

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: P974822

Luminaire Tested: FLR2-24-90HE-L840-CP080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P974822
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: FLR2-24-90HE-L840-CP080
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

Summary

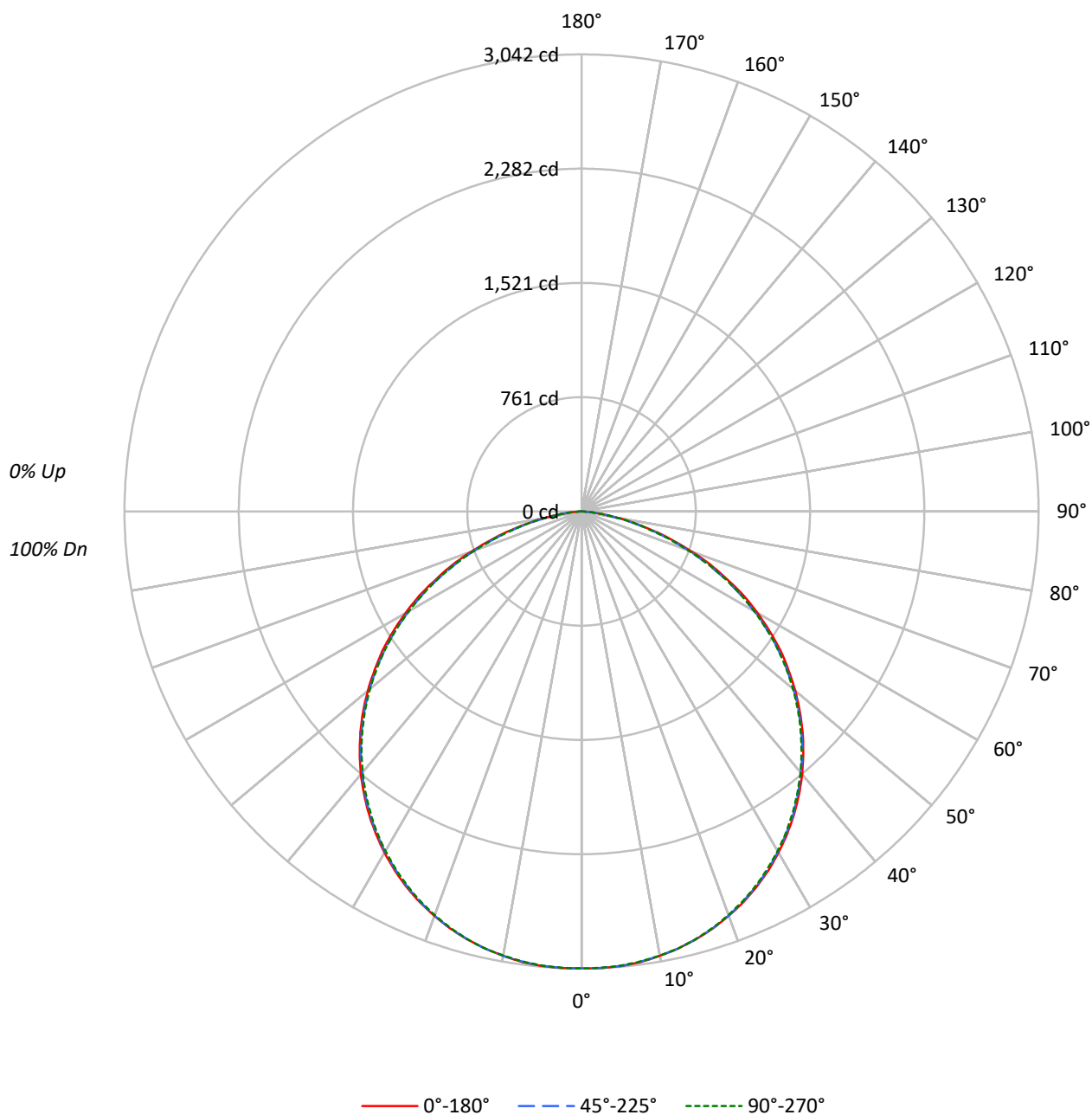
Lumens per Lamp: N/A
Luminaire Lumens: 8598.0 lumens
Efficiency: N/A
Efficacy: 122.3 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.39
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.3
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°	4093	4093	4093
5°	4101	4101	4098
10°	4104	4103	4101
15°	4105	4104	4104
20°	4101	4100	4093
25°	4093	4085	4079
30°	4075	4063	4055
35°	4048	4038	4023
40°	4013	3988	3982
45°	3961	3938	3925
50°	3886	3857	3845
55°	3795	3741	3736
60°	3636	3572	3572
65°	3402	3322	3333
70°	3062	2967	2959
75°	2571	2468	2457
80°	1877	1784	1860
85°	1062	977	994

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3961 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	288.8	3.4
10°-20°	831.9	9.7
20°-30°	1268.3	14.8
30°-40°	1536.7	17.9
40°-50°	1596.2	18.6
50°-60°	1428.0	16.6
60°-70°	1040.7	12.1
70°-80°	515.4	6.0
80°-90°	92.1	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°	2389.0	27.8
0°-40°	3925.7	45.7
0°-60°	6949.8	80.8
0°-90°	8598.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8598.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3042	3042	3042	3042	3042	
5°	3037	3038	3037	3037	3034	289
15°	2947	2946	2946	2948	2946	832
25°	2757	2754	2752	2751	2747	1271
35°	2465	2461	2458	2454	2449	1542
45°	2082	2077	2070	2065	2063	1604
55°	1618	1606	1595	1595	1593	1441
65°	1069	1060	1044	1048	1047	1059
75°	494	487	475	484	473	527
85°	69	63	63	64	64	95
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3042.1	3042.1	3042.1	3042.1	3042.1
2.5°	3042.1	3041.1	3041.1	3042.1	3040.0
5°	3036.7	3037.8	3036.7	3036.7	3034.5
7.5°	3024.7	3023.6	3022.5	3023.6	3020.3
10°	3003.9	3003.9	3002.8	3003.9	3001.8
12.5°	2978.8	2978.8	2978.8	2979.9	2978.8
15°	2947.2	2946.1	2946.1	2948.3	2946.1
17.5°	2910.1	2909.0	2909.0	2907.9	2905.7
20°	2864.2	2864.2	2863.1	2862.0	2858.8
22.5°	2815.1	2814.0	2810.7	2810.7	2806.4
25°	2757.3	2754.0	2751.8	2750.7	2747.4
27.5°	2693.9	2689.6	2686.3	2684.1	2680.8
30°	2623.0	2618.6	2615.4	2612.1	2609.9
32.5°	2546.6	2544.4	2538.9	2537.9	2533.5
35°	2464.7	2461.4	2458.2	2453.8	2449.4
37.5°	2377.4	2374.1	2366.5	2364.3	2361.0
40°	2284.6	2280.2	2270.4	2270.4	2267.1
42.5°	2185.3	2180.9	2174.4	2170.0	2167.8
45°	2081.6	2077.2	2069.6	2065.2	2063.0
47.5°	1971.3	1968.1	1959.3	1956.1	1952.8
50°	1856.7	1852.4	1842.5	1840.4	1837.1
52.5°	1736.7	1734.5	1721.4	1720.3	1717.0
55°	1617.7	1605.7	1594.8	1594.8	1592.6
57.5°	1486.7	1478.0	1463.8	1463.8	1461.6
60°	1351.3	1343.7	1327.3	1329.5	1327.3
62.5°	1219.3	1202.9	1187.6	1194.2	1188.7
65°	1068.6	1059.9	1043.5	1047.9	1046.8
67.5°	931.1	914.7	899.4	908.2	903.8
70°	778.3	769.5	754.3	763.0	752.1
72.5°	634.2	626.5	611.3	621.1	610.2
75°	494.5	486.8	474.8	483.6	472.6
77.5°	362.4	356.9	346.0	354.8	356.9
80°	242.3	235.8	230.3	238.0	240.1
82.5°	141.9	137.5	135.4	136.4	141.9
85°	68.8	63.3	63.3	64.4	64.4
87.5°	18.6	16.4	18.6	19.6	20.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)