

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: P974569

Luminaire Tested: FLR2-24-90HE-L830-CA080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P974569
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-L830-CA080
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

Summary

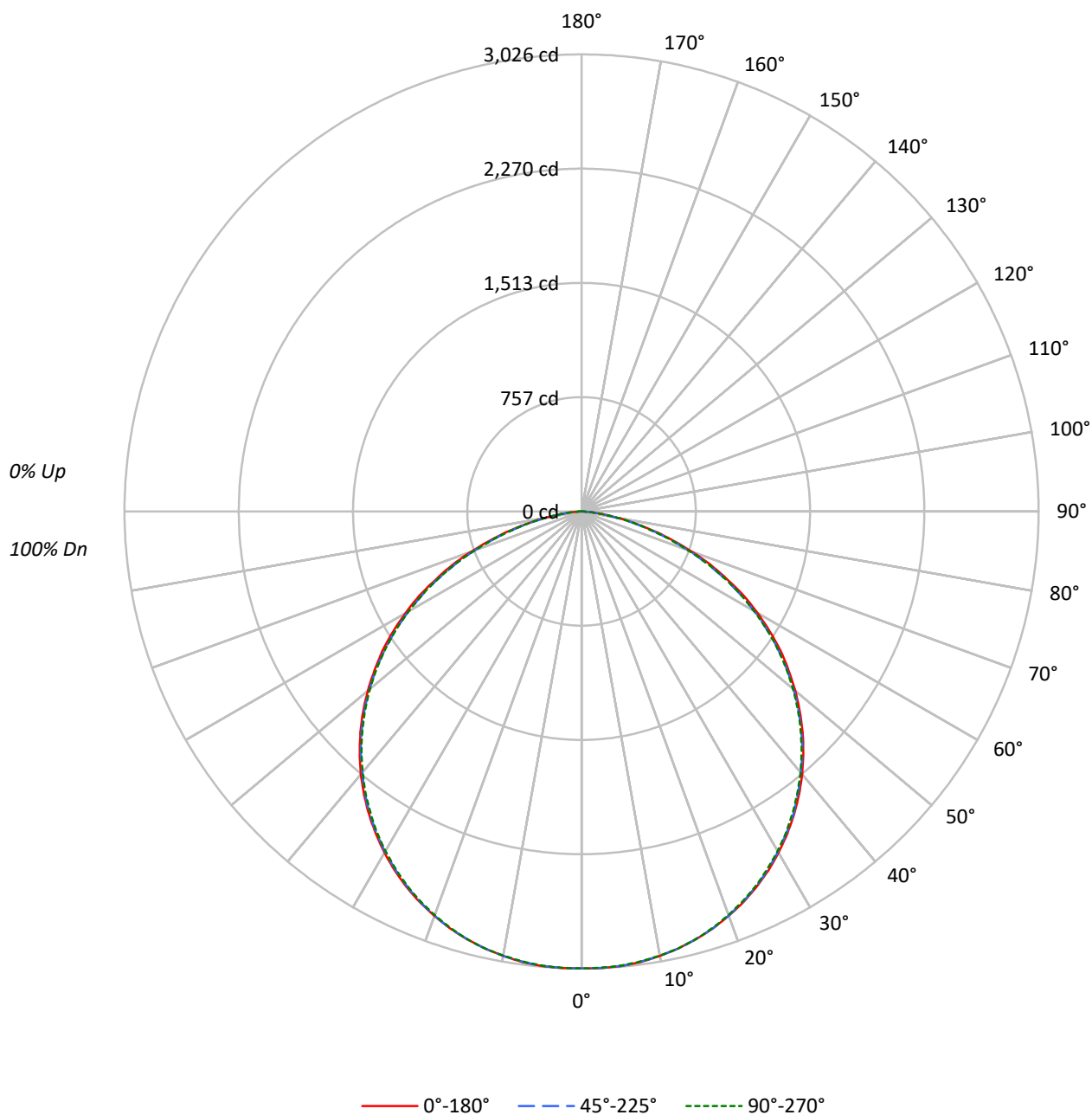
Lumens per Lamp: N/A
Luminaire Lumens: 8553.2 lumens
Efficiency: N/A
Efficacy: 121.7 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.39
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	4072	4072	4072
5°	4080	4080	4077
10°	4083	4081	4080
15°	4084	4082	4082
20°	4080	4078	4072
25°	4072	4064	4058
30°	4054	4042	4034
35°	4027	4017	4002
40°	3992	3967	3961
45°	3940	3918	3905
50°	3866	3837	3825
55°	3775	3721	3716
60°	3617	3553	3553
65°	3385	3305	3315
70°	3046	2952	2943
75°	2557	2455	2444
80°	1868	1775	1851
85°	1056	973	990

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3940 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	287.3	3.4
10°-20°	827.5	9.7
20°-30°	1261.7	14.8
30°-40°	1528.7	17.9
40°-50°	1587.9	18.6
50°-60°	1420.5	16.6
60°-70°	1035.3	12.1
70°-80°	512.7	6.0
80°-90°	91.6	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°	2376.5	27.8
0°-40°	3905.2	45.7
0°-60°	6913.6	80.8
0°-90°	8553.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8553.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3026	3026	3026	3026	3026	
5°	3021	3022	3021	3021	3019	287
15°	2932	2931	2931	2933	2931	828
25°	2743	2740	2738	2736	2733	1264
35°	2452	2449	2445	2441	2437	1534
45°	2071	2066	2059	2054	2052	1596
55°	1609	1597	1586	1586	1584	1434
65°	1063	1054	1038	1042	1041	1054
75°	492	484	472	481	470	524
85°	68	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°	3026.3	3026.3	3026.3	3026.3	3026.3
2.5°	3026.3	3025.2	3025.2	3026.3	3024.1
5°	3020.9	3021.9	3020.9	3020.9	3018.7
7.5°	3008.9	3007.8	3006.7	3007.8	3004.6
10°	2988.3	2988.3	2987.2	2988.3	2986.1
12.5°	2963.3	2963.3	2963.3	2964.4	2963.3
15°	2931.8	2930.7	2930.7	2932.9	2930.7
17.5°	2894.9	2893.8	2893.8	2892.7	2890.6
20°	2849.3	2849.3	2848.2	2847.1	2843.9
22.5°	2800.4	2799.3	2796.1	2796.1	2791.7
25°	2742.9	2739.6	2737.5	2736.4	2733.1
27.5°	2679.9	2675.6	2672.3	2670.1	2666.9
30°	2609.3	2605.0	2601.7	2598.5	2596.3
32.5°	2533.3	2531.1	2525.7	2524.6	2520.3
35°	2451.9	2448.6	2445.4	2441.0	2436.7
37.5°	2365.0	2361.7	2354.1	2352.0	2348.7
40°	2272.7	2268.4	2258.6	2258.6	2255.3
42.5°	2173.9	2169.5	2163.0	2158.7	2156.5
45°	2070.7	2066.4	2058.8	2054.4	2052.3
47.5°	1961.1	1957.8	1949.1	1945.9	1942.6
50°	1847.0	1842.7	1832.9	1830.8	1827.5
52.5°	1727.6	1725.4	1712.4	1711.3	1708.1
55°	1609.2	1597.3	1586.4	1586.4	1584.3
57.5°	1478.9	1470.3	1456.1	1456.1	1454.0
60°	1344.3	1336.7	1320.4	1322.6	1320.4
62.5°	1212.9	1196.6	1181.4	1187.9	1182.5
65°	1063.1	1054.4	1038.1	1042.4	1041.3
67.5°	926.2	910.0	894.7	903.4	899.1
70°	774.2	765.5	750.3	759.0	748.2
72.5°	630.9	623.3	608.1	617.9	607.0
75°	491.9	484.3	472.3	481.0	470.2
77.5°	360.5	355.1	344.2	352.9	355.1
80°	241.1	234.5	229.1	236.7	238.9
82.5°	141.2	136.8	134.6	135.7	141.2
85°	68.4	63.0	63.0	64.1	64.1
87.5°	18.5	16.3	18.5	19.5	20.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)