

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: P974839

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

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P974839
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: FLR2-24-45HE-L840-CP187
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

Summary

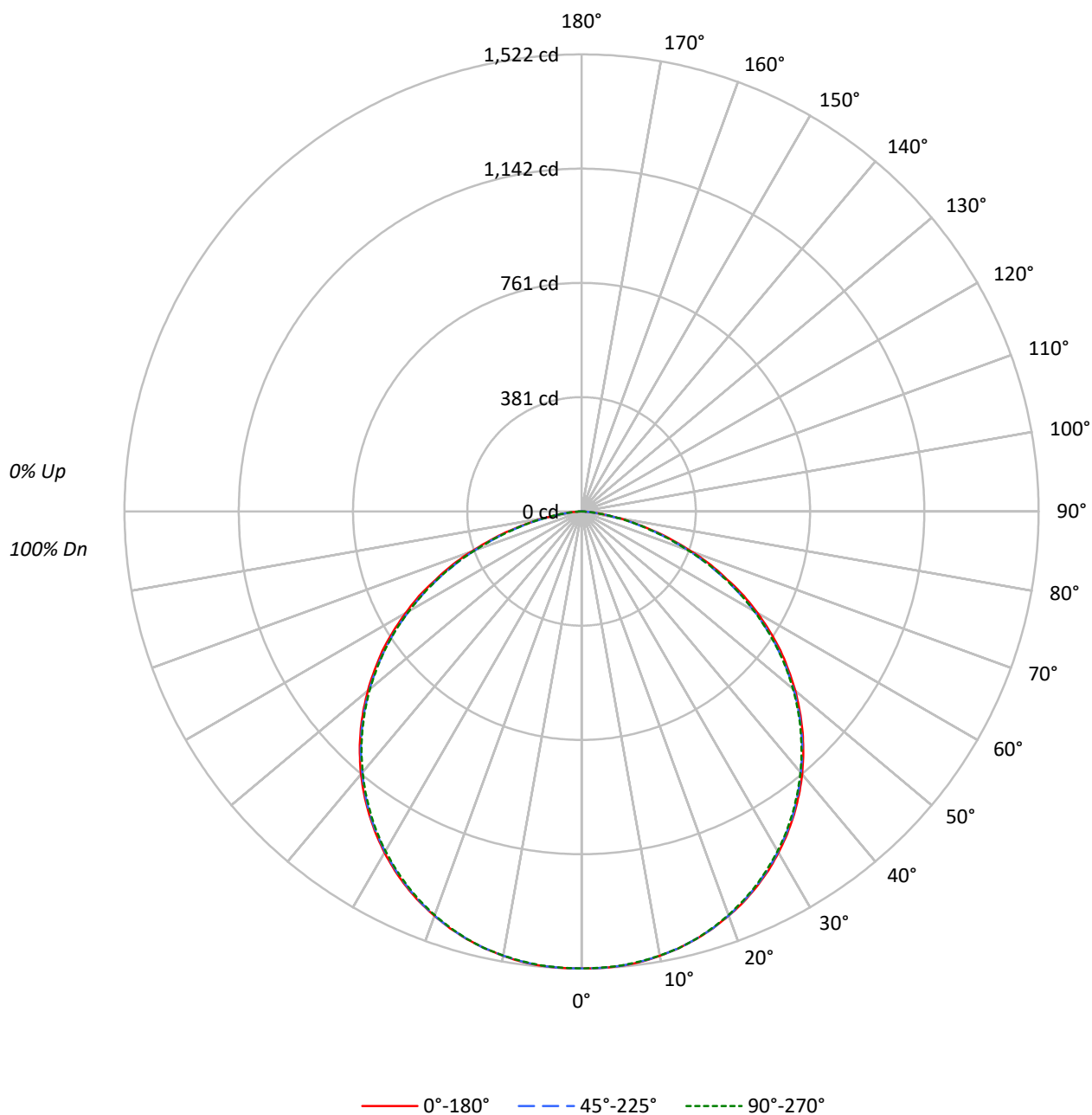
Lumens per Lamp: N/A
Luminaire Lumens: 4301.3 lumens
Efficiency: N/A
Efficacy: 124.0 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.39
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
Input Voltage (V):
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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	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	100	97	106	102	99	95	98	95	92	94	92	89	91	89	87	85		85
2	99	91	85	79	97	89	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	62	56	81	70	62	55	67	60	55	65	59	54	63	57	53	51		51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44		44
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	38		38
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	34		34
8	61	47	39	33	59	47	38	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	39	33	29	27		27
10	53	40	32	27	52	39	32	27	38	31	27	38	31	26	37	31	26	25		25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2048	2048	2048
5°	2052	2052	2050
10°	2053	2052	2052
15°	2054	2053	2053
20°	2052	2051	2048
25°	2048	2044	2041
30°	2039	2033	2029
35°	2025	2020	2013
40°	2007	1995	1992
45°	1982	1970	1964
50°	1944	1930	1924
55°	1898	1871	1869
60°	1819	1787	1787
65°	1702	1662	1667
70°	1531	1484	1480
75°	1286	1235	1229
80°	939	893	931
85°	531	489	497

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1982 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.5	3.4
10°-20°	416.2	9.7
20°-30°	634.5	14.8
30°-40°	768.8	17.9
40°-50°	798.5	18.6
50°-60°	714.4	16.6
60°-70°	520.6	12.1
70°-80°	257.8	6.0
80°-90°	46.1	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°	1195.1	27.8
0°-40°	1963.9	45.7
0°-60°	3476.8	80.8
0°-90°	4301.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4301.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1522	1522	1522	1522	1522	
5°	1519	1520	1519	1519	1518	145
15°	1474	1474	1474	1475	1474	416
25°	1379	1378	1377	1376	1374	636
35°	1233	1231	1230	1228	1225	771
45°	1041	1039	1035	1033	1032	803
55°	809	803	798	798	797	721
65°	535	530	522	524	524	530
75°	247	244	238	242	236	264
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°	1521.9	1521.9	1521.9	1521.9	1521.9
2.5°	1521.9	1521.4	1521.4	1521.9	1520.8
5°	1519.2	1519.7	1519.2	1519.2	1518.1
7.5°	1513.2	1512.6	1512.1	1512.6	1511.0
10°	1502.8	1502.8	1502.2	1502.8	1501.7
12.5°	1490.2	1490.2	1490.2	1490.8	1490.2
15°	1474.4	1473.8	1473.8	1474.9	1473.8
17.5°	1455.8	1455.3	1455.3	1454.7	1453.6
20°	1432.9	1432.9	1432.3	1431.8	1430.2
22.5°	1408.3	1407.8	1406.1	1406.1	1403.9
25°	1379.4	1377.7	1376.6	1376.1	1374.5
27.5°	1347.7	1345.5	1343.9	1342.8	1341.1
30°	1312.2	1310.0	1308.4	1306.7	1305.7
32.5°	1274.0	1272.9	1270.2	1269.6	1267.4
35°	1233.0	1231.4	1229.7	1227.6	1225.4
37.5°	1189.3	1187.7	1183.9	1182.8	1181.1
40°	1142.9	1140.7	1135.8	1135.8	1134.2
42.5°	1093.2	1091.0	1087.8	1085.6	1084.5
45°	1041.4	1039.2	1035.3	1033.2	1032.1
47.5°	986.2	984.6	980.2	978.6	976.9
50°	928.9	926.7	921.8	920.7	919.0
52.5°	868.8	867.7	861.2	860.6	859.0
55°	809.3	803.3	797.8	797.8	796.7
57.5°	743.7	739.4	732.3	732.3	731.2
60°	676.0	672.2	664.0	665.1	664.0
62.5°	610.0	601.8	594.1	597.4	594.7
65°	534.6	530.2	522.0	524.2	523.7
67.5°	465.8	457.6	450.0	454.3	452.1
70°	389.3	385.0	377.3	381.7	376.2
72.5°	317.3	313.4	305.8	310.7	305.3
75°	247.4	243.5	237.5	241.9	236.4
77.5°	181.3	178.6	173.1	177.5	178.6
80°	121.2	118.0	115.2	119.0	120.1
82.5°	71.0	68.8	67.7	68.3	71.0
85°	34.4	31.7	31.7	32.2	32.2
87.5°	9.3	8.2	9.3	9.8	10.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)