

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

SN24 MED xx TW FCI G40 Opal
24" x 23.5" Spin Pendant Medium Base E26 MWI

Test Number

SP-01613

Test Date

11/7/2023

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	758
Efficacy	87.15 lm/W

Luminous Dimensions

0° - 180° Size	-2
90° - 270° Size	-2
Height	0

Spacing Criterion

Two luminaires, plane 0°	1.23
Two luminaires, plane 90°	1.26
Four luminaires	1.34

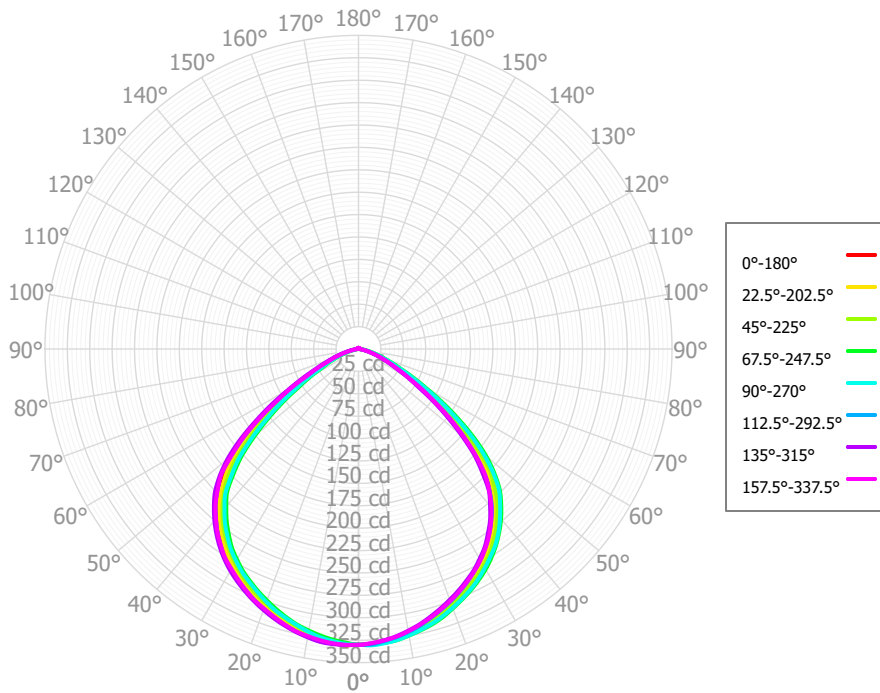
Full Beam Angle

0° - 180°	101°
90° - 270°	101°

IES File Header Contents

Keyword	Value
TEST	SP-01613
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	11/7/2023
ISSUEDATE	11/14/2023
LUMCAT	SN24 MED xx TW FCI G40 Opal
LUMINAIRE	24" x 23.5" Spin Pendant Medium Base E26 MWI
OTHER	Beam Angle: 101 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°	31.63	4.17%	90.00° - 100.00°	1.19	0.16%
10.00° - 20.00°	88.63	11.69%	100.00° - 110.00°	1.15	0.15%
20.00° - 30.00°	134.51	17.74%	100.00° - 120.00°	2.23	0.29%
30.00° - 40.00°	162.72	21.46%	120.00° - 130.00°	0.99	0.13%
40.00° - 50.00°	160.93	21.23%	130.00° - 140.00°	0.86	0.11%
50.00° - 60.00°	107.45	14.17%	140.00° - 150.00°	0.72	0.09%
60.00° - 70.00°	46.28	6.10%	150.00° - 160.00°	0.53	0.07%
70.00° - 80.00°	15.89	2.10%	160.00° - 170.00°	0.33	0.04%
80.00° - 90.00°	3.21	0.42%	170.00° - 180.00°	0.11	0.01%
0.00° - 90.00°	751.26	99.08%	0.00° - 180.00°	758.22	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°	330.25	330.25	330.25	330.25	330.25	330.25	330.25	330.25	330.25	330.25	330.25	330.25	330.25	330.25	330.25	330.25	330.25
2.50°	329.49	330.57	329.69	329.51	331.14	330.61	330.73	330.60	330.96	330.57	329.33	328.14	329.56	330.18	329.04	328.61	329.49
5.00°	327.27	328.17	328.16	329.25	329.85	329.92	330.67	329.70	329.72	328.80	327.30	325.83	327.38	327.52	326.51	326.71	327.27
7.50°	324.61	325.46	326.12	327.90	327.80	329.04	329.70	327.90	327.98	326.61	324.75	322.80	324.73	324.50	323.46	323.97	324.61
10.00°	320.57	322.03	322.73	324.86	324.62	326.36	326.81	325.48	325.29	323.06	321.19	319.19	320.70	320.92	319.32	320.02	320.57
12.50°	316.05	318.11	318.90	321.64	321.13	322.95	323.53	322.76	321.92	319.17	317.17	315.33	316.04	316.57	314.87	315.59	316.05
15.00°	310.97	313.22	314.31	318.15	317.26	318.61	319.51	318.40	317.46	314.59	312.35	310.22	311.30	311.14	309.48	310.53	310.97
17.50°	305.73	308.23	309.52	313.71	312.71	313.96	315.12	313.40	312.78	309.88	307.38	304.65	306.52	305.62	303.86	305.20	305.73
20.00°	299.78	303.06	304.05	308.13	307.37	308.79	310.12	308.43	307.81	304.65	302.16	298.70	300.45	300.00	297.89	299.56	299.78
22.50°	293.67	297.42	298.42	302.55	301.82	303.46	304.78	303.47	302.66	299.33	296.53	292.63	293.95	293.86	291.84	293.46	293.67
25.00°	287.47	291.06	292.48	296.97	296.07	297.44	298.96	297.18	297.26	292.82	290.35	286.06	287.47	287.15	285.26	286.91	287.47
27.50°	281.26	284.29	286.48	290.75	289.46	291.25	292.76	290.51	291.02	286.16	283.42	279.35	281.00	279.89	278.60	279.85	281.26
30.00°	273.18	276.96	279.20	283.94	282.08	284.50	286.07	283.65	283.84	279.10	275.62	271.30	273.21	272.10	270.48	272.34	273.18
32.50°	264.83	268.68	271.76	276.16	274.44	277.65	278.49	276.75	275.79	272.01	267.23	262.97	265.14	263.39	262.20	263.66	264.83
35.00°	254.83	259.26	262.41	267.60	266.59	268.28	269.94	267.82	266.89	262.30	258.23	252.53	255.14	253.90	251.81	254.11	254.83
37.50°	244.64	248.88	252.87	257.96	256.84	258.55	260.50	258.50	256.90	252.48	247.79	241.75	244.82	243.27	241.28	243.05	244.64
40.00°	232.44	237.52	241.17	247.55	245.76	247.61	250.21	247.50	245.97	241.08	236.07	229.64	232.70	231.80	228.55	230.98	232.44
42.50°	220.10	224.60	229.36	235.79	233.94	236.54	238.91	236.24	234.46	229.57	222.71	217.36	220.36	217.09	215.74	216.45	220.10
45.00°	201.18	210.26	213.87	223.20	221.67	222.94	226.77	222.30	222.51	213.56	208.08	197.58	201.24	200.27	195.88	200.52	201.18
47.50°	182.04	190.90	198.19	205.98	203.53	209.16	210.33	208.07	205.18	197.10	187.94	177.15	181.51	178.96	175.85	179.16	182.04
50.00°	157.37	167.50	173.53	186.28	182.29	185.43	190.72	185.05	184.29	172.32	163.97	151.78	156.59	155.09	150.72	155.09	157.37
52.50°	132.72	143.07	148.84	162.20	157.45	161.35	166.71	161.43	159.62	147.46	138.94	126.15	131.39	130.34	125.70	130.73	132.72
55.00°	108.83	117.91	123.46	136.08	130.97	134.92	139.85	134.73	132.75	121.91	113.26	102.27	107.71	105.16	102.28	106.23	108.83
57.50°	85.33	95.10	98.49	111.21	106.51	108.60	114.33	107.92	107.89	96.91	90.61	78.55	84.15	84.10	79.56	84.95	85.33
60.00°	67.54	73.74	78.30	86.83	82.84	86.26	89.57	85.81	84.03	76.19	69.57	62.35	66.93	64.81	63.69	64.88	67.54
62.50°	50.51	57.56	59.03	68.24	64.82	64.49	69.73	63.97	65.17	56.80	54.32	46.51	50.04	51.12	48.59	51.42	50.51
65.00°	40.54	44.19	47.33	51.63	48.70	51.41	52.32	50.31	48.48	45.25	41.73	37.66	40.31	39.49	38.95	40.04	40.54
67.50°	30.97	34.67	36.16	40.47	38.02	38.78	40.59	37.03	37.90	34.37	32.32	28.97	30.79	30.93	29.77	31.38	30.97
70.00°	24.14	26.96	28.22	30.86	28.86	30.38	31.26	29.16	29.60	26.59	24.16	22.22	23.81	23.32	23.07	23.43	24.14
72.50°	17.60	20.53	20.69	23.92	22.17	22.31	23.93	21.49	22.56	19.37	18.06	15.71	17.06	17.58	16.75	17.50	17.60
75.00°	12.58	14.60	15.21	17.61	16.05	16.62	17.32	15.82	15.93	14.28	12.65	11.21	12.29	12.32	12.13	11.99	12.58
77.50°	8.02	10.28	10.22	12.65	11.57	11.30	12.33	10.44	11.35	9.68	8.90	7.02	7.85	8.68	7.92	8.41	8.02
80.00°	5.44	6.51	7.20	7.94	7.38	8.02	7.84	7.13	7.30	6.61	5.62	4.69	5.40	5.38	5.23	5.16	5.44
82.50°	3.20	4.25	4.52	5.17	4.98	5.02	5.23	4.16	4.81	3.95	3.59	2.61	3.19	3.48	2.97	3.34	3.20
85.00°	2.11	2.43	2.95	2.68	2.83	3.29	3.10	2.93	2.64	2.42	1.85	1.72	2.08	1.80	2.03	1.70	2.11
87.50°	1.29	1.68	1.72	1.85	1.93	1.87	2.08	1.84	1.73	1.31	1.31	1.00	1.19	1.38	1.32	1.34	1.29
90.00°	1.24	1.18	1.46	1.20	1.15	1.52	1.28	1.35	1.03	1.15	0.99	0.94	1.15	1.13	1.21	1.10	1.24
92.50°	1.17	1.10	1.24	1.07	1.09	1.24	1.12	0.98	1.05	1.06	0.97	0.91	1.11	1.09	1.14	1.14	1.17
95.00°	1.05	1.09	1.14	0.98	1.07	1.19	1.08	1.01	1.16	1.12	1.00	0.96	1.08	1.08	1.17	1.19	1.05
97.50°	0.97	1.07	1.07	0.93	1.09	1.16	1.09	1.03	1.11	1.12	0.98	0.99	1.05	1.15	1.20	1.07	0.97
100.00°	1.00	1.04	1.06	0.89	1.11	1.19	1.12	1.03	1.05	1.03	0.96	0.95	1.05	1.23	1.23	0.95	1.00
102.50°	1.02	0.96	1.08	0.89	1.12	1.19	1.14	1.06	1.09	0.98	1.06	0.94	1.03	1.26	1.26	0.98	1.02
105.00°	1.06	0.88	1.16	0.89	1.12	1.08	1.15	1.17	1.13	1.00	1.16	1.00	0.98	1.28	1.27	1.01	1.06

Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

RCR	ptc	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	901	901	901	901	879	879	879	879	839	839	839	801	801	801	767	767	751
	1	839	809	783	759	818	792	768	746	759	739	721	729	713	698	701	688	673
	2	774	721	678	641	755	707	667	633	680	646	617	655	627	603	631	609	595
	3	714	644	591	548	695	632	583	543	609	567	532	588	553	523	569	539	527
	4	659	578	519	474	642	568	513	470	549	501	463	531	490	457	514	479	469
	5	609	521	459	414	594	512	455	412	496	446	407	481	437	402	467	428	419
	6	565	472	410	365	550	465	406	364	451	399	360	438	392	357	426	385	377
	7	525	430	368	325	512	424	365	324	412	360	321	401	354	319	390	348	341
	8	490	394	333	292	478	388	331	291	378	326	289	368	321	287	359	317	311
	9	458	362	303	264	447	357	301	263	349	297	261	340	293	260	332	290	284
	10	430	335	278	240	420	331	276	239	323	273	238	315	269	237	309	266	261

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	10.9 fc	13.4 ft
6.5 ft	7.8 fc	15.8 ft
7.5 ft	5.9 fc	18.2 ft
8.0 ft	5.2 fc	19.5 ft
10.0 ft	3.3 fc	24.3 ft
12.0 ft	2.3 fc	29.2 ft
14.0 ft	1.7 fc	34.1 ft
16.0 ft	1.3 fc	38.9 ft
20.0 ft	0.8 fc	48.6 ft
24.0 ft	0.6 fc	58.4 ft
28.0 ft	0.4 fc	68.1 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	1132	1132	1132
45.00°	975	1036	1074
55.00°	650	738	782
65.00°	329	384	395
75.00°	166	201	212
85.00°	83	116	111

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	8.3	9.7	8.7	10.1	10.4	8.7	10.2	9.1	10.5	10.9
	3H	8.8	10.1	9.2	10.5	10.8	9.3	10.6	9.7	10.9	11.3
	4H	8.9	10.1	9.3	10.5	10.9	9.4	10.6	9.8	11.0	11.4
	6H	8.9	10.1	9.4	10.4	10.9	9.4	10.5	9.8	10.9	11.3
	8H	8.9	10.0	9.4	10.4	10.8	9.4	10.5	9.8	10.9	11.3
	12H	8.9	9.9	9.3	10.3	10.8	9.4	10.4	9.8	10.8	11.3
4H	2H	8.5	9.7	8.9	10.1	10.5	9.0	10.2	9.4	10.5	10.9
	3H	9.2	10.2	9.6	10.6	11.0	9.6	10.6	10.1	11.0	11.5
	4H	9.3	10.2	9.8	10.6	11.1	9.8	10.7	10.2	11.1	11.6
	6H	9.4	10.1	9.8	10.6	11.1	9.9	10.6	10.3	11.1	11.6
	8H	9.4	10.1	9.8	10.5	11.0	9.9	10.6	10.3	11.0	11.5
	12H	9.3	10.0	9.8	10.5	11.0	9.8	10.5	10.3	11.0	11.5
8H	4H	9.3	10.0	9.8	10.5	11.0	9.8	10.5	10.3	11.0	11.5
	6H	9.4	10.0	9.9	10.5	11.0	9.9	10.5	10.4	11.0	11.5
	8H	9.4	9.9	9.9	10.5	11.0	9.9	10.4	10.4	11.0	11.5
	12H	9.4	9.9	9.9	10.4	11.0	9.9	10.4	10.4	10.9	11.5
12H	4H	9.3	9.9	9.8	10.4	10.9	9.8	10.4	10.3	10.9	11.4
	6H	9.4	9.9	9.9	10.4	11.0	9.9	10.4	10.4	10.9	11.4
	8H	9.4	9.9	9.9	10.4	11.0	9.9	10.4	10.4	10.9	11.5

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0