

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: P974954

Luminaire Tested: FLR2-24-90HE-L940-CA080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P974954
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-L940-CA080
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

Summary

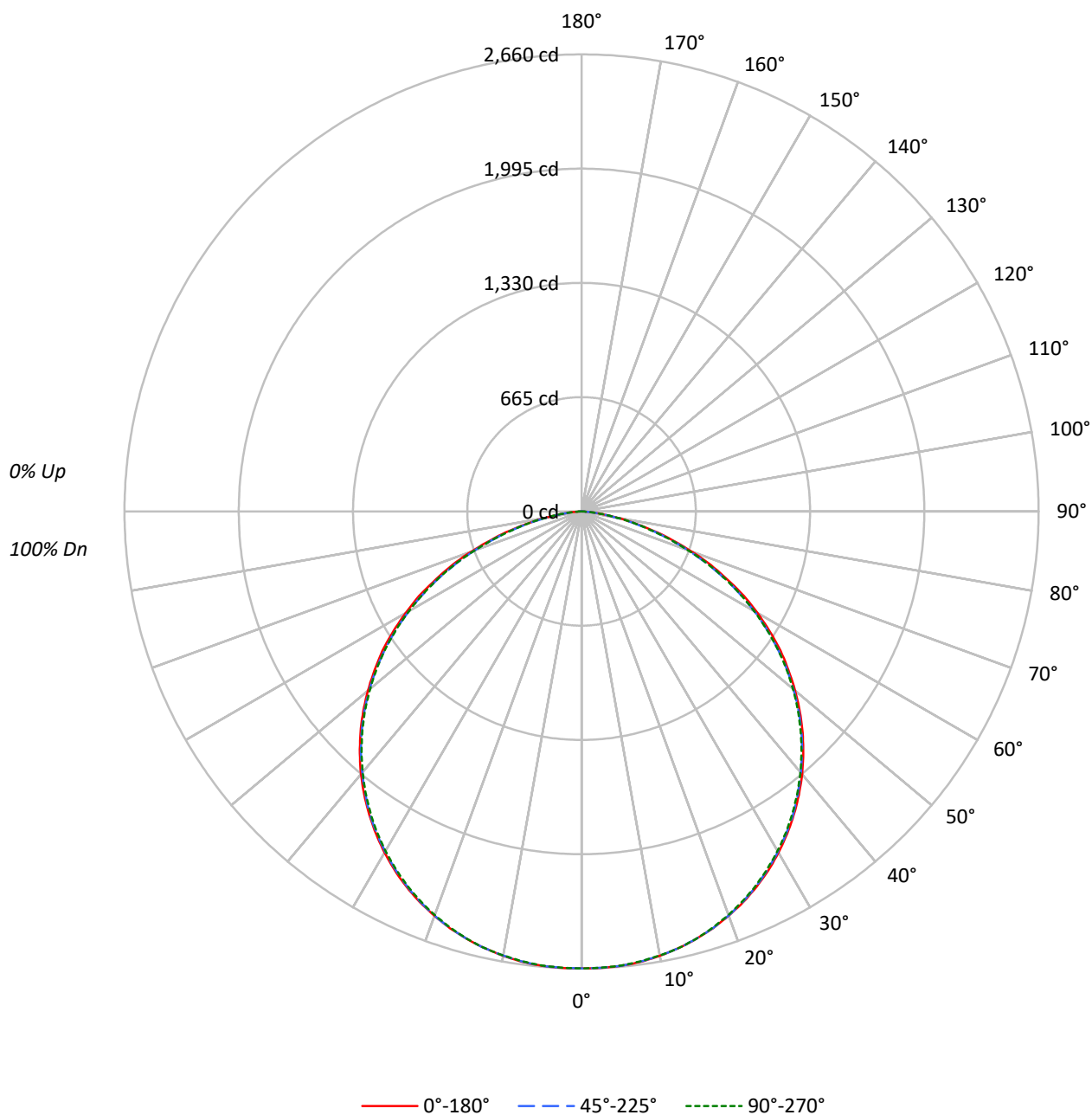
Lumens per Lamp: N/A
Luminaire Lumens: 7516.4 lumens
Efficiency: N/A
Efficacy: 106.9 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.39
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	3578	3578	3578
5°	3586	3586	3583
10°	3588	3587	3585
15°	3589	3588	3588
20°	3585	3584	3578
25°	3578	3571	3566
30°	3562	3552	3545
35°	3539	3530	3517
40°	3508	3486	3481
45°	3463	3443	3432
50°	3398	3372	3362
55°	3317	3270	3266
60°	3179	3123	3123
65°	2974	2904	2913
70°	2677	2594	2587
75°	2247	2158	2148
80°	1641	1560	1626
85°	928	854	869

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3463 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.4	3.4
10°-20°	727.2	9.7
20°-30°	1108.8	14.8
30°-40°	1343.4	17.9
40°-50°	1395.4	18.6
50°-60°	1248.3	16.6
60°-70°	909.8	12.1
70°-80°	450.6	6.0
80°-90°	80.5	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°	2088.5	27.8
0°-40°	3431.8	45.7
0°-60°	6075.6	80.8
0°-90°	7516.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7516.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2660	2660	2660	2660	2660	
5°	2655	2656	2655	2655	2653	253
15°	2576	2576	2576	2577	2576	727
25°	2410	2408	2406	2405	2402	1111
35°	2155	2152	2149	2145	2141	1348
45°	1820	1816	1809	1805	1804	1402
55°	1414	1404	1394	1394	1392	1260
65°	934	927	912	916	915	926
75°	432	426	415	423	413	461
85°	60	55	55	56	56	83
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2659.5	2659.5	2659.5	2659.5	2659.5
2.5°	2659.5	2658.5	2658.5	2659.5	2657.6
5°	2654.7	2655.7	2654.7	2654.7	2652.8
7.5°	2644.2	2643.2	2642.3	2643.2	2640.4
10°	2626.1	2626.1	2625.1	2626.1	2624.2
12.5°	2604.1	2604.1	2604.1	2605.1	2604.1
15°	2576.5	2575.5	2575.5	2577.4	2575.5
17.5°	2544.0	2543.1	2543.1	2542.1	2540.2
20°	2503.9	2503.9	2503.0	2502.0	2499.2
22.5°	2461.0	2460.0	2457.2	2457.2	2453.4
25°	2410.4	2407.5	2405.6	2404.7	2401.8
27.5°	2355.1	2351.2	2348.4	2346.5	2343.6
30°	2293.0	2289.2	2286.4	2283.5	2281.6
32.5°	2226.2	2224.3	2219.6	2218.6	2214.8
35°	2154.7	2151.8	2149.0	2145.1	2141.3
37.5°	2078.3	2075.5	2068.8	2066.9	2064.0
40°	1997.2	1993.4	1984.8	1984.8	1982.0
42.5°	1910.4	1906.6	1900.8	1897.0	1895.1
45°	1819.7	1815.9	1809.2	1805.4	1803.5
47.5°	1723.4	1720.5	1712.9	1710.0	1707.1
50°	1623.2	1619.3	1610.8	1608.9	1606.0
52.5°	1518.2	1516.3	1504.8	1503.9	1501.0
55°	1414.2	1403.7	1394.1	1394.1	1392.2
57.5°	1299.7	1292.0	1279.6	1279.6	1277.7
60°	1181.4	1174.7	1160.4	1162.3	1160.4
62.5°	1065.9	1051.6	1038.2	1043.9	1039.2
65°	934.2	926.6	912.3	916.1	915.1
67.5°	814.0	799.7	786.3	793.9	790.1
70°	680.4	672.7	659.4	667.0	657.5
72.5°	554.4	547.7	534.4	543.0	533.4
75°	432.3	425.6	415.1	422.7	413.2
77.5°	316.8	312.0	302.5	310.1	312.0
80°	211.8	206.1	201.3	208.0	209.9
82.5°	124.1	120.2	118.3	119.3	124.1
85°	60.1	55.3	55.3	56.3	56.3
87.5°	16.2	14.3	16.2	17.2	18.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)