

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: P590938

Luminaire Tested: FSR-24-2-LD4-4STD-40-UNV-80-94-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590938
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-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: 7901.0 lumens
Efficiency: N/A
Efficacy: 118.6 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

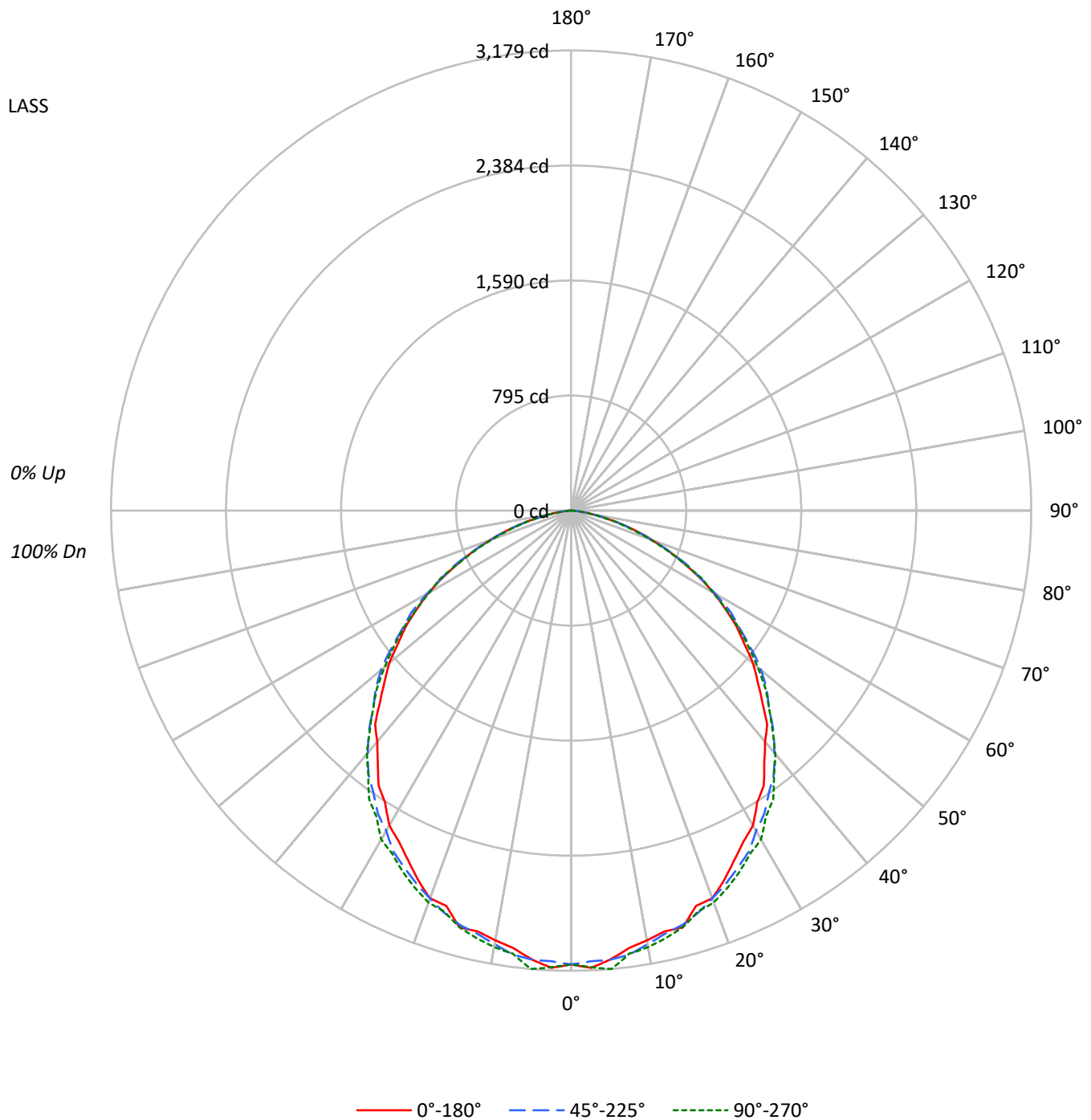
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P590938

CATALOG NUMBER: FSR-24-2-LD4-4STD-40-UNV-80-94-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P590938

CATALOG NUMBER: FSR-24-2-LD4-4STD-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	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°	8436	8436	8436
5°	8408	8411	8588
10°	8238	8310	8368
15°	8303	8258	8304
20°	8163	8163	8249
25°	7912	8085	8174
30°	7803	7940	8151
35°	7619	7818	7994
40°	7322	7675	7709
45°	7101	7354	7365
50°	6868	7178	7041
55°	6544	6671	6624
60°	6119	6180	6069
65°	5456	5595	5417
70°	4681	4697	4567
75°	3708	3699	3556
80°	2484	2414	2321
85°	1349	1337	1250

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 7543 cd/sqm

TEST NUMBER: P590938

CATALOG NUMBER: FSR-24-2-LD4-4STD-40-UNV-80-94-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	294.9	3.7
10°-20°	835.7	10.6
20°-30°	1252.1	15.8
30°-40°	1484.0	18.8
40°-50°	1486.8	18.8
50°-60°	1262.0	16.0
60°-70°	850.8	10.8
70°-80°	373.9	4.7
80°-90°	60.7	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°	2382.8	30.2
0°-40°	3866.8	48.9
0°-60°	6615.5	83.7
0°-90°	7901.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7901.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3135	3135	3135	3135	3135	
5°	3113	3105	3114	3105	3179	293
15°	2980	2946	2964	2980	2981	830
25°	2665	2679	2723	2758	2753	1232
35°	2319	2326	2380	2435	2434	1440
45°	1866	1901	1932	1982	1935	1443
55°	1395	1386	1422	1412	1412	1241
65°	857	846	879	845	851	852
75°	357	349	356	331	342	382
85°	44	42	43	42	40	63
90°	0	0	0	0	0	



TEST NUMBER: P590938

CATALOG NUMBER: FSR-24-2-LD4-4STD-40-UNV-80-94-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3134.9	3134.9	3134.9	3134.9	3134.9
2.5°	3162.0	3138.2	3115.9	3141.8	3157.6
5°	3112.7	3105.4	3113.9	3104.6	3179.4
7.5°	3048.7	3076.6	3092.8	3082.7	3087.2
10°	3014.7	3005.0	3041.0	3066.1	3062.5
12.5°	2978.3	2992.8	2994.9	3022.0	3024.4
15°	2980.3	2945.9	2964.1	2979.5	2980.7
17.5°	2864.5	2901.8	2914.3	2949.5	2905.8
20°	2850.4	2823.2	2850.4	2886.4	2880.7
22.5°	2763.3	2733.0	2791.3	2823.2	2821.2
25°	2664.6	2679.2	2722.9	2758.5	2752.8
27.5°	2578.0	2595.0	2657.3	2706.3	2674.7
30°	2511.2	2502.7	2555.3	2599.0	2623.3
32.5°	2391.8	2422.5	2484.1	2527.4	2504.3
35°	2319.3	2326.2	2380.0	2435.1	2433.5
37.5°	2192.6	2224.6	2300.3	2315.7	2301.5
40°	2084.5	2116.5	2184.9	2201.5	2194.6
42.5°	2004.8	2010.5	2069.2	2088.2	2057.8
45°	1866.0	1900.8	1932.4	1982.1	1935.2
47.5°	1747.8	1764.0	1832.0	1845.3	1820.6
50°	1640.5	1646.2	1714.6	1698.0	1681.8
52.5°	1505.7	1529.6	1568.1	1564.8	1545.8
55°	1394.8	1385.5	1421.9	1412.2	1411.8
57.5°	1261.7	1277.8	1307.8	1292.4	1267.7
60°	1137.0	1137.4	1148.3	1130.9	1127.7
62.5°	998.2	1003.0	1005.4	984.0	1018.8
65°	856.9	845.6	878.7	845.2	850.8
67.5°	727.0	732.6	729.4	708.3	716.4
70°	595.0	602.3	597.0	573.1	580.4
72.5°	474.4	465.5	471.1	441.2	455.0
75°	356.6	349.3	355.8	330.7	342.0
77.5°	242.9	248.5	244.5	231.1	238.8
80°	160.3	155.8	155.8	148.1	149.8
82.5°	93.5	89.0	87.8	85.4	89.0
85°	43.7	42.5	43.3	42.1	40.5
87.5°	15.8	16.2	16.2	15.4	14.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)