

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

GPRF1200GV 37L 35K EX MW
Nom 12" Globe (Sphere) luminaire

Test Number

SP-00647_3_M-37L

Test Date

1/27/2020

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

Summary of Results

Power

Input Watts	26 W
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Lumen Output

Output Lumens	3079
Efficacy	118.4 lm/W

Luminous Dimensions

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

Spacing Criterion

Two luminaires, plane 0°	1.59
Two luminaires, plane 90°	1.56
Four luminaires	1.76

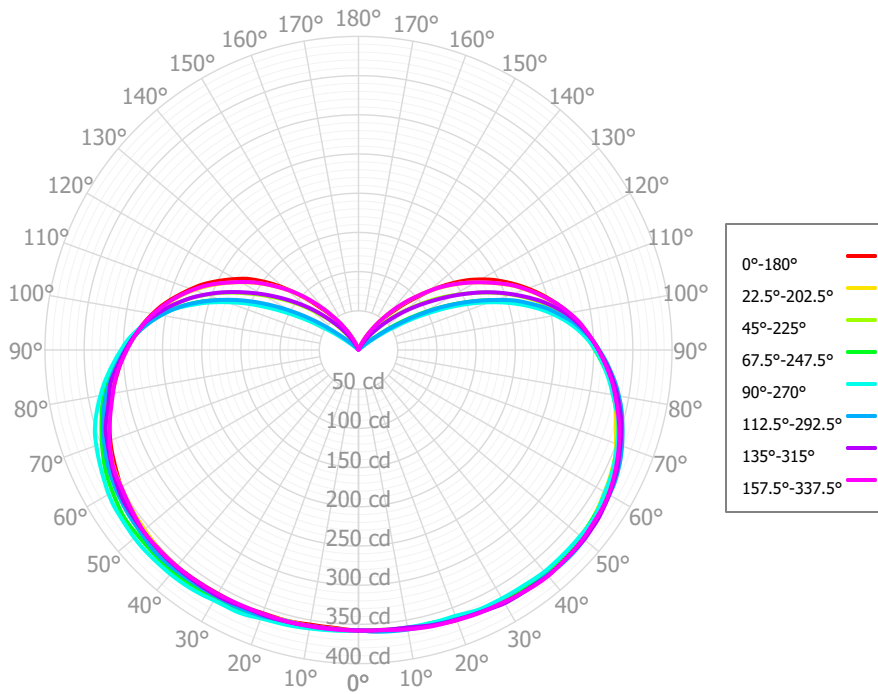
Full Beam Angle

0° - 180°	237°
90° - 270°	218°

IES File Header Contents

Keyword	Value
TEST	SP-00647_3_M-37L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	1/27/2020
ISSUEDATE	1/29/2020
LUMCAT	GPRF1200GV 37L 35K EX MW
LUMINAIRE	Nom 12" Globe (Sphere) luminaire
LAMPCAT	N/A
LAMP	N/A
OTHER	CCT Output Multipliers: 27K x 0.97, 30K x 0.99, 40K x 1.03
OTHER	Total luminaire wattage 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°	34.78	1.13%	90.00° - 100.00°	309.68	10.06%
10.00° - 20.00°	102.35	3.32%	100.00° - 110.00°	249.92	8.12%
20.00° - 30.00°	168.77	5.48%	100.00° - 120.00°	419.56	13.63%
30.00° - 40.00°	230.82	7.50%	120.00° - 130.00°	90.56	2.94%
40.00° - 50.00°	285.03	9.26%	130.00° - 140.00°	39.02	1.27%
50.00° - 60.00°	326.78	10.61%	140.00° - 150.00°	13.63	0.44%
60.00° - 70.00°	352.28	11.44%	150.00° - 160.00°	2.51	0.08%
70.00° - 80.00°	358.28	11.64%	160.00° - 170.00°	0.32	0.01%
80.00° - 90.00°	344.04	11.18%	170.00° - 180.00°	0.10	0.00%
0.00° - 90.00°	2,203.13	71.56%	0.00° - 180.00°	3,078.51	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°	357.92	357.92	357.92	357.92	357.92	357.92	357.92	357.92	357.92	357.92	357.92	357.92	357.92	357.92	357.92	357.92	357.92
2.50°	359.11	358.36	357.67	358.27	358.44	357.68	357.51	357.85	357.04	357.53	357.75	358.21	358.65	359.45	358.27	358.26	359.11
5.00°	359.87	358.78	358.42	358.85	359.08	357.61	357.16	357.84	355.83	356.85	358.29	358.71	359.30	360.67	358.45	358.76	359.87
7.50°	360.38	359.68	359.10	360.10	359.28	357.82	357.00	357.86	355.73	356.98	358.84	359.24	359.95	361.47	358.95	360.27	360.38
10.00°	360.92	360.69	359.75	361.20	359.43	358.09	357.20	357.89	355.73	357.31	359.21	359.76	360.69	362.17	359.60	361.78	360.92
12.50°	362.21	361.93	361.01	360.67	359.87	357.98	357.91	358.07	356.61	357.42	359.15	360.09	361.73	362.63	361.35	363.36	362.21
15.00°	363.52	363.01	362.39	360.42	360.35	357.79	358.55	358.25	357.36	357.50	359.33	360.48	362.64	363.30	363.54	364.81	363.52
17.50°	365.19	363.79	363.85	362.20	360.69	359.36	359.10	358.07	357.30	358.38	359.98	361.47	363.25	364.36	365.01	365.72	365.19
20.00°	366.72	364.70	365.33	363.92	361.02	361.23	359.26	357.90	357.40	359.38	360.50	362.50	364.38	365.66	366.24	366.74	366.72
22.50°	366.94	365.86	366.11	365.30	363.07	362.01	359.02	358.16	358.27	359.68	360.76	363.91	366.71	367.34	367.57	368.14	366.94
25.00°	367.50	367.22	366.83	366.59	365.11	362.65	359.65	358.44	358.95	359.92	361.01	365.20	368.26	368.88	368.92	369.38	367.50
27.50°	370.04	368.86	367.33	367.46	365.56	362.85	361.07	358.94	358.91	360.39	361.25	365.90	368.24	370.23	370.91	370.22	370.04
30.00°	372.06	369.78	367.83	368.22	366.00	363.00	361.71	359.42	358.98	360.88	361.71	366.55	368.86	371.72	373.02	371.28	372.06
32.50°	371.65	369.80	369.13	368.56	366.49	363.54	361.74	359.71	359.37	361.01	362.47	366.99	370.54	373.37	373.52	372.81	371.65
35.00°	371.66	369.78	370.41	369.05	367.04	364.09	361.71	360.02	359.77	361.13	363.15	367.55	371.88	374.12	373.75	374.28	371.66
37.50°	373.19	369.71	370.39	370.01	368.17	364.70	361.64	360.46	360.17	361.00	363.73	368.54	372.74	373.99	374.85	375.59	373.19
40.00°	374.20	370.10	370.38	370.62	369.17	365.30	361.53	360.76	360.33	360.86	364.05	369.16	373.29	374.68	376.04	376.22	374.20
42.50°	373.65	370.92	370.43	370.37	369.20	365.63	361.40	360.40	359.95	360.44	364.10	368.81	373.44	376.12	375.92	375.68	373.65
45.00°	373.08	371.30	370.43	370.38	369.23	365.84	360.76	360.04	359.42	359.89	363.58	368.42	373.56	376.74	375.72	375.25	373.08
47.50°	372.48	371.31	369.99	370.95	369.23	364.18	359.87	359.64	358.61	358.12	362.59	367.94	373.66	376.72	375.85	374.98	372.48
50.00°	371.75	370.70	369.53	370.74	369.26	362.59	358.94	358.73	357.39	356.39	361.66	367.70	373.13	375.79	376.00	374.20	371.75
52.50°	370.77	369.62	369.03	369.13	369.38	361.55	357.98	356.36	355.53	354.98	360.78	367.94	371.99	374.25	374.99	372.79	370.77
55.00°	369.32	367.66	368.24	367.80	368.79	360.42	357.10	353.99	353.78	353.46	358.89	367.18	370.98	372.72	373.94	371.57	369.32
57.50°	367.02	365.13	366.04	366.91	365.81	358.80	356.23	351.62	352.19	351.38	356.36	364.75	370.08	371.18	371.64	370.56	367.02
60.00°	364.74	362.69	363.73	365.30	363.07	357.07	353.82	349.60	349.84	349.39	354.16	362.32	368.00	369.64	369.32	368.48	364.74
62.50°	362.50	360.29	360.99	362.76	361.08	354.77	350.95	348.30	346.58	347.79	352.14	359.91	365.07	368.09	366.61	365.40	362.50
65.00°	359.56	357.49	358.12	359.73	358.55	352.26	347.66	346.13	343.46	345.80	349.64	356.75	362.12	365.30	363.75	361.86	359.56
67.50°	355.63	354.49	354.84	356.14	354.77	348.90	344.29	342.41	340.50	342.46	346.91	352.65	359.16	362.01	359.68	357.95	355.63
70.00°	351.39	349.66	351.23	352.21	351.12	345.41	341.26	338.17	337.02	338.85	343.02	348.35	355.98	357.79	355.60	353.61	351.39
72.50°	346.80	344.14	346.70	347.93	347.73	341.54	338.30	333.13	333.07	334.43	338.68	343.83	352.69	353.25	351.46	348.98	346.80
75.00°	341.70	339.72	341.93	343.50	343.05	337.38	332.89	328.04	328.78	329.93	333.84	339.41	347.37	348.41	347.05	343.73	341.70
77.50°	336.11	335.64	336.60	338.94	336.12	332.46	327.13	322.89	324.22	325.28	328.84	335.07	341.11	343.48	341.35	338.10	336.11
80.00°	330.43	330.49	330.96	332.70	329.55	327.03	322.94	318.10	319.06	320.43	323.54	329.56	334.32	337.32	335.48	332.47	330.43
82.50°	324.68	325.05	324.71	325.18	323.53	320.44	318.89	313.73	313.49	315.18	318.15	323.08	327.32	330.89	329.00	326.85	324.68
85.00°	318.42	318.40	318.16	317.48	317.13	313.48	311.68	308.36	308.01	309.60	310.97	315.87	319.45	323.38	322.18	320.25	318.42
87.50°	311.76	311.50	311.10	309.65	310.24	305.82	304.27	301.99	302.57	303.45	303.40	308.15	311.29	315.68	314.36	313.21	311.76
90.00°	304.96	304.08	303.70	301.83	302.33	298.02	297.06	295.53	296.24	296.81	296.25	299.77	302.99	307.20	306.47	306.00	304.96
92.50°	298.05	296.58	295.82	294.00	293.28	290.02	289.84	289.00	289.46	289.43	289.17	290.99	294.65	298.60	298.45	298.74	298.05
95.00°	290.23	288.69	286.83	283.61	282.38	280.47	281.84	281.88	282.25	281.70	281.66	280.54	283.90	287.18	289.81	290.89	290.23
97.50°	281.88	280.77	276.46	271.98	269.68	268.75	273.64	274.31	274.85	273.48	274.10	269.18	272.64	275.51	279.83	282.85	281.88
100.00°	272.42	270.86	265.04	257.89	255.03	255.78	261.73	265.71	266.58	264.71	261.97	255.86	257.41	260.83	268.71	272.95	272.42
102.50°	262.40	260.80	252.48	242.79	238.73	241.29	249.69	256.45	258.00	255.33	249.45	241.66	241.52	246.00	255.48	262.56	262.40
105.00°	251.79	249.68	238.54	225.42	220.22	224.89	236.16	246.38	247.97	245.44	235.96	224.84	221.60	227.91	241.05	250.97	251.79
107.50°	240.94	238.53	223.28	207.28	200.22	206.43	222.41	235.85	237.52	235.05	222.43	207.03	201.21	209.67	224.68	239.13	240.94
110.00°	229.51	226.36	207.14	185.87	178.16	186.85	207.06	224.67	227.29	223.69	206.47	185.87	178.22	186.68	208.18	226.94	229.51
112.50°	217.88	214.13	190.26	163.57	154.81	166.26	191.52	213.17	217.10	211.48	190.45	163.65	155.03	163.67	191.53	214.70	217.88

Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

	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%
RCR	0	3,456	3,456	3,456	3,456	3,274	3,274	3,274	3,274	2,934	2,934	2,934	2,623	2,623	2,623	2,337	2,337	2,203
	1	2,989	2,779	2,590	2,421	2,808	2,620	2,451	2,298	2,324	2,188	2,064	2,051	1,944	1,844	1,800	1,716	1,601
	2	2,656	2,336	2,071	1,848	2,485	2,199	1,960	1,757	1,943	1,749	1,582	1,707	1,551	1,415	1,488	1,365	1,266
	3	2,386	2,002	1,704	1,467	2,228	1,884	1,614	1,397	1,663	1,442	1,259	1,458	1,278	1,127	1,268	1,123	999
	4	2,162	1,742	1,434	1,199	2,018	1,640	1,360	1,143	1,449	1,216	1,032	1,271	1,079	924	1,105	949	876
	5	1,973	1,534	1,228	1,002	1,841	1,446	1,165	956	1,279	1,044	864	1,124	929	775	979	818	688
	6	1,810	1,365	1,066	852	1,690	1,288	1,013	813	1,142	910	737	1,006	811	662	879	716	588
	7	1,669	1,225	936	734	1,560	1,157	891	701	1,029	802	637	909	717	573	796	634	510
	8	1,546	1,107	831	641	1,447	1,047	791	613	934	714	557	828	640	502	728	568	449
	9	1,439	1,007	743	565	1,348	955	709	540	854	641	493	759	576	445	669	513	398
	10	1,344	922	670	502	1,261	875	640	481	785	581	439	700	523	398	620	467	357

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	11.8 fc	-20.3 ft
6.5 ft	8.5 fc	-24.0 ft
7.5 ft	6.4 fc	-27.7 ft
8.0 ft	5.6 fc	-29.5 ft
10.0 ft	3.6 fc	-36.9 ft
12.0 ft	2.5 fc	-44.3 ft
14.0 ft	1.8 fc	-51.6 ft
16.0 ft	1.4 fc	-59.0 ft
20.0 ft	0.9 fc	-73.8 ft
24.0 ft	0.6 fc	-88.5 ft
28.0 ft	0.5 fc	-103.3 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	4,905	4,905	4,905
45.00°	3,181	3,158	3,148
55.00°	3,131	3,122	3,127
65.00°	3,126	3,113	3,117
75.00°	3,146	3,148	3,158
85.00°	3,219	3,217	3,206

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