

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

IF03RMx xx DWDD1007 DLWFGPMW

Nom 3" diam Infinium, dim to warm 7L emitter - Wide flood optic, No lens

Test Number

SP-00942_M-7L

Test Date

5/1/2019

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

Summary of Results

Power

Input Watts	9.3 W
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Lumen Output

Output Lumens	451
Efficacy	48.46 lm/W

Luminous Dimensions

0° - 180° Size	-0.22
90° - 270° Size	-0.22
Height	0

Spacing Criterion

Two luminaires, plane 0°	0.9
Two luminaires, plane 90°	0.9
Four luminaires	0.83

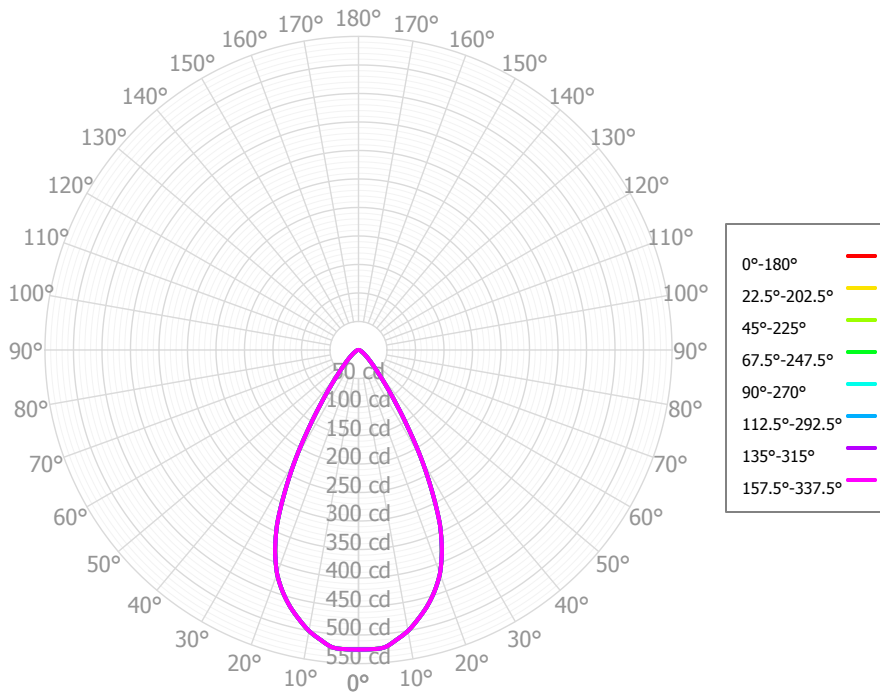
Full Beam Angle

0° - 180°	56°
90° - 270°	56°

IES File Header Contents

Keyword	Value
TEST	SP-00942_M-7L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	5/1/2019
ISSUEDATE	11/14/2019
LUMCAT	IF03RMx xx DWDD1007 DLWFGPMW
LUMINAIRE	Nom 3" diam Infinium, dim to warm 7L emitter - Wide flood optic, No lens
OTHER	Beam Angle: 56.4 degrees
LAMPCAT	N/A
LAMP	N/A
OTHER	CCT Output Multipliers: N/A - dim to warm
OTHER	Total luminaire wattage 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°	49.83	11.06%	90.00° - 100.00°	0.07	0.02%
10.00° - 20.00°	129.77	28.79%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	149.27	33.12%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	75.61	16.78%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	26.34	5.84%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	11.49	2.55%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	5.27	1.17%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	2.34	0.52%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	0.69	0.15%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	450.62	99.98%	0.00° - 180.00°	450.69	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°	525.44	525.44	525.44	525.44	525.44	525.44	525.44	525.44	525.44	525.44	525.44	525.44	525.44	525.44	525.44	525.44	525.44
2.50°	525.44	525.44	525.44	525.44	525.44	525.44	525.44	525.44	525.44	525.44	525.44	525.44	525.44	525.44	525.44	525.44	525.44
5.00°	523.63	523.63	523.63	523.63	523.63	523.63	523.63	523.63	523.63	523.63	523.63	523.63	523.63	523.63	523.63	523.63	523.63
7.50°	512.64	512.64	512.64	512.64	512.64	512.64	512.64	512.64	512.64	512.64	512.64	512.64	512.64	512.64	512.64	512.64	512.64
10.00°	500.37	500.37	500.37	500.37	500.37	500.37	500.37	500.37	500.37	500.37	500.37	500.37	500.37	500.37	500.37	500.37	500.37
12.50°	483.48	483.48	483.48	483.48	483.48	483.48	483.48	483.48	483.48	483.48	483.48	483.48	483.48	483.48	483.48	483.48	483.48
15.00°	465.34	465.34	465.34	465.34	465.34	465.34	465.34	465.34	465.34	465.34	465.34	465.34	465.34	465.34	465.34	465.34	465.34
17.50°	443.70	443.70	443.70	443.70	443.70	443.70	443.70	443.70	443.70	443.70	443.70	443.70	443.70	443.70	443.70	443.70	443.70
20.00°	417.67	417.67	417.67	417.67	417.67	417.67	417.67	417.67	417.67	417.67	417.67	417.67	417.67	417.67	417.67	417.67	417.67
22.50°	382.11	382.11	382.11	382.11	382.11	382.11	382.11	382.11	382.11	382.11	382.11	382.11	382.11	382.11	382.11	382.11	382.11
25.00°	338.08	338.08	338.08	338.08	338.08	338.08	338.08	338.08	338.08	338.08	338.08	338.08	338.08	338.08	338.08	338.08	338.08
27.50°	279.15	279.15	279.15	279.15	279.15	279.15	279.15	279.15	279.15	279.15	279.15	279.15	279.15	279.15	279.15	279.15	279.15
30.00°	220.36	220.36	220.36	220.36	220.36	220.36	220.36	220.36	220.36	220.36	220.36	220.36	220.36	220.36	220.36	220.36	220.36
32.50°	161.79	161.79	161.79	161.79	161.79	161.79	161.79	161.79	161.79	161.79	161.79	161.79	161.79	161.79	161.79	161.79	161.79
35.00°	114.81	114.81	114.81	114.81	114.81	114.81	114.81	114.81	114.81	114.81	114.81	114.81	114.81	114.81	114.81	114.81	114.81
37.50°	81.32	81.32	81.32	81.32	81.32	81.32	81.32	81.32	81.32	81.32	81.32	81.32	81.32	81.32	81.32	81.32	81.32
40.00°	57.43	57.43	57.43	57.43	57.43	57.43	57.43	57.43	57.43	57.43	57.43	57.43	57.43	57.43	57.43	57.43	57.43
42.50°	42.76	42.76	42.76	42.76	42.76	42.76	42.76	42.76	42.76	42.76	42.76	42.76	42.76	42.76	42.76	42.76	42.76
45.00°	32.25	32.25	32.25	32.25	32.25	32.25	32.25	32.25	32.25	32.25	32.25	32.25	32.25	32.25	32.25	32.25	32.25
47.50°	24.99	24.99	24.99	24.99	24.99	24.99	24.99	24.99	24.99	24.99	24.99	24.99	24.99	24.99	24.99	24.99	24.99
50.00°	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63	19.63
52.50°	15.49	15.49	15.49	15.49	15.49	15.49	15.49	15.49	15.49	15.49	15.49	15.49	15.49	15.49	15.49	15.49	15.49
55.00°	12.45	12.45	12.45	12.45	12.45	12.45	12.45	12.45	12.45	12.45	12.45	12.45	12.45	12.45	12.45	12.45	12.45
57.50°	9.98	9.98	9.98	9.98	9.98	9.98	9.98	9.98	9.98	9.98	9.98	9.98	9.98	9.98	9.98	9.98	9.98
60.00°	8.02	8.02	8.02	8.02	8.02	8.02	8.02	8.02	8.02	8.02	8.02	8.02	8.02	8.02	8.02	8.02	8.02
62.50°	6.28	6.28	6.28	6.28	6.28	6.28	6.28	6.28	6.28	6.28	6.28	6.28	6.28	6.28	6.28	6.28	6.28
65.00°	5.15	5.15	5.15	5.15	5.15	5.15	5.15	5.15	5.15	5.15	5.15	5.15	5.15	5.15	5.15	5.15	5.15
67.50°	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21
70.00°	3.47	3.47	3.47	3.47	3.47	3.47	3.47	3.47	3.47	3.47	3.47	3.47	3.47	3.47	3.47	3.47	3.47
72.50°	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77
75.00°	2.18	2.18	2.18	2.18	2.18	2.18	2.18	2.18	2.18	2.18	2.18	2.18	2.18	2.18	2.18	2.18	2.18
77.50°	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64
80.00°	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
82.50°	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
85.00°	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57
87.50°	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
90.00°	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51
92.50°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.00°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
97.50°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
102.50°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.00°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
107.50°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110.00°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
112.50°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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	537	537	537	537	524	524	524	524	501	501	501	479	479	479	460	460	451
	1	511	498	486	476	500	488	478	468	470	462	454	453	447	440	438	432	428
	2	485	462	444	428	475	455	438	423	440	426	414	427	415	405	414	405	397
	3	460	431	408	390	451	424	403	387	413	395	380	402	387	374	391	379	369
	4	437	402	377	358	429	397	374	356	387	367	351	378	361	347	370	355	343
	5	415	377	350	331	407	373	348	329	364	343	326	357	338	323	350	334	321
	6	394	354	327	307	388	350	325	306	344	321	304	337	317	302	331	314	300
	7	375	333	306	287	369	330	304	286	324	301	285	319	298	283	314	296	282
	8	357	314	287	269	352	312	286	268	307	284	267	302	281	266	298	279	265
	9	341	297	271	253	336	295	270	252	291	268	251	287	266	250	283	264	250
	10	325	282	255	238	321	280	255	238	276	253	237	272	251	236	269	250	236

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	17.4 fc	5.9 ft
6.5 ft	12.4 fc	7.0 ft
7.5 ft	9.3 fc	8.0 ft
8.0 ft	8.2 fc	8.6 ft
10.0 ft	5.3 fc	10.7 ft
12.0 ft	3.6 fc	12.9 ft
14.0 ft	2.7 fc	15.0 ft
16.0 ft	2.1 fc	17.2 ft
20.0 ft	1.3 fc	21.4 ft
24.0 ft	0.9 fc	25.7 ft
28.0 ft	0.7 fc	30.0 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	148,784	148,784	148,784
45.00°	12,913	12,913	12,913
55.00°	6,146	6,146	6,146
65.00°	3,451	3,451	3,451
75.00°	2,389	2,389	2,389
85.00°	1,842	1,842	1,842

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	10.8	11.9	11.2	12.2	12.5	10.8	11.9	11.2	12.2	12.5
	3H	11.6	12.5	11.9	12.8	13.2	11.6	12.5	11.9	12.8	13.2
	4H	11.8	12.6	12.2	13.0	13.4	11.8	12.6	12.2	13.0	13.4
	6H	11.9	12.7	12.3	13.0	13.4	11.9	12.7	12.3	13.0	13.4
	8H	11.9	12.6	12.3	13.0	13.4	11.9	12.6	12.3	13.0	13.4
	12H	11.9	12.6	12.3	13.0	13.4	11.9	12.6	12.3	13.0	13.4
4H	2H	11.0	11.8	11.4	12.2	12.6	11.0	11.8	11.4	12.2	12.6
	3H	11.9	12.6	12.3	13.0	13.4	11.9	12.6	12.3	13.0	13.4
	4H	12.2	12.8	12.6	13.2	13.7	12.2	12.8	12.6	13.2	13.7
	6H	12.4	12.9	12.9	13.4	13.8	12.4	12.9	12.9	13.4	13.8
	8H	12.4	12.9	12.9	13.3	13.8	12.4	12.9	12.9	13.3	13.8
	12H	12.4	12.8	12.9	13.3	13.8	12.4	12.8	12.9	13.3	13.8
8H	4H	12.2	12.7	12.7	13.2	13.6	12.2	12.7	12.7	13.2	13.6
	6H	12.5	12.9	13.0	13.4	13.9	12.5	12.9	13.0	13.4	13.9
	8H	12.5	12.9	13.1	13.4	13.9	12.5	12.9	13.1	13.4	13.9
	12H	12.6	12.9	13.1	13.4	14.0	12.6	12.9	13.1	13.4	14.0
12H	4H	12.2	12.6	12.7	13.1	13.6	12.2	12.6	12.7	13.1	13.6
	6H	12.5	12.8	13.0	13.3	13.8	12.5	12.8	13.0	13.3	13.8
	8H	12.5	12.8	13.1	13.3	13.9	12.5	12.8	13.1	13.3	13.9

Corrected UGR values based on total output lumens

SHR = 1.0