

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: P561563

Luminaire Tested: FSR-12-4-LD4-2LO-35-UNV-82-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P561563
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-12-4-LD4-2LO-35-UNV-82-94-EDD
Description: 1X4 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4624.0 lumens
Efficiency: N/A
Efficacy: 98.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

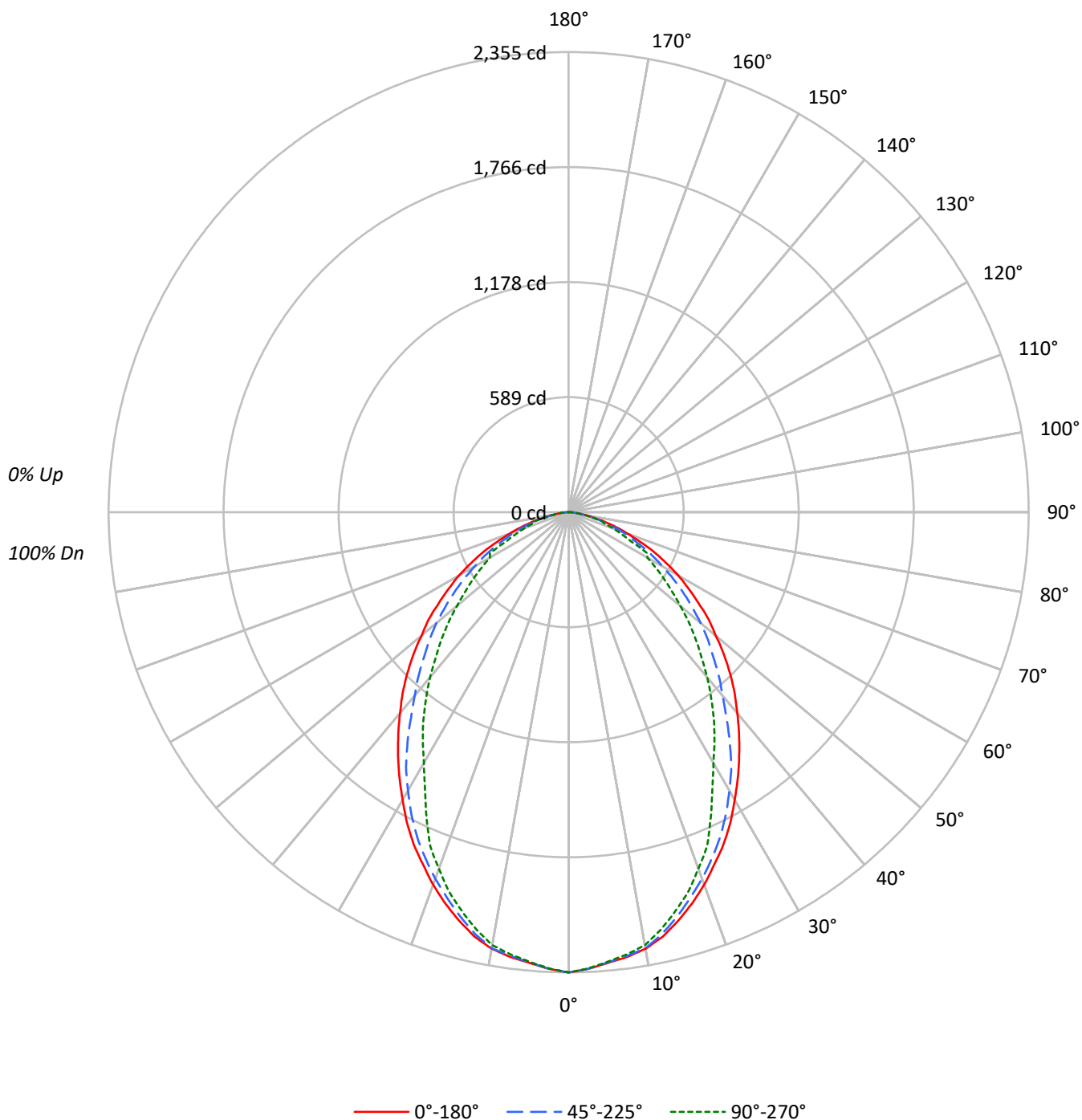
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P561563

CATALOG NUMBER: FSR-12-4-LD4-2LO-35-UNV-82-94-EDD

Luminous Intensity Polar Plot



TEST NUMBER: P561563

CATALOG NUMBER: FSR-12-4-LD4-2LO-35-UNV-82-94-EDD

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	99	108	104	100	97	100	97	94		96	94	91		92
2	101	94	88	83	99	92	87	82	89	84	80		86	82	78		83
3	93	84	77	71	91	82	76	70	79	74	69		77	72	68		74
4	86	75	67	61	84	74	66	61	72	65	60		69	64	59		67
5	80	68	60	54	78	67	59	53	65	58	53		63	57	52		61
6	74	62	53	48	72	61	53	47	59	52	47		57	51	47		56
7	69	56	48	43	67	56	48	42	54	47	42		53	46	42		51
8	65	52	44	38	63	51	44	38	50	43	38		49	42	38		48
9	61	48	40	35	59	47	40	35	46	39	35		45	39	34		44
10	57	44	37	32	56	44	37	32	43	36	32		42	36	32		41

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6338	6338	6338
5°	6252	6245	6237
10°	6198	6190	6146
15°	6031	5970	5887
20°	5809	5716	5560
25°	5571	5449	5110
30°	5280	5111	4603
35°	5001	4723	4258
40°	4716	4305	3874
45°	4446	3979	3503
50°	4115	3694	3123
55°	3807	3347	2798
60°	3488	2990	2506
65°	3069	2618	2219
70°	2528	2293	1885
75°	2010	1755	1840
80°	1350	1266	1181
85°	840	1010	1176

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4446 cd/sqm

TEST NUMBER: P561563

CATALOG NUMBER: FSR-12-4-LD4-2LO-35-UNV-82-94-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.3	4.7
10°-20°	601.7	13.0
20°-30°	833.1	18.0
30°-40°	888.3	19.2
40°-50°	810.4	17.5
50°-60°	634.9	13.7
60°-70°	413.8	8.9
70°-80°	183.3	4.0
80°-90°	39.4	0.9
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°	1654.0	35.8
0°-40°	2542.3	55.0
0°-60°	3987.5	86.2
0°-90°	4624.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4624.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2355	2355	2355	2355	2355	
5°	2315	2312	2312	2309	2309	220
15°	2165	2165	2143	2121	2113	609
25°	1876	1865	1835	1770	1721	861
35°	1522	1511	1438	1329	1296	952
45°	1168	1144	1046	958	920	900
55°	812	787	713	629	596	728
65°	482	455	411	419	348	475
75°	193	180	169	161	177	207
85°	27	30	33	35	38	38
90°	0	0	0	0	0	

TEST NUMBER: P561563

CATALOG NUMBER: FSR-12-4-LD4-2LO-35-UNV-82-94-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2355.4	2355.4	2355.4	2355.4	2355.4
2.5°	2339.1	2339.1	2339.1	2336.3	2336.3
5°	2314.6	2311.8	2311.8	2309.1	2309.1
7.5°	2295.5	2292.8	2290.1	2287.3	2281.9
10°	2268.3	2268.3	2265.5	2251.9	2249.2
12.5°	2224.7	2222.0	2211.1	2192.0	2186.6
15°	2164.8	2164.8	2143.0	2121.2	2113.1
17.5°	2099.4	2096.7	2069.5	2047.7	2036.8
20°	2028.6	2023.2	1996.0	1960.6	1941.5
22.5°	1949.7	1949.7	1917.0	1870.7	1851.6
25°	1876.2	1865.3	1835.3	1770.0	1720.9
27.5°	1791.7	1775.4	1742.7	1650.1	1593.0
30°	1699.2	1691.0	1644.7	1524.9	1481.3
32.5°	1612.0	1598.4	1549.4	1424.1	1388.7
35°	1522.2	1511.3	1437.7	1328.8	1296.2
37.5°	1432.3	1418.7	1326.1	1239.0	1198.1
40°	1342.4	1326.1	1225.4	1146.4	1102.8
42.5°	1258.0	1236.2	1138.2	1053.8	1004.8
45°	1168.2	1143.7	1045.6	958.5	920.4
47.5°	1078.3	1056.5	966.7	876.8	833.2
50°	983.0	963.9	882.3	792.4	746.1
52.5°	904.0	874.1	795.1	705.3	667.1
55°	811.5	786.9	713.4	629.0	596.3
57.5°	727.0	702.5	634.5	555.5	528.3
60°	648.1	612.7	555.5	487.4	465.6
62.5°	560.9	533.7	484.7	427.5	454.7
65°	482.0	454.7	411.2	419.3	348.5
67.5°	394.8	381.2	343.1	305.0	294.1
70°	321.3	305.0	291.4	250.5	239.6
72.5°	256.0	239.6	220.6	198.8	190.6
75°	193.3	179.7	168.8	160.7	177.0
77.5°	133.4	128.0	119.8	111.6	108.9
80°	87.1	84.4	81.7	79.0	76.2
82.5°	51.7	51.7	51.7	51.7	51.7
85°	27.2	30.0	32.7	35.4	38.1
87.5°	16.3	16.3	19.1	21.8	24.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)