

## **Indoor Distribution Test Report**

# **Spectrum Lighting Inc.**

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## **Spectrum Lighting Photometric Lab**

### **Luminaire**

LD2405PX 240L 35K xx xx MW FO  
Nom 24 inch diameter LightDisc with 4 drivers

### **Test Number**

SP-01437\_3

### **Test Date**

11/11/2021

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

## Summary of Results

### Power

Input Watts	202 W
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### Lumen Output

Output Lumens	19705
Efficacy	97.55 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°	1.23
Four luminaires	1.35

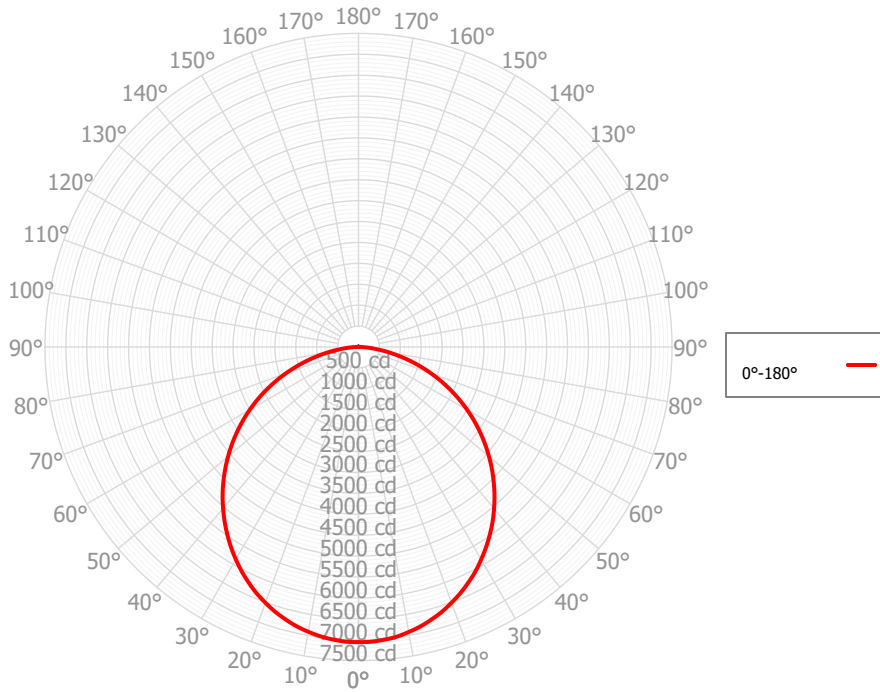
### Full Beam Angle

0° - 180°	110°
90° - 270°	N/A°

## IES File Header Contents

Keyword	Value
TEST	SP-01437_3
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	11/11/2021
ISSUEDATE	12/29/2022
LUMCAT	LD2405PX 240L 35K xx xx MW FO
LUMINAIRE	Nom 24 inch diameter LightDisc with 4 drivers
OTHER	Beam Angle: 110 degrees
OTHER	Reference project SL84
LAMPCAT	N/A
LAMP	N/A; PX PIE BOARDS
OTHER	CCT Output Multipliers: 27K x 0.95, 30K x 0.98, 40K x 1.0
OTHER	Total luminaire wattage is approximate
OTHER	This report prepared by Spectrum Lighting
_CRI	80+
_LAMPMULT	30L x 0.117, 60L x 0.24, 120L x 0.50, 180L x 0.75
_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°	677.52	3.44%	90.00° - 100.00°	11.14	0.06%
10.00° - 20.00°	1902.10	9.65%	100.00° - 110.00°	3.00	0.02%
20.00° - 30.00°	2862.62	14.53%	100.00° - 120.00°	6.47	0.03%
30.00° - 40.00°	3422.30	17.37%	120.00° - 130.00°	3.18	0.02%
40.00° - 50.00°	3524.64	17.89%	130.00° - 140.00°	2.87	0.01%
50.00° - 60.00°	3167.78	16.08%	140.00° - 150.00°	2.68	0.01%
60.00° - 70.00°	2402.35	12.19%	150.00° - 160.00°	2.23	0.01%
70.00° - 80.00°	1352.25	6.86%	160.00° - 170.00°	1.45	0.01%
80.00° - 90.00°	363.08	1.84%	170.00° - 180.00°	0.54	0.00%
0.00° - 90.00°	19674.63	99.84%	0.00° - 180.00°	19705.19	100.00%

### Candela Distribution

	0.00°	180.00°
0.00°	7061.11	7061.11
2.50°	7057.05	7055.70
5.00°	7029.69	7024.15
7.50°	6990.88	6981.68
10.00°	6923.09	6917.37
12.50°	6846.80	6843.54
15.00°	6747.98	6746.29
17.50°	6640.49	6638.58
20.00°	6509.39	6511.22
22.50°	6372.16	6374.84
25.00°	6217.76	6217.95
27.50°	6055.33	6051.23
30.00°	5869.26	5868.21
32.50°	5679.25	5677.17
35.00°	5477.31	5472.41
37.50°	5269.75	5260.72
40.00°	5044.67	5039.09
42.50°	4815.87	4812.23
45.00°	4574.86	4572.20
47.50°	4330.34	4325.10
50.00°	4073.93	4071.26
52.50°	3815.12	3813.70
55.00°	3547.92	3548.09
57.50°	3277.75	3277.86
60.00°	2996.64	3001.77
62.50°	2714.32	2722.23
65.00°	2427.39	2436.03
67.50°	2139.70	2145.81
70.00°	1848.99	1854.61
72.50°	1559.29	1562.81
75.00°	1273.79	1280.10
77.50°	993.89	1003.23
80.00°	738.38	746.68
82.50°	494.53	503.46
85.00°	303.32	304.51
87.50°	132.81	135.73
90.00°	61.63	47.25
92.50°	2.36	14.78
95.00°	2.54	1.20
97.50°	2.74	1.10
100.00°	3.07	1.39

### 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%	20%	0%
	<b>pcc</b>	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	10%	0%
	<b>pw</b>	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	30%
	<b>0</b>	23451	23451	23451	23451	22902	22902	22902	22902	21878	21878	21878	20940	20940	20940	20079	20079	20079	19675
	<b>1</b>	21424	20481	19637	18876	20883	20030	19261	18564	19185	18552	17971	18409	17893	17415	17694	17279	16891	16908
	<b>2</b>	19475	17846	16500	15370	18951	17470	16232	15183	16763	15721	14822	16112	15241	14477	15509	14790	14148	14461
	<b>3</b>	17752	15669	14057	12773	17259	15354	13859	12655	14760	13479	12424	14211	13119	12202	13701	12778	11988	12491
	<b>4</b>	16252	13882	12146	10820	15795	13617	11995	10742	13116	11705	10588	12652	11429	10439	12219	11166	10294	10917
	<b>5</b>	14945	12403	10627	9316	14526	12180	10510	9262	11756	10284	9156	11362	10068	9052	10994	9861	8951	9646
	<b>6</b>	13803	11169	9401	8132	13422	10979	9308	8094	10619	9129	8018	10283	8957	7943	9969	8791	7870	8605
	<b>7</b>	12801	10129	8397	7182	12456	9967	8322	7154	9660	8178	7098	9372	8038	7043	9102	7904	6989	7743
	<b>8</b>	11918	9245	7563	6408	11606	9106	7503	6386	8842	7385	6344	8594	7271	6303	8361	7160	6262	7020
	<b>9</b>	11137	8487	6864	5767	10855	8368	6814	5751	8140	6716	5718	7925	6622	5686	7723	6530	5654	6408
	<b>10</b>	10443	7833	6270	5230	10188	7729	6229	5217	7531	6147	5192	7344	6068	5166	7168	5991	5141	5884

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	233.4 fc	15.8 ft
6.5 ft	167.1 fc	18.7 ft
7.5 ft	125.5 fc	21.6 ft
8.0 ft	110.3 fc	23.0 ft
10.0 ft	70.6 fc	28.7 ft
12.0 ft	49.0 fc	34.5 ft
14.0 ft	36.0 fc	40.2 ft
16.0 ft	27.6 fc	46.0 ft
20.0 ft	17.7 fc	57.5 ft
24.0 ft	12.3 fc	69.0 ft
28.0 ft	9.0 fc	80.5 ft

### Average Luminaire Luminance [cd/m<sup>2</sup>]

	0.00°	45.00°	90.00°
<b>0.00°</b>	24193	24193	24193
<b>45.00°</b>	22167	22164	22161
<b>55.00°</b>	21193	21194	21194
<b>65.00°</b>	19679	19697	19714
<b>75.00°</b>	16862	16883	16904
<b>85.00°</b>	11924	11936	11948

### 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	21.9	23.5	22.3	23.9	24.2	21.9	23.5	22.3	23.9	24.2
	3H	23.7	25.2	24.1	25.5	25.9	23.7	25.2	24.1	25.5	25.9
	4H	24.3	25.7	24.7	26.1	26.5	24.4	25.7	24.8	26.1	26.5
	6H	24.8	26.1	25.2	26.5	26.8	24.8	26.1	25.2	26.5	26.9
	8H	24.9	26.2	25.4	26.6	27.0	24.9	26.2	25.4	26.6	27.0
	12H	25.0	26.2	25.4	26.6	27.0	25.0	26.2	25.5	26.6	27.0
4H	2H	22.5	23.9	22.9	24.3	24.7	22.5	23.9	22.9	24.3	24.7
	3H	24.5	25.7	25.0	26.1	26.5	24.6	25.7	25.0	26.1	26.5
	4H	25.3	26.4	25.8	26.8	27.2	25.3	26.4	25.8	26.8	27.2
	6H	25.9	26.8	26.3	27.3	27.7	25.9	26.8	26.4	27.3	27.7
	8H	26.1	26.9	26.5	27.4	27.8	26.1	26.9	26.5	27.4	27.9
	12H	26.2	27.0	26.7	27.4	27.9	26.2	27.0	26.7	27.5	27.9
8H	4H	25.6	26.5	26.1	26.9	27.4	25.6	26.5	26.1	26.9	27.4
	6H	26.3	27.0	26.8	27.5	28.0	26.3	27.0	26.8	27.5	28.0
	8H	26.5	27.2	27.0	27.7	28.2	26.6	27.2	27.1	27.7	28.2
	12H	26.7	27.3	27.2	27.8	28.3	26.7	27.3	27.3	27.8	28.4
12H	4H	25.6	26.4	26.1	26.9	27.4	25.7	26.4	26.1	26.9	27.4
	6H	26.4	27.0	26.9	27.5	28.0	26.4	27.0	26.9	27.5	28.0
	8H	26.6	27.2	27.1	27.7	28.3	26.7	27.2	27.2	27.7	28.3

Corrected UGR values based on total output energy  
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0