

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: P975108

Luminaire Tested: FLR2-24-90HE-L950-CA080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P975108
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-L950-CA080
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

Summary

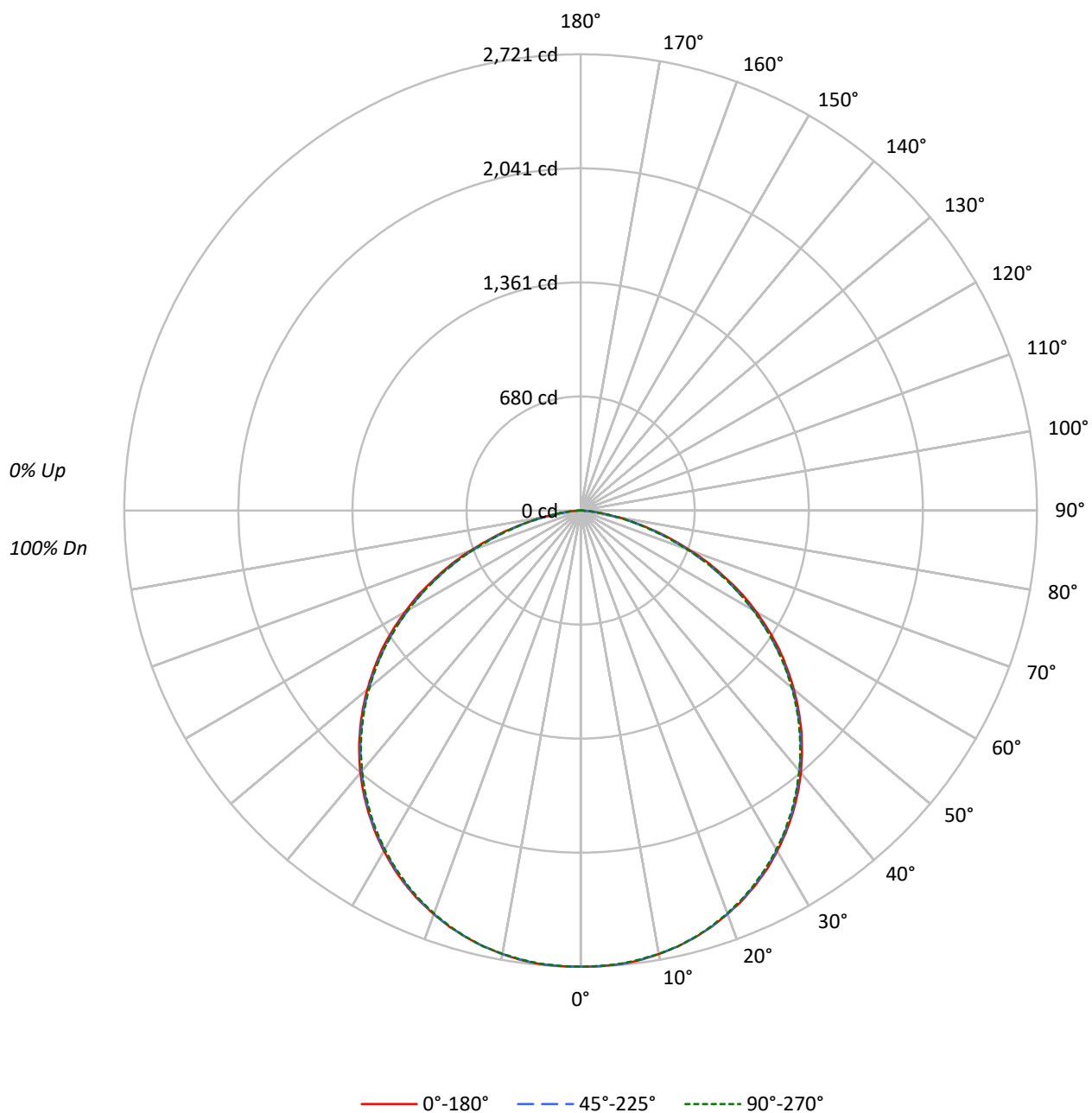
Lumens per Lamp: N/A
Luminaire Lumens: 7689.2 lumens
Efficiency: N/A
Efficacy: 109.4 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.39
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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: P975108

CATALOG NUMBER: FLR2-24-90HE-L950-CA080

Luminous Intensity Polar Plot



TEST NUMBER: P975108

CATALOG NUMBER: FLR2-24-90HE-L950-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		0
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		100
1	109	105	100	97	106	102	99	95	98	95	92		94	92	89		85
2	99	91	85	79	97	89	83	78	86	81	76		83	78	75		71
3	91	80	72	66	88	79	71	65	76	69	64		73	68	63		60
4	83	71	62	56	81	70	62	55	67	60	55		65	59	54		51
5	76	64	55	48	74	62	54	48	60	53	47		58	52	47		44
6	70	57	48	42	69	56	48	42	54	47	41		53	46	41		38
7	65	52	43	37	64	51	43	37	49	42	37		48	41	36		34
8	61	47	39	33	59	47	38	33	45	38	33		44	37	32		30
9	57	43	35	30	55	43	35	30	42	34	29		41	34	29		27
10	53	40	32	27	52	39	32	27	38	31	27		38	31	26		25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3661	3661	3661
5°	3668	3668	3665
10°	3670	3669	3668
15°	3671	3670	3670
20°	3668	3666	3661
25°	3661	3653	3648
30°	3645	3634	3626
35°	3620	3611	3598
40°	3589	3566	3561
45°	3542	3522	3511
50°	3476	3449	3439
55°	3394	3346	3341
60°	3252	3194	3194
65°	3043	2971	2981
70°	2738	2653	2646
75°	2299	2207	2197
80°	1679	1596	1664
85°	949	874	889

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3542 cd/sqm

TEST NUMBER: P975108
CATALOG NUMBER: FLR2-24-90HE-L950-CA080

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	258.2	3.4
10°-20°	744.0	9.7
20°-30°	1134.3	14.8
30°-40°	1374.3	17.9
40°-50°	1427.5	18.6
50°-60°	1277.0	16.6
60°-70°	930.7	12.1
70°-80°	460.9	6.0
80°-90°	82.4	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°	2136.5	27.8
0°-40°	3510.7	45.7
0°-60°	6215.2	80.8
0°-90°	7689.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7689.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2721	2721	2721	2721	2721	
5°	2716	2717	2716	2716	2714	258
15°	2636	2635	2635	2637	2635	744
25°	2466	2463	2461	2460	2457	1136
35°	2204	2201	2198	2194	2190	1379
45°	1862	1858	1851	1847	1845	1435
55°	1447	1436	1426	1426	1424	1289
65°	956	948	933	937	936	947
75°	442	435	425	432	423	472
85°	62	57	57	58	58	85
90°	0	0	0	0	0	

TEST NUMBER: P975108

CATALOG NUMBER: FLR2-24-90HE-L950-CA080

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2720.6	2720.6	2720.6	2720.6	2720.6
2.5°	2720.6	2719.6	2719.6	2720.6	2718.7
5°	2715.7	2716.7	2715.7	2715.7	2713.8
7.5°	2705.0	2704.0	2703.0	2704.0	2701.1
10°	2686.4	2686.4	2685.5	2686.4	2684.5
12.5°	2664.0	2664.0	2664.0	2665.0	2664.0
15°	2635.7	2634.7	2634.7	2636.7	2634.7
17.5°	2602.5	2601.5	2601.5	2600.5	2598.6
20°	2561.5	2561.5	2560.5	2559.5	2556.6
22.5°	2517.6	2516.6	2513.7	2513.7	2509.8
25°	2465.8	2462.9	2460.9	2460.0	2457.0
27.5°	2409.2	2405.3	2402.4	2400.4	2397.5
30°	2345.8	2341.8	2338.9	2336.0	2334.0
32.5°	2277.4	2275.5	2270.6	2269.6	2265.7
35°	2204.2	2201.3	2198.4	2194.4	2190.5
37.5°	2126.1	2123.2	2116.4	2114.4	2111.5
40°	2043.1	2039.2	2030.4	2030.4	2027.5
42.5°	1954.3	1950.4	1944.5	1940.6	1938.7
45°	1861.6	1857.7	1850.8	1846.9	1845.0
47.5°	1763.0	1760.0	1752.2	1749.3	1746.4
50°	1660.5	1656.6	1647.8	1645.8	1642.9
52.5°	1553.1	1551.1	1539.4	1538.5	1535.5
55°	1446.7	1436.0	1426.2	1426.2	1424.2
57.5°	1329.6	1321.7	1309.1	1309.1	1307.1
60°	1208.5	1201.7	1187.0	1189.0	1187.0
62.5°	1090.4	1075.7	1062.1	1067.9	1063.1
65°	955.7	947.9	933.2	937.1	936.2
67.5°	832.7	818.0	804.4	812.2	808.3
70°	696.0	688.2	674.5	682.3	672.6
72.5°	567.2	560.3	546.7	555.4	545.7
75°	442.2	435.4	424.6	432.4	422.7
77.5°	324.1	319.2	309.4	317.3	319.2
80°	216.7	210.9	206.0	212.8	214.8
82.5°	126.9	123.0	121.0	122.0	126.9
85°	61.5	56.6	56.6	57.6	57.6
87.5°	16.6	14.6	16.6	17.6	18.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)