

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: P563433

Luminaire Tested: FSR-24-4-LD4-3LO-50-UNV-93-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563433
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-4-LD4-3LO-50-UNV-93-88-EDD
Description: 2X4 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7597.0 lumens
Efficiency: N/A
Efficacy: 108.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

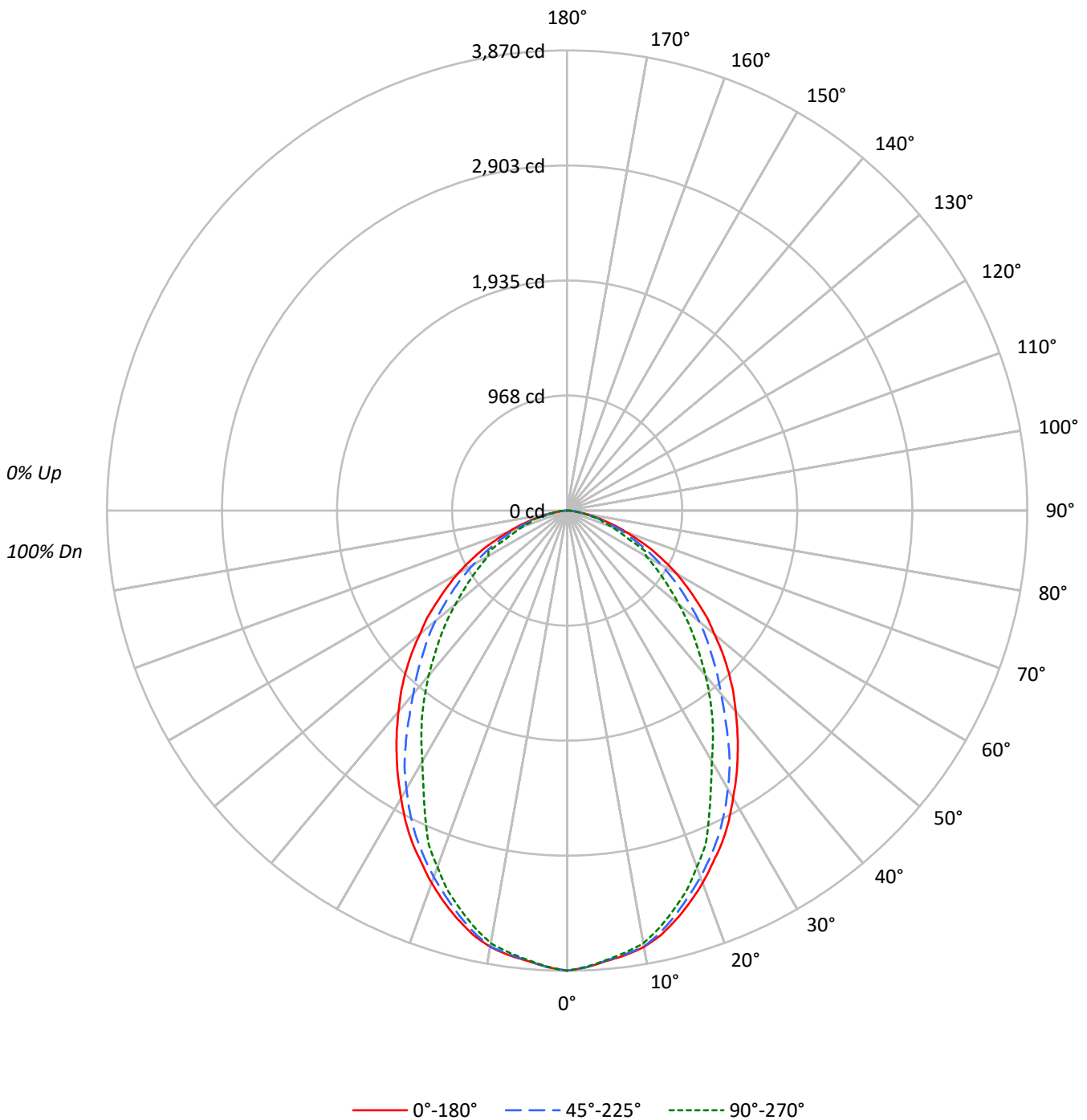
Input Watts (W): 70.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5207	5207	5207
5°	5136	5130	5124
10°	5091	5085	5049
15°	4954	4904	4836
20°	4772	4695	4567
25°	4576	4476	4198
30°	4337	4198	3781
35°	4108	3880	3498
40°	3874	3536	3182
45°	3652	3269	2877
50°	3381	3034	2566
55°	3127	2749	2298
60°	2865	2456	2059
65°	2521	2151	1823
70°	2077	1883	1549
75°	1651	1442	1512
80°	1110	1040	971
85°	690	829	966

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3652 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	360.2	4.7
10°-20°	988.6	13.0
20°-30°	1368.7	18.0
30°-40°	1459.4	19.2
40°-50°	1331.4	17.5
50°-60°	1043.0	13.7
60°-70°	679.8	8.9
70°-80°	301.2	4.0
80°-90°	64.7	0.9
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°	2717.5	35.8
0°-40°	4176.9	55.0
0°-60°	6551.3	86.2
0°-90°	7597.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7597.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3870	3870	3870	3870	3870	
5°	3803	3798	3798	3794	3794	361
15°	3557	3557	3521	3485	3472	1000
25°	3082	3064	3015	2908	2827	1415
35°	2501	2483	2362	2183	2130	1563
45°	1919	1879	1718	1575	1512	1478
55°	1333	1293	1172	1033	980	1196
65°	792	747	676	689	573	780
75°	318	295	277	264	291	340
85°	45	49	54	58	63	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3869.8	3869.8	3869.8	3869.8	3869.8
2.5°	3843.0	3843.0	3843.0	3838.5	3838.5
5°	3802.7	3798.2	3798.2	3793.8	3793.8
7.5°	3771.4	3766.9	3762.4	3758.0	3749.0
10°	3726.6	3726.6	3722.2	3699.8	3695.3
12.5°	3655.1	3650.6	3632.7	3601.4	3592.4
15°	3556.6	3556.6	3520.9	3485.1	3471.6
17.5°	3449.3	3444.8	3400.1	3364.3	3346.4
20°	3333.0	3324.0	3279.3	3221.1	3189.8
22.5°	3203.2	3203.2	3149.5	3073.5	3042.2
25°	3082.4	3064.5	3015.3	2907.9	2827.4
27.5°	2943.7	2916.9	2863.2	2711.1	2617.2
30°	2791.6	2778.2	2702.2	2505.3	2433.7
32.5°	2648.5	2626.1	2545.6	2339.8	2281.6
35°	2500.8	2482.9	2362.2	2183.2	2129.5
37.5°	2353.2	2330.8	2178.7	2035.6	1968.5
40°	2205.6	2178.7	2013.2	1883.5	1811.9
42.5°	2066.9	2031.1	1870.0	1731.3	1650.8
45°	1919.2	1879.0	1717.9	1574.8	1512.1
47.5°	1771.6	1735.8	1588.2	1440.6	1369.0
50°	1615.0	1583.7	1449.5	1301.9	1225.8
52.5°	1485.3	1436.1	1306.3	1158.7	1096.1
55°	1333.2	1292.9	1172.1	1033.4	979.8
57.5°	1194.5	1154.2	1042.4	912.6	867.9
60°	1064.8	1006.6	912.6	800.8	765.0
62.5°	921.6	876.9	796.3	702.4	747.1
65°	791.9	747.1	675.5	689.0	572.6
67.5°	648.7	626.3	563.7	501.1	483.2
70°	527.9	501.1	478.7	411.6	393.7
72.5°	420.5	393.7	362.4	326.6	313.2
75°	317.6	295.3	277.4	264.0	290.8
77.5°	219.2	210.3	196.8	183.4	179.0
80°	143.2	138.7	134.2	129.7	125.3
82.5°	85.0	85.0	85.0	85.0	85.0
85°	44.7	49.2	53.7	58.2	62.6
87.5°	26.8	26.8	31.3	35.8	40.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)