

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: P973742

Luminaire Tested: FLR2-22-45HE-L830-CP250

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973742
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-L830-CP250
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

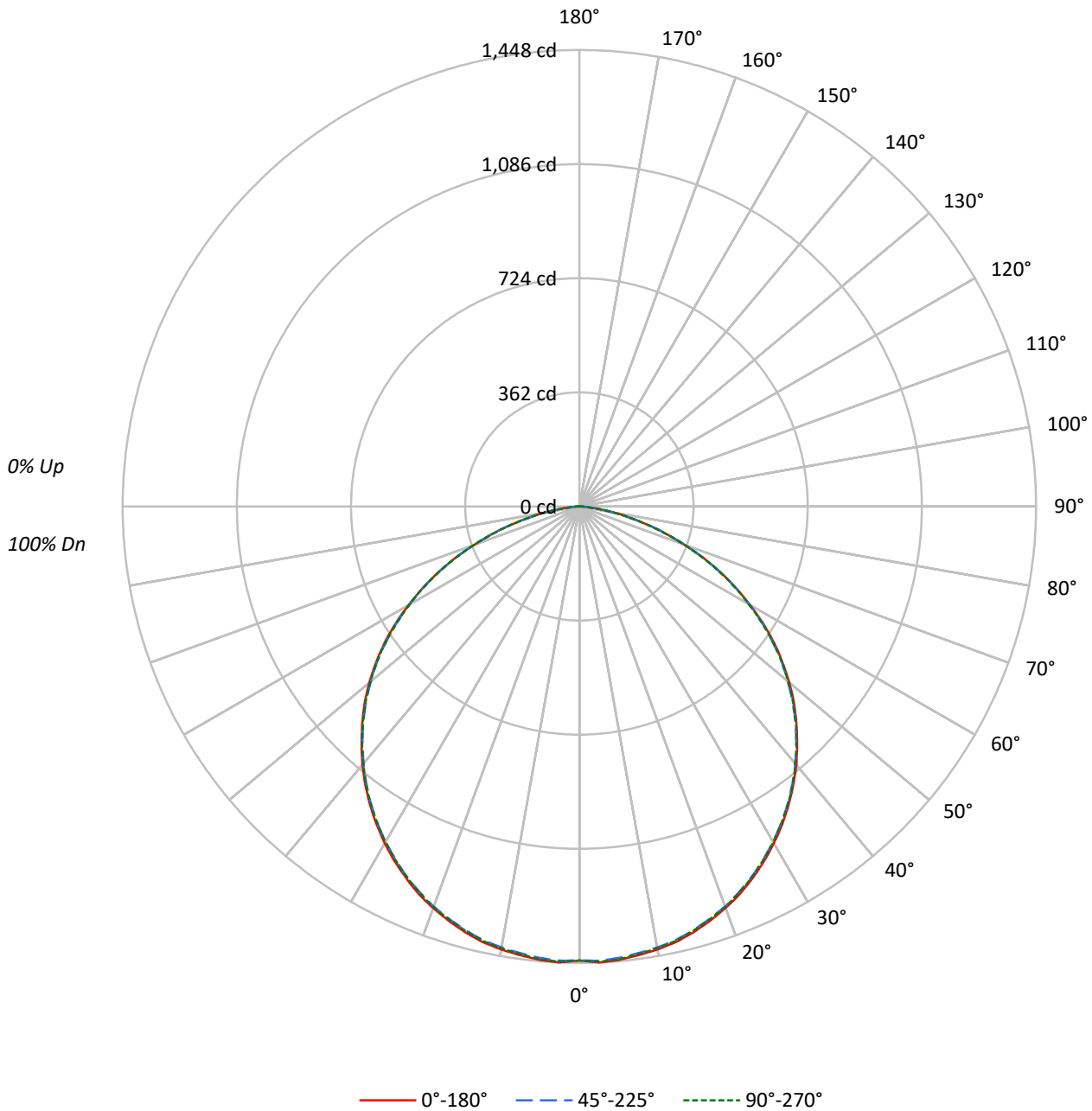
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4027.6 lumens
Efficiency: N/A
Efficacy: 111.3 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 (A_{in}): 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									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°	3876	3876	3876
5°	3900	3883	3895
10°	3899	3882	3889
15°	3896	3879	3883
20°	3882	3867	3872
25°	3861	3846	3848
30°	3834	3817	3820
35°	3799	3784	3787
40°	3759	3740	3744
45°	3704	3687	3693
50°	3638	3612	3620
55°	3535	3506	3518
60°	3361	3347	3347
65°	3138	3132	3121
70°	2779	2792	2785
75°	2340	2322	2303
80°	1681	1654	1641
85°	880	880	852

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3704 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.4	3.4
10°-20°	392.2	9.7
20°-30°	596.0	14.8
30°-40°	720.4	17.9
40°-50°	747.7	18.6
50°-60°	668.5	16.6
60°-70°	486.0	12.1
70°-80°	239.0	5.9
80°-90°	41.5	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°	1124.6	27.9
0°-40°	1844.9	45.8
0°-60°	3261.1	81.0
0°-90°	4027.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4027.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1440	1440	1440	1440	1440	
5°	1444	1427	1438	1432	1442	137
15°	1398	1382	1392	1389	1394	395
25°	1300	1286	1295	1292	1296	599
35°	1156	1148	1152	1153	1153	723
45°	973	969	969	970	970	751
55°	754	749	747	749	750	672
65°	493	495	492	492	490	486
75°	225	227	223	224	222	239
85°	28	29	28	28	28	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1440.2	1440.2	1440.2	1440.2	1440.2
2.5°	1448.2	1431.3	1442.0	1435.8	1445.5
5°	1443.8	1426.9	1437.5	1432.2	1442.0
7.5°	1435.8	1418.9	1429.5	1424.2	1432.2
10°	1426.9	1409.1	1420.6	1415.3	1423.3
12.5°	1415.3	1398.4	1409.1	1404.6	1411.7
15°	1398.4	1382.4	1392.2	1388.6	1393.9
17.5°	1377.9	1361.9	1371.7	1369.0	1373.5
20°	1355.7	1340.6	1350.4	1347.7	1352.1
22.5°	1330.8	1314.8	1323.7	1321.9	1325.5
25°	1300.5	1286.3	1295.2	1292.5	1296.1
27.5°	1268.5	1255.2	1262.3	1262.3	1264.1
30°	1233.8	1221.4	1228.5	1228.5	1229.4
32.5°	1196.5	1186.7	1191.1	1192.0	1192.0
35°	1156.4	1148.4	1152.0	1152.9	1152.9
37.5°	1114.6	1106.6	1109.3	1111.1	1111.1
40°	1070.1	1063.0	1064.8	1066.6	1065.7
42.5°	1022.1	1016.8	1017.7	1019.4	1019.4
45°	973.2	968.7	968.7	970.5	970.5
47.5°	923.4	918.9	917.1	918.9	918.9
50°	869.1	864.7	862.9	864.7	864.7
52.5°	812.2	807.7	807.7	807.7	808.6
55°	753.5	749.0	747.2	749.0	749.9
57.5°	691.2	689.4	686.7	687.6	685.0
60°	624.5	624.5	621.8	623.6	621.8
62.5°	559.5	561.3	558.6	558.6	556.9
65°	492.8	494.6	491.9	491.9	490.1
67.5°	424.3	427.0	423.4	423.4	421.7
70°	353.2	358.5	354.9	355.8	354.0
72.5°	289.1	291.8	288.2	288.2	286.4
75°	225.1	226.8	223.3	224.2	221.5
77.5°	161.9	164.6	161.0	161.9	161.0
80°	108.5	109.4	106.7	107.6	105.9
82.5°	63.2	64.0	63.2	62.3	61.4
85°	28.5	29.4	28.5	28.5	27.6
87.5°	7.1	7.1	7.1	7.1	7.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)