

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: P974690

Luminaire Tested: FLR2-24-90HE-L835-CP187

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P974690
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-L835-CP187
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

Summary

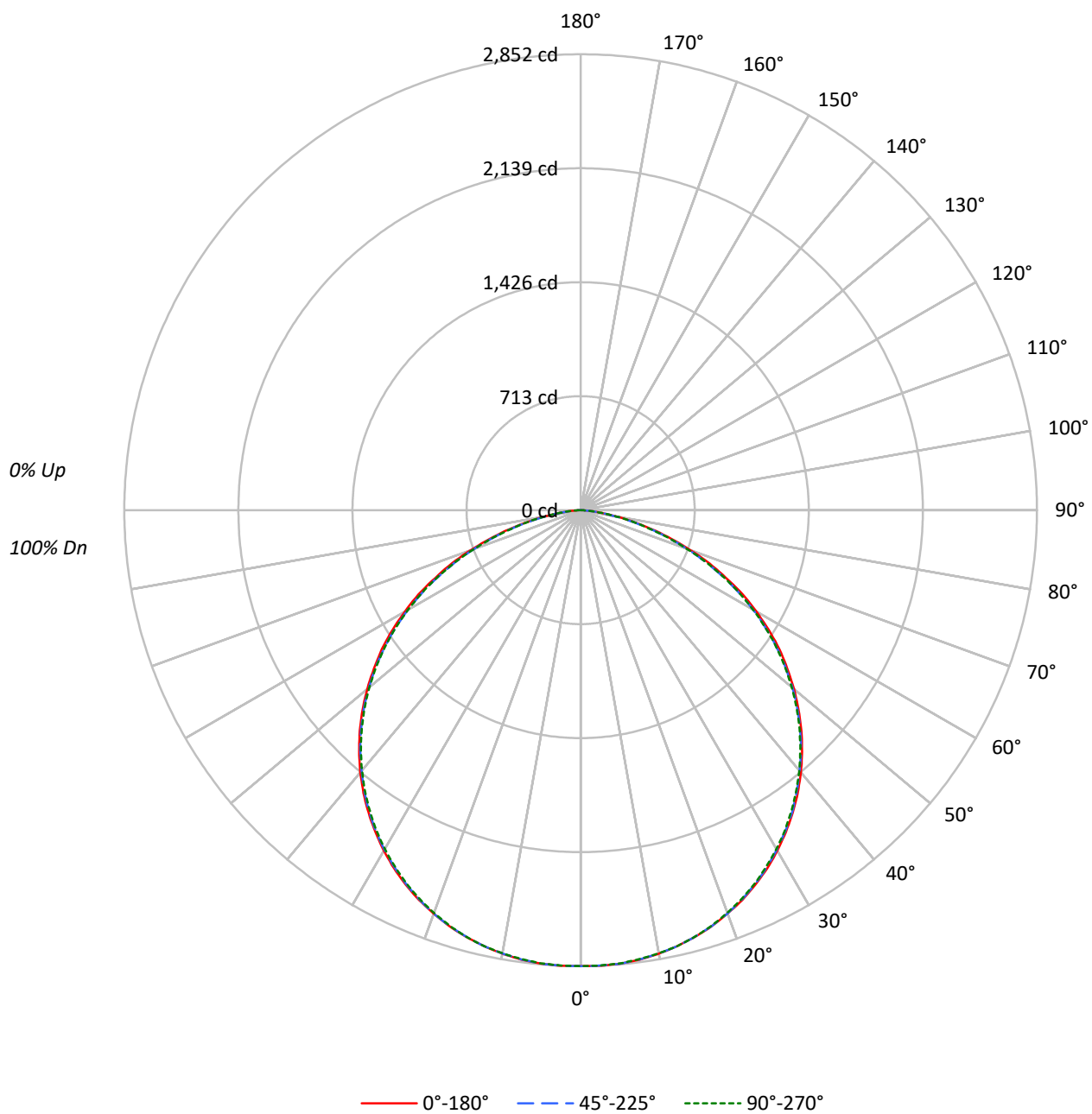
Lumens per Lamp: N/A
Luminaire Lumens: 8062.1 lumens
Efficiency: N/A
Efficacy: 114.7 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.39
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	3838	3838	3838
5°	3846	3846	3843
10°	3848	3847	3846
15°	3849	3848	3848
20°	3845	3844	3838
25°	3838	3831	3825
30°	3821	3810	3802
35°	3796	3786	3773
40°	3763	3739	3734
45°	3714	3693	3681
50°	3644	3616	3606
55°	3558	3508	3503
60°	3410	3349	3349
65°	3190	3115	3125
70°	2871	2782	2774
75°	2410	2314	2304
80°	1760	1674	1745
85°	996	917	932

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3714 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.8	3.4
10°-20°	780.0	9.7
20°-30°	1189.3	14.8
30°-40°	1440.9	17.9
40°-50°	1496.7	18.6
50°-60°	1338.9	16.6
60°-70°	975.8	12.1
70°-80°	483.3	6.0
80°-90°	86.4	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°	2240.1	27.8
0°-40°	3681.0	45.7
0°-60°	6516.6	80.8
0°-90°	8062.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8062.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2852	2852	2852	2852	2852	
5°	2847	2848	2847	2847	2845	271
15°	2764	2762	2762	2764	2762	780
25°	2585	2582	2580	2579	2576	1192
35°	2311	2308	2305	2301	2297	1446
45°	1952	1948	1941	1936	1934	1504
55°	1517	1506	1495	1495	1493	1351
65°	1002	994	978	983	982	993
75°	464	456	445	453	443	494
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°	2852.5	2852.5	2852.5	2852.5	2852.5
2.5°	2852.5	2851.5	2851.5	2852.5	2850.5
5°	2847.4	2848.4	2847.4	2847.4	2845.4
7.5°	2836.1	2835.1	2834.1	2835.1	2832.1
10°	2816.7	2816.7	2815.7	2816.7	2814.7
12.5°	2793.2	2793.2	2793.2	2794.2	2793.2
15°	2763.5	2762.5	2762.5	2764.5	2762.5
17.5°	2728.7	2727.7	2727.7	2726.6	2724.6
20°	2685.7	2685.7	2684.7	2683.6	2680.6
22.5°	2639.6	2638.6	2635.5	2635.5	2631.4
25°	2585.4	2582.3	2580.3	2579.2	2576.2
27.5°	2526.0	2521.9	2518.9	2516.8	2513.7
30°	2459.5	2455.4	2452.3	2449.3	2447.2
32.5°	2387.8	2385.8	2380.7	2379.7	2375.6
35°	2311.1	2308.0	2304.9	2300.8	2296.8
37.5°	2229.2	2226.1	2219.0	2216.9	2213.9
40°	2142.2	2138.1	2128.9	2128.9	2125.8
42.5°	2049.1	2045.0	2038.8	2034.7	2032.7
45°	1951.8	1947.7	1940.6	1936.5	1934.4
47.5°	1848.5	1845.4	1837.2	1834.1	1831.1
50°	1741.0	1736.9	1727.7	1725.6	1722.6
52.5°	1628.4	1626.4	1614.1	1613.1	1610.0
55°	1516.8	1505.6	1495.3	1495.3	1493.3
57.5°	1394.0	1385.8	1372.5	1372.5	1370.5
60°	1267.1	1259.9	1244.6	1246.6	1244.6
62.5°	1143.3	1127.9	1113.6	1119.7	1114.6
65°	1002.0	993.8	978.5	982.6	981.5
67.5°	873.1	857.7	843.4	851.6	847.5
70°	729.8	721.6	707.2	715.4	705.2
72.5°	594.7	587.5	573.2	582.4	572.1
75°	463.6	456.5	445.2	453.4	443.2
77.5°	339.8	334.7	324.5	332.6	334.7
80°	227.2	221.1	216.0	223.1	225.2
82.5°	133.1	129.0	126.9	127.9	133.1
85°	64.5	59.4	59.4	60.4	60.4
87.5°	17.4	15.4	17.4	18.4	19.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)