

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: P562567

Luminaire Tested: FSR-24-4-LD4-2HI-40-UNV-81-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562567
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-LD4-2HI-40-UNV-81-87-EDD
Description: 2X4 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8613.0 lumens
Efficiency: N/A
Efficacy: 99.7 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

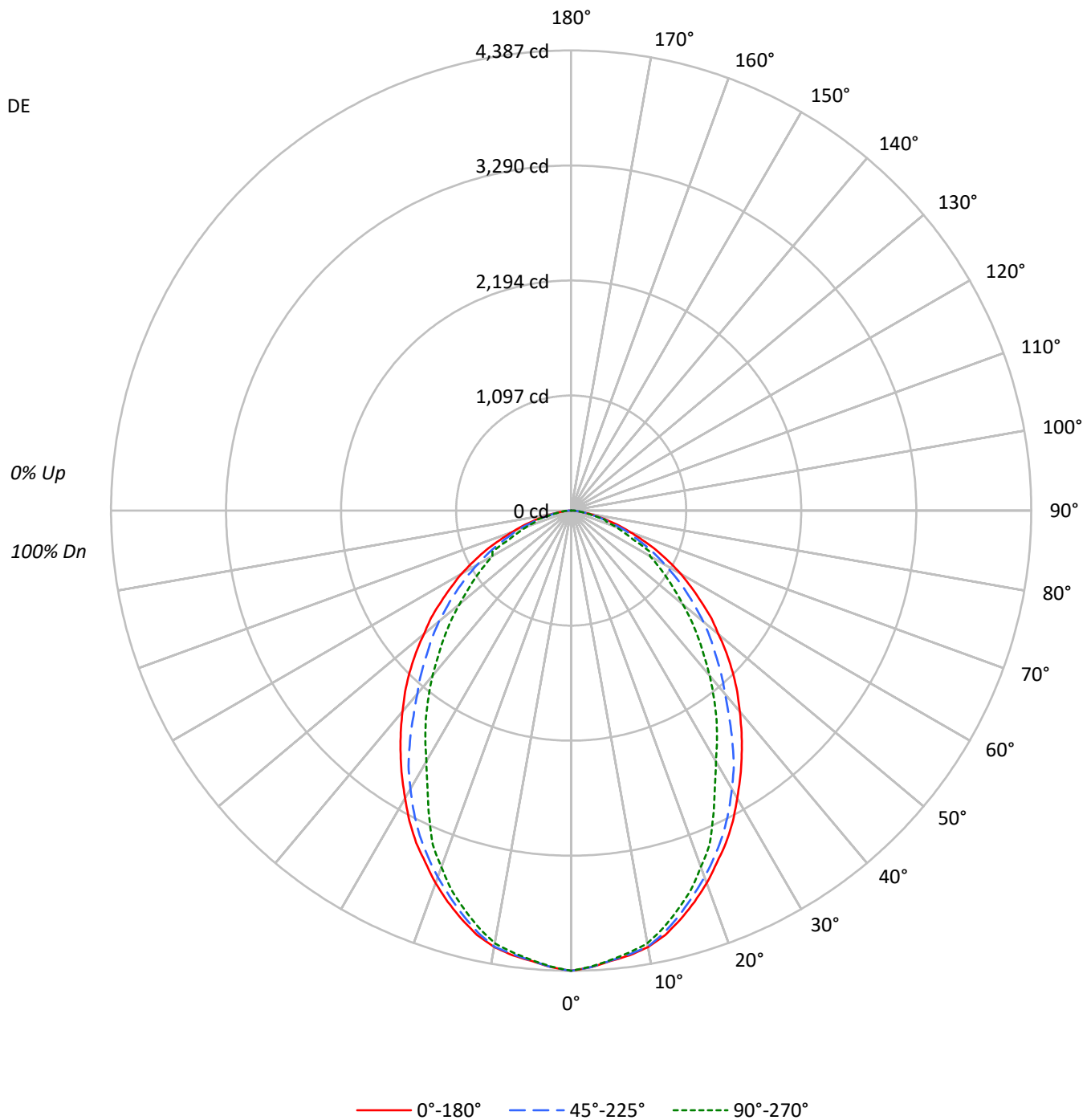
Input Watts (W): 86.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5903	5903	5903
5°	5823	5816	5809
10°	5772	5766	5724
15°	5617	5560	5483
20°	5410	5323	5178
25°	5188	5075	4759
30°	4917	4760	4287
35°	4657	4399	3966
40°	4392	4009	3608
45°	4140	3706	3262
50°	3833	3440	2909
55°	3546	3117	2606
60°	3249	2784	2334
65°	2858	2438	2067
70°	2354	2135	1756
75°	1872	1635	1714
80°	1258	1179	1100
85°	783	940	1096

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4140 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	408.4	4.7
10°-20°	1120.8	13.0
20°-30°	1551.7	18.0
30°-40°	1654.6	19.2
40°-50°	1509.5	17.5
50°-60°	1182.5	13.7
60°-70°	770.7	8.9
70°-80°	341.5	4.0
80°-90°	73.3	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°	3080.9	35.8
0°-40°	4735.5	55.0
0°-60°	7427.5	86.2
0°-90°	8613.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8613.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4387	4387	4387	4387	4387	
5°	4311	4306	4306	4301	4301	409
15°	4032	4032	3992	3951	3936	1134
25°	3495	3474	3419	3297	3206	1604
35°	2835	2815	2678	2475	2414	1773
45°	2176	2130	1948	1785	1714	1676
55°	1512	1466	1329	1172	1111	1356
65°	898	847	766	781	649	885
75°	360	335	314	299	330	386
85°	51	56	61	66	71	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4387.3	4387.3	4387.3	4387.3	4387.3
2.5°	4356.9	4356.9	4356.9	4351.8	4351.8
5°	4311.3	4306.2	4306.2	4301.1	4301.1
7.5°	4275.8	4270.7	4265.6	4260.5	4250.4
10°	4225.0	4225.0	4220.0	4194.6	4189.5
12.5°	4143.9	4138.8	4118.5	4083.0	4072.9
15°	4032.3	4032.3	3991.7	3951.1	3935.9
17.5°	3910.6	3905.5	3854.8	3814.2	3793.9
20°	3778.7	3768.6	3717.8	3651.9	3616.4
22.5°	3631.6	3631.6	3570.7	3484.5	3449.0
25°	3494.7	3474.4	3418.6	3296.9	3205.6
27.5°	3337.4	3307.0	3246.1	3073.7	2967.2
30°	3165.0	3149.8	3063.5	2840.4	2759.2
32.5°	3002.7	2977.3	2886.0	2652.7	2586.8
35°	2835.3	2815.0	2678.1	2475.2	2414.3
37.5°	2667.9	2642.6	2470.1	2307.8	2231.7
40°	2500.5	2470.1	2282.4	2135.3	2054.2
42.5°	2343.3	2302.7	2120.1	1962.9	1871.6
45°	2175.9	2130.3	1947.7	1785.4	1714.4
47.5°	2008.5	1968.0	1800.6	1633.2	1552.1
50°	1831.0	1795.5	1643.4	1476.0	1389.7
52.5°	1683.9	1628.1	1481.0	1313.7	1242.7
55°	1511.5	1465.8	1328.9	1171.6	1110.8
57.5°	1354.2	1308.6	1181.8	1034.7	984.0
60°	1207.2	1141.2	1034.7	907.9	867.3
62.5°	1044.8	994.1	902.8	796.3	847.0
65°	897.8	847.0	765.9	781.1	649.2
67.5°	735.5	710.1	639.1	568.1	547.8
70°	598.5	568.1	542.7	466.6	446.3
72.5°	476.8	446.3	410.8	370.3	355.0
75°	360.1	334.8	314.5	299.3	329.7
77.5°	248.5	238.4	223.2	208.0	202.9
80°	162.3	157.2	152.2	147.1	142.0
82.5°	96.4	96.4	96.4	96.4	96.4
85°	50.7	55.8	60.9	65.9	71.0
87.5°	30.4	30.4	35.5	40.6	45.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)