

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: P562808

Luminaire Tested: FSR-24-4-LD4-2LO-50-UNV-80-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562808
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-80-88-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4397.0 lumens
Efficiency: N/A
Efficacy: 94.0 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

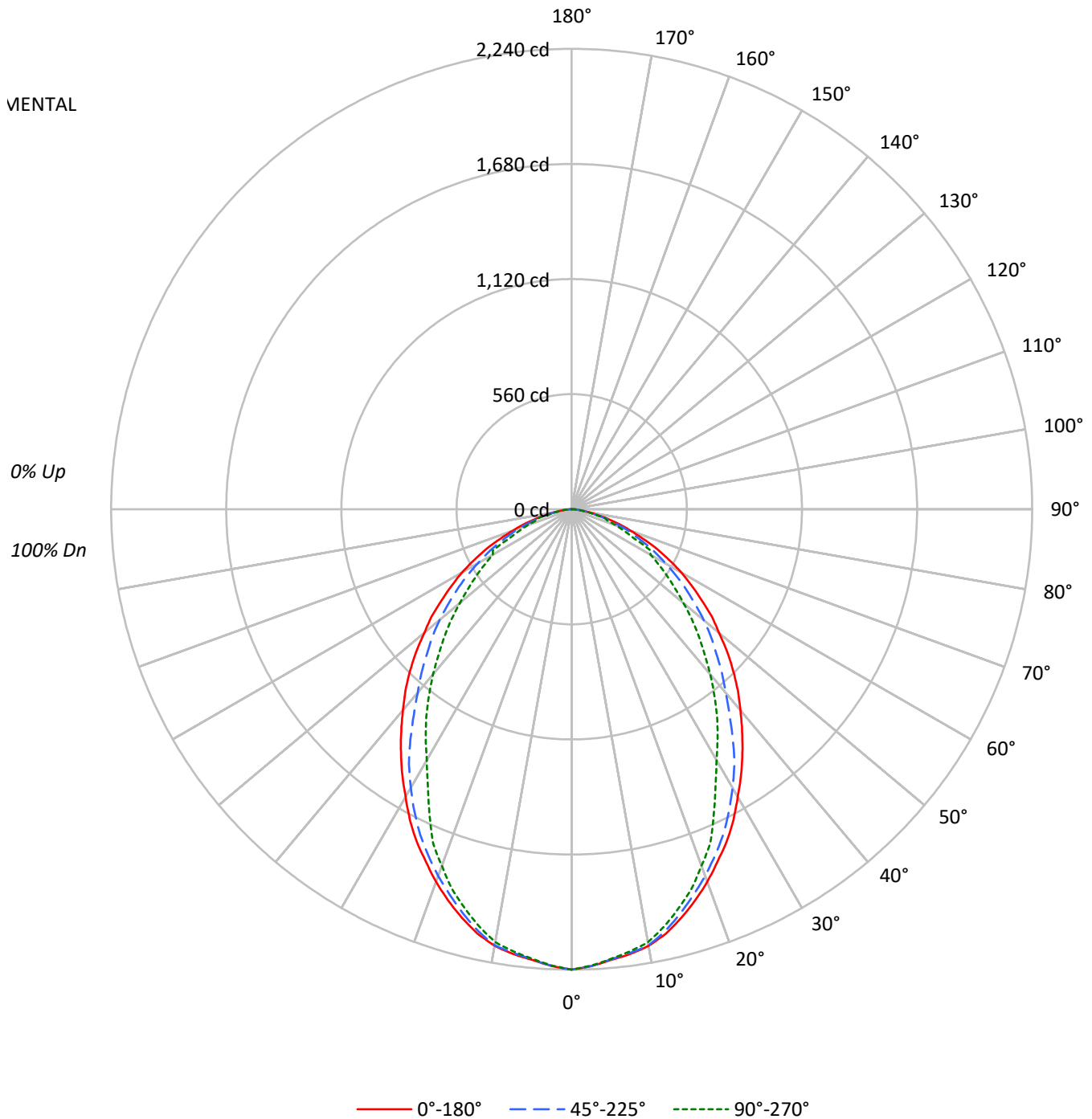
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	3014	3014	3014
5°	2973	2969	2966
10°	2947	2943	2922
15°	2867	2839	2799
20°	2762	2718	2643
25°	2649	2591	2430
30°	2510	2430	2188
35°	2377	2246	2024
40°	2242	2047	1842
45°	2114	1892	1665
50°	1957	1756	1485
55°	1810	1591	1330
60°	1658	1421	1192
65°	1459	1245	1055
70°	1202	1090	897
75°	955	834	875
80°	642	602	562
85°	400	480	560

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2114 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.5	4.7
10°-20°	572.2	13.0
20°-30°	792.2	18.0
30°-40°	844.7	19.2
40°-50°	770.6	17.5
50°-60°	603.7	13.7
60°-70°	393.5	8.9
70°-80°	174.3	4.0
80°-90°	37.4	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°	1572.8	35.8
0°-40°	2417.5	55.0
0°-60°	3791.8	86.2
0°-90°	4397.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4397.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2240	2240	2240	2240	2240	
5°	2201	2198	2198	2196	2196	209
15°	2058	2058	2038	2017	2009	579
25°	1784	1774	1745	1683	1636	819
35°	1447	1437	1367	1264	1232	905
45°	1111	1088	994	911	875	856
55°	772	748	678	598	567	692
65°	458	432	391	399	331	452
75°	184	171	160	153	168	197
85°	26	28	31	34	36	36
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2239.8	2239.8	2239.8	2239.8	2239.8
2.5°	2224.2	2224.2	2224.2	2221.6	2221.6
5°	2200.9	2198.3	2198.3	2195.8	2195.8
7.5°	2182.8	2180.2	2177.6	2175.0	2169.9
10°	2156.9	2156.9	2154.3	2141.4	2138.8
12.5°	2115.5	2112.9	2102.5	2084.4	2079.2
15°	2058.5	2058.5	2037.8	2017.1	2009.3
17.5°	1996.4	1993.8	1967.9	1947.2	1936.8
20°	1929.1	1923.9	1898.0	1864.3	1846.2
22.5°	1854.0	1854.0	1822.9	1778.9	1760.7
25°	1784.1	1773.7	1745.2	1683.1	1636.5
27.5°	1703.8	1688.2	1657.2	1569.1	1514.8
30°	1615.7	1608.0	1564.0	1450.0	1408.6
32.5°	1532.9	1519.9	1473.3	1354.2	1320.6
35°	1447.4	1437.1	1367.2	1263.6	1232.5
37.5°	1362.0	1349.0	1261.0	1178.1	1139.3
40°	1276.5	1261.0	1165.2	1090.1	1048.7
42.5°	1196.3	1175.6	1082.3	1002.1	955.5
45°	1110.8	1087.5	994.3	911.4	875.2
47.5°	1025.4	1004.7	919.2	833.8	792.3
50°	934.7	916.6	838.9	753.5	709.5
52.5°	859.7	831.2	756.1	670.6	634.4
55°	771.6	748.3	678.4	598.1	567.1
57.5°	691.4	668.0	603.3	528.2	502.3
60°	616.3	582.6	528.2	463.5	442.8
62.5°	533.4	507.5	460.9	406.5	432.4
65°	458.3	432.4	391.0	398.8	331.4
67.5°	375.5	362.5	326.3	290.0	279.6
70°	305.5	290.0	277.1	238.2	227.9
72.5°	243.4	227.9	209.7	189.0	181.3
75°	183.8	170.9	160.5	152.8	168.3
77.5°	126.9	121.7	113.9	106.2	103.6
80°	82.9	80.3	77.7	75.1	72.5
82.5°	49.2	49.2	49.2	49.2	49.2
85°	25.9	28.5	31.1	33.7	36.3
87.5°	15.5	15.5	18.1	20.7	23.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)