

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: P973798

Luminaire Tested: FLR2-22-60HE-L930-CA080

Issue Date: 3/13/2025

**Test Information**

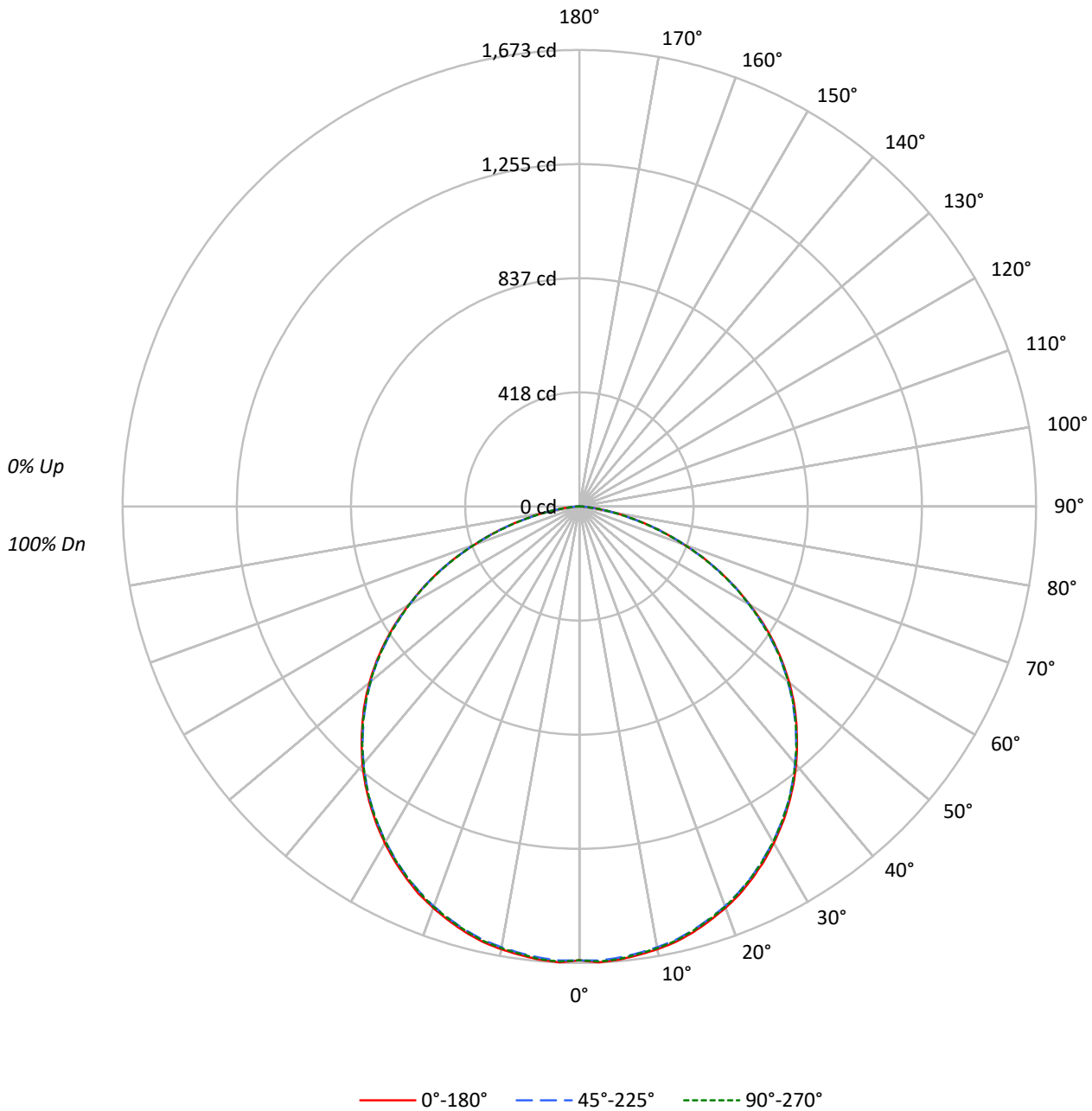
Test Method: LM-79-2019  
Report Number: P973798  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-22-60HE-L930-CA080  
Description: SHAPER SENSE CIRCLE  
  
Light Source:  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4651.6 lumens  
Efficiency: N/A  
Efficacy: 98.1 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										
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°	4476	4476	4476
5°	4504	4485	4499
10°	4503	4483	4492
15°	4500	4479	4485
20°	4484	4466	4472
25°	4460	4442	4445
30°	4428	4409	4412
35°	4388	4371	4374
40°	4342	4320	4324
45°	4278	4258	4266
50°	4202	4172	4181
55°	4083	4049	4063
60°	3881	3865	3865
65°	3624	3617	3605
70°	3209	3225	3217
75°	2702	2681	2660
80°	1942	1911	1895
85°	1016	1016	982

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4278 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	157.5	3.4
10°-20°	453.0	9.7
20°-30°	688.3	14.8
30°-40°	832.0	17.9
40°-50°	863.6	18.6
50°-60°	772.0	16.6
60°-70°	561.3	12.1
70°-80°	276.1	5.9
80°-90°	47.9	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°	1298.8	27.9
0°-40°	2130.8	45.8
0°-60°	3766.4	81.0
0°-90°	4651.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4651.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1663	1663	1663	1663	1663	
5°	1668	1648	1660	1654	1665	158
15°	1615	1597	1608	1604	1610	456
25°	1502	1486	1496	1493	1497	692
35°	1336	1326	1330	1332	1332	836
45°	1124	1119	1119	1121	1121	867
55°	870	865	863	865	866	776
65°	569	571	568	568	566	561
75°	260	262	258	259	256	276
85°	33	34	33	33	32	48
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1663.3	1663.3	1663.3	1663.3	1663.3
2.5°	1672.6	1653.1	1665.4	1658.2	1669.5
5°	1667.5	1647.9	1660.3	1654.1	1665.4
7.5°	1658.2	1638.7	1651.0	1644.9	1654.1
10°	1647.9	1627.4	1640.7	1634.6	1643.8
12.5°	1634.6	1615.1	1627.4	1622.3	1630.5
15°	1615.1	1596.6	1607.9	1603.8	1609.9
17.5°	1591.4	1572.9	1584.2	1581.2	1586.3
20°	1565.7	1548.3	1559.6	1556.5	1561.6
22.5°	1537.0	1518.5	1528.8	1526.7	1530.8
25°	1502.0	1485.6	1495.9	1492.8	1496.9
27.5°	1465.1	1449.7	1457.9	1457.9	1459.9
30°	1425.0	1410.6	1418.8	1418.8	1419.9
32.5°	1381.8	1370.5	1375.7	1376.7	1376.7
35°	1335.6	1326.4	1330.5	1331.5	1331.5
37.5°	1287.3	1278.1	1281.2	1283.2	1283.2
40°	1236.0	1227.7	1229.8	1231.8	1230.8
42.5°	1180.5	1174.3	1175.3	1177.4	1177.4
45°	1124.0	1118.8	1118.8	1120.9	1120.9
47.5°	1066.4	1061.3	1059.2	1061.3	1061.3
50°	1003.8	998.6	996.6	998.6	998.6
52.5°	938.0	932.9	932.9	932.9	933.9
55°	870.2	865.1	863.0	865.1	866.1
57.5°	798.3	796.2	793.1	794.2	791.1
60°	721.2	721.2	718.1	720.2	718.1
62.5°	646.2	648.3	645.2	645.2	643.1
65°	569.2	571.2	568.1	568.1	566.1
67.5°	490.1	493.1	489.0	489.0	487.0
70°	407.9	414.0	409.9	411.0	408.9
72.5°	333.9	337.0	332.9	332.9	330.8
75°	259.9	262.0	257.9	258.9	255.8
77.5°	187.0	190.1	186.0	187.0	186.0
80°	125.3	126.4	123.3	124.3	122.3
82.5°	72.9	74.0	72.9	71.9	70.9
85°	32.9	33.9	32.9	32.9	31.8
87.5°	8.2	8.2	8.2	8.2	8.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)