Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

ME1314DGV 15L 35K EX TF2

Espresso Downlight Pendant with regressed 3 inch domed diffuser

Test Number

SP-00255_53_M-15L

Test Date

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

Summary of Results

Power

Input Watts	10 W

Lumen Output

Output Lumens	1135
Efficacy	113.54 lm/W

Luminous Dimensions

0° - 180° Size	-1.16
90° - 270° Size	-1.16
Height	0

Spacing Criterion

Two luminaires, plane 0°	1.37
Two luminaires, plane 90°	1.37
Four luminaires	1.33

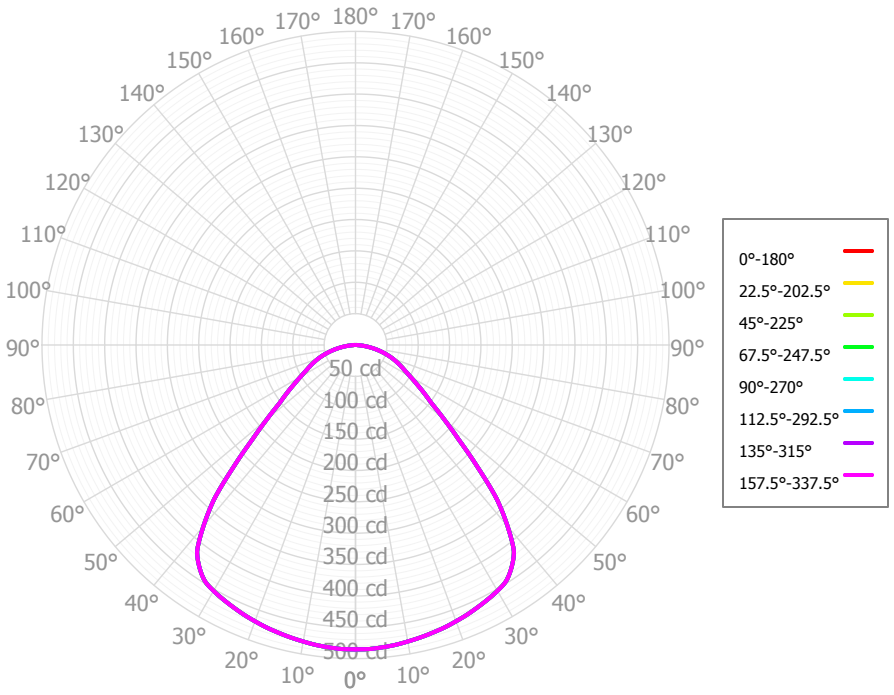
Full Beam Angle

0° - 180°	93°
90° - 270°	93°

IES File Header Contents

Keyword	Value
TEST	SP-00255_53_M-15L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
ISSUEDATE	4/1/2019
UPDATE	5/31/2019
LUMCAT	ME1314DGV 15L 35K EX TF2
LUMINAIRE	Espresso Downlight Pendant with regressed 3 inch domed diffuser
LAMPCAT	N/A
LAMP	N/A
OTHER	Beam Angle: 93.2 degrees
OTHER	CCT Output Multipliers: 27K x 0.97, 30K x 0.98, 40K x 1.03
OTHER	Total luminaire wattages is approximate
OTHER	This report prepared by Spectrum Lighting, scaled from 55L

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	46.79	4.12%	90.00° - 100.00°	0.36	0.03%
10.00° - 20.00°	134.40	11.84%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	213.17	18.78%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	267.51	23.56%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	212.94	18.76%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	121.46	10.70%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	79.82	7.03%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	46.97	4.14%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	11.96	1.05%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	1,135.03	99.97%	0.00° - 180.00°	1,135.38	100.00%

Candela Distribution

	0.00°	22.50°	45.00°	67.50°	90.00°	112.50°	135.00°	157.50°	180.00°	202.50°	225.00°	247.50°	270.00°	292.50°	315.00°	337.50°	360.00°
0.00°	485.42	485.42	485.42	485.42	485.42	485.42	485.42	485.42	485.42	485.42	485.42	485.42	485.42	485.42	485.42	485.42	485.42
2.50°	485.42	485.42	485.42	485.42	485.42	485.42	485.42	485.42	485.42	485.42	485.42	485.42	485.42	485.42	485.42	485.42	485.42
5.00°	484.07	484.07	484.07	484.07	484.07	484.07	484.07	484.07	484.07	484.07	484.07	484.07	484.07	484.07	484.07	484.07	484.07
7.50°	482.54	482.54	482.54	482.54	482.54	482.54	482.54	482.54	482.54	482.54	482.54	482.54	482.54	482.54	482.54	482.54	482.54
10.00°	480.18	480.18	480.18	480.18	480.18	480.18	480.18	480.18	480.18	480.18	480.18	480.18	480.18	480.18	480.18	480.18	480.18
12.50°	477.77	477.77	477.77	477.77	477.77	477.77	477.77	477.77	477.77	477.77	477.77	477.77	477.77	477.77	477.77	477.77	477.77
15.00°	475.06	475.06	475.06	475.06	475.06	475.06	475.06	475.06	475.06	475.06	475.06	475.06	475.06	475.06	475.06	475.06	475.06
17.50°	472.32	472.32	472.32	472.32	472.32	472.32	472.32	472.32	472.32	472.32	472.32	472.32	472.32	472.32	472.32	472.32	472.32
20.00°	468.90	468.90	468.90	468.90	468.90	468.90	468.90	468.90	468.90	468.90	468.90	468.90	468.90	468.90	468.90	468.90	468.90
22.50°	465.42	465.42	465.42	465.42	465.42	465.42	465.42	465.42	465.42	465.42	465.42	465.42	465.42	465.42	465.42	465.42	465.42
25.00°	461.38	461.38	461.38	461.38	461.38	461.38	461.38	461.38	461.38	461.38	461.38	461.38	461.38	461.38	461.38	461.38	461.38
27.50°	457.28	457.28	457.28	457.28	457.28	457.28	457.28	457.28	457.28	457.28	457.28	457.28	457.28	457.28	457.28	457.28	457.28
30.00°	452.77	452.77	452.77	452.77	452.77	452.77	452.77	452.77	452.77	452.77	452.77	452.77	452.77	452.77	452.77	452.77	452.77
32.50°	446.70	446.70	446.70	446.70	446.70	446.70	446.70	446.70	446.70	446.70	446.70	446.70	446.70	446.70	446.70	446.70	446.70
35.00°	433.69	433.69	433.69	433.69	433.69	433.69	433.69	433.69	433.69	433.69	433.69	433.69	433.69	433.69	433.69	433.69	433.69
37.50°	414.93	414.93	414.93	414.93	414.93	414.93	414.93	414.93	414.93	414.93	414.93	414.93	414.93	414.93	414.93	414.93	414.93
40.00°	377.40	377.40	377.40	377.40	377.40	377.40	377.40	377.40	377.40	377.40	377.40	377.40	377.40	377.40	377.40	377.40	377.40
42.50°	333.85	333.85	333.85	333.85	333.85	333.85	333.85	333.85	333.85	333.85	333.85	333.85	333.85	333.85	333.85	333.85	333.85
45.00°	275.20	275.20	275.20	275.20	275.20	275.20	275.20	275.20	275.20	275.20	275.20	275.20	275.20	275.20	275.20	275.20	275.20
47.50°	223.26	223.26	223.26	223.26	223.26	223.26	223.26	223.26	223.26	223.26	223.26	223.26	223.26	223.26	223.26	223.26	223.26
50.00°	184.72	184.72	184.72	184.72	184.72	184.72	184.72	184.72	184.72	184.72	184.72	184.72	184.72	184.72	184.72	184.72	184.72
52.50°	153.33	153.33	153.33	153.33	153.33	153.33	153.33	153.33	153.33	153.33	153.33	153.33	153.33	153.33	153.33	153.33	153.33
55.00°	133.38	133.38	133.38	133.38	133.38	133.38	133.38	133.38	133.38	133.38	133.38	133.38	133.38	133.38	133.38	133.38	133.38
57.50°	115.75	115.75	115.75	115.75	115.75	115.75	115.75	115.75	115.75	115.75	115.75	115.75	115.75	115.75	115.75	115.75	115.75
60.00°	101.12	101.12	101.12	101.12	101.12	101.12	101.12	101.12	101.12	101.12	101.12	101.12	101.12	101.12	101.12	101.12	101.12
62.50°	89.24	89.24	89.24	89.24	89.24	89.24	89.24	89.24	89.24	89.24	89.24	89.24	89.24	89.24	89.24	89.24	89.24
65.00°	80.18	80.18	80.18	80.18	80.18	80.18	80.18	80.18	80.18	80.18	80.18	80.18	80.18	80.18	80.18	80.18	80.18
67.50°	71.44	71.44	71.44	71.44	71.44	71.44	71.44	71.44	71.44	71.44	71.44	71.44	71.44	71.44	71.44	71.44	71.44
70.00°	62.89	62.89	62.89	62.89	62.89	62.89	62.89	62.89	62.89	62.89	62.89	62.89	62.89	62.89	62.89	62.89	62.89
72.50°	53.73	53.73	53.73	53.73	53.73	53.73	53.73	53.73	53.73	53.73	53.73	53.73	53.73	53.73	53.73	53.73	53.73
75.00°	44.55	44.55	44.55	44.55	44.55	44.55	44.55	44.55	44.55	44.55	44.55	44.55	44.55	44.55	44.55	44.55	44.55
77.50°	35.40	35.40	35.40	35.40	35.40	35.40	35.40	35.40	35.40	35.40	35.40	35.40	35.40	35.40	35.40	35.40	35.40
80.00°	26.31	26.31	26.31	26.31	26.31	26.31	26.31	26.31	26.31	26.31	26.31	26.31	26.31	26.31	26.31	26.31	26.31
82.50°	17.51	17.51	17.51	17.51	17.51	17.51	17.51	17.51	17.51	17.51	17.51	17.51	17.51	17.51	17.51	17.51	17.51
85.00°	9.38	9.38	9.38	9.38	9.38	9.38	9.38	9.38	9.38	9.38	9.38	9.38	9.38	9.38	9.38	9.38	9.38
87.50°	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67
90.00°	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60
92.50°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.00°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
97.50°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
102.50°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.00°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
107.50°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110.00°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
112.50°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

	ρfc	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	0%
	ρcc	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	10%	0%
	ρw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	30%
	0	1,352	1,352	1,352	1,352	1,320	1,320	1,320	1,320	1,261	1,261	1,261	1,208	1,208	1,208	1,158	1,158	1,158	1,135
	1	1,253	1,206	1,164	1,126	1,223	1,181	1,143	1,108	1,133	1,102	1,073	1,089	1,064	1,041	1,049	1,029	1,010	1,007
	2	1,155	1,073	1,006	949	1,126	1,052	990	938	1,013	961	916	977	933	896	943	908	876	888
	3	1,065	959	877	812	1,038	942	866	805	909	844	791	879	824	778	851	804	765	787
	4	984	862	773	705	960	848	764	700	820	748	691	795	732	682	771	717	673	702
RCR	5	912	780	687	619	889	767	680	615	744	668	609	723	655	603	702	644	597	631
	6	847	708	615	548	827	698	610	546	678	600	542	660	590	537	643	581	533	570
	7	789	647	555	490	770	638	551	489	621	543	485	605	535	482	591	527	479	517
	8	737	594	503	441	720	586	500	440	571	493	438	558	487	435	545	481	433	472
	9	690	547	459	400	675	540	456	399	528	451	397	516	446	395	505	441	393	433
	10	648	506	421	365	634	500	419	364	489	414	362	479	410	361	469	406	360	399

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	16.0 fc	11.6 ft
6.5 ft	11.5 fc	13.7 ft
7.5 ft	8.6 fc	15.8 ft
8.0 ft	7.6 fc	16.9 ft
10.0 ft	4.9 fc	21.1 ft
12.0 ft	3.4 fc	25.3 ft
14.0 ft	2.5 fc	29.6 ft
16.0 ft	1.9 fc	33.8 ft
20.0 ft	1.2 fc	42.2 ft
24.0 ft	0.8 fc	50.7 ft
28.0 ft	0.6 fc	59.1 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	4,944	4,944	4,944
45.00°	3,964	3,964	3,964
55.00°	2,368	2,368	2,368
65.00°	1,932	1,932	1,932
75.00°	1,753	1,753	1,753
85.00°	1,096	1,096	1,096

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	12.6	14.0	13.0	14.4	14.7	12.6	14.0	13.0	14.4	14.7
	3H	14.2	15.5	14.6	15.9	16.2	14.2	15.5	14.6	15.9	16.2
	4H	14.9	16.1	15.3	16.5	16.8	14.9	16.1	15.3	16.5	16.8
	6H	15.4	16.5	15.8	16.8	17.2	15.4	16.5	15.8	16.8	17.2
	8H	15.5	16.6	15.9	16.9	17.3	15.5	16.6	15.9	16.9	17.3
	12H	15.6	16.6	16.0	17.0	17.4	15.6	16.6	16.0	17.0	17.4
4H	2H	13.1	14.3	13.5	14.7	15.1	13.1	14.3	13.5	14.7	15.1
	3H	15.0	16.0	15.4	16.4	16.8	15.0	16.0	15.4	16.4	16.8
	4H	15.8	16.7	16.2	17.1	17.6	15.8	16.7	16.2	17.1	17.6
	6H	16.4	17.2	16.8	17.6	18.1	16.4	17.2	16.8	17.6	18.1
	8H	16.6	17.3	17.0	17.7	18.2	16.6	17.3	17.0	17.7	18.2
	12H	16.7	17.3	17.1	17.8	18.3	16.7	17.3	17.1	17.8	18.3
8H	4H	16.1	16.8	16.5	17.3	17.7	16.1	16.8	16.5	17.3	17.7
	6H	16.8	17.4	17.3	17.9	18.4	16.8	17.4	17.3	17.9	18.4
	8H	17.0	17.6	17.5	18.1	18.6	17.0	17.6	17.5	18.1	18.6
	12H	17.2	17.7	17.7	18.1	18.7	17.2	17.7	17.7	18.1	18.7
12H	4H	16.1	16.8	16.6	17.2	17.7	16.1	16.8	16.6	17.2	17.7
	6H	16.8	17.4	17.4	17.8	18.4	16.8	17.4	17.4	17.8	18.4
	8H	17.1	17.6	17.6	18.1	18.6	17.1	17.6	17.6	18.1	18.6

Corrected UGR values based on total output lumens

SHR = 1.0