

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: P973931

Luminaire Tested: FLR2-22-20HE-L940-CP080

Issue Date: 3/13/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P973931  
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-L940-CP080  
Description: SHAPER SENSE CIRCLE  
  
Light Source:  
Ballast/Driver: -

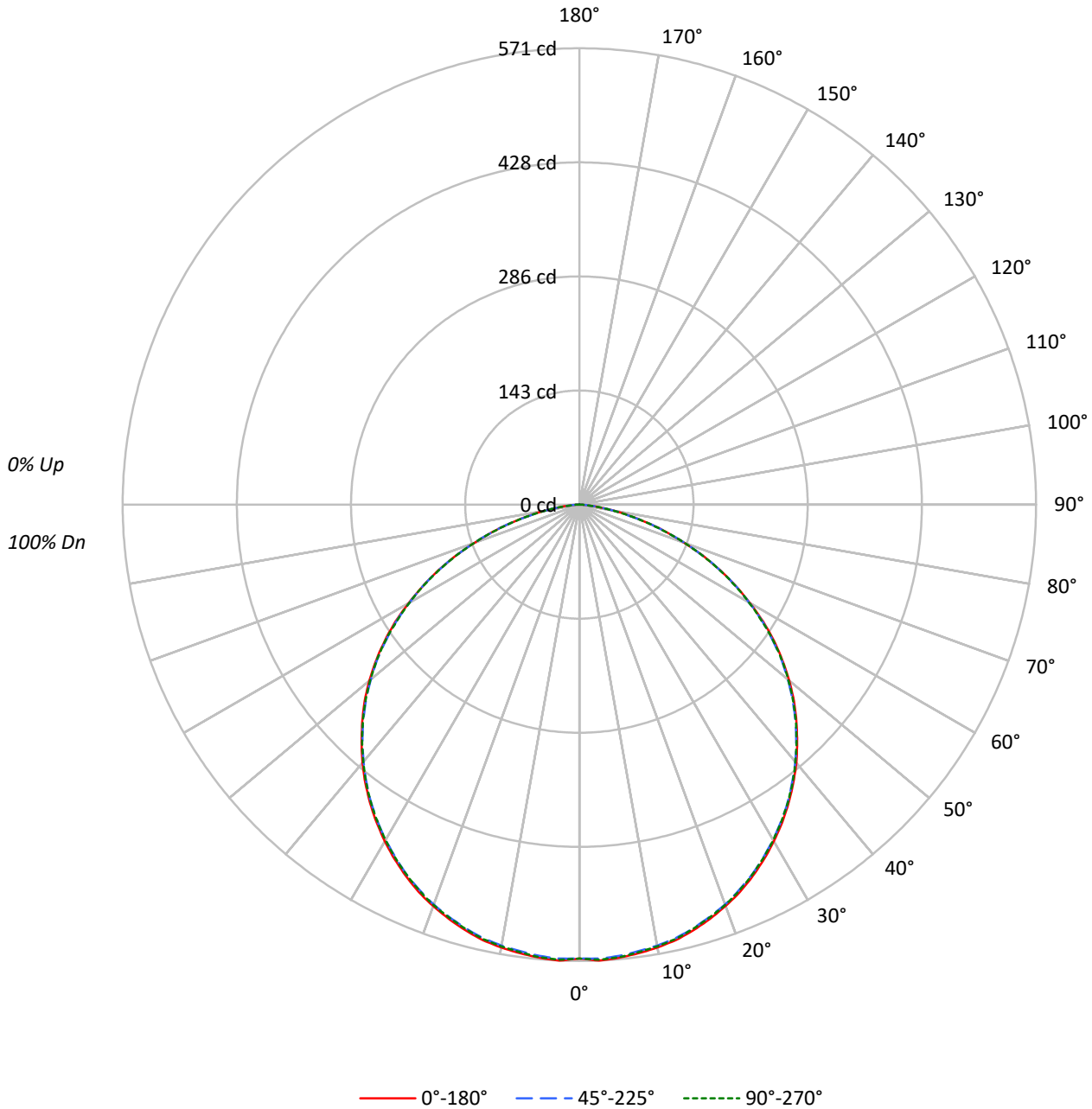
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1588.3 lumens  
Efficiency: N/A  
Efficacy: 107.3 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°	1528	1528	1528
5°	1538	1531	1536
10°	1538	1531	1534
15°	1536	1529	1531
20°	1531	1525	1527
25°	1523	1517	1518
30°	1512	1505	1506
35°	1498	1492	1493
40°	1482	1475	1476
45°	1461	1454	1456
50°	1435	1425	1428
55°	1394	1383	1387
60°	1326	1320	1320
65°	1237	1235	1231
70°	1096	1102	1098
75°	923	915	908
80°	663	652	646
85°	346	346	337

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1461 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.8	3.4
10°-20°	154.7	9.7
20°-30°	235.0	14.8
30°-40°	284.1	17.9
40°-50°	294.9	18.6
50°-60°	263.6	16.6
60°-70°	191.7	12.1
70°-80°	94.3	5.9
80°-90°	16.3	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°	443.5	27.9
0°-40°	727.5	45.8
0°-60°	1286.0	81.0
0°-90°	1588.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1588.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	568	568	568	568	568	
5°	569	563	567	565	569	54
15°	551	545	549	548	550	156
25°	513	507	511	510	511	236
35°	456	453	454	455	455	285
45°	384	382	382	383	383	296
55°	297	295	295	295	296	265
65°	194	195	194	194	193	192
75°	89	90	88	88	87	94
85°	11	12	11	11	11	16
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	567.9	567.9	567.9	567.9	567.9
2.5°	571.1	564.4	568.6	566.2	570.0
5°	569.3	562.7	566.9	564.8	568.6
7.5°	566.2	559.5	563.7	561.6	564.8
10°	562.7	555.7	560.2	558.1	561.3
12.5°	558.1	551.4	555.7	553.9	556.7
15°	551.4	545.1	549.0	547.6	549.7
17.5°	543.4	537.1	540.9	539.9	541.6
20°	534.6	528.6	532.5	531.4	533.2
22.5°	524.8	518.5	522.0	521.3	522.7
25°	512.9	507.2	510.8	509.7	511.1
27.5°	500.2	495.0	497.8	497.8	498.5
30°	486.5	481.6	484.4	484.4	484.8
32.5°	471.8	468.0	469.7	470.1	470.1
35°	456.0	452.9	454.3	454.6	454.6
37.5°	439.5	436.4	437.4	438.1	438.1
40°	422.0	419.2	419.9	420.6	420.2
42.5°	403.1	401.0	401.3	402.0	402.0
45°	383.8	382.0	382.0	382.7	382.7
47.5°	364.1	362.4	361.7	362.4	362.4
50°	342.7	341.0	340.3	341.0	341.0
52.5°	320.3	318.5	318.5	318.5	318.9
55°	297.1	295.4	294.7	295.4	295.7
57.5°	272.6	271.9	270.8	271.2	270.1
60°	246.3	246.3	245.2	245.9	245.2
62.5°	220.6	221.3	220.3	220.3	219.6
65°	194.3	195.0	194.0	194.0	193.3
67.5°	167.3	168.4	167.0	167.0	166.3
70°	139.3	141.4	140.0	140.3	139.6
72.5°	114.0	115.1	113.7	113.7	113.0
75°	88.8	89.5	88.0	88.4	87.3
77.5°	63.8	64.9	63.5	63.8	63.5
80°	42.8	43.1	42.1	42.4	41.7
82.5°	24.9	25.3	24.9	24.6	24.2
85°	11.2	11.6	11.2	11.2	10.9
87.5°	2.8	2.8	2.8	2.8	2.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)