

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: P590458

Luminaire Tested: FSR-24-2-LD4-3HI-40-UNV-80-94-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590458
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-LD4-3HI-40-UNV-80-94-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7268.0 lumens
Efficiency: N/A
Efficacy: 112.2 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

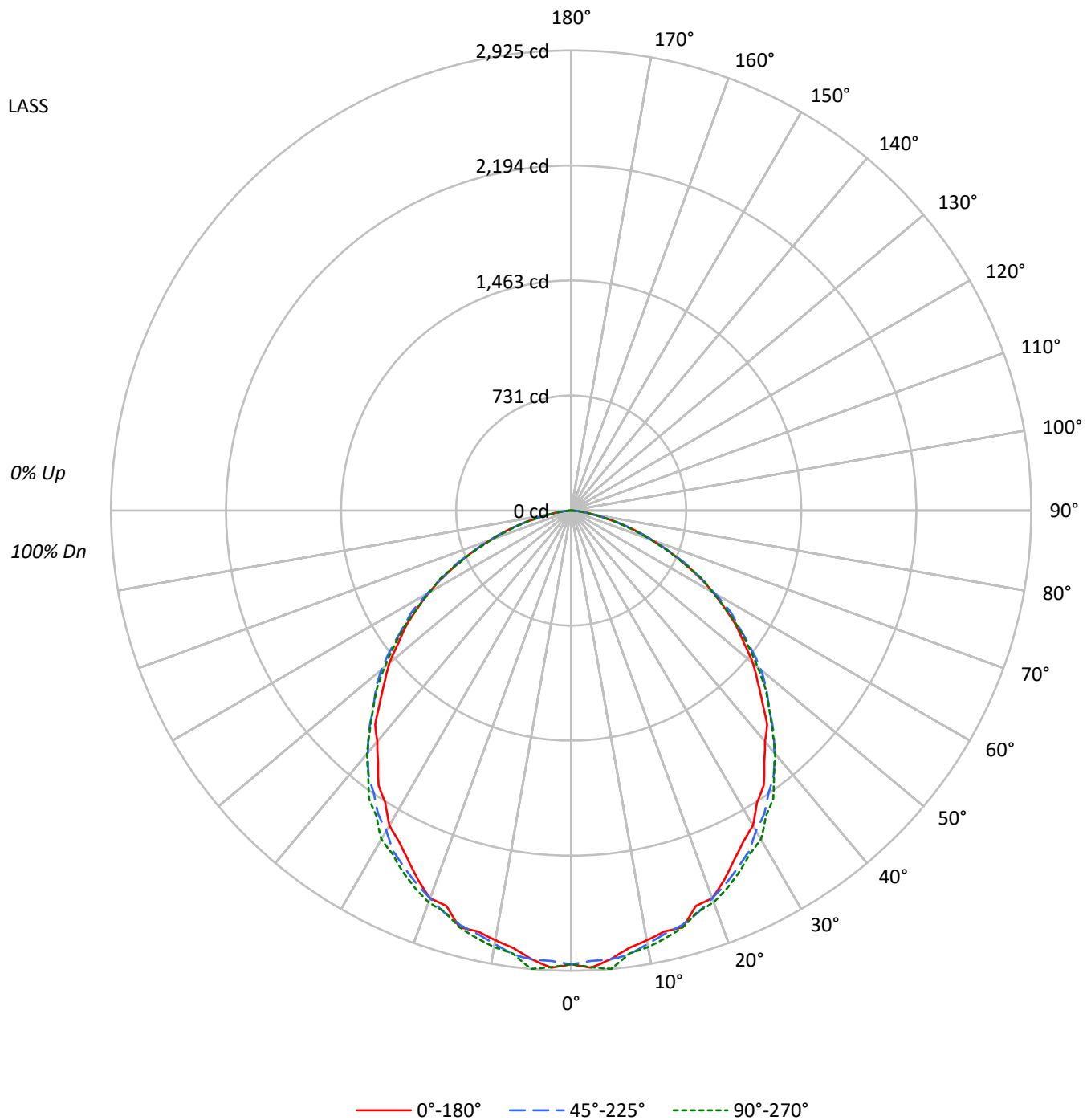
Input Watts (W): 64.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P590458

CATALOG NUMBER: FSR-24-2-LD4-3HI-40-UNV-80-94-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P590458

CATALOG NUMBER: FSR-24-2-LD4-3HI-40-UNV-80-94-EDD

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																												
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°	7760	7760	7760
5°	7735	7737	7900
10°	7578	7644	7698
15°	7638	7596	7639
20°	7509	7509	7588
25°	7278	7437	7519
30°	7178	7304	7498
35°	7009	7192	7354
40°	6736	7060	7092
45°	6532	6764	6774
50°	6318	6603	6477
55°	6020	6137	6093
60°	5629	5685	5583
65°	5019	5147	4984
70°	4306	4321	4201
75°	3410	3403	3271
80°	2284	2222	2135
85°	1241	1229	1149

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 6939 cd/sqm



TEST NUMBER: P590458

CATALOG NUMBER: FSR-24-2-LD4-3HI-40-UNV-80-94-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	271.3	3.7
10°-20°	768.8	10.6
20°-30°	1151.8	15.8
30°-40°	1365.1	18.8
40°-50°	1367.6	18.8
50°-60°	1160.9	16.0
60°-70°	782.7	10.8
70°-80°	343.9	4.7
80°-90°	55.9	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°	2191.9	30.2
0°-40°	3557.0	48.9
0°-60°	6085.5	83.7
0°-90°	7268.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7268.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2884	2884	2884	2884	2884	
5°	2863	2857	2864	2856	2925	270
15°	2742	2710	2727	2741	2742	764
25°	2451	2464	2505	2538	2532	1133
35°	2134	2140	2189	2240	2238	1325
45°	1716	1748	1778	1823	1780	1328
55°	1283	1274	1308	1299	1299	1141
65°	788	778	808	777	783	784
75°	328	321	327	304	315	352
85°	40	39	40	39	37	58
90°	0	0	0	0	0	



TEST NUMBER: P590458

CATALOG NUMBER: FSR-24-2-LD4-3HI-40-UNV-80-94-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2883.8	2883.8	2883.8	2883.8	2883.8
2.5°	2908.7	2886.7	2866.3	2890.1	2904.6
5°	2863.3	2856.6	2864.4	2855.8	2924.7
7.5°	2804.5	2830.1	2845.0	2835.7	2839.8
10°	2773.2	2764.2	2797.4	2820.5	2817.1
12.5°	2739.7	2753.1	2754.9	2779.9	2782.1
15°	2741.5	2709.9	2726.6	2740.8	2741.9
17.5°	2635.0	2669.3	2680.8	2713.2	2673.0
20°	2622.0	2597.1	2622.0	2655.1	2649.9
22.5°	2542.0	2514.0	2567.6	2597.1	2595.2
25°	2451.1	2464.5	2504.7	2537.5	2532.3
27.5°	2371.4	2387.1	2444.4	2489.5	2460.4
30°	2310.0	2302.2	2350.6	2390.8	2413.1
32.5°	2200.1	2228.4	2285.0	2324.9	2303.7
35°	2133.5	2139.8	2189.3	2240.0	2238.5
37.5°	2017.0	2046.4	2116.0	2130.1	2117.1
40°	1917.5	1947.0	2009.9	2025.1	2018.8
42.5°	1844.2	1849.4	1903.4	1920.9	1893.0
45°	1716.5	1748.5	1777.5	1823.3	1780.1
47.5°	1607.8	1622.6	1685.2	1697.5	1674.8
50°	1509.1	1514.3	1577.2	1562.0	1547.1
52.5°	1385.1	1407.1	1442.4	1439.5	1422.0
55°	1283.1	1274.5	1308.0	1299.1	1298.7
57.5°	1160.6	1175.5	1203.0	1188.9	1166.2
60°	1045.9	1046.3	1056.3	1040.3	1037.3
62.5°	918.2	922.7	924.9	905.2	937.2
65°	788.2	777.8	808.3	777.4	782.7
67.5°	668.7	673.9	671.0	651.6	659.0
70°	547.3	554.0	549.2	527.2	533.9
72.5°	436.4	428.2	433.4	405.8	418.5
75°	328.0	321.3	327.3	304.2	314.6
77.5°	223.4	228.6	224.9	212.6	219.7
80°	147.4	143.4	143.4	136.3	137.8
82.5°	86.0	81.9	80.8	78.6	81.9
85°	40.2	39.1	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)