

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: P974101

Luminaire Tested: FLR2-24-45-L830-CA080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P974101
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-3)
Test Lab: INNOVATION CENTER
Issue Date: 3/13/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FLR2-24-45-L830-CA080
Description: SHAPER SENSE CIRCLE

Light Source: FLR2-24-45-L830-CA080
Ballast/Driver: -

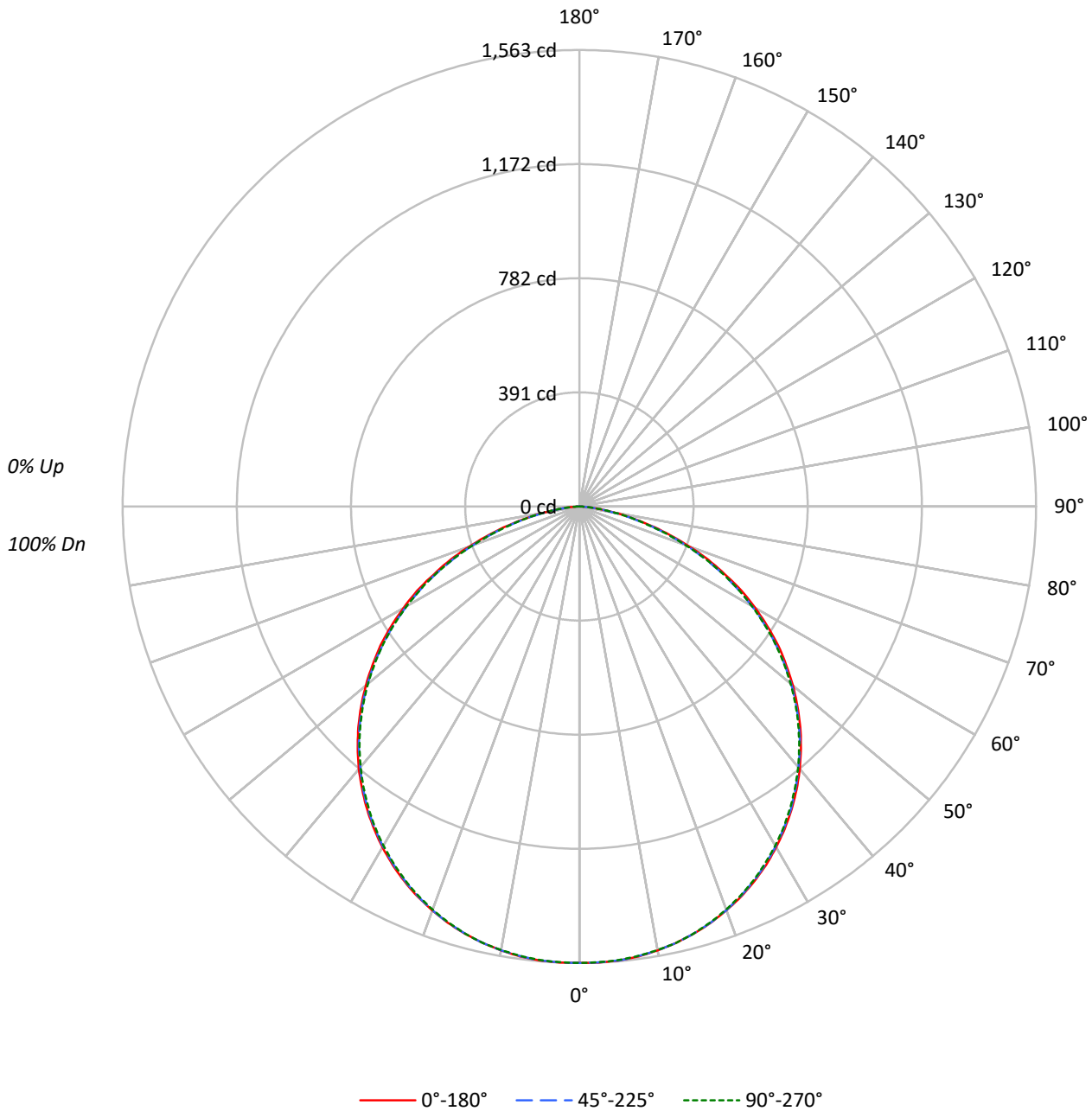
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4417.8 lumens
Efficiency: N/A
Efficacy: 124.1 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.39
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35.6
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

TEST NUMBER: P974101
CATALOG NUMBER: FLR2-24-45-L830-CA080

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	100	97	106	102	99	95	98	95	92	94	92	89	91	89	87	85
2	99	91	85	79	97	89	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	62	56	81	70	62	55	67	60	55	65	59	54	63	57	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	38
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	38	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	39	33	29	27
10	53	40	32	27	52	39	32	27	38	31	27	38	31	26	37	31	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2103	2103	2103
5°	2107	2107	2106
10°	2109	2108	2107
15°	2109	2109	2109
20°	2107	2106	2103
25°	2103	2099	2096
30°	2094	2088	2083
35°	2080	2075	2067
40°	2062	2049	2046
45°	2035	2023	2017
50°	1997	1982	1976
55°	1950	1922	1920
60°	1868	1835	1835
65°	1748	1707	1713
70°	1573	1525	1520
75°	1321	1268	1263
80°	965	917	956
85°	545	502	511

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2035 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.4	3.4
10°-20°	427.4	9.7
20°-30°	651.7	14.8
30°-40°	789.6	17.9
40°-50°	820.2	18.6
50°-60°	733.7	16.6
60°-70°	534.7	12.1
70°-80°	264.8	6.0
80°-90°	47.3	1.1
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°	1227.5	27.8
0°-40°	2017.1	45.7
0°-60°	3570.9	80.8
0°-90°	4417.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4417.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1563	1563	1563	1563	1563	
5°	1560	1561	1560	1560	1559	148
15°	1514	1514	1514	1515	1514	428
25°	1417	1415	1414	1413	1412	653
35°	1266	1265	1263	1261	1259	792
45°	1070	1067	1063	1061	1060	824
55°	831	825	819	819	818	741
65°	549	545	536	538	538	544
75°	254	250	244	248	243	271
85°	35	32	32	33	33	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1563.1	1563.1	1563.1	1563.1	1563.1
2.5°	1563.1	1562.5	1562.5	1563.1	1562.0
5°	1560.3	1560.9	1560.3	1560.3	1559.2
7.5°	1554.1	1553.6	1553.0	1553.6	1551.9
10°	1543.5	1543.5	1542.9	1543.5	1542.4
12.5°	1530.6	1530.6	1530.6	1531.1	1530.6
15°	1514.3	1513.7	1513.7	1514.9	1513.7
17.5°	1495.2	1494.7	1494.7	1494.1	1493.0
20°	1471.7	1471.7	1471.1	1470.6	1468.9
22.5°	1446.4	1445.9	1444.2	1444.2	1442.0
25°	1416.7	1415.0	1413.9	1413.4	1411.7
27.5°	1384.2	1381.9	1380.3	1379.1	1377.5
30°	1347.7	1345.5	1343.8	1342.1	1341.0
32.5°	1308.5	1307.4	1304.5	1304.0	1301.7
35°	1266.4	1264.7	1263.0	1260.8	1258.6
37.5°	1221.5	1219.9	1215.9	1214.8	1213.1
40°	1173.9	1171.6	1166.6	1166.6	1164.9
42.5°	1122.8	1120.6	1117.2	1115.0	1113.9
45°	1069.6	1067.3	1063.4	1061.1	1060.0
47.5°	1012.9	1011.2	1006.7	1005.1	1003.4
50°	954.0	951.8	946.7	945.6	943.9
52.5°	892.3	891.2	884.5	883.9	882.2
55°	831.2	825.0	819.4	819.4	818.3
57.5°	763.9	759.4	752.1	752.1	751.0
60°	694.3	690.4	682.0	683.1	682.0
62.5°	626.5	618.1	610.2	613.6	610.8
65°	549.1	544.6	536.2	538.4	537.9
67.5°	478.4	470.0	462.1	466.6	464.4
70°	399.9	395.4	387.6	392.0	386.4
72.5°	325.9	321.9	314.1	319.1	313.5
75°	254.1	250.1	244.0	248.5	242.9
77.5°	186.2	183.4	177.8	182.3	183.4
80°	124.5	121.1	118.3	122.3	123.4
82.5°	72.9	70.7	69.5	70.1	72.9
85°	35.3	32.5	32.5	33.1	33.1
87.5°	9.5	8.4	9.5	10.1	10.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)