

## **Indoor Distribution Test Report**

# **Spectrum Lighting Inc.**

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## **Spectrum Lighting Photometric Lab**

### **Luminaire**

AP8XT 30L 35K XX MWI

Nom 8.5" diam x 12" H Aluminum reflector pendant

### **Test Number**

SP-00589\_5

### **Test Date**

10/15/2019

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

### Summary of Results

#### Power

Input Watts	30.2 W
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#### Lumen Output

Output Lumens	1359
Efficacy	45.01 lm/W

#### Luminous Dimensions

0° - 180° Size	-0.67
90° - 270° Size	-0.67
Height	0

#### Spacing Criterion

Two luminaires, plane 0°	0.81
Two luminaires, plane 90°	0.81
Four luminaires	0.8

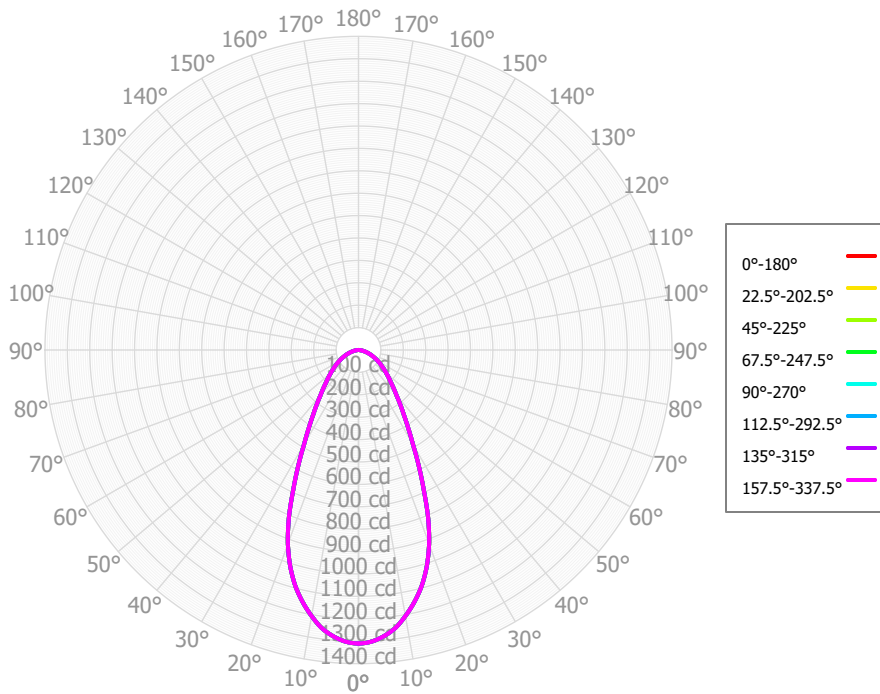
#### Full Beam Angle

0° - 180°	52°
90° - 270°	52°

### IES File Header Contents

Keyword	Value
TEST	SP-00589_5
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	10/15/2019
ISSUEDATE	5/15/2020
LUMCAT	AP8XT 30L 35K XX MWI
LUMINAIRE	Nom 8.5" diam x 12" H Aluminum reflector pendant
OTHER	Matte White finish - Interior, Khatod closed sphere optic, Open aperture
OTHER	Beam Angle: 51.6 degrees
LAMPCAT	N/A
LAMP	N/A, 19mm LES
OTHER	LEDXT lumen output is the same for all available CCT's
OTHER	Total luminaire wattage is approximate
OTHER	This report prepared by Spectrum Lighting
_CRI	80
_CCTMULT	Same for all available CCT's
LAMPMULT	13L x 0.37, 20L x 0.59

### Candela Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	121.77	8.96%	90.00° - 100.00°	0.19	0.01%
10.00° - 20.00°	301.26	22.16%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	315.44	23.20%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	223.81	16.46%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	160.18	11.78%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	116.32	8.56%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	75.29	5.54%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	36.90	2.71%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	8.27	0.61%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	1,359.23	99.99%	0.00° - 180.00°	1,359.42	100.00%



### 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%	10%
	pw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	30%
	0	1,618	1,618	1,618	1,618	1,581	1,581	1,581	1,581	1,510	1,510	1,510	1,446	1,446	1,446	1,387	1,387	1,387
	1	1,518	1,469	1,426	1,387	1,483	1,439	1,400	1,365	1,383	1,351	1,322	1,332	1,306	1,282	1,284	1,264	1,245
	2	1,418	1,333	1,263	1,205	1,385	1,309	1,245	1,191	1,263	1,210	1,164	1,221	1,177	1,138	1,182	1,146	1,114
	3	1,326	1,216	1,131	1,063	1,296	1,196	1,117	1,054	1,158	1,092	1,037	1,123	1,067	1,020	1,091	1,044	1,003
	4	1,242	1,115	1,022	951	1,215	1,099	1,012	945	1,067	993	933	1,038	974	922	1,011	956	911
	5	1,166	1,028	932	861	1,142	1,015	924	857	988	909	848	964	895	840	941	881	832
	6	1,098	953	856	786	1,075	941	850	783	919	838	777	899	826	771	879	815	766
	7	1,036	887	791	723	1,016	877	786	721	858	776	716	841	767	712	824	758	708
	8	980	829	734	669	961	821	730	668	804	723	664	789	715	661	775	708	658
	9	928	778	685	623	912	770	682	622	756	676	619	743	670	617	731	664	614
	10	882	732	642	582	867	726	639	581	714	634	580	702	629	578	691	624	576

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	43.3 fc	5.3 ft
6.5 ft	31.0 fc	6.3 ft
7.5 ft	23.3 fc	7.3 ft
8.0 ft	20.5 fc	7.7 ft
10.0 ft	13.1 fc	9.7 ft
12.0 ft	9.1 fc	11.6 ft
14.0 ft	6.7 fc	13.5 ft
16.0 ft	5.1 fc	15.5 ft
20.0 ft	3.3 fc	19.3 ft
24.0 ft	2.3 fc	23.2 ft
28.0 ft	1.7 fc	27.1 ft

### Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
<b>0.00°</b>	40,016	40,016	40,016
<b>45.00°</b>	8,843	8,843	8,843
<b>55.00°</b>	6,869	6,869	6,869
<b>65.00°</b>	5,437	5,437	5,437
<b>75.00°</b>	4,088	4,088	4,088
<b>85.00°</b>	2,278	2,278	2,278

### 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>	15.9	17.2	16.3	17.5	17.9	15.9	17.2	16.3	17.5	17.9
	<b>3H</b>	17.2	18.4	17.6	18.7	19.1	17.2	18.4	17.6	18.7	19.1
	<b>4H</b>	17.7	18.8	18.1	19.1	19.5	17.7	18.8	18.1	19.1	19.5
	<b>6H</b>	17.9	18.9	18.3	19.3	19.7	17.9	18.9	18.3	19.3	19.7
	<b>8H</b>	18.0	18.9	18.4	19.3	19.7	18.0	18.9	18.4	19.3	19.7
	<b>12H</b>	18.0	18.9	18.4	19.3	19.7	18.0	18.9	18.4	19.3	19.7
<b>4H</b>	<b>2H</b>	16.4	17.4	16.8	17.8	18.2	16.4	17.4	16.8	17.8	18.2
	<b>3H</b>	17.9	18.8	18.3	19.2	19.6	17.9	18.8	18.3	19.2	19.6
	<b>4H</b>	18.4	19.2	18.8	19.6	20.1	18.4	19.2	18.8	19.6	20.1
	<b>6H</b>	18.7	19.4	19.2	19.9	20.4	18.7	19.4	19.2	19.9	20.4
	<b>8H</b>	18.8	19.5	19.3	19.9	20.4	18.8	19.5	19.3	19.9	20.4
	<b>12H</b>	18.9	19.4	19.3	19.9	20.4	18.9	19.4	19.3	19.9	20.4
<b>8H</b>	<b>4H</b>	18.6	19.2	19.0	19.7	20.1	18.6	19.2	19.0	19.7	20.1
	<b>6H</b>	19.0	19.5	19.5	20.0	20.5	19.0	19.5	19.5	20.0	20.5
	<b>8H</b>	19.1	19.6	19.6	20.1	20.6	19.1	19.6	19.6	20.1	20.6
	<b>12H</b>	19.2	19.6	19.7	20.1	20.7	19.2	19.6	19.7	20.1	20.7
<b>12H</b>	<b>4H</b>	18.6	19.1	19.0	19.6	20.1	18.6	19.1	19.0	19.6	20.1
	<b>6H</b>	19.0	19.5	19.5	19.9	20.5	19.0	19.5	19.5	19.9	20.5
	<b>8H</b>	19.1	19.5	19.6	20.0	20.6	19.1	19.5	19.6	20.0	20.6

Corrected UGR values based on total output lumens

SHR = 1.0