

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: P558758

Luminaire Tested: FSR-12-1-LD4-1LO-40-UNV-93-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558758
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-12-1-LD4-1LO-40-UNV-93-87-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 468.0 lumens
Efficiency: N/A
Efficacy: 80.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

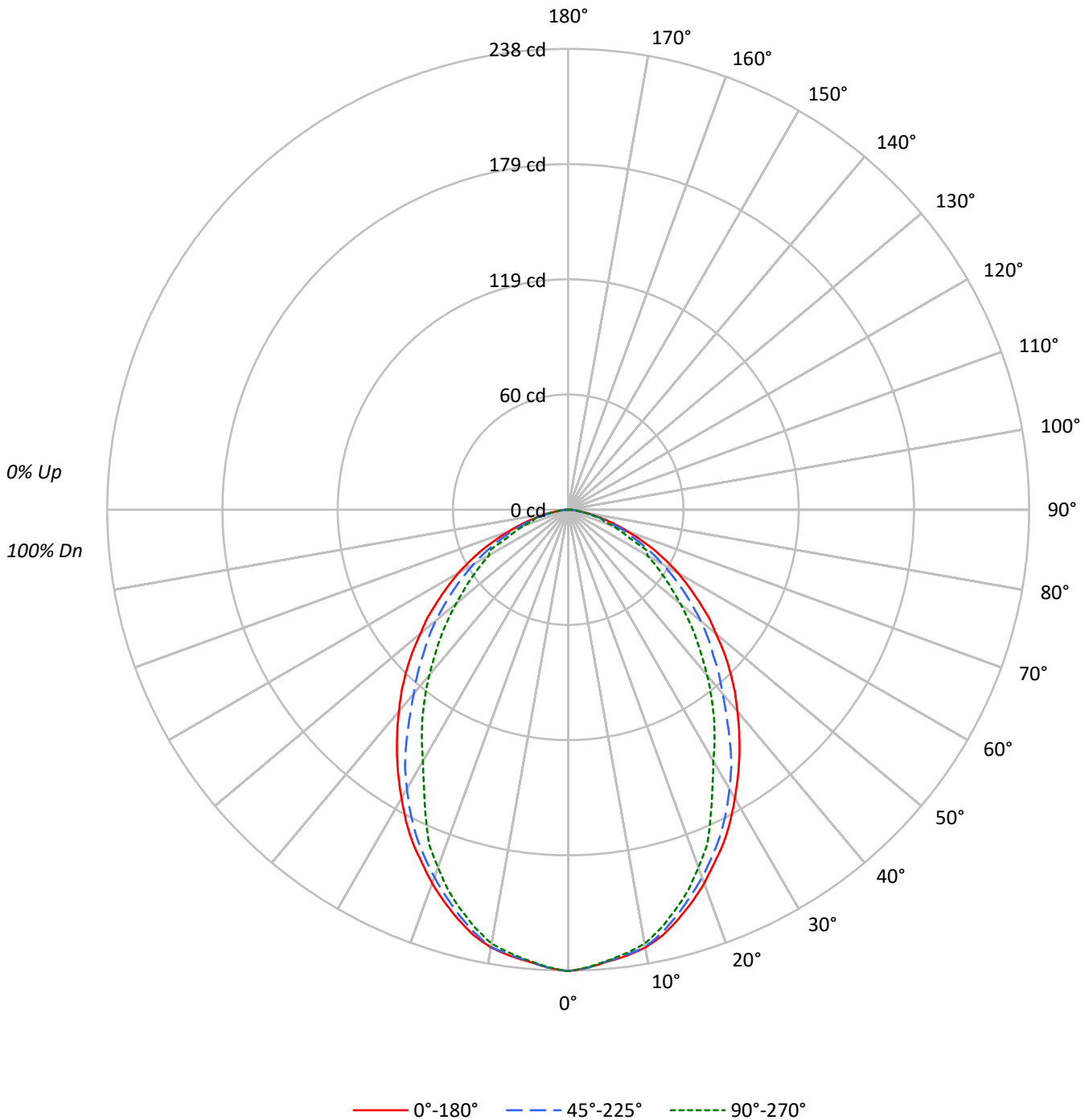
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P558758

CATALOG NUMBER: FSR-12-1-LD4-1LO-40-UNV-93-87-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P558758

CATALOG NUMBER: FSR-12-1-LD4-1LO-40-UNV-93-87-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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87					87			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75					75			
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65					65			
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56					56			
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50					50			
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44					44			
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40					40			
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36					36			
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33					33			
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30					30			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2566	2566	2566
5°	2532	2528	2525
10°	2510	2506	2488
15°	2442	2417	2384
20°	2352	2314	2251
25°	2255	2207	2069
30°	2138	2069	1863
35°	2025	1912	1724
40°	1910	1742	1568
45°	1799	1611	1419
50°	1666	1495	1264
55°	1541	1355	1133
60°	1412	1210	1014
65°	1243	1060	899
70°	1023	928	765
75°	815	711	744
80°	545	514	477
85°	346	408	482

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1799 cd/sqm



TEST NUMBER: P558758

CATALOG NUMBER: FSR-12-1-LD4-1LO-40-UNV-93-87-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.2	4.7
10°-20°	60.9	13.0
20°-30°	84.3	18.0
30°-40°	89.9	19.2
40°-50°	82.0	17.5
50°-60°	64.3	13.7
60°-70°	41.9	8.9
70°-80°	18.6	4.0
80°-90°	4.0	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°	167.4	35.8
0°-40°	257.3	55.0
0°-60°	403.6	86.2
0°-90°	468.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	468.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	238	238	238	238	238	
5°	234	234	234	234	234	22
15°	219	219	217	215	214	62
25°	190	189	186	179	174	87
35°	154	153	146	134	131	96
45°	118	116	106	97	93	91
55°	82	80	72	64	60	74
65°	49	46	42	42	35	48
75°	20	18	17	16	18	21
85°	3	3	3	4	4	4
90°	0	0	0	0	0	



TEST NUMBER: P558758

CATALOG NUMBER: FSR-12-1-LD4-1LO-40-UNV-93-87-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	238.4	238.4	238.4	238.4	238.4
2.5°	236.7	236.7	236.7	236.5	236.5
5°	234.3	234.0	234.0	233.7	233.7
7.5°	232.3	232.1	231.8	231.5	231.0
10°	229.6	229.6	229.3	227.9	227.6
12.5°	225.2	224.9	223.8	221.9	221.3
15°	219.1	219.1	216.9	214.7	213.9
17.5°	212.5	212.2	209.5	207.3	206.1
20°	205.3	204.8	202.0	198.4	196.5
22.5°	197.3	197.3	194.0	189.3	187.4
25°	189.9	188.8	185.8	179.1	174.2
27.5°	181.3	179.7	176.4	167.0	161.2
30°	172.0	171.1	166.5	154.3	149.9
32.5°	163.2	161.8	156.8	144.1	140.6
35°	154.1	153.0	145.5	134.5	131.2
37.5°	145.0	143.6	134.2	125.4	121.3
40°	135.9	134.2	124.0	116.0	111.6
42.5°	127.3	125.1	115.2	106.7	101.7
45°	118.2	115.8	105.8	97.0	93.2
47.5°	109.1	106.9	97.8	88.7	84.3
50°	99.5	97.6	89.3	80.2	75.5
52.5°	91.5	88.5	80.5	71.4	67.5
55°	82.1	79.6	72.2	63.7	60.4
57.5°	73.6	71.1	64.2	56.2	53.5
60°	65.6	62.0	56.2	49.3	47.1
62.5°	56.8	54.0	49.1	43.3	46.0
65°	48.8	46.0	41.6	42.4	35.3
67.5°	40.0	38.6	34.7	30.9	29.8
70°	32.5	30.9	29.5	25.4	24.3
72.5°	25.9	24.3	22.3	20.1	19.3
75°	19.6	18.2	17.1	16.3	17.9
77.5°	13.5	13.0	12.1	11.3	11.0
80°	8.8	8.5	8.3	8.0	7.7
82.5°	5.2	5.2	5.2	5.2	5.2
85°	2.8	3.0	3.3	3.6	3.9
87.5°	1.7	1.7	1.9	2.2	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)