

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: P974646

Luminaire Tested: FLR2-24-90HE-L930-CA080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P974646
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-L930-CA080
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

Summary

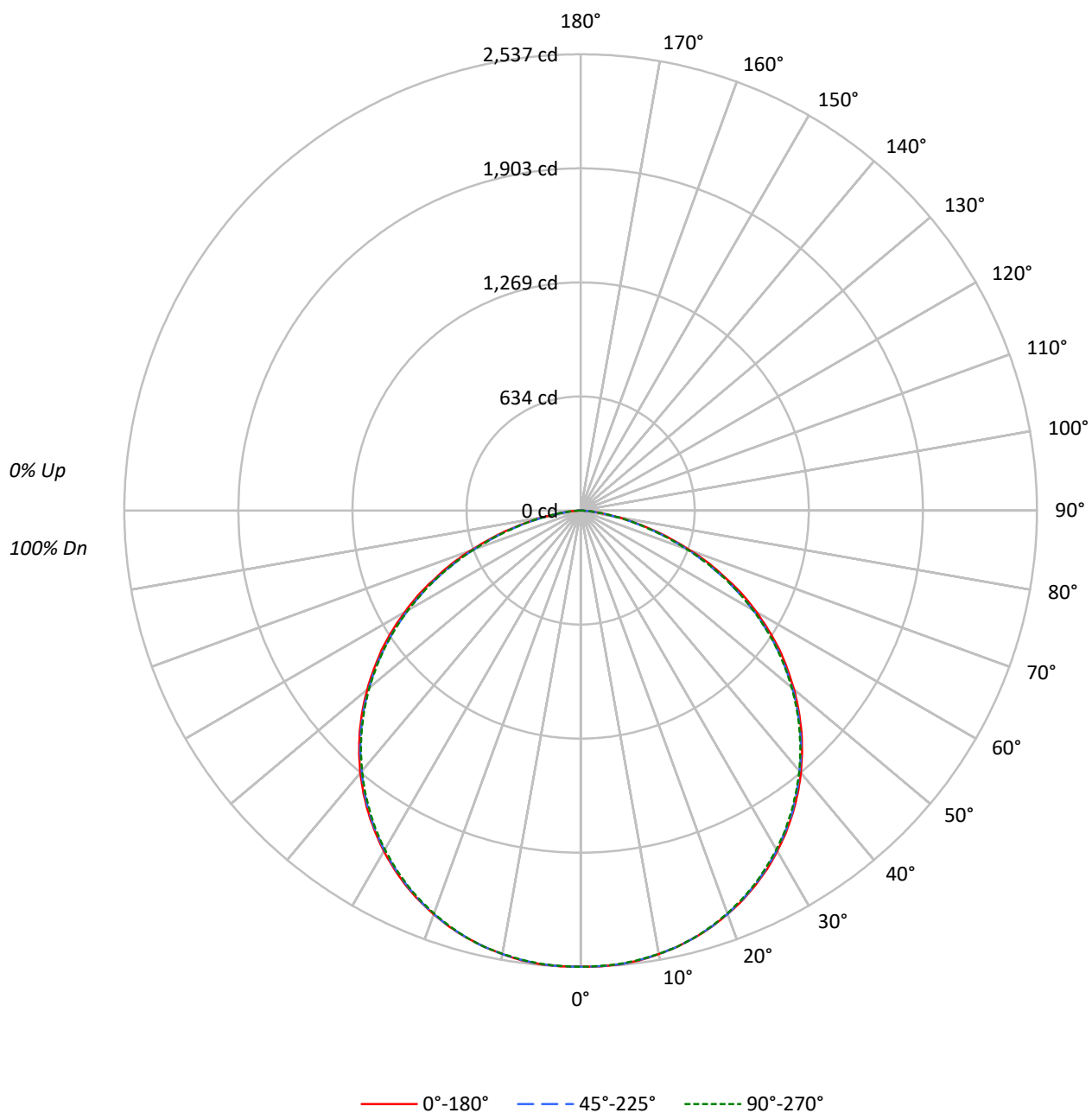
Lumens per Lamp: N/A
Luminaire Lumens: 7170.9 lumens
Efficiency: N/A
Efficacy: 102.0 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.39
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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: P974646

CATALOG NUMBER: FLR2-24-90HE-L930-CA080

Luminous Intensity Polar Plot



TEST NUMBER: P974646

CATALOG NUMBER: FLR2-24-90HE-L930-CA080

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°	3414	3414	3414
5°	3421	3421	3418
10°	3423	3422	3420
15°	3424	3423	3423
20°	3420	3419	3414
25°	3414	3407	3402
30°	3399	3389	3382
35°	3376	3367	3356
40°	3347	3326	3321
45°	3303	3284	3274
50°	3241	3217	3207
55°	3165	3120	3116
60°	3033	2979	2979
65°	2837	2771	2779
70°	2554	2475	2467
75°	2144	2059	2049
80°	1566	1488	1552
85°	886	815	829

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3303 cd/sqm

TEST NUMBER: P974646
CATALOG NUMBER: FLR2-24-90HE-L930-CA080

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	240.8	3.4
10°-20°	693.8	9.7
20°-30°	1057.8	14.8
30°-40°	1281.6	17.9
40°-50°	1331.3	18.6
50°-60°	1190.9	16.6
60°-70°	867.9	12.1
70°-80°	429.8	6.0
80°-90°	76.8	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°	1992.4	27.8
0°-40°	3274.1	45.7
0°-60°	5796.2	80.8
0°-90°	7170.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7170.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2537	2537	2537	2537	2537	
5°	2533	2534	2533	2533	2531	241
15°	2458	2457	2457	2459	2457	694
25°	2300	2297	2295	2294	2291	1060
35°	2056	2053	2050	2046	2043	1286
45°	1736	1732	1726	1722	1721	1338
55°	1349	1339	1330	1330	1328	1202
65°	891	884	870	874	873	884
75°	412	406	396	403	394	440
85°	57	53	53	54	54	79
90°	0	0	0	0	0	

TEST NUMBER: P974646

CATALOG NUMBER: FLR2-24-90HE-L930-CA080

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2537.2	2537.2	2537.2	2537.2	2537.2
2.5°	2537.2	2536.3	2536.3	2537.2	2535.4
5°	2532.6	2533.6	2532.6	2532.6	2530.8
7.5°	2522.6	2521.7	2520.8	2521.7	2519.0
10°	2505.3	2505.3	2504.4	2505.3	2503.5
12.5°	2484.4	2484.4	2484.4	2485.3	2484.4
15°	2458.0	2457.1	2457.1	2458.9	2457.1
17.5°	2427.0	2426.1	2426.1	2425.2	2423.4
20°	2388.8	2388.8	2387.9	2387.0	2384.3
22.5°	2347.8	2346.9	2344.2	2344.2	2340.6
25°	2299.6	2296.9	2295.0	2294.1	2291.4
27.5°	2246.8	2243.1	2240.4	2238.6	2235.9
30°	2187.6	2184.0	2181.2	2178.5	2176.7
32.5°	2123.9	2122.1	2117.5	2116.6	2113.0
35°	2055.6	2052.9	2050.1	2046.5	2042.9
37.5°	1982.8	1980.0	1973.7	1971.9	1969.1
40°	1905.4	1901.8	1893.6	1893.6	1890.8
42.5°	1822.6	1818.9	1813.5	1809.8	1808.0
45°	1736.1	1732.4	1726.1	1722.4	1720.6
47.5°	1644.1	1641.4	1634.1	1631.4	1628.6
50°	1548.5	1544.9	1536.7	1534.9	1532.1
52.5°	1448.4	1446.6	1435.6	1434.7	1432.0
55°	1349.2	1339.2	1330.0	1330.0	1328.2
57.5°	1239.9	1232.6	1220.8	1220.8	1219.0
60°	1127.0	1120.7	1107.0	1108.8	1107.0
62.5°	1016.9	1003.2	990.5	995.9	991.4
65°	891.2	884.0	870.3	874.0	873.0
67.5°	776.5	762.9	750.1	757.4	753.8
70°	649.1	641.8	629.1	636.3	627.2
72.5°	528.9	522.6	509.8	518.0	508.9
75°	412.4	406.0	396.0	403.3	394.2
77.5°	302.2	297.7	288.6	295.9	297.7
80°	202.1	196.6	192.1	198.5	200.3
82.5°	118.3	114.7	112.9	113.8	118.3
85°	57.4	52.8	52.8	53.7	53.7
87.5°	15.5	13.7	15.5	16.4	17.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)