,901	10,901	10,901	10,456	10,456	10,456
	1	11,646	11,368	11,119	10,895	11,394	11,147	10,924	10,722	10,733	10,555	10,393	10,353	10,213	10,083	10,002	9,894	9,792
	2	11,087	10,600	10,197	9,859	10,862	10,424	10,058	9,748	10,094	9,794	9,534	9,789	9,545	9,331	9,508	9,311	9,136
	3	10,547	9,906	9,410	9,015	10,345	9,764	9,309	8,942	9,497	9,114	8,799	9,250	8,930	8,662	9,020	8,755	8,529
	4	10,033	9,280	8,729	8,309	9,850	9,164	8,654	8,259	8,945	8,508	8,161	8,742	8,369	8,067	8,553	8,236	7,974
	5	9,546	8,715	8,134	7,705	9,382	8,619	8,076	7,671	8,438	7,965	7,602	8,268	7,858	7,536	8,111	7,756	7,470
	6	9,090	8,203	7,609	7,182	8,941	8,123	7,564	7,157	7,971	7,477	7,108	7,829	7,393	7,060	7,696	7,313	7,013
	7	8,662	7,739	7,141	6,722	8,527	7,671	7,105	6,704	7,543	7,037	6,668	7,422	6,970	6,633	7,309	6,906	6,599
	8	8,262	7,317	6,722	6,314	8,141	7,259	6,694	6,300	7,149	6,638	6,274	7,046	6,585	6,248	6,949	6,533	6,222
	9	7,890	6,932	6,346	5,949	7,779	6,883	6,322	5,939	6,788	6,277	5,919	6,699	6,233	5,899	6,615	6,191	5,880
	10	7,543	6,581	6,005	5,622	7,443	6,538	5,986	5,614	6,456	5,949	5,598	6,378	5,912	5,583	6,305	5,877	5,568

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	492.5 fc	4.7 ft
6.5 ft	352.6 fc	5.5 ft
7.5 ft	264.8 fc	6.4 ft
8.0 ft	232.8 fc	6.8 ft
10.0 ft	149.0 fc	8.5 ft
12.0 ft	103.5 fc	10.2 ft
14.0 ft	76.0 fc	11.9 ft
16.0 ft	58.2 fc	13.6 ft
20.0 ft	37.2 fc	16.9 ft
24.0 ft	25.9 fc	20.3 ft
28.0 ft	19.0 fc	23.7 ft

### Average Luminaire Luminance [cd/m

	0.00°	45.00°	90.00°
0.00°	816,675	816,675	816,675
45.00°	41,613	41,613	41,613
55.00°	17,634	17,634	17,634
65.00°	6,087	6,087	6,087
75.00°	1,362	1,362	1,362
85.00°	952	952	952

### 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>	12.5	13.5	12.9	13.8	14.1	12.5	13.5	12.9	13.8	14.1
	<b>3H</b>	12.5	13.4	12.9	13.7	14.1	12.5	13.4	12.9	13.7	14.1
	<b>4H</b>	12.4	13.2	12.9	13.6	14.0	12.4	13.2	12.9	13.6	14.0
	<b>6H</b>	12.3	13.1	12.8	13.4	13.8	12.3	13.1	12.8	13.4	13.8
	<b>8H</b>	12.3	13.0	12.7	13.4	13.8	12.3	13.0	12.7	13.4	13.8
	<b>12H</b>	12.2	12.9	12.7	13.3	13.7	12.2	12.9	12.7	13.3	13.7
<b>4H</b>	<b>2H</b>	12.4	13.2	12.8	13.5	13.9	12.4	13.2	12.8	13.5	13.9
	<b>3H</b>	12.5	13.1	12.9	13.5	13.9	12.5	13.1	12.9	13.5	13.9
	<b>4H</b>	12.4	12.9	12.8	13.4	13.8	12.4	12.9	12.8	13.4	13.8
	<b>6H</b>	12.3	12.8	12.7	13.2	13.7	12.3	12.8	12.7	13.2	13.7
	<b>8H</b>	12.2	12.7	12.7	13.1	13.6	12.2	12.7	12.7	13.1	13.6
	<b>12H</b>	12.1	12.5	12.6	13.0	13.5	12.1	12.5	12.6	13.0	13.5
<b>8H</b>	<b>4H</b>	12.2	12.7	12.7	13.1	13.6	12.2	12.7	12.7	13.1	13.6
	<b>6H</b>	12.1	12.5	12.6	13.0	13.4	12.1	12.5	12.6	13.0	13.4
	<b>8H</b>	12.0	12.3	12.6	12.9	13.4	12.0	12.3	12.6	12.9	13.4
	<b>12H</b>	12.0	12.3	12.5	12.8	13.3	12.0	12.3	12.5	12.8	13.3
<b>12H</b>	<b>4H</b>	12.1	12.5	12.6	13.0	13.5	12.1	12.5	12.6	13.0	13.5
	<b>6H</b>	12.0	12.3	12.6	12.8	13.4	12.0	12.3	12.6	12.8	13.4
	<b>8H</b>	12.0	12.2	12.5	12.7	13.3	12.0	12.2	12.5	12.7	13.3

Corrected UGR values based on total output lumens

SHR = 1.0