

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

SR3Mx 07L 35K XN xx xx RDA3F 07L 35K XN MW SO (nadir)
Nom. 3" Round Adjustable A-Spec, Xtra Narrow Beam

Test Number

SP-01425_2

Test Date

10/10/2022

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

Summary of Results

Power

Input Watts	14.5 W
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Lumen Output

Output Lumens	1001
Efficacy	69.01 lm/W

Luminous Dimensions

0° - 180° Size	-0.25
90° - 270° Size	-0.25
Height	0

Spacing Criterion

Two luminaires, plane 0°	0.28
Two luminaires, plane 90°	0.28
Four luminaires	0.29

Full Beam Angle

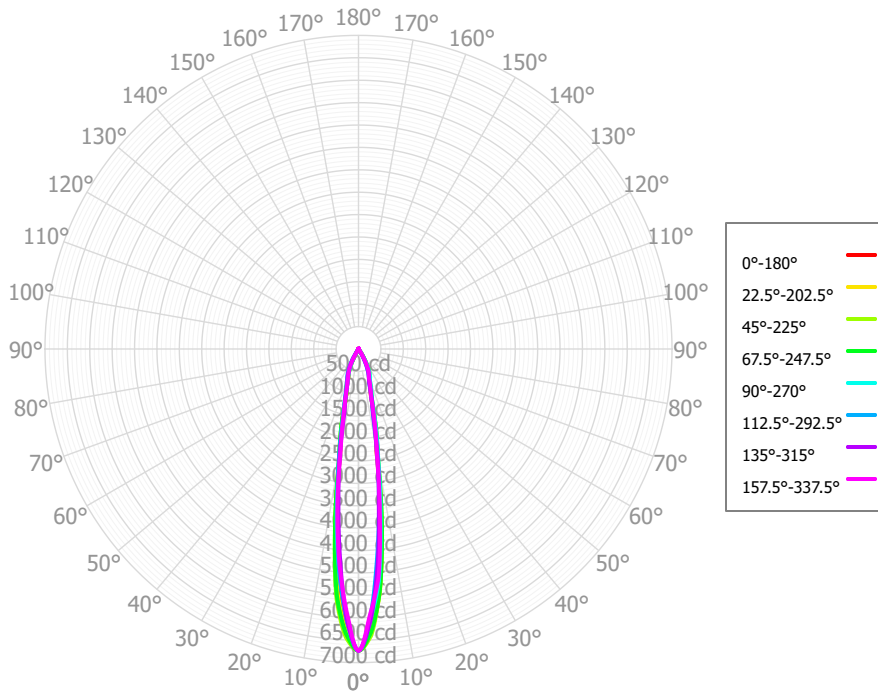
0° - 180°	16°
90° - 270°	17°

IES File Header Contents

Keyword	Value
TEST	SP-01425_2
TESTLAB	Spectrum Lighting Photometric Lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	10/10/2022
ISSUEDATE	10/25/2022
LUMCAT	SR3Mx 07L 35K XN xx xx RDA3F 07L 35K XN MW SO (nadir)
LUMINAIRE	Nom. 3" Round Adjustable A-Spec, Xtra Narrow Beam
OTHER	Matte White Trim, Solite Lens
OTHER	16.7 Degree Beam Angle
LAMP	N/A, 9mm LES
LAMPCAT	N/A, Min. 80 CRI
OTHER	Reference project SL167
OTHER	No thermal protection required for 7L, 10L, and 15L (non-IC)
OTHER	No thermal protection required for all (including 20L and 25L) IC luminaires
OTHER	Total Luminaire Watts is approximate
OTHER	This report prepared by Spectrum Lighting
_CRI	80

SR3Mx 07L 35K XN xx xx RDA3F 07L 35K XN
 MW SO (nadir)

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	399.81	39.95%	90.00° - 100.00°	2.01	0.20%
10.00° - 20.00°	338.07	33.78%	100.00° - 110.00°	2.00	0.20%
20.00° - 30.00°	207.37	20.72%	100.00° - 120.00°	3.82	0.38%
30.00° - 40.00°	28.07	2.81%	120.00° - 130.00°	1.84	0.18%
40.00° - 50.00°	3.10	0.31%	130.00° - 140.00°	1.82	0.18%
50.00° - 60.00°	2.71	0.27%	140.00° - 150.00°	1.82	0.18%
60.00° - 70.00°	2.67	0.27%	150.00° - 160.00°	1.93	0.19%
70.00° - 80.00°	2.26	0.23%	160.00° - 170.00°	1.13	0.11%
80.00° - 90.00°	2.07	0.21%	170.00° - 180.00°	0.19	0.02%
0.00° - 90.00°	986.14	98.54%	0.00° - 180.00°	1000.70	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°	6734.32	6734.32	6734.32	6734.32	6734.32	6734.32	6734.32	6734.32	6734.32	6734.32	6734.32	6734.32	6734.32	6734.32	6734.32	6734.32	6734.32
2.50°	6118.34	6324.64	6410.39	6342.30	6049.53	6008.22	6033.86	5905.25	6114.55	6345.88	6444.31	6367.93	6055.41	6002.60	6084.75	5934.13	6118.34
5.00°	5169.74	5460.08	5424.87	5434.48	5206.09	4971.77	4717.43	4846.87	5272.19	5426.52	5609.54	5538.01	4952.69	4728.66	4869.17	5120.32	5169.74
7.50°	3772.82	3927.25	3999.18	3993.19	3767.14	3584.35	3433.15	3609.39	3780.41	3929.42	4022.54	4007.73	3728.95	3501.38	3474.03	3644.34	3772.82
10.00°	2319.44	2425.62	2509.21	2518.12	2550.65	2532.74	2412.79	2305.31	2350.79	2386.34	2511.44	2492.87	2431.24	2399.47	2462.92	2351.86	2319.44
12.50°	1640.31	1740.32	1759.68	1802.31	1761.27	1630.72	1457.86	1582.97	1688.24	1688.96	1762.89	1777.00	1621.56	1483.93	1517.20	1659.42	1640.31
15.00°	1073.42	1067.69	1129.16	1144.16	1156.58	1160.16	1134.66	1089.29	1053.77	1069.90	1058.29	1065.26	1124.46	1108.59	1109.08	1073.35	1073.42
17.50°	851.55	874.73	876.79	916.22	930.80	891.93	829.49	835.78	857.61	851.62	862.65	873.21	837.11	797.36	803.55	865.67	851.55
20.00°	684.78	683.15	692.86	726.53	748.85	741.75	723.97	683.68	666.45	677.64	672.26	681.16	690.45	683.21	674.73	684.93	684.78
22.50°	605.66	616.23	611.16	641.86	663.13	650.77	617.15	573.67	571.91	553.65	557.57	557.96	552.95	563.87	582.45	606.55	605.66
25.00°	542.32	549.31	550.09	568.40	562.62	536.97	493.51	482.70	473.32	436.11	438.84	435.23	421.97	427.22	458.78	512.83	542.32
27.50°	395.87	412.19	418.40	427.89	427.92	411.16	367.13	319.85	272.26	257.86	243.38	248.33	271.33	288.27	328.10	355.21	395.87
30.00°	233.17	274.79	271.30	279.31	288.85	260.06	195.60	122.74	75.10	70.91	54.60	60.25	105.82	141.11	190.62	207.09	233.17
32.50°	125.80	146.59	151.84	154.64	139.15	94.74	31.34	40.25	41.69	28.30	30.83	32.16	25.42	22.72	51.47	101.51	125.80
35.00°	30.43	18.54	38.87	33.30	27.38	24.64	18.37	15.18	8.65	8.48	7.68	8.85	12.46	13.45	15.22	13.29	30.43
37.50°	9.35	9.93	12.10	12.25	15.10	10.68	5.83	5.99	6.45	5.02	5.98	6.50	5.72	5.80	6.63	8.99	9.35
40.00°	5.63	4.49	7.53	6.63	5.90	5.01	5.25	5.31	4.24	4.48	4.29	5.11	4.16	4.90	4.25	5.19	5.63
42.50°	4.63	4.54	5.57	4.93	5.25	4.53	4.68	4.39	3.52	4.41	4.04	4.58	3.41	4.12	3.65	4.03	4.63
45.00°	4.30	4.82	4.33	3.91	4.55	4.08	4.19	3.33	2.79	4.43	3.80	4.11	3.37	3.90	3.30	3.05	4.30
47.50°	4.08	4.18	3.97	3.52	3.69	3.65	3.70	2.82	2.75	4.34	3.56	4.22	3.15	3.66	3.03	3.09	4.08
50.00°	3.90	3.49	3.86	3.25	2.99	3.23	3.68	2.64	2.72	4.23	3.32	4.36	2.76	3.32	2.91	3.16	3.90
52.50°	3.10	3.16	4.11	3.23	2.82	2.82	3.67	2.61	2.80	3.58	3.14	3.93	2.57	2.99	2.84	3.45	3.10
55.00°	2.12	2.86	4.46	3.26	2.76	2.44	3.40	2.68	2.89	2.82	2.96	3.45	2.56	2.78	2.64	3.65	2.12
57.50°	2.43	2.77	4.03	3.08	3.09	2.10	3.13	2.51	2.45	3.16	2.88	3.16	3.01	2.59	2.39	3.08	2.43
60.00°	3.15	2.70	3.32	2.86	3.34	1.98	2.89	2.18	1.99	3.77	2.81	2.89	3.92	2.52	2.34	2.60	3.15
62.50°	3.11	2.42	2.84	3.14	3.32	2.04	2.64	2.02	2.47	3.23	2.91	3.07	4.04	2.48	2.36	2.81	3.11
65.00°	2.83	2.12	2.44	3.54	3.24	1.97	2.44	1.99	3.01	2.38	3.03	3.29	3.32	2.64	2.24	2.96	2.83
67.50°	2.68	2.58	2.56	3.25	3.00	1.82	2.24	1.84	2.43	2.02	3.58	3.11	2.81	2.80	2.07	2.65	2.68
70.00°	2.57	3.13	2.89	2.78	2.67	1.76	2.03	1.61	1.77	1.80	4.15	2.88	2.52	2.86	2.03	2.33	2.57
72.50°	2.17	2.52	2.66	2.56	2.01	1.79	1.81	1.67	1.79	2.07	2.97	2.59	2.24	2.84	2.05	2.00	2.17
75.00°	1.66	1.76	2.19	2.42	1.48	1.76	2.12	1.93	1.87	2.48	1.68	2.29	1.96	2.06	2.17	1.73	1.66
77.50°	1.96	1.77	2.06	2.37	1.54	1.70	2.46	1.96	2.01	2.56	1.91	2.20	1.87	1.37	2.35	2.37	1.96
80.00°	2.60	1.89	2.08	2.34	1.58	1.77	2.17	1.79	2.16	2.53	2.25	2.14	2.01	1.51	2.27	2.94	2.60
82.50°	2.42	1.70	2.22	2.13	1.54	1.97	1.84	1.58	2.28	2.11	2.11	2.11	2.05	1.63	2.08	2.53	2.42
85.00°	1.88	1.47	2.41	1.85	1.49	1.89	2.02	1.34	2.38	1.56	1.92	2.10	1.97	1.65	1.89	2.12	1.88
87.50°	1.61	1.59	2.30	1.80	1.33	1.54	2.25	1.29	2.17	1.66	1.88	2.14	1.89	1.67	1.71	1.60	1.61
90.00°	1.45	1.78	2.05	1.83	1.22	1.41	2.05	1.40	1.91	2.01	1.86	2.20	1.81	1.63	1.85	1.12	1.45
92.50°	1.79	1.79	1.98	1.81	1.40	1.52	1.80	1.43	1.82	1.91	1.70	2.28	1.88	1.61	2.18	1.58	1.79
95.00°	2.39	1.78	2.00	1.77	1.58	1.54	1.86	1.38	1.75	1.63	1.53	2.37	2.17	1.81	2.35	2.03	2.39
97.50°	2.41	1.74	2.11	1.75	1.70	1.44	1.95	1.55	1.70	1.67	1.87	2.16	2.27	2.00	2.42	1.84	2.41
100.00°	2.14	1.71	2.27	1.74	1.80	1.49	1.99	1.95	1.66	1.86	2.29	1.88	2.07	1.86	2.33	1.65	2.14

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%	20%	0%
	pcc	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	10%	0%
	pw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	30%
	0	1188	1188	1188	1188	1159	1159	1159	1159	1104	1104	1104	1054	1054	1054	1008	1008	1008	986
	1	1146	1124	1105	1087	1121	1102	1084	1069	1059	1046	1033	1020	1010	1000	984	976	969	956
	2	1108	1071	1041	1015	1086	1053	1026	1003	1020	998	979	989	972	956	960	947	935	928
	3	1072	1025	989	960	1053	1011	978	951	984	957	935	960	937	919	937	919	903	901
	4	1039	985	945	915	1023	974	937	909	952	921	897	932	906	886	913	892	875	875
	5	1008	949	908	878	994	940	902	873	922	890	865	906	878	856	890	867	848	851
	6	980	917	875	845	967	910	871	842	895	861	836	881	852	829	868	843	823	829
	7	952	888	846	817	941	882	842	815	869	835	810	858	828	805	847	821	800	807
	8	927	861	820	792	917	856	817	790	846	811	786	836	805	783	827	799	779	787
	9	903	837	796	769	894	832	794	767	823	789	765	815	784	762	807	779	759	768
	10	881	814	775	748	872	810	772	747	803	768	745	795	764	742	789	760	740	750

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	222.6 fc	1.6 ft
6.5 ft	159.4 fc	1.9 ft
7.5 ft	119.7 fc	2.2 ft
8.0 ft	105.2 fc	2.3 ft
10.0 ft	67.3 fc	2.9 ft
12.0 ft	46.8 fc	3.5 ft
14.0 ft	34.4 fc	4.0 ft
16.0 ft	26.3 fc	4.6 ft
20.0 ft	16.8 fc	5.8 ft
24.0 ft	11.7 fc	6.9 ft
28.0 ft	8.6 fc	8.1 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	1476705	1476705	1476705
45.00°	1334	1344	1410
55.00°	809	1706	1054
65.00°	1469	1265	1683
75.00°	1406	1860	1255
85.00°	4739	6058	3752

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	-1.4	-0.5	-1.0	-0.2	0.2	-1.6	-0.7	-1.2	-0.4	0.0
	3H	1.8	2.6	2.2	3.0	3.4	1.6	2.4	2.1	2.8	3.2
	4H	2.8	3.5	3.2	3.9	4.3	2.7	3.5	3.2	3.8	4.3
	6H	4.7	5.3	5.1	5.8	6.2	4.1	4.7	4.5	5.1	5.6
	8H	5.9	6.5	6.4	6.9	7.4	5.0	5.6	5.4	6.0	6.4
	12H	6.9	7.5	7.4	7.9	8.4	6.0	6.6	6.4	7.0	7.5
4H	2H	-0.7	0.0	-0.3	0.4	0.8	-0.6	0.1	-0.2	0.5	0.9
	3H	2.8	3.4	3.2	3.8	4.3	2.8	3.4	3.3	3.8	4.3
	4H	3.9	4.4	4.3	4.9	5.3	4.1	4.6	4.5	5.0	5.5
	6H	6.1	6.6	6.6	7.1	7.6	5.6	6.0	6.1	6.5	7.0
	8H	7.4	7.8	7.9	8.3	8.8	6.6	7.0	7.1	7.5	8.0
	12H	8.5	8.9	9.0	9.4	9.9	7.7	8.1	8.3	8.6	9.1
8H	4H	4.6	5.0	5.1	5.5	6.0	4.7	5.1	5.2	5.6	6.1
	6H	7.1	7.4	7.7	8.0	8.5	6.6	6.9	7.1	7.4	7.9
	8H	8.5	8.8	9.1	9.4	9.9	7.8	8.1	8.3	8.6	9.2
	12H	9.8	10.1	10.4	10.6	11.2	9.2	9.4	9.7	10.0	10.6
12H	4H	4.7	5.1	5.3	5.6	6.1	4.9	5.2	5.4	5.7	6.2
	6H	7.4	7.7	8.0	8.2	8.8	6.9	7.2	7.4	7.7	8.3
	8H	8.9	9.2	9.5	9.7	10.3	8.2	8.5	8.8	9.0	9.6

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0