

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: P562819

Luminaire Tested: FSR-24-4-LD4-2LO-50-UNV-81-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562819
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-LD4-2LO-50-UNV-81-85-EDD
Description: 2X4 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5574.0 lumens
Efficiency: N/A
Efficacy: 119.1 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

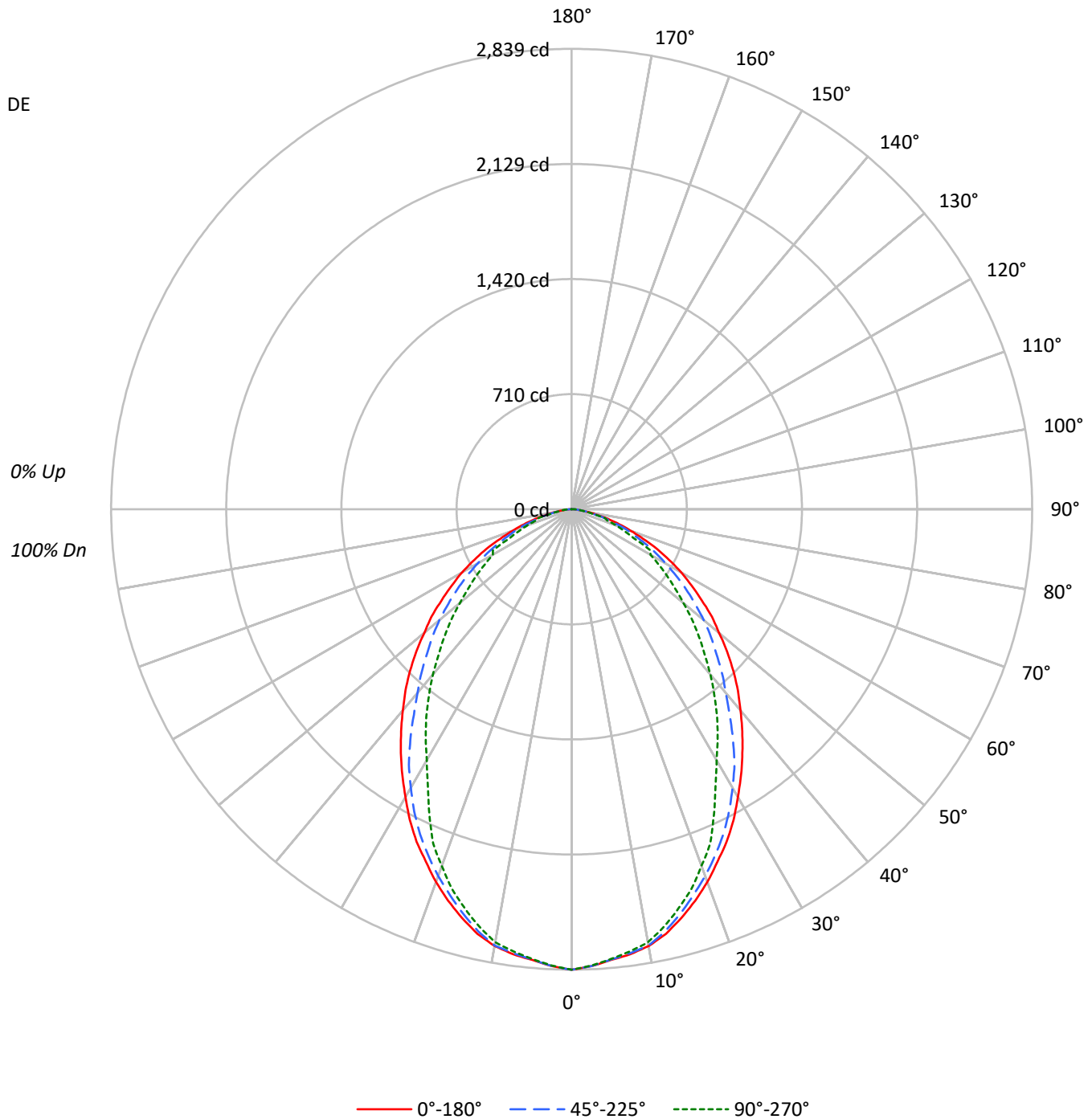
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					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	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°	3820	3820	3820
5°	3768	3764	3759
10°	3736	3731	3704
15°	3635	3598	3548
20°	3501	3445	3351
25°	3358	3284	3080
30°	3182	3080	2774
35°	3014	2847	2566
40°	2842	2594	2335
45°	2680	2398	2111
50°	2480	2226	1883
55°	2295	2017	1686
60°	2102	1802	1510
65°	1850	1578	1338
70°	1524	1382	1137
75°	1212	1058	1109
80°	814	763	712
85°	506	608	710

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2680 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	264.3	4.7
10°-20°	725.4	13.0
20°-30°	1004.2	18.0
30°-40°	1070.8	19.2
40°-50°	976.9	17.5
50°-60°	765.3	13.7
60°-70°	498.8	8.9
70°-80°	221.0	4.0
80°-90°	47.5	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°	1993.9	35.8
0°-40°	3064.6	55.0
0°-60°	4806.8	86.2
0°-90°	5574.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5574.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2839	2839	2839	2839	2839	
5°	2790	2787	2787	2784	2784	265
15°	2610	2610	2583	2557	2547	734
25°	2262	2248	2212	2134	2074	1038
35°	1835	1822	1733	1602	1562	1147
45°	1408	1379	1260	1155	1110	1085
55°	978	949	860	758	719	877
65°	581	548	496	506	420	573
75°	233	217	204	194	213	250
85°	33	36	39	43	46	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2839.3	2839.3	2839.3	2839.3	2839.3
2.5°	2819.6	2819.6	2819.6	2816.3	2816.3
5°	2790.1	2786.8	2786.8	2783.5	2783.5
7.5°	2767.1	2763.8	2760.5	2757.3	2750.7
10°	2734.3	2734.3	2731.0	2714.6	2711.3
12.5°	2681.8	2678.5	2665.4	2642.4	2635.8
15°	2609.5	2609.5	2583.3	2557.0	2547.2
17.5°	2530.8	2527.5	2494.7	2468.4	2455.3
20°	2445.4	2438.9	2406.0	2363.4	2340.4
22.5°	2350.2	2350.2	2310.8	2255.0	2232.1
25°	2261.6	2248.5	2212.4	2133.6	2074.5
27.5°	2159.9	2140.2	2100.8	1989.2	1920.2
30°	2048.3	2038.4	1982.6	1838.2	1785.7
32.5°	1943.2	1926.8	1867.7	1716.7	1674.1
35°	1834.9	1821.8	1733.1	1601.8	1562.4
37.5°	1726.6	1710.2	1598.6	1493.5	1444.3
40°	1618.2	1598.6	1477.1	1381.9	1329.4
42.5°	1516.5	1490.2	1372.1	1270.3	1211.2
45°	1408.2	1378.6	1260.5	1155.4	1109.5
47.5°	1299.9	1273.6	1165.3	1056.9	1004.4
50°	1185.0	1162.0	1063.5	955.2	899.4
52.5°	1089.8	1053.7	958.5	850.2	804.2
55°	978.2	948.6	860.0	758.2	718.9
57.5°	876.4	846.9	764.8	669.6	636.8
60°	781.2	738.6	669.6	587.6	561.3
62.5°	676.2	643.4	584.3	515.3	548.2
65°	581.0	548.2	495.7	505.5	420.2
67.5°	476.0	459.5	413.6	367.6	354.5
70°	387.3	367.6	351.2	302.0	288.9
72.5°	308.6	288.9	265.9	239.6	229.8
75°	233.1	216.6	203.5	193.7	213.4
77.5°	160.8	154.3	144.4	134.6	131.3
80°	105.0	101.8	98.5	95.2	91.9
82.5°	62.4	62.4	62.4	62.4	62.4
85°	32.8	36.1	39.4	42.7	46.0
87.5°	19.7	19.7	23.0	26.3	29.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)