

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: P973892

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

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973892
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: FLR2-22-45HE-L840-CP080
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

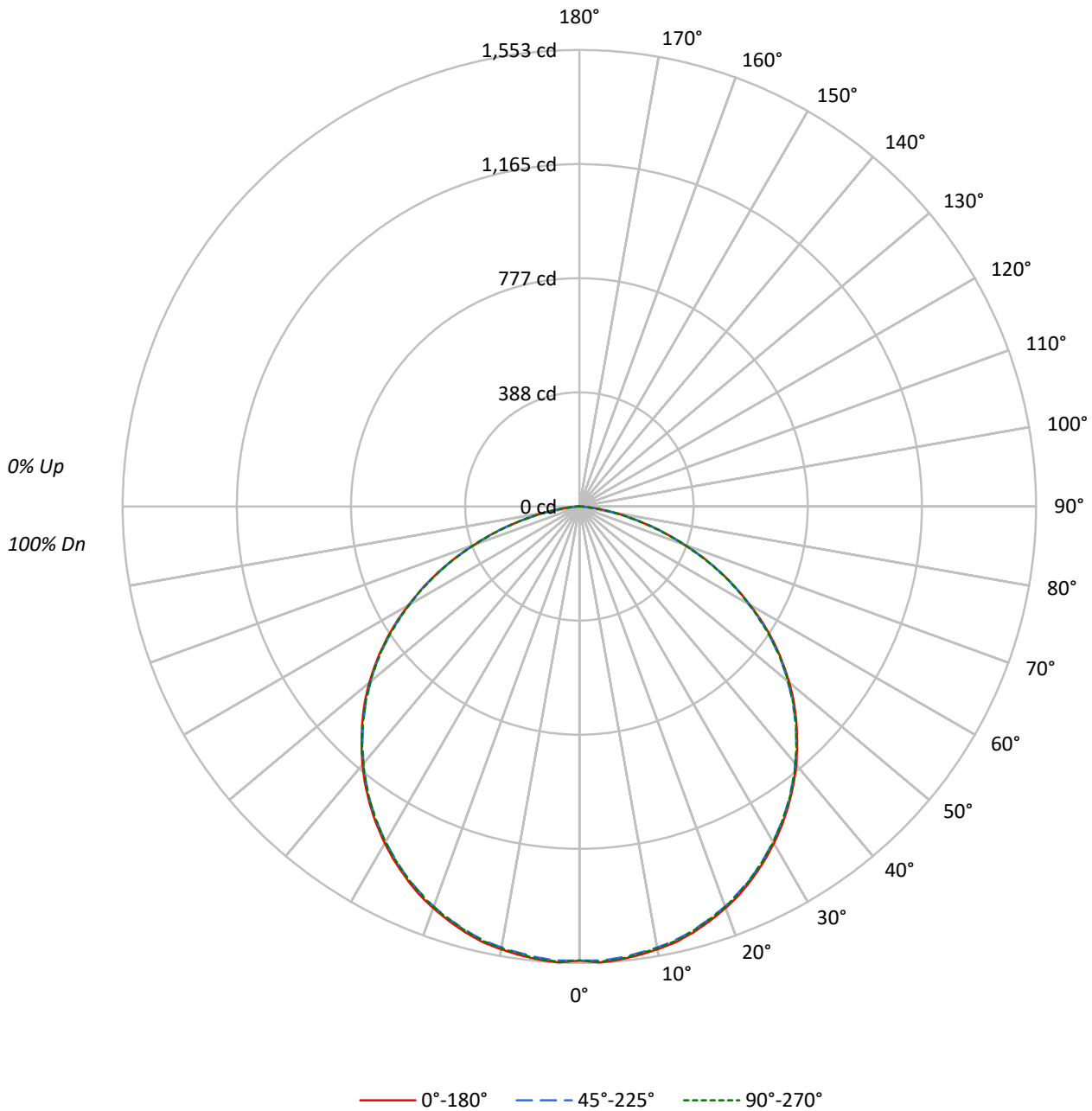
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4319.5 lumens
Efficiency: N/A
Efficacy: 119.3 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): 36.2
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°	4156	4156	4156
5°	4183	4165	4177
10°	4182	4163	4171
15°	4178	4160	4165
20°	4164	4147	4153
25°	4141	4124	4127
30°	4112	4094	4097
35°	4074	4059	4062
40°	4032	4012	4015
45°	3972	3954	3961
50°	3902	3874	3882
55°	3791	3760	3773
60°	3604	3589	3589
65°	3365	3359	3347
70°	2980	2995	2987
75°	2510	2490	2470
80°	1804	1774	1759
85°	942	942	914

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3972 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.3	3.4
10°-20°	420.6	9.7
20°-30°	639.2	14.8
30°-40°	772.6	17.9
40°-50°	801.9	18.6
50°-60°	716.9	16.6
60°-70°	521.2	12.1
70°-80°	256.3	5.9
80°-90°	44.4	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°	1206.1	27.9
0°-40°	1978.7	45.8
0°-60°	3497.5	81.0
0°-90°	4319.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4319.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1545	1545	1545	1545	1545	
5°	1548	1530	1542	1536	1546	147
15°	1500	1483	1493	1489	1495	423
25°	1395	1380	1389	1386	1390	643
35°	1240	1232	1236	1236	1236	776
45°	1044	1039	1039	1041	1041	805
55°	808	803	801	803	804	720
65°	528	530	528	528	526	521
75°	241	243	240	240	238	256
85°	30	32	30	30	30	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1544.6	1544.6	1544.6	1544.6	1544.6
2.5°	1553.2	1535.1	1546.5	1539.8	1550.3
5°	1548.4	1530.3	1541.8	1536.0	1546.5
7.5°	1539.8	1521.7	1533.2	1527.4	1536.0
10°	1530.3	1511.2	1523.6	1517.9	1526.5
12.5°	1517.9	1499.8	1511.2	1506.5	1514.1
15°	1499.8	1482.6	1493.1	1489.3	1495.0
17.5°	1477.8	1460.7	1471.2	1468.3	1473.1
20°	1454.0	1437.8	1448.3	1445.4	1450.2
22.5°	1427.3	1410.1	1419.6	1417.7	1421.5
25°	1394.8	1379.6	1389.1	1386.2	1390.1
27.5°	1360.5	1346.2	1353.8	1353.8	1355.7
30°	1323.3	1309.9	1317.6	1317.6	1318.5
32.5°	1283.2	1272.7	1277.5	1278.4	1278.4
35°	1240.3	1231.7	1235.5	1236.5	1236.5
37.5°	1195.4	1186.8	1189.7	1191.6	1191.6
40°	1147.7	1140.1	1142.0	1143.9	1143.0
42.5°	1096.2	1090.5	1091.4	1093.3	1093.3
45°	1043.7	1039.0	1039.0	1040.9	1040.9
47.5°	990.3	985.5	983.6	985.5	985.5
50°	932.1	927.3	925.4	927.3	927.3
52.5°	871.1	866.3	866.3	866.3	867.2
55°	808.1	803.3	801.4	803.3	804.3
57.5°	741.3	739.4	736.5	737.5	734.6
60°	669.7	669.7	666.9	668.8	666.9
62.5°	600.1	602.0	599.1	599.1	597.2
65°	528.5	530.5	527.6	527.6	525.7
67.5°	455.1	457.9	454.1	454.1	452.2
70°	378.8	384.5	380.7	381.6	379.7
72.5°	310.1	312.9	309.1	309.1	307.2
75°	241.4	243.3	239.5	240.4	237.6
77.5°	173.6	176.5	172.7	173.6	172.7
80°	116.4	117.3	114.5	115.4	113.5
82.5°	67.7	68.7	67.7	66.8	65.8
85°	30.5	31.5	30.5	30.5	29.6
87.5°	7.6	7.6	7.6	7.6	7.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)