

## **Indoor Distribution Test Report**

# **Spectrum Lighting Inc.**

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## **Spectrum Lighting Photometric Lab**

### **Luminaire**

PJ1GV 27L 35K XX FJ1 MW

Nom 3" diam x 6" tall frosted glass jar Wallaston Series Subway luminaire

### **Test Number**

SP-01053

### **Test Date**

2/13/2020

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

### Summary of Results

#### Power

Input Watts	18 W
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#### Lumen Output

Output Lumens	1803
Efficacy	100.14 lm/W

#### Luminous Dimensions

0° - 180° Size	-0.34
90° - 270° Size	-0.34
Height	0.68

#### Spacing Criterion

Two luminaires, plane 0°	1.24
Two luminaires, plane 90°	1.24
Four luminaires	1.54

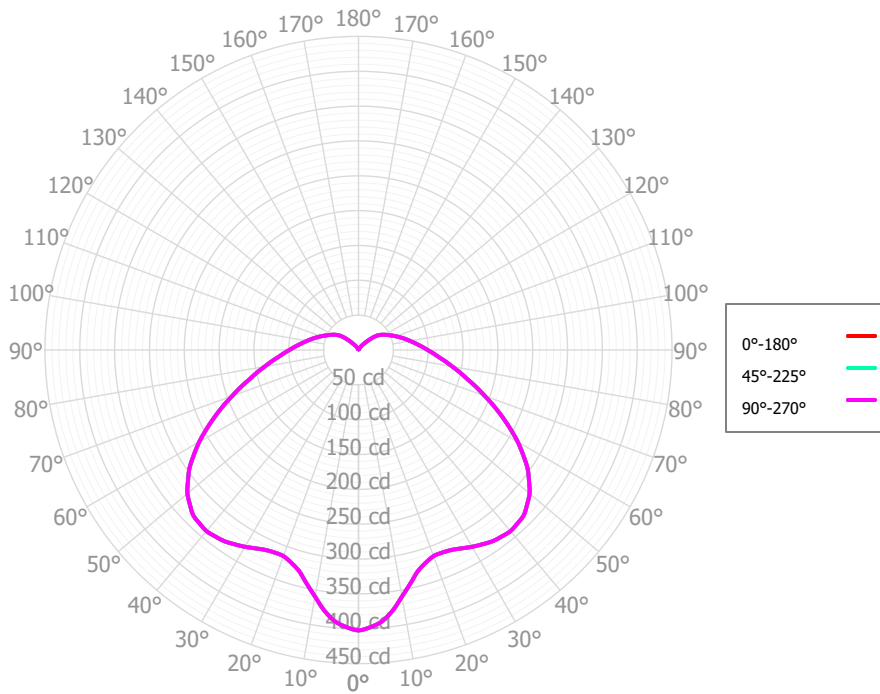
#### Full Beam Angle

0° - 180°	138°
90° - 270°	138°

### IES File Header Contents

Keyword	Value
TEST	SP-01053
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	2/13/2020
ISSUEDATE	2/17/2020
LUMCAT	PJ1GV 27L 35K XX FJ1 MW
LUMINAIRE	Nom 3" diam x 6" tall frosted glass jar Wallaston Series Subway luminaire
OTHER	Pendant mount
OTHER	Beam angle: 138 degrees
OTHER	Uplight 15%
OTHER	Downlight 85%
LAMP	27L GV
LAMPCAT	N/A
OTHER	This data is appropriate for a free-standing frosted glass jar
OTHER	CCT Output Multipliers: 27K x 0.97, 30K x 0.99, 40K x 1.03
OTHER	Total luminaire watts is approximate
OTHER	This report prepared by Spectrum Lighting
_CRI	80
_CCTMULT	27K x 0.97, 30K x 0.99, 40K x 1.03
_LAMPMULT	15L x 0.573

### Candela Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	37.75	2.09%	90.00° - 100.00°	94.38	5.23%
10.00° - 20.00°	93.43	5.18%	100.00° - 110.00°	69.87	3.87%
20.00° - 30.00°	147.44	8.18%	100.00° - 120.00°	119.80	6.64%
30.00° - 40.00°	209.98	11.64%	120.00° - 130.00°	33.51	1.86%
40.00° - 50.00°	257.46	14.28%	130.00° - 140.00°	14.96	0.83%
50.00° - 60.00°	263.40	14.60%	140.00° - 150.00°	4.42	0.25%
60.00° - 70.00°	225.96	12.53%	150.00° - 160.00°	1.00	0.06%
70.00° - 80.00°	172.39	9.56%	160.00° - 170.00°	0.35	0.02%
80.00° - 90.00°	127.16	7.05%	170.00° - 180.00°	0.12	0.01%
0.00° - 90.00°	1,534.98	85.11%	0.00° - 180.00°	1,803.52	100.00%

### Candela Distribution

	0.00°	45.00°	90.00°
0.00°	402.34	402.34	402.34
2.50°	398.13	398.13	398.13
5.00°	390.81	390.81	390.81
7.50°	377.09	377.09	377.09
10.00°	359.33	359.33	359.33
12.50°	343.52	343.52	343.52
15.00°	328.77	328.77	328.77
17.50°	320.37	320.37	320.37
20.00°	314.92	314.92	314.92
22.50°	314.73	314.73	314.73
25.00°	316.59	316.59	316.59
27.50°	320.96	320.96	320.96
30.00°	326.15	326.15	326.15
32.50°	330.74	330.74	330.74
35.00°	335.16	335.16	335.16
37.50°	337.47	337.47	337.47
40.00°	339.34	339.34	339.34
42.50°	337.68	337.68	337.68
45.00°	335.44	335.44	335.44
47.50°	328.28	328.28	328.28
50.00°	320.54	320.54	320.54
52.50°	308.55	308.55	308.55
55.00°	296.24	296.24	296.24
57.50°	280.19	280.19	280.19
60.00°	264.01	264.01	264.01
62.50°	246.01	246.01	246.01
65.00°	228.01	228.01	228.01
67.50°	210.43	210.43	210.43
70.00°	192.97	192.97	192.97
72.50°	177.24	177.24	177.24
75.00°	161.83	161.83	161.83
77.50°	149.08	149.08	149.08
80.00°	136.62	136.62	136.62
82.50°	125.88	125.88	125.88
85.00°	115.55	115.55	115.55
87.50°	107.20	107.20	107.20
90.00°	99.18	99.18	99.18
92.50°	92.45	92.45	92.45
95.00°	86.00	86.00	86.00
97.50°	80.39	80.39	80.39
100.00°	75.04	75.04	75.04
102.50°	70.39	70.39	70.39
105.00°	65.84	65.84	65.84
107.50°	61.51	61.51	61.51
110.00°	57.37	57.37	57.37
112.50°	53.58	53.58	53.58

### 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>	2,083	2,083	2,083	2,083	2,003	2,003	2,003	2,003	1,855	1,855	1,855	1,719	1,719	1,719	1,594	1,594	1,535
	<b>1</b>	1,845	1,737	1,640	1,552	1,766	1,669	1,581	1,502	1,541	1,470	1,404	1,423	1,366	1,313	1,315	1,270	1,218
	<b>2</b>	1,653	1,480	1,336	1,216	1,578	1,421	1,291	1,180	1,312	1,204	1,111	1,211	1,123	1,045	1,117	1,046	983
	<b>3</b>	1,492	1,278	1,112	981	1,421	1,228	1,076	954	1,134	1,007	902	1,047	941	853	966	879	804
	<b>4</b>	1,355	1,117	943	810	1,290	1,074	914	790	993	857	749	918	803	710	848	752	672
	<b>5</b>	1,238	987	812	682	1,178	950	788	666	880	741	634	815	696	602	754	653	571
	<b>6</b>	1,137	880	708	584	1,083	848	687	571	787	648	544	731	610	518	678	574	493
	<b>7</b>	1,049	791	624	507	1,000	763	607	496	710	573	473	661	541	452	614	510	430
	<b>8</b>	973	717	555	445	928	692	541	435	646	512	417	602	484	398	561	457	380
	<b>9</b>	905	653	499	394	865	632	486	386	591	461	370	552	437	355	516	414	339
	<b>10</b>	846	599	451	353	810	580	440	346	544	419	332	510	398	318	477	377	305

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	13.3 fc	28.4 ft
6.5 ft	9.5 fc	33.6 ft
7.5 ft	7.2 fc	38.7 ft
8.0 ft	6.3 fc	41.3 ft
10.0 ft	4.0 fc	51.6 ft
12.0 ft	2.8 fc	62.0 ft
14.0 ft	2.1 fc	72.3 ft
16.0 ft	1.6 fc	82.6 ft
20.0 ft	1.0 fc	103.3 ft
24.0 ft	0.7 fc	123.9 ft
28.0 ft	0.5 fc	144.6 ft

### Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
<b>0.00°</b>	47,700	47,700	47,700
<b>45.00°</b>	15,858	15,858	15,858
<b>55.00°</b>	13,206	13,206	13,206
<b>65.00°</b>	9,900	9,900	9,900
<b>75.00°</b>	7,057	7,057	7,057
<b>85.00°</b>	5,221	5,221	5,221

### 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	-	-	-	-	-	-	-	-	-	-
	3H	-	-	-	-	-	-	-	-	-	-
	4H	-	-	-	-	-	-	-	-	-	-
	6H	-	-	-	-	-	-	-	-	-	-
	8H	-	-	-	-	-	-	-	-	-	-
	12H	-	-	-	-	-	-	-	-	-	-
4H	2H	-	-	-	-	-	-	-	-	-	-
	3H	-	-	-	-	-	-	-	-	-	-
	4H	-	-	-	-	-	-	-	-	-	-
	6H	-	-	-	-	-	-	-	-	-	-
	8H	-	-	-	-	-	-	-	-	-	-
	12H	-	-	-	-	-	-	-	-	-	-
8H	4H	-	-	-	-	-	-	-	-	-	-
	6H	-	-	-	-	-	-	-	-	-	-
	8H	-	-	-	-	-	-	-	-	-	-
	12H	-	-	-	-	-	-	-	-	-	-
12H	4H	-	-	-	-	-	-	-	-	-	-
	6H	-	-	-	-	-	-	-	-	-	-
	8H	-	-	-	-	-	-	-	-	-	-

Corrected UGR values based on total output lumens

SHR = 1.0