

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: P973936

Luminaire Tested: FLR2-22-60HE-L940-CP080

Issue Date: 3/13/2025

**Test Information**

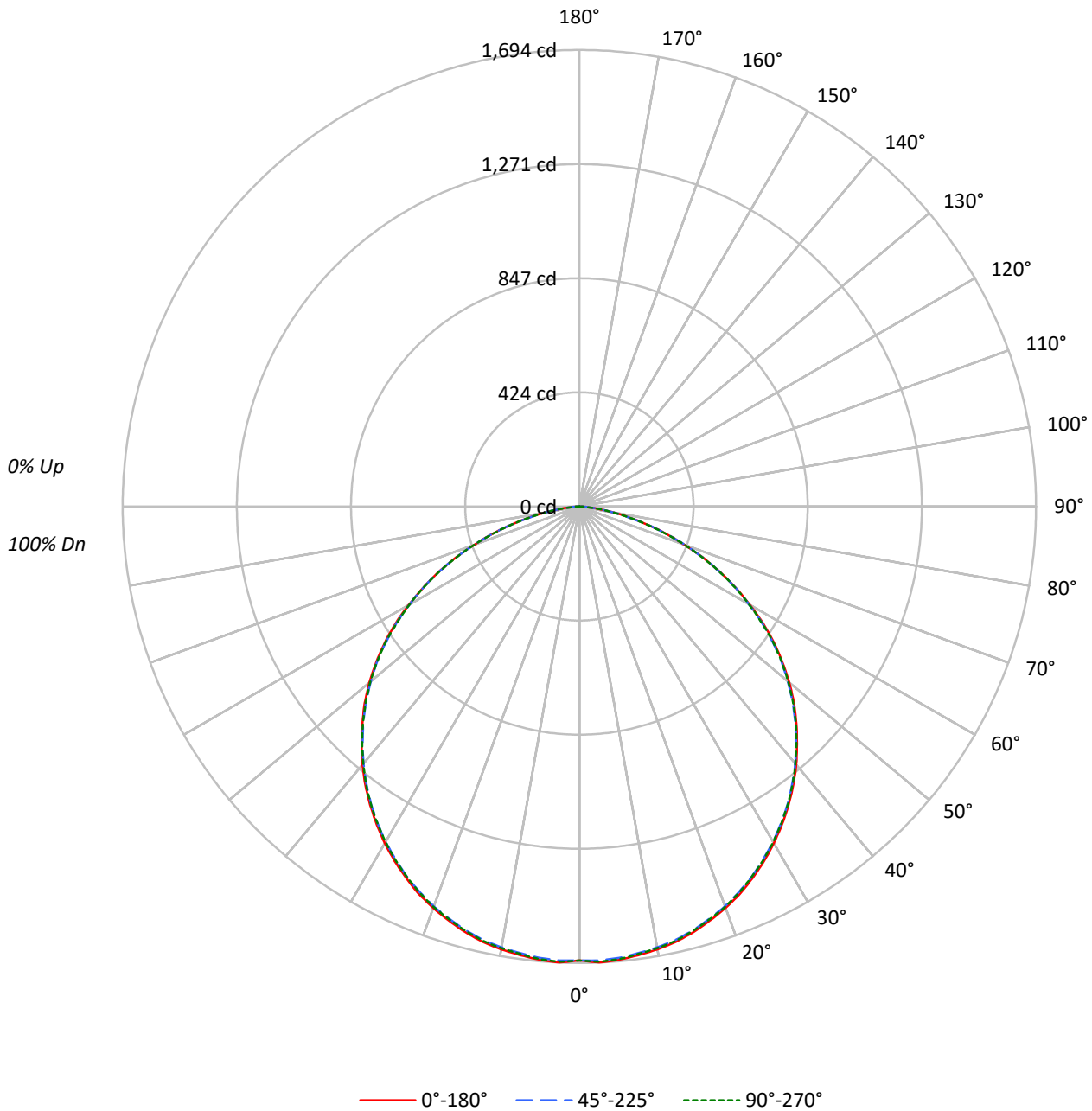
Test Method: LM-79-2019  
Report Number: P973936  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-22-60HE-L940-CP080  
Description: SHAPER SENSE CIRCLE  
  
Light Source:  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4711.0 lumens  
Efficiency: N/A  
Efficacy: 99.4 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): 47.4  
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°	4533	4533	4533
5°	4562	4542	4556
10°	4561	4541	4549
15°	4557	4537	4542
20°	4541	4523	4529
25°	4517	4498	4501
30°	4484	4465	4468
35°	4444	4427	4430
40°	4397	4375	4379
45°	4332	4312	4320
50°	4256	4225	4234
55°	4135	4100	4115
60°	3931	3914	3914
65°	3670	3664	3650
70°	3250	3267	3258
75°	2737	2716	2694
80°	1967	1936	1918
85°	1028	1028	997

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4332 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	159.5	3.4
10°-20°	458.7	9.7
20°-30°	697.1	14.8
30°-40°	842.6	17.9
40°-50°	874.6	18.6
50°-60°	781.9	16.6
60°-70°	568.5	12.1
70°-80°	279.6	5.9
80°-90°	48.5	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°	1315.4	27.9
0°-40°	2158.0	45.8
0°-60°	3814.4	81.0
0°-90°	4711.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4711.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1685	1685	1685	1685	1685	
5°	1689	1669	1682	1675	1687	161
15°	1636	1617	1628	1624	1630	462
25°	1521	1505	1515	1512	1516	701
35°	1353	1343	1348	1348	1348	846
45°	1138	1133	1133	1135	1135	878
55°	881	876	874	876	877	786
65°	576	578	575	575	573	568
75°	263	265	261	262	259	279
85°	33	34	33	33	32	49
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1684.6	1684.6	1684.6	1684.6	1684.6
2.5°	1693.9	1674.2	1686.7	1679.4	1690.8
5°	1688.7	1669.0	1681.5	1675.2	1686.7
7.5°	1679.4	1659.6	1672.1	1665.9	1675.2
10°	1669.0	1648.2	1661.7	1655.4	1664.8
12.5°	1655.4	1635.7	1648.2	1643.0	1651.3
15°	1635.7	1616.9	1628.4	1624.2	1630.5
17.5°	1611.7	1593.0	1604.5	1601.3	1606.5
20°	1585.7	1568.0	1579.5	1576.4	1581.6
22.5°	1556.6	1537.9	1548.3	1546.2	1550.4
25°	1521.2	1504.6	1515.0	1511.9	1516.0
27.5°	1483.8	1468.2	1476.5	1476.5	1478.6
30°	1443.2	1428.6	1436.9	1436.9	1438.0
32.5°	1399.5	1388.0	1393.2	1394.3	1394.3
35°	1352.7	1343.3	1347.5	1348.5	1348.5
37.5°	1303.8	1294.4	1297.5	1299.6	1299.6
40°	1251.7	1243.4	1245.5	1247.6	1246.5
42.5°	1195.5	1189.3	1190.3	1192.4	1192.4
45°	1138.3	1133.1	1133.1	1135.2	1135.2
47.5°	1080.0	1074.8	1072.8	1074.8	1074.8
50°	1016.6	1011.4	1009.3	1011.4	1011.4
52.5°	950.0	944.8	944.8	944.8	945.8
55°	881.3	876.1	874.0	876.1	877.1
57.5°	808.5	806.4	803.3	804.3	801.2
60°	730.4	730.4	727.3	729.4	727.3
62.5°	654.5	656.6	653.4	653.4	651.4
65°	576.4	578.5	575.4	575.4	573.3
67.5°	496.3	499.4	495.3	495.3	493.2
70°	413.1	419.3	415.2	416.2	414.1
72.5°	338.2	341.3	337.1	337.1	335.0
75°	263.2	265.3	261.2	262.2	259.1
77.5°	189.4	192.5	188.3	189.4	188.3
80°	126.9	128.0	124.9	125.9	123.8
82.5°	73.9	74.9	73.9	72.8	71.8
85°	33.3	34.3	33.3	33.3	32.3
87.5°	8.3	8.3	8.3	8.3	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)