

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: P973973

Luminaire Tested: FLR2-22-20HE-L850-CP080

Issue Date: 3/13/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P973973  
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-CP080  
Description: SHAPER SENSE CIRCLE  
  
Light Source:  
Ballast/Driver: -

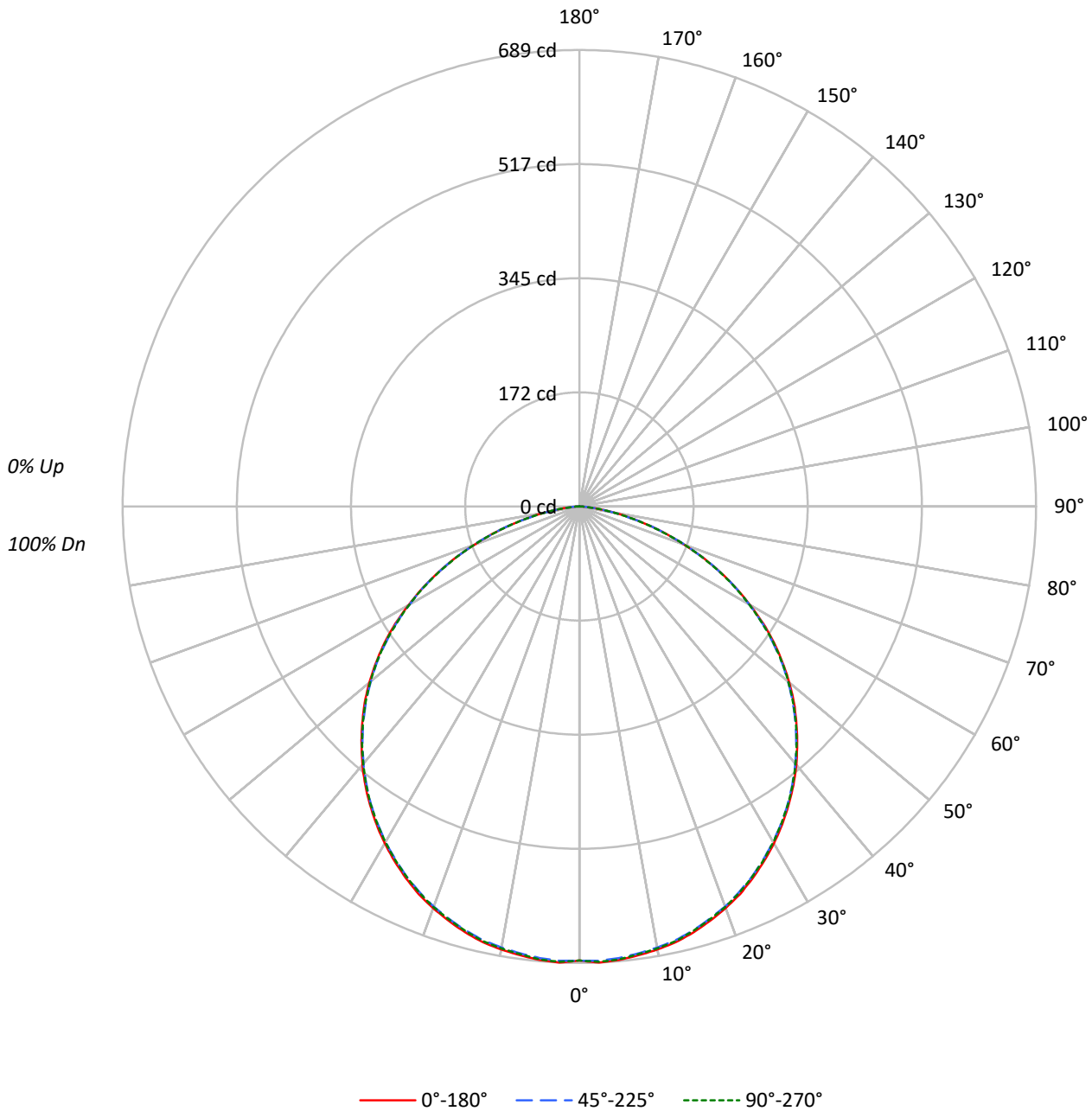
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1916.8 lumens  
Efficiency: N/A  
Efficacy: 129.5 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				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°	1844	1844	1844
5°	1856	1848	1854
10°	1856	1847	1851
15°	1854	1846	1848
20°	1848	1840	1843
25°	1838	1830	1831
30°	1825	1817	1818
35°	1808	1801	1803
40°	1789	1780	1782
45°	1763	1754	1758
50°	1732	1719	1723
55°	1682	1668	1674
60°	1600	1593	1593
65°	1493	1491	1486
70°	1323	1329	1326
75°	1114	1105	1096
80°	801	787	781
85°	417	417	404

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1763 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.9	3.4
10°-20°	186.7	9.7
20°-30°	283.6	14.8
30°-40°	342.8	17.9
40°-50°	355.8	18.6
50°-60°	318.1	16.6
60°-70°	231.3	12.1
70°-80°	113.8	5.9
80°-90°	19.7	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°	535.2	27.9
0°-40°	878.1	45.8
0°-60°	1552.0	81.0
0°-90°	1916.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1916.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	685	685	685	685	685	
5°	687	679	684	682	686	65
15°	666	658	663	661	663	188
25°	619	612	616	615	617	285
35°	550	547	548	549	549	344
45°	463	461	461	462	462	357
55°	359	356	356	356	357	320
65°	234	235	234	234	233	231
75°	107	108	106	107	105	114
85°	14	14	14	14	13	20
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	685.4	685.4	685.4	685.4	685.4
2.5°	689.2	681.2	686.3	683.3	688.0
5°	687.1	679.1	684.2	681.6	686.3
7.5°	683.3	675.3	680.4	677.8	681.6
10°	679.1	670.6	676.1	673.6	677.4
12.5°	673.6	665.5	670.6	668.5	671.9
15°	665.5	657.9	662.6	660.9	663.4
17.5°	655.8	648.2	652.8	651.6	653.7
20°	645.2	638.0	642.7	641.4	643.5
22.5°	633.4	625.7	630.0	629.1	630.8
25°	619.0	612.2	616.4	615.2	616.8
27.5°	603.7	597.4	600.8	600.8	601.6
30°	587.2	581.3	584.7	584.7	585.1
32.5°	569.4	564.8	566.9	567.3	567.3
35°	550.4	546.6	548.3	548.7	548.7
37.5°	530.5	526.7	527.9	528.8	528.8
40°	509.3	505.9	506.8	507.6	507.2
42.5°	486.5	483.9	484.3	485.2	485.2
45°	463.2	461.0	461.0	461.9	461.9
47.5°	439.5	437.3	436.5	437.3	437.3
50°	413.6	411.5	410.7	411.5	411.5
52.5°	386.5	384.4	384.4	384.4	384.8
55°	358.6	356.5	355.6	356.5	356.9
57.5°	329.0	328.1	326.8	327.3	326.0
60°	297.2	297.2	295.9	296.8	295.9
62.5°	266.3	267.1	265.9	265.9	265.0
65°	234.5	235.4	234.1	234.1	233.3
67.5°	201.9	203.2	201.5	201.5	200.7
70°	168.1	170.6	168.9	169.3	168.5
72.5°	137.6	138.9	137.2	137.2	136.3
75°	107.1	108.0	106.3	106.7	105.4
77.5°	77.1	78.3	76.6	77.1	76.6
80°	51.7	52.1	50.8	51.2	50.4
82.5°	30.1	30.5	30.1	29.6	29.2
85°	13.5	14.0	13.5	13.5	13.1
87.5°	3.4	3.4	3.4	3.4	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)