

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: P974409

Luminaire Tested: FLR2-24-20-L850-CP187

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P974409
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: FLR2-24-20-L850-CP187
Description: SHAPER SENSE CIRCLE

Light Source: FLR2-24-20-L850-CP187
Ballast/Driver: -

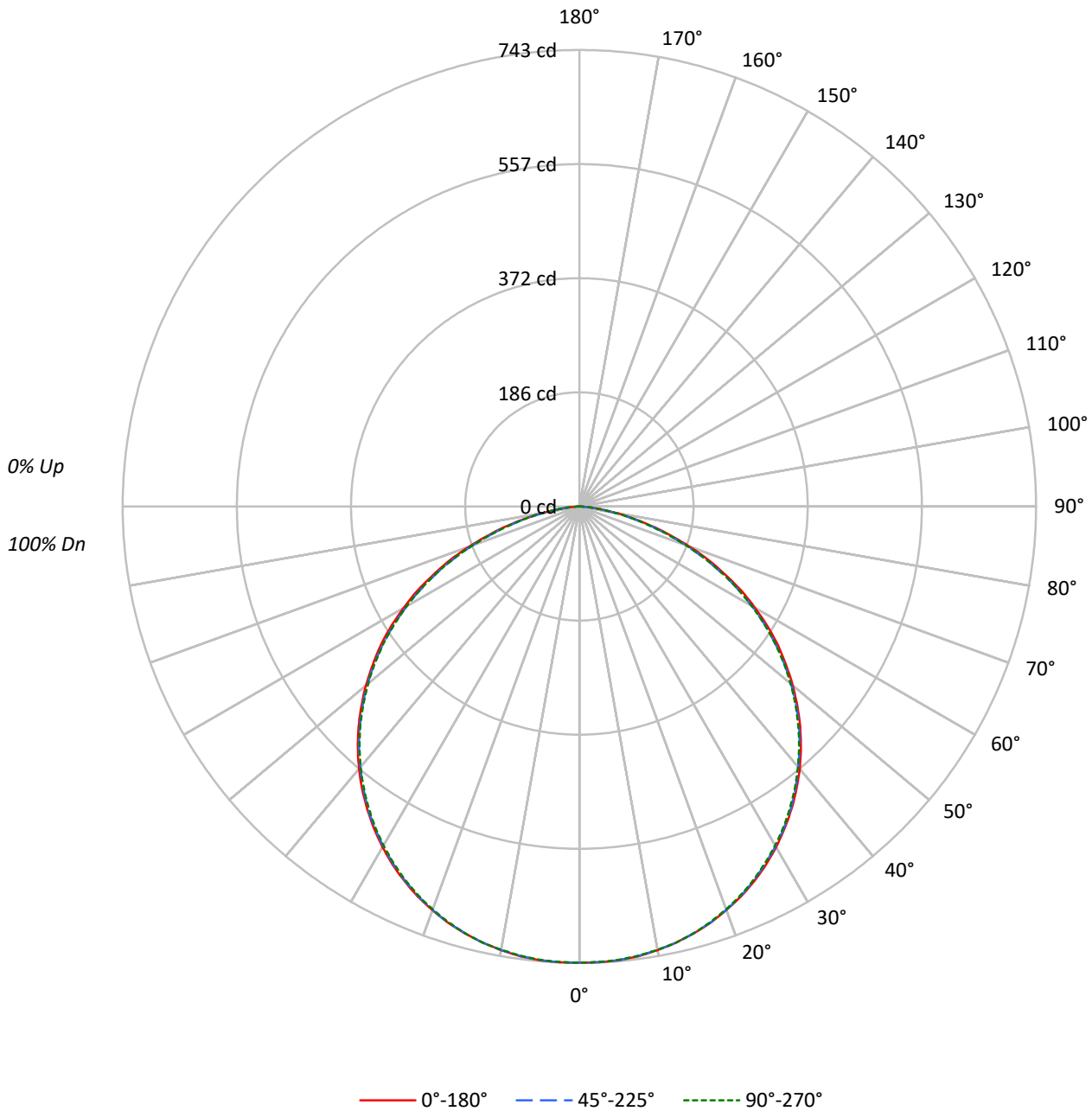
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2098.9 lumens
Efficiency: N/A
Efficacy: 125.7 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): 16.7
Input Voltage (V): 120
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										
RC	80									70									50									30									10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	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	102	102	102	100	100	100	100	100	100	100														
1	109	105	100	97	106	102	99	95	98	95	92	94	92	89	91	89	87	85	85	85	85	85	85	85														
2	99	91	85	79	97	89	83	78	86	81	76	83	78	75	80	76	73	71	71	71	71	71	71	71														
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60	60	60	60	60	60	60														
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	57	53	51	51	51	51	51	51	51														
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44	44	44	44	44	44	44														
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	38	38	38	38	38	38	38														
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	34	34	34	34	34	34	34														
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30	30	30	30	30	30	30														
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	39	33	29	27	27	27	27	27	27	27														
10	53	40	32	27	52	39	32	27	38	31	27	38	31	26	37	31	26	25	25	25	25	25	25	25														

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	999	999	999
5°	1001	1001	1001
10°	1002	1002	1001
15°	1002	1002	1002
20°	1001	1001	999
25°	999	997	996
30°	995	992	990
35°	988	986	982
40°	980	974	972
45°	967	961	958
50°	949	942	939
55°	926	913	912
60°	888	872	872
65°	831	811	813
70°	747	724	722
75°	627	603	600
80°	459	435	454
85°	259	239	242

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 967 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.5	3.4
10°-20°	203.1	9.7
20°-30°	309.6	14.8
30°-40°	375.1	17.9
40°-50°	389.7	18.6
50°-60°	348.6	16.6
60°-70°	254.0	12.1
70°-80°	125.8	6.0
80°-90°	22.5	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°	583.2	27.8
0°-40°	958.3	45.7
0°-60°	1696.6	80.8
0°-90°	2098.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2098.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	743	743	743	743	743	
5°	741	742	741	741	741	71
15°	720	719	719	720	719	203
25°	673	672	672	672	671	310
35°	602	601	600	599	598	376
45°	508	507	505	504	504	392
55°	395	392	389	389	389	352
65°	261	259	255	256	256	259
75°	121	119	116	118	115	129
85°	17	16	16	16	16	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	742.6	742.6	742.6	742.6	742.6
2.5°	742.6	742.4	742.4	742.6	742.1
5°	741.3	741.6	741.3	741.3	740.8
7.5°	738.4	738.1	737.9	738.1	737.3
10°	733.3	733.3	733.1	733.3	732.8
12.5°	727.2	727.2	727.2	727.5	727.2
15°	719.5	719.2	719.2	719.7	719.2
17.5°	710.4	710.1	710.1	709.9	709.3
20°	699.2	699.2	698.9	698.7	697.9
22.5°	687.2	687.0	686.2	686.2	685.1
25°	673.1	672.3	671.8	671.5	670.7
27.5°	657.6	656.6	655.8	655.2	654.4
30°	640.3	639.3	638.5	637.7	637.1
32.5°	621.7	621.1	619.8	619.5	618.5
35°	601.7	600.9	600.1	599.0	598.0
37.5°	580.4	579.6	577.7	577.2	576.4
40°	557.7	556.7	554.3	554.3	553.5
42.5°	533.5	532.4	530.8	529.7	529.2
45°	508.2	507.1	505.2	504.2	503.6
47.5°	481.2	480.4	478.3	477.5	476.7
50°	453.3	452.2	449.8	449.3	448.5
52.5°	424.0	423.4	420.2	420.0	419.2
55°	394.9	392.0	389.3	389.3	388.8
57.5°	362.9	360.8	357.3	357.3	356.8
60°	329.9	328.0	324.0	324.6	324.0
62.5°	297.6	293.6	289.9	291.5	290.2
65°	260.9	258.7	254.7	255.8	255.5
67.5°	227.3	223.3	219.6	221.7	220.6
70°	190.0	187.9	184.1	186.3	183.6
72.5°	154.8	153.0	149.2	151.6	149.0
75°	120.7	118.8	115.9	118.0	115.4
77.5°	88.5	87.1	84.5	86.6	87.1
80°	59.2	57.6	56.2	58.1	58.6
82.5°	34.6	33.6	33.0	33.3	34.6
85°	16.8	15.5	15.5	15.7	15.7
87.5°	4.5	4.0	4.5	4.8	5.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)