

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: P562851

Luminaire Tested: FSR-24-4-LD4-2LO-50-UNV-93-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562851
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-93-85-EDD
Description: 2X4 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5879.0 lumens
Efficiency: N/A
Efficacy: 125.6 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

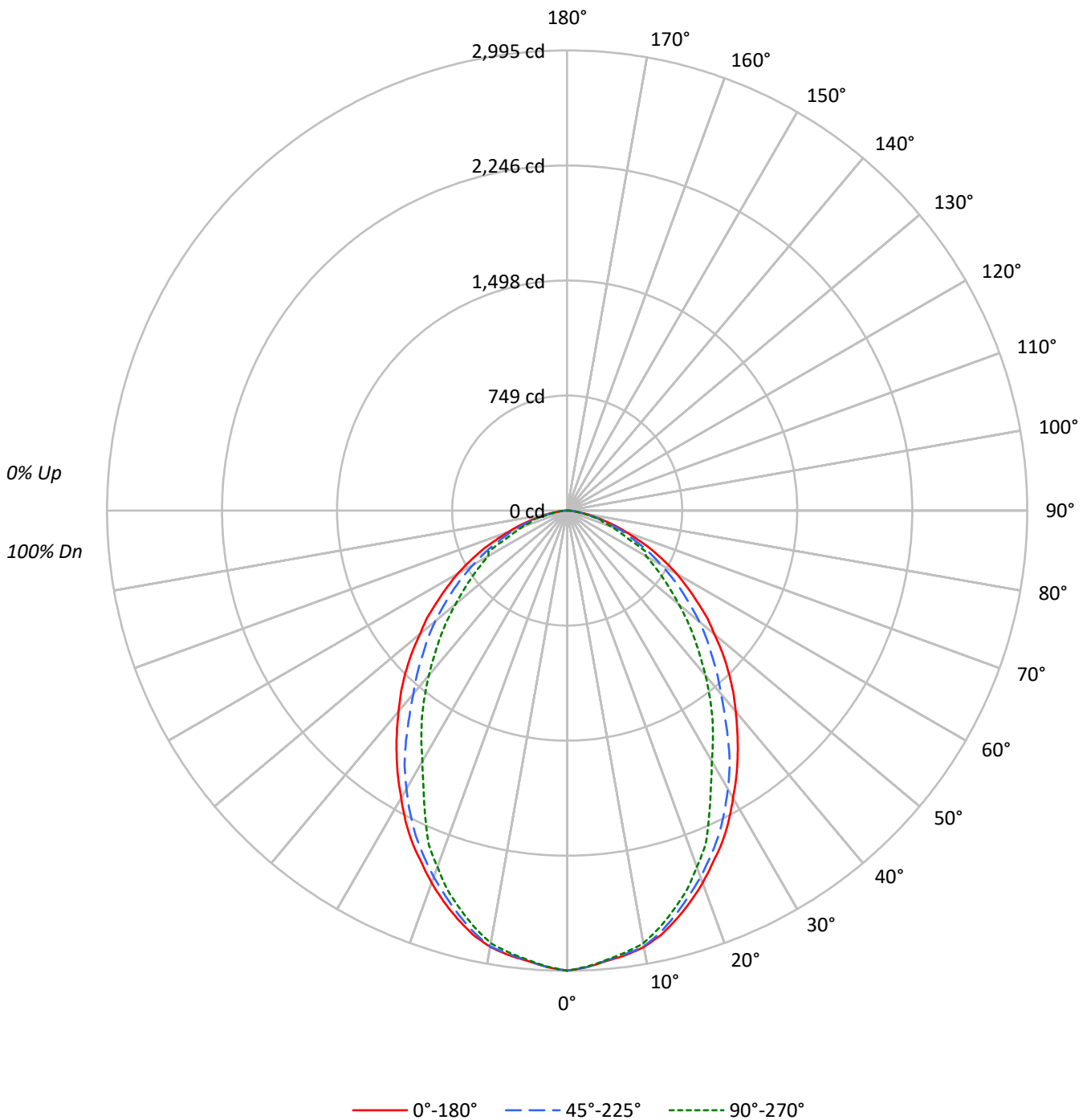
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	4029	4029	4029
5°	3975	3970	3965
10°	3940	3935	3907
15°	3834	3795	3742
20°	3693	3634	3534
25°	3541	3464	3248
30°	3356	3249	2926
35°	3179	3003	2707
40°	2998	2736	2463
45°	2826	2530	2227
50°	2616	2348	1986
55°	2420	2128	1779
60°	2217	1901	1593
65°	1951	1664	1411
70°	1607	1457	1199
75°	1278	1116	1170
80°	859	805	751
85°	534	641	749

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2826 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	278.8	4.7
10°-20°	765.0	13.0
20°-30°	1059.2	18.0
30°-40°	1129.4	19.2
40°-50°	1030.3	17.5
50°-60°	807.2	13.7
60°-70°	526.1	8.9
70°-80°	233.1	4.0
80°-90°	50.0	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°	2103.0	35.8
0°-40°	3232.3	55.0
0°-60°	5069.8	86.2
0°-90°	5879.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5879.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2995	2995	2995	2995	2995	
5°	2943	2939	2939	2936	2936	279
15°	2752	2752	2725	2697	2687	774
25°	2385	2372	2333	2250	2188	1095
35°	1935	1921	1828	1690	1648	1210
45°	1485	1454	1329	1219	1170	1144
55°	1032	1000	907	800	758	925
65°	613	578	523	533	443	604
75°	246	228	215	204	225	263
85°	35	38	42	45	48	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2994.7	2994.7	2994.7	2994.7	2994.7
2.5°	2973.9	2973.9	2973.9	2970.4	2970.4
5°	2942.8	2939.3	2939.3	2935.8	2935.8
7.5°	2918.5	2915.1	2911.6	2908.1	2901.2
10°	2883.9	2883.9	2880.4	2863.1	2859.7
12.5°	2828.5	2825.0	2811.2	2787.0	2780.0
15°	2752.3	2752.3	2724.6	2696.9	2686.6
17.5°	2669.3	2665.8	2631.2	2603.5	2589.6
20°	2579.2	2572.3	2537.7	2492.7	2468.5
22.5°	2478.8	2478.8	2437.3	2378.4	2354.2
25°	2385.4	2371.5	2333.4	2250.3	2188.0
27.5°	2278.0	2257.3	2215.7	2098.0	2025.3
30°	2160.3	2149.9	2091.1	1938.8	1883.4
32.5°	2049.5	2032.2	1969.9	1810.7	1765.7
35°	1935.3	1921.4	1828.0	1689.5	1647.9
37.5°	1821.0	1803.7	1686.0	1575.2	1523.3
40°	1706.8	1686.0	1557.9	1457.5	1402.1
42.5°	1599.5	1571.8	1447.1	1339.8	1277.5
45°	1485.2	1454.1	1329.4	1218.6	1170.2
47.5°	1371.0	1343.3	1229.0	1114.8	1059.4
50°	1249.8	1225.6	1121.7	1007.5	948.6
52.5°	1149.4	1111.3	1010.9	896.7	848.2
55°	1031.7	1000.5	907.1	799.7	758.2
57.5°	924.4	893.2	806.7	706.3	671.6
60°	824.0	779.0	706.3	619.7	592.0
62.5°	713.2	678.6	616.2	543.5	578.2
65°	612.8	578.2	522.8	533.2	443.1
67.5°	502.0	484.7	436.2	387.8	373.9
70°	408.5	387.8	370.4	318.5	304.7
72.5°	325.4	304.7	280.4	252.7	242.3
75°	245.8	228.5	214.6	204.3	225.0
77.5°	169.6	162.7	152.3	141.9	138.5
80°	110.8	107.3	103.9	100.4	96.9
82.5°	65.8	65.8	65.8	65.8	65.8
85°	34.6	38.1	41.5	45.0	48.5
87.5°	20.8	20.8	24.2	27.7	31.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)