

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

AP8XT 20L 35K XX MWI
Nom 8.5" diam x 12" H Aluminum reflector pendant

Test Number

SP-00589_5_M-20L

Test Date

10/15/2019

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

Summary of Results

Power

Input Watts	17.9 W
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Lumen Output

Output Lumens	897
Efficacy	50.12 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

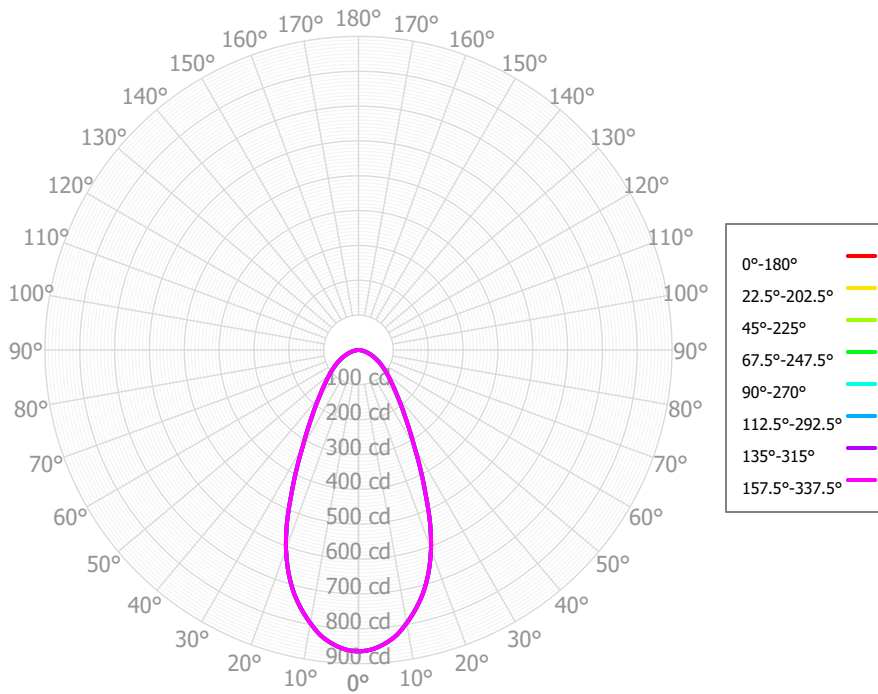
Full Beam Angle

0° - 180°	52°
90° - 270°	52°

IES File Header Contents

Keyword	Value
TEST	SP-00589_5_M-20L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	10/15/2019
ISSUEDATE	5/15/2020
LUMCAT	AP8XT 20L 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

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	80.37	8.96%	90.00° - 100.00°	0.13	0.01%
10.00° - 20.00°	198.83	22.16%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	208.19	23.20%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	147.71	16.46%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	105.72	11.78%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	76.77	8.56%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	49.69	5.54%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	24.35	2.71%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	5.46	0.61%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	897.09	99.99%	0.00° - 180.00°	897.22	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%	0%
	pw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	30%
	0	1,068	1,068	1,068	1,068	1,043	1,043	1,043	1,043	997	997	997	954	954	954	915	915	897
	1	1,002	970	941	915	979	950	924	901	913	892	873	879	862	846	847	834	817
	2	936	880	834	795	914	864	822	786	834	799	768	806	777	751	780	756	741
	3	875	802	746	702	855	789	737	696	764	720	684	741	704	673	720	689	675
	4	820	736	675	628	802	725	668	624	704	655	616	685	643	608	667	631	619
	5	770	679	615	568	753	670	610	565	652	600	560	636	590	555	621	581	570
	6	725	629	565	519	710	621	561	517	607	553	513	593	545	509	580	538	528
	7	684	585	522	477	670	579	519	476	567	512	473	555	506	470	544	501	492
	8	647	547	485	442	634	542	482	441	531	477	438	521	472	436	512	467	459
	9	613	513	452	411	602	508	450	410	499	446	409	491	442	407	483	438	431
	10	582	483	424	384	572	479	422	384	471	419	382	463	415	381	456	412	406

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	28.6 fc	5.3 ft
6.5 ft	20.5 fc	6.3 ft
7.5 ft	15.4 fc	7.3 ft
8.0 ft	13.5 fc	7.7 ft
10.0 ft	8.7 fc	9.7 ft
12.0 ft	6.0 fc	11.6 ft
14.0 ft	4.4 fc	13.5 ft
16.0 ft	3.4 fc	15.5 ft
20.0 ft	2.2 fc	19.3 ft
24.0 ft	1.5 fc	23.2 ft
28.0 ft	1.1 fc	27.1 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	26,410	26,410	26,410
45.00°	5,837	5,837	5,837
55.00°	4,533	4,533	4,533
65.00°	3,588	3,588	3,588
75.00°	2,698	2,698	2,698
85.00°	1,503	1,503	1,503

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	14.5	15.8	14.9	16.1	16.4	14.5	15.8	14.9	16.1	16.4
	3H	15.8	17.0	16.2	17.3	17.7	15.8	17.0	16.2	17.3	17.7
	4H	16.2	17.3	16.6	17.7	18.1	16.2	17.3	16.6	17.7	18.1
	6H	16.5	17.5	16.9	17.8	18.2	16.5	17.5	16.9	17.8	18.2
	8H	16.5	17.5	17.0	17.9	18.3	16.5	17.5	17.0	17.9	18.3
	12H	16.5	17.4	17.0	17.8	18.3	16.5	17.4	17.0	17.8	18.3
4H	2H	14.9	16.0	15.3	16.3	16.7	14.9	16.0	15.3	16.3	16.7
	3H	16.4	17.3	16.8	17.7	18.1	16.4	17.3	16.8	17.7	18.1
	4H	17.0	17.8	17.4	18.2	18.6	17.0	17.8	17.4	18.2	18.6
	6H	17.3	18.0	17.8	18.4	18.9	17.3	18.0	17.8	18.4	18.9
	8H	17.4	18.0	17.8	18.5	18.9	17.4	18.0	17.8	18.5	18.9
	12H	17.4	18.0	17.9	18.5	18.9	17.4	18.0	17.9	18.5	18.9
8H	4H	17.1	17.8	17.6	18.2	18.7	17.1	17.8	17.6	18.2	18.7
	6H	17.5	18.1	18.0	18.6	19.0	17.5	18.1	18.0	18.6	19.0
	8H	17.7	18.1	18.2	18.6	19.1	17.7	18.1	18.2	18.6	19.1
	12H	17.7	18.1	18.2	18.6	19.2	17.7	18.1	18.2	18.6	19.2
12H	4H	17.1	17.7	17.6	18.2	18.6	17.1	17.7	17.6	18.2	18.6
	6H	17.5	18.0	18.1	18.5	19.0	17.5	18.0	18.1	18.5	19.0
	8H	17.7	18.1	18.2	18.6	19.2	17.7	18.1	18.2	18.6	19.2

Corrected UGR values based on total output lumens

SHR = 1.0