

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: P562694

Luminaire Tested: FSR-24-4-LD4-2LO-35-UNV-81-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562694
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-35-UNV-81-87-EDD-90
Description: 2X4 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4344.0 lumens
Efficiency: N/A
Efficacy: 92.8 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

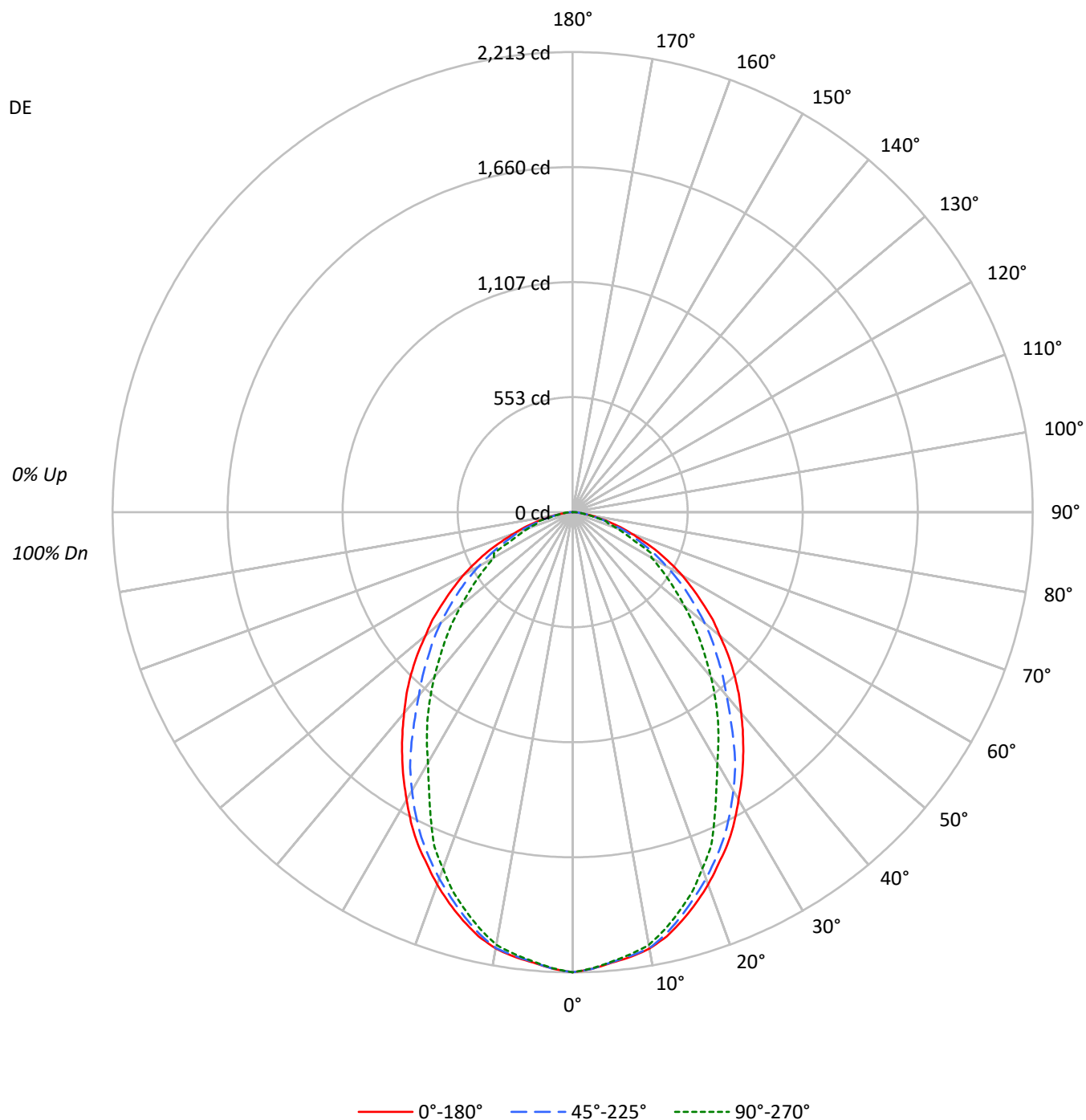
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					0
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°	2977	2977	2977
5°	2937	2933	2930
10°	2911	2908	2887
15°	2833	2804	2765
20°	2729	2685	2612
25°	2617	2560	2400
30°	2480	2401	2162
35°	2349	2219	2000
40°	2215	2022	1820
45°	2088	1869	1645
50°	1933	1735	1467
55°	1788	1572	1314
60°	1638	1404	1177
65°	1442	1230	1042
70°	1188	1077	886
75°	944	824	865
80°	635	594	555
85°	395	474	553

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2088 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	206.0	4.7
10°-20°	565.3	13.0
20°-30°	782.6	18.0
30°-40°	834.5	19.2
40°-50°	761.3	17.5
50°-60°	596.4	13.7
60°-70°	388.7	8.9
70°-80°	172.2	4.0
80°-90°	37.0	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°	1553.9	35.8
0°-40°	2388.4	55.0
0°-60°	3746.1	86.2
0°-90°	4344.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4344.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2213	2213	2213	2213	2213	
5°	2174	2172	2172	2169	2169	206
15°	2034	2034	2013	1993	1985	572
25°	1762	1752	1724	1663	1617	809
35°	1430	1420	1351	1248	1218	894
45°	1097	1074	982	900	865	845
55°	762	739	670	591	560	684
65°	453	427	386	394	327	446
75°	182	169	159	151	166	195
85°	26	28	31	33	36	35
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2212.8	2212.8	2212.8	2212.8	2212.8
2.5°	2197.4	2197.4	2197.4	2194.9	2194.9
5°	2174.4	2171.8	2171.8	2169.3	2169.3
7.5°	2156.5	2153.9	2151.4	2148.8	2143.7
10°	2130.9	2130.9	2128.4	2115.6	2113.0
12.5°	2090.0	2087.4	2077.2	2059.3	2054.2
15°	2033.7	2033.7	2013.2	1992.8	1985.1
17.5°	1972.3	1969.8	1944.2	1923.7	1913.5
20°	1905.8	1900.7	1875.1	1841.8	1823.9
22.5°	1831.6	1831.6	1800.9	1757.4	1739.5
25°	1762.5	1752.3	1724.2	1662.8	1616.7
27.5°	1683.2	1667.9	1637.2	1550.2	1496.5
30°	1596.3	1588.6	1545.1	1432.5	1391.6
32.5°	1514.4	1501.6	1455.6	1337.9	1304.6
35°	1430.0	1419.8	1350.7	1248.4	1217.7
37.5°	1345.6	1332.8	1245.8	1163.9	1125.6
40°	1261.2	1245.8	1151.2	1077.0	1036.0
42.5°	1181.9	1161.4	1069.3	990.0	943.9
45°	1097.4	1074.4	982.3	900.5	864.6
47.5°	1013.0	992.6	908.1	823.7	782.8
50°	923.5	905.6	828.8	744.4	700.9
52.5°	849.3	821.2	747.0	662.6	626.7
55°	762.3	739.3	670.2	590.9	560.2
57.5°	683.0	660.0	596.0	521.9	496.3
60°	608.8	575.6	521.9	457.9	437.4
62.5°	527.0	501.4	455.3	401.6	427.2
65°	452.8	427.2	386.3	394.0	327.4
67.5°	370.9	358.1	322.3	286.5	276.3
70°	301.9	286.5	273.7	235.3	225.1
72.5°	240.5	225.1	207.2	186.7	179.1
75°	181.6	168.8	158.6	150.9	166.3
77.5°	125.3	120.2	112.6	104.9	102.3
80°	81.9	79.3	76.7	74.2	71.6
82.5°	48.6	48.6	48.6	48.6	48.6
85°	25.6	28.1	30.7	33.3	35.8
87.5°	15.3	15.3	17.9	20.5	23.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)