

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: P590709

Luminaire Tested: FSR-24-2-LD4-4HI-35-UNV-80-84-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590709
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-4HI-35-UNV-80-84-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9573.0 lumens
Efficiency: N/A
Efficacy: 110.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

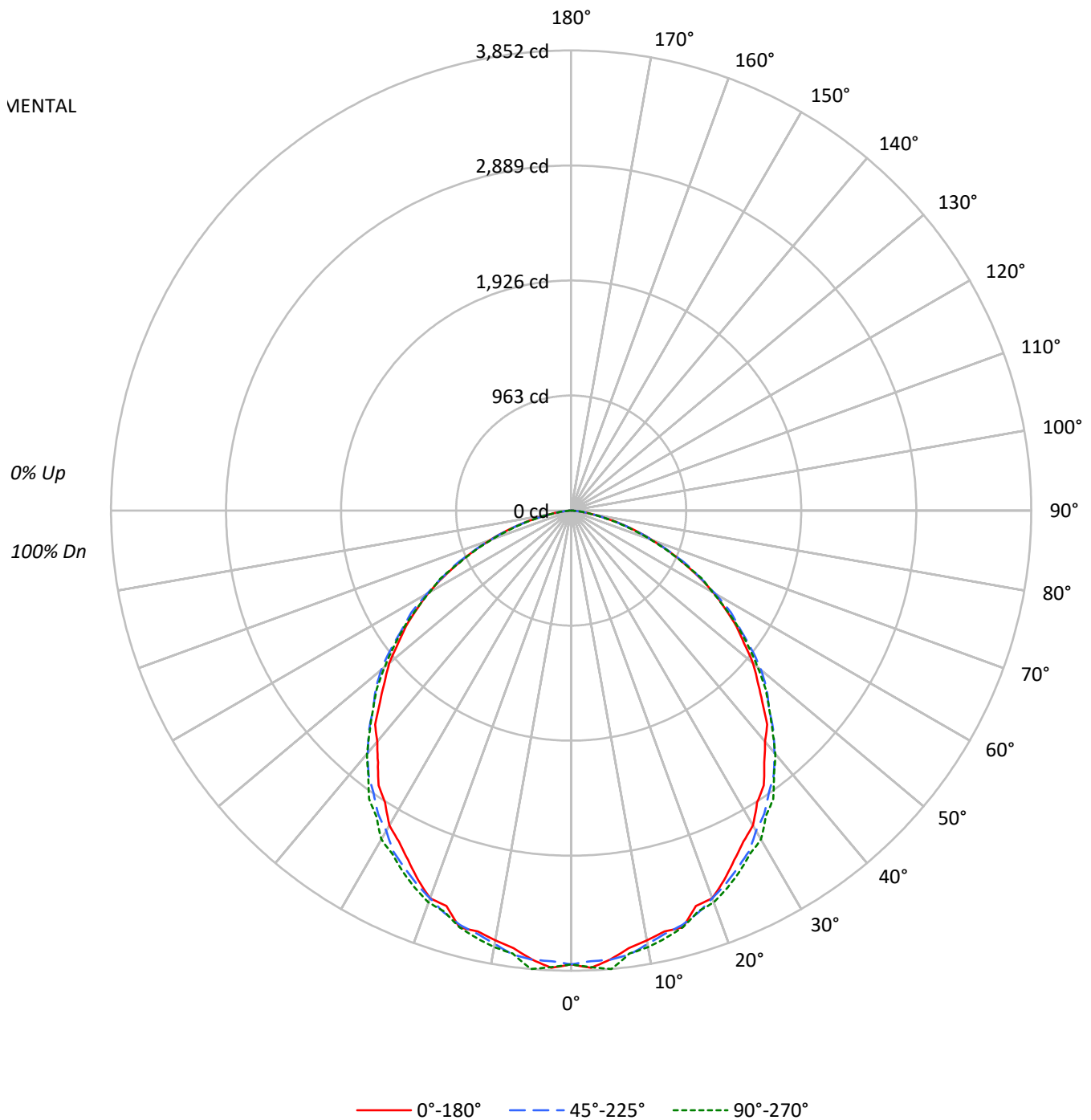
Input Watts (W): 86.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	50	30	10	0																			
RCR																																														
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																												
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86																												
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73																												
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62																												
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53																												
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46																												
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41																												
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36																												
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32																												
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29																												
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10221	10221	10221
5°	10188	10191	10406
10°	9981	10068	10139
15°	10060	10005	10061
20°	9890	9890	9995
25°	9586	9796	9903
30°	9454	9620	9876
35°	9231	9473	9686
40°	8872	9299	9341
45°	8604	8910	8923
50°	8321	8697	8531
55°	7929	8083	8025
60°	7414	7488	7353
65°	6611	6779	6564
70°	5672	5692	5533
75°	4493	4482	4309
80°	3009	2926	2813
85°	1636	1621	1513

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 9140 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	357.3	3.7
10°-20°	1012.6	10.6
20°-30°	1517.1	15.8
30°-40°	1798.1	18.8
40°-50°	1801.4	18.8
50°-60°	1529.1	16.0
60°-70°	1030.9	10.8
70°-80°	453.0	4.7
80°-90°	73.6	0.8
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°	2887.0	30.2
0°-40°	4685.0	48.9
0°-60°	8015.5	83.7
0°-90°	9573.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9573.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3798	3798	3798	3798	3798	
5°	3771	3762	3773	3762	3852	356
15°	3611	3569	3591	3610	3612	1006
25°	3228	3246	3299	3342	3335	1493
35°	2810	2818	2884	2950	2948	1745
45°	2261	2303	2341	2402	2345	1749
55°	1690	1679	1723	1711	1711	1503
65°	1038	1024	1065	1024	1031	1033
75°	432	423	431	401	414	463
85°	53	52	52	51	49	77
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3798.3	3798.3	3798.3	3798.3	3798.3
2.5°	3831.2	3802.2	3775.3	3806.7	3825.8
5°	3771.4	3762.5	3772.8	3761.5	3852.3
7.5°	3693.9	3727.7	3747.3	3735.1	3740.5
10°	3652.7	3640.9	3684.5	3715.0	3710.5
12.5°	3608.5	3626.2	3628.6	3661.5	3664.4
15°	3611.0	3569.3	3591.4	3610.0	3611.5
17.5°	3470.7	3515.8	3531.0	3573.7	3520.7
20°	3453.6	3420.7	3453.6	3497.2	3490.3
22.5°	3348.1	3311.3	3382.0	3420.7	3418.2
25°	3228.5	3246.1	3299.1	3342.2	3335.4
27.5°	3123.5	3144.1	3219.6	3279.0	3240.7
30°	3042.6	3032.3	3096.0	3149.0	3178.4
32.5°	2897.9	2935.2	3009.7	3062.2	3034.2
35°	2810.1	2818.5	2883.7	2950.4	2948.4
37.5°	2656.6	2695.4	2787.1	2805.7	2788.5
40°	2525.7	2564.4	2647.3	2667.4	2659.1
42.5°	2429.1	2435.9	2507.0	2530.1	2493.3
45°	2260.8	2303.0	2341.3	2401.6	2344.7
47.5°	2117.6	2137.3	2219.7	2235.8	2205.9
50°	1987.7	1994.5	2077.4	2057.3	2037.7
52.5°	1824.4	1853.3	1899.9	1896.0	1872.9
55°	1690.0	1678.7	1722.9	1711.1	1710.6
57.5°	1528.6	1548.3	1584.6	1565.9	1536.0
60°	1377.6	1378.1	1391.3	1370.2	1366.3
62.5°	1209.4	1215.3	1218.2	1192.2	1234.4
65°	1038.2	1024.5	1064.7	1024.0	1030.9
67.5°	880.8	887.7	883.7	858.2	868.0
70°	720.9	729.7	723.4	694.4	703.3
72.5°	574.8	564.0	570.9	534.6	551.2
75°	432.1	423.2	431.1	400.7	414.4
77.5°	294.3	301.1	296.2	280.0	289.3
80°	194.2	188.8	188.8	179.5	181.5
82.5°	113.3	107.9	106.4	103.5	107.9
85°	53.0	51.5	52.5	51.0	49.0
87.5°	19.1	19.6	19.6	18.6	17.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)