

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: P562498

Luminaire Tested: FSR-24-4-LD4-2HI-35-UNV-81-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562498
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-35-UNV-81-85-EDD-90
Description: 2X4 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7459.0 lumens
Efficiency: N/A
Efficacy: 86.3 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

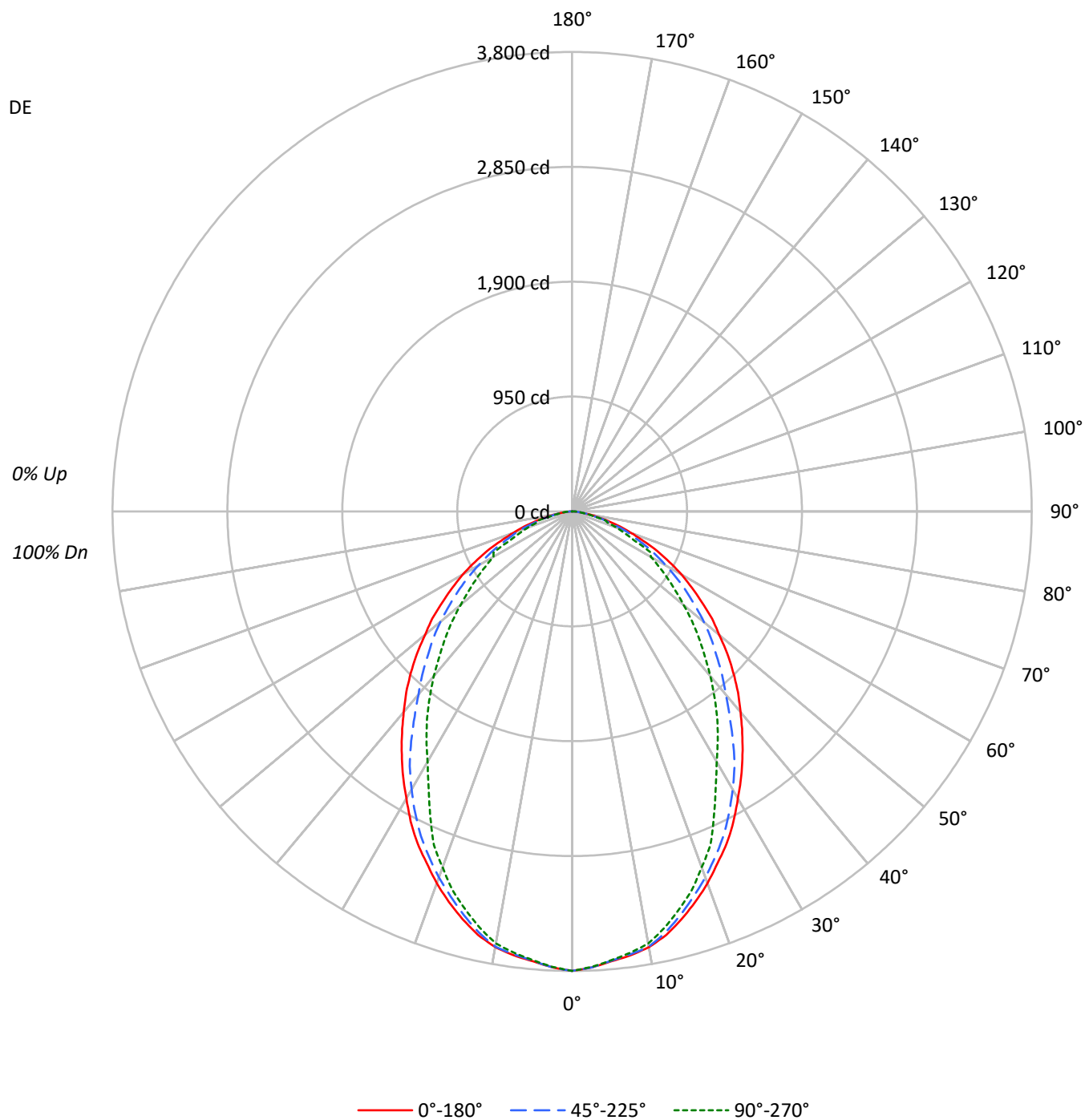
Input Watts (W): 86.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	5112	5112	5112
5°	5043	5037	5031
10°	4999	4993	4957
15°	4864	4815	4748
20°	4686	4610	4484
25°	4493	4395	4121
30°	4258	4122	3712
35°	4033	3809	3434
40°	3804	3472	3125
45°	3586	3209	2825
50°	3319	2979	2519
55°	3071	2700	2257
60°	2813	2411	2021
65°	2475	2112	1790
70°	2039	1849	1520
75°	1621	1416	1484
80°	1089	1021	953
85°	678	814	949

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3586 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	353.7	4.7
10°-20°	970.7	13.0
20°-30°	1343.8	18.0
30°-40°	1432.9	19.2
40°-50°	1307.2	17.5
50°-60°	1024.1	13.7
60°-70°	667.5	8.9
70°-80°	295.7	4.0
80°-90°	63.5	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°	2668.1	35.8
0°-40°	4101.0	55.0
0°-60°	6432.3	86.2
0°-90°	7459.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7459.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3800	3800	3800	3800	3800	
5°	3734	3729	3729	3725	3725	354
15°	3492	3492	3457	3422	3409	982
25°	3026	3009	2960	2855	2776	1389
35°	2455	2438	2319	2144	2091	1535
45°	1884	1845	1687	1546	1485	1452
55°	1309	1269	1151	1015	962	1174
65°	778	734	663	676	562	766
75°	312	290	272	259	286	334
85°	44	48	53	57	62	61
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3799.5	3799.5	3799.5	3799.5	3799.5
2.5°	3773.2	3773.2	3773.2	3768.8	3768.8
5°	3733.6	3729.2	3729.2	3724.8	3724.8
7.5°	3702.9	3698.5	3694.1	3689.7	3680.9
10°	3659.0	3659.0	3654.6	3632.6	3628.2
12.5°	3588.7	3584.3	3566.7	3536.0	3527.2
15°	3492.0	3492.0	3456.9	3421.8	3408.6
17.5°	3386.6	3382.2	3338.3	3303.2	3285.6
20°	3272.4	3263.6	3219.7	3162.6	3131.9
22.5°	3145.0	3145.0	3092.3	3017.6	2986.9
25°	3026.4	3008.9	2960.5	2855.1	2776.1
27.5°	2890.3	2863.9	2811.2	2661.9	2569.6
30°	2740.9	2727.7	2653.1	2459.8	2389.5
32.5°	2600.4	2578.4	2499.3	2297.3	2240.2
35°	2455.4	2437.8	2319.2	2143.5	2090.8
37.5°	2310.5	2288.5	2139.1	1998.6	1932.7
40°	2165.5	2139.1	1976.6	1849.2	1779.0
42.5°	2029.3	1994.2	1836.1	1699.9	1620.8
45°	1884.4	1844.9	1686.7	1546.2	1484.7
47.5°	1739.4	1704.3	1559.3	1414.4	1344.1
50°	1585.7	1554.9	1423.2	1278.2	1203.5
52.5°	1458.3	1410.0	1282.6	1137.7	1076.2
55°	1309.0	1269.4	1150.8	1014.7	962.0
57.5°	1172.8	1133.3	1023.5	896.1	852.1
60°	1045.4	988.3	896.1	786.3	751.1
62.5°	904.9	860.9	781.9	689.6	733.5
65°	777.5	733.5	663.3	676.4	562.2
67.5°	636.9	615.0	553.5	492.0	474.4
70°	518.3	492.0	470.0	404.1	386.5
72.5°	412.9	386.5	355.8	320.7	307.5
75°	311.9	289.9	272.3	259.2	285.5
77.5°	215.2	206.4	193.3	180.1	175.7
80°	140.6	136.2	131.8	127.4	123.0
82.5°	83.5	83.5	83.5	83.5	83.5
85°	43.9	48.3	52.7	57.1	61.5
87.5°	26.4	26.4	30.7	35.1	39.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)