Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

SL03IND2 05L 35K DW xx xx MW

Specline Linear Pendant, 1.8" aperture x 2' Long, Matte White Refl

Test Number

SP-01428

Test Date

6/3/2022

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

Summary of Results

Power

Input Watts	9.5 W

Lumen Output

Output Lumens	637
Efficacy	67.01 lm/W

Luminous Dimensions

0° - 180° Size	0.15
90° - 270° Size	2
Height	0

Spacing Criterion

Two luminaires, plane 0°	1.24
Two luminaires, plane 90°	1.24
Four luminaires	1.35

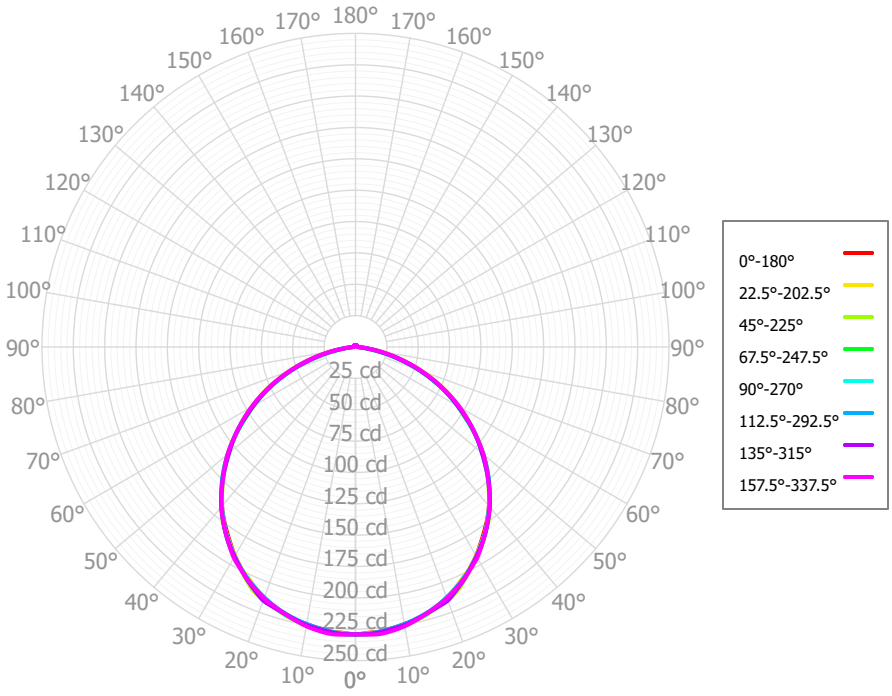
Full Beam Angle

0° - 180°	110°
90° - 270°	110°

IES File Header Contents

Keyword	Value
TEST	SP-01428
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	6/3/2022
ISSUEDATE	11/1/2022
LUMCAT	SL03IND2 05L 35K DW xx xx MW
LUMINAIRE	Specline Linear Pendant, 1.8" aperture x 2' Long, Matte White Refl
OTHER	Diffuse White Extruded Acrylic Lens, Symmetric Distribution
OTHER	Data for 2' IND fixture
OTHER	111 Degree Beam Angle
LAMP	N/A, Min. 80 CRI
LAMPCAT	N/A
OTHER	Reference project SL473
OTHER	05L designation for Spectrum linear product indicates 318 Source Lm/Ft.
OTHER	CCT Output Multipliers: 40K x 1.02, 30K x 0.97
OTHER	Total Luminaire Watts is approximate
OTHER	This report prepared by Spectrum Lighting

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	22.02	3.46%	90.00° - 100.00°	1.62	0.25%
10.00° - 20.00°	62.09	9.75%	100.00° - 110.00°	1.53	0.24%
20.00° - 30.00°	93.94	14.76%	100.00° - 120.00°	3.00	0.47%
30.00° - 40.00°	112.69	17.70%	120.00° - 130.00°	1.32	0.21%
40.00° - 50.00°	115.41	18.13%	130.00° - 140.00°	1.14	0.18%
50.00° - 60.00°	101.82	15.99%	140.00° - 150.00°	0.95	0.15%
60.00° - 70.00°	74.27	11.67%	150.00° - 160.00°	0.69	0.11%
70.00° - 80.00°	37.38	5.87%	160.00° - 170.00°	0.43	0.07%
80.00° - 90.00°	7.70	1.21%	170.00° - 180.00°	0.15	0.02%
0.00° - 90.00°	627.31	98.54%	0.00° - 180.00°	636.61	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°	229.16	229.16	229.16	229.16	229.16	229.16	229.16	229.16	229.16	229.16	229.16	229.16	229.16	229.16	229.16	229.16	229.16
2.50°	228.18	229.07	228.46	229.19	229.01	228.89	229.11	229.61	228.18	229.07	228.46	229.19	229.01	228.89	229.11	229.61	228.18
5.00°	227.78	228.84	227.85	228.47	228.20	227.59	228.27	229.68	227.78	228.84	227.85	228.47	228.20	227.59	228.27	229.68	227.78
7.50°	226.10	227.36	226.86	227.21	226.89	226.12	226.75	228.16	226.10	227.36	226.86	227.21	226.89	226.12	226.75	228.16	226.10
10.00°	224.42	225.77	225.00	225.38	225.38	224.25	225.12	226.10	224.42	225.77	225.00	225.38	225.38	224.25	225.12	226.10	224.42
12.50°	222.72	223.31	222.71	223.18	223.02	222.10	222.58	223.13	222.72	223.31	222.71	223.18	223.02	222.10	222.58	223.13	222.72
15.00°	220.40	220.81	220.13	220.26	220.37	219.42	219.95	219.91	220.40	220.81	220.13	220.26	220.37	219.42	219.95	219.91	220.40
17.50°	216.74	217.04	217.44	216.94	216.69	216.29	217.57	216.57	216.74	217.04	217.44	216.94	216.69	216.29	217.57	216.57	216.74
20.00°	212.80	213.19	214.41	213.03	212.74	212.47	215.20	213.19	212.80	213.19	214.41	213.03	212.74	212.47	215.20	213.19	212.80
22.50°	208.33	207.98	211.25	208.86	208.40	208.29	209.98	208.79	208.33	207.98	211.25	208.86	208.40	208.29	209.98	208.79	208.33
25.00°	203.52	202.83	205.36	203.85	203.98	203.63	204.70	204.22	203.52	202.83	205.36	203.85	203.98	203.63	204.70	204.22	203.52
27.50°	198.17	198.38	198.68	198.53	198.54	198.64	198.83	199.19	198.17	198.38	198.68	198.53	198.54	198.64	198.83	199.19	198.17
30.00°	192.27	193.66	192.39	193.03	192.94	193.27	192.94	194.12	192.27	193.66	192.39	193.03	192.94	193.27	192.94	194.12	192.27
32.50°	185.64	187.07	186.20	187.48	186.59	187.28	186.83	187.41	185.64	187.07	186.20	187.48	186.59	187.28	186.83	187.41	185.64
35.00°	179.09	180.43	180.26	180.70	180.17	180.70	180.62	180.62	179.09	180.43	180.26	180.70	180.17	180.70	180.62	180.62	179.09
37.50°	172.62	173.56	174.36	173.62	173.01	173.60	173.68	173.55	172.62	173.56	174.36	173.62	173.01	173.60	173.68	173.55	172.62
40.00°	165.53	166.29	166.52	165.96	165.80	166.08	166.54	166.44	165.53	166.29	166.52	165.96	165.80	166.08	166.54	166.44	165.53
42.50°	157.84	157.46	158.45	158.19	157.66	158.38	158.30	158.00	157.84	157.46	158.45	158.19	157.66	158.38	158.30	158.00	157.84
45.00°	149.63	148.92	149.92	150.11	149.48	150.56	149.87	149.59	149.63	148.92	149.92	150.11	149.48	150.56	149.87	149.59	149.63
47.50°	140.99	141.28	141.36	141.99	140.62	141.96	140.67	141.50	140.99	141.28	141.36	141.99	140.62	141.96	140.67	141.50	140.99
50.00°	132.15	133.20	132.54	132.84	131.77	132.90	131.64	133.26	132.15	133.20	132.54	132.84	131.77	132.90	131.64	133.26	132.15
52.50°	123.17	124.03	123.71	123.60	123.16	123.36	123.20	123.70	123.17	124.03	123.71	123.60	123.16	123.36	123.20	123.70	123.17
55.00°	114.14	114.70	114.39	113.24	114.41	113.59	114.28	114.20	114.14	114.70	114.39	113.24	114.41	113.59	114.28	114.20	114.14
57.50°	105.07	105.03	105.04	102.83	104.46	104.16	104.07	105.10	105.07	105.03	105.04	102.83	104.46	104.16	104.07	105.10	105.07
60.00°	95.55	95.51	94.99	93.67	94.47	94.87	94.10	95.86	95.55	95.51	94.99	93.67	94.47	94.87	94.10	95.86	95.55
62.50°	85.82	86.24	84.98	84.45	84.26	84.96	84.69	85.99	85.82	86.24	84.98	84.45	84.26	84.96	84.69	85.99	85.82
65.00°	75.89	76.62	75.28	74.34	74.08	74.85	75.00	76.06	75.89	76.62	75.28	74.34	74.08	74.85	75.00	76.06	75.89
67.50°	65.89	66.51	65.50	64.20	64.07	64.64	64.82	65.94	65.89	66.51	65.50	64.20	64.07	64.64	64.82	65.94	65.89
70.00°	55.80	56.35	55.15	53.93	54.11	54.41	54.63	55.92	55.80	56.35	55.15	53.93	54.11	54.41	54.63	55.92	55.80
72.50°	45.68	46.10	44.95	43.70	44.33	43.91	44.44	46.17	45.68	46.10	44.95	43.70	44.33	43.91	44.44	46.17	45.68
75.00°	36.06	36.40	35.49	33.82	34.56	33.35	34.73	36.62	36.06	36.40	35.49	33.82	34.56	33.35	34.73	36.62	36.06
77.50°	26.56	27.26	26.24	24.23	24.83	24.03	25.69	27.52	26.56	27.26	26.24	24.23	24.83	24.03	25.69	27.52	26.56
80.00°	18.47	18.97	17.75	16.12	16.07	14.90	17.44	19.05	18.47	18.97	17.75	16.12	16.07	14.90	17.44	19.05	18.47
82.50°	10.68	11.44	10.29	8.91	9.58	9.47	10.11	11.76	10.68	11.44	10.29	8.91	9.58	9.47	10.11	11.76	10.68
85.00°	6.63	6.42	5.91	5.19	4.68	4.41	5.26	6.19	6.63	6.42	5.91	5.19	4.68	4.41	5.26	6.19	6.63
87.50°	3.13	3.33	2.56	2.26	2.85	2.95	2.86	3.39	3.13	3.33	2.56	2.26	2.85	2.95	2.86	3.39	3.13
90.00°	2.22	1.86	1.68	1.78	1.66	1.70	1.67	1.70	2.22	1.86	1.68	1.78	1.66	1.70	1.67	1.70	2.22
92.50°	1.55	1.44	1.14	1.42	1.51	1.67	1.47	1.53	1.55	1.44	1.14	1.42	1.51	1.67	1.47	1.53	1.55
95.00°	1.37	1.34	1.26	1.37	1.45	1.66	1.41	1.46	1.37	1.34	1.26	1.37	1.45	1.66	1.41	1.46	1.37
97.50°	1.20	1.42	1.33	1.35	1.52	1.69	1.44	1.51	1.20	1.42	1.33	1.35	1.52	1.69	1.44	1.51	1.20
100.00°	1.30	1.36	1.31	1.39	1.57	1.72	1.39	1.55	1.30	1.36	1.31	1.39	1.57	1.72	1.39	1.55	1.30

Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

	ρfc	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	0%
	ρcc	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	10%	0%
	ρw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	30%
	0	756	756	756	756	737	737	737	737	702	702	702	670	670	670	641	641	641	627
	1	693	664	638	614	675	648	625	603	620	600	582	593	578	563	569	557	545	544
	2	631	580	538	503	614	567	529	496	543	511	483	521	494	471	501	479	459	467
	3	576	510	460	419	560	500	453	415	479	439	406	461	427	398	443	415	390	405
	4	528	453	398	356	513	444	392	353	427	382	347	411	372	341	396	363	336	354
RCR	5	486	405	348	307	472	397	344	304	383	336	300	369	328	296	356	321	292	313
	6	448	365	308	268	436	358	305	266	346	298	263	334	292	260	323	286	257	280
	7	416	331	275	237	404	325	273	235	314	267	233	304	262	231	295	257	228	252
	8	387	302	248	211	377	297	246	210	288	241	208	279	237	206	271	233	205	228
	9	362	277	225	190	352	273	223	189	265	220	188	257	216	186	250	213	185	208
	10	339	256	205	172	331	252	204	172	245	201	170	238	198	169	232	195	168	191

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	7.6 fc	15.6 ft
6.5 ft	5.4 fc	18.4 ft
7.5 ft	4.1 fc	21.3 ft
8.0 ft	3.6 fc	22.7 ft
10.0 ft	2.3 fc	28.4 ft
12.0 ft	1.6 fc	34.0 ft
14.0 ft	1.2 fc	39.7 ft
16.0 ft	0.9 fc	45.4 ft
20.0 ft	0.6 fc	56.7 ft
24.0 ft	0.4 fc	68.1 ft
28.0 ft	0.3 fc	79.4 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	8222	8222	8222
45.00°	7592	7607	7585
55.00°	7140	7156	7157
65.00°	6443	6391	6289
75.00°	4999	4920	4792
85.00°	2728	2434	1925

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	18.9	20.5	19.3	20.8	21.2	18.8	20.4	19.2	20.7	21.1
	3H	20.6	22.0	21.0	22.4	22.7	20.4	21.9	20.8	22.2	22.6
	4H	21.1	22.4	21.5	22.8	23.2	20.9	22.3	21.4	22.7	23.1
	6H	21.4	22.7	21.9	23.1	23.5	21.2	22.4	21.6	22.8	23.3
	8H	21.5	22.7	21.9	23.1	23.5	21.2	22.4	21.7	22.8	23.3
	12H	21.5	22.6	22.0	23.1	23.5	21.3	22.4	21.7	22.8	23.3
4H	2H	19.5	20.8	19.9	21.2	21.6	19.4	20.8	19.8	21.1	21.5
	3H	21.3	22.5	21.8	22.9	23.3	21.2	22.3	21.7	22.8	23.2
	4H	22.0	23.0	22.5	23.5	23.9	21.8	22.8	22.3	23.3	23.7
	6H	22.4	23.3	22.9	23.8	24.3	22.2	23.0	22.6	23.5	24.0
	8H	22.5	23.3	23.0	23.8	24.3	22.2	23.0	22.7	23.5	24.0
	12H	22.6	23.3	23.1	23.8	24.3	22.2	23.0	22.8	23.5	24.0
8H	4H	22.2	23.0	22.7	23.5	24.0	22.1	22.9	22.5	23.3	23.8
	6H	22.7	23.4	23.2	23.9	24.4	22.5	23.1	23.0	23.7	24.2
	8H	22.9	23.5	23.4	24.0	24.5	22.5	23.2	23.1	23.7	24.2
	12H	22.9	23.5	23.5	24.0	24.6	22.6	23.1	23.1	23.7	24.3
12H	4H	22.2	23.0	22.7	23.5	24.0	22.1	22.8	22.6	23.3	23.8
	6H	22.7	23.3	23.3	23.8	24.4	22.5	23.1	23.0	23.6	24.2
	8H	22.9	23.4	23.4	23.9	24.5	22.6	23.1	23.1	23.7	24.2

Corrected UGR values based on total output energy
SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0