

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: P974866

Luminaire Tested: FLR2-24-90HE-L840-CP375

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P974866
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-CP375
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

Summary

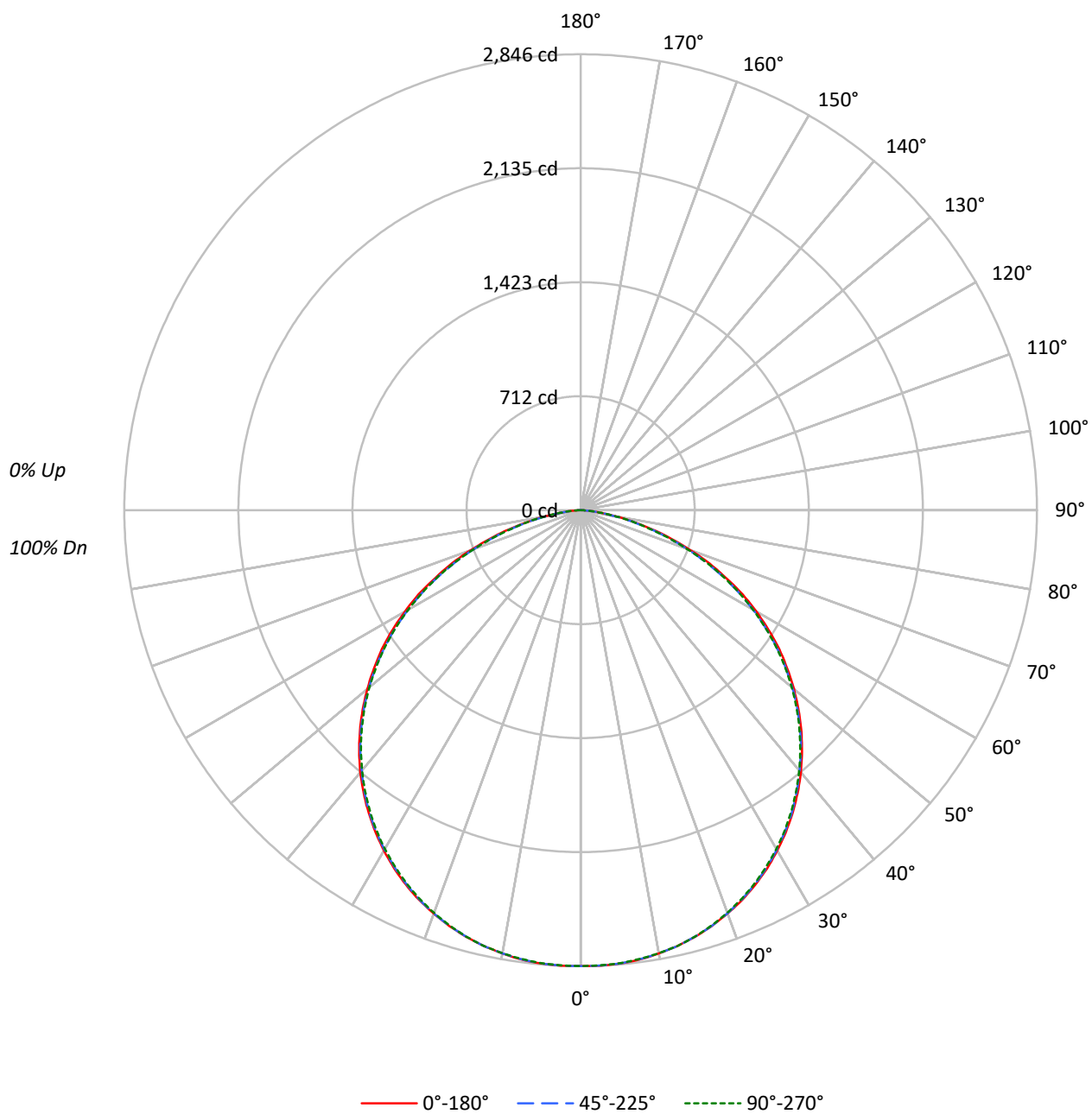
Lumens per Lamp: N/A
Luminaire Lumens: 8043.3 lumens
Efficiency: N/A
Efficacy: 114.4 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.39
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	3829	3829	3829
5°	3837	3837	3834
10°	3839	3838	3837
15°	3840	3839	3839
20°	3836	3835	3829
25°	3829	3822	3816
30°	3812	3801	3793
35°	3787	3777	3764
40°	3754	3730	3725
45°	3705	3684	3672
50°	3636	3608	3597
55°	3550	3500	3495
60°	3402	3341	3341
65°	3183	3108	3118
70°	2864	2776	2768
75°	2405	2309	2298
80°	1757	1670	1740
85°	993	914	929

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3705 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.1	3.4
10°-20°	778.2	9.7
20°-30°	1186.5	14.8
30°-40°	1437.5	17.9
40°-50°	1493.2	18.6
50°-60°	1335.8	16.6
60°-70°	973.6	12.1
70°-80°	482.1	6.0
80°-90°	86.2	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°	2234.8	27.8
0°-40°	3672.4	45.7
0°-60°	6501.4	80.8
0°-90°	8043.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8043.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2846	2846	2846	2846	2846	
5°	2841	2842	2841	2841	2839	270
15°	2757	2756	2756	2758	2756	778
25°	2579	2576	2574	2573	2570	1189
35°	2306	2303	2300	2296	2291	1442
45°	1947	1943	1936	1932	1930	1501
55°	1513	1502	1492	1492	1490	1348
65°	1000	992	976	980	979	991
75°	463	455	444	452	442	493
85°	64	59	59	60	60	89
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2845.9	2845.9	2845.9	2845.9	2845.9
2.5°	2845.9	2844.9	2844.9	2845.9	2843.8
5°	2840.8	2841.8	2840.8	2840.8	2838.7
7.5°	2829.5	2828.5	2827.5	2828.5	2825.5
10°	2810.1	2810.1	2809.1	2810.1	2808.1
12.5°	2786.6	2786.6	2786.6	2787.7	2786.6
15°	2757.0	2756.0	2756.0	2758.1	2756.0
17.5°	2722.3	2721.3	2721.3	2720.3	2718.2
20°	2679.4	2679.4	2678.4	2677.4	2674.3
22.5°	2633.5	2632.5	2629.4	2629.4	2625.3
25°	2579.4	2576.3	2574.3	2573.2	2570.2
27.5°	2520.1	2516.1	2513.0	2510.9	2507.9
30°	2453.8	2449.7	2446.6	2443.6	2441.5
32.5°	2382.3	2380.2	2375.1	2374.1	2370.0
35°	2305.7	2302.6	2299.6	2295.5	2291.4
37.5°	2224.0	2220.9	2213.8	2211.8	2208.7
40°	2137.2	2133.1	2123.9	2123.9	2120.9
42.5°	2044.3	2040.2	2034.1	2030.0	2028.0
45°	1947.3	1943.2	1936.1	1932.0	1929.9
47.5°	1844.2	1841.1	1832.9	1829.9	1826.8
50°	1736.9	1732.8	1723.7	1721.6	1718.6
52.5°	1624.6	1622.6	1610.3	1609.3	1606.2
55°	1513.3	1502.1	1491.9	1491.9	1489.8
57.5°	1390.8	1382.6	1369.3	1369.3	1367.3
60°	1264.2	1257.0	1241.7	1243.7	1241.7
62.5°	1140.6	1125.3	1111.0	1117.1	1112.0
65°	999.7	991.5	976.2	980.3	979.3
67.5°	871.0	855.7	841.4	849.6	845.5
70°	728.1	719.9	705.6	713.8	703.6
72.5°	593.3	586.1	571.8	581.0	570.8
75°	462.6	455.4	444.2	452.4	442.1
77.5°	339.0	333.9	323.7	331.9	333.9
80°	226.7	220.6	215.5	222.6	224.6
82.5°	132.7	128.7	126.6	127.6	132.7
85°	64.3	59.2	59.2	60.2	60.2
87.5°	17.4	15.3	17.4	18.4	19.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)