

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: P559906

Luminaire Tested: FSR-12-2-LD4-1LO-40-UNV-93-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559906
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-40-UNV-93-85-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 949.0 lumens
Efficiency: N/A
Efficacy: 81.1 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

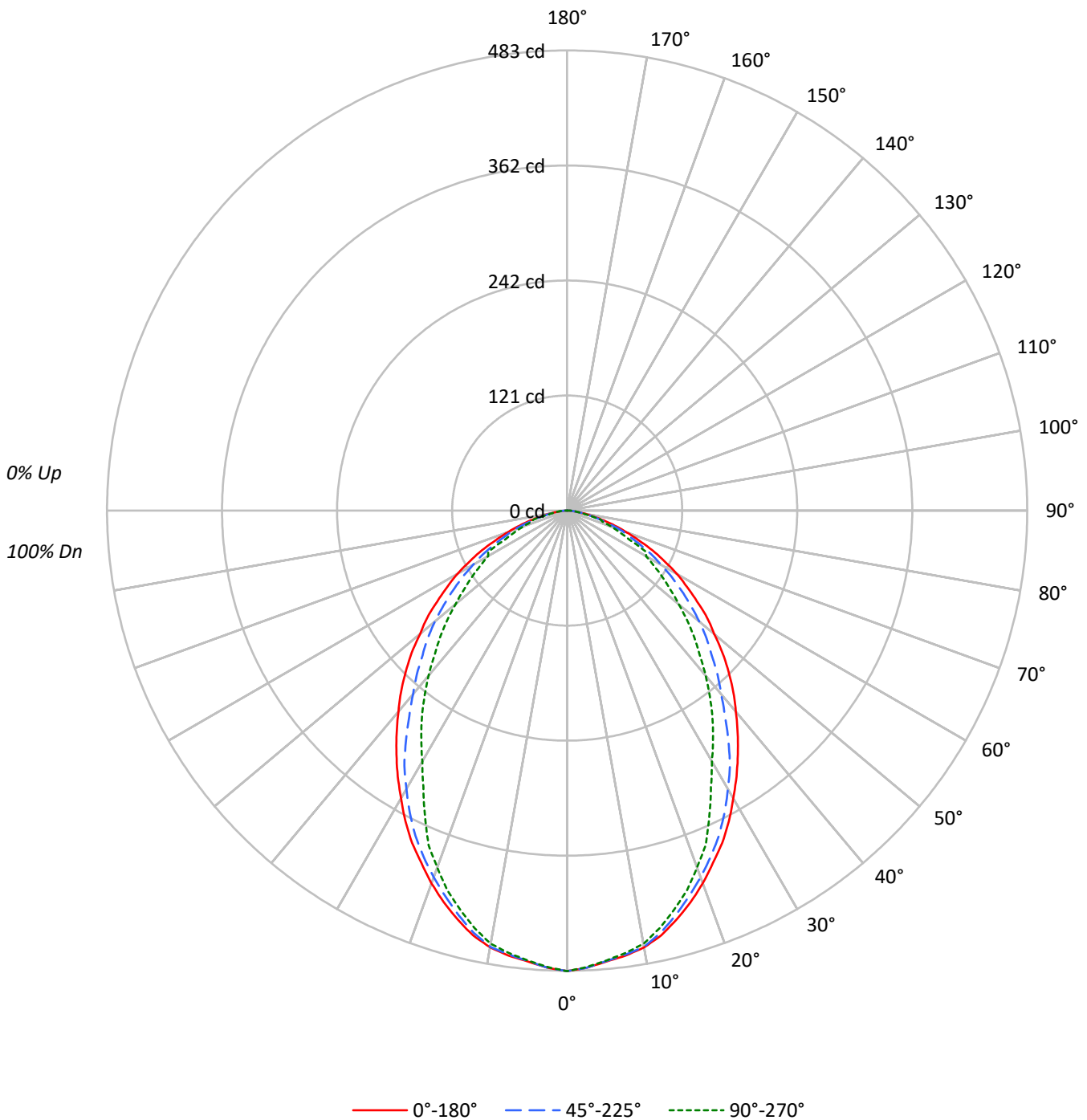
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P559906

CATALOG NUMBER: FSR-12-2-LD4-1LO-40-UNV-93-85-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P559906

CATALOG NUMBER: FSR-12-2-LD4-1LO-40-UNV-93-85-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°	2602	2602	2602
5°	2566	2563	2560
10°	2544	2541	2523
15°	2476	2450	2416
20°	2384	2346	2282
25°	2286	2237	2097
30°	2167	2097	1889
35°	2053	1939	1748
40°	1936	1767	1590
45°	1824	1633	1438
50°	1689	1516	1282
55°	1562	1374	1148
60°	1432	1227	1029
65°	1259	1075	911
70°	1037	941	774
75°	826	719	755
80°	555	521	483
85°	346	414	482

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1824 cd/sqm



TEST NUMBER: P559906

CATALOG NUMBER: FSR-12-2-LD4-1LO-40-UNV-93-85-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.0	4.7
10°-20°	123.5	13.0
20°-30°	171.0	18.0
30°-40°	182.3	19.2
40°-50°	166.3	17.5
50°-60°	130.3	13.7
60°-70°	84.9	8.9
70°-80°	37.6	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°	339.5	35.8
0°-40°	521.8	55.0
0°-60°	818.4	86.2
0°-90°	949.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	949.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	483	483	483	483	483	
5°	475	474	474	474	474	45
15°	444	444	440	435	434	125
25°	385	383	377	363	353	177
35°	312	310	295	273	266	195
45°	240	235	215	197	189	185
55°	166	162	146	129	122	149
65°	99	93	84	86	72	97
75°	40	37	35	33	36	43
85°	6	6	7	7	8	8
90°	0	0	0	0	0	



TEST NUMBER: P559906

CATALOG NUMBER: FSR-12-2-LD4-1LO-40-UNV-93-85-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	483.4	483.4	483.4	483.4	483.4
2.5°	480.1	480.1	480.1	479.5	479.5
5°	475.0	474.5	474.5	473.9	473.9
7.5°	471.1	470.6	470.0	469.4	468.3
10°	465.5	465.5	465.0	462.2	461.6
12.5°	456.6	456.0	453.8	449.9	448.8
15°	444.3	444.3	439.8	435.3	433.7
17.5°	430.9	430.3	424.7	420.3	418.0
20°	416.3	415.2	409.6	402.4	398.5
22.5°	400.1	400.1	393.4	383.9	380.0
25°	385.0	382.8	376.7	363.3	353.2
27.5°	367.7	364.4	357.7	338.7	326.9
30°	348.7	347.0	337.5	313.0	304.0
32.5°	330.8	328.0	318.0	292.3	285.0
35°	312.4	310.2	295.1	272.7	266.0
37.5°	294.0	291.2	272.2	254.3	245.9
40°	275.5	272.2	251.5	235.3	226.3
42.5°	258.2	253.7	233.6	216.3	206.2
45°	239.7	234.7	214.6	196.7	188.9
47.5°	221.3	216.8	198.4	180.0	171.0
50°	201.7	197.8	181.1	162.6	153.1
52.5°	185.5	179.4	163.2	144.7	136.9
55°	166.5	161.5	146.4	129.1	122.4
57.5°	149.2	144.2	130.2	114.0	108.4
60°	133.0	125.7	114.0	100.0	95.6
62.5°	115.1	109.5	99.5	87.7	93.3
65°	98.9	93.3	84.4	86.1	71.5
67.5°	81.0	78.2	70.4	62.6	60.4
70°	65.9	62.6	59.8	51.4	49.2
72.5°	52.5	49.2	45.3	40.8	39.1
75°	39.7	36.9	34.6	33.0	36.3
77.5°	27.4	26.3	24.6	22.9	22.4
80°	17.9	17.3	16.8	16.2	15.6
82.5°	10.6	10.6	10.6	10.6	10.6
85°	5.6	6.1	6.7	7.3	7.8
87.5°	3.4	3.4	3.9	4.5	5.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)