

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

LD3605PY 240L 35K xx xx MW FO
Nom 36" Diam Light Disc, Surface or Pendant mount

Test Number

SP-01438_1

Test Date

10/27/2022

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

Summary of Results

Power

Input Watts	196 W
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Lumen Output

Output Lumens	20299
Efficacy	103.57 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

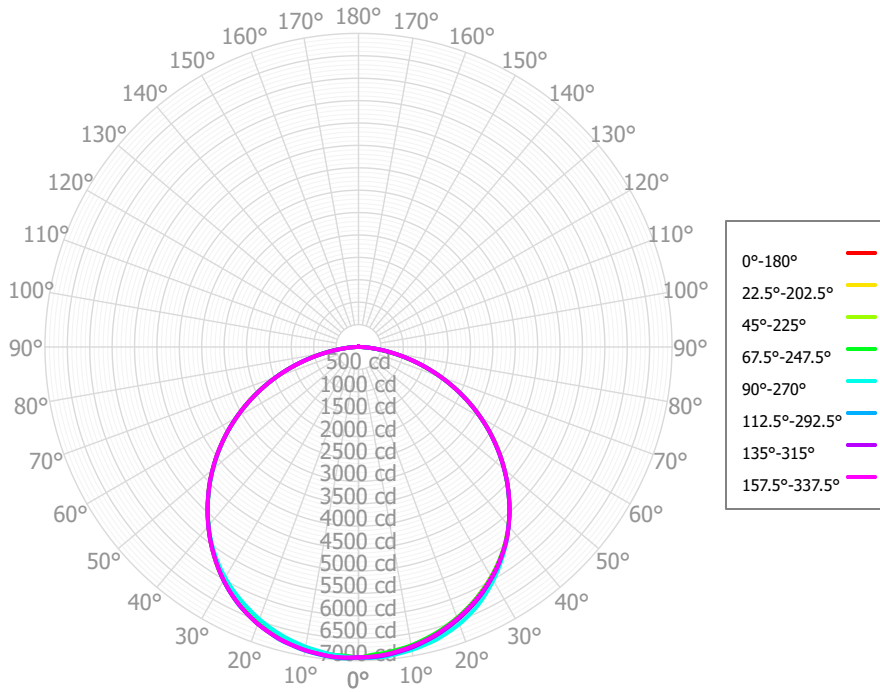
Full Beam Angle

0° - 180°	114°
90° - 270°	114°

IES File Header Contents

Keyword	Value
TEST	SP-01438_1
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	10/27/2022
ISSUEDATE	12/29/2022
LUMCAT	LD3605PY 240L 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
_CRI	80+
_CCTMULT	27K x 0.95, 30K x 0.98, 40K x 1.0

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	666.23	3.28%	90.00° - 100.00°	10.82	0.05%
10.00° - 20.00°	1889.06	9.31%	100.00° - 110.00°	5.13	0.03%
20.00° - 30.00°	2889.71	14.24%	100.00° - 120.00°	10.10	0.05%
30.00° - 40.00°	3514.51	17.31%	120.00° - 130.00°	4.74	0.02%
40.00° - 50.00°	3660.20	18.03%	130.00° - 140.00°	4.16	0.02%
50.00° - 60.00°	3316.31	16.34%	140.00° - 150.00°	3.48	0.02%
60.00° - 70.00°	2528.15	12.45%	150.00° - 160.00°	2.78	0.01%
70.00° - 80.00°	1423.62	7.01%	160.00° - 170.00°	1.70	0.01%
80.00° - 90.00°	372.72	1.84%	170.00° - 180.00°	0.58	0.00%
0.00° - 90.00°	20260.51	99.81%	0.00° - 180.00°	20298.87	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°	6931.52	6931.52	6931.52	6931.52	6931.52	6931.52	6931.52	6931.52	6931.52	6931.52	6931.52	6931.52	6931.52	6931.52	6931.52	6931.52	6931.52
2.50°	6900.50	6896.22	6896.61	6878.70	6942.16	6959.08	6946.94	6938.30	6922.39	6919.91	6915.24	6899.15	6916.80	6940.70	6930.89	6917.47	6900.50
5.00°	6873.10	6864.23	6865.79	6854.48	6938.94	6950.41	6938.70	6936.36	6915.72	6911.62	6904.87	6894.53	6888.59	6912.16	6908.83	6892.42	6873.10
7.50°	6826.28	6821.54	6825.51	6811.63	6904.89	6920.34	6909.13	6905.34	6893.32	6887.83	6885.98	6865.43	6844.12	6867.63	6864.06	6844.86	6826.28
10.00°	6776.03	6776.32	6778.03	6764.72	6868.54	6884.72	6873.31	6872.21	6858.72	6857.43	6847.96	6831.94	6795.48	6813.42	6817.08	6792.77	6776.03
12.50°	6707.27	6704.86	6709.11	6695.96	6816.76	6828.57	6819.65	6817.98	6806.10	6806.95	6801.04	6778.31	6730.74	6747.67	6745.01	6726.71	6707.27
15.00°	6636.78	6630.34	6628.82	6622.29	6758.37	6769.61	6756.70	6758.06	6739.04	6746.17	6731.62	6717.16	6658.39	6670.44	6669.33	6651.10	6636.78
17.50°	6539.95	6541.27	6536.55	6533.02	6675.89	6674.67	6675.80	6671.57	6656.72	6664.80	6655.42	6635.12	6567.26	6583.49	6575.01	6555.92	6539.95
20.00°	6441.40	6445.01	6439.97	6436.64	6584.27	6577.51	6579.97	6577.49	6560.69	6571.23	6555.81	6542.60	6466.92	6480.21	6476.27	6454.64	6441.40
22.50°	6327.40	6327.79	6328.93	6325.25	6471.03	6462.96	6463.80	6461.67	6454.40	6460.53	6452.08	6430.67	6351.15	6367.24	6364.12	6344.72	6327.40
25.00°	6209.31	6203.52	6214.73	6204.83	6341.56	6343.12	6333.05	6333.36	6323.96	6331.67	6318.25	6307.84	6228.06	6239.81	6242.64	6222.62	6209.31
27.50°	6073.34	6065.42	6075.05	6071.24	6185.98	6187.85	6188.23	6181.25	6180.92	6184.54	6181.76	6170.74	6096.25	6106.45	6102.24	6088.12	6073.34
30.00°	5931.68	5920.99	5932.64	5926.56	6018.10	6025.33	6019.83	6017.17	6013.69	6019.05	6013.53	6010.58	5948.63	5956.04	5952.57	5941.72	5931.68
32.50°	5774.47	5767.94	5769.93	5770.45	5836.12	5836.47	5835.37	5836.96	5837.92	5840.50	5841.83	5828.72	5787.63	5801.14	5789.70	5786.75	5774.47
35.00°	5606.02	5599.35	5604.77	5598.42	5641.66	5641.15	5637.50	5644.20	5639.98	5642.27	5640.18	5632.64	5608.50	5618.58	5614.11	5612.03	5606.02
37.50°	5417.02	5415.80	5410.69	5414.61	5437.04	5430.60	5433.24	5439.49	5437.22	5434.32	5434.96	5427.13	5418.44	5432.16	5425.70	5427.29	5417.02
40.00°	5210.80	5209.92	5211.48	5209.09	5215.78	5214.31	5212.28	5218.86	5214.36	5213.62	5214.09	5206.56	5205.99	5211.45	5214.96	5215.02	5210.80
42.50°	4982.28	4988.63	4984.76	4992.23	4984.90	4988.67	4986.03	4987.35	4989.44	4988.69	4988.35	4979.11	4984.38	4988.61	4988.31	4993.53	4982.28
45.00°	4746.51	4750.36	4752.03	4753.93	4746.67	4751.39	4749.94	4748.15	4749.30	4751.91	4749.51	4741.21	4744.35	4748.55	4749.59	4754.76	4746.51
47.50°	4504.08	4503.99	4500.24	4508.20	4505.56	4500.77	4512.05	4505.32	4507.69	4512.76	4504.50	4500.16	4499.48	4506.07	4504.82	4512.48	4504.08
50.00°	4251.62	4250.22	4245.24	4251.34	4248.93	4244.80	4250.59	4250.37	4249.18	4253.56	4248.22	4244.29	4243.25	4247.09	4244.99	4253.22	4251.62
52.50°	3992.56	3994.11	3983.57	3992.17	3988.54	3984.47	3987.24	3991.62	3988.65	3992.52	3985.04	3985.83	3985.45	3985.26	3980.09	3992.42	3992.56
55.00°	3720.40	3719.13	3714.69	3715.01	3713.82	3714.12	3712.61	3716.59	3717.31	3716.76	3713.05	3711.58	3711.83	3712.94	3709.79	3715.60	3720.40
57.50°	3442.33	3440.68	3435.34	3436.08	3437.27	3437.98	3436.55	3438.64	3441.54	3439.87	3435.00	3435.95	3436.80	3436.21	3438.42	3438.06	3442.33
60.00°	3153.89	3148.62	3149.50	3148.82	3149.75	3148.14	3147.47	3146.89	3151.97	3151.19	3151.49	3146.36	3146.16	3149.13	3148.56	3152.92	3153.89
62.50°	2862.39	2855.43	2856.99	2860.55	2860.98	2852.87	2856.51	2853.95	2859.57	2860.82	2860.35	2855.69	2854.87	2859.32	2857.07	2865.00	2862.39
65.00°	2565.25	2557.85	2556.25	2561.10	2556.78	2553.02	2557.05	2551.66	2561.42	2562.20	2564.27	2555.74	2559.14	2565.08	2558.80	2563.19	2565.25
67.50°	2267.16	2259.26	2249.45	2260.44	2252.22	2252.04	2256.61	2249.36	2259.33	2260.99	2261.76	2254.83	2261.13	2265.60	2260.11	2260.96	2267.16
70.00°	1958.43	1951.17	1945.42	1953.56	1945.47	1948.05	1953.44	1946.96	1951.59	1952.24	1956.37	1949.69	1954.74	1960.07	1956.85	1957.52	1958.43
72.50°	1649.25	1644.32	1642.83	1647.74	1639.94	1643.67	1648.72	1644.05	1644.76	1645.95	1651.74	1646.01	1649.87	1654.98	1654.15	1655.04	1649.25
75.00°	1349.33	1343.12	1342.25	1345.15	1338.64	1339.23	1341.12	1338.87	1338.86	1344.38	1347.34	1346.19	1348.63	1350.25	1354.25	1354.45	1349.33
77.50°	1051.96	1048.09	1042.39	1049.67	1044.35	1036.79	1045.84	1041.14	1045.57	1050.68	1052.93	1053.08	1056.83	1060.76	1059.82	1063.13	1051.96
80.00°	775.59	770.34	770.52	768.76	766.03	768.78	766.60	763.97	761.46	767.68	760.12	772.00	780.33	780.04	781.30	784.58	775.59
82.50°	513.11	515.65	504.43	516.31	513.34	509.92	518.82	509.52	513.49	517.31	519.69	519.15	529.33	536.16	525.24	532.19	513.11
85.00°	308.52	303.98	305.20	304.12	300.64	308.55	300.42	296.95	283.77	298.87	284.90	302.19	307.82	306.82	313.29	305.65	308.52
87.50°	137.93	143.51	112.50	147.89	143.59	134.87	148.29	137.81	141.20	146.52	145.48	145.91	150.49	156.74	149.87	149.45	137.93
90.00°	56.73	50.65	55.78	47.67	47.72	57.63	39.85	47.42	28.19	39.86	20.54	45.12	45.82	26.59	53.57	42.43	56.73
92.50°	4.92	5.52	3.99	5.85	4.83	3.93	4.73	4.06	6.48	4.68	11.24	5.23	6.48	8.75	6.21	6.45	4.92
95.00°	5.09	5.05	4.39	5.95	3.82	3.83	3.36	4.20	3.61	3.61	3.89	4.61	5.25	5.52	6.74	5.33	5.09
97.50°	5.31	5.28	4.81	5.65	3.79	3.88	3.29	4.55	3.62	3.52	4.44	4.08	4.99	5.26	6.49	5.37	5.31
100.00°	5.60	5.99	5.37	5.16	4.30	4.20	3.60	5.03	3.91	3.74	4.67	3.60	5.11	5.11	5.70	5.77	5.60

LD3605PY 240L 35K xx xx MW FO

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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	24156	24156	24156	24156	23590	23590	23590	23590	22533	22533	22533	21566	21566	21566	20678	20678	20261
	1	22051	21073	20197	19408	21492	20607	19810	19087	19735	19078	18475	18934	18398	17902	18195	17765	17382
	2	20026	18336	16939	15766	19485	17947	16663	15573	17217	16135	15201	16544	15640	14847	15921	15174	14835
	3	18239	16077	14405	13073	17728	15751	14200	12951	15137	13808	12713	14569	13436	12484	14042	13084	12789
	4	16684	14225	12425	11050	16210	13951	12269	10969	13433	11970	10811	12952	11684	10657	12505	11412	11157
	5	15331	12695	10854	9494	14897	12464	10733	9439	12026	10499	9329	11618	10276	9222	11237	10061	9841
	6	14150	11420	9587	8272	13756	11224	9492	8232	10851	9306	8154	10503	9128	8077	10177	8957	8766
	7	13115	10347	8551	7293	12758	10179	8475	7264	9861	8325	7206	9563	8181	7150	9283	8042	7877
	8	12204	9435	7693	6496	11881	9292	7630	6474	9018	7508	6431	8762	7390	6388	8520	7276	7133
	9	11399	8655	6974	5838	11107	8531	6922	5821	8295	6821	5787	8073	6723	5754	7863	6628	6503
	10	10684	7982	6364	5287	10420	7874	6321	5274	7669	6236	5247	7476	6154	5221	7293	6075	5965

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	229.1 fc	17.0 ft
6.5 ft	164.1 fc	20.1 ft
7.5 ft	123.2 fc	23.2 ft
8.0 ft	108.3 fc	24.8 ft
10.0 ft	69.3 fc	31.0 ft
12.0 ft	48.1 fc	37.2 ft
14.0 ft	35.4 fc	43.4 ft
16.0 ft	27.1 fc	49.6 ft
20.0 ft	17.3 fc	62.0 ft
24.0 ft	12.0 fc	74.4 ft
28.0 ft	8.8 fc	86.8 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	11453	11453	11453
45.00°	11091	11104	11092
55.00°	10717	10701	10699
65.00°	10029	9994	9996
75.00°	8614	8569	8546
85.00°	5849	5786	5700

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	19.6	21.2	20.0	21.6	21.9	19.6	21.2	20.0	21.6	21.9
	3H	21.4	22.9	21.8	23.2	23.6	21.4	22.9	21.8	23.2	23.6
	4H	22.1	23.5	22.5	23.8	24.2	22.0	23.4	22.4	23.8	24.2
	6H	22.5	23.8	22.9	24.2	24.6	22.5	23.8	22.9	24.2	24.6
	8H	22.6	23.9	23.1	24.3	24.7	22.6	23.9	23.1	24.3	24.7
	12H	22.7	23.9	23.2	24.3	24.7	22.7	23.9	23.1	24.3	24.7
4H	2H	20.2	21.6	20.6	22.0	22.4	20.2	21.6	20.6	22.0	22.4
	3H	22.3	23.4	22.7	23.8	24.2	22.2	23.4	22.7	23.8	24.2
	4H	23.0	24.1	23.5	24.5	25.0	23.0	24.1	23.5	24.5	24.9
	6H	23.6	24.5	24.1	25.0	25.4	23.6	24.5	24.0	25.0	25.4
	8H	23.8	24.7	24.2	25.1	25.6	23.8	24.6	24.2	25.1	25.5
	12H	23.9	24.7	24.4	25.2	25.6	23.9	24.7	24.4	25.1	25.6
8H	4H	23.3	24.2	23.8	24.7	25.1	23.3	24.2	23.8	24.6	25.1
	6H	24.0	24.7	24.5	25.2	25.7	24.0	24.7	24.5	25.2	25.7
	8H	24.3	24.9	24.8	25.4	25.9	24.2	24.9	24.7	25.4	25.9
	12H	24.4	25.0	24.9	25.5	26.1	24.4	25.0	24.9	25.5	26.0
12H	4H	23.4	24.2	23.9	24.6	25.1	23.4	24.1	23.8	24.6	25.1
	6H	24.1	24.7	24.6	25.2	25.7	24.1	24.7	24.6	25.2	25.7
	8H	24.4	24.9	24.9	25.4	26.0	24.3	24.9	24.8	25.4	26.0

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0