

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: P974976

Luminaire Tested: FLR2-24-90HE-L850-CP080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P974976
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-CP080
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

Summary

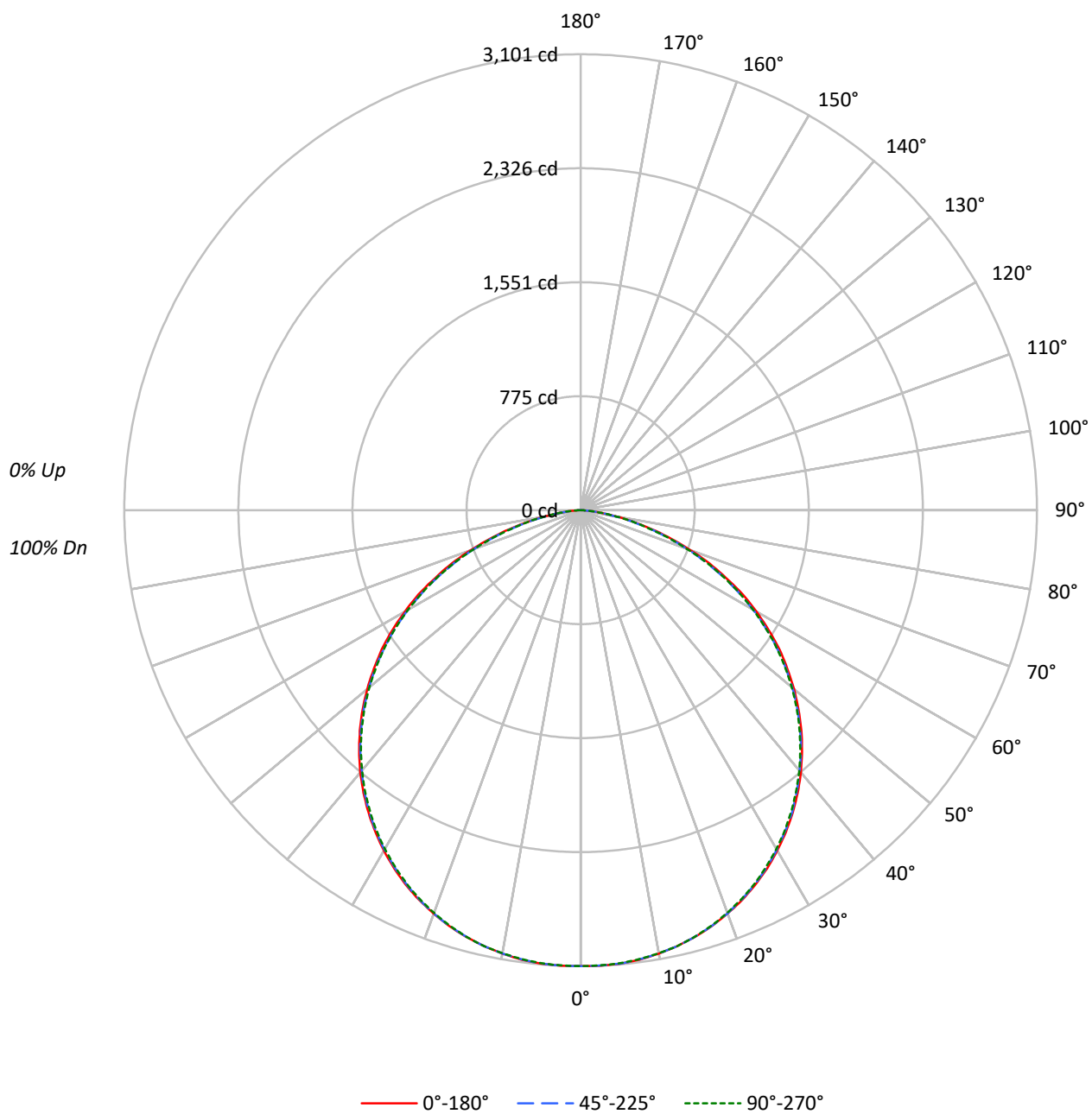
Lumens per Lamp: N/A
Luminaire Lumens: 8765.0 lumens
Efficiency: N/A
Efficacy: 124.7 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.39
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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		
1	109	105	100	97	106	102	99	95	98	95	92	94	92	89	91	89	87	85		
2	99	91	85	79	97	89	83	78	86	81	76	83	78	75	80	76	73	71		
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60		
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	57	53	51		
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44		
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	38		
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	34		
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30		
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	39	33	29	27		
10	53	40	32	27	52	39	32	27	38	31	27	38	31	26	37	31	26	25		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4173	4173	4173
5°	4181	4181	4178
10°	4184	4182	4181
15°	4185	4183	4183
20°	4181	4179	4173
25°	4173	4165	4158
30°	4154	4142	4134
35°	4127	4116	4101
40°	4091	4065	4059
45°	4038	4015	4002
50°	3962	3932	3920
55°	3868	3814	3808
60°	3707	3641	3641
65°	3468	3387	3397
70°	3121	3025	3016
75°	2621	2516	2505
80°	1914	1819	1897
85°	1082	996	1014

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4038 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	294.4	3.4
10°-20°	848.0	9.7
20°-30°	1293.0	14.8
30°-40°	1566.5	17.9
40°-50°	1627.2	18.6
50°-60°	1455.7	16.6
60°-70°	1060.9	12.1
70°-80°	525.4	6.0
80°-90°	93.9	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°	2435.4	27.8
0°-40°	4001.9	45.7
0°-60°	7084.8	80.8
0°-90°	8765.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8765.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3101	3101	3101	3101	3101	
5°	3096	3097	3096	3096	3093	294
15°	3004	3003	3003	3006	3003	848
25°	2811	2808	2805	2804	2801	1295
35°	2513	2509	2506	2501	2497	1572
45°	2122	2118	2110	2105	2103	1635
55°	1649	1637	1626	1626	1624	1469
65°	1089	1080	1064	1068	1067	1080
75°	504	496	484	493	482	537
85°	70	64	64	66	66	97
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3101.2	3101.2	3101.2	3101.2	3101.2
2.5°	3101.2	3100.1	3100.1	3101.2	3099.0
5°	3095.7	3096.8	3095.7	3095.7	3093.4
7.5°	3083.4	3082.3	3081.2	3082.3	3079.0
10°	3062.3	3062.3	3061.2	3062.3	3060.0
12.5°	3036.7	3036.7	3036.7	3037.8	3036.7
15°	3004.4	3003.3	3003.3	3005.5	3003.3
17.5°	2966.6	2965.5	2965.5	2964.3	2962.1
20°	2919.8	2919.8	2918.7	2917.6	2914.3
22.5°	2869.8	2868.7	2865.3	2865.3	2860.9
25°	2810.8	2807.5	2805.2	2804.1	2800.8
27.5°	2746.3	2741.8	2738.5	2736.2	2732.9
30°	2673.9	2669.5	2666.1	2662.8	2660.6
32.5°	2596.0	2593.8	2588.2	2587.1	2582.7
35°	2512.6	2509.2	2505.9	2501.4	2497.0
37.5°	2423.6	2420.2	2412.4	2410.2	2406.9
40°	2329.0	2324.5	2314.5	2314.5	2311.2
42.5°	2227.7	2223.3	2216.6	2212.1	2209.9
45°	2122.0	2117.6	2109.8	2105.3	2103.1
47.5°	2009.6	2006.3	1997.4	1994.0	1990.7
50°	1892.8	1888.3	1878.3	1876.1	1872.7
52.5°	1770.4	1768.1	1754.8	1753.7	1750.3
55°	1649.1	1636.8	1625.7	1625.7	1623.5
57.5°	1515.6	1506.7	1492.2	1492.2	1490.0
60°	1377.6	1369.8	1353.1	1355.3	1353.1
62.5°	1242.9	1226.2	1210.7	1217.3	1211.8
65°	1089.4	1080.5	1063.8	1068.2	1067.1
67.5°	949.2	932.5	916.9	925.8	921.4
70°	793.4	784.5	768.9	777.8	766.7
72.5°	646.5	638.7	623.1	633.2	622.0
75°	504.1	496.3	484.0	492.9	481.8
77.5°	369.4	363.9	352.7	361.6	363.9
80°	247.0	240.4	234.8	242.6	244.8
82.5°	144.7	140.2	138.0	139.1	144.7
85°	70.1	64.5	64.5	65.7	65.7
87.5°	18.9	16.7	18.9	20.0	21.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)