

## **Indoor Distribution Test Report**

# **Spectrum Lighting Inc.**

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## **Spectrum Lighting Photometric Lab**

### **Luminaire**

ME1314UDGV 27LGL 27LTF2 35KEX MWI  
Indirect/direct Espresso

### **Test Number**

SP-00255\_56

### **Test Date**

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

### Summary of Results

#### Power

Input Watts	36 W
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#### Lumen Output

Output Lumens	3774
Efficacy	104.83 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

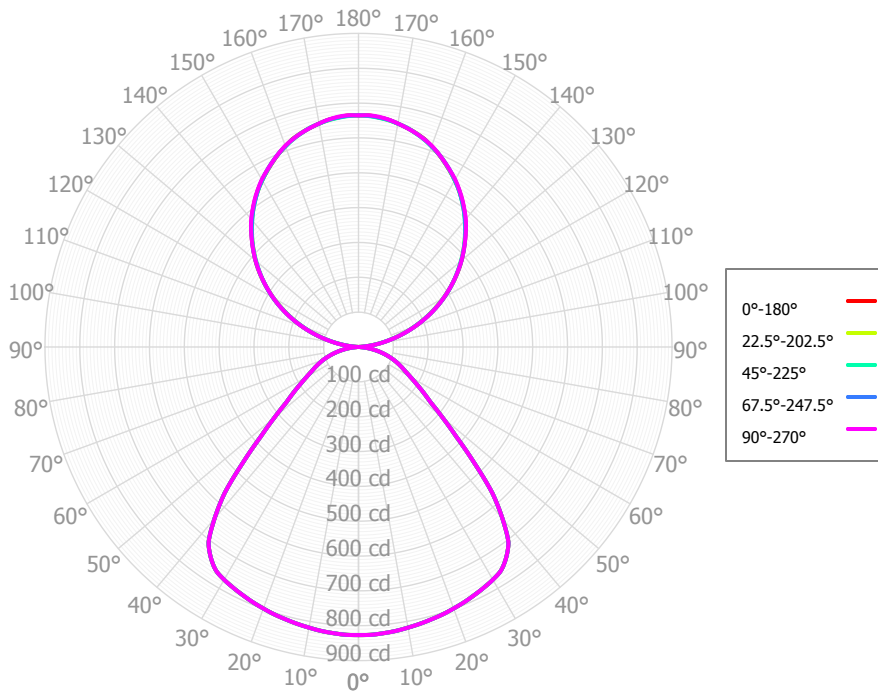
#### Full Beam Angle

0° - 180°	266°
90° - 270°	266°

### IES File Header Contents

Keyword	Value
TEST	SP-00255_56
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
ISSUEDATE	5/6/2019
UPDATE	6/11/2019
LUMCAT	ME1314UDGV 27LGL 27LTF2 35KEX MWI
LUMINAIRE	Indirect/direct Espresso
LAMPCAT	N/A
LAMP	Indirect/direct source: 27L GV board / 27L GV board
OTHER	Uplight: 90 degree beam angle
OTHER	Uplight: Flush clear glass lens
OTHER	Downlight: 93.2 degree beam angle
OTHER	Downlight: Regressed 3 inch domed diffuser
OTHER	CCT Output Multipliers: 27K x 0.97, 30K x 0.98, 40K x 1.03, 50K x 1.06
OTHER	Total luminaire watts 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°	82.44	2.18%	90.00° - 100.00°	24.85	0.66%
10.00° - 20.00°	228.98	6.06%	100.00° - 110.00°	123.14	3.26%
20.00° - 30.00°	363.18	9.61%	100.00° - 120.00°	348.02	9.21%
30.00° - 40.00°	455.76	12.06%	120.00° - 130.00°	299.19	7.92%
40.00° - 50.00°	362.79	9.60%	130.00° - 140.00°	332.72	8.80%
50.00° - 60.00°	206.93	5.48%	140.00° - 150.00°	322.96	8.55%
60.00° - 70.00°	135.99	3.60%	150.00° - 160.00°	269.57	7.13%
70.00° - 80.00°	80.02	2.12%	160.00° - 170.00°	179.15	4.74%
80.00° - 90.00°	20.38	0.54%	170.00° - 180.00°	65.96	1.75%
0.00° - 90.00°	1,936.47	51.24%	0.00° - 180.00°	3,778.89	100.00%

### Candela Distribution

	0.00°	22.50°	45.00°	67.50°	90.00°
0.00°	827.02	827.02	827.02	827.02	827.02
2.50°	827.02	827.02	827.02	827.02	827.02
5.00°	824.72	824.72	824.72	824.72	824.72
7.50°	822.10	822.10	822.10	822.10	822.10
10.00°	818.09	818.09	818.09	818.09	818.09
12.50°	813.97	813.97	813.97	813.97	813.97
15.00°	809.36	809.36	809.36	809.36	809.36
17.50°	804.70	804.70	804.70	804.70	804.70
20.00°	798.86	798.86	798.86	798.86	798.86
22.50°	792.94	792.94	792.94	792.94	792.94
25.00°	786.06	786.06	786.06	786.06	786.06
27.50°	779.07	779.07	779.07	779.07	779.07
30.00°	771.38	771.38	771.38	771.38	771.38
32.50°	761.05	761.05	761.05	761.05	761.05
35.00°	738.88	738.88	738.88	738.88	738.88
37.50°	706.93	706.93	706.93	706.93	706.93
40.00°	642.97	642.97	642.97	642.97	642.97
42.50°	568.78	568.78	568.78	568.78	568.78
45.00°	468.86	468.86	468.86	468.86	468.86
47.50°	380.36	380.36	380.36	380.36	380.36
50.00°	314.70	314.70	314.70	314.70	314.70
52.50°	261.23	261.23	261.23	261.23	261.23
55.00°	227.24	227.24	227.24	227.24	227.24
57.50°	197.20	197.20	197.20	197.20	197.20
60.00°	172.29	172.29	172.29	172.29	172.29
62.50°	152.04	152.04	152.04	152.04	152.04
65.00°	136.60	136.60	136.60	136.60	136.60
67.50°	121.72	121.72	121.72	121.72	121.72
70.00°	107.15	107.15	107.15	107.15	107.15
72.50°	91.54	91.54	91.54	91.54	91.54
75.00°	75.90	75.90	75.90	75.90	75.90
77.50°	60.31	60.31	60.31	60.31	60.31
80.00°	44.82	44.82	44.82	44.82	44.82
82.50°	29.84	29.84	29.84	29.84	29.84
85.00°	15.98	15.98	15.98	15.98	15.98
87.50°	4.55	4.55	4.55	4.55	4.55
90.00°	4.43	4.43	4.43	4.43	4.43
92.50°	0.00	0.00	0.00	0.00	1.31
95.00°	19.50	18.13	15.79	17.87	16.59
97.50°	41.10	38.68	38.38	40.50	41.25
100.00°	64.81	63.66	62.65	65.05	64.99
102.50°	89.75	89.02	88.58	89.63	90.35
105.00°	116.56	115.65	116.25	116.91	116.90
107.50°	144.35	143.33	143.38	145.31	144.18
110.00°	172.70	171.20	170.11	172.67	172.35
112.50°	200.27	198.74	198.83	200.83	200.54

### Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

<b>RCR</b>	<b>pfc</b>	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	0%
	<b>pcc</b>	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	0%
	<b>pw</b>	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	30%
	<b>0</b>	4,060	4,060	4,060	4,060	3,751	3,751	3,751	3,751	3,175	3,175	3,175	2,648	2,648	2,648	2,164	2,164	1,936
	<b>1</b>	3,732	3,579	3,442	3,318	3,446	3,316	3,199	3,092	2,824	2,740	2,663	2,371	2,313	2,259	1,954	1,916	1,719
	<b>2</b>	3,422	3,159	2,941	2,759	3,157	2,932	2,744	2,585	2,508	2,370	2,250	2,116	2,017	1,931	1,754	1,686	1,516
	<b>3</b>	3,139	2,801	2,539	2,330	2,896	2,605	2,377	2,193	2,237	2,065	1,924	1,896	1,771	1,666	1,579	1,491	1,344
	<b>4</b>	2,885	2,497	2,212	1,995	2,663	2,327	2,076	1,883	2,005	1,815	1,664	1,707	1,565	1,451	1,429	1,327	1,199
	<b>5</b>	2,658	2,238	1,944	1,727	2,454	2,089	1,829	1,634	1,807	1,606	1,452	1,544	1,393	1,274	1,300	1,189	1,077
	<b>6</b>	2,455	2,016	1,721	1,509	2,269	1,885	1,622	1,432	1,637	1,431	1,278	1,404	1,247	1,127	1,187	1,071	973
	<b>7</b>	2,275	1,826	1,535	1,331	2,104	1,710	1,449	1,264	1,489	1,284	1,134	1,283	1,124	1,005	1,090	970	884
	<b>8</b>	2,113	1,662	1,377	1,182	1,957	1,558	1,303	1,125	1,362	1,158	1,013	1,178	1,018	902	1,004	883	807
	<b>9</b>	1,970	1,519	1,243	1,057	1,826	1,427	1,178	1,008	1,251	1,051	910	1,085	927	814	929	808	740
	<b>10</b>	1,841	1,396	1,129	952	1,709	1,313	1,071	909	1,154	958	823	1,004	849	739	863	742	682

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	27.3 fc	0.0 ft
6.5 ft	19.6 fc	0.0 ft
7.5 ft	14.7 fc	0.0 ft
8.0 ft	12.9 fc	0.0 ft
10.0 ft	8.3 fc	0.0 ft
12.0 ft	5.7 fc	0.0 ft
14.0 ft	4.2 fc	0.0 ft
16.0 ft	3.2 fc	0.0 ft
20.0 ft	2.1 fc	0.0 ft
24.0 ft	1.4 fc	0.0 ft
28.0 ft	1.1 fc	0.0 ft

### Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
<b>0.00°</b>	8,423	8,423	8,423
<b>45.00°</b>	6,753	6,753	6,753
<b>55.00°</b>	4,035	4,035	4,035
<b>65.00°</b>	3,292	3,292	3,292
<b>75.00°</b>	2,987	2,987	2,987
<b>85.00°</b>	1,867	1,867	1,867

### 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>	10.6	11.4	11.6	12.4	13.6	10.6	11.4	11.6	12.4	13.6
	<b>3H</b>	12.2	12.9	13.2	13.9	15.2	12.2	12.9	13.2	13.9	15.2
	<b>4H</b>	12.8	13.5	13.8	14.5	15.8	12.8	13.5	13.8	14.5	15.8
	<b>6H</b>	13.3	13.9	14.3	14.9	16.2	13.3	13.9	14.3	14.9	16.2
	<b>8H</b>	13.4	14.0	14.4	15.0	16.3	13.4	14.0	14.4	15.0	16.3
	<b>12H</b>	13.4	14.0	14.4	15.0	16.3	13.4	14.0	14.4	15.0	16.3
<b>4H</b>	<b>2H</b>	11.1	11.7	12.0	12.7	14.0	11.1	11.7	12.0	12.7	14.0
	<b>3H</b>	12.9	13.5	13.9	14.5	15.8	12.9	13.5	13.9	14.5	15.8
	<b>4H</b>	13.7	14.2	14.7	15.2	16.5	13.7	14.2	14.7	15.2	16.5
	<b>6H</b>	14.2	14.7	15.2	15.7	17.0	14.2	14.7	15.2	15.7	17.0
	<b>8H</b>	14.4	14.8	15.4	15.8	17.2	14.4	14.8	15.4	15.8	17.2
	<b>12H</b>	14.5	14.8	15.5	15.9	17.2	14.5	14.8	15.5	15.9	17.2
<b>8H</b>	<b>4H</b>	13.9	14.3	14.9	15.3	16.7	13.9	14.3	14.9	15.3	16.7
	<b>6H</b>	14.6	14.9	15.6	16.0	17.3	14.6	14.9	15.6	16.0	17.3
	<b>8H</b>	14.8	15.1	15.9	16.2	17.5	14.8	15.1	15.9	16.2	17.5
	<b>12H</b>	15.0	15.2	16.0	16.3	17.7	15.0	15.2	16.0	16.3	17.7
<b>12H</b>	<b>4H</b>	13.9	14.3	14.9	15.3	16.7	13.9	14.3	14.9	15.3	16.7
	<b>6H</b>	14.6	14.9	15.7	16.0	17.3	14.6	14.9	15.7	16.0	17.3
	<b>8H</b>	14.9	15.2	15.9	16.2	17.6	14.9	15.2	15.9	16.2	17.6

Corrected UGR values based on total output lumens

SHR = 1.0