

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: P974877

Luminaire Tested: FLR2-24-90HE-L840-CA080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P974877
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-CA080
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

Summary

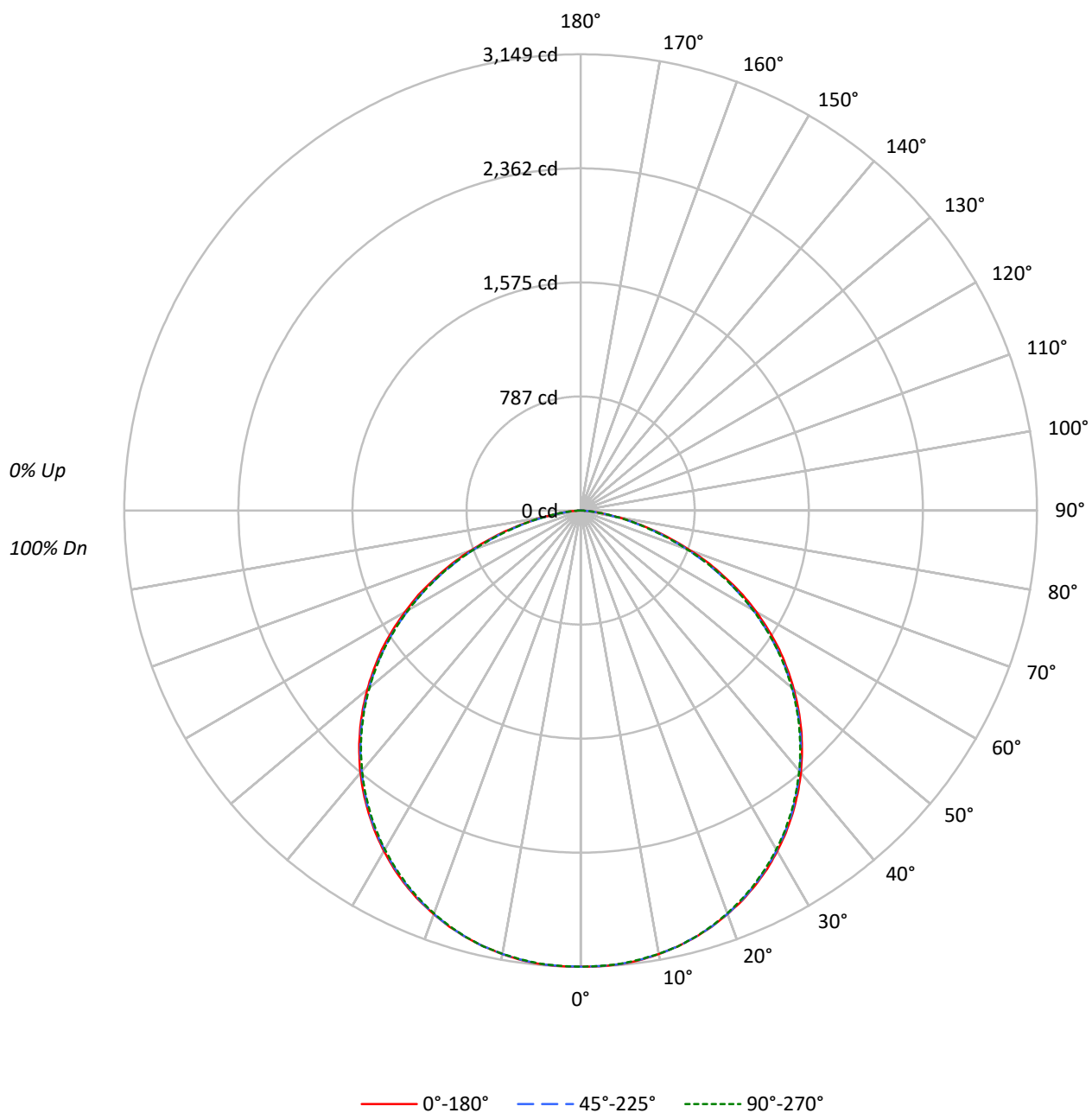
Lumens per Lamp: N/A
Luminaire Lumens: 8898.8 lumens
Efficiency: N/A
Efficacy: 126.6 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.39
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	4236	4236	4236
5°	4245	4245	4242
10°	4248	4246	4245
15°	4249	4247	4247
20°	4245	4243	4237
25°	4237	4228	4221
30°	4218	4205	4197
35°	4190	4179	4164
40°	4153	4127	4121
45°	4099	4076	4063
50°	4023	3992	3980
55°	3928	3872	3867
60°	3764	3697	3697
65°	3521	3438	3449
70°	3169	3071	3062
75°	2661	2555	2543
80°	1943	1847	1925
85°	1099	1011	1030

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4099 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	298.9	3.4
10°-20°	861.0	9.7
20°-30°	1312.7	14.8
30°-40°	1590.4	17.9
40°-50°	1652.1	18.6
50°-60°	1477.9	16.6
60°-70°	1077.1	12.1
70°-80°	533.4	6.0
80°-90°	95.3	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°	2472.6	27.8
0°-40°	4063.0	45.7
0°-60°	7192.9	80.8
0°-90°	8898.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8898.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3149	3149	3149	3149	3149	
5°	3143	3144	3143	3143	3141	299
15°	3050	3049	3049	3051	3049	861
25°	2854	2850	2848	2847	2844	1315
35°	2551	2548	2544	2540	2535	1596
45°	2154	2150	2142	2138	2135	1660
55°	1674	1662	1650	1650	1648	1492
65°	1106	1097	1080	1084	1083	1096
75°	512	504	491	500	489	546
85°	71	66	66	67	67	99
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3148.6	3148.6	3148.6	3148.6	3148.6
2.5°	3148.6	3147.4	3147.4	3148.6	3146.3
5°	3142.9	3144.0	3142.9	3142.9	3140.7
7.5°	3130.5	3129.4	3128.2	3129.4	3126.0
10°	3109.0	3109.0	3107.9	3109.0	3106.8
12.5°	3083.0	3083.0	3083.0	3084.2	3083.0
15°	3050.3	3049.2	3049.2	3051.4	3049.2
17.5°	3011.9	3010.7	3010.7	3009.6	3007.4
20°	2964.4	2964.4	2963.3	2962.2	2958.8
22.5°	2913.6	2912.5	2909.1	2909.1	2904.5
25°	2853.7	2850.3	2848.1	2846.9	2843.5
27.5°	2788.2	2783.7	2780.3	2778.0	2774.6
30°	2714.7	2710.2	2706.8	2703.5	2701.2
32.5°	2635.7	2633.4	2627.8	2626.6	2622.1
35°	2550.9	2547.5	2544.2	2539.6	2535.1
37.5°	2460.6	2457.2	2449.3	2447.0	2443.6
40°	2364.5	2360.0	2349.8	2349.8	2346.5
42.5°	2261.7	2257.2	2250.4	2245.9	2243.7
45°	2154.4	2149.9	2142.0	2137.5	2135.2
47.5°	2040.3	2036.9	2027.9	2024.5	2021.1
50°	1921.7	1917.2	1907.0	1904.7	1901.3
52.5°	1797.4	1795.1	1781.6	1780.5	1777.1
55°	1674.3	1661.8	1650.5	1650.5	1648.3
57.5°	1538.7	1529.7	1515.0	1515.0	1512.7
60°	1398.6	1390.7	1373.8	1376.0	1373.8
62.5°	1261.9	1245.0	1229.1	1235.9	1230.3
65°	1106.0	1097.0	1080.0	1084.5	1083.4
67.5°	963.7	946.7	930.9	939.9	935.4
70°	805.5	796.5	780.6	789.7	778.4
72.5°	656.4	648.5	632.7	642.8	631.5
75°	511.8	503.9	491.4	500.5	489.2
77.5°	375.1	369.4	358.1	367.2	369.4
80°	250.8	244.0	238.4	246.3	248.5
82.5°	146.9	142.3	140.1	141.2	146.9
85°	71.2	65.5	65.5	66.7	66.7
87.5°	19.2	16.9	19.2	20.3	21.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)