

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

SGE14LEDOS 10L 35K XX AR1423OS MW GL
Nom 14 inch diam, AR1423 trim, MW interior finish, clear glass lens

Test Number

SP-01198_M-10L

Test Date

11/5/2020

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

Summary of Results

Power

Input Watts	8.7 W
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Lumen Output

Output Lumens	1015
Efficacy	116.67 lm/W

Luminous Dimensions

0° - 180° Size	-1.17
90° - 270° Size	-1.17
Height	0

Spacing Criterion

Two luminaires, plane 0°	1.24
Two luminaires, plane 90°	1.24
Four luminaires	1.27

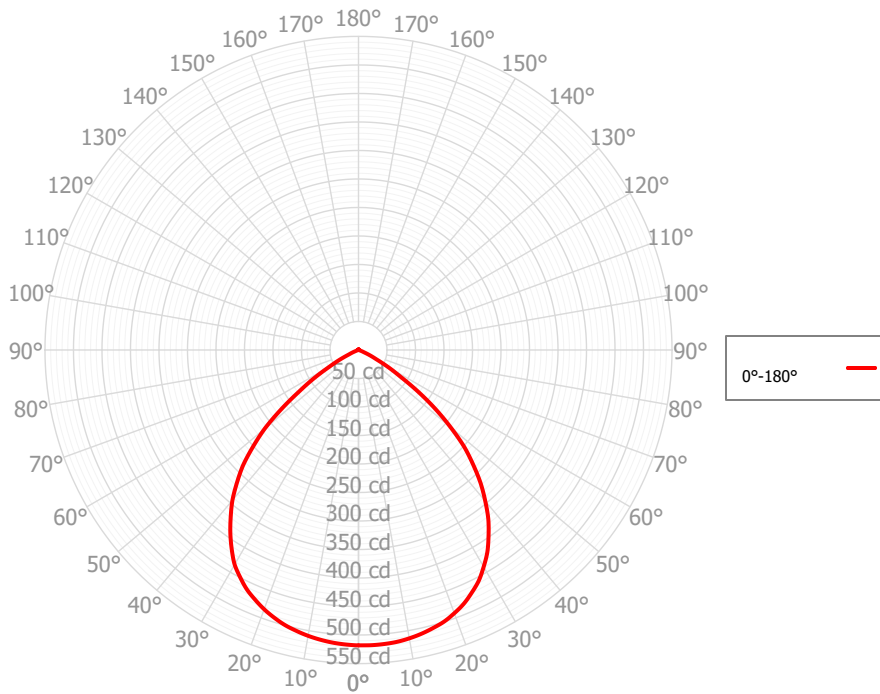
Full Beam Angle

0° - 180°	94°
90° - 270°	N/A°

IES File Header Contents

Keyword	Value
TEST	SP-01198_M-10L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	11/5/2020
ISSUEDATE	12/28/2020
LUMCAT	SGE14LEDOS 10L 35K XX AR1423OS MW GL
LUMINAIRE	Nom 14 inch diam, AR1423 trim, MW interior finish, clear glass lens
OTHER	Beam angle: 93.8 deg
LAMPCAT	N/A
LAMP	N/A, G4
OTHER	CCT Output Multiplier: 27K x 0.96, 30K x 0.99, 40K x 1.03
OTHER	Total luminaire wattage is approximate
OTHER	This report prepared by Spectrum Lighting, scaled from 45L

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	49.89	4.92%	90.00° - 100.00°	0.35	0.03%
10.00° - 20.00°	141.65	13.96%	100.00° - 110.00°	0.26	0.03%
20.00° - 30.00°	214.39	21.12%	100.00° - 120.00°	0.56	0.06%
30.00° - 40.00°	245.84	24.22%	120.00° - 130.00°	0.31	0.03%
40.00° - 50.00°	217.48	21.43%	130.00° - 140.00°	0.30	0.03%
50.00° - 60.00°	116.25	11.45%	140.00° - 150.00°	0.28	0.03%
60.00° - 70.00°	24.67	2.43%	150.00° - 160.00°	0.23	0.02%
70.00° - 80.00°	2.07	0.20%	160.00° - 170.00°	0.14	0.01%
80.00° - 90.00°	0.57	0.06%	170.00° - 180.00°	0.05	0.01%
0.00° - 90.00°	1012.81	99.78%	0.00° - 180.00°	1015.04	100.00%

Candela Distribution

	0.00°	180.00°
0.00°	518.13	518.13
2.50°	518.38	517.14
5.00°	517.77	515.40
7.50°	516.44	512.69
10.00°	513.67	509.17
12.50°	509.93	504.64
15.00°	505.07	499.43
17.50°	499.59	492.26
20.00°	491.45	484.02
22.50°	482.14	474.09
25.00°	469.90	463.43
27.50°	456.66	449.57
30.00°	439.20	434.61
32.50°	420.65	414.03
35.00°	397.79	391.98
37.50°	374.11	368.18
40.00°	345.95	344.06
42.50°	317.23	315.57
45.00°	284.54	286.56
47.50°	251.61	250.87
50.00°	211.05	214.76
52.50°	170.34	170.94
55.00°	128.30	127.41
57.50°	87.60	93.27
60.00°	60.55	60.21
62.50°	35.33	38.55
65.00°	22.01	18.85
67.50°	10.35	11.34
70.00°	5.96	4.82
72.50°	2.41	2.76
75.00°	1.54	1.13
77.50°	0.88	0.95
80.00°	0.76	0.76
82.50°	0.63	0.57
85.00°	0.51	0.44
87.50°	0.42	0.45
90.00°	0.39	0.43
92.50°	0.35	0.36
95.00°	0.29	0.32
97.50°	0.25	0.32
100.00°	0.24	0.30
102.50°	0.23	0.27
105.00°	0.22	0.24
107.50°	0.26	0.22
110.00°	0.33	0.21
112.50°	0.36	0.20

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	1208	1208	1208	1208	1180	1180	1180	1180	1127	1127	1127	1078	1078	1078	1034	1034	1013
	1	1135	1100	1069	1040	1109	1078	1049	1023	1035	1012	991	997	978	961	961	946	927
	2	1058	994	942	898	1033	976	928	888	941	902	867	910	877	848	880	853	836
	3	983	899	834	782	960	884	823	775	855	804	762	828	785	749	804	768	752
	4	913	814	742	686	892	801	734	682	777	719	673	755	705	664	734	691	677
	5	849	740	664	607	829	729	658	604	709	646	598	690	635	592	672	624	612
	6	790	675	597	541	773	666	592	539	648	583	535	632	575	530	617	566	555
	7	737	618	540	486	721	610	537	484	595	529	481	582	522	478	569	516	506
	8	689	568	492	439	675	561	489	438	549	483	436	537	477	433	526	471	463
	9	646	524	450	399	633	519	447	398	508	442	396	497	438	395	487	433	425
	10	607	486	413	365	595	481	411	364	471	407	363	462	403	361	454	399	393

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	17.1 fc	5.9 ft
6.5 ft	12.3 fc	7.0 ft
7.5 ft	9.2 fc	8.0 ft
8.0 ft	8.1 fc	8.6 ft
10.0 ft	5.2 fc	10.7 ft
12.0 ft	3.6 fc	12.8 ft
14.0 ft	2.6 fc	15.0 ft
16.0 ft	2.0 fc	17.1 ft
20.0 ft	1.3 fc	21.4 ft
24.0 ft	0.9 fc	25.7 ft
28.0 ft	0.7 fc	29.9 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	5187	5187	5187
45.00°	4029	4036	4043
55.00°	2240	2236	2232
65.00°	522	503	484
75.00°	59	56	52
85.00°	58	56	55

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	11.1	12.4	11.4	12.7	13.0	11.3	12.6	11.6	12.9	13.2
	3H	11.0	12.2	11.4	12.5	12.9	11.2	12.4	11.6	12.7	13.1
	4H	10.9	12.0	11.3	12.4	12.8	11.1	12.2	11.5	12.6	13.0
	6H	10.8	11.8	11.3	12.2	12.6	11.0	12.1	11.5	12.4	12.8
	8H	10.8	11.8	11.2	12.1	12.6	11.0	12.0	11.4	12.4	12.8
	12H	10.8	11.7	11.2	12.1	12.5	11.0	11.9	11.4	12.3	12.7
4H	2H	11.0	12.1	11.4	12.4	12.8	11.2	12.3	11.6	12.6	13.0
	3H	10.9	11.8	11.3	12.2	12.6	11.1	12.0	11.5	12.4	12.8
	4H	10.8	11.6	11.3	12.0	12.5	11.0	11.8	11.4	12.2	12.7
	6H	10.7	11.4	11.2	11.9	12.3	10.9	11.6	11.4	12.1	12.5
	8H	10.7	11.3	11.2	11.8	12.2	10.9	11.5	11.3	12.0	12.4
	12H	10.6	11.2	11.1	11.7	12.2	10.8	11.4	11.3	11.9	12.3
8H	4H	10.7	11.3	11.2	11.8	12.2	10.9	11.5	11.3	12.0	12.4
	6H	10.6	11.1	11.1	11.6	12.1	10.8	11.3	11.3	11.8	12.3
	8H	10.5	11.0	11.0	11.5	12.0	10.7	11.2	11.2	11.7	12.2
	12H	10.5	10.9	11.0	11.4	12.0	10.7	11.1	11.2	11.6	12.1
12H	4H	10.6	11.2	11.1	11.7	12.2	10.8	11.4	11.3	11.9	12.3
	6H	10.5	11.0	11.1	11.5	12.0	10.7	11.2	11.2	11.6	12.2
	8H	10.5	10.9	11.0	11.4	12.0	10.7	11.1	11.2	11.6	12.1

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0