

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: P590917

Luminaire Tested: FSR-24-2-LD4-4STD-35-UNV-82-84-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590917
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-4STD-35-UNV-82-84-EDD
Description: 2X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7258.0 lumens
Efficiency: N/A
Efficacy: 109.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

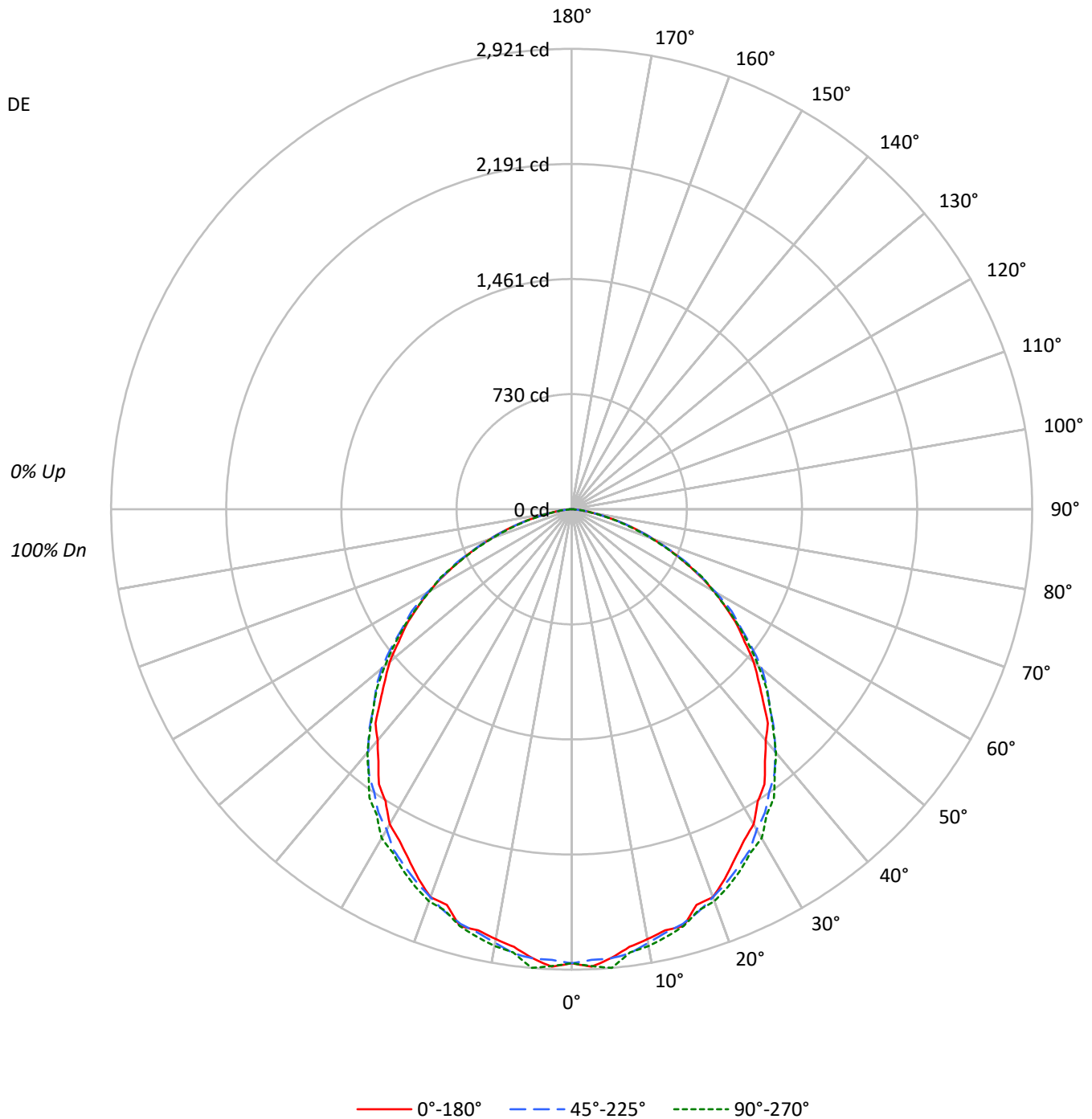
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88					86				
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75					73				
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64					62				
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55					53				
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48					46				
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43					41				
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38					36				
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34					32				
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31					29				
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28					26				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7749	7749	7749
5°	7724	7727	7890
10°	7567	7633	7687
15°	7627	7586	7628
20°	7498	7498	7578
25°	7268	7427	7508
30°	7168	7294	7488
35°	6999	7182	7343
40°	6727	7051	7082
45°	6523	6755	6765
50°	6309	6594	6468
55°	6011	6128	6085
60°	5621	5677	5575
65°	5012	5140	4977
70°	4301	4315	4195
75°	3406	3398	3267
80°	2281	2219	2132
85°	1241	1229	1149

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 6929 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.9	3.7
10°-20°	767.7	10.6
20°-30°	1150.2	15.8
30°-40°	1363.2	18.8
40°-50°	1365.8	18.8
50°-60°	1159.3	16.0
60°-70°	781.6	10.8
70°-80°	343.4	4.7
80°-90°	55.8	0.8
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°	2188.8	30.2
0°-40°	3552.1	48.9
0°-60°	6077.2	83.7
0°-90°	7258.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7258.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2880	2880	2880	2880	2880	
5°	2859	2853	2860	2852	2921	270
15°	2738	2706	2723	2737	2738	763
25°	2448	2461	2501	2534	2529	1132
35°	2131	2137	2186	2237	2235	1323
45°	1714	1746	1775	1821	1778	1326
55°	1281	1273	1306	1297	1297	1140
65°	787	777	807	776	782	783
75°	328	321	327	304	314	351
85°	40	39	40	39	37	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2879.8	2879.8	2879.8	2879.8	2879.8
2.5°	2904.7	2882.8	2862.3	2886.1	2900.6
5°	2859.3	2852.6	2860.5	2851.9	2920.7
7.5°	2800.6	2826.2	2841.1	2831.8	2835.9
10°	2769.4	2760.4	2793.5	2816.6	2813.2
12.5°	2735.9	2749.3	2751.1	2776.1	2778.3
15°	2737.8	2706.1	2722.9	2737.0	2738.1
17.5°	2631.4	2665.6	2677.1	2709.5	2669.3
20°	2618.4	2593.5	2618.4	2651.5	2646.3
22.5°	2538.5	2510.6	2564.1	2593.5	2591.6
25°	2447.7	2461.1	2501.3	2534.0	2528.8
27.5°	2368.2	2383.8	2441.0	2486.0	2457.0
30°	2306.8	2299.0	2347.3	2387.5	2409.8
32.5°	2197.1	2225.4	2281.9	2321.7	2300.5
35°	2130.6	2136.9	2186.3	2236.9	2235.4
37.5°	2014.2	2043.6	2113.1	2127.2	2114.2
40°	1914.9	1944.3	2007.1	2022.4	2016.0
42.5°	1841.7	1846.9	1900.8	1918.2	1890.4
45°	1714.1	1746.1	1775.1	1820.8	1777.7
47.5°	1605.5	1620.4	1682.9	1695.2	1672.5
50°	1507.0	1512.2	1575.1	1559.8	1544.9
52.5°	1383.2	1405.1	1440.5	1437.5	1420.0
55°	1281.3	1272.8	1306.2	1297.3	1296.9
57.5°	1159.0	1173.9	1201.4	1187.2	1164.6
60°	1044.5	1044.8	1054.9	1038.9	1035.9
62.5°	916.9	921.4	923.6	903.9	935.9
65°	787.2	776.7	807.2	776.4	781.6
67.5°	667.8	673.0	670.0	650.7	658.1
70°	546.6	553.3	548.4	526.5	533.2
72.5°	435.8	427.6	432.8	405.3	417.9
75°	327.6	320.9	326.8	303.8	314.2
77.5°	223.1	228.3	224.6	212.3	219.4
80°	147.2	143.2	143.2	136.1	137.6
82.5°	85.9	81.8	80.7	78.5	81.8
85°	40.2	39.0	39.8	38.7	37.2
87.5°	14.5	14.9	14.9	14.1	13.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)