

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: P590811

Luminaire Tested: FSR-24-2-LD4-4LO-35-UNV-80-96-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590811
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-LD4-4LO-35-UNV-80-96-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5777.0 lumens
Efficiency: N/A
Efficacy: 123.4 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

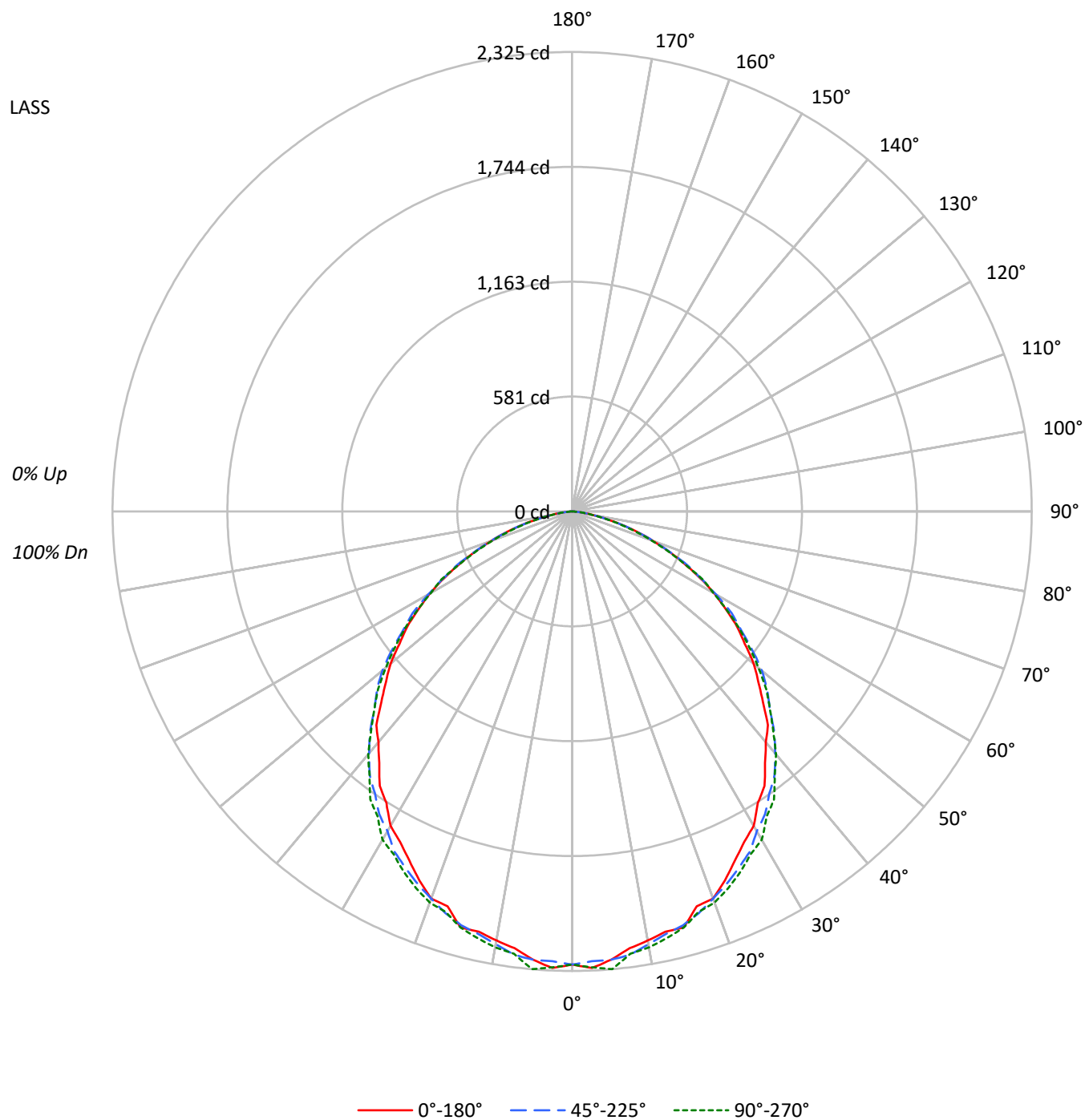
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P590811

CATALOG NUMBER: FSR-24-2-LD4-4LO-35-UNV-80-96-EDD

Luminous Intensity Polar Plot



TEST NUMBER: P590811

CATALOG NUMBER: FSR-24-2-LD4-4LO-35-UNV-80-96-EDD

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	6168	6168	6168
5°	6148	6150	6280
10°	6023	6076	6119
15°	6071	6038	6072
20°	5968	5968	6032
25°	5785	5911	5976
30°	5705	5806	5960
35°	5571	5717	5845
40°	5354	5612	5637
45°	5192	5377	5385
50°	5022	5249	5148
55°	4785	4878	4843
60°	4474	4519	4437
65°	3989	4091	3961
70°	3423	3434	3339
75°	2711	2704	2600
80°	1816	1765	1697
85°	988	979	914

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°

Vertical Angle: 45°

Luminance: 5515 cd/sqm

TEST NUMBER: P590811

CATALOG NUMBER: FSR-24-2-LD4-4LO-35-UNV-80-96-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.6	3.7
10°-20°	611.1	10.6
20°-30°	915.5	15.8
30°-40°	1085.1	18.8
40°-50°	1087.1	18.8
50°-60°	922.8	16.0
60°-70°	622.1	10.8
70°-80°	273.4	4.7
80°-90°	44.4	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°	1742.2	30.2
0°-40°	2827.3	48.9
0°-60°	4837.1	83.7
0°-90°	5777.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5777.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2292	2292	2292	2292	2292	
5°	2276	2271	2277	2270	2325	215
15°	2179	2154	2167	2178	2179	607
25°	1948	1959	1991	2017	2013	901
35°	1696	1701	1740	1780	1779	1053
45°	1364	1390	1413	1449	1415	1055
55°	1020	1013	1040	1033	1032	907
65°	626	618	642	618	622	623
75°	261	255	260	242	250	279
85°	32	31	32	31	30	46
90°	0	0	0	0	0	

TEST NUMBER: P590811

CATALOG NUMBER: FSR-24-2-LD4-4LO-35-UNV-80-96-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2292.2	2292.2	2292.2	2292.2	2292.2
2.5°	2312.0	2294.5	2278.3	2297.2	2308.7
5°	2275.9	2270.6	2276.8	2270.0	2324.7
7.5°	2229.1	2249.6	2261.4	2254.0	2257.2
10°	2204.3	2197.2	2223.5	2241.9	2239.2
12.5°	2177.6	2188.3	2189.8	2209.6	2211.4
15°	2179.1	2154.0	2167.3	2178.5	2179.4
17.5°	2094.5	2121.7	2130.9	2156.6	2124.7
20°	2084.1	2064.3	2084.1	2110.5	2106.3
22.5°	2020.5	1998.3	2040.9	2064.3	2062.8
25°	1948.3	1958.9	1990.9	2016.9	2012.8
27.5°	1884.9	1897.4	1942.9	1978.8	1955.7
30°	1836.1	1829.9	1868.4	1900.3	1918.1
32.5°	1748.8	1771.3	1816.3	1847.9	1831.1
35°	1695.8	1700.9	1740.2	1780.5	1779.3
37.5°	1603.2	1626.6	1681.9	1693.2	1682.8
40°	1524.2	1547.5	1597.6	1609.7	1604.7
42.5°	1465.9	1470.0	1512.9	1526.8	1504.6
45°	1364.4	1389.8	1412.9	1449.3	1415.0
47.5°	1277.9	1289.8	1339.5	1349.3	1331.2
50°	1199.5	1203.6	1253.7	1241.5	1229.7
52.5°	1101.0	1118.4	1146.5	1144.2	1130.3
55°	1019.9	1013.1	1039.7	1032.6	1032.3
57.5°	922.5	934.3	956.2	945.0	926.9
60°	831.3	831.6	839.6	826.9	824.5
62.5°	729.8	733.4	735.2	719.5	744.9
65°	626.5	618.2	642.5	618.0	622.1
67.5°	531.5	535.7	533.3	517.9	523.8
70°	435.1	440.4	436.5	419.1	424.4
72.5°	346.9	340.3	344.5	322.6	332.7
75°	260.7	255.4	260.1	241.8	250.1
77.5°	177.6	181.7	178.8	169.0	174.6
80°	117.2	113.9	113.9	108.3	109.5
82.5°	68.4	65.1	64.2	62.4	65.1
85°	32.0	31.1	31.7	30.8	29.6
87.5°	11.5	11.8	11.8	11.2	10.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)