

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: P559948

Luminaire Tested: FSR-12-2-LD4-1LO-50-UNV-81-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559948
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-12-2-LD4-1LO-50-UNV-81-96-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 958.0 lumens
Efficiency: N/A
Efficacy: 81.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

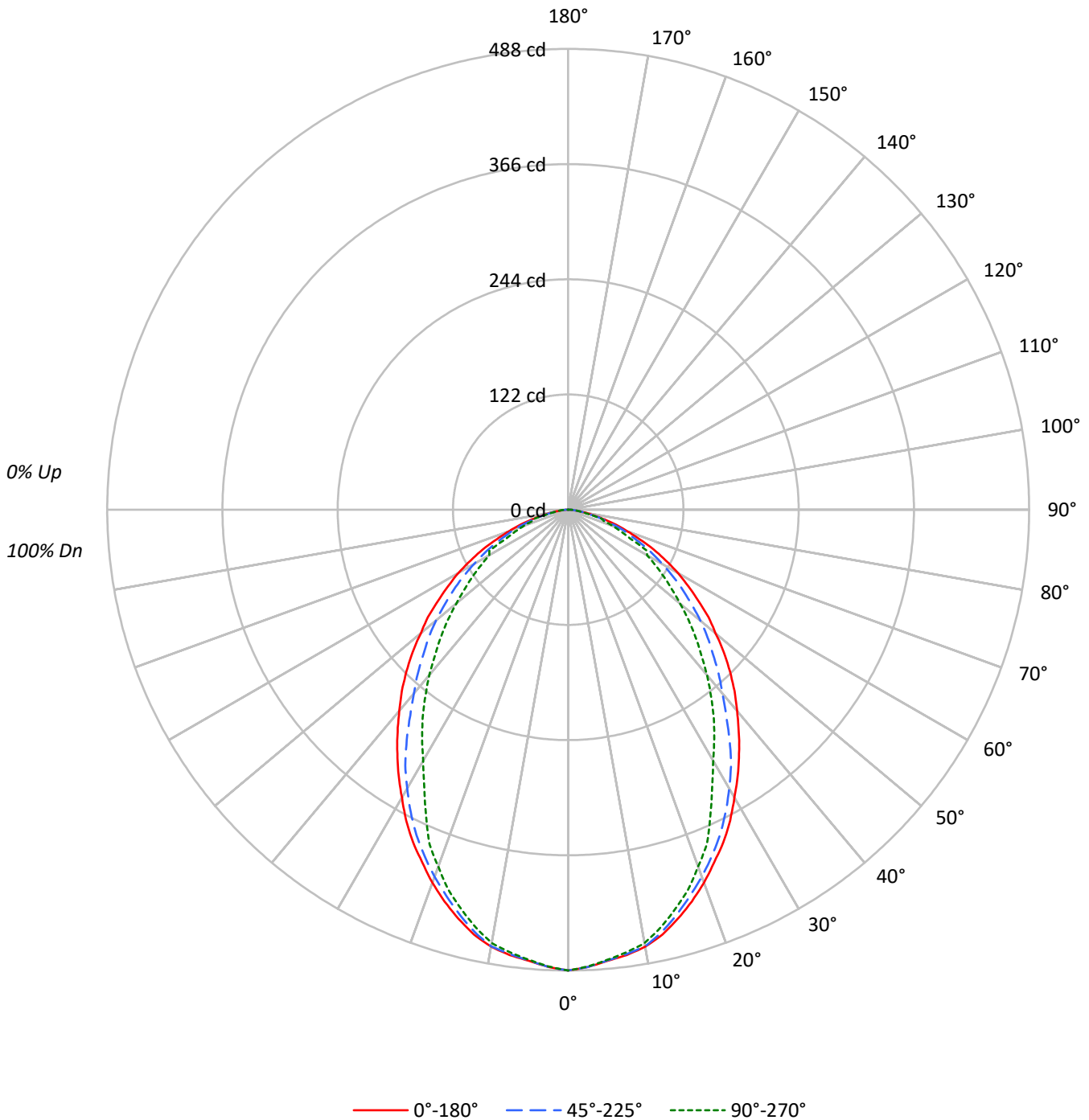
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P559948

CATALOG NUMBER: FSR-12-2-LD4-1LO-50-UNV-81-96-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P559948

CATALOG NUMBER: FSR-12-2-LD4-1LO-50-UNV-81-96-EDD-90

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	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	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87																												
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75																												
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65																												
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56																												
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																												
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44																												
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																												
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36																												
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																												
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2626	2626	2626
5°	2591	2588	2585
10°	2568	2565	2547
15°	2499	2474	2439
20°	2407	2368	2304
25°	2308	2258	2117
30°	2188	2117	1907
35°	2072	1957	1764
40°	1954	1784	1605
45°	1842	1649	1451
50°	1706	1531	1294
55°	1577	1387	1159
60°	1446	1239	1039
65°	1272	1085	919
70°	1048	950	780
75°	834	728	763
80°	561	524	490
85°	346	420	488

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1842 cd/sqm



TEST NUMBER: P559948

CATALOG NUMBER: FSR-12-2-LD4-1LO-50-UNV-81-96-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.4	4.7
10°-20°	124.7	13.0
20°-30°	172.6	18.0
30°-40°	184.0	19.2
40°-50°	167.9	17.5
50°-60°	131.5	13.7
60°-70°	85.7	8.9
70°-80°	38.0	4.0
80°-90°	8.1	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°	342.7	35.8
0°-40°	526.7	55.0
0°-60°	826.1	86.2
0°-90°	958.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	958.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	488	488	488	488	488	
5°	480	479	479	478	478	46
15°	448	448	444	440	438	126
25°	389	386	380	367	356	178
35°	315	313	298	275	268	197
45°	242	237	217	199	191	186
55°	168	163	148	130	124	151
65°	100	94	85	87	72	98
75°	40	37	35	33	37	43
85°	6	6	7	7	8	8
90°	0	0	0	0	0	



TEST NUMBER: P559948

CATALOG NUMBER: FSR-12-2-LD4-1LO-50-UNV-81-96-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	488.0	488.0	488.0	488.0	488.0
2.5°	484.6	484.6	484.6	484.0	484.0
5°	479.5	479.0	479.0	478.4	478.4
7.5°	475.6	475.0	474.5	473.9	472.8
10°	469.9	469.9	469.4	466.6	466.0
12.5°	460.9	460.3	458.1	454.1	453.0
15°	448.5	448.5	444.0	439.5	437.8
17.5°	435.0	434.4	428.8	424.2	422.0
20°	420.3	419.2	413.5	406.2	402.2
22.5°	403.9	403.9	397.2	387.6	383.6
25°	388.7	386.4	380.2	366.7	356.5
27.5°	371.2	367.8	361.1	341.9	330.0
30°	352.0	350.3	340.7	315.9	306.9
32.5°	334.0	331.2	321.0	295.1	287.7
35°	315.4	313.1	297.9	275.3	268.5
37.5°	296.7	293.9	274.7	256.7	248.2
40°	278.1	274.7	253.9	237.5	228.5
42.5°	260.6	256.1	235.8	218.3	208.2
45°	242.0	236.9	216.6	198.6	190.7
47.5°	223.4	218.9	200.3	181.7	172.6
50°	203.7	199.7	182.8	164.2	154.6
52.5°	187.3	181.1	164.7	146.1	138.2
55°	168.1	163.0	147.8	130.3	123.5
57.5°	150.6	145.6	131.4	115.1	109.4
60°	134.3	126.9	115.1	101.0	96.5
62.5°	116.2	110.6	100.4	88.6	94.2
65°	99.9	94.2	85.2	86.9	72.2
67.5°	81.8	79.0	71.1	63.2	60.9
70°	66.6	63.2	60.4	51.9	49.6
72.5°	53.0	49.6	45.7	41.2	39.5
75°	40.1	37.2	35.0	33.3	36.7
77.5°	27.6	26.5	24.8	23.1	22.6
80°	18.1	17.5	16.9	16.4	15.8
82.5°	10.7	10.7	10.7	10.7	10.7
85°	5.6	6.2	6.8	7.3	7.9
87.5°	3.4	3.4	3.9	4.5	5.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)