

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: P562807

Luminaire Tested: FSR-24-4-LD4-2LO-50-UNV-80-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562807
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-80-87-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5613.0 lumens
Efficiency: N/A
Efficacy: 119.9 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

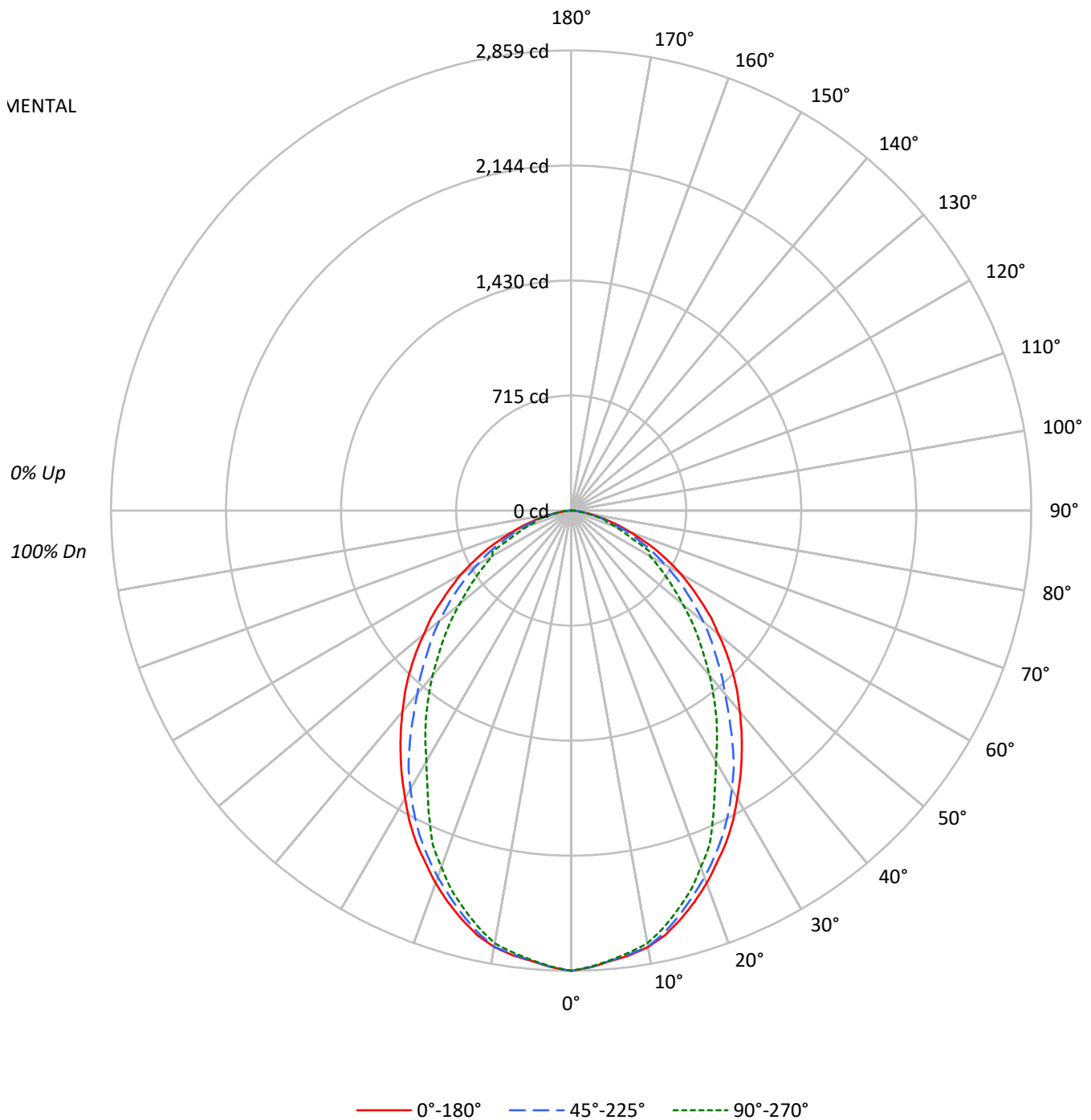
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					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°	3847	3847	3847
5°	3795	3790	3786
10°	3762	3757	3730
15°	3660	3624	3573
20°	3526	3469	3375
25°	3381	3308	3101
30°	3205	3102	2794
35°	3035	2867	2584
40°	2862	2612	2351
45°	2698	2415	2126
50°	2498	2242	1896
55°	2311	2031	1698
60°	2117	1815	1521
65°	1863	1589	1347
70°	1534	1391	1144
75°	1220	1065	1117
80°	820	769	717
85°	511	613	715

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2698 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	266.2	4.7
10°-20°	730.4	13.0
20°-30°	1011.2	18.0
30°-40°	1078.3	19.2
40°-50°	983.7	17.5
50°-60°	770.7	13.7
60°-70°	502.3	8.9
70°-80°	222.5	4.0
80°-90°	47.8	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°	2007.8	35.8
0°-40°	3086.1	55.0
0°-60°	4840.4	86.2
0°-90°	5613.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5613.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2859	2859	2859	2859	2859	
5°	2810	2806	2806	2803	2803	267
15°	2628	2628	2601	2575	2565	739
25°	2277	2264	2228	2148	2089	1046
35°	1848	1834	1745	1613	1573	1155
45°	1418	1388	1269	1164	1117	1092
55°	985	955	866	764	724	883
65°	585	552	499	509	423	577
75°	235	218	205	195	215	252
85°	33	36	40	43	46	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2859.2	2859.2	2859.2	2859.2	2859.2
2.5°	2839.4	2839.4	2839.4	2836.0	2836.0
5°	2809.6	2806.3	2806.3	2803.0	2803.0
7.5°	2786.5	2783.2	2779.9	2776.6	2769.9
10°	2753.4	2753.4	2750.1	2733.6	2730.3
12.5°	2700.5	2697.2	2684.0	2660.9	2654.3
15°	2627.8	2627.8	2601.4	2574.9	2565.0
17.5°	2548.5	2545.2	2512.1	2485.7	2472.5
20°	2462.5	2455.9	2422.9	2379.9	2356.8
22.5°	2366.7	2366.7	2327.0	2270.8	2247.7
25°	2277.4	2264.2	2227.9	2148.5	2089.0
27.5°	2175.0	2155.1	2115.5	2003.1	1933.7
30°	2062.6	2052.7	1996.5	1851.0	1798.1
32.5°	1956.8	1940.3	1880.8	1728.7	1685.8
35°	1847.7	1834.5	1745.3	1613.0	1573.4
37.5°	1738.7	1722.1	1609.7	1504.0	1454.4
40°	1629.6	1609.7	1487.4	1391.6	1338.7
42.5°	1527.1	1500.7	1381.7	1279.2	1219.7
45°	1418.0	1388.3	1269.3	1163.5	1117.2
47.5°	1308.9	1282.5	1173.4	1064.3	1011.5
50°	1193.3	1170.1	1071.0	961.9	905.7
52.5°	1097.4	1061.0	965.2	856.1	809.8
55°	985.0	955.3	866.0	763.6	723.9
57.5°	882.5	852.8	770.2	674.3	641.3
60°	786.7	743.7	674.3	591.7	565.2
62.5°	680.9	647.9	588.4	519.0	552.0
65°	585.1	552.0	499.1	509.0	423.1
67.5°	479.3	462.8	416.5	370.2	357.0
70°	390.0	370.2	353.7	304.1	290.9
72.5°	310.7	290.9	267.7	241.3	231.4
75°	234.7	218.2	204.9	195.0	214.9
77.5°	162.0	155.4	145.4	135.5	132.2
80°	105.8	102.5	99.2	95.9	92.6
82.5°	62.8	62.8	62.8	62.8	62.8
85°	33.1	36.4	39.7	43.0	46.3
87.5°	19.8	19.8	23.1	26.4	29.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)