

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: P974855

Luminaire Tested: FLR2-24-90HE-L840-CP250

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P974855
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-CP250
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

Summary

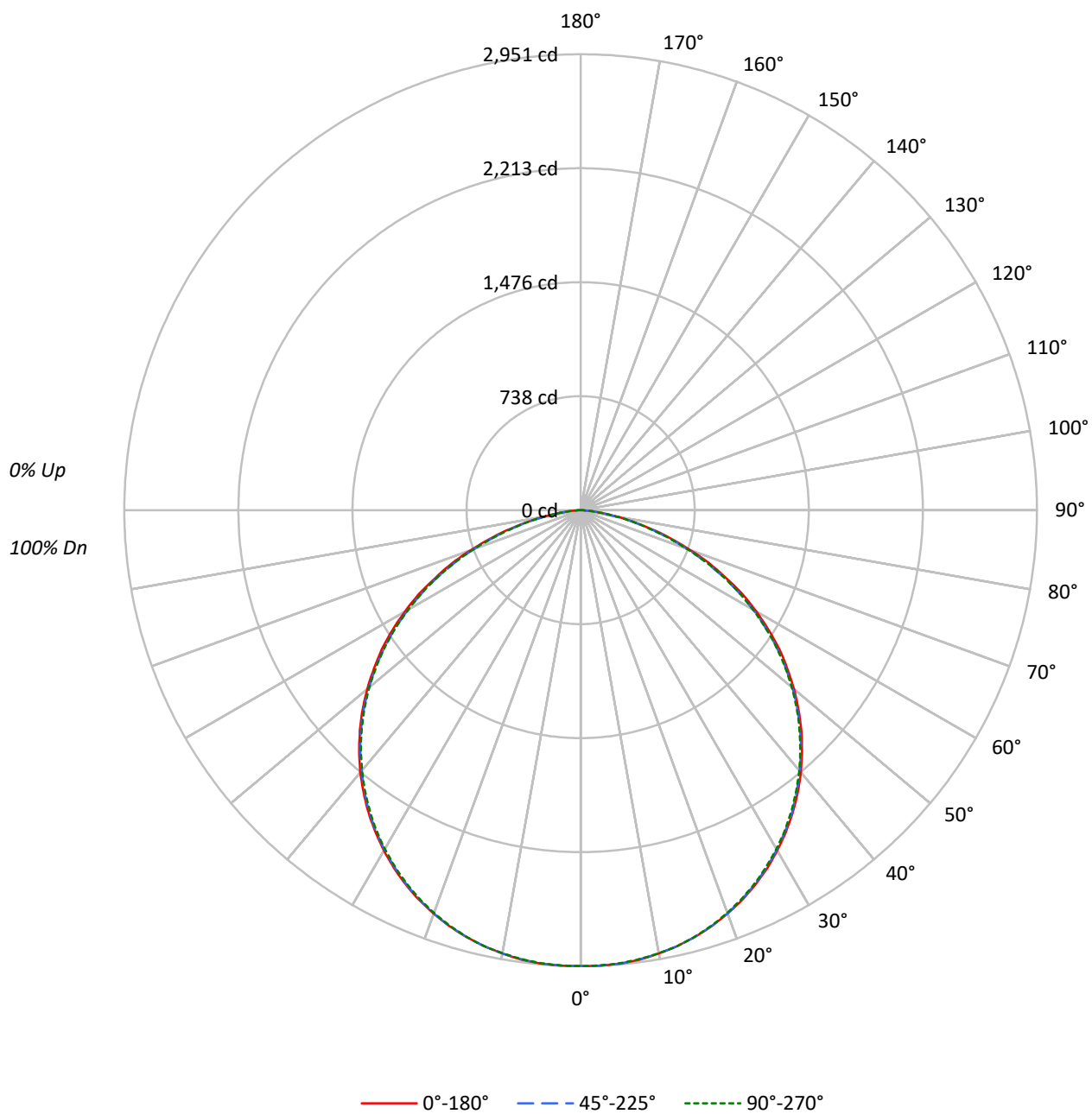
Lumens per Lamp: N/A
Luminaire Lumens: 8340.8 lumens
Efficiency: N/A
Efficacy: 118.6 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.39
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	3971	3971	3971
5°	3979	3979	3976
10°	3981	3980	3978
15°	3982	3981	3981
20°	3978	3977	3971
25°	3971	3963	3957
30°	3953	3942	3933
35°	3927	3917	3903
40°	3893	3868	3863
45°	3842	3820	3808
50°	3770	3741	3730
55°	3681	3629	3624
60°	3528	3465	3465
65°	3300	3223	3233
70°	2970	2878	2870
75°	2494	2394	2384
80°	1822	1731	1805
85°	1030	948	965

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3842 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	280.1	3.4
10°-20°	807.0	9.7
20°-30°	1230.4	14.8
30°-40°	1490.7	17.9
40°-50°	1548.5	18.6
50°-60°	1385.2	16.6
60°-70°	1009.6	12.1
70°-80°	500.0	6.0
80°-90°	89.4	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°	2317.5	27.8
0°-40°	3808.2	45.7
0°-60°	6741.8	80.8
0°-90°	8340.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8340.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2951	2951	2951	2951	2951	
5°	2946	2947	2946	2946	2944	280
15°	2859	2858	2858	2860	2858	807
25°	2675	2672	2669	2668	2665	1233
35°	2391	2388	2385	2380	2376	1495
45°	2019	2015	2008	2003	2001	1556
55°	1569	1558	1547	1547	1545	1398
65°	1037	1028	1012	1016	1016	1028
75°	480	472	461	469	458	511
85°	67	61	61	62	62	92
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2951.1	2951.1	2951.1	2951.1	2951.1
2.5°	2951.1	2950.1	2950.1	2951.1	2949.0
5°	2945.8	2946.9	2945.8	2945.8	2943.7
7.5°	2934.2	2933.1	2932.0	2933.1	2929.9
10°	2914.0	2914.0	2913.0	2914.0	2911.9
12.5°	2889.7	2889.7	2889.7	2890.8	2889.7
15°	2859.0	2857.9	2857.9	2860.0	2857.9
17.5°	2823.0	2821.9	2821.9	2820.9	2818.7
20°	2778.5	2778.5	2777.5	2776.4	2773.2
22.5°	2730.9	2729.8	2726.6	2726.6	2722.4
25°	2674.7	2671.6	2669.4	2668.4	2665.2
27.5°	2613.3	2609.1	2605.9	2603.8	2600.6
30°	2544.5	2540.3	2537.1	2533.9	2531.8
32.5°	2470.4	2468.3	2463.0	2461.9	2457.7
35°	2391.0	2387.8	2384.6	2380.4	2376.1
37.5°	2306.2	2303.1	2295.7	2293.5	2290.4
40°	2216.2	2212.0	2202.5	2202.5	2199.3
42.5°	2119.9	2115.7	2109.3	2105.1	2102.9
45°	2019.3	2015.1	2007.6	2003.4	2001.3
47.5°	1912.3	1909.2	1900.7	1897.5	1894.3
50°	1801.2	1796.9	1787.4	1785.3	1782.1
52.5°	1684.7	1682.6	1669.9	1668.8	1665.6
55°	1569.3	1557.6	1547.0	1547.0	1544.9
57.5°	1442.2	1433.7	1420.0	1420.0	1417.8
60°	1310.9	1303.5	1287.6	1289.7	1287.6
62.5°	1182.8	1166.9	1152.1	1158.4	1153.1
65°	1036.6	1028.2	1012.3	1016.5	1015.5
67.5°	903.2	887.3	872.5	881.0	876.8
70°	755.0	746.5	731.7	740.2	729.6
72.5°	615.2	607.8	593.0	602.5	591.9
75°	479.7	472.3	460.6	469.1	458.5
77.5°	351.5	346.3	335.7	344.1	346.3
80°	235.1	228.7	223.4	230.8	233.0
82.5°	137.7	133.4	131.3	132.4	137.7
85°	66.7	61.4	61.4	62.5	62.5
87.5°	18.0	15.9	18.0	19.1	20.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)