

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: P973966

Luminaire Tested: FLR2-22-60HE-L940-CA080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973966
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-CA080
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

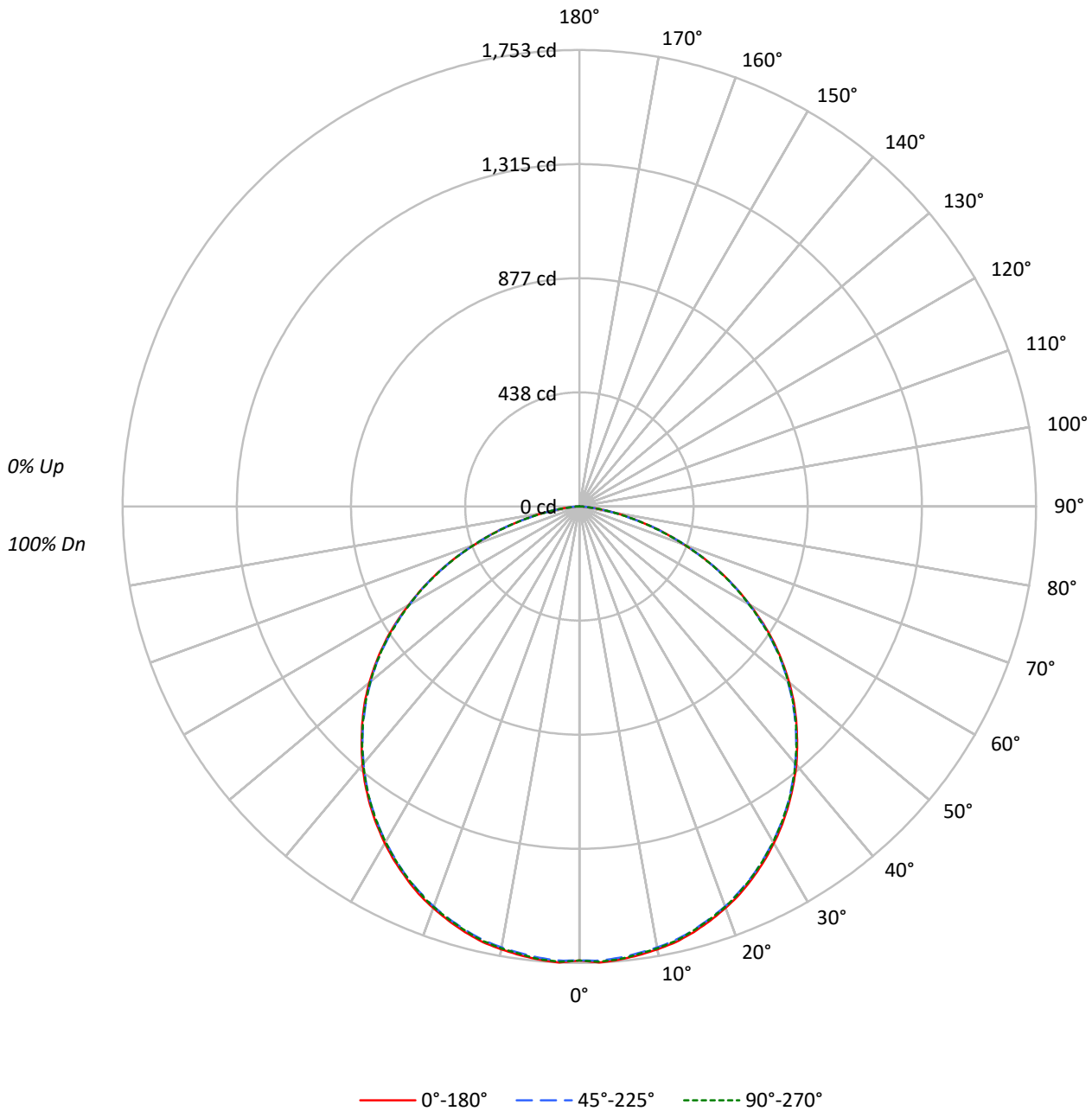
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4875.8 lumens
Efficiency: N/A
Efficacy: 102.9 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°	4692	4692	4692
5°	4721	4701	4716
10°	4720	4699	4708
15°	4716	4695	4701
20°	4700	4681	4688
25°	4675	4656	4659
30°	4641	4621	4625
35°	4599	4581	4585
40°	4551	4528	4532
45°	4483	4463	4471
50°	4405	4373	4382
55°	4279	4244	4259
60°	4069	4052	4052
65°	3799	3792	3778
70°	3364	3381	3372
75°	2833	2810	2787
80°	2036	2002	1987
85°	1065	1065	1031

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4483 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.1	3.4
10°-20°	474.8	9.7
20°-30°	721.5	14.8
30°-40°	872.1	17.9
40°-50°	905.2	18.6
50°-60°	809.3	16.6
60°-70°	588.4	12.1
70°-80°	289.3	5.9
80°-90°	50.2	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°	1361.4	27.9
0°-40°	2233.5	45.8
0°-60°	3947.9	81.0
0°-90°	4875.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4875.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1744	1744	1744	1744	1744	
5°	1748	1727	1740	1734	1746	166
15°	1693	1674	1685	1681	1688	478
25°	1574	1557	1568	1565	1569	726
35°	1400	1390	1395	1396	1396	876
45°	1178	1173	1173	1175	1175	909
55°	912	907	905	907	908	813
65°	597	599	596	596	593	588
75°	272	275	270	271	268	289
85°	34	36	34	34	33	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1743.5	1743.5	1743.5	1743.5	1743.5
2.5°	1753.2	1732.7	1745.7	1738.1	1750.0
5°	1747.8	1727.4	1740.3	1733.8	1745.7
7.5°	1738.1	1717.7	1730.6	1724.1	1733.8
10°	1727.4	1705.8	1719.8	1713.4	1723.0
12.5°	1713.4	1692.9	1705.8	1700.4	1709.0
15°	1692.9	1673.5	1685.4	1681.0	1687.5
17.5°	1668.1	1648.7	1660.6	1657.4	1662.7
20°	1641.2	1622.9	1634.7	1631.5	1636.9
22.5°	1611.1	1591.7	1602.4	1600.3	1604.6
25°	1574.4	1557.2	1568.0	1564.7	1569.1
27.5°	1535.7	1519.5	1528.1	1528.1	1530.3
30°	1493.7	1478.6	1487.2	1487.2	1488.3
32.5°	1448.4	1436.6	1442.0	1443.1	1443.1
35°	1400.0	1390.3	1394.6	1395.7	1395.7
37.5°	1349.4	1339.7	1342.9	1345.1	1345.1
40°	1295.5	1286.9	1289.1	1291.2	1290.1
42.5°	1237.4	1230.9	1232.0	1234.1	1234.1
45°	1178.1	1172.7	1172.7	1174.9	1174.9
47.5°	1117.8	1112.4	1110.3	1112.4	1112.4
50°	1052.1	1046.8	1044.6	1046.8	1046.8
52.5°	983.2	977.8	977.8	977.8	978.9
55°	912.1	906.8	904.6	906.8	907.8
57.5°	836.8	834.6	831.4	832.4	829.2
60°	756.0	756.0	752.8	754.9	752.8
62.5°	677.4	679.5	676.3	676.3	674.1
65°	596.6	598.8	595.5	595.5	593.4
67.5°	513.7	516.9	512.6	512.6	510.5
70°	427.5	434.0	429.7	430.8	428.6
72.5°	350.0	353.2	348.9	348.9	346.8
75°	272.5	274.6	270.3	271.4	268.1
77.5°	196.0	199.2	194.9	196.0	194.9
80°	131.4	132.5	129.2	130.3	128.2
82.5°	76.5	77.5	76.5	75.4	74.3
85°	34.5	35.5	34.5	34.5	33.4
87.5°	8.6	8.6	8.6	8.6	8.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)