

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: P973754

Luminaire Tested: FLR2-22-45HE-L830-CA080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973754
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-CA080
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

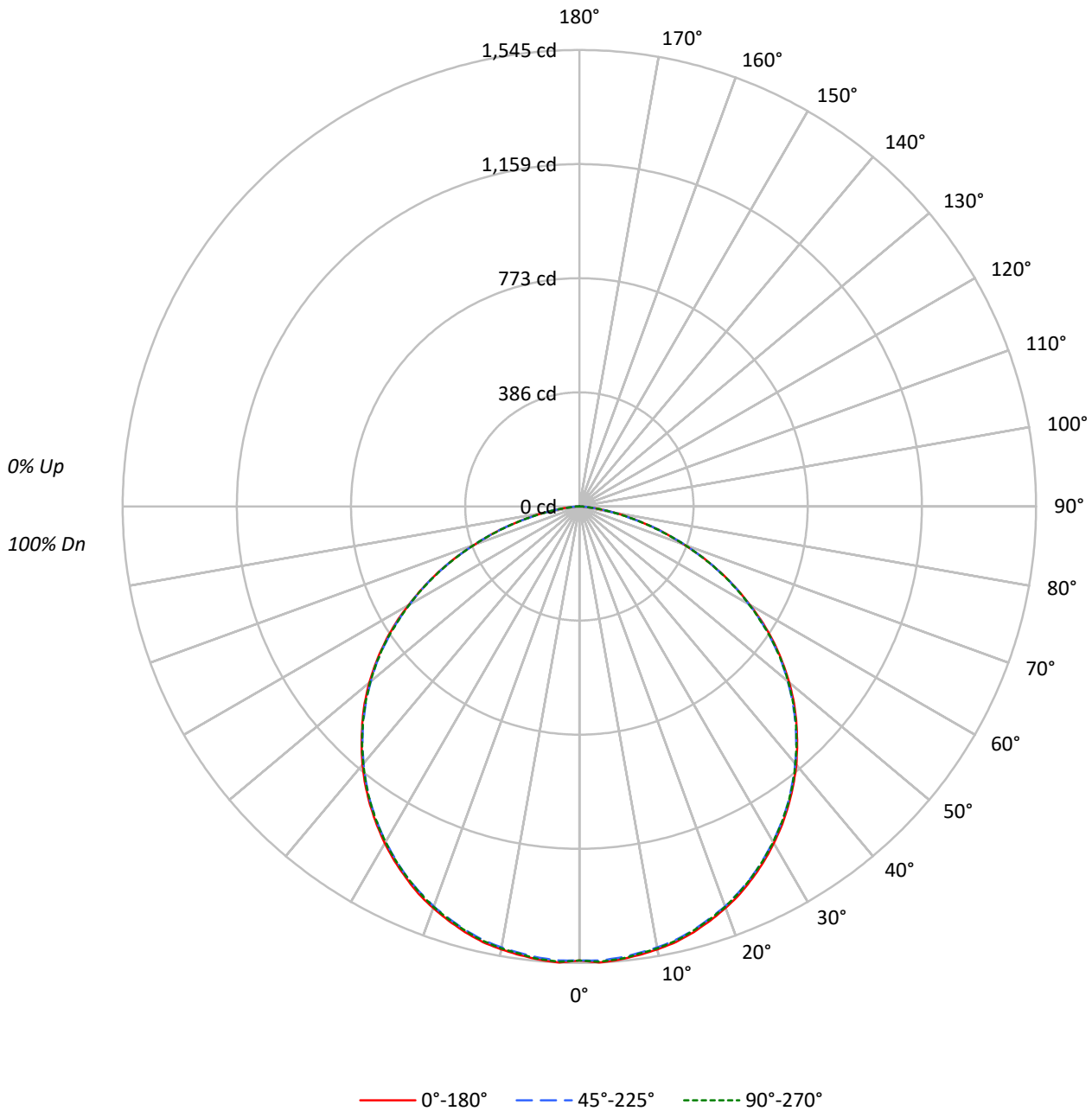
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4297.1 lumens
Efficiency: N/A
Efficacy: 118.7 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	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	
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°	4135	4135	4135
5°	4161	4143	4156
10°	4160	4142	4149
15°	4157	4138	4143
20°	4142	4126	4131
25°	4120	4103	4106
30°	4090	4073	4076
35°	4053	4038	4041
40°	4011	3991	3994
45°	3951	3933	3941
50°	3882	3854	3862
55°	3772	3740	3754
60°	3586	3570	3570
65°	3348	3342	3330
70°	2965	2980	2972
75°	2496	2477	2457
80°	1795	1765	1750
85°	939	939	908

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3951 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.5	3.4
10°-20°	418.4	9.7
20°-30°	635.9	14.8
30°-40°	768.6	17.9
40°-50°	797.8	18.6
50°-60°	713.2	16.6
60°-70°	518.5	12.1
70°-80°	255.0	5.9
80°-90°	44.2	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°	1199.8	27.9
0°-40°	1968.4	45.8
0°-60°	3479.3	81.0
0°-90°	4297.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4297.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1537	1537	1537	1537	1537	
5°	1540	1522	1534	1528	1538	146
15°	1492	1475	1485	1482	1487	421
25°	1388	1372	1382	1379	1383	640
35°	1234	1225	1229	1230	1230	772
45°	1038	1034	1034	1036	1036	801
55°	804	799	797	799	800	717
65°	526	528	525	525	523	519
75°	240	242	238	239	236	255
85°	30	31	30	30	29	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1536.6	1536.6	1536.6	1536.6	1536.6
2.5°	1545.1	1527.1	1538.5	1531.8	1542.3
5°	1540.4	1522.3	1533.7	1528.0	1538.5
7.5°	1531.8	1513.8	1525.2	1519.5	1528.0
10°	1522.3	1503.4	1515.7	1510.0	1518.5
12.5°	1510.0	1492.0	1503.4	1498.6	1506.2
15°	1492.0	1474.9	1485.3	1481.5	1487.2
17.5°	1470.1	1453.0	1463.5	1460.6	1465.4
20°	1446.4	1430.3	1440.7	1437.9	1442.6
22.5°	1419.8	1402.7	1412.2	1410.3	1414.1
25°	1387.6	1372.4	1381.9	1379.0	1382.8
27.5°	1353.4	1339.2	1346.8	1346.8	1348.6
30°	1316.4	1303.1	1310.7	1310.7	1311.6
32.5°	1276.5	1266.1	1270.8	1271.8	1271.8
35°	1233.8	1225.3	1229.1	1230.0	1230.0
37.5°	1189.2	1180.7	1183.5	1185.4	1185.4
40°	1141.7	1134.2	1136.1	1138.0	1137.0
42.5°	1090.5	1084.8	1085.8	1087.7	1087.7
45°	1038.3	1033.6	1033.6	1035.5	1035.5
47.5°	985.1	980.4	978.5	980.4	980.4
50°	927.3	922.5	920.6	922.5	922.5
52.5°	866.5	861.8	861.8	861.8	862.7
55°	803.9	799.1	797.2	799.1	800.1
57.5°	737.4	735.5	732.7	733.6	730.8
60°	666.3	666.3	663.4	665.3	663.4
62.5°	597.0	598.9	596.0	596.0	594.1
65°	525.8	527.7	524.8	524.8	522.9
67.5°	452.7	455.6	451.8	451.8	449.9
70°	376.8	382.5	378.7	379.6	377.7
72.5°	308.5	311.3	307.5	307.5	305.6
75°	240.1	242.0	238.2	239.2	236.3
77.5°	172.7	175.6	171.8	172.7	171.8
80°	115.8	116.7	113.9	114.8	112.9
82.5°	67.4	68.3	67.4	66.4	65.5
85°	30.4	31.3	30.4	30.4	29.4
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)