

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: P589962

Luminaire Tested: FSR-24-2-LD4-1LO-35-UNV-82-94-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P589962
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-LD4-1LO-35-UNV-82-94-EDD
Description: 2X2 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: 1358.0 lumens
Efficiency: N/A
Efficacy: 116.1 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

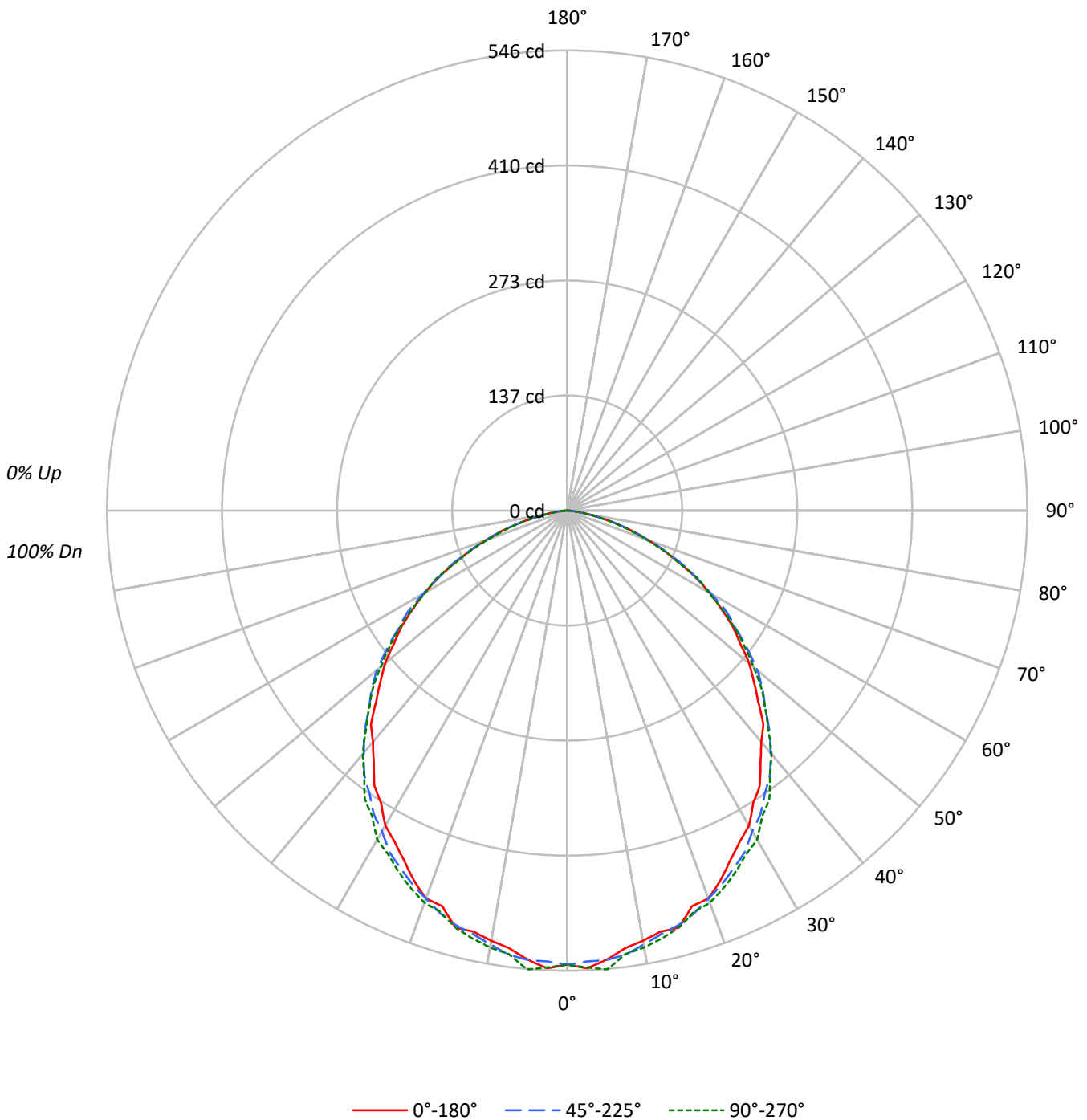
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P589962

CATALOG NUMBER: FSR-24-2-LD4-1LO-35-UNV-82-94-EDD

Luminous Intensity Polar Plot



TEST NUMBER: P589962

CATALOG NUMBER: FSR-24-2-LD4-1LO-35-UNV-82-94-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°	1450	1450	1450
5°	1445	1446	1476
10°	1416	1428	1438
15°	1427	1419	1427
20°	1403	1403	1418
25°	1360	1390	1405
30°	1341	1365	1401
35°	1309	1344	1374
40°	1259	1319	1325
45°	1220	1264	1266
50°	1181	1234	1210
55°	1125	1147	1139
60°	1052	1062	1043
65°	938	961	931
70°	805	807	785
75°	637	636	611
80°	426	415	398
85°	232	228	216

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1297 cd/sqm



TEST NUMBER: P589962

CATALOG NUMBER: FSR-24-2-LD4-1LO-35-UNV-82-94-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.7	3.7
10°-20°	143.6	10.6
20°-30°	215.2	15.8
30°-40°	255.1	18.8
40°-50°	255.5	18.8
50°-60°	216.9	16.0
60°-70°	146.2	10.8
70°-80°	64.2	4.7
80°-90°	10.4	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°	409.5	30.2
0°-40°	664.6	48.9
0°-60°	1137.1	83.7
0°-90°	1358.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1358.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	539	539	539	539	539	
5°	535	534	535	534	546	50
15°	512	506	510	512	512	143
25°	458	460	468	474	473	212
35°	399	400	409	418	418	248
45°	321	327	332	341	333	248
55°	240	238	244	243	243	213
65°	147	145	151	145	146	146
75°	61	60	61	57	59	66
85°	8	7	7	7	7	11
90°	0	0	0	0	0	



TEST NUMBER: P589962

CATALOG NUMBER: FSR-24-2-LD4-1LO-35-UNV-82-94-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	538.8	538.8	538.8	538.8	538.8
2.5°	543.5	539.4	535.6	540.0	542.7
5°	535.0	533.7	535.2	533.6	546.5
7.5°	524.0	528.8	531.6	529.8	530.6
10°	518.2	516.5	522.7	527.0	526.4
12.5°	511.9	514.4	514.7	519.4	519.8
15°	512.2	506.3	509.5	512.1	512.3
17.5°	492.3	498.7	500.9	507.0	499.4
20°	489.9	485.3	489.9	496.1	495.1
22.5°	475.0	469.7	479.8	485.3	484.9
25°	458.0	460.5	468.0	474.1	473.1
27.5°	443.1	446.0	456.7	465.1	459.7
30°	431.6	430.2	439.2	446.7	450.9
32.5°	411.1	416.4	427.0	434.4	430.4
35°	398.6	399.8	409.1	418.5	418.3
37.5°	376.9	382.4	395.4	398.0	395.6
40°	358.3	363.8	375.5	378.4	377.2
42.5°	344.6	345.6	355.6	358.9	353.7
45°	320.7	326.7	332.1	340.7	332.6
47.5°	300.4	303.2	314.9	317.2	312.9
50°	282.0	282.9	294.7	291.8	289.1
52.5°	258.8	262.9	269.5	269.0	265.7
55°	239.7	238.1	244.4	242.7	242.7
57.5°	216.8	219.6	224.8	222.1	217.9
60°	195.4	195.5	197.4	194.4	193.8
62.5°	171.6	172.4	172.8	169.1	175.1
65°	147.3	145.3	151.0	145.3	146.2
67.5°	124.9	125.9	125.4	121.7	123.1
70°	102.3	103.5	102.6	98.5	99.8
72.5°	81.5	80.0	81.0	75.8	78.2
75°	61.3	60.0	61.2	56.8	58.8
77.5°	41.7	42.7	42.0	39.7	41.0
80°	27.5	26.8	26.8	25.5	25.7
82.5°	16.1	15.3	15.1	14.7	15.3
85°	7.5	7.3	7.4	7.2	7.0
87.5°	2.7	2.8	2.8	2.6	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)