

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: P974301

Luminaire Tested: FLR2-24-45-L840-CP187

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P974301
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-L840-CP187
Description: SHAPER SENSE CIRCLE

Light Source: FLR2-24-45-L840-CP187
Ballast/Driver: -

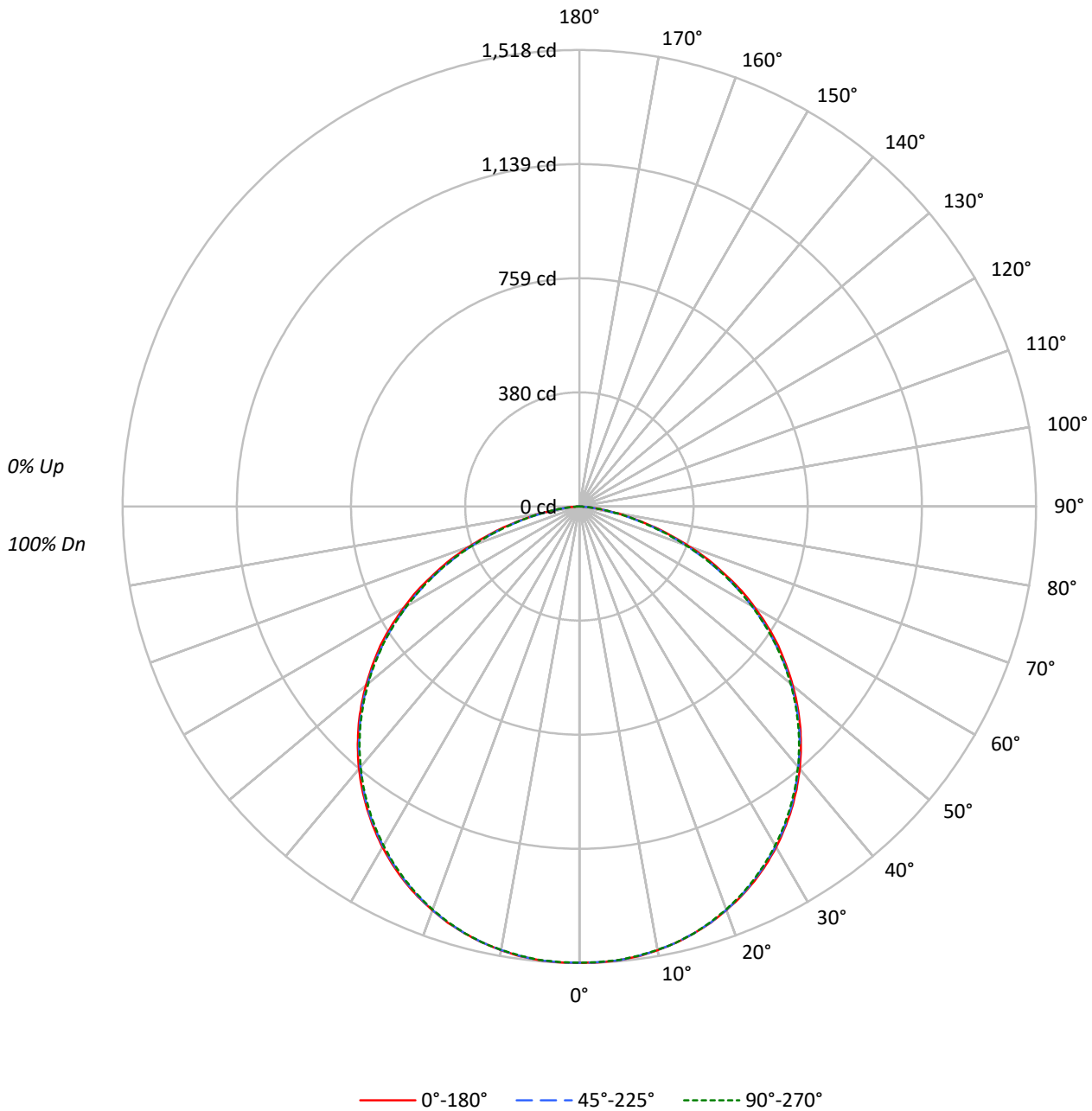
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4289.1 lumens
Efficiency: N/A
Efficacy: 120.5 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

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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	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°	2042	2042	2042
5°	2046	2046	2044
10°	2047	2046	2046
15°	2048	2047	2047
20°	2046	2045	2042
25°	2042	2038	2035
30°	2033	2027	2023
35°	2020	2014	2007
40°	2002	1989	1986
45°	1976	1964	1958
50°	1939	1924	1918
55°	1893	1866	1863
60°	1814	1782	1782
65°	1697	1657	1663
70°	1527	1480	1476
75°	1282	1232	1226
80°	937	890	928
85°	530	488	496

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1976 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.0	3.4
10°-20°	415.0	9.7
20°-30°	632.7	14.8
30°-40°	766.6	17.9
40°-50°	796.3	18.6
50°-60°	712.3	16.6
60°-70°	519.1	12.1
70°-80°	257.1	6.0
80°-90°	46.0	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°	1191.7	27.8
0°-40°	1958.3	45.7
0°-60°	3466.8	80.8
0°-90°	4289.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4289.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1518	1518	1518	1518	1518	
5°	1515	1515	1515	1515	1514	144
15°	1470	1470	1470	1471	1470	415
25°	1375	1374	1373	1372	1370	634
35°	1230	1228	1226	1224	1222	769
45°	1038	1036	1032	1030	1029	800
55°	807	801	796	796	794	719
65°	533	529	521	523	522	528
75°	247	243	237	241	236	263
85°	34	32	32	32	32	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1517.5	1517.5	1517.5	1517.5	1517.5
2.5°	1517.5	1517.0	1517.0	1517.5	1516.5
5°	1514.8	1515.4	1514.8	1514.8	1513.7
7.5°	1508.8	1508.3	1507.7	1508.3	1506.7
10°	1498.5	1498.5	1497.9	1498.5	1497.4
12.5°	1486.0	1486.0	1486.0	1486.5	1486.0
15°	1470.2	1469.6	1469.6	1470.7	1469.6
17.5°	1451.7	1451.1	1451.1	1450.6	1449.5
20°	1428.8	1428.8	1428.2	1427.7	1426.1
22.5°	1404.3	1403.7	1402.1	1402.1	1399.9
25°	1375.4	1373.8	1372.7	1372.2	1370.5
27.5°	1343.8	1341.7	1340.0	1338.9	1337.3
30°	1308.5	1306.3	1304.6	1303.0	1301.9
32.5°	1270.3	1269.3	1266.5	1266.0	1263.8
35°	1229.5	1227.9	1226.2	1224.1	1221.9
37.5°	1185.9	1184.3	1180.5	1179.4	1177.8
40°	1139.7	1137.5	1132.6	1132.6	1130.9
42.5°	1090.1	1087.9	1084.7	1082.5	1081.4
45°	1038.4	1036.2	1032.4	1030.2	1029.1
47.5°	983.4	981.8	977.4	975.8	974.1
50°	926.2	924.0	919.1	918.0	916.4
52.5°	866.3	865.2	858.7	858.1	856.5
55°	807.0	801.0	795.5	795.5	794.4
57.5°	741.6	737.3	730.2	730.2	729.1
60°	674.1	670.3	662.1	663.2	662.1
62.5°	608.2	600.0	592.4	595.7	593.0
65°	533.1	528.7	520.6	522.7	522.2
67.5°	464.5	456.3	448.7	453.0	450.9
70°	388.2	383.9	376.3	380.6	375.2
72.5°	316.4	312.5	304.9	309.8	304.4
75°	246.7	242.9	236.9	241.2	235.8
77.5°	180.8	178.1	172.6	177.0	178.1
80°	120.9	117.6	114.9	118.7	119.8
82.5°	70.8	68.6	67.5	68.1	70.8
85°	34.3	31.6	31.6	32.1	32.1
87.5°	9.3	8.2	9.3	9.8	10.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)