

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: P974800

Luminaire Tested: FLR2-24-90HE-L935-CA080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P974800
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-L935-CA080
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

Summary

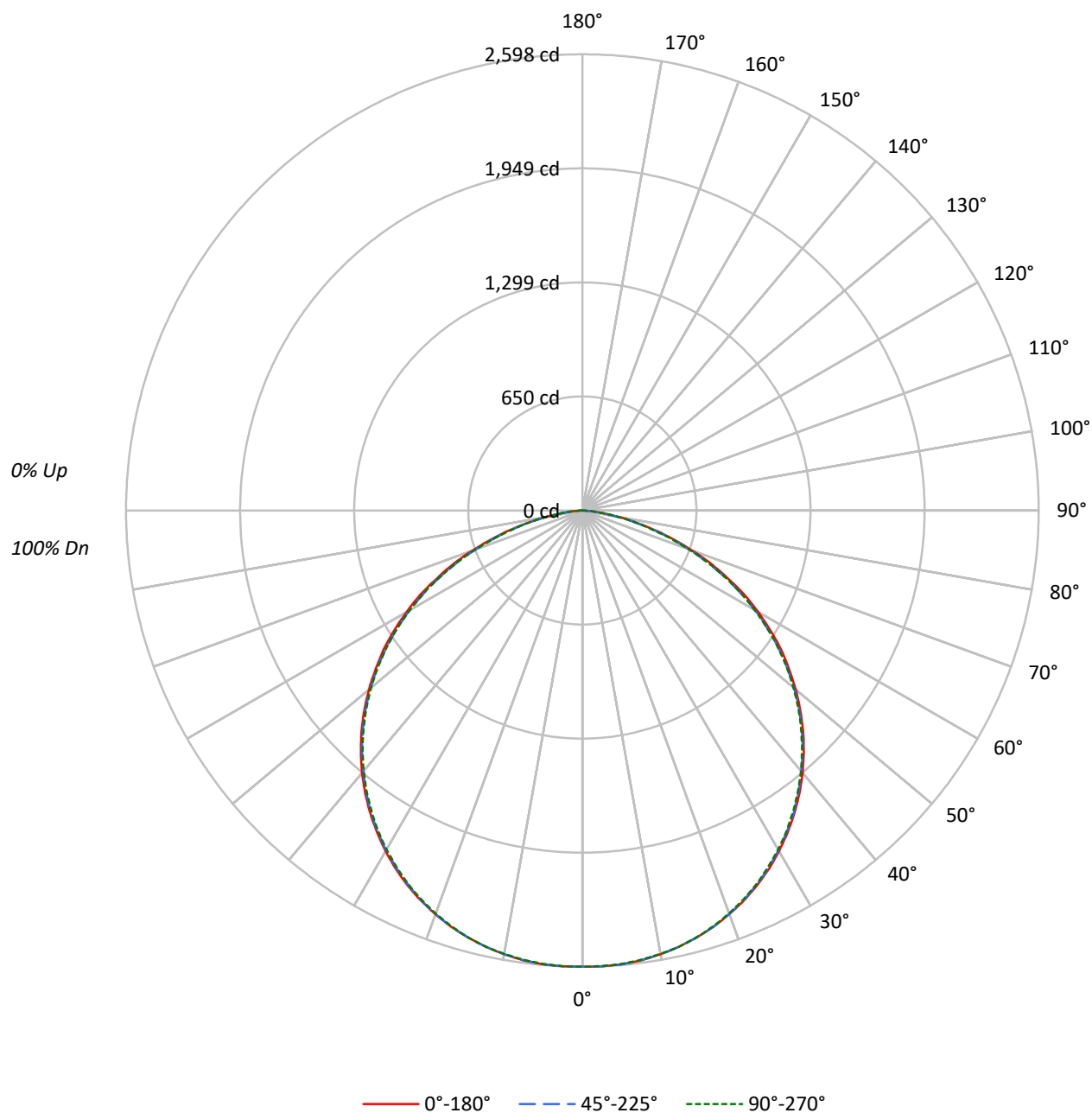
Lumens per Lamp: N/A
Luminaire Lumens: 7343.7 lumens
Efficiency: N/A
Efficacy: 104.5 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.39
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	3496	3496	3496
5°	3503	3503	3501
10°	3505	3504	3503
15°	3506	3505	3505
20°	3503	3501	3496
25°	3496	3489	3484
30°	3481	3471	3463
35°	3458	3449	3436
40°	3427	3406	3401
45°	3383	3363	3353
50°	3319	3294	3284
55°	3241	3195	3191
60°	3106	3051	3051
65°	2906	2838	2847
70°	2615	2534	2527
75°	2195	2109	2099
80°	1604	1524	1589
85°	906	835	849

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3383 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	246.6	3.4
10°-20°	710.5	9.7
20°-30°	1083.3	14.8
30°-40°	1312.5	17.9
40°-50°	1363.3	18.6
50°-60°	1219.6	16.6
60°-70°	888.9	12.1
70°-80°	440.2	6.0
80°-90°	78.7	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°	2040.5	27.8
0°-40°	3353.0	45.7
0°-60°	5935.9	80.8
0°-90°	7343.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7343.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2598	2598	2598	2598	2598	
5°	2594	2595	2594	2594	2592	247
15°	2517	2516	2516	2518	2516	711
25°	2355	2352	2350	2349	2347	1085
35°	2105	2102	2100	2096	2092	1317
45°	1778	1774	1768	1764	1762	1370
55°	1382	1371	1362	1362	1360	1231
65°	913	905	891	895	894	905
75°	422	416	406	413	404	450
85°	59	54	54	55	55	81
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2598.3	2598.3	2598.3	2598.3	2598.3
2.5°	2598.3	2597.4	2597.4	2598.3	2596.5
5°	2593.7	2594.6	2593.7	2593.7	2591.8
7.5°	2583.4	2582.5	2581.6	2582.5	2579.7
10°	2565.7	2565.7	2564.8	2565.7	2563.8
12.5°	2544.3	2544.3	2544.3	2545.2	2544.3
15°	2517.2	2516.3	2516.3	2518.2	2516.3
17.5°	2485.5	2484.6	2484.6	2483.7	2481.8
20°	2446.4	2446.4	2445.4	2444.5	2441.7
22.5°	2404.4	2403.5	2400.7	2400.7	2397.0
25°	2355.0	2352.2	2350.3	2349.4	2346.6
27.5°	2300.9	2297.2	2294.4	2292.5	2289.7
30°	2240.3	2236.6	2233.8	2231.0	2229.1
32.5°	2175.1	2173.2	2168.5	2167.6	2163.9
35°	2105.1	2102.3	2099.5	2095.8	2092.1
37.5°	2030.6	2027.8	2021.2	2019.4	2016.6
40°	1951.3	1947.6	1939.2	1939.2	1936.4
42.5°	1866.5	1862.7	1857.2	1853.4	1851.6
45°	1777.9	1774.2	1767.6	1763.9	1762.1
47.5°	1683.7	1680.9	1673.5	1670.7	1667.9
50°	1585.8	1582.1	1573.7	1571.9	1569.1
52.5°	1483.3	1481.4	1470.2	1469.3	1466.5
55°	1381.7	1371.4	1362.1	1362.1	1360.2
57.5°	1269.8	1262.3	1250.2	1250.2	1248.4
60°	1154.2	1147.7	1133.7	1135.5	1133.7
62.5°	1041.4	1027.4	1014.3	1019.9	1015.3
65°	912.7	905.3	891.3	895.0	894.1
67.5°	795.3	781.3	768.2	775.7	771.9
70°	664.7	657.3	644.2	651.7	642.4
72.5°	541.7	535.1	522.1	530.5	521.2
75°	422.3	415.8	405.6	413.0	403.7
77.5°	309.5	304.9	295.5	303.0	304.9
80°	207.0	201.4	196.7	203.2	205.1
82.5°	121.2	117.5	115.6	116.5	121.2
85°	58.7	54.1	54.1	55.0	55.0
87.5°	15.8	14.0	15.8	16.8	17.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)