

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: P563775

Luminaire Tested: FSR-24-4-LD4-4HI-50-UNV-80-97-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563775
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-LD4-4HI-50-UNV-80-97-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 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: 18794.0 lumens
Efficiency: N/A
Efficacy: 108.8 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

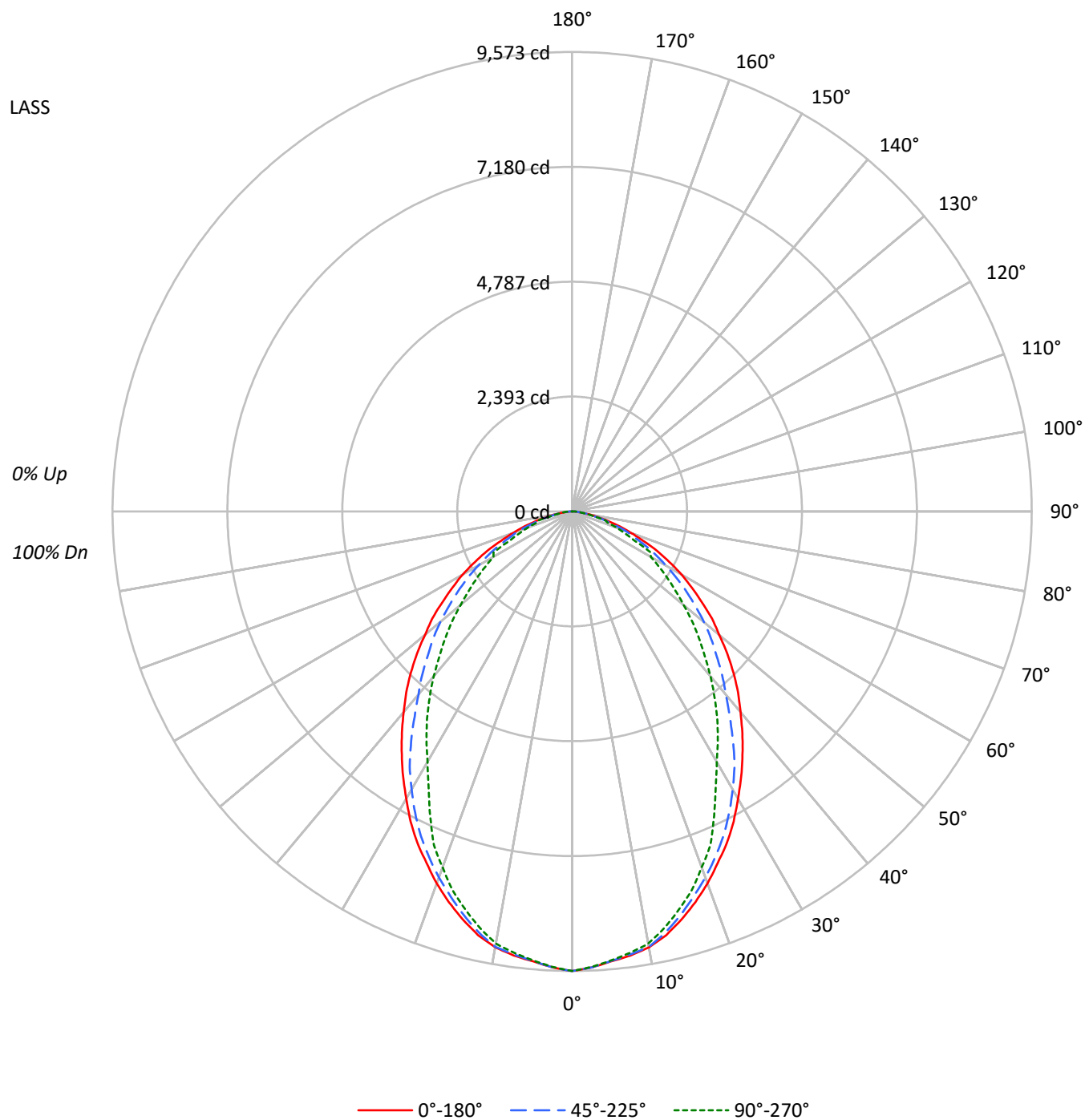
Input Watts (W): 172.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	12881	12881	12881
5°	12706	12691	12676
10°	12596	12581	12490
15°	12256	12133	11963
20°	11806	11616	11299
25°	11321	11074	10384
30°	10730	10386	9354
35°	10162	9599	8653
40°	9584	8748	7873
45°	9035	8087	7118
50°	8363	7506	6348
55°	7737	6802	5686
60°	7088	6076	5093
65°	6237	5321	4510
70°	5138	4659	3831
75°	4085	3567	3740
80°	2744	2572	2401
85°	1709	2050	2391

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9035 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	891.2	4.7
10°-20°	2445.7	13.0
20°-30°	3385.9	18.0
30°-40°	3610.4	19.2
40°-50°	3293.7	17.5
50°-60°	2580.4	13.7
60°-70°	1681.8	8.9
70°-80°	745.1	4.0
80°-90°	160.0	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°	6722.8	35.8
0°-40°	10333.1	55.0
0°-60°	16207.2	86.2
0°-90°	18794.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	18794.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9573	9573	9573	9573	9573	
5°	9407	9396	9396	9385	9385	893
15°	8799	8799	8710	8622	8588	2474
25°	7626	7581	7460	7194	6995	3501
35°	6187	6142	5844	5401	5268	3868
45°	4748	4648	4250	3896	3741	3657
55°	3298	3198	2900	2557	2424	2958
65°	1959	1848	1671	1704	1417	1931
75°	786	730	686	653	719	842
85°	111	122	133	144	155	154
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9573.4	9573.4	9573.4	9573.4	9573.4
2.5°	9507.0	9507.0	9507.0	9495.9	9495.9
5°	9407.4	9396.3	9396.3	9385.3	9385.3
7.5°	9329.9	9318.9	9307.8	9296.7	9274.6
10°	9219.3	9219.3	9208.2	9152.8	9141.8
12.5°	9042.2	9031.1	8986.8	8909.4	8887.2
15°	8798.7	8798.7	8710.1	8621.6	8588.4
17.5°	8533.1	8522.0	8411.3	8322.8	8278.5
20°	8245.3	8223.2	8112.5	7968.6	7891.1
22.5°	7924.4	7924.4	7791.5	7603.4	7525.9
25°	7625.5	7581.3	7459.5	7193.9	6994.7
27.5°	7282.4	7216.0	7083.2	6706.9	6474.5
30°	6906.1	6872.9	6684.8	6197.8	6020.7
32.5°	6552.0	6496.6	6297.4	5788.3	5644.4
35°	6186.7	6142.5	5843.7	5401.0	5268.1
37.5°	5821.5	5766.2	5389.9	5035.7	4869.7
40°	5456.3	5389.9	4980.4	4659.4	4482.3
42.5°	5113.2	5024.7	4626.2	4283.1	4083.9
45°	4748.0	4648.4	4249.9	3895.8	3740.8
47.5°	4382.7	4294.2	3929.0	3563.7	3386.7
50°	3995.4	3917.9	3585.9	3220.7	3032.5
52.5°	3674.4	3552.7	3231.7	2866.5	2711.5
55°	3298.1	3198.5	2899.7	2556.6	2423.8
57.5°	2955.0	2855.4	2578.7	2257.8	2147.1
60°	2634.1	2490.2	2257.8	1981.1	1892.5
62.5°	2279.9	2169.2	1970.0	1737.6	1848.3
65°	1959.0	1848.3	1671.2	1704.4	1416.6
67.5°	1604.8	1549.5	1394.5	1239.6	1195.3
70°	1306.0	1239.6	1184.2	1018.2	973.9
72.5°	1040.3	973.9	896.5	807.9	774.7
75°	785.8	730.5	686.2	653.0	719.4
77.5°	542.3	520.2	487.0	453.8	442.7
80°	354.2	343.1	332.0	321.0	309.9
82.5°	210.3	210.3	210.3	210.3	210.3
85°	110.7	121.7	132.8	143.9	154.9
87.5°	66.4	66.4	77.5	88.5	99.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)