

## **Indoor Distribution Test Report**

# **Spectrum Lighting Inc.**

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## **Spectrum Lighting Photometric Lab**

### **Luminaire**

NL1012GV 15L 35K XX FJ1 MW  
Nautical Light RLM with 12" diam reflector/canopy

### **Test Number**

SP-00939\_1\_M-15L

### **Test Date**

10/22/2019

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

### Summary of Results

#### Power

Input Watts	11 W
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#### Lumen Output

Output Lumens	1022
Efficacy	92.88 lm/W

#### Luminous Dimensions

0° - 180° Size	-1
90° - 270° Size	-1
Height	0.63

#### Spacing Criterion

Two luminaires, plane 0°	1.25
Two luminaires, plane 90°	1.25
Four luminaires	1.52

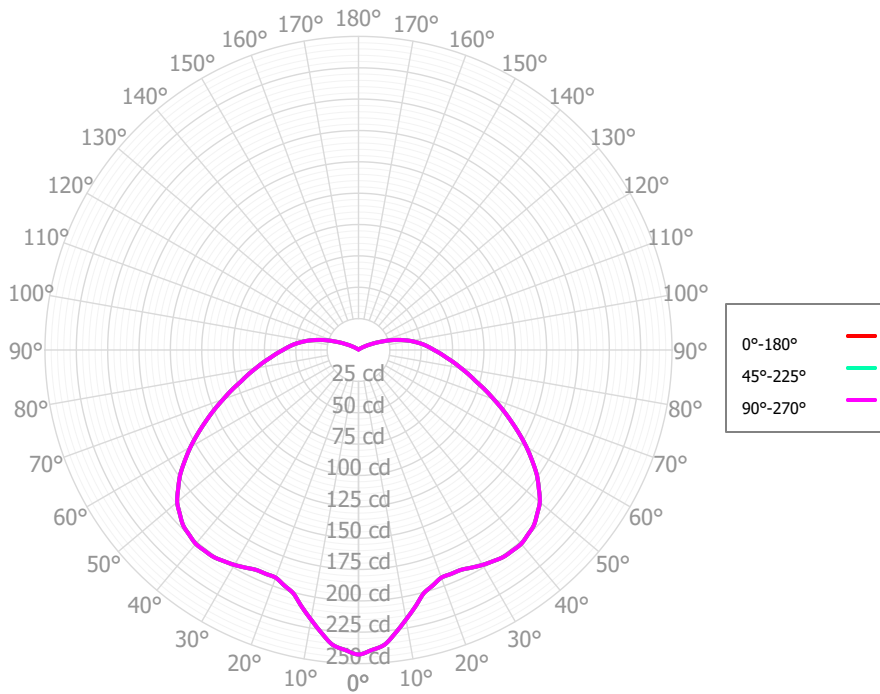
#### Full Beam Angle

0° - 180°	137°
90° - 270°	137°

### IES File Header Contents

Keyword	Value
TEST	SP-00939_1_M-15L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	10/22/2019
ISSUEDATE	2/20/2020
LUMCAT	NL1012GV 15L 35K XX FJ1 MW
LUMINAIRE	Nautical Light RLM with 12" diam reflector/canopy
OTHER	3" Frosted glass jar
OTHER	Beam angle: 136.9 degrees
LAMPCAT	N/A
LAMP	N/A
OTHER	CCT Output Multipliers: 27K x 0.971, 30K x 0.985, 40K x 1.03
OTHER	Total luminaire wattage is approximate
OTHER	This report prepared by Spectrum Lighting, scaled from 27L

### Candela Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	22.80	2.23%	90.00° - 100.00°	56.07	5.48%
10.00° - 20.00°	57.16	5.59%	100.00° - 110.00°	32.75	3.20%
20.00° - 30.00°	90.06	8.81%	100.00° - 120.00°	44.44	4.35%
30.00° - 40.00°	126.09	12.33%	120.00° - 130.00°	3.01	0.29%
40.00° - 50.00°	152.00	14.87%	130.00° - 140.00°	0.86	0.08%
50.00° - 60.00°	154.54	15.12%	140.00° - 150.00°	0.48	0.05%
60.00° - 70.00°	133.17	13.03%	150.00° - 160.00°	0.36	0.03%
70.00° - 80.00°	103.46	10.12%	160.00° - 170.00°	0.22	0.02%
80.00° - 90.00°	77.48	7.58%	170.00° - 180.00°	0.08	0.01%
0.00° - 90.00°	916.77	89.68%	0.00° - 180.00°	1,022.28	100.00%

### Candela Distribution

	0.00°	45.00°	90.00°
0.00°	242.81	242.81	242.81
2.50°	239.56	239.56	239.56
5.00°	236.03	236.03	236.03
7.50°	227.34	227.34	227.34
10.00°	218.22	218.22	218.22
12.50°	209.53	209.53	209.53
15.00°	200.88	200.88	200.88
17.50°	196.88	196.88	196.88
20.00°	193.20	193.20	193.20
22.50°	193.20	193.20	193.20
25.00°	193.44	193.44	193.44
27.50°	195.61	195.61	195.61
30.00°	197.89	197.89	197.89
32.50°	199.69	199.69	199.69
35.00°	201.46	201.46	201.46
37.50°	201.68	201.68	201.68
40.00°	201.81	201.81	201.81
42.50°	199.82	199.82	199.82
45.00°	197.73	197.73	197.73
47.50°	193.29	193.29	193.29
50.00°	188.77	188.77	188.77
52.50°	181.25	181.25	181.25
55.00°	173.62	173.62	173.62
57.50°	164.17	164.17	164.17
60.00°	154.66	154.66	154.66
62.50°	144.48	144.48	144.48
65.00°	134.28	134.28	134.28
67.50°	124.52	124.52	124.52
70.00°	114.77	114.77	114.77
72.50°	105.91	105.91	105.91
75.00°	97.05	97.05	97.05
77.50°	90.00	90.00	90.00
80.00°	82.97	82.97	82.97
82.50°	76.74	76.74	76.74
85.00°	70.52	70.52	70.52
87.50°	65.39	65.39	65.39
90.00°	60.26	60.26	60.26
92.50°	55.98	55.98	55.98
95.00°	51.69	51.69	51.69
97.50°	46.78	46.78	46.78
100.00°	41.86	41.86	41.86
102.50°	36.45	36.45	36.45
105.00°	31.03	31.03	31.03
107.50°	25.27	25.27	25.27
110.00°	19.55	19.55	19.55
112.50°	15.16	15.16	15.16

### 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%	20%	0%
	<b>pcc</b>	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	10%	0%
	<b>pw</b>	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	30%
	<b>0</b>	1,192	1,192	1,192	1,192	1,152	1,152	1,152	1,152	1,077	1,077	1,077	1,009	1,009	1,009	946	946	946	917
	<b>1</b>	1,054	992	935	885	1,014	957	906	860	893	852	813	834	801	769	780	753	728	727
	<b>2</b>	944	844	762	692	905	815	740	676	760	697	643	710	658	612	663	621	583	598
	<b>3</b>	852	729	634	558	816	704	617	546	657	583	523	614	552	500	574	522	478	503
	<b>4</b>	774	638	538	462	741	616	524	452	576	497	434	539	471	417	504	447	400	431
	<b>5</b>	707	564	463	389	677	545	452	382	511	430	368	479	409	354	449	389	340	374
	<b>6</b>	650	503	404	334	622	487	395	328	457	377	316	430	359	305	404	342	294	330
	<b>7</b>	600	453	357	290	575	439	349	285	413	334	276	389	319	266	366	304	257	294
	<b>8</b>	557	410	318	255	534	398	311	251	376	298	243	355	286	235	335	273	227	264
	<b>9</b>	519	374	286	226	498	364	280	223	344	269	216	325	258	210	308	247	203	239
	<b>10</b>	485	344	259	203	466	335	254	200	317	244	194	300	235	188	285	226	183	218

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	8.0 fc	27.6 ft
6.5 ft	5.7 fc	32.7 ft
7.5 ft	4.3 fc	37.7 ft
8.0 ft	3.8 fc	40.2 ft
10.0 ft	2.4 fc	50.3 ft
12.0 ft	1.7 fc	60.3 ft
14.0 ft	1.2 fc	70.4 ft
16.0 ft	0.9 fc	80.4 ft
20.0 ft	0.6 fc	100.5 ft
24.0 ft	0.4 fc	120.6 ft
28.0 ft	0.3 fc	140.7 ft

### Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	3,328	3,328	3,328
45.00°	2,127	2,127	2,127
55.00°	1,933	1,933	1,933
65.00°	1,601	1,601	1,601
75.00°	1,287	1,287	1,287
85.00°	1,091	1,091	1,091

### 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