

## Indoor Distribution Test Report

### Spectrum Lighting Inc.

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### Spectrum Lighting Photometric Lab

Luminaire

C1320PC120L35KWDDO10XTSGHMMW

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

Test Number

SP-R994

Test Date

7/9/2025

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

## Summary of Results

### Power

Input Watts	82.93 W
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### Lumen Output

Output Lumens	9625
Efficacy	116.06 lm/W

### Luminous Dimensions

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

### Spacing Criterion

Two luminaires, plane 0°	0.67
Two luminaires, plane 90°	0.79
Four luminaires	0.77

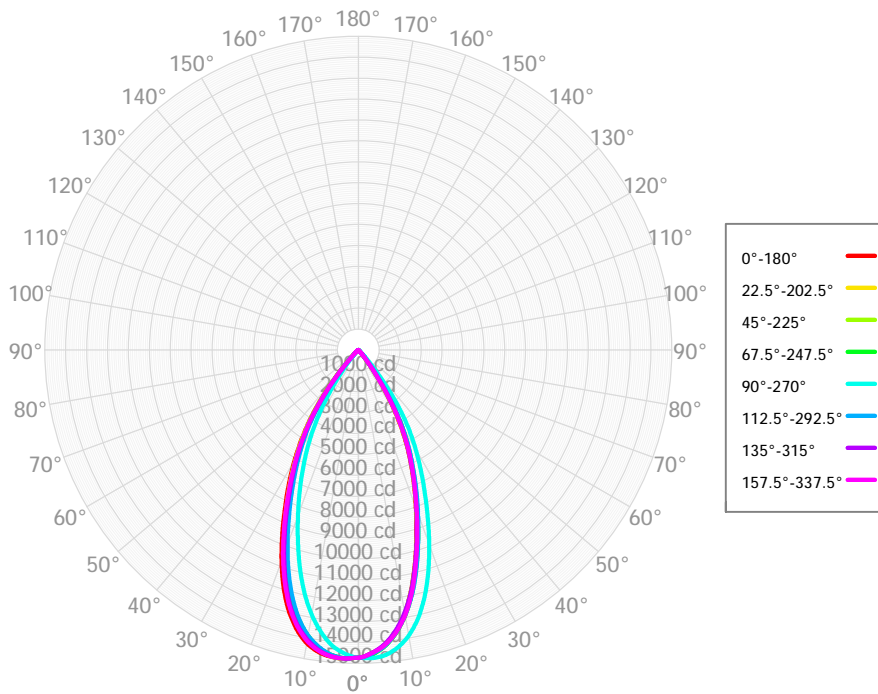
### Full Beam Angle

0° - 180°	48°
90° - 270°	48°

## IES File Header Contents

Keyword	Value
TEST	SP-R994
TESTLAB	Spectrum Lighting Photometric Lab. VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	7/9/2025
ISSUEDATE	7/9/2025
LUMCAT	C1320PC120L35KWDDO10XTSGHMMW
LUMINAIRE	13" round x 20" high PC series Stage Pro luminaire for auditorium and area lighting.
DISTRIBUTION	Beam Angle 48
OTHER	CCT 3360 CRI 83.7 R9 9.1
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°	1365.29	14.18%	90.00° - 100.00°	0.00	0.00%
10.00° - 20.00°	3184.01	33.08%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	3175.61	32.99%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	1681.49	17.47%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	186.27	1.94%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	10.76	0.11%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	8.22	0.09%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	7.03	0.07%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	6.33	0.07%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	9625.00	100.00%	0.00° - 180.00°	9625.00	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°	14727.79	14727.79	14727.79	14727.79	14727.79	14727.79	14727.79	14727.79	14727.79	14727.79	14727.79	14727.79	14727.79	14727.79	14727.79	14727.79	14727.79
2.50°	14524.81	14585.29	14579.79	14601.35	14762.66	14770.22	14784.25	14777.21	14782.03	14790.16	14793.31	14768.98	14553.29	14560.18	14520.45	14529.71	14524.81
5.00°	14179.83	14252.24	14205.98	14253.19	14662.11	14654.42	14720.64	14723.86	14740.64	14724.17	14716.80	14652.77	14215.19	14246.21	14155.90	14205.48	14179.83
7.50°	13618.94	13685.34	13604.20	13689.27	14369.77	14346.32	14486.12	14526.69	14582.14	14493.07	14458.45	14363.71	13629.65	13674.37	13566.97	13670.20	13618.94
10.00°	12800.48	12887.40	12792.20	12909.83	13886.33	13873.56	14069.43	14138.41	14247.11	14087.17	14006.86	13877.16	12857.71	12889.82	12767.13	12896.69	12800.48
12.50°	11715.58	11838.08	11738.35	11915.20	13173.20	13159.57	13470.75	13531.98	13676.86	13484.26	13418.52	13181.98	11909.87	11933.24	11742.78	11867.99	11715.58
15.00°	10484.76	10617.69	10538.78	10737.10	12242.31	12217.25	12630.36	12718.68	12898.13	12637.12	12582.34	12292.16	10796.06	10763.01	10531.79	10635.38	10484.76
17.50°	9242.39	9365.98	9312.74	9515.31	11127.10	11107.63	11571.09	11690.39	11899.12	11591.42	11542.60	11246.93	9604.75	9527.42	9290.93	9381.39	9242.39
20.00°	8047.31	8143.00	8115.98	8284.31	9914.10	9898.89	10364.88	10525.77	10747.74	10425.55	10386.26	10094.16	8439.87	8350.28	8119.89	8169.30	8047.31
22.50°	6940.53	7024.30	6996.02	7146.15	8669.93	8677.96	9130.06	9292.50	9501.26	9221.24	9176.43	8920.35	7335.61	7238.51	7011.12	7034.04	6940.53
25.00°	5912.40	5994.30	5982.84	6128.62	7510.13	7536.84	7902.83	8089.44	8278.90	8080.32	8026.46	7799.74	6273.16	6167.19	5970.23	6017.17	5912.40
27.50°	4867.58	4966.80	4964.80	5143.21	6461.57	6487.98	6809.11	6967.14	7169.33	7005.39	6968.91	6747.37	5246.59	5185.48	4967.03	4990.31	4867.58
30.00°	3745.58	3832.02	3867.78	4104.97	5474.55	5491.62	5800.90	5903.51	6095.75	5948.59	5945.00	5722.61	4193.67	4112.13	3889.20	3906.33	3745.58
32.50°	2591.47	2700.55	2741.28	2988.24	4502.47	4519.10	4790.56	4841.94	5021.01	4915.02	4922.72	4693.95	3092.36	2985.32	2737.27	2721.06	2591.47
35.00°	1524.57	1625.03	1635.85	1838.90	3437.17	3474.48	3728.95	3724.39	3933.53	3835.89	3901.40	3623.25	2011.50	1883.52	1659.21	1603.26	1524.57
37.50°	712.88	757.47	726.64	927.41	2304.60	2356.76	2549.76	2566.39	2738.40	2652.07	2687.77	2481.43	1093.29	954.83	816.08	741.21	712.88
40.00°	252.12	259.12	225.67	366.49	1294.68	1355.90	1386.53	1504.86	1609.81	1561.76	1567.20	1426.98	490.57	415.60	316.17	248.78	252.12
42.50°	75.43	58.53	59.41	104.72	613.35	609.22	540.89	705.68	775.09	741.44	694.49	651.69	186.59	149.80	105.75	84.84	75.43
45.00°	28.25	20.26	18.68	26.34	239.75	198.13	164.86	245.42	286.40	257.92	201.29	209.83	65.12	55.18	33.96	24.33	28.25
47.50°	10.86	11.82	13.70	14.39	83.72	71.79	48.46	66.68	98.67	94.10	71.94	61.83	30.04	26.13	17.51	11.91	10.86
50.00°	8.75	12.25	9.68	12.16	29.26	22.97	18.85	22.67	35.50	29.20	23.66	18.22	13.03	17.54	11.72	10.98	8.75
52.50°	8.46	11.37	10.36	10.71	18.77	14.35	14.70	13.90	14.12	13.84	15.41	12.16	11.99	12.28	9.26	10.23	8.46
55.00°	6.62	8.86	11.51	9.46	10.62	12.62	11.73	13.05	14.68	14.18	12.51	12.05	10.52	13.90	9.61	9.73	6.62
57.50°	7.13	6.97	9.28	8.53	10.08	13.58	10.99	15.51	12.13	13.70	11.72	9.63	8.22	11.23	9.15	7.77	7.13
60.00°	8.90	6.05	6.97	7.99	9.94	11.24	10.12	13.54	10.61	13.81	9.20	9.50	7.25	10.02	9.53	6.80	8.90
62.50°	6.51	7.75	7.71	6.53	12.40	12.32	7.33	9.07	10.04	9.21	11.12	7.58	7.09	8.54	9.71	7.74	6.51
65.00°	6.30	6.39	6.98	5.98	9.84	10.07	6.47	9.04	8.60	9.04	10.62	9.00	7.16	7.95	8.08	8.39	6.30
67.50°	6.11	7.54	6.90	6.22	9.35	10.33	5.97	8.88	8.91	9.83	9.60	7.02	7.87	6.70	8.03	7.10	6.11
70.00°	5.72	5.44	6.38	6.94	9.58	8.10	7.15	7.48	7.11	7.13	8.73	8.64	6.23	7.02	6.83	8.11	5.72
72.50°	6.62	6.32	5.36	7.39	9.17	6.21	7.50	4.67	6.66	6.89	6.06	5.07	5.94	6.82	5.62	7.30	6.62
75.00°	5.70	4.96	5.81	7.48	8.77	7.78	7.11	6.24	7.58	8.07	6.86	6.53	7.53	7.05	7.22	6.91	5.70
77.50°	4.70	3.40	5.51	6.60	8.49	7.26	5.68	7.49	6.30	8.01	6.58	7.94	7.16	5.81	6.62	7.02	4.70
80.00°	5.15	4.74	4.71	5.42	7.42	7.73	5.65	6.17	5.95	6.74	5.60	6.79	5.86	5.58	4.91	6.54	5.15
82.50°	5.19	4.35	6.77	5.73	6.84	6.18	7.82	6.15	4.98	5.41	5.93	6.57	7.65	6.90	7.86	6.40	5.19
85.00°	5.97	6.55	5.85	3.58	5.59	5.02	6.26	6.57	7.52	5.01	5.52	5.44	6.13	7.40	7.51	5.66	5.97
87.50°	5.31	6.60	4.83	4.03	4.68	4.83	6.02	6.18	5.12	5.56	5.99	6.42	7.41	6.27	6.14	8.25	5.31
90.00°	5.94	3.55	5.09	2.16	3.74	5.39	1.98	4.49	3.07	5.65	3.59	7.11	4.09	2.66	4.95	4.24	5.94

### 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	11458	11458	11458	11458	11192	11192	11192	11192	10694	10694	10694	10239	10239	10239	9821	9821	9821	9625
	1	10967	10719	10496	10295	10733	10512	10313	10132	10124	9966	9821	9768	9644	9529	9440	9344	9254	9159
	2	10481	10048	9691	9391	10272	9884	9560	9285	9577	9312	9083	9293	9078	8890	9031	8858	8705	8686
	3	10011	9443	9005	8655	9825	9312	8910	8585	9064	8727	8450	8835	8554	8319	8622	8390	8192	8231
	4	9561	8896	8409	8037	9394	8788	8338	7989	8586	8201	7896	8398	8071	7805	8224	7946	7717	7800
	5	9132	8397	7883	7504	8983	8309	7829	7471	8142	7725	7405	7986	7625	7341	7841	7529	7279	7395
	6	8726	7941	7415	7037	8591	7868	7373	7013	7728	7292	6966	7598	7214	6920	7476	7139	6875	7016
	7	8343	7524	6994	6622	8221	7462	6961	6604	7344	6896	6570	7234	6835	6537	7130	6775	6503	6663
	8	7982	7141	6613	6249	7872	7089	6586	6237	6988	6535	6211	6894	6485	6186	6805	6437	6161	6335
	9	7642	6789	6267	5913	7543	6744	6245	5904	6658	6203	5885	6576	6162	5866	6499	6123	5847	6031
	10	7324	6465	5951	5609	7233	6426	5933	5601	6351	5899	5586	6280	5865	5572	6213	5832	5557	5748

### Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	486.9 fc	5.0 ft
6.5 ft	348.6 fc	5.9 ft
7.5 ft	261.8 fc	6.8 ft
8.0 ft	230.1 fc	7.2 ft
10.0 ft	147.3 fc	9.0 ft
12.0 ft	102.3 fc	10.8 ft
14.0 ft	75.1 fc	12.6 ft
16.0 ft	57.5 fc	14.4 ft
20.0 ft	36.8 fc	18.1 ft
24.0 ft	25.6 fc	21.7 ft
28.0 ft	18.8 fc	25.3 ft

### Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	201845	201845	201845
45.00°	547	362	4647
55.00°	158	275	254
65.00°	204	227	319
75.00°	302	308	465
85.00°	939	919	880

### 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	-10.2	-9.9	-8.4	-7.5	-8.1	-7.2	-6.9
	3H	-8.4	-7.6	-8.0	-7.3	-6.9	-6.1	-5.3	-5.7	-4.9	-4.6
	4H	-6.8	-6.1	-6.4	-5.7	-5.4	-4.8	-4.1	-4.4	-3.7	-3.3
	6H	-5.5	-4.8	-5.0	-4.4	-4.0	-3.2	-2.5	-2.8	-2.2	-1.8
	8H	-4.5	-3.9	-4.1	-3.5	-3.1	-2.3	-1.7	-1.9	-1.3	-0.9
	12H	-3.2	-2.6	-2.8	-2.2	-1.8	-1.5	-0.9	-1.0	-0.5	-0.1
4H	2H	-10.3	-9.5	-9.9	-9.2	-8.8	-7.9	-7.1	-7.4	-6.8	-6.4
	3H	-7.1	-6.5	-6.7	-6.1	-5.7	-5.3	-4.7	-4.9	-4.3	-3.9
	4H	-5.5	-5.0	-5.0	-4.5	-4.1	-3.8	-3.3	-3.4	-2.8	-2.4
	6H	-3.9	-3.4	-3.4	-3.0	-2.5	-1.9	-1.5	-1.5	-1.0	-0.6
	8H	-2.9	-2.5	-2.4	-2.0	-1.5	-1.0	-0.5	-0.5	-0.1	0.4
	12H	-1.5	-1.1	-1.0	-0.6	-0.1	0.0	0.4	0.5	0.9	1.3
8H	4H	-4.8	-4.4	-4.3	-3.9	-3.5	-3.3	-2.9	-2.9	-2.5	-2.0
	6H	-2.9	-2.6	-2.4	-2.1	-1.6	-1.2	-0.9	-0.7	-0.4	0.1
	8H	-1.7	-1.4	-1.1	-0.9	-0.4	0.0	0.3	0.5	0.8	1.3
	12H	0.0	0.3	0.5	0.8	1.3	1.1	1.4	1.7	1.9	2.5
12H	4H	-4.7	-4.3	-4.2	-3.8	-3.3	-3.2	-2.9	-2.7	-2.4	-1.9
	6H	-2.5	-2.2	-2.0	-1.8	-1.2	-1.0	-0.7	-0.4	-0.2	0.3
	8H	-1.1	-0.9	-0.6	-0.4	0.2	0.3	0.6	0.8	1.1	1.7

Corrected UGR values based on total output energy  
SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0