

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: P562823

Luminaire Tested: FSR-24-4-LD4-2LO-50-UNV-81-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562823
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-81-87-EDD
Description: 2X4 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5332.0 lumens
Efficiency: N/A
Efficacy: 113.9 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

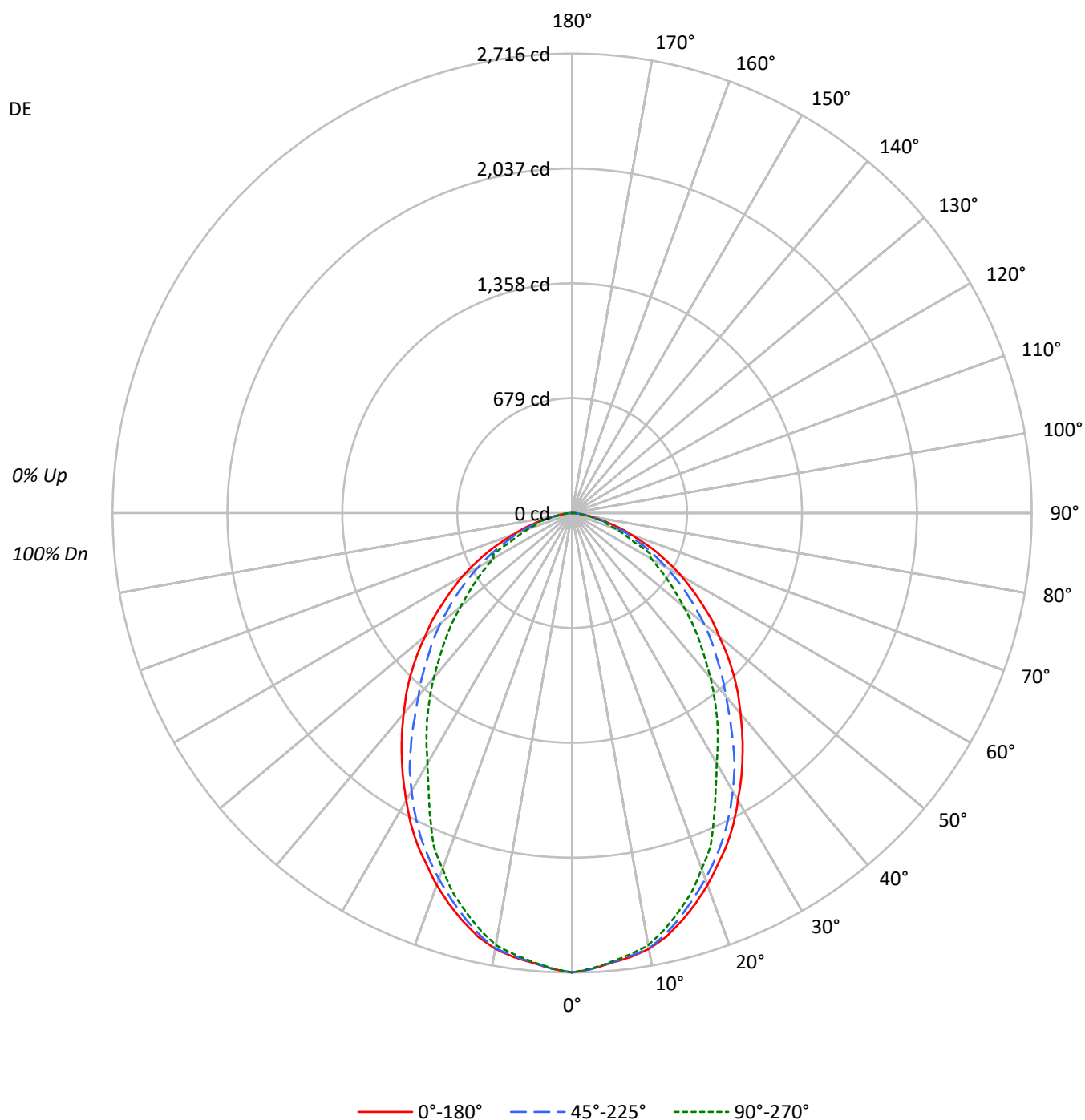
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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			
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°	3654	3654	3654
5°	3605	3601	3596
10°	3574	3569	3543
15°	3477	3442	3394
20°	3350	3296	3206
25°	3212	3142	2946
30°	3044	2946	2654
35°	2883	2723	2455
40°	2719	2482	2234
45°	2563	2294	2019
50°	2373	2129	1801
55°	2195	1930	1613
60°	2011	1724	1445
65°	1769	1509	1280
70°	1458	1322	1087
75°	1159	1012	1061
80°	779	730	681
85°	485	582	679

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2563 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.8	4.7
10°-20°	693.9	13.0
20°-30°	960.6	18.0
30°-40°	1024.3	19.2
40°-50°	934.5	17.5
50°-60°	732.1	13.7
60°-70°	477.1	8.9
70°-80°	211.4	4.0
80°-90°	45.4	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°	1907.3	35.8
0°-40°	2931.6	55.0
0°-60°	4598.1	86.2
0°-90°	5332.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5332.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2716	2716	2716	2716	2716	
5°	2669	2666	2666	2663	2663	253
15°	2496	2496	2471	2446	2437	702
25°	2163	2151	2116	2041	1984	993
35°	1755	1743	1658	1532	1495	1097
45°	1347	1319	1206	1105	1061	1038
55°	936	907	823	725	688	839
65°	556	524	474	484	402	548
75°	223	207	195	185	204	239
85°	31	34	38	41	44	44
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2716.0	2716.0	2716.0	2716.0	2716.0
2.5°	2697.2	2697.2	2697.2	2694.1	2694.1
5°	2669.0	2665.8	2665.8	2662.7	2662.7
7.5°	2647.0	2643.8	2640.7	2637.6	2631.3
10°	2615.6	2615.6	2612.4	2596.7	2593.6
12.5°	2565.3	2562.2	2549.6	2527.7	2521.4
15°	2496.3	2496.3	2471.1	2446.0	2436.6
17.5°	2420.9	2417.8	2386.4	2361.2	2348.7
20°	2339.3	2333.0	2301.6	2260.8	2238.8
22.5°	2248.2	2248.2	2210.5	2157.1	2135.2
25°	2163.4	2150.9	2116.3	2041.0	1984.4
27.5°	2066.1	2047.2	2009.6	1902.8	1836.9
30°	1959.3	1949.9	1896.5	1758.4	1708.1
32.5°	1858.8	1843.1	1786.6	1642.2	1601.4
35°	1755.2	1742.7	1657.9	1532.3	1494.6
37.5°	1651.6	1635.9	1529.2	1428.7	1381.6
40°	1548.0	1529.2	1413.0	1321.9	1271.7
42.5°	1450.7	1425.5	1312.5	1215.2	1158.6
45°	1347.0	1318.8	1205.7	1105.3	1061.3
47.5°	1243.4	1218.3	1114.7	1011.1	960.8
50°	1133.5	1111.5	1017.3	913.7	860.3
52.5°	1042.5	1007.9	916.9	813.2	769.3
55°	935.7	907.4	822.7	725.3	687.6
57.5°	838.4	810.1	731.6	640.5	609.1
60°	747.3	706.5	640.5	562.0	536.9
62.5°	646.8	615.4	558.9	493.0	524.4
65°	555.8	524.4	474.1	483.6	401.9
67.5°	455.3	439.6	395.6	351.7	339.1
70°	370.5	351.7	336.0	288.9	276.3
72.5°	295.2	276.3	254.3	229.2	219.8
75°	222.9	207.2	194.7	185.3	204.1
77.5°	153.9	147.6	138.2	128.7	125.6
80°	100.5	97.3	94.2	91.1	87.9
82.5°	59.7	59.7	59.7	59.7	59.7
85°	31.4	34.5	37.7	40.8	44.0
87.5°	18.8	18.8	22.0	25.1	28.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)