

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

SN32 MED xx xx MWI G40 Opal
32" x 11" Spin Pendant Medium Base E26 MWI

Test Number

SP-01616

Test Date

11/8/2023

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

Summary of Results

Power

Input Watts	8.7 W
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Lumen Output

Output Lumens	922
Efficacy	105.96 lm/W

Luminous Dimensions

0° - 180° Size	-2.67
90° - 270° Size	-2.67
Height	0

Spacing Criterion

Two luminaires, plane 0°	1.27
Two luminaires, plane 90°	1.3
Four luminaires	1.44

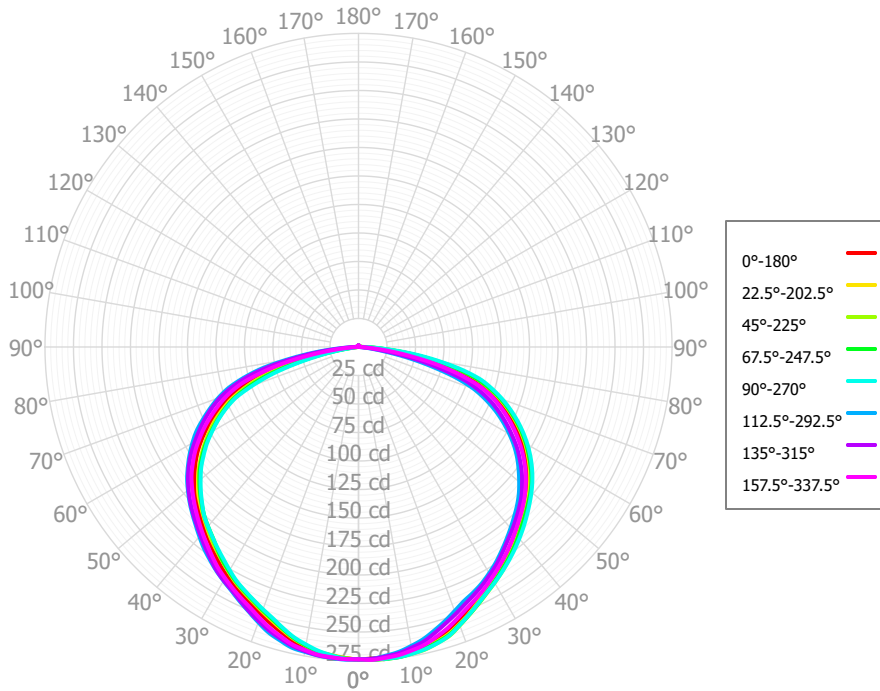
Full Beam Angle

0° - 180°	133°
90° - 270°	132°

IES File Header Contents

Keyword	Value
TEST	SP-01616
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	11/8/2023
ISSUEDATE	11/14/2023
LUMCAT	SN32 MED xx xx MWI G40 Opal
LUMINAIRE	32" x 11" Spin Pendant Medium Base E26 MWI
OTHER	Beam Angle: 139 deg
OTHER	Tested Bulb: CTRLCV Model No: G125/G45 2700K-3000K Part Number: XX/DNTB/E26G125/15W30/1D.
OTHER	Total luminaire wattages are approximate
OTHER	This report prepared by Spectrum Lighting

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	26.34	2.86%	90.00° - 100.00°	1.41	0.15%
10.00° - 20.00°	73.93	8.02%	100.00° - 110.00°	1.17	0.13%
20.00° - 30.00°	111.99	12.15%	100.00° - 120.00°	2.30	0.25%
30.00° - 40.00°	139.61	15.14%	120.00° - 130.00°	1.00	0.11%
40.00° - 50.00°	155.62	16.88%	130.00° - 140.00°	0.89	0.10%
50.00° - 60.00°	157.65	17.10%	140.00° - 150.00°	0.72	0.08%
60.00° - 70.00°	139.90	15.18%	150.00° - 160.00°	0.53	0.06%
70.00° - 80.00°	90.21	9.79%	160.00° - 170.00°	0.33	0.04%
80.00° - 90.00°	19.33	2.10%	170.00° - 180.00°	0.11	0.01%
0.00° - 90.00°	914.57	99.21%	0.00° - 180.00°	921.86	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°	274.01	274.01	274.01	274.01	274.01	274.01	274.01	274.01	274.01	274.01	274.01	274.01	274.01	274.01	274.01	274.01	274.01
2.50°	273.50	274.13	274.80	274.47	274.37	274.50	273.99	274.03	273.17	272.95	273.86	273.36	273.68	273.73	273.81	274.72	273.50
5.00°	273.00	273.71	274.60	274.47	274.50	273.76	273.52	273.16	272.16	271.28	272.12	271.60	271.46	271.88	272.45	273.67	273.00
7.50°	272.40	273.13	274.34	274.21	274.32	272.90	272.78	272.26	270.75	269.43	270.07	269.71	268.87	269.76	270.93	272.48	272.40
10.00°	270.85	271.92	273.02	272.56	273.05	271.54	270.82	269.88	267.68	265.91	266.01	265.71	264.98	266.29	267.83	270.19	270.85
12.50°	269.18	270.31	271.63	270.72	271.44	270.12	268.50	267.44	264.23	262.17	261.71	261.53	260.87	262.49	264.58	267.61	269.18
15.00°	265.26	267.34	268.62	268.00	268.82	266.42	264.78	262.99	259.46	257.04	256.15	256.08	255.34	257.34	259.46	263.33	265.26
17.50°	261.14	263.81	265.56	264.72	265.33	262.55	260.79	258.50	254.65	251.76	250.79	250.57	249.61	252.08	254.22	258.85	261.14
20.00°	255.49	258.70	259.84	259.33	259.59	257.01	255.89	253.09	249.74	246.79	246.28	245.67	244.88	246.49	249.19	253.44	255.49
22.50°	249.75	253.37	254.13	253.91	253.92	251.40	250.88	247.71	244.99	241.84	241.79	240.80	240.25	241.39	244.17	248.22	249.75
25.00°	244.90	247.45	248.81	248.40	248.41	246.30	245.55	243.26	240.71	237.38	237.33	236.46	235.84	237.77	239.78	243.68	244.90
27.50°	240.08	241.96	243.52	243.03	243.24	241.23	240.57	238.79	236.26	232.94	232.72	232.09	231.45	233.86	235.39	239.02	240.08
30.00°	235.28	237.43	238.76	238.06	238.72	236.83	236.48	234.15	231.41	227.66	227.63	226.99	226.01	229.14	230.53	233.95	235.28
32.50°	230.45	232.73	233.97	233.12	234.12	232.42	231.97	229.43	226.23	222.38	222.46	221.86	220.53	224.16	225.64	228.88	230.45
35.00°	224.69	227.68	228.81	228.27	229.37	227.59	226.53	223.88	220.35	217.34	217.09	216.02	215.43	218.58	220.07	223.80	224.69
37.50°	218.96	222.48	223.59	223.23	224.50	222.70	221.10	218.34	214.71	212.29	211.72	210.26	210.34	213.02	214.55	218.60	218.96
40.00°	213.74	217.03	217.74	217.79	219.43	217.10	215.73	212.89	209.50	206.79	206.37	205.39	205.41	207.49	209.52	213.14	213.74
42.50°	208.53	211.62	212.02	212.43	214.23	211.54	210.51	207.44	204.24	201.30	200.85	200.40	200.41	202.02	204.47	207.78	208.53
45.00°	203.44	206.30	207.14	207.21	208.83	206.28	205.55	201.96	198.89	196.00	194.97	194.47	193.98	196.66	199.24	202.65	203.44
47.50°	198.31	200.99	202.16	202.09	203.44	200.98	200.31	196.43	193.29	190.56	188.95	188.46	187.53	190.75	193.84	197.24	198.31
50.00°	192.93	195.71	196.64	197.14	198.06	195.32	194.62	190.67	187.31	183.77	182.68	182.00	180.79	183.99	187.28	191.32	192.93
52.50°	187.30	189.83	190.92	191.38	192.20	189.48	188.48	184.61	181.00	176.83	175.83	175.28	173.93	177.08	180.55	184.94	187.30
55.00°	180.05	183.21	184.32	184.42	185.80	182.63	181.69	177.35	174.25	168.76	168.03	167.30	165.90	169.96	172.88	177.80	180.05
57.50°	172.67	176.17	177.43	177.25	178.79	175.67	174.15	169.78	166.56	160.60	159.83	158.99	157.72	161.96	164.93	170.14	172.67
60.00°	164.63	168.68	169.47	169.79	171.15	168.19	165.65	161.11	157.77	151.89	151.03	149.26	148.39	152.85	155.77	161.71	164.63
62.50°	156.26	160.42	161.23	161.61	162.87	160.28	157.09	152.17	148.34	142.90	141.39	139.50	138.90	143.12	146.47	152.87	156.26
65.00°	146.44	151.40	152.15	152.55	154.01	150.70	148.46	142.45	138.24	132.53	130.63	129.62	128.51	132.70	136.63	143.47	146.44
67.50°	136.66	141.70	142.83	142.95	144.51	141.01	139.01	132.42	127.67	121.42	118.87	118.30	116.80	120.96	126.16	133.54	136.66
70.00°	127.05	131.40	132.89	132.74	134.48	131.00	128.74	121.57	116.67	107.39	105.92	102.56	98.97	107.85	113.61	122.94	127.05
72.50°	115.45	119.74	121.72	120.95	123.35	119.59	115.91	108.34	100.76	91.38	88.27	84.84	80.16	89.87	98.52	108.59	115.45
75.00°	97.57	106.98	107.63	107.63	111.43	104.23	100.72	89.69	80.66	68.57	65.57	61.82	57.55	67.39	76.18	90.08	97.57
77.50°	78.31	88.91	90.71	89.61	93.60	86.68	81.25	69.63	59.29	46.59	44.25	40.22	36.19	45.79	54.22	69.31	78.31
80.00°	55.25	67.00	67.89	67.49	71.89	63.67	58.25	46.73	36.94	27.03	24.24	21.91	19.00	24.95	33.20	46.29	55.25
82.50°	34.07	45.73	45.98	46.01	50.34	41.96	37.48	26.92	20.31	11.24	11.24	8.19	5.59	11.84	16.06	27.21	34.07
85.00°	17.39	24.86	25.74	25.05	28.88	23.05	18.37	12.63	7.61	5.19	4.29	3.89	3.03	4.49	7.44	11.64	17.39
87.50°	5.29	12.16	10.87	11.92	14.94	8.94	7.83	3.34	2.24	1.01	1.17	1.11	1.19	1.42	1.61	3.66	5.29
90.00°	2.81	4.15	4.83	4.30	4.92	4.07	2.99	1.96	1.40	1.07	1.01	1.07	1.13	1.19	1.21	1.75	2.81
92.50°	1.18	1.38	1.20	1.26	1.53	1.00	1.18	1.12	1.10	1.12	0.95	1.07	1.09	1.11	0.98	1.03	1.18
95.00°	1.13	1.29	1.14	1.10	1.21	1.01	1.15	1.04	1.10	1.17	0.95	1.13	1.05	1.13	1.04	1.17	1.13
97.50°	1.09	1.22	1.14	1.06	1.13	1.04	1.19	1.03	1.01	1.17	1.00	1.16	1.04	1.14	1.06	1.21	1.09
100.00°	1.07	1.15	1.20	1.09	1.14	1.12	1.26	1.11	0.89	1.07	1.08	1.15	1.09	1.15	1.01	1.19	1.07
102.50°	1.06	1.24	1.21	1.06	1.10	1.15	1.25	1.14	0.94	1.02	1.07	1.11	1.11	1.16	1.01	1.14	1.06
105.00°	1.08	1.40	1.14	1.02	1.04	1.15	1.19	1.11	1.06	1.03	1.02	1.03	1.11	1.16	1.07	1.07	1.08

Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

RCR	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%
	0	1096	1096	1096	1096	1069	1069	1069	1069	1020	1020	1020	975	975	975	934	934	915
	1	991	943	900	861	965	921	882	847	880	848	818	843	816	792	808	787	769
	2	893	810	742	685	867	792	729	676	757	704	659	725	681	642	696	659	644
	3	808	703	622	558	783	688	613	552	659	594	541	632	577	530	606	560	547
	4	736	618	531	465	713	604	524	461	580	509	454	557	496	447	535	483	471
	5	674	548	460	395	653	537	454	393	516	443	387	496	432	382	478	422	412
	6	620	491	404	342	601	481	399	340	463	390	336	447	382	332	431	373	365
	7	574	443	359	299	557	435	355	298	420	348	295	406	341	292	392	334	326
	8	533	403	321	265	518	396	318	264	383	312	262	371	306	259	359	301	295
	9	497	369	290	237	484	363	288	236	352	283	235	341	278	233	331	273	268
	10	466	340	264	214	453	335	262	213	325	258	212	316	254	211	307	250	245

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	9.1 fc	25.1 ft
6.5 ft	6.5 fc	29.6 ft
7.5 ft	4.9 fc	34.2 ft
8.0 ft	4.3 fc	36.4 ft
10.0 ft	2.7 fc	45.6 ft
12.0 ft	1.9 fc	54.7 ft
14.0 ft	1.4 fc	63.8 ft
16.0 ft	1.1 fc	72.9 ft
20.0 ft	0.7 fc	91.1 ft
24.0 ft	0.5 fc	109.3 ft
28.0 ft	0.3 fc	127.6 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	527	527	527
45.00°	553	563	568
55.00°	603	618	623
65.00°	666	692	701
75.00°	725	799	828
85.00°	384	568	637

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	10.0	11.7	10.4	12.0	12.4	9.8	11.5	10.1	11.8	12.1
	3H	12.5	14.1	12.9	14.4	14.8	12.2	13.7	12.6	14.1	14.5
	4H	13.6	15.0	14.0	15.4	15.8	13.1	14.6	13.5	15.0	15.3
	6H	14.3	15.6	14.7	16.0	16.4	13.8	15.1	14.2	15.5	15.9
	8H	14.4	15.7	14.9	16.2	16.6	14.0	15.3	14.4	15.7	16.1
	12H	14.5	15.8	15.0	16.2	16.6	14.1	15.3	14.5	15.7	16.2
4H	2H	10.8	12.3	11.2	12.6	13.0	10.6	12.0	11.0	12.4	12.8
	3H	13.6	14.8	14.0	15.2	15.6	13.2	14.5	13.6	14.9	15.3
	4H	14.8	15.9	15.2	16.3	16.8	14.3	15.4	14.7	15.8	16.3
	6H	15.6	16.6	16.1	17.0	17.5	15.0	16.0	15.5	16.5	16.9
	8H	15.8	16.7	16.3	17.2	17.7	15.2	16.2	15.7	16.6	17.1
	12H	15.9	16.8	16.4	17.2	17.7	15.4	16.2	15.9	16.7	17.2
8H	4H	15.2	16.1	15.6	16.6	17.0	14.6	15.6	15.1	16.0	16.5
	6H	16.1	16.9	16.6	17.4	17.9	15.5	16.3	16.0	16.8	17.3
	8H	16.4	17.1	16.9	17.6	18.1	15.8	16.5	16.3	17.0	17.5
	12H	16.6	17.2	17.1	17.7	18.3	16.0	16.6	16.5	17.1	17.7
12H	4H	15.2	16.1	15.7	16.5	17.0	14.7	15.5	15.2	16.0	16.5
	6H	16.2	16.9	16.7	17.4	17.9	15.5	16.2	16.1	16.7	17.3
	8H	16.5	17.1	17.0	17.6	18.2	15.9	16.5	16.4	17.0	17.5

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0