

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: P974998

Luminaire Tested: FLR2-24-90HE-L850-CP187

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P974998
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-L850-CP187
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

Summary

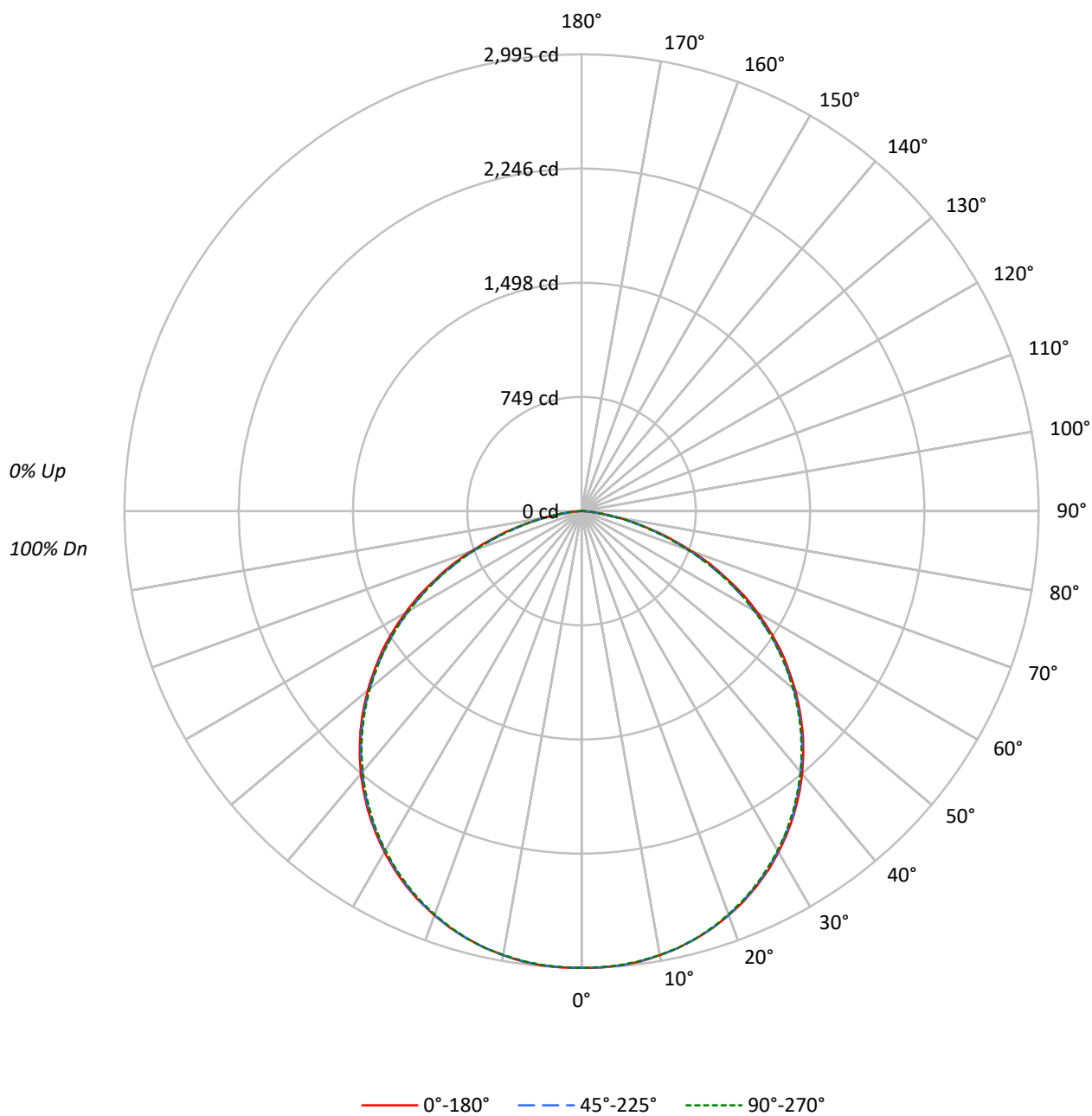
Lumens per Lamp: N/A
Luminaire Lumens: 8465.2 lumens
Efficiency: N/A
Efficacy: 120.4 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.39
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	4030	4030	4030
5°	4038	4038	4035
10°	4041	4039	4038
15°	4042	4040	4040
20°	4038	4036	4030
25°	4030	4022	4016
30°	4012	4000	3992
35°	3986	3975	3961
40°	3951	3926	3920
45°	3900	3877	3865
50°	3826	3797	3786
55°	3736	3683	3678
60°	3580	3517	3517
65°	3350	3271	3281
70°	3015	2921	2913
75°	2531	2430	2419
80°	1849	1757	1832
85°	1045	962	979

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3900 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	284.3	3.4
10°-20°	819.0	9.7
20°-30°	1248.7	14.8
30°-40°	1512.9	17.9
40°-50°	1571.6	18.6
50°-60°	1405.9	16.6
60°-70°	1024.6	12.1
70°-80°	507.4	6.0
80°-90°	90.7	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°	2352.1	27.8
0°-40°	3865.0	45.7
0°-60°	6842.4	80.8
0°-90°	8465.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8465.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2995	2995	2995	2995	2995	
5°	2990	2991	2990	2990	2988	284
15°	2902	2901	2901	2903	2901	819
25°	2715	2711	2709	2708	2705	1251
35°	2427	2423	2420	2416	2412	1518
45°	2049	2045	2038	2033	2031	1579
55°	1593	1581	1570	1570	1568	1419
65°	1052	1044	1027	1032	1031	1043
75°	487	479	468	476	465	519
85°	68	62	62	63	63	94
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2995.1	2995.1	2995.1	2995.1	2995.1
2.5°	2995.1	2994.1	2994.1	2995.1	2993.0
5°	2989.8	2990.8	2989.8	2989.8	2987.6
7.5°	2978.0	2976.9	2975.8	2976.9	2973.7
10°	2957.5	2957.5	2956.5	2957.5	2955.4
12.5°	2932.8	2932.8	2932.8	2933.9	2932.8
15°	2901.6	2900.6	2900.6	2902.7	2900.6
17.5°	2865.1	2864.0	2864.0	2863.0	2860.8
20°	2820.0	2820.0	2818.9	2817.8	2814.6
22.5°	2771.6	2770.5	2767.3	2767.3	2763.0
25°	2714.7	2711.4	2709.3	2708.2	2705.0
27.5°	2652.3	2648.0	2644.8	2642.7	2639.4
30°	2582.5	2578.2	2574.9	2571.7	2569.6
32.5°	2507.2	2505.1	2499.7	2498.6	2494.3
35°	2426.6	2423.4	2420.2	2415.9	2411.6
37.5°	2340.7	2337.4	2329.9	2327.8	2324.5
40°	2249.3	2245.0	2235.3	2235.3	2232.1
42.5°	2151.5	2147.2	2140.8	2136.5	2134.3
45°	2049.4	2045.1	2037.6	2033.3	2031.2
47.5°	1940.9	1937.7	1929.1	1925.8	1922.6
50°	1828.0	1823.7	1814.1	1811.9	1808.7
52.5°	1709.8	1707.7	1694.8	1693.7	1690.5
55°	1592.7	1580.9	1570.1	1570.1	1568.0
57.5°	1463.7	1455.1	1441.2	1441.2	1439.0
60°	1330.5	1322.9	1306.8	1309.0	1306.8
62.5°	1200.4	1184.3	1169.3	1175.7	1170.3
65°	1052.1	1043.5	1027.4	1031.7	1030.6
67.5°	916.7	900.6	885.5	894.1	889.8
70°	766.3	757.7	742.6	751.2	740.5
72.5°	624.4	616.9	601.8	611.5	600.7
75°	486.8	479.3	467.5	476.1	465.3
77.5°	356.8	351.4	340.7	349.3	351.4
80°	238.6	232.1	226.8	234.3	236.4
82.5°	139.7	135.4	133.3	134.3	139.7
85°	67.7	62.3	62.3	63.4	63.4
87.5°	18.3	16.1	18.3	19.3	20.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)