

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: P974003

Luminaire Tested: FLR2-22-20HE-L850-CA080

Issue Date: 3/13/2025

**Test Information**

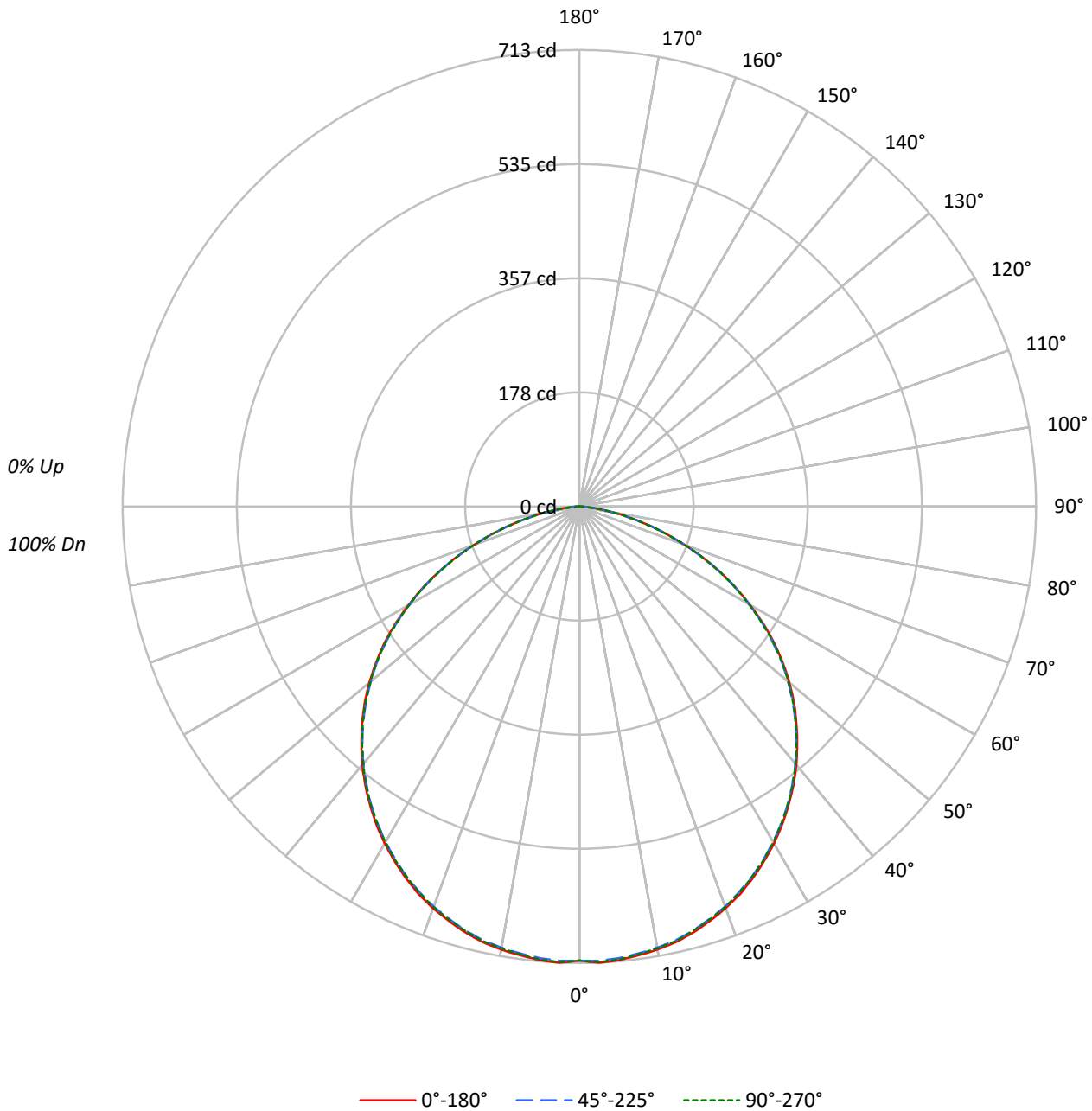
Test Method: LM-79-2019  
Report Number: P974003  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-22-20HE-L850-CA080  
Description: SHAPER SENSE CIRCLE  
  
Light Source:  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1983.9 lumens  
Efficiency: N/A  
Efficacy: 134.0 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): 14.8  
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										
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	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						100														
1	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85						85														
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71						71														
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60						60														
4	83	71	63	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51						51														
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	57	51	46	44						44														
6	71	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39						39														
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34						34														
8	61	47	39	33	59	47	39	33	45	38	33	44	37	32	43	37	32	30						30														
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27						27														
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	26	25						25														

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

	0°	45°	90°
0°	1909	1909	1909
5°	1921	1913	1919
10°	1920	1912	1916
15°	1919	1911	1913
20°	1912	1905	1907
25°	1902	1894	1896
30°	1889	1880	1882
35°	1871	1864	1866
40°	1852	1842	1844
45°	1824	1816	1819
50°	1792	1779	1783
55°	1741	1727	1733
60°	1655	1648	1648
65°	1546	1543	1537
70°	1369	1375	1372
75°	1153	1144	1134
80°	829	815	807
85°	432	432	420

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1824 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.2	3.4
10°-20°	193.2	9.7
20°-30°	293.6	14.8
30°-40°	354.8	17.9
40°-50°	368.3	18.6
50°-60°	329.3	16.6
60°-70°	239.4	12.1
70°-80°	117.7	5.9
80°-90°	20.4	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°	553.9	27.9
0°-40°	908.8	45.8
0°-60°	1606.4	81.0
0°-90°	1983.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1983.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	709	709	709	709	709	
5°	711	703	708	706	710	68
15°	689	681	686	684	687	194
25°	641	634	638	637	638	295
35°	570	566	567	568	568	356
45°	479	477	477	478	478	370
55°	371	369	368	369	369	331
65°	243	244	242	242	241	239
75°	111	112	110	110	109	118
85°	14	14	14	14	14	20
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	709.4	709.4	709.4	709.4	709.4
2.5°	713.4	705.0	710.3	707.2	712.0
5°	711.2	702.8	708.1	705.5	710.3
7.5°	707.2	698.9	704.2	701.5	705.5
10°	702.8	694.1	699.8	697.1	701.1
12.5°	697.1	688.8	694.1	691.9	695.4
15°	688.8	680.9	685.8	684.0	686.6
17.5°	678.7	670.9	675.7	674.4	676.5
20°	667.8	660.3	665.2	663.8	666.0
22.5°	655.5	647.6	652.0	651.1	652.9
25°	640.6	633.6	638.0	636.7	638.4
27.5°	624.8	618.3	621.8	621.8	622.7
30°	607.8	601.6	605.1	605.1	605.6
32.5°	589.4	584.5	586.7	587.2	587.2
35°	569.6	565.7	567.4	567.9	567.9
37.5°	549.0	545.1	546.4	547.3	547.3
40°	527.1	523.6	524.5	525.4	524.9
42.5°	503.5	500.8	501.3	502.2	502.2
45°	479.4	477.2	477.2	478.1	478.1
47.5°	454.8	452.6	451.8	452.6	452.6
50°	428.1	425.9	425.0	425.9	425.9
52.5°	400.1	397.9	397.9	397.9	398.3
55°	371.1	368.9	368.1	368.9	369.4
57.5°	340.5	339.6	338.3	338.7	337.4
60°	307.6	307.6	306.3	307.2	306.3
62.5°	275.6	276.5	275.2	275.2	274.3
65°	242.8	243.6	242.3	242.3	241.4
67.5°	209.0	210.3	208.6	208.6	207.7
70°	174.0	176.6	174.8	175.3	174.4
72.5°	142.4	143.7	142.0	142.0	141.1
75°	110.9	111.7	110.0	110.4	109.1
77.5°	79.7	81.1	79.3	79.7	79.3
80°	53.5	53.9	52.6	53.0	52.1
82.5°	31.1	31.5	31.1	30.7	30.2
85°	14.0	14.5	14.0	14.0	13.6
87.5°	3.5	3.5	3.5	3.5	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)