

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: P590779

Luminaire Tested: FSR-24-2-LD4-4HI-50-UNV-80-96-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590779
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-50-UNV-80-96-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9747.0 lumens
Efficiency: N/A
Efficacy: 112.8 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

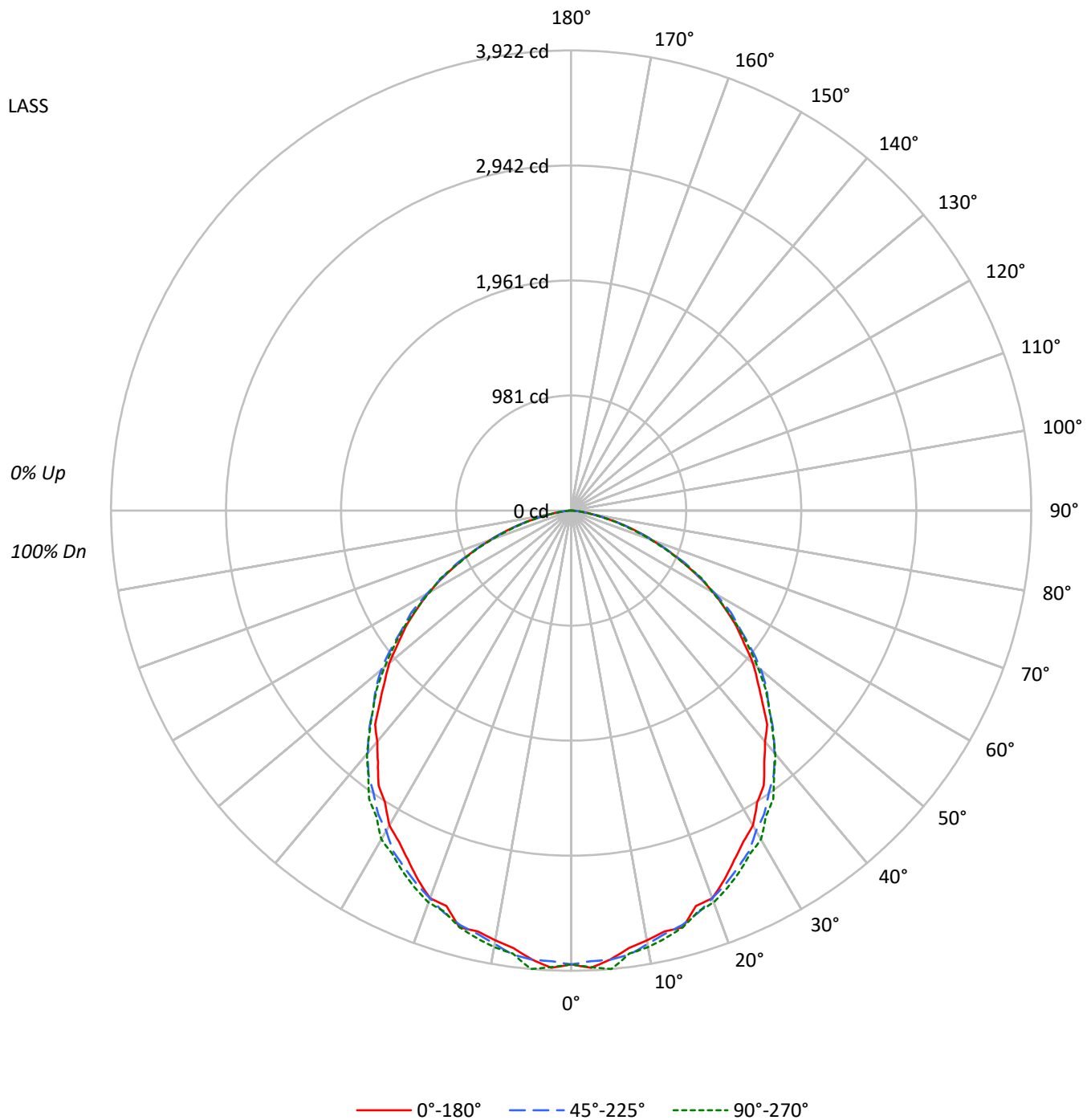
Input Watts (W): 86.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86					86			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41					41			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32					32			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10407	10407	10407
5°	10373	10377	10595
10°	10162	10251	10323
15°	10243	10187	10244
20°	10070	10070	10177
25°	9760	9973	10083
30°	9626	9795	10056
35°	9399	9645	9862
40°	9034	9468	9511
45°	8760	9072	9085
50°	8472	8855	8686
55°	8073	8230	8171
60°	7549	7624	7487
65°	6731	6903	6683
70°	5775	5795	5633
75°	4574	4563	4387
80°	3064	2978	2864
85°	1664	1649	1541

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 9306 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	363.8	3.7
10°-20°	1031.0	10.6
20°-30°	1544.7	15.8
30°-40°	1830.7	18.8
40°-50°	1834.1	18.8
50°-60°	1556.9	16.0
60°-70°	1049.6	10.8
70°-80°	461.2	4.7
80°-90°	75.0	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°	2939.5	30.2
0°-40°	4770.2	48.9
0°-60°	8161.2	83.7
0°-90°	9747.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9747.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3867	3867	3867	3867	3867	
5°	3840	3831	3841	3830	3922	362
15°	3677	3634	3657	3676	3677	1024
25°	3287	3305	3359	3403	3396	1520
35°	2861	2870	2936	3004	3002	1776
45°	2302	2345	2384	2445	2387	1781
55°	1721	1709	1754	1742	1742	1531
65°	1057	1043	1084	1043	1050	1051
75°	440	431	439	408	422	471
85°	54	52	53	52	50	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3867.4	3867.4	3867.4	3867.4	3867.4
2.5°	3900.8	3871.4	3843.9	3875.9	3895.3
5°	3839.9	3830.9	3841.4	3829.9	3922.3
7.5°	3761.0	3795.5	3815.4	3802.9	3808.4
10°	3719.1	3707.1	3751.5	3782.5	3778.0
12.5°	3674.1	3692.1	3694.6	3728.0	3731.0
15°	3676.6	3634.2	3656.6	3675.6	3677.1
17.5°	3533.8	3579.7	3595.2	3638.7	3584.7
20°	3516.3	3482.9	3516.3	3560.8	3553.8
22.5°	3409.0	3371.5	3443.4	3482.9	3480.4
25°	3287.1	3305.1	3359.0	3403.0	3396.0
27.5°	3180.3	3201.2	3278.1	3338.6	3299.6
30°	3097.9	3087.4	3152.3	3206.2	3236.2
32.5°	2950.6	2988.5	3064.4	3117.9	3089.4
35°	2861.2	2869.7	2936.1	3004.0	3002.0
37.5°	2704.9	2744.4	2837.7	2856.7	2839.2
40°	2571.6	2611.0	2695.4	2715.9	2707.4
42.5°	2473.2	2480.2	2552.6	2576.1	2538.6
45°	2301.9	2344.9	2383.8	2445.3	2387.3
47.5°	2156.1	2176.1	2260.0	2276.5	2246.0
50°	2023.8	2030.8	2115.2	2094.7	2074.7
52.5°	1857.5	1887.0	1934.4	1930.4	1907.0
55°	1720.7	1709.2	1754.2	1742.2	1741.7
57.5°	1556.4	1576.4	1613.4	1594.4	1563.9
60°	1402.6	1403.1	1416.6	1395.1	1391.2
62.5°	1231.4	1237.4	1240.4	1213.9	1256.8
65°	1057.1	1043.1	1084.1	1042.6	1049.6
67.5°	896.8	903.8	899.8	873.8	883.8
70°	734.0	743.0	736.5	707.1	716.0
72.5°	585.2	574.2	581.2	544.3	561.3
75°	439.9	430.9	438.9	408.0	421.9
77.5°	299.6	306.6	301.6	285.1	294.6
80°	197.7	192.2	192.2	182.8	184.8
82.5°	115.3	109.9	108.4	105.4	109.9
85°	53.9	52.4	53.4	51.9	49.9
87.5°	19.5	20.0	20.0	19.0	18.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)