

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: P560682

Luminaire Tested: FSR-12-2-LD4-2STD-40-UNV-93-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560682
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-LD4-2STD-40-UNV-93-94-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2600.0 lumens
Efficiency: N/A
Efficacy: 78.1 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

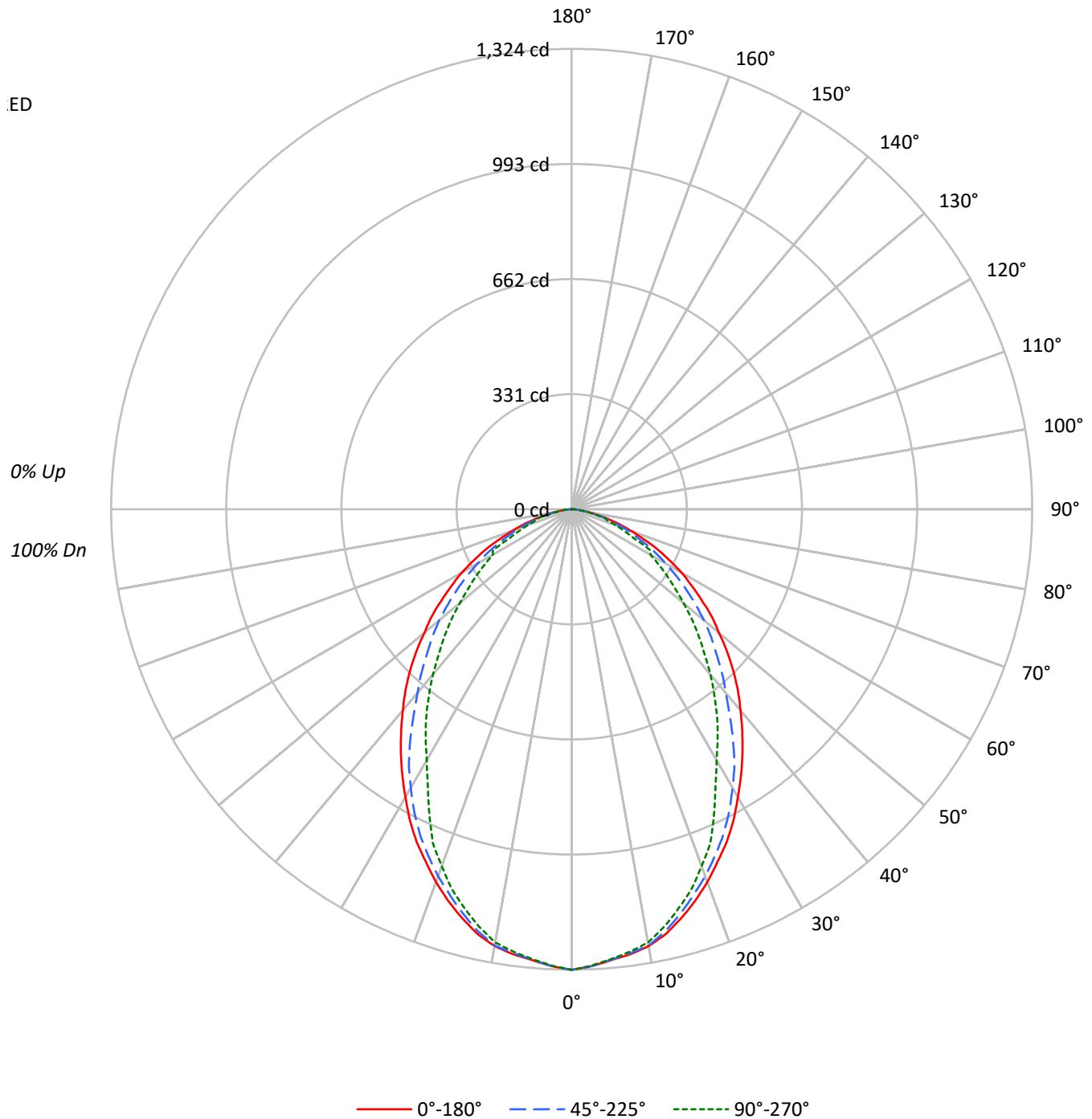
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P560682

CATALOG NUMBER: FSR-12-2-LD4-2STD-40-UNV-93-94-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P560682

CATALOG NUMBER: FSR-12-2-LD4-2STD-40-UNV-93-94-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	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°	7128	7128	7128
5°	7031	7023	7015
10°	6970	6962	6912
15°	6782	6714	6620
20°	6533	6428	6253
25°	6264	6128	5747
30°	5937	5747	5176
35°	5623	5311	4788
40°	5303	4841	4357
45°	4999	4475	3939
50°	4628	4154	3512
55°	4282	3764	3146
60°	3922	3362	2818
65°	3451	2944	2496
70°	2843	2578	2120
75°	2260	1973	2069
80°	1519	1423	1330
85°	945	1136	1321

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4999 cd/sqm



TEST NUMBER: P560682

CATALOG NUMBER: FSR-12-2-LD4-2STD-40-UNV-93-94-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.3	4.7
10°-20°	338.3	13.0
20°-30°	468.4	18.0
30°-40°	499.5	19.2
40°-50°	455.6	17.5
50°-60°	357.0	13.7
60°-70°	232.7	8.9
70°-80°	103.1	4.0
80°-90°	22.1	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°	930.0	35.8
0°-40°	1429.5	55.0
0°-60°	2242.1	86.2
0°-90°	2600.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2600.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1324	1324	1324	1324	1324	
5°	1301	1300	1300	1298	1298	124
15°	1217	1217	1205	1193	1188	342
25°	1055	1049	1032	995	968	484
35°	856	850	808	747	729	535
45°	657	643	588	539	518	506
55°	456	442	401	354	335	409
65°	271	256	231	236	196	267
75°	109	101	95	90	100	116
85°	15	17	18	20	21	21
90°	0	0	0	0	0	



TEST NUMBER: P560682

CATALOG NUMBER: FSR-12-2-LD4-2STD-40-UNV-93-94-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1324.4	1324.4	1324.4	1324.4	1324.4
2.5°	1315.2	1315.2	1315.2	1313.7	1313.7
5°	1301.4	1299.9	1299.9	1298.4	1298.4
7.5°	1290.7	1289.2	1287.7	1286.1	1283.1
10°	1275.4	1275.4	1273.9	1266.2	1264.7
12.5°	1250.9	1249.4	1243.3	1232.5	1229.5
15°	1217.2	1217.2	1205.0	1192.7	1188.1
17.5°	1180.5	1179.0	1163.6	1151.4	1145.3
20°	1140.7	1137.6	1122.3	1102.4	1091.7
22.5°	1096.3	1096.3	1077.9	1051.9	1041.2
25°	1054.9	1048.8	1032.0	995.2	967.7
27.5°	1007.5	998.3	979.9	927.8	895.7
30°	955.4	950.8	924.8	857.4	832.9
32.5°	906.4	898.8	871.2	800.8	780.9
35°	855.9	849.8	808.4	747.2	728.8
37.5°	805.4	797.7	745.6	696.7	673.7
40°	754.8	745.6	689.0	644.6	620.1
42.5°	707.4	695.1	640.0	592.5	565.0
45°	656.8	643.1	587.9	538.9	517.5
47.5°	606.3	594.1	543.5	493.0	468.5
50°	552.7	542.0	496.1	445.6	419.5
52.5°	508.3	491.5	447.1	396.6	375.1
55°	456.3	442.5	401.1	353.7	335.3
57.5°	408.8	395.0	356.7	312.3	297.0
60°	364.4	344.5	312.3	274.1	261.8
62.5°	315.4	300.1	272.5	240.4	255.7
65°	271.0	255.7	231.2	235.8	196.0
67.5°	222.0	214.4	192.9	171.5	165.4
70°	180.7	171.5	163.8	140.9	134.7
72.5°	143.9	134.7	124.0	111.8	107.2
75°	108.7	101.1	94.9	90.3	99.5
77.5°	75.0	72.0	67.4	62.8	61.2
80°	49.0	47.5	45.9	44.4	42.9
82.5°	29.1	29.1	29.1	29.1	29.1
85°	15.3	16.8	18.4	19.9	21.4
87.5°	9.2	9.2	10.7	12.2	13.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)