

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: P562757

Luminaire Tested: FSR-24-4-LD4-2LO-40-UNV-81-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562757
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-40-UNV-81-86-EDD
Description: 2X4 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5419.0 lumens
Efficiency: N/A
Efficacy: 115.8 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

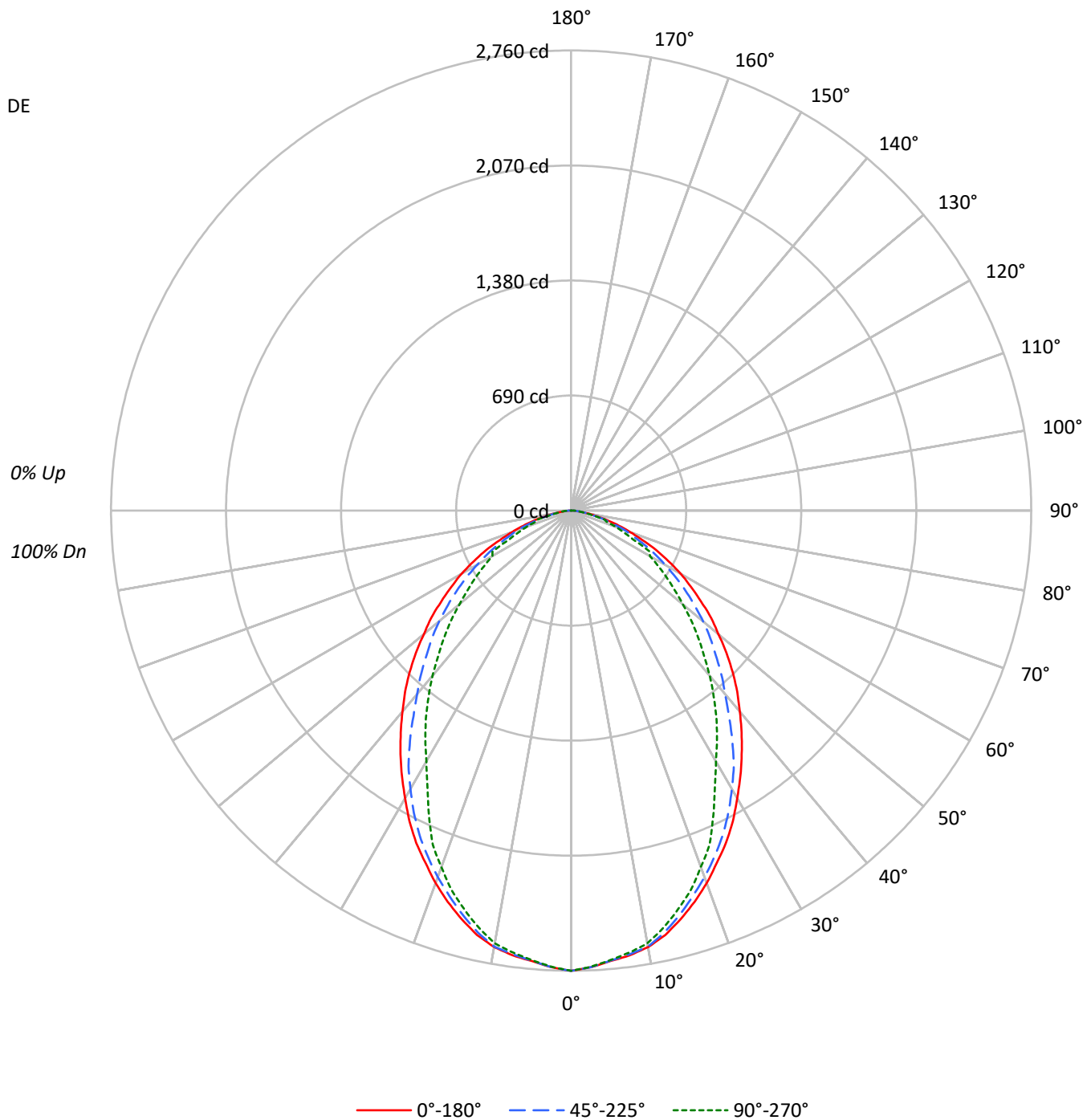
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					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					87			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75					75			
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65					65			
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56					56			
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50					50			
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44					44			
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40					40			
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36					36			
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33					33			
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30					30			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3714	3714	3714
5°	3664	3659	3655
10°	3632	3628	3601
15°	3534	3498	3450
20°	3404	3349	3258
25°	3264	3193	2994
30°	3094	2995	2697
35°	2930	2768	2495
40°	2763	2522	2270
45°	2605	2332	2052
50°	2411	2164	1830
55°	2231	1961	1639
60°	2044	1752	1468
65°	1798	1534	1301
70°	1482	1343	1105
75°	1178	1029	1078
80°	791	742	693
85°	492	591	690

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2605 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.0	4.7
10°-20°	705.2	13.0
20°-30°	976.3	18.0
30°-40°	1041.0	19.2
40°-50°	949.7	17.5
50°-60°	744.0	13.7
60°-70°	484.9	8.9
70°-80°	214.8	4.0
80°-90°	46.1	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°	1938.4	35.8
0°-40°	2979.4	55.0
0°-60°	4673.1	86.2
0°-90°	5419.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5419.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2760	2760	2760	2760	2760	
5°	2712	2709	2709	2706	2706	257
15°	2537	2537	2512	2486	2476	713
25°	2199	2186	2151	2074	2017	1009
35°	1784	1771	1685	1557	1519	1115
45°	1369	1340	1225	1123	1079	1055
55°	951	922	836	737	699	853
65°	565	533	482	491	408	557
75°	227	211	198	188	207	243
85°	32	35	38	42	45	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2760.4	2760.4	2760.4	2760.4	2760.4
2.5°	2741.2	2741.2	2741.2	2738.0	2738.0
5°	2712.5	2709.3	2709.3	2706.1	2706.1
7.5°	2690.2	2687.0	2683.8	2680.6	2674.2
10°	2658.2	2658.2	2655.1	2639.1	2635.9
12.5°	2607.2	2604.0	2591.2	2568.9	2562.5
15°	2537.0	2537.0	2511.5	2485.9	2476.4
17.5°	2460.4	2457.2	2425.3	2399.8	2387.0
20°	2377.4	2371.0	2339.1	2297.6	2275.3
22.5°	2284.9	2284.9	2246.6	2192.3	2170.0
25°	2198.7	2186.0	2150.9	2074.3	2016.8
27.5°	2099.8	2080.6	2042.4	1933.9	1866.8
30°	1991.3	1981.7	1927.5	1787.1	1736.0
32.5°	1889.2	1873.2	1815.8	1669.0	1627.5
35°	1783.9	1771.1	1684.9	1557.3	1519.0
37.5°	1678.6	1662.6	1554.1	1452.0	1404.1
40°	1573.2	1554.1	1436.0	1343.5	1292.4
42.5°	1474.3	1448.8	1333.9	1235.0	1177.5
45°	1369.0	1340.3	1225.4	1123.3	1078.6
47.5°	1263.7	1238.2	1132.9	1027.6	976.5
50°	1152.0	1129.7	1033.9	928.6	874.4
52.5°	1059.5	1024.4	931.8	826.5	781.8
55°	951.0	922.2	836.1	737.2	698.9
57.5°	852.0	823.3	743.5	651.0	619.1
60°	759.5	718.0	651.0	571.2	545.7
62.5°	657.4	625.5	568.0	501.0	532.9
65°	564.8	532.9	481.9	491.4	408.5
67.5°	462.7	446.8	402.1	357.4	344.6
70°	376.6	357.4	341.5	293.6	280.8
72.5°	300.0	280.8	258.5	233.0	223.4
75°	226.6	210.6	197.9	188.3	207.4
77.5°	156.4	150.0	140.4	130.8	127.6
80°	102.1	98.9	95.7	92.5	89.4
82.5°	60.6	60.6	60.6	60.6	60.6
85°	31.9	35.1	38.3	41.5	44.7
87.5°	19.1	19.1	22.3	25.5	28.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)