

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: P974073

Luminaire Tested: FLR2-24-20-L830-CP187

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P974073
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-L830-CP187
Description: SHAPER SENSE CIRCLE

Light Source: FLR2-24-20-L830-CP187
Ballast/Driver: -

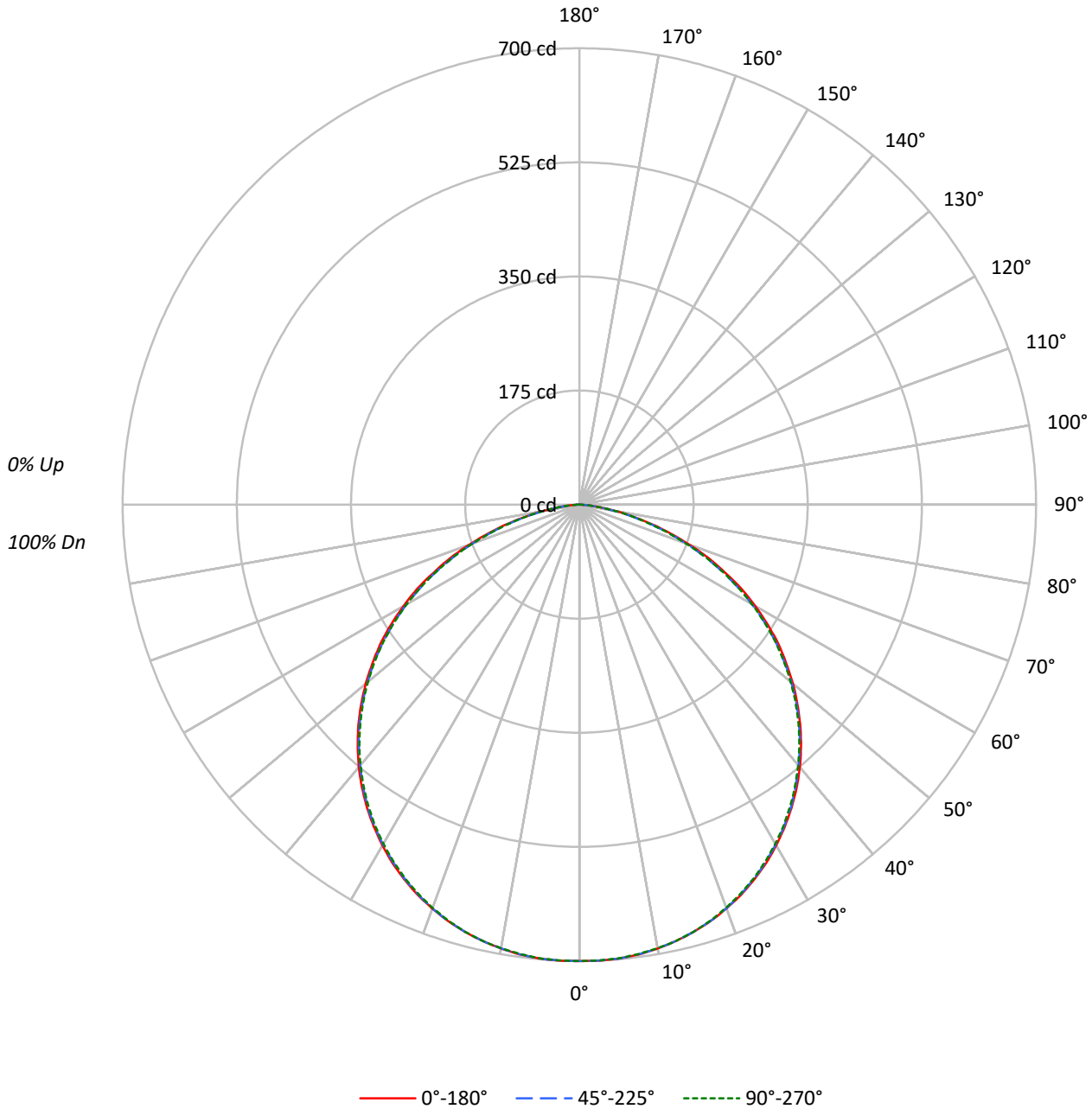
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1979.0 lumens
Efficiency: N/A
Efficacy: 118.5 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): 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

TEST NUMBER: P974073
CATALOG NUMBER: FLR2-24-20-L830-CP187

Luminous Intensity Polar Plot





TEST NUMBER: P974073
 CATALOG NUMBER: FLR2-24-20-L830-CP187

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														
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°	942	942	942
5°	944	944	943
10°	945	944	944
15°	945	945	945
20°	944	944	942
25°	942	940	939
30°	938	935	933
35°	932	929	926
40°	924	918	916
45°	912	906	903
50°	895	888	885
55°	873	861	860
60°	837	822	822
65°	783	765	767
70°	705	683	681
75°	592	568	566
80°	432	411	428
85°	244	225	228

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 912 cd/sqm



TEST NUMBER: P974073
 CATALOG NUMBER: FLR2-24-20-L830-CP187

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.5	3.4
10°-20°	191.5	9.7
20°-30°	291.9	14.8
30°-40°	353.7	17.9
40°-50°	367.4	18.6
50°-60°	328.7	16.6
60°-70°	239.5	12.1
70°-80°	118.6	6.0
80°-90°	21.2	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°	549.9	27.8
0°-40°	903.6	45.7
0°-60°	1599.7	80.8
0°-90°	1979.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1979.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	700	700	700	700	700	
5°	699	699	699	699	698	66
15°	678	678	678	679	678	192
25°	635	634	633	633	632	292
35°	567	567	566	565	564	355
45°	479	478	476	475	475	369
55°	372	370	367	367	367	332
65°	246	244	240	241	241	244
75°	114	112	109	111	109	121
85°	16	15	15	15	15	22
90°	0	0	0	0	0	



TEST NUMBER: P974073
 CATALOG NUMBER: FLR2-24-20-L830-CP187

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	700.2	700.2	700.2	700.2	700.2
2.5°	700.2	700.0	700.0	700.2	699.7
5°	699.0	699.2	699.0	699.0	698.5
7.5°	696.2	695.9	695.7	695.9	695.2
10°	691.4	691.4	691.2	691.4	690.9
12.5°	685.6	685.6	685.6	685.9	685.6
15°	678.4	678.1	678.1	678.6	678.1
17.5°	669.8	669.6	669.6	669.3	668.8
20°	659.3	659.3	659.0	658.8	658.0
22.5°	648.0	647.7	646.9	646.9	645.9
25°	634.6	633.9	633.4	633.1	632.4
27.5°	620.1	619.1	618.3	617.8	617.1
30°	603.7	602.7	602.0	601.2	600.7
32.5°	586.1	585.6	584.4	584.1	583.1
35°	567.3	566.6	565.8	564.8	563.8
37.5°	547.2	546.5	544.7	544.2	543.4
40°	525.9	524.8	522.6	522.6	521.8
42.5°	503.0	502.0	500.5	499.5	499.0
45°	479.1	478.1	476.4	475.4	474.8
47.5°	453.7	453.0	451.0	450.2	449.5
50°	427.4	426.4	424.1	423.6	422.8
52.5°	399.7	399.2	396.2	396.0	395.2
55°	372.3	369.6	367.1	367.1	366.6
57.5°	342.2	340.2	336.9	336.9	336.4
60°	311.0	309.3	305.5	306.0	305.5
62.5°	280.6	276.9	273.4	274.9	273.6
65°	246.0	244.0	240.2	241.2	240.9
67.5°	214.3	210.5	207.0	209.0	208.0
70°	179.1	177.1	173.6	175.6	173.1
72.5°	146.0	144.2	140.7	143.0	140.4
75°	113.8	112.1	109.3	111.3	108.8
77.5°	83.4	82.2	79.6	81.7	82.2
80°	55.8	54.3	53.0	54.8	55.3
82.5°	32.7	31.7	31.2	31.4	32.7
85°	15.8	14.6	14.6	14.8	14.8
87.5°	4.3	3.8	4.3	4.5	4.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)