

## **Indoor Distribution Test Report**

# **Spectrum Lighting Inc.**

994 Jefferson Street  
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## **Spectrum Lighting Photometric Lab**

### **Luminaire**

IF03RMx IC DWDD1007 DLWFGP WWLWMW

Nom 3" diam round recessed Infinium wall wash luminaire with 7L 27HK dim to warm emitter

### **Test Number**

SP-00954\_M-7L

### **Test Date**

11/6/2019

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

### Summary of Results

#### Power

Input Watts	7.3 W
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#### Lumen Output

Output Lumens	345
Efficacy	47.22 lm/W

#### Luminous Dimensions

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

#### Spacing Criterion

Two luminaires, plane 0°	1.53
Two luminaires, plane 90°	0.79
Four luminaires	1.11

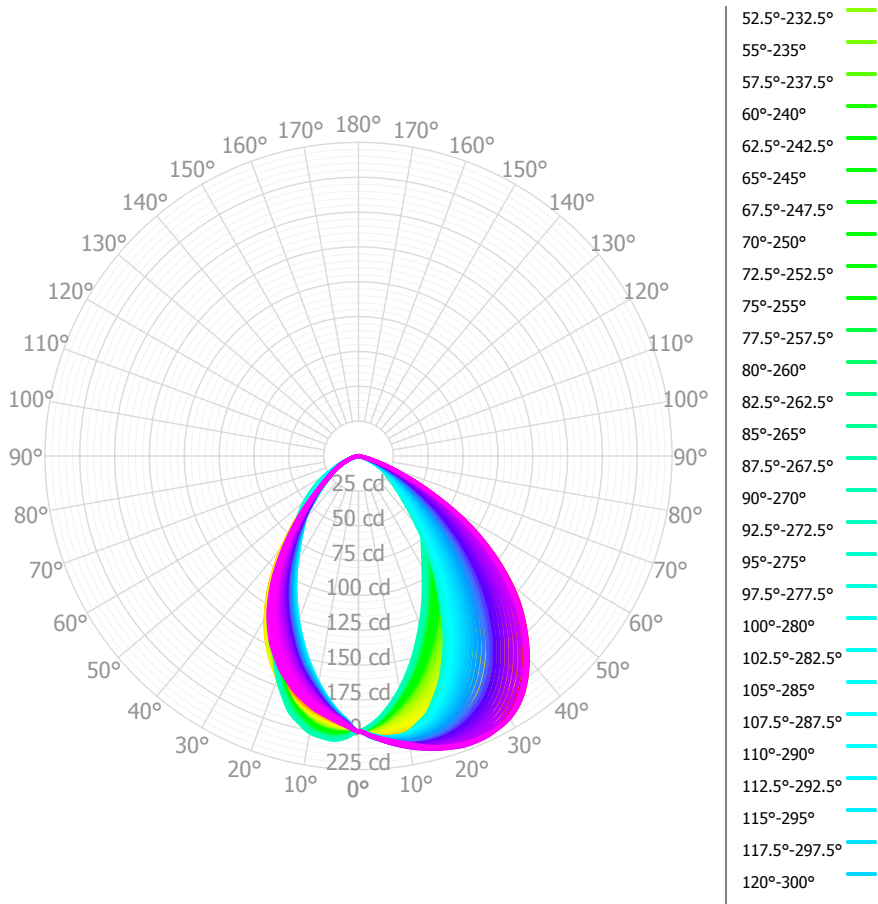
#### Full Beam Angle

0° - 180°	90°
90° - 270°	55°

### IES File Header Contents

Keyword	Value
TEST	SP-00954_M-7L
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	11/6/2019
ISSUEDATE	12/2/2019
LUMCAT	IF03RMx IC DWDD1007 DLWFGP WWLWMW
LUMINAIRE	Nom 3" diam round recessed Infinium wall wash luminaire with 7L 27HK dim to warm emitter
OTHER	Wide Flood Optic
OTHER	Beam Angle: 88 deg x 129 deg
LAMPCAT	N/A
LAMP	N/A
OTHER	CCT Output Multipliers: N/A, dim to warm emitter
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°	18.77	5.45%	90.00° - 100.00°	0.04	0.01%
10.00° - 20.00°	50.95	14.78%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	70.76	20.53%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	73.37	21.28%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	61.29	17.78%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	42.27	12.26%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	21.12	6.13%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	5.41	1.57%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	0.72	0.21%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	344.67	99.99%	0.00° - 180.00°	344.71	100.00%

	0.00°	2.50°	5.00°	7.50°	10.00°	12.50°	15.00°	17.50°	20.00°	22.50°	25.00°	27.50°	30.00°	32.50°	35.00°	37.50°	40.00°	42.50°	45.00°	47.50°	50.00°
0.00°	197.58	197.58	197.58	197.58	197.58	197.58	197.58	197.58	197.58	197.58	197.58	197.58	197.58	197.58	197.58	197.58	197.58	197.58	197.58	197.58	197.58
2.50°	200.81	200.62	200.44	200.26	200.08	199.89	199.71	199.53	199.35	199.16	198.91	198.65	198.39	198.13	197.88	197.62	197.36	197.10	196.85	196.57	196.30
5.00°	203.69	203.27	202.85	202.43	202.01	201.59	201.17	200.75	200.33	199.91	199.34	198.76	198.18	197.61	197.03	196.46	195.88	195.30	194.73	194.19	193.64
7.50°	206.44	205.76	205.08	204.40	203.72	203.04	202.36	201.68	201.00	200.32	199.31	198.29	197.28	196.26	195.25	194.24	193.22	192.21	191.19	190.39	189.58
10.00°	209.39	208.41	207.43	206.46	205.48	204.50	203.53	202.55	201.58	200.60	199.13	197.66	196.19	194.72	193.25	191.78	190.31	188.84	187.37	186.18	185.00
12.50°	212.89	211.53	210.17	208.81	207.45	206.09	204.73	203.37	202.01	200.65	198.71	196.77	194.83	192.89	190.95	189.01	187.07	185.13	183.19	181.61	180.00
15.00°	215.95	214.25	212.55	210.85	209.15	207.45	205.74	204.04	202.34	200.64	198.12	195.60	193.09	190.57	188.05	185.54	183.02	180.50	177.99	176.10	174.22
17.50°	218.04	215.97	213.90	211.83	209.76	207.69	205.62	203.55	201.48	199.41	196.33	193.26	190.19	187.11	184.04	180.97	177.90	174.82	171.75	169.54	167.30
20.00°	219.58	217.17	214.76	212.36	209.95	207.54	205.13	202.73	200.32	197.91	194.29	190.67	187.05	183.44	179.82	176.20	172.58	168.96	165.34	162.75	160.11
22.50°	220.13	217.34	214.55	211.76	208.97	206.18	203.39	200.60	197.81	195.02	190.99	186.97	182.94	178.92	174.89	170.86	166.84	162.81	158.79	155.93	153.00
25.00°	220.14	217.01	213.87	210.74	207.60	204.46	201.33	198.19	195.05	191.92	187.45	182.99	178.53	174.06	169.60	165.13	160.67	156.21	151.74	148.71	145.60
27.50°	219.38	215.89	212.41	208.92	205.43	201.94	198.45	194.96	191.48	187.99	183.14	178.29	173.44	168.60	163.75	158.90	154.05	149.21	144.36	141.20	138.00
30.00°	217.02	213.35	209.68	206.01	202.34	198.67	195.00	191.33	187.66	183.99	178.69	173.40	168.10	162.81	157.51	152.21	146.92	141.62	136.33	133.13	129.90
32.50°	212.79	208.86	204.93	201.01	197.08	193.15	189.23	185.30	181.37	177.45	171.94	166.44	160.94	155.44	149.94	144.44	138.94	133.44	127.94	124.84	121.70
35.00°	206.59	202.62	198.64	194.66	190.68	186.71	182.73	178.75	174.78	170.80	165.10	159.40	153.69	147.99	142.29	136.59	130.89	125.19	119.48	116.50	113.50
37.50°	198.46	194.43	190.41	186.38	182.35	178.32	174.29	170.26	166.23	162.20	156.51	150.82	145.13	139.44	133.75	128.06	122.37	116.68	110.99	108.29	105.50
40.00°	189.16	185.20	181.24	177.29	173.33	169.37	165.41	161.46	157.50	153.54	147.85	142.16	136.48	130.79	125.10	119.41	113.72	108.03	102.34	99.97	97.50
42.50°	178.90	175.02	171.14	167.26	163.37	159.49	155.61	151.73	147.85	143.96	138.37	132.78	127.19	121.60	116.00	110.41	104.82	99.23	93.64	91.69	89.74
45.00°	167.90	164.14	160.39	156.64	152.89	149.13	145.38	141.63	137.87	134.12	128.71	123.30	117.88	112.47	107.06	101.65	96.23	90.82	85.41	83.85	82.29
47.50°	156.40	152.61	148.82	145.02	141.23	137.44	133.64	129.85	126.06	122.26	117.27	112.27	107.28	102.29	97.29	92.30	87.30	82.31	77.31	76.04	74.76
50.00°	143.02	139.39	135.76	132.13	128.51	124.88	121.25	117.62	113.99	110.36	105.82	101.29	96.75	92.21	87.67	83.13	78.60	74.06	69.52	68.48	67.40
52.50°	128.61	125.23	121.86	118.48	115.11	111.73	108.36	104.98	101.61	98.23	94.18	90.13	86.08	82.03	77.98	73.93	69.88	65.83	61.79	60.96	60.14
55.00°	113.34	110.29	107.25	104.20	101.16	98.11	95.06	92.02	88.97	85.93	82.43	78.93	75.44	71.94	68.44	64.94	61.45	57.95	54.45	53.79	53.10
57.50°	97.70	94.95	92.21	89.46	86.71	83.97	81.22	78.48	75.73	72.99	70.12	67.25	64.38	61.51	58.65	55.78	52.91	50.04	47.17	46.62	46.00
60.00°	80.53	78.29	76.04	73.80	71.55	69.31	67.06	64.82	62.57	60.33	58.04	55.75	53.46	51.17	48.88	46.59	44.30	42.01	39.72	39.28	38.80
62.50°	62.86	61.26	59.66	58.06	56.46	54.86	53.26	51.66	50.06	48.46	46.66	44.86	43.06	41.26	39.46	37.66	35.86	34.06	32.26	31.85	31.40
65.00°	47.80	46.61	45.43	44.24	43.05	41.87	40.68	39.49	38.31	37.12	35.77	34.43	33.08	31.74	30.39	29.05	27.70	26.36	25.01	24.65	24.20
67.50°	33.40	32.68	31.97	31.25	30.53	29.82	29.10	28.38	27.67	26.95	25.94	24.94	23.93	22.92	21.92	20.91	19.91	18.90	17.89	17.73	17.50
70.00°	23.37	22.77	22.17	21.57	20.97	20.37	19.77	19.17	18.57	17.97	17.33	16.69	16.05	15.41	14.77	14.12	13.48	12.84	12.20	12.12	12.00
72.50°	14.25	13.83	13.40	12.97	12.54	12.11	11.69	11.26	10.83	10.40	10.07	9.73	9.39	9.05	8.72	8.38	8.04	7.70	7.36	7.38	7.40
75.00°	7.29	7.08	6.87	6.66	6.45	6.24	6.03	5.82	5.61	5.40	5.27	5.14	5.01	4.88	4.75	4.62	4.49	4.36	4.23	4.25	4.27
77.50°	3.00	2.88	2.77	2.66	2.55	2.43	2.32	2.21	2.09	1.98	2.01	2.04	2.06	2.09	2.12	2.14	2.17	2.19	2.22	2.20	2.19
80.00°	0.87	0.86	0.86	0.85	0.85	0.84	0.84	0.83	0.82	0.82	0.84	0.87	0.89	0.91	0.94	0.96	0.98	1.01	1.03	1.05	1.07
82.50°	0.47	0.48	0.49	0.51	0.52	0.54	0.55	0.56	0.58	0.59	0.60	0.60	0.60	0.60	0.61	0.61	0.61	0.61	0.62	0.62	0.63
85.00°	0.49	0.50	0.51	0.51	0.52	0.53	0.54	0.54	0.55	0.56	0.54	0.53	0.51	0.50	0.48	0.46	0.45	0.43	0.42	0.44	0.46
87.50°	0.46	0.47	0.48	0.49	0.50	0.51	0.52	0.53	0.53	0.54	0.55	0.55	0.55	0.56	0.56	0.57	0.57	0.57	0.58	0.57	0.57
90.00°	0.64	0.63	0.61	0.60	0.58	0.57	0.56	0.54	0.53	0.52	0.53	0.53	0.54	0.55	0.56	0.57	0.58	0.58	0.59	0.59	0.59
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	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	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	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	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	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	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	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	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	0.00	0.00	0.00	0.00

### 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>	410	410	410	410	401	401	401	401	383	383	383	367	367	367	352	352	345
	<b>1</b>	384	371	360	349	375	363	353	344	349	341	333	336	329	323	324	319	313
	<b>2</b>	356	333	314	299	348	327	310	295	315	301	288	304	292	282	294	285	276
	<b>3</b>	330	300	277	258	322	295	273	256	285	267	252	276	261	248	268	255	243
	<b>4</b>	306	271	246	226	299	267	243	225	259	238	222	251	233	219	244	229	216
	<b>5</b>	284	246	220	200	278	243	218	199	236	214	197	229	210	195	223	207	193
	<b>6</b>	265	225	198	179	259	222	196	178	216	193	176	211	190	175	205	188	174
	<b>7</b>	248	206	180	161	242	204	178	160	199	176	159	194	174	158	190	171	157
	<b>8</b>	232	190	164	146	227	188	163	146	184	161	145	180	159	144	176	157	143
	<b>9</b>	218	176	150	133	213	174	150	133	170	148	132	167	146	132	164	145	131
	<b>10</b>	205	164	139	122	201	162	138	122	159	137	122	156	135	121	153	134	121

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	6.5 fc	11.7 ft
6.5 ft	4.7 fc	13.9 ft
7.5 ft	3.5 fc	16.0 ft
8.0 ft	3.1 fc	17.1 ft
10.0 ft	2.0 fc	21.4 ft
12.0 ft	1.4 fc	25.6 ft
14.0 ft	1.0 fc	29.9 ft
16.0 ft	0.8 fc	34.2 ft
20.0 ft	0.5 fc	42.7 ft
24.0 ft	0.3 fc	51.2 ft
28.0 ft	0.3 fc	59.8 ft

### Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
<b>0.00°</b>	55,948	55,948	55,948
<b>45.00°</b>	67,235	34,203	24,903
<b>55.00°</b>	55,952	26,882	19,576
<b>65.00°</b>	32,027	16,758	11,590
<b>75.00°</b>	7,973	4,625	4,783
<b>85.00°</b>	1,591	1,356	1,798

### UGR CIE 190:2010

<b>Ceiling reflectance</b>		<b>0.7</b>	<b>0.7</b>	<b>0.5</b>	<b>0.5</b>	<b>0.3</b>	<b>0.7</b>	<b>0.7</b>	<b>0.5</b>	<b>0.5</b>	<b>0.3</b>
<b>Wall reflectance</b>		<b>0.5</b>	<b>0.3</b>	<b>0.5</b>	<b>0.3</b>	<b>0.3</b>	<b>0.5</b>	<b>0.3</b>	<b>0.5</b>	<b>0.3</b>	<b>0.3</b>
<b>Plane reflectance</b>		<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>
<b>Room dimensions</b>		<b>Viewed crosswise</b>					<b>Viewed endwise</b>				
<b>2H</b>	<b>2H</b>	26.3	27.7	26.6	28.0	28.3	17.6	19.0	17.9	19.3	19.6
	<b>3H</b>	26.8	28.0	27.1	28.3	28.7	18.4	19.6	18.7	19.9	20.3
	<b>4H</b>	26.8	27.9	27.2	28.3	28.7	18.5	19.6	18.9	20.0	20.4
	<b>6H</b>	26.7	27.8	27.1	28.1	28.5	18.5	19.6	18.9	19.9	20.3
	<b>8H</b>	26.7	27.7	27.1	28.1	28.5	18.5	19.5	18.9	19.9	20.3
	<b>12H</b>	26.6	27.6	27.0	28.0	28.4	18.4	19.4	18.9	19.8	20.2
<b>4H</b>	<b>2H</b>	26.2	27.4	26.6	27.7	28.1	17.9	19.0	18.3	19.4	19.8
	<b>3H</b>	26.8	27.7	27.2	28.1	28.5	18.8	19.7	19.2	20.1	20.5
	<b>4H</b>	26.8	27.6	27.2	28.0	28.5	18.9	19.8	19.3	20.2	20.6
	<b>6H</b>	26.7	27.4	27.2	27.9	28.3	19.0	19.7	19.4	20.1	20.6
	<b>8H</b>	26.7	27.3	27.1	27.8	28.3	18.9	19.6	19.4	20.1	20.5
	<b>12H</b>	26.6	27.2	27.1	27.7	28.2	18.9	19.5	19.4	20.0	20.5
<b>8H</b>	<b>4H</b>	26.7	27.3	27.1	27.8	28.3	18.9	19.6	19.4	20.1	20.5
	<b>6H</b>	26.6	27.1	27.1	27.6	28.1	19.0	19.5	19.5	20.0	20.5
	<b>8H</b>	26.5	27.0	27.0	27.5	28.0	19.0	19.5	19.5	20.0	20.5
	<b>12H</b>	26.5	26.9	27.0	27.4	28.0	19.0	19.4	19.5	19.9	20.5
<b>12H</b>	<b>4H</b>	26.6	27.2	27.1	27.7	28.2	18.9	19.5	19.4	20.0	20.5
	<b>6H</b>	26.5	27.0	27.1	27.5	28.0	19.0	19.5	19.5	19.9	20.5
	<b>8H</b>	26.5	26.9	27.0	27.4	28.0	18.9	19.4	19.5	19.9	20.5

Corrected UGR values based on total output lumens

SHR = 1.0