

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: P974536

Luminaire Tested: FLR2-24-90HE-L830-CP187

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P974536
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-L830-CP187
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

Summary

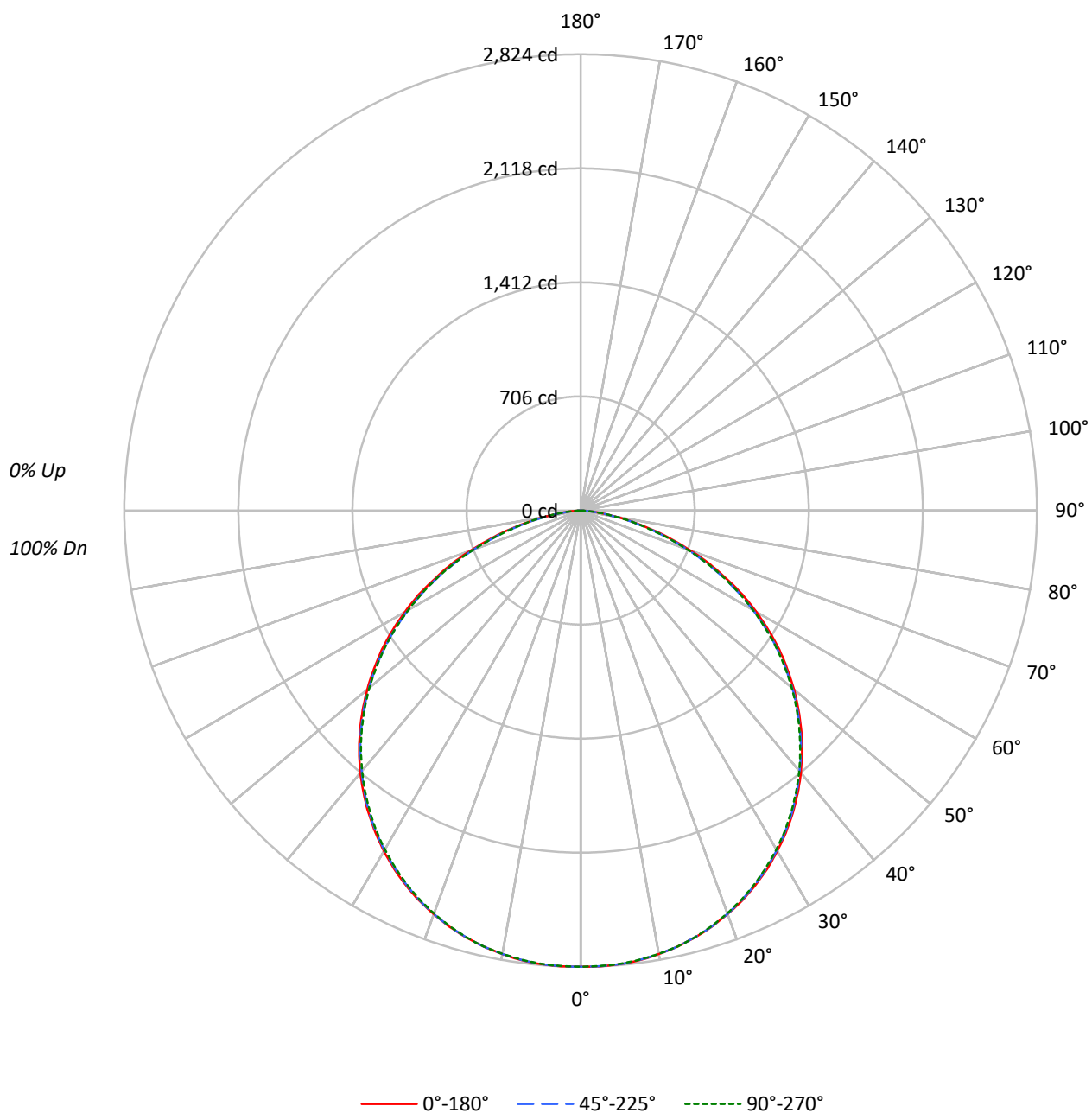
Lumens per Lamp: N/A
Luminaire Lumens: 7981.4 lumens
Efficiency: N/A
Efficacy: 113.5 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.39
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	3800	3800	3800
5°	3807	3807	3805
10°	3810	3808	3807
15°	3811	3809	3809
20°	3807	3806	3800
25°	3800	3792	3786
30°	3783	3772	3764
35°	3758	3748	3735
40°	3725	3702	3697
45°	3677	3656	3644
50°	3608	3580	3570
55°	3523	3473	3468
60°	3376	3316	3316
65°	3158	3084	3094
70°	2842	2755	2746
75°	2386	2292	2281
80°	1743	1657	1727
85°	985	908	923

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3677 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	268.1	3.4
10°-20°	772.2	9.7
20°-30°	1177.4	14.8
30°-40°	1426.5	17.9
40°-50°	1481.7	18.6
50°-60°	1325.5	16.6
60°-70°	966.1	12.1
70°-80°	478.4	6.0
80°-90°	85.5	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°	2217.7	27.8
0°-40°	3644.2	45.7
0°-60°	6451.4	80.8
0°-90°	7981.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7981.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2824	2824	2824	2824	2824	
5°	2819	2820	2819	2819	2817	268
15°	2736	2735	2735	2737	2735	772
25°	2560	2556	2554	2554	2550	1180
35°	2288	2285	2282	2278	2274	1431
45°	1932	1928	1921	1917	1915	1489
55°	1502	1490	1480	1480	1478	1338
65°	992	984	969	973	972	983
75°	459	452	441	449	439	489
85°	64	59	59	60	60	88
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2824.0	2824.0	2824.0	2824.0	2824.0
2.5°	2824.0	2823.0	2823.0	2824.0	2822.0
5°	2818.9	2819.9	2818.9	2818.9	2816.9
7.5°	2807.8	2806.8	2805.8	2806.8	2803.7
10°	2788.5	2788.5	2787.5	2788.5	2786.5
12.5°	2765.2	2765.2	2765.2	2766.2	2765.2
15°	2735.8	2734.8	2734.8	2736.9	2734.8
17.5°	2701.4	2700.4	2700.4	2699.4	2697.3
20°	2658.8	2658.8	2657.8	2656.8	2653.8
22.5°	2613.2	2612.2	2609.2	2609.2	2605.1
25°	2559.5	2556.5	2554.5	2553.5	2550.4
27.5°	2500.8	2496.7	2493.7	2491.6	2488.6
30°	2434.9	2430.8	2427.8	2424.8	2422.7
32.5°	2364.0	2361.9	2356.9	2355.9	2351.8
35°	2288.0	2284.9	2281.9	2277.8	2273.8
37.5°	2206.9	2203.9	2196.8	2194.8	2191.7
40°	2120.8	2116.7	2107.6	2107.6	2104.6
42.5°	2028.6	2024.5	2018.4	2014.4	2012.4
45°	1932.3	1928.3	1921.2	1917.1	1915.1
47.5°	1830.0	1826.9	1818.8	1815.8	1812.7
50°	1723.6	1719.5	1710.4	1708.4	1705.3
52.5°	1612.1	1610.1	1597.9	1596.9	1593.9
55°	1501.7	1490.5	1480.4	1480.4	1478.4
57.5°	1380.1	1372.0	1358.8	1358.8	1356.8
60°	1254.4	1247.3	1232.1	1234.2	1232.1
62.5°	1131.8	1116.6	1102.4	1108.5	1103.5
65°	992.0	983.9	968.7	972.7	971.7
67.5°	864.3	849.1	834.9	843.0	839.0
70°	722.5	714.4	700.2	708.3	698.1
72.5°	588.7	581.6	567.4	576.6	566.4
75°	459.0	451.9	440.8	448.9	438.7
77.5°	336.4	331.3	321.2	329.3	331.3
80°	224.9	218.9	213.8	220.9	222.9
82.5°	131.7	127.7	125.6	126.7	131.7
85°	63.8	58.8	58.8	59.8	59.8
87.5°	17.2	15.2	17.2	18.2	19.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)