

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: P973509

Luminaire Tested: FLR2-22-20-L830-CP250

Issue Date: 3/13/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P973509  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-22-20-L830-CP250  
Description: SHAPER SENSE CIRCLE  
LIGHT LEVEL 3  
Light Source:  
Ballast/Driver: -

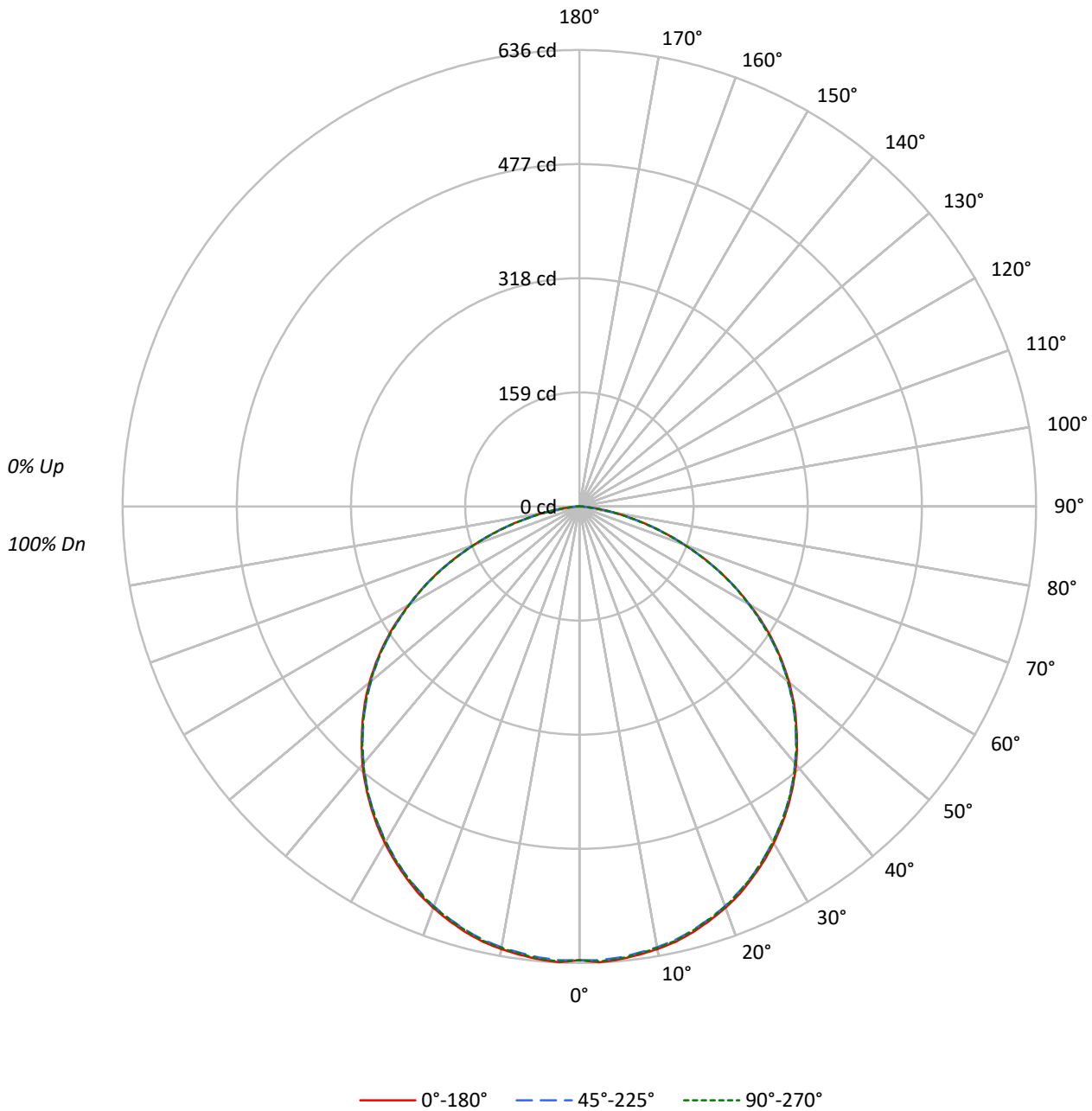
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1767.8 lumens  
Efficiency: N/A  
Efficacy: 117.1 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 15.1  
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

TEST NUMBER: P973509  
CATALOG NUMBER: FLR2-22-20-L830-CP250

### Luminous Intensity Polar Plot





TEST NUMBER: P973509  
 CATALOG NUMBER: FLR2-22-20-L830-CP250

**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	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85
2	99	91	85	79	97	90	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	63	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	57	51	46	44
6	71	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	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	40	34	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	26	25

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

	0°	45°	90°
0°	1701	1701	1701
5°	1712	1704	1710
10°	1711	1704	1707
15°	1710	1702	1704
20°	1704	1697	1700
25°	1695	1688	1689
30°	1683	1675	1677
35°	1668	1661	1662
40°	1650	1642	1643
45°	1626	1618	1621
50°	1597	1585	1589
55°	1552	1539	1544
60°	1475	1469	1469
65°	1377	1375	1370
70°	1220	1226	1223
75°	1027	1019	1011
80°	738	727	721
85°	386	386	374

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1626 cd/sqm



TEST NUMBER: P973509  
 CATALOG NUMBER: FLR2-22-20-L830-CP250

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.9	3.4
10°-20°	172.1	9.7
20°-30°	261.6	14.8
30°-40°	316.2	17.9
40°-50°	328.2	18.6
50°-60°	293.4	16.6
60°-70°	213.3	12.1
70°-80°	104.9	5.9
80°-90°	18.2	1.0
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°	493.6	27.9
0°-40°	809.8	45.8
0°-60°	1431.4	81.0
0°-90°	1767.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1767.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	632	632	632	632	632	
5°	634	626	631	629	633	60
15°	614	607	611	610	612	173
25°	571	565	568	567	569	263
35°	508	504	506	506	506	318
45°	427	425	425	426	426	330
55°	331	329	328	329	329	295
65°	216	217	216	216	215	213
75°	99	100	98	98	97	105
85°	12	13	12	12	12	18
90°	0	0	0	0	0	



TEST NUMBER: P973509  
 CATALOG NUMBER: FLR2-22-20-L830-CP250

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	632.1	632.1	632.1	632.1	632.1
2.5°	635.7	628.2	632.9	630.2	634.5
5°	633.7	626.3	631.0	628.6	632.9
7.5°	630.2	622.8	627.5	625.1	628.6
10°	626.3	618.5	623.6	621.2	624.7
12.5°	621.2	613.8	618.5	616.5	619.7
15°	613.8	606.8	611.1	609.5	611.8
17.5°	604.8	597.8	602.1	600.9	602.9
20°	595.1	588.4	592.7	591.5	593.5
22.5°	584.1	577.1	581.0	580.2	581.8
25°	570.8	564.6	568.5	567.3	568.9
27.5°	556.8	550.9	554.1	554.1	554.8
30°	541.6	536.1	539.2	539.2	539.6
32.5°	525.2	520.9	522.8	523.2	523.2
35°	507.6	504.1	505.6	506.0	506.0
37.5°	489.2	485.7	486.9	487.7	487.7
40°	469.7	466.6	467.4	468.2	467.8
42.5°	448.6	446.3	446.7	447.5	447.5
45°	427.2	425.2	425.2	426.0	426.0
47.5°	405.3	403.3	402.6	403.3	403.3
50°	381.5	379.5	378.7	379.5	379.5
52.5°	356.5	354.5	354.5	354.5	354.9
55°	330.7	328.8	328.0	328.8	329.2
57.5°	303.4	302.6	301.4	301.8	300.7
60°	274.1	274.1	272.9	273.7	272.9
62.5°	245.6	246.4	245.2	245.2	244.4
65°	216.3	217.1	215.9	215.9	215.1
67.5°	186.2	187.4	185.9	185.9	185.1
70°	155.0	157.4	155.8	156.2	155.4
72.5°	126.9	128.1	126.5	126.5	125.7
75°	98.8	99.6	98.0	98.4	97.2
77.5°	71.1	72.2	70.7	71.1	70.7
80°	47.6	48.0	46.9	47.2	46.5
82.5°	27.7	28.1	27.7	27.3	26.9
85°	12.5	12.9	12.5	12.5	12.1
87.5°	3.1	3.1	3.1	3.1	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)