

## **Indoor Distribution Test Report**

# **Spectrum Lighting Inc.**

994 Jefferson Street  
Fall River, MA 02721  
+1.508.678.2303

## **Spectrum Lighting Photometric Lab**

### **Luminaire**

LD3605PY 120L 35K xx xx MW FO  
Nom 36" Diam Light Disc, Surface or Pendant mount

### **Test Number**

SP-01438\_2

### **Test Date**

10/27/2022

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

### Summary of Results

#### Power

Input Watts	97 W
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#### Lumen Output

Output Lumens	10149
Efficacy	104.63 lm/W

#### Luminous Dimensions

0° - 180° Size	-2.88
90° - 270° Size	-2.88
Height	0

#### Spacing Criterion

Two luminaires, plane 0°	1.26
Two luminaires, plane 90°	1.27
Four luminaires	1.39

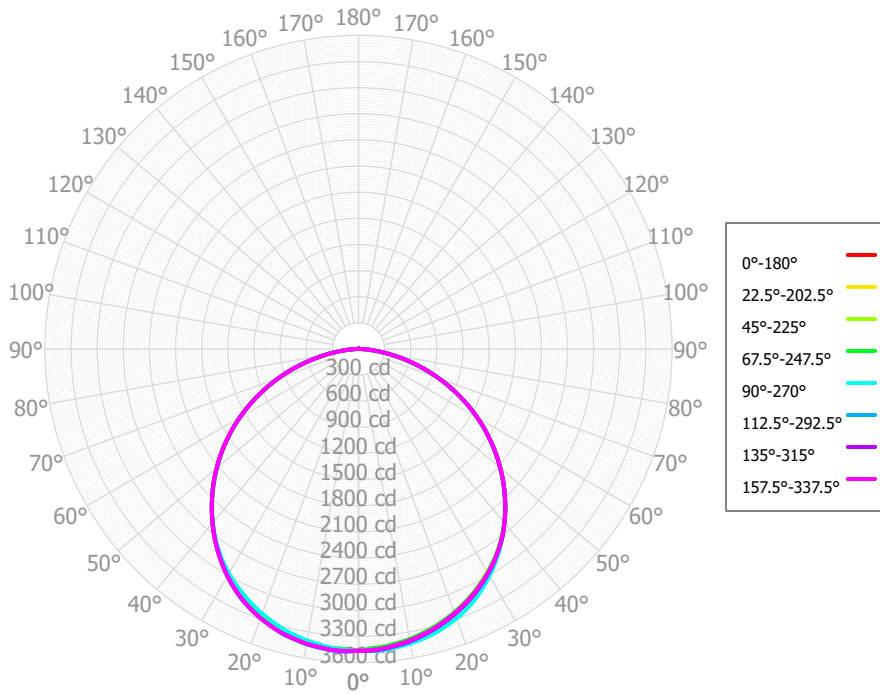
#### Full Beam Angle

0° - 180°	114°
90° - 270°	114°

### IES File Header Contents

Keyword	Value
TEST	SP-01438_2
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	10/27/2022
ISSUEDATE	11/30/2022
LUMCAT	LD3605PY 120L 35K xx xx MW FO
LUMINAIRE	Nom 36" Diam Light Disc, Surface or Pendant mount
OTHER	White Optical Acrylic Lens
OTHER	114 Degree Beam Angle
OTHER	Reference project SL84
LAMP	N/A
LAMPCAT	36 inch PY board
OTHER	CCT Output Multipliers: 27K x 0.95, 30K x 0.98, 40K x 1.0
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°	333.11	3.28%	90.00° - 100.00°	5.41	0.05%
10.00° - 20.00°	944.53	9.31%	100.00° - 110.00°	2.56	0.03%
20.00° - 30.00°	1444.86	14.24%	100.00° - 120.00°	5.05	0.05%
30.00° - 40.00°	1757.26	17.31%	120.00° - 130.00°	2.37	0.02%
40.00° - 50.00°	1830.10	18.03%	130.00° - 140.00°	2.08	0.02%
50.00° - 60.00°	1658.16	16.34%	140.00° - 150.00°	1.74	0.02%
60.00° - 70.00°	1264.07	12.45%	150.00° - 160.00°	1.39	0.01%
70.00° - 80.00°	711.81	7.01%	160.00° - 170.00°	0.85	0.01%
80.00° - 90.00°	186.36	1.84%	170.00° - 180.00°	0.29	0.00%
0.00° - 90.00°	10130.26	99.81%	0.00° - 180.00°	10149.44	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°	3465.76	3465.76	3465.76	3465.76	3465.76	3465.76	3465.76	3465.76	3465.76	3465.76	3465.76	3465.76	3465.76	3465.76	3465.76	3465.76	3465.76
2.50°	3450.25	3448.11	3448.31	3439.35	3471.08	3479.54	3473.47	3469.15	3461.20	3459.95	3457.62	3449.57	3458.40	3470.35	3465.45	3458.74	3450.25
5.00°	3436.55	3432.12	3432.89	3427.24	3469.47	3475.21	3469.35	3468.18	3457.86	3455.81	3452.44	3447.27	3444.29	3456.08	3454.42	3446.21	3436.55
7.50°	3413.14	3410.77	3412.75	3405.81	3452.45	3460.17	3454.56	3452.67	3446.66	3443.92	3442.99	3432.72	3422.06	3433.81	3432.03	3422.43	3413.14
10.00°	3388.02	3388.16	3389.02	3382.36	3434.27	3442.36	3436.65	3436.11	3429.36	3428.71	3423.98	3415.97	3397.74	3406.71	3408.54	3396.39	3388.02
12.50°	3353.64	3352.43	3354.56	3347.98	3408.38	3414.28	3409.83	3408.99	3403.05	3403.48	3400.52	3389.15	3365.37	3373.83	3372.51	3363.35	3353.64
15.00°	3318.39	3315.17	3314.41	3311.15	3379.18	3384.81	3378.35	3379.03	3369.52	3373.08	3365.81	3358.58	3329.20	3335.22	3334.67	3325.55	3318.39
17.50°	3269.98	3270.64	3268.28	3266.51	3337.95	3337.34	3337.90	3335.78	3328.36	3332.40	3327.71	3317.56	3283.63	3291.74	3287.50	3277.96	3269.98
20.00°	3220.70	3222.50	3219.99	3218.32	3292.13	3288.75	3289.98	3288.75	3280.35	3285.61	3277.91	3271.30	3233.46	3240.11	3238.13	3227.32	3220.70
22.50°	3163.70	3163.89	3164.46	3162.63	3235.51	3231.48	3231.90	3230.84	3227.20	3230.26	3226.04	3215.34	3175.57	3183.62	3182.06	3172.36	3163.70
25.00°	3104.66	3101.76	3107.37	3102.42	3170.78	3171.56	3166.52	3166.68	3161.98	3165.84	3159.12	3153.92	3114.03	3119.90	3121.32	3111.31	3104.66
27.50°	3036.67	3032.71	3037.52	3035.62	3092.99	3093.92	3094.12	3090.63	3090.46	3092.27	3090.88	3085.37	3048.13	3053.23	3051.12	3044.06	3036.67
30.00°	2965.84	2960.50	2966.32	2963.28	3009.05	3012.67	3009.91	3008.58	3006.84	3009.53	3006.76	3005.29	2974.31	2978.02	2976.29	2970.86	2965.84
32.50°	2887.24	2883.97	2884.96	2885.23	2918.06	2918.24	2917.69	2918.48	2918.96	2920.25	2920.91	2914.36	2893.82	2900.57	2894.85	2893.38	2887.24
35.00°	2803.01	2799.68	2802.38	2799.21	2820.83	2820.58	2818.75	2822.10	2819.99	2821.13	2820.09	2816.32	2804.25	2809.29	2807.05	2806.02	2803.01
37.50°	2708.51	2707.90	2705.35	2707.30	2718.52	2715.30	2716.62	2719.74	2718.61	2717.16	2717.48	2713.56	2709.22	2716.08	2712.85	2713.64	2708.51
40.00°	2605.40	2604.96	2605.74	2604.54	2607.89	2607.15	2606.14	2609.43	2607.18	2606.81	2607.05	2603.28	2602.99	2605.73	2607.48	2607.51	2605.40
42.50°	2491.14	2494.32	2492.38	2496.11	2492.45	2494.33	2493.01	2493.68	2494.72	2494.35	2494.17	2489.56	2492.19	2494.31	2494.15	2496.77	2491.14
45.00°	2373.26	2375.18	2376.02	2376.97	2373.33	2375.70	2374.97	2374.08	2374.65	2375.95	2374.75	2370.60	2372.17	2374.27	2374.79	2377.38	2373.26
47.50°	2252.04	2251.99	2250.12	2254.10	2252.78	2250.39	2256.03	2252.66	2253.84	2256.38	2252.25	2250.08	2249.74	2253.03	2252.41	2256.24	2252.04
50.00°	2125.81	2125.11	2122.62	2125.67	2124.47	2122.40	2125.30	2125.18	2124.59	2126.78	2124.11	2122.15	2121.63	2123.54	2122.50	2126.61	2125.81
52.50°	1996.28	1997.06	1991.78	1996.09	1994.27	1992.24	1993.62	1995.81	1994.32	1996.26	1992.52	1992.92	1992.72	1992.63	1990.04	1996.21	1996.28
55.00°	1860.20	1859.56	1857.35	1857.50	1856.91	1857.06	1856.30	1858.30	1858.66	1858.38	1856.52	1855.79	1855.91	1856.47	1854.90	1857.80	1860.20
57.50°	1721.17	1720.34	1717.67	1718.04	1718.63	1718.99	1718.27	1719.32	1720.77	1719.94	1717.50	1717.97	1718.40	1718.10	1719.21	1719.03	1721.17
60.00°	1576.95	1574.31	1574.75	1574.41	1574.87	1574.07	1573.74	1573.44	1575.98	1575.60	1575.75	1573.18	1573.08	1574.57	1574.28	1576.46	1576.95
62.50°	1431.19	1427.71	1428.49	1430.27	1430.49	1426.43	1428.26	1426.98	1429.79	1430.41	1430.17	1427.84	1427.43	1429.66	1428.53	1432.50	1431.19
65.00°	1282.62	1278.92	1278.13	1280.55	1278.39	1276.51	1278.53	1275.83	1280.71	1281.10	1282.13	1277.87	1279.57	1282.54	1279.40	1281.59	1282.62
67.50°	1133.58	1129.63	1124.72	1130.22	1126.11	1126.02	1128.30	1124.68	1129.66	1130.49	1130.88	1127.42	1130.57	1132.80	1130.06	1130.48	1133.58
70.00°	979.21	975.59	972.71	976.78	972.74	974.02	976.72	973.48	975.80	976.12	978.18	974.85	977.37	980.04	978.42	978.76	979.21
72.50°	824.62	822.16	821.41	823.87	819.97	821.84	824.36	822.02	822.38	822.97	825.87	823.00	824.94	827.49	827.07	827.52	824.62
75.00°	674.67	671.56	671.13	672.57	669.32	669.61	670.56	669.43	669.43	672.19	673.67	673.09	674.32	675.12	677.13	677.22	674.67
77.50°	525.98	524.04	521.19	524.84	522.18	518.40	522.92	520.57	522.79	525.34	526.46	526.54	528.42	530.38	529.91	531.56	525.98
80.00°	387.80	385.17	385.26	384.38	383.02	384.39	383.30	381.99	380.73	383.84	380.06	386.00	390.17	390.02	390.65	392.29	387.80
82.50°	256.55	257.82	252.22	258.16	256.67	254.96	259.41	254.76	256.74	258.66	259.84	259.57	264.66	268.08	262.62	266.09	256.55
85.00°	154.26	151.99	152.60	152.06	150.32	154.27	150.21	148.48	141.88	149.43	142.45	151.10	153.91	153.41	156.65	152.82	154.26
87.50°	68.96	71.76	56.25	73.95	71.80	67.43	74.14	68.90	70.60	73.26	72.74	72.96	75.25	78.37	74.94	74.73	68.96
90.00°	28.36	25.33	27.89	23.84	23.86	28.81	19.92	23.71	14.09	19.93	10.27	22.56	22.91	13.30	26.79	21.22	28.36
92.50°	2.46	2.76	1.99	2.92	2.41	1.97	2.36	2.03	3.24	2.34	5.62	2.62	3.24	4.37	3.10	3.22	2.46
95.00°	2.54	2.52	2.19	2.97	1.91	1.91	1.68	2.10	1.80	1.80	1.94	2.31	2.63	2.76	3.37	2.67	2.54
97.50°	2.65	2.64	2.41	2.83	1.89	1.94	1.64	2.27	1.81	1.76	2.22	2.04	2.50	2.63	3.24	2.68	2.65
100.00°	2.80	3.00	2.69	2.58	2.15	2.10	1.80	2.52	1.95	1.87	2.33	1.80	2.56	2.55	2.85	2.88	2.80

LD3605PY 120L 35K xx xx MW FO

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### 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%	0%
	<b>pcc</b>	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	0%
	<b>pw</b>	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	30%
	<b>0</b>	12078	12078	12078	12078	11795	11795	11795	11795	11266	11266	11266	10783	10783	10783	10339	10339	10130
	<b>1</b>	11025	10537	10099	9704	10746	10304	9905	9543	9868	9539	9238	9467	9199	8951	9098	8882	8691
	<b>2</b>	10013	9168	8470	7883	9743	8974	8331	7787	8609	8068	7601	8272	7820	7423	7961	7587	7418
	<b>3</b>	9119	8039	7202	6536	8864	7876	7100	6475	7569	6904	6357	7285	6718	6242	7021	6542	6394
	<b>4</b>	8342	7113	6212	5525	8105	6975	6135	5484	6717	5985	5405	6476	5842	5328	6253	5706	5578
	<b>5</b>	7666	6348	5427	4747	7449	6232	5366	4719	6013	5250	4665	5809	5138	4611	5618	5031	4920
	<b>6</b>	7075	5710	4794	4136	6878	5612	4746	4116	5426	4653	4077	5252	4564	4039	5089	4478	4383
	<b>7</b>	6558	5173	4276	3647	6379	5090	4237	3632	4930	4162	3603	4781	4090	3575	4641	4021	3938
	<b>8</b>	6102	4718	3847	3248	5941	4646	3815	3237	4509	3754	3215	4381	3695	3194	4260	3638	3566
	<b>9</b>	5699	4327	3487	2919	5553	4266	3461	2910	4148	3410	2894	4036	3361	2877	3932	3314	3251
	<b>10</b>	5342	3991	3182	2644	5210	3937	3160	2637	3835	3118	2624	3738	3077	2611	3646	3037	2983

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	114.6 fc	17.0 ft
6.5 ft	82.0 fc	20.1 ft
7.5 ft	61.6 fc	23.2 ft
8.0 ft	54.2 fc	24.8 ft
10.0 ft	34.7 fc	31.0 ft
12.0 ft	24.1 fc	37.2 ft
14.0 ft	17.7 fc	43.4 ft
16.0 ft	13.5 fc	49.6 ft
20.0 ft	8.7 fc	62.0 ft
24.0 ft	6.0 fc	74.4 ft
28.0 ft	4.4 fc	86.8 ft

### Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
<b>0.00°</b>	5727	5727	5727
<b>45.00°</b>	5546	5552	5546
<b>55.00°</b>	5359	5351	5349
<b>65.00°</b>	5015	4997	4998
<b>75.00°</b>	4307	4285	4273
<b>85.00°</b>	2925	2893	2850

### 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	17.2	18.8	17.6	19.1	19.5	17.2	18.8	17.5	19.1	19.5
	3H	19.0	20.5	19.4	20.8	21.2	19.0	20.5	19.4	20.8	21.2
	4H	19.7	21.1	20.1	21.4	21.8	19.6	21.0	20.0	21.4	21.8
	6H	20.1	21.4	20.5	21.8	22.2	20.1	21.4	20.5	21.8	22.2
	8H	20.2	21.5	20.7	21.9	22.3	20.2	21.5	20.6	21.9	22.3
	12H	20.3	21.5	20.7	21.9	22.3	20.3	21.5	20.7	21.9	22.3
4H	2H	17.8	19.2	18.2	19.6	20.0	17.8	19.2	18.2	19.6	20.0
	3H	19.9	21.0	20.3	21.4	21.8	19.8	21.0	20.3	21.4	21.8
	4H	20.6	21.7	21.1	22.1	22.6	20.6	21.7	21.0	22.1	22.5
	6H	21.2	22.1	21.7	22.6	23.0	21.2	22.1	21.6	22.6	23.0
	8H	21.4	22.2	21.8	22.7	23.2	21.4	22.2	21.8	22.7	23.1
	12H	21.5	22.3	22.0	22.8	23.2	21.5	22.3	22.0	22.7	23.2
8H	4H	20.9	21.8	21.4	22.2	22.7	20.9	21.8	21.4	22.2	22.7
	6H	21.6	22.3	22.1	22.8	23.3	21.6	22.3	22.1	22.8	23.3
	8H	21.8	22.5	22.4	23.0	23.5	21.8	22.5	22.3	23.0	23.5
	12H	22.0	22.6	22.5	23.1	23.7	22.0	22.6	22.5	23.1	23.6
12H	4H	21.0	21.7	21.4	22.2	22.7	20.9	21.7	21.4	22.2	22.7
	6H	21.7	22.3	22.2	22.8	23.3	21.7	22.3	22.2	22.8	23.3
	8H	21.9	22.5	22.5	23.0	23.6	21.9	22.5	22.4	23.0	23.6

Corrected UGR values based on total output energy  
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0