

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: P974514

Luminaire Tested: FLR2-24-90HE-L830-CP080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P974514
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-CP080
Description: SHAPER SENSE CIRCLE
LIGHT LEVEL 2
Light Source:
Ballast/Driver: -

Summary

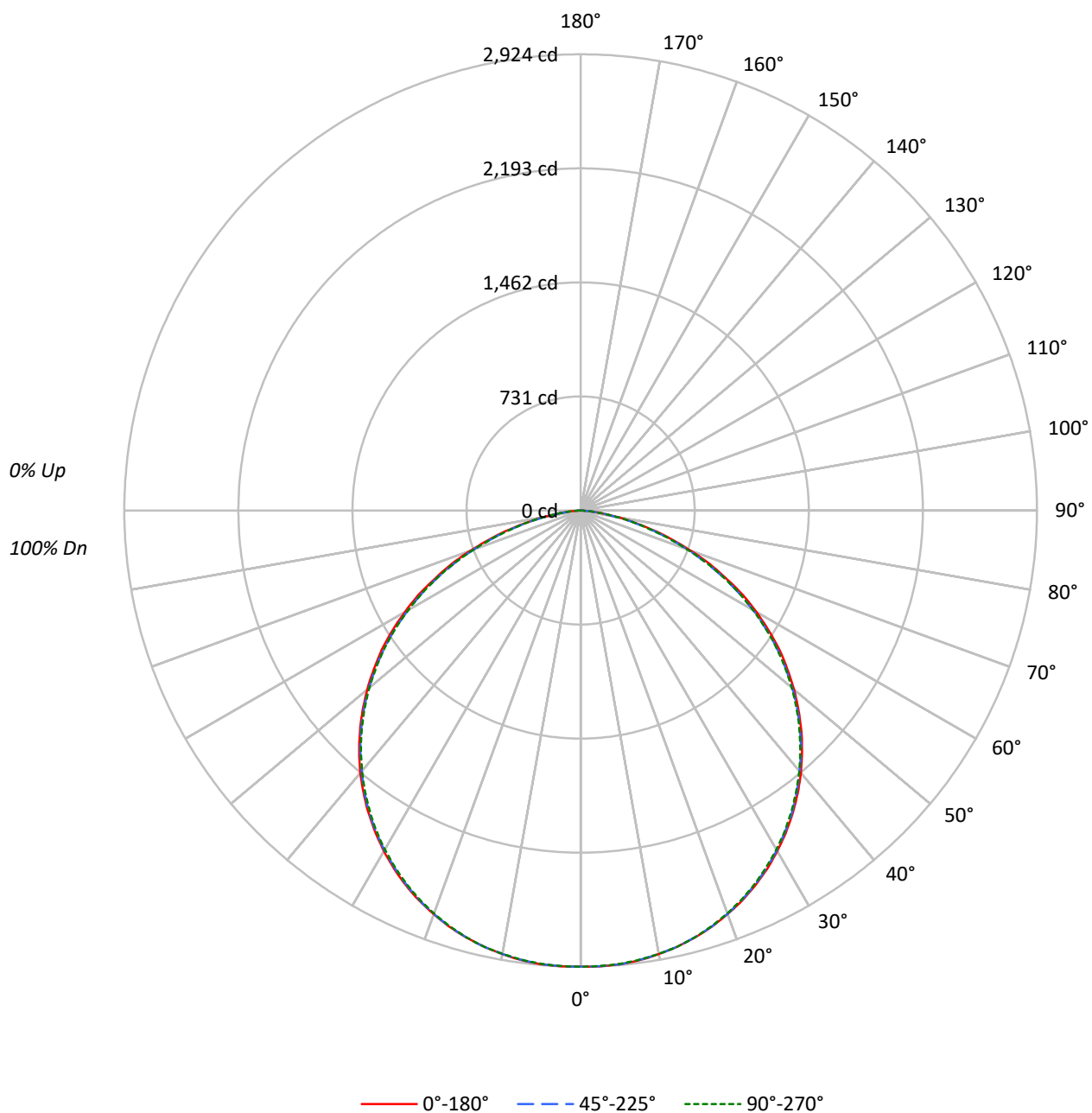
Lumens per Lamp: N/A
Luminaire Lumens: 8264.1 lumens
Efficiency: N/A
Efficacy: 117.6 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.39
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P974514

CATALOG NUMBER: FLR2-24-90HE-L830-CP080

Luminous Intensity Polar Plot



TEST NUMBER: P974514

CATALOG NUMBER: FLR2-24-90HE-L830-CP080

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°	3934	3934	3934
5°	3942	3942	3939
10°	3945	3943	3942
15°	3946	3944	3944
20°	3942	3940	3934
25°	3934	3927	3920
30°	3917	3906	3897
35°	3891	3881	3867
40°	3857	3833	3827
45°	3807	3785	3773
50°	3736	3707	3696
55°	3647	3596	3591
60°	3495	3433	3433
65°	3270	3193	3203
70°	2943	2852	2844
75°	2471	2373	2362
80°	1805	1715	1788
85°	1020	940	956

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3807 cd/sqm

TEST NUMBER: P974514

CATALOG NUMBER: FLR2-24-90HE-L830-CP080

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	277.5	3.4
10°-20°	799.6	9.7
20°-30°	1219.1	14.8
30°-40°	1477.0	17.9
40°-50°	1534.2	18.6
50°-60°	1372.5	16.6
60°-70°	1000.3	12.1
70°-80°	495.4	6.0
80°-90°	88.5	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°	2296.2	27.8
0°-40°	3773.2	45.7
0°-60°	6679.9	80.8
0°-90°	8264.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8264.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2924	2924	2924	2924	2924	
5°	2919	2920	2919	2919	2917	278
15°	2833	2832	2832	2834	2832	800
25°	2650	2647	2645	2644	2641	1221
35°	2369	2366	2363	2358	2354	1482
45°	2001	1996	1989	1985	1983	1542
55°	1555	1543	1533	1533	1531	1385
65°	1027	1019	1003	1007	1006	1018
75°	475	468	456	465	454	507
85°	66	61	61	62	62	92
90°	0	0	0	0	0	

TEST NUMBER: P974514

CATALOG NUMBER: FLR2-24-90HE-L830-CP080

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2924.0	2924.0	2924.0	2924.0	2924.0
2.5°	2924.0	2923.0	2923.0	2924.0	2921.9
5°	2918.8	2919.8	2918.8	2918.8	2916.7
7.5°	2907.2	2906.2	2905.1	2906.2	2903.0
10°	2887.3	2887.3	2886.2	2887.3	2885.2
12.5°	2863.2	2863.2	2863.2	2864.2	2863.2
15°	2832.7	2831.7	2831.7	2833.8	2831.7
17.5°	2797.1	2796.0	2796.0	2795.0	2792.9
20°	2753.0	2753.0	2751.9	2750.9	2747.7
22.5°	2705.8	2704.7	2701.6	2701.6	2697.4
25°	2650.2	2647.0	2644.9	2643.9	2640.7
27.5°	2589.3	2585.1	2582.0	2579.9	2576.7
30°	2521.1	2516.9	2513.8	2510.6	2508.5
32.5°	2447.7	2445.6	2440.3	2439.3	2435.1
35°	2369.0	2365.9	2362.7	2358.5	2354.3
37.5°	2285.1	2281.9	2274.6	2272.5	2269.3
40°	2195.9	2191.7	2182.2	2182.2	2179.1
42.5°	2100.4	2096.2	2089.9	2085.7	2083.6
45°	2000.7	1996.5	1989.2	1985.0	1982.9
47.5°	1894.8	1891.6	1883.2	1880.1	1876.9
50°	1784.6	1780.4	1771.0	1768.9	1765.7
52.5°	1669.2	1667.1	1654.5	1653.5	1650.3
55°	1554.9	1543.3	1532.8	1532.8	1530.7
57.5°	1429.0	1420.6	1406.9	1406.9	1404.8
60°	1298.9	1291.5	1275.8	1277.9	1275.8
62.5°	1171.9	1156.2	1141.5	1147.8	1142.5
65°	1027.1	1018.7	1003.0	1007.2	1006.1
67.5°	894.9	879.2	864.5	872.9	868.7
70°	748.0	739.7	725.0	733.4	722.9
72.5°	609.6	602.2	587.5	597.0	586.5
75°	475.3	467.9	456.4	464.8	454.3
77.5°	348.3	343.1	332.6	341.0	343.1
80°	232.9	226.6	221.4	228.7	230.8
82.5°	136.4	132.2	130.1	131.1	136.4
85°	66.1	60.9	60.9	61.9	61.9
87.5°	17.8	15.7	17.8	18.9	19.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)