

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: P973889

Luminaire Tested: FLR2-22-20HE-L840-CP080

Issue Date: 3/13/2025

**Test Information**

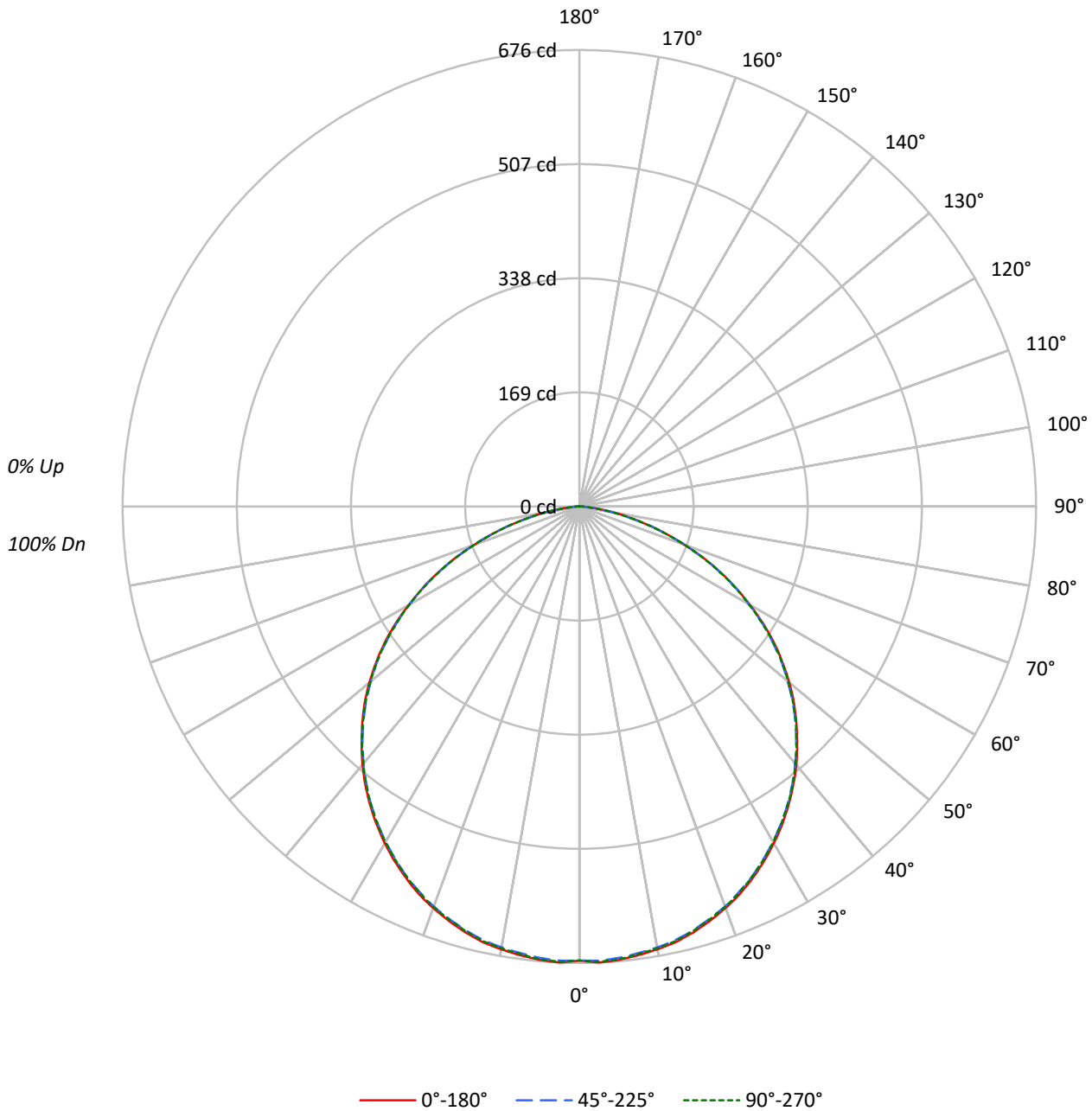
Test Method: LM-79-2019  
Report Number: P973889  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-22-20HE-L840-CP080  
Description: SHAPER SENSE CIRCLE  
  
Light Source:  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1880.3 lumens  
Efficiency: N/A  
Efficacy: 127.0 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				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°	1809	1809	1809
5°	1821	1813	1818
10°	1820	1812	1816
15°	1819	1811	1813
20°	1812	1805	1808
25°	1803	1795	1797
30°	1790	1782	1784
35°	1774	1767	1768
40°	1755	1746	1748
45°	1729	1721	1724
50°	1699	1686	1690
55°	1650	1637	1643
60°	1569	1562	1562
65°	1465	1463	1457
70°	1297	1304	1301
75°	1093	1083	1075
80°	786	772	766
85°	411	411	398

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1729 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.7	3.4
10°-20°	183.1	9.7
20°-30°	278.2	14.8
30°-40°	336.3	17.9
40°-50°	349.1	18.6
50°-60°	312.1	16.6
60°-70°	226.9	12.1
70°-80°	111.6	5.9
80°-90°	19.4	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°	525.0	27.9
0°-40°	861.3	45.8
0°-60°	1522.5	81.0
0°-90°	1880.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1880.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	672	672	672	672	672	
5°	674	666	671	669	673	64
15°	653	645	650	648	651	184
25°	607	600	605	603	605	280
35°	540	536	538	538	538	338
45°	454	452	452	453	453	350
55°	352	350	349	350	350	314
65°	230	231	230	230	229	227
75°	105	106	104	105	103	112
85°	13	14	13	13	13	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	672.4	672.4	672.4	672.4	672.4
2.5°	676.1	668.2	673.2	670.3	674.9
5°	674.0	666.1	671.1	668.6	673.2
7.5°	670.3	662.4	667.4	664.9	668.6
10°	666.1	657.8	663.2	660.8	664.5
12.5°	660.8	652.9	657.8	655.8	659.1
15°	652.9	645.4	650.0	648.3	650.8
17.5°	643.3	635.8	640.4	639.2	641.2
20°	632.9	625.9	630.4	629.2	631.3
22.5°	621.3	613.8	618.0	617.1	618.8
25°	607.2	600.5	604.7	603.4	605.1
27.5°	592.2	586.0	589.3	589.3	590.1
30°	576.0	570.2	573.5	573.5	574.0
32.5°	558.6	554.0	556.1	556.5	556.5
35°	539.9	536.2	537.8	538.2	538.2
37.5°	520.4	516.6	517.9	518.7	518.7
40°	499.6	496.3	497.1	498.0	497.5
42.5°	477.2	474.7	475.1	475.9	475.9
45°	454.3	452.3	452.3	453.1	453.1
47.5°	431.1	429.0	428.2	429.0	429.0
50°	405.8	403.7	402.8	403.7	403.7
52.5°	379.2	377.1	377.1	377.1	377.5
55°	351.8	349.7	348.9	349.7	350.1
57.5°	322.7	321.9	320.6	321.0	319.8
60°	291.5	291.5	290.3	291.1	290.3
62.5°	261.2	262.1	260.8	260.8	260.0
65°	230.1	230.9	229.7	229.7	228.8
67.5°	198.1	199.3	197.7	197.7	196.9
70°	164.9	167.4	165.7	166.1	165.3
72.5°	135.0	136.2	134.6	134.6	133.7
75°	105.1	105.9	104.2	104.7	103.4
77.5°	75.6	76.8	75.2	75.6	75.2
80°	50.7	51.1	49.8	50.3	49.4
82.5°	29.5	29.9	29.5	29.1	28.7
85°	13.3	13.7	13.3	13.3	12.9
87.5°	3.3	3.3	3.3	3.3	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)