

Indoor Distribution Test Report

Spectrum Lighting Inc.

994 Jefferson Street
Fall River, MA 02721
+1.508.678.2303

Spectrum Lighting Photometric Lab

Luminaire

C1320PC120L35KXWDO10XTSGHMMW

13" round x 20" high PC series Stage Pro luminaire for auditorium and area lighting.

Test Number

SP-R995

Test Date

7/9/2025

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

Summary of Results

Power

Input Watts	83.03 W
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Lumen Output

Output Lumens	9644
Efficacy	116.15 lm/W

Luminous Dimensions

0° - 180° Size	-1
90° - 270° Size	-1
Height	0

Spacing Criterion

Two luminaires, plane 0°	0.9
Two luminaires, plane 90°	1.03
Four luminaires	0.89

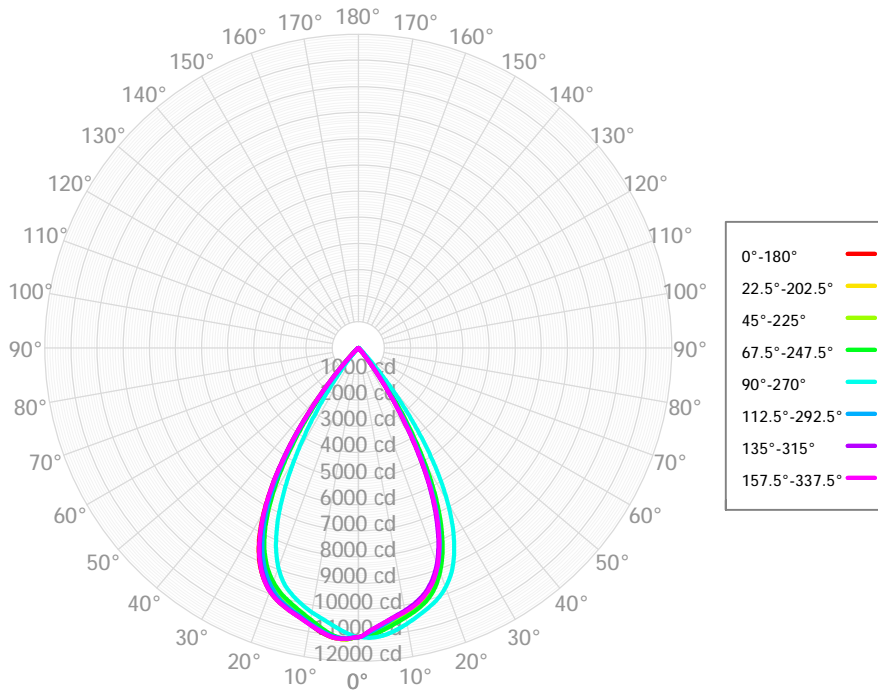
Full Beam Angle

0° - 180°	61°
90° - 270°	61°

IES File Header Contents

Keyword	Value
TEST	SP-R995
TESTLAB	Spectrum Lighting Photometric Lab. VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	7/9/2025
ISSUEDATE	7/9/2025
LUMCAT	C1320PC120L35KXWDO10XTSGHMMW
LUMINAIRE	13" round x 20" high PC series Stage Pro luminaire for auditorium and area lighting.
DISTRIBUTION	Beam Angle 61.3
OTHER	CCT 3364 CRI 83.8 R9 9.4
OTHER	Total Luminaire wattage is approximate
OTHER	This report is prepared by Spectrum Lighting

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	1041.70	10.80%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	2818.69	29.23%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	3567.86	37.00%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	1973.53	20.46%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	214.00	2.22%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	10.47	0.11%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	7.20	0.07%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	5.56	0.06%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	4.98	0.05%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	9644.00	100.00%	0.00° - 180.00°	9644.00	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°	11069.78	11069.78	11069.78	11069.78	11069.78	11069.78	11069.78	11069.78	11069.78	11069.78	11069.78	11069.78	11069.78	11069.78	11069.78	11069.78	11069.78
2.50°	10834.54	10925.59	10971.26	11023.68	11104.42	11131.12	11138.88	11150.31	11160.85	11170.57	11164.90	11155.03	10910.57	10882.22	10813.79	10824.62	10834.54
5.00°	10619.12	10719.50	10783.68	10847.27	11047.51	11080.56	11113.93	11129.11	11135.54	11114.46	11108.27	11046.76	10688.85	10661.08	10593.71	10596.25	10619.12
7.50°	10465.53	10538.70	10606.47	10655.89	10906.13	10910.06	10964.30	10948.26	10975.77	10912.11	10899.91	10810.46	10465.71	10444.47	10388.07	10412.29	10465.53
10.00°	10306.30	10370.36	10421.05	10468.31	10721.87	10697.48	10747.38	10746.86	10737.90	10657.08	10626.45	10551.74	10272.48	10245.75	10214.15	10264.27	10306.30
12.50°	10112.69	10179.54	10230.45	10276.39	10512.92	10481.08	10535.66	10547.82	10544.40	10442.47	10396.40	10314.10	10044.29	10039.02	10007.87	10080.46	10112.69
15.00°	9817.19	9907.47	9969.54	10039.65	10309.92	10290.03	10363.04	10377.60	10374.41	10231.36	10183.76	10087.07	9784.17	9777.58	9742.77	9817.99	9817.19
17.50°	9421.33	9520.47	9591.41	9678.06	10079.25	10063.24	10170.19	10177.54	10180.18	9997.33	9938.22	9848.29	9454.84	9410.77	9349.63	9440.36	9421.33
20.00°	8868.79	8963.99	9002.25	9144.87	9755.61	9723.82	9889.45	9915.02	9915.38	9683.35	9626.61	9524.74	8950.59	8894.94	8793.66	8875.75	8868.79
22.50°	8080.26	8192.85	8230.40	8430.24	9313.04	9274.93	9468.55	9510.99	9521.38	9263.73	9198.57	9098.35	8237.06	8166.18	8010.17	8107.13	8080.26
25.00°	7096.14	7241.62	7269.23	7507.57	8681.89	8677.96	8894.38	8948.48	8981.05	8714.69	8639.71	8506.26	7298.71	7215.64	7000.71	7118.71	7096.14
27.50°	5879.23	6072.12	6124.05	6398.46	7859.59	7883.61	8123.82	8174.99	8224.52	7945.30	7875.55	7698.13	6127.31	6033.37	5802.22	5909.87	5879.23
30.00°	4454.13	4678.31	4760.44	5103.78	6851.17	6897.90	7155.64	7180.79	7219.56	6939.32	6867.28	6643.11	4790.26	4659.53	4382.98	4495.37	4454.13
32.50°	3010.98	3274.44	3356.81	3715.90	5646.73	5704.83	5991.36	5956.49	6006.58	5726.59	5690.05	5403.82	3377.71	3240.72	2941.54	3021.92	3010.98
35.00°	1732.79	1989.50	2014.58	2382.53	4292.88	4357.25	4618.11	4522.63	4604.13	4373.22	4337.45	4023.92	2052.92	1921.13	1670.00	1727.52	1732.79
37.50°	790.66	955.53	916.44	1264.60	2915.45	2945.53	3149.36	3049.29	3140.66	2933.17	2917.41	2614.71	1038.01	925.82	751.71	767.46	790.66
40.00°	279.67	355.51	302.00	526.75	1703.23	1692.05	1757.36	1746.89	1831.87	1689.07	1685.87	1442.67	416.60	361.18	265.30	256.69	279.67
42.50°	91.51	100.92	90.79	164.63	848.50	788.64	715.29	786.03	864.94	786.18	748.28	629.41	140.35	120.94	83.14	76.25	91.51
45.00°	31.91	26.88	31.51	43.25	350.60	280.86	227.82	267.02	322.48	276.93	244.70	209.11	48.21	43.52	27.87	25.48	31.91
47.50°	12.97	13.39	17.84	17.35	117.63	93.01	76.60	75.01	112.08	100.05	81.56	64.65	18.24	16.08	13.80	14.49	12.97
50.00°	11.34	10.10	14.13	12.40	44.96	34.70	27.75	24.00	35.47	33.55	27.02	22.61	11.91	13.30	12.09	12.19	11.34
52.50°	9.62	9.58	10.62	9.23	16.70	14.73	14.76	15.02	15.66	15.46	13.92	14.44	12.74	11.68	8.75	9.46	9.62
55.00°	8.90	8.40	8.01	8.54	12.85	10.93	10.73	12.78	12.09	12.44	12.50	12.50	10.05	7.41	6.67	8.51	8.90
57.50°	7.01	6.45	7.71	7.47	9.59	10.35	10.06	10.71	12.81	11.04	9.21	9.81	8.96	8.52	6.47	8.30	7.01
60.00°	7.73	7.86	7.79	8.64	12.22	10.25	9.39	9.57	9.55	10.78	9.85	10.69	7.25	8.25	6.50	7.10	7.73
62.50°	6.25	6.71	6.84	6.07	10.31	8.02	8.94	8.48	9.37	8.31	10.32	7.89	7.00	6.90	7.12	8.86	6.25
65.00°	5.59	6.84	5.50	4.97	7.66	8.01	8.93	8.23	8.32	7.07	8.34	9.34	5.59	7.97	5.58	4.73	5.59
67.50°	4.98	5.25	6.80	7.08	7.46	6.73	6.84	7.46	8.83	8.14	7.81	6.35	4.86	6.55	5.49	5.78	4.98
70.00°	5.09	5.71	5.22	4.66	7.28	7.19	6.06	6.82	8.13	6.54	5.75	7.68	5.31	5.13	4.14	4.57	5.09
72.50°	4.11	5.41	4.97	5.78	6.17	4.82	6.10	5.92	7.45	5.55	6.54	6.41	7.01	4.53	4.58	5.35	4.11
75.00°	4.42	5.59	5.44	3.97	5.41	4.79	3.53	5.77	5.51	5.99	6.16	4.68	5.76	6.03	3.38	5.39	4.42
77.50°	3.27	4.44	4.08	5.09	4.80	4.69	6.16	5.53	5.26	4.03	6.61	6.34	4.31	5.07	3.19	6.18	3.27
80.00°	4.33	5.12	3.89	4.67	5.38	4.43	4.31	4.19	4.86	5.95	5.07	7.48	3.84	4.08	5.09	2.97	4.33
82.50°	3.94	6.29	4.09	5.39	5.02	4.62	4.18	4.11	5.11	4.66	5.42	4.92	3.48	4.71	4.14	5.14	3.94
85.00°	3.59	6.42	3.25	5.71	4.23	5.23	3.50	4.11	6.25	5.15	4.70	4.08	4.88	3.93	5.27	4.51	3.59
87.50°	4.09	4.41	5.50	5.04	4.83	5.43	4.31	4.68	4.11	5.05	4.87	5.18	4.84	4.69	4.40	3.10	4.09
90.00°	3.91	3.61	3.50	2.88	3.77	5.15	4.67	2.34	2.98	3.64	4.25	2.63	4.38	3.49	5.27	2.68	3.91

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	11481	11481	11481	11481	11214	11214	11214	11214	10716	10716	10716	10260	10260	10260	9841	9841	9841	9644
	1	10969	10712	10482	10274	10733	10504	10298	10111	10115	9951	9800	9758	9628	9508	9428	9328	9234	9142
	2	10457	10008	9636	9324	10247	9843	9505	9219	9533	9256	9017	9247	9022	8825	8983	8802	8641	8630
	3	9960	9369	8911	8546	9771	9236	8815	8477	8985	8632	8342	8754	8459	8212	8539	8295	8086	8136
	4	9483	8788	8278	7889	9313	8679	8207	7842	8474	8070	7750	8284	7939	7660	8106	7815	7573	7669
	5	9028	8258	7719	7322	8875	8168	7665	7289	7998	7560	7225	7840	7460	7162	7692	7364	7100	7231
	6	8597	7773	7221	6824	8458	7698	7178	6801	7556	7097	6754	7423	7018	6709	7298	6943	6665	6822
	7	8189	7329	6772	6381	8064	7266	6739	6364	7145	6674	6331	7032	6612	6298	6926	6551	6265	6443
	8	7806	6922	6367	5985	7692	6868	6340	5972	6765	6288	5947	6668	6238	5923	6577	6189	5898	6090
	9	7446	6549	5999	5627	7342	6502	5977	5618	6413	5934	5599	6329	5893	5580	6250	5853	5562	5764
	10	7109	6205	5664	5304	7014	6165	5646	5296	6087	5611	5282	6014	5577	5268	5945	5543	5253	5463

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	365.9 fc	6.5 ft
6.5 ft	262.0 fc	7.7 ft
7.5 ft	196.8 fc	8.9 ft
8.0 ft	173.0 fc	9.5 ft
10.0 ft	110.7 fc	11.9 ft
12.0 ft	76.9 fc	14.3 ft
14.0 ft	56.5 fc	16.6 ft
16.0 ft	43.2 fc	19.0 ft
20.0 ft	27.7 fc	23.8 ft
24.0 ft	19.2 fc	28.5 ft
28.0 ft	14.1 fc	33.3 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	151712	151712	151712
45.00°	618	611	6795
55.00°	213	191	307
65.00°	181	178	248
75.00°	234	288	286
85.00°	565	512	665

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		Viewing C0-180					Viewing C90-270				
2H	2H	-11.4	-10.5	-11.0	-10.1	-9.8	-9.3	-8.3	-8.9	-8.0	-7.7
	3H	-9.2	-8.4	-8.9	-8.1	-7.7	-7.3	-6.5	-7.0	-6.2	-5.8
	4H	-8.0	-7.3	-7.6	-6.9	-6.5	-6.3	-5.6	-5.9	-5.2	-4.8
	6H	-6.8	-6.1	-6.3	-5.7	-5.3	-5.2	-4.5	-4.8	-4.2	-3.8
	8H	-5.9	-5.2	-5.4	-4.8	-4.4	-4.6	-3.9	-4.1	-3.5	-3.1
	12H	-4.9	-4.3	-4.5	-3.9	-3.5	-3.7	-3.1	-3.3	-2.7	-2.3
4H	2H	-10.8	-10.1	-10.4	-9.7	-9.3	-8.5	-7.8	-8.1	-7.4	-7.0
	3H	-8.3	-7.7	-7.9	-7.3	-6.9	-6.4	-5.8	-5.9	-5.3	-4.9
	4H	-6.7	-6.2	-6.3	-5.7	-5.3	-5.3	-4.8	-4.9	-4.3	-3.9
	6H	-5.2	-4.8	-4.7	-4.3	-3.8	-3.8	-3.4	-3.3	-2.9	-2.4
	8H	-4.2	-3.7	-3.7	-3.3	-2.8	-3.1	-2.6	-2.6	-2.2	-1.7
	12H	-3.0	-2.7	-2.5	-2.2	-1.7	-2.1	-1.7	-1.6	-1.2	-0.8
8H	4H	-6.2	-5.8	-5.8	-5.4	-4.9	-4.8	-4.3	-4.3	-3.9	-3.4
	6H	-4.4	-4.0	-3.8	-3.5	-3.0	-2.9	-2.6	-2.4	-2.1	-1.6
	8H	-2.9	-2.6	-2.4	-2.1	-1.6	-2.0	-1.7	-1.4	-1.2	-0.7
	12H	-1.4	-1.1	-0.8	-0.6	0.0	-0.8	-0.5	-0.2	0.0	0.6
12H	4H	-6.1	-5.7	-5.6	-5.2	-4.7	-4.7	-4.3	-4.2	-3.8	-3.3
	6H	-4.1	-3.8	-3.5	-3.3	-2.8	-2.7	-2.4	-2.2	-2.0	-1.4
	8H	-2.5	-2.2	-2.0	-1.7	-1.1	-1.6	-1.4	-1.1	-0.9	-0.3

Corrected UGR values based on total output energy
SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0