

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P974185

Luminaire Tested: FLR2-24-20-L835-CP187

Issue Date: 3/13/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P974185  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-24-20-L835-CP187  
Description: SHAPER SENSE CIRCLE  
  
Light Source: FLR2-24-20-L835-CP187  
Ballast/Driver: -

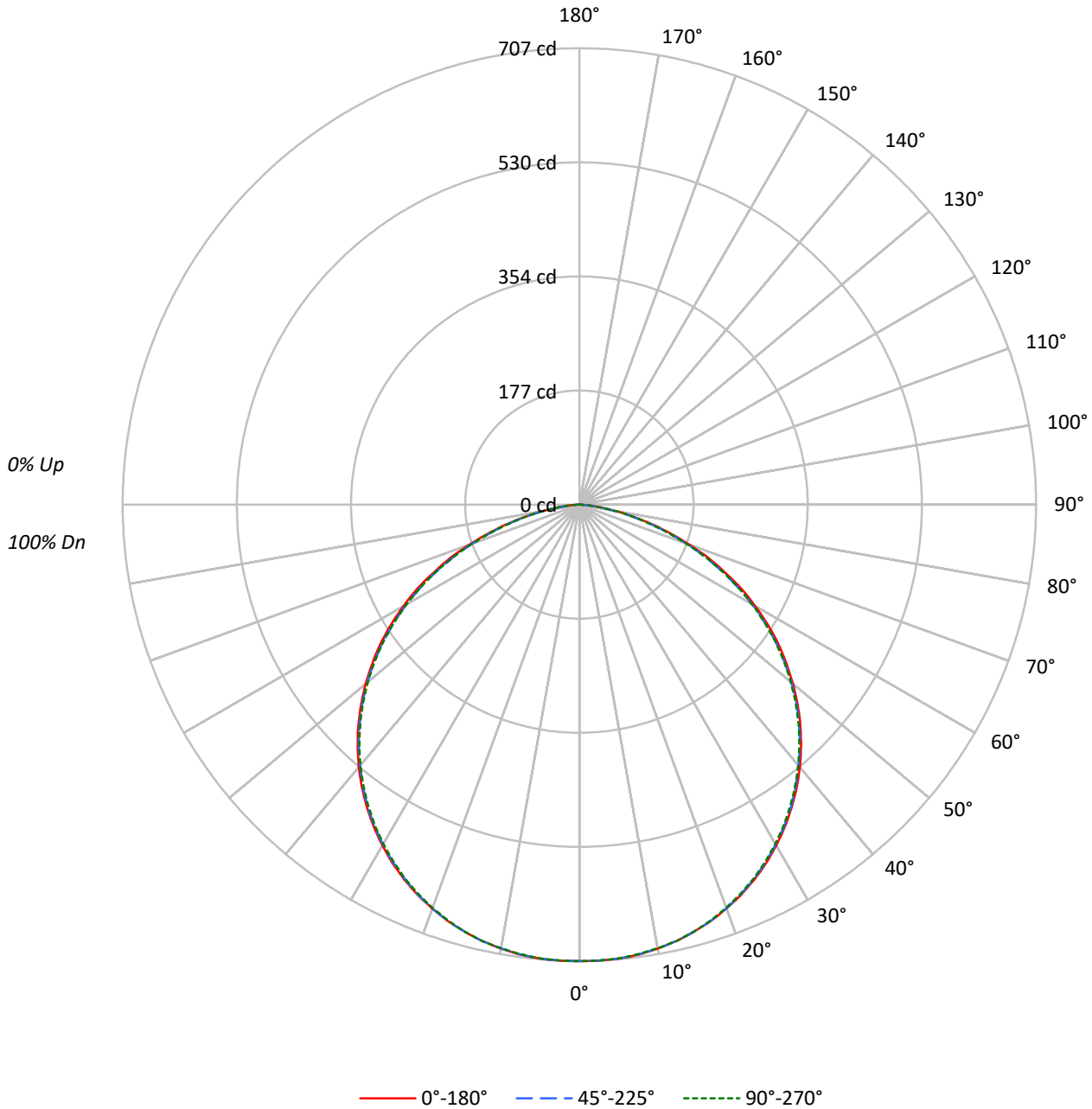
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1999.0 lumens  
Efficiency: N/A  
Efficacy: 119.7 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.39  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor:  
Total Harmonic Distortion (THDi):  
Frequency (hertz): 60  
Stabilization Time: HR  
Operation Time: HR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	100	97	106	102	99	95	98	95	92	94	92	89	91	89	87	85
2	99	91	85	79	97	89	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	57	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	38
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	39	33	29	27
10	53	40	32	27	52	39	32	27	38	31	27	38	31	26	37	31	26	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	952	952	952
5°	954	954	953
10°	954	954	954
15°	954	954	954
20°	953	953	952
25°	952	950	948
30°	947	945	943
35°	941	939	935
40°	933	927	926
45°	921	916	913
50°	904	897	894
55°	882	870	869
60°	846	830	830
65°	791	772	775
70°	712	690	688
75°	598	574	571
80°	436	415	432
85°	247	227	232

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 921 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.1	3.4
10°-20°	193.4	9.7
20°-30°	294.9	14.8
30°-40°	357.3	17.9
40°-50°	371.1	18.6
50°-60°	332.0	16.6
60°-70°	242.0	12.1
70°-80°	119.8	6.0
80°-90°	21.4	1.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	555.4	27.8
0°-40°	912.7	45.7
0°-60°	1615.8	80.8
0°-90°	1999.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1999.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	707	707	707	707	707	
5°	706	706	706	706	706	67
15°	685	685	685	686	685	193
25°	641	640	640	640	639	295
35°	573	572	572	570	570	358
45°	484	483	481	480	480	373
55°	376	373	371	371	370	335
65°	248	246	243	244	243	246
75°	115	113	110	112	110	123
85°	16	15	15	15	15	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	707.3	707.3	707.3	707.3	707.3
2.5°	707.3	707.0	707.0	707.3	706.8
5°	706.0	706.3	706.0	706.0	705.5
7.5°	703.2	703.0	702.7	703.0	702.2
10°	698.4	698.4	698.1	698.4	697.9
12.5°	692.6	692.6	692.6	692.8	692.6
15°	685.2	685.0	685.0	685.5	685.0
17.5°	676.6	676.3	676.3	676.1	675.6
20°	665.9	665.9	665.7	665.4	664.6
22.5°	654.5	654.2	653.5	653.5	652.5
25°	641.0	640.3	639.8	639.5	638.8
27.5°	626.3	625.3	624.6	624.0	623.3
30°	609.8	608.8	608.1	607.3	606.8
32.5°	592.1	591.6	590.3	590.0	589.0
35°	573.0	572.3	571.5	570.5	569.5
37.5°	552.7	552.0	550.2	549.7	548.9
40°	531.2	530.1	527.9	527.9	527.1
42.5°	508.1	507.1	505.5	504.5	504.0
45°	484.0	482.9	481.2	480.2	479.6
47.5°	458.3	457.6	455.5	454.8	454.0
50°	431.7	430.7	428.4	427.9	427.1
52.5°	403.8	403.3	400.2	400.0	399.2
55°	376.1	373.3	370.8	370.8	370.3
57.5°	345.6	343.6	340.3	340.3	339.8
60°	314.2	312.4	308.6	309.1	308.6
62.5°	283.5	279.7	276.1	277.6	276.4
65°	248.5	246.4	242.6	243.6	243.4
67.5°	216.5	212.7	209.1	211.1	210.1
70°	180.9	178.9	175.4	177.4	174.9
72.5°	147.4	145.7	142.1	144.4	141.9
75°	115.0	113.2	110.4	112.4	109.9
77.5°	84.3	83.0	80.4	82.5	83.0
80°	56.3	54.8	53.5	55.3	55.8
82.5°	33.0	32.0	31.5	31.7	33.0
85°	16.0	14.7	14.7	15.0	15.0
87.5°	4.3	3.8	4.3	4.6	4.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)