

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: P973612

Luminaire Tested: FLR2-22-45-L840-CP080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973612
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: FLR2-22-45-L840-CP080
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

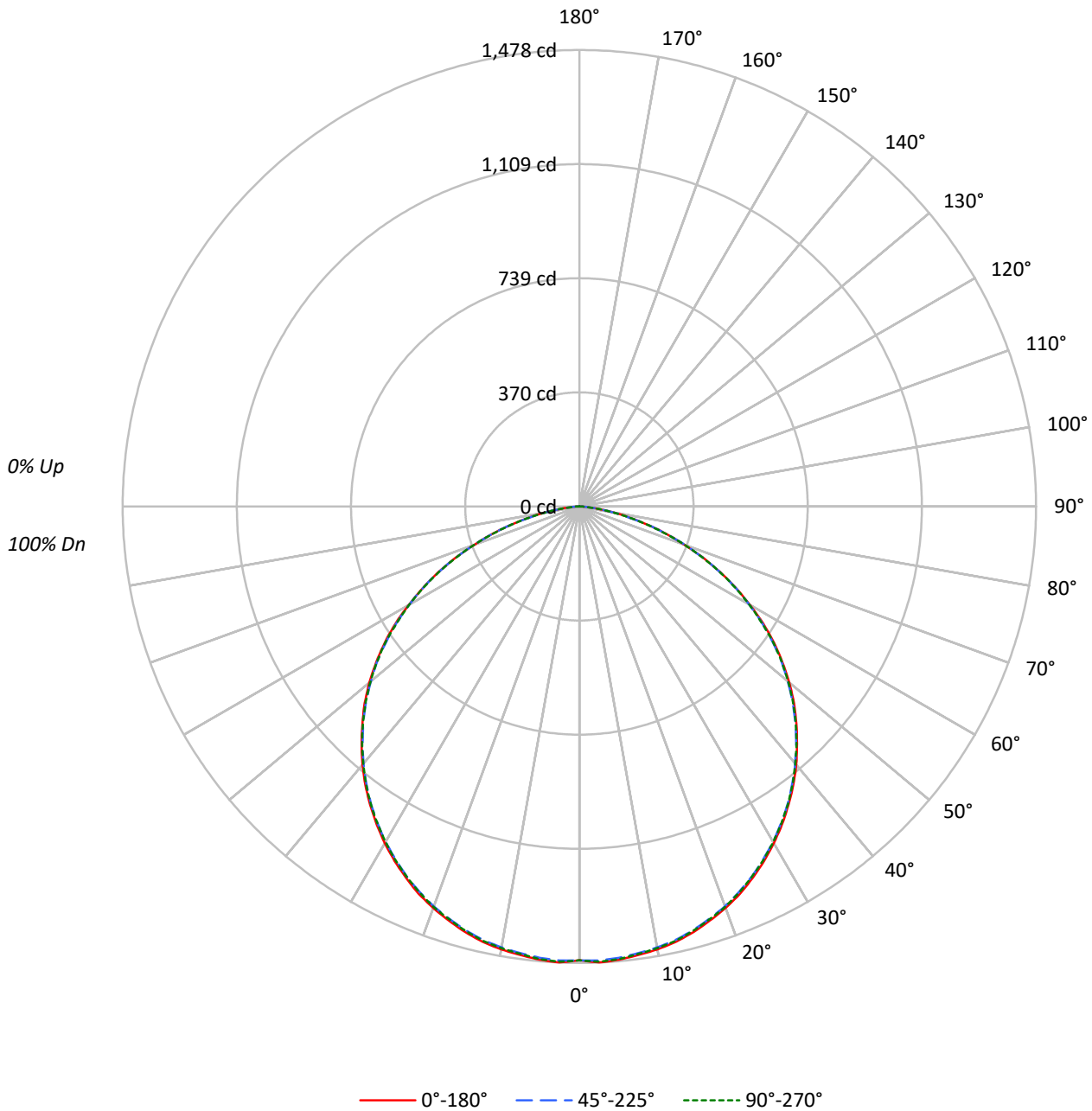
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4110.1 lumens
Efficiency: N/A
Efficacy: 113.9 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): 36.1
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																				
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°	3955	3955	3955
5°	3980	3963	3975
10°	3979	3961	3969
15°	3975	3958	3963
20°	3962	3946	3951
25°	3941	3924	3927
30°	3912	3896	3898
35°	3877	3862	3865
40°	3836	3817	3820
45°	3779	3762	3769
50°	3713	3687	3694
55°	3607	3577	3590
60°	3430	3415	3415
65°	3202	3196	3185
70°	2836	2850	2843
75°	2388	2370	2350
80°	1717	1688	1674
85°	895	895	868

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3779 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.2	3.4
10°-20°	400.2	9.7
20°-30°	608.2	14.8
30°-40°	735.1	17.9
40°-50°	763.0	18.6
50°-60°	682.2	16.6
60°-70°	496.0	12.1
70°-80°	243.9	5.9
80°-90°	42.3	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°	1147.6	27.9
0°-40°	1882.7	45.8
0°-60°	3327.9	81.0
0°-90°	4110.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4110.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1470	1470	1470	1470	1470	
5°	1473	1456	1467	1462	1472	140
15°	1427	1411	1421	1417	1422	403
25°	1327	1313	1322	1319	1323	612
35°	1180	1172	1176	1176	1176	738
45°	993	989	989	990	990	766
55°	769	764	762	764	765	685
65°	503	505	502	502	500	496
75°	230	232	228	229	226	244
85°	29	30	29	29	28	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1469.7	1469.7	1469.7	1469.7	1469.7
2.5°	1477.9	1460.6	1471.5	1465.2	1475.2
5°	1473.3	1456.1	1467.0	1461.5	1471.5
7.5°	1465.2	1447.9	1458.8	1453.4	1461.5
10°	1456.1	1437.9	1449.7	1444.3	1452.5
12.5°	1444.3	1427.0	1437.9	1433.4	1440.7
15°	1427.0	1410.7	1420.7	1417.1	1422.5
17.5°	1406.2	1389.8	1399.8	1397.1	1401.6
20°	1383.5	1368.0	1378.0	1375.3	1379.8
22.5°	1358.1	1341.7	1350.8	1349.0	1352.6
25°	1327.2	1312.7	1321.7	1319.0	1322.7
27.5°	1294.5	1280.9	1288.2	1288.2	1290.0
30°	1259.1	1246.4	1253.7	1253.7	1254.6
32.5°	1221.0	1211.0	1215.5	1216.4	1216.4
35°	1180.1	1172.0	1175.6	1176.5	1176.5
37.5°	1137.5	1129.3	1132.0	1133.8	1133.8
40°	1092.1	1084.8	1086.6	1088.4	1087.5
42.5°	1043.1	1037.6	1038.5	1040.3	1040.3
45°	993.1	988.6	988.6	990.4	990.4
47.5°	942.3	937.7	935.9	937.7	937.7
50°	886.9	882.4	880.6	882.4	882.4
52.5°	828.8	824.3	824.3	824.3	825.2
55°	768.9	764.4	762.5	764.4	765.3
57.5°	705.4	703.5	700.8	701.7	699.0
60°	637.3	637.3	634.5	636.4	634.5
62.5°	571.0	572.8	570.1	570.1	568.3
65°	502.9	504.7	502.0	502.0	500.2
67.5°	433.0	435.7	432.1	432.1	430.3
70°	360.4	365.8	362.2	363.1	361.3
72.5°	295.0	297.8	294.1	294.1	292.3
75°	229.7	231.5	227.9	228.8	226.0
77.5°	165.2	167.9	164.3	165.2	164.3
80°	110.8	111.7	108.9	109.8	108.0
82.5°	64.5	65.4	64.5	63.5	62.6
85°	29.0	30.0	29.0	29.0	28.1
87.5°	7.3	7.3	7.3	7.3	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)