

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

SGE14LEDOS 10L 35K XX AR1423OS MW SO
Nom 14 inch diam, AR1423 trim, MW interior finish, Solite lens

Test Number

SP-01198_1_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	1040
Efficacy	119.52 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	1.23
Two luminaires, plane 90°	1.23
Four luminaires	1.26

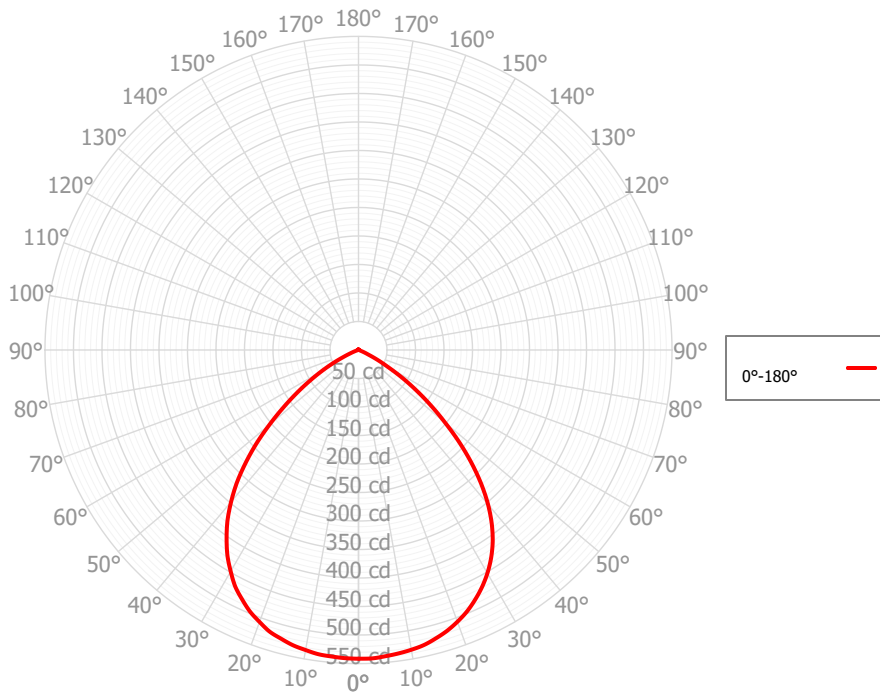
Full Beam Angle

0° - 180°	91°
90° - 270°	N/A°

IES File Header Contents

Keyword	Value
TEST	SP-01198_1_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 SO
LUMINAIRE	Nom 14 inch diam, AR1423 trim, MW interior finish, Solite lens
OTHER	Beam angle: 91.2 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°	52.13	5.01%	90.00° - 100.00°	0.32	0.03%
10.00° - 20.00°	147.81	14.22%	100.00° - 110.00°	0.30	0.03%
20.00° - 30.00°	222.08	21.36%	100.00° - 120.00°	0.63	0.06%
30.00° - 40.00°	252.70	24.30%	120.00° - 130.00°	0.36	0.03%
40.00° - 50.00°	213.91	20.57%	130.00° - 140.00°	0.27	0.03%
50.00° - 60.00°	116.23	11.18%	140.00° - 150.00°	0.26	0.02%
60.00° - 70.00°	29.19	2.81%	150.00° - 160.00°	0.21	0.02%
70.00° - 80.00°	2.83	0.27%	160.00° - 170.00°	0.14	0.01%
80.00° - 90.00°	0.71	0.07%	170.00° - 180.00°	0.05	0.00%
0.00° - 90.00°	1037.59	99.78%	0.00° - 180.00°	1039.83	100.00%

Candela Distribution

	0.00°	180.00°
0.00°	541.58	541.58
2.50°	541.60	541.15
5.00°	539.33	539.79
7.50°	536.92	538.31
10.00°	533.99	534.52
12.50°	530.18	530.59
15.00°	523.83	524.45
17.50°	516.60	518.11
20.00°	507.36	507.68
22.50°	496.74	496.91
25.00°	483.66	482.91
27.50°	469.07	468.09
30.00°	452.27	448.46
32.50°	432.92	427.89
35.00°	410.52	403.44
37.50°	384.01	377.64
40.00°	353.52	347.70
42.50°	318.70	315.98
45.00°	280.49	279.95
47.50°	240.13	242.87
50.00°	198.37	203.81
52.50°	160.49	166.97
55.00°	124.61	133.50
57.50°	91.64	102.82
60.00°	59.86	75.64
62.50°	37.82	51.30
65.00°	18.91	29.85
67.50°	10.47	16.24
70.00°	4.48	9.09
72.50°	2.68	4.78
75.00°	1.55	2.40
77.50°	1.11	1.40
80.00°	0.74	1.14
82.50°	0.62	0.96
85.00°	0.51	0.83
87.50°	0.45	0.58
90.00°	0.40	0.29
92.50°	0.34	0.27
95.00°	0.28	0.32
97.50°	0.25	0.27
100.00°	0.24	0.21
102.50°	0.32	0.23
105.00°	0.37	0.26
107.50°	0.30	0.26
110.00°	0.28	0.26
112.50°	0.39	0.25

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	1237	1237	1237	1237	1208	1208	1208	1208	1154	1154	1154	1105	1105	1105	1059	1059	1038
	1	1163	1127	1095	1066	1136	1104	1075	1048	1060	1037	1015	1021	1002	984	984	969	949
	2	1083	1019	965	920	1058	1000	951	909	964	924	888	932	898	869	902	874	856
	3	1007	921	854	801	984	905	844	794	876	824	781	849	805	768	824	787	770
	4	936	835	760	704	914	822	753	699	797	737	690	774	723	681	753	709	695
	5	870	759	681	623	851	748	675	620	727	663	614	708	652	608	690	641	628
	6	811	693	613	556	793	683	609	554	666	599	550	649	590	545	634	582	571
	7	757	635	556	500	740	627	552	498	612	544	495	598	537	492	584	530	520
	8	708	584	506	452	693	577	503	451	564	497	449	552	491	446	541	485	477
	9	664	539	463	412	650	534	461	411	522	456	409	512	451	407	502	446	438
	10	624	500	426	377	612	495	424	376	485	420	374	476	416	373	467	412	405

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	17.9 fc	5.6 ft
6.5 ft	12.8 fc	6.6 ft
7.5 ft	9.6 fc	7.7 ft
8.0 ft	8.5 fc	8.2 ft
10.0 ft	5.4 fc	10.2 ft
12.0 ft	3.8 fc	12.3 ft
14.0 ft	2.8 fc	14.3 ft
16.0 ft	2.1 fc	16.3 ft
20.0 ft	1.4 fc	20.4 ft
24.0 ft	0.9 fc	24.5 ft
28.0 ft	0.7 fc	28.6 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	5422	5422	5422
45.00°	3971	3969	3968
55.00°	2175	2214	2253
65.00°	448	513	578
75.00°	60	68	76
85.00°	58	68	77

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	11.3	12.7	11.7	13.0	13.3	11.7	13.1	12.1	13.4	13.7
	3H	11.2	12.4	11.6	12.8	13.1	11.7	12.9	12.1	13.2	13.6
	4H	11.2	12.3	11.6	12.6	13.0	11.6	12.7	12.0	13.1	13.5
	6H	11.1	12.1	11.5	12.5	12.9	11.6	12.6	12.0	12.9	13.3
	8H	11.1	12.0	11.5	12.4	12.8	11.5	12.5	11.9	12.9	13.3
	12H	11.0	11.9	11.4	12.3	12.7	11.5	12.4	11.9	12.8	13.2
4H	2H	11.2	12.3	11.6	12.7	13.1	11.7	12.8	12.1	13.1	13.5
	3H	11.2	12.0	11.6	12.4	12.9	11.7	12.5	12.1	12.9	13.4
	4H	11.1	11.9	11.5	12.3	12.7	11.6	12.4	12.0	12.8	13.2
	6H	11.0	11.7	11.5	12.1	12.6	11.5	12.2	12.0	12.6	13.1
	8H	10.9	11.6	11.4	12.0	12.5	11.4	12.1	11.9	12.5	13.0
	12H	10.9	11.4	11.4	11.9	12.4	11.4	11.9	11.9	12.4	12.9
8H	4H	10.9	11.6	11.4	12.0	12.5	11.4	12.1	11.9	12.5	13.0
	6H	10.8	11.3	11.3	11.8	12.3	11.3	11.9	11.8	12.4	12.8
	8H	10.8	11.2	11.3	11.8	12.3	11.3	11.7	11.8	12.3	12.8
	12H	10.7	11.1	11.2	11.6	12.2	11.2	11.6	11.7	12.1	12.7
12H	4H	10.9	11.4	11.4	11.9	12.4	11.4	11.9	11.9	12.4	12.9
	6H	10.8	11.2	11.3	11.7	12.3	11.3	11.7	11.8	12.2	12.8
	8H	10.7	11.1	11.2	11.6	12.2	11.2	11.6	11.7	12.1	12.7

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0