

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: P590641

Luminaire Tested: FSR-24-2-LD4-3STD-35-UNV-93-88-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590641
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-LD4-3STD-35-UNV-93-88-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4952.0 lumens
Efficiency: N/A
Efficacy: 99.0 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

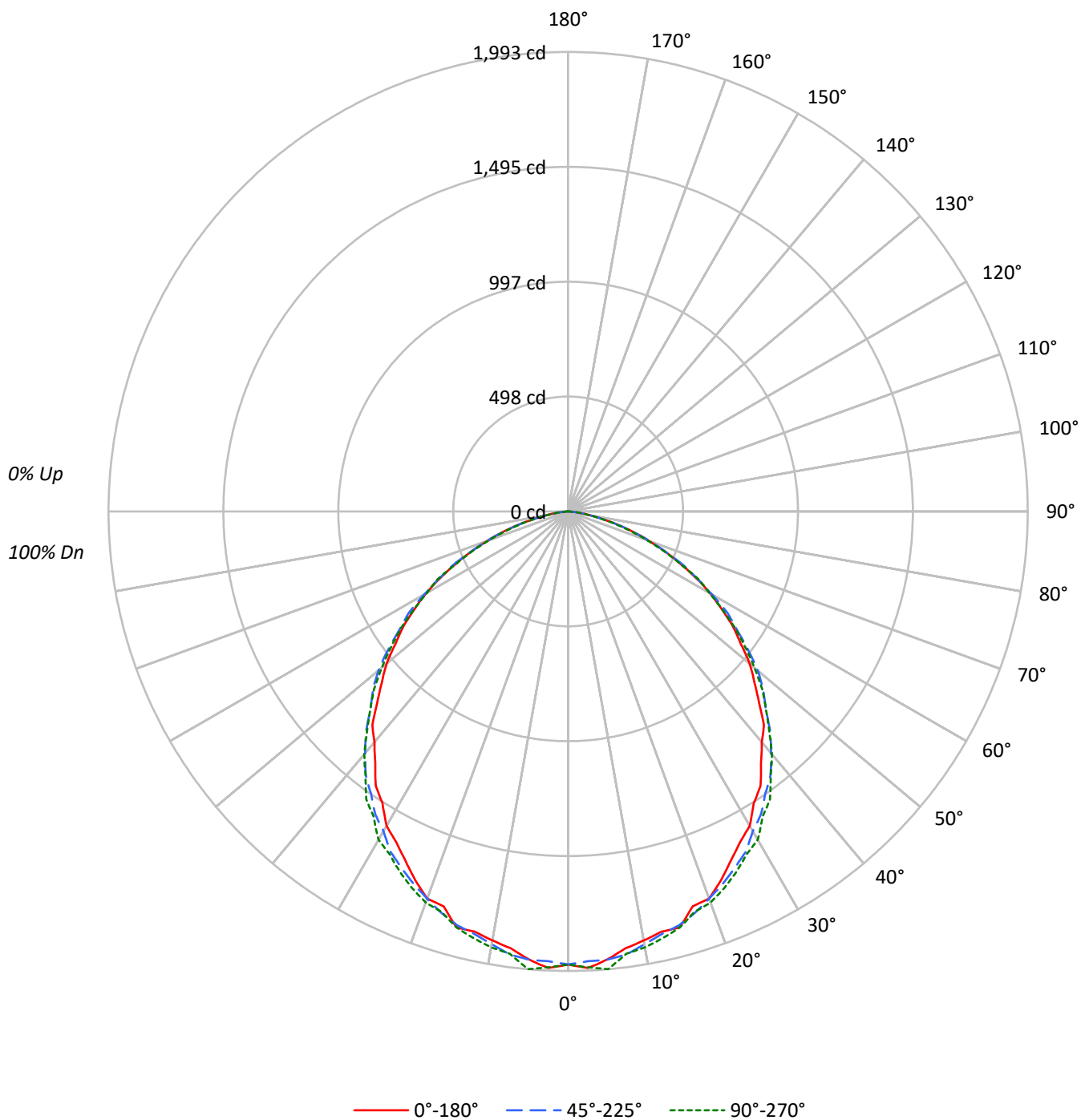
Input Watts (W): 50
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P590641

CATALOG NUMBER: FSR-24-2-LD4-3STD-35-UNV-93-88-EDD

Luminous Intensity Polar Plot



TEST NUMBER: P590641

CATALOG NUMBER: FSR-24-2-LD4-3STD-35-UNV-93-88-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°	5287	5287	5287
5°	5270	5272	5383
10°	5163	5208	5245
15°	5204	5176	5205
20°	5116	5116	5170
25°	4959	5067	5123
30°	4891	4976	5109
35°	4775	4900	5010
40°	4590	4810	4832
45°	4451	4609	4616
50°	4304	4499	4413
55°	4101	4181	4152
60°	3835	3873	3804
65°	3420	3507	3396
70°	2934	2944	2862
75°	2324	2319	2229
80°	1557	1514	1455
85°	846	837	784

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°

Vertical Angle: 45°

Luminance: 4728 cd/sqm

TEST NUMBER: P590641

CATALOG NUMBER: FSR-24-2-LD4-3STD-35-UNV-93-88-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.8	3.7
10°-20°	523.8	10.6
20°-30°	784.8	15.8
30°-40°	930.1	18.8
40°-50°	931.8	18.8
50°-60°	791.0	16.0
60°-70°	533.3	10.8
70°-80°	234.3	4.7
80°-90°	38.1	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°	1493.4	30.2
0°-40°	2423.5	48.9
0°-60°	4146.3	83.7
0°-90°	4952.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4952.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1965	1965	1965	1965	1965	
5°	1951	1946	1952	1946	1993	184
15°	1868	1846	1858	1867	1868	520
25°	1670	1679	1707	1729	1725	772
35°	1454	1458	1492	1526	1525	903
45°	1170	1191	1211	1242	1213	905
55°	874	868	891	885	885	778
65°	537	530	551	530	533	534
75°	224	219	223	207	214	240
85°	27	27	27	26	25	40
90°	0	0	0	0	0	

TEST NUMBER: P590641

CATALOG NUMBER: FSR-24-2-LD4-3STD-35-UNV-93-88-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1964.8	1964.8	1964.8	1964.8	1964.8
2.5°	1981.8	1966.9	1952.9	1969.1	1979.0
5°	1950.9	1946.3	1951.6	1945.8	1992.7
7.5°	1910.8	1928.3	1938.4	1932.1	1934.9
10°	1889.5	1883.4	1906.0	1921.7	1919.4
12.5°	1866.7	1875.8	1877.1	1894.0	1895.6
15°	1867.9	1846.4	1857.8	1867.4	1868.2
17.5°	1795.4	1818.7	1826.6	1848.6	1821.2
20°	1786.5	1769.5	1786.5	1809.1	1805.5
22.5°	1731.9	1712.9	1749.4	1769.5	1768.2
25°	1670.0	1679.2	1706.6	1728.9	1725.3
27.5°	1615.8	1626.4	1665.5	1696.2	1676.4
30°	1573.9	1568.6	1601.5	1628.9	1644.2
32.5°	1499.1	1518.3	1556.9	1584.0	1569.6
35°	1453.6	1458.0	1491.7	1526.2	1525.2
37.5°	1374.2	1394.3	1441.7	1451.4	1442.5
40°	1306.5	1326.5	1369.4	1379.8	1375.5
42.5°	1256.5	1260.1	1296.9	1308.8	1289.8
45°	1169.5	1191.3	1211.1	1242.3	1212.9
47.5°	1095.4	1105.6	1148.2	1156.6	1141.1
50°	1028.2	1031.8	1074.6	1064.2	1054.1
52.5°	943.7	958.7	982.8	980.8	968.8
55°	874.2	868.4	891.2	885.1	884.9
57.5°	790.8	800.9	819.7	810.0	794.6
60°	712.6	712.9	719.7	708.8	706.8
62.5°	625.6	628.6	630.2	616.7	638.5
65°	537.1	530.0	550.8	529.7	533.3
67.5°	455.6	459.2	457.1	444.0	449.0
70°	372.9	377.5	374.2	359.2	363.8
72.5°	297.3	291.7	295.3	276.5	285.1
75°	223.5	218.9	223.0	207.3	214.4
77.5°	152.2	155.8	153.2	144.9	149.7
80°	100.5	97.7	97.7	92.9	93.9
82.5°	58.6	55.8	55.1	53.5	55.8
85°	27.4	26.6	27.1	26.4	25.4
87.5°	9.9	10.1	10.1	9.6	9.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)