

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: P558568

Luminaire Tested: FSR-12-1-LD4-1HI-40-UNV-93-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558568
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-LD4-1HI-40-UNV-93-88-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 693.0 lumens
Efficiency: N/A
Efficacy: 64.2 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

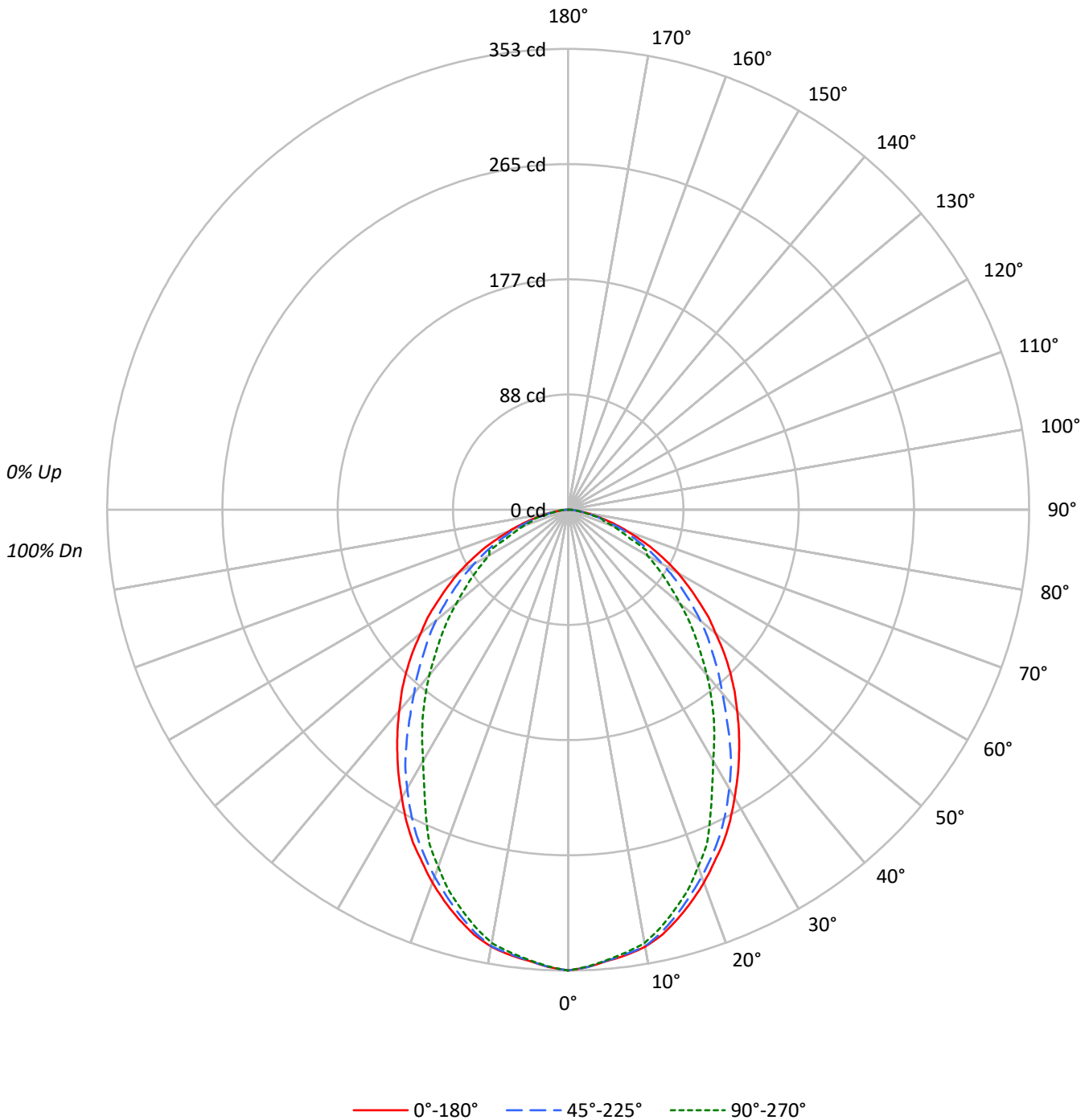
Input Watts (W): 10.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P558568

CATALOG NUMBER: FSR-12-1-LD4-1HI-40-UNV-93-88-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P558568

CATALOG NUMBER: FSR-12-1-LD4-1HI-40-UNV-93-88-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									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	47	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°	3800	3800	3800
5°	3748	3744	3740
10°	3715	3711	3684
15°	3615	3579	3529
20°	3482	3426	3333
25°	3340	3267	3063
30°	3166	3064	2759
35°	2997	2832	2553
40°	2827	2580	2323
45°	2665	2385	2099
50°	2467	2214	1872
55°	2282	2006	1678
60°	2090	1793	1503
65°	1839	1569	1330
70°	1517	1375	1130
75°	1206	1052	1102
80°	812	756	707
85°	506	605	704

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2665 cd/sqm

TEST NUMBER: P558568

CATALOG NUMBER: FSR-12-1-LD4-1HI-40-UNV-93-88-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.9	4.7
10°-20°	90.2	13.0
20°-30°	124.9	18.0
30°-40°	133.1	19.2
40°-50°	121.4	17.5
50°-60°	95.2	13.7
60°-70°	62.0	8.9
70°-80°	27.5	4.0
80°-90°	5.9	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°	247.9	35.8
0°-40°	381.0	55.0
0°-60°	597.6	86.2
0°-90°	693.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	693.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	353	353	353	353	353	
5°	347	346	346	346	346	33
15°	324	324	321	318	317	91
25°	281	280	275	265	258	129
35°	228	226	216	199	194	143
45°	175	171	157	144	138	135
55°	122	118	107	94	89	109
65°	72	68	62	63	52	71
75°	29	27	25	24	26	31
85°	4	4	5	5	6	6
90°	0	0	0	0	0	



TEST NUMBER: P558568

CATALOG NUMBER: FSR-12-1-LD4-1HI-40-UNV-93-88-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	353.0	353.0	353.0	353.0	353.0
2.5°	350.6	350.6	350.6	350.1	350.1
5°	346.9	346.5	346.5	346.1	346.1
7.5°	344.0	343.6	343.2	342.8	342.0
10°	339.9	339.9	339.5	337.5	337.1
12.5°	333.4	333.0	331.4	328.5	327.7
15°	324.4	324.4	321.2	317.9	316.7
17.5°	314.6	314.2	310.2	306.9	305.3
20°	304.0	303.2	299.1	293.8	291.0
22.5°	292.2	292.2	287.3	280.4	277.5
25°	281.2	279.5	275.1	265.3	257.9
27.5°	268.5	266.1	261.2	247.3	238.7
30°	254.7	253.4	246.5	228.5	222.0
32.5°	241.6	239.6	232.2	213.4	208.1
35°	228.1	226.5	215.5	199.2	194.3
37.5°	214.7	212.6	198.7	185.7	179.6
40°	201.2	198.7	183.6	171.8	165.3
42.5°	188.5	185.3	170.6	157.9	150.6
45°	175.1	171.4	156.7	143.7	137.9
47.5°	161.6	158.3	144.9	131.4	124.9
50°	147.3	144.5	132.2	118.8	111.8
52.5°	135.5	131.0	119.2	105.7	100.0
55°	121.6	117.9	106.9	94.3	89.4
57.5°	109.0	105.3	95.1	83.3	79.2
60°	97.1	91.8	83.3	73.0	69.8
62.5°	84.1	80.0	72.6	64.1	68.2
65°	72.2	68.2	61.6	62.8	52.2
67.5°	59.2	57.1	51.4	45.7	44.1
70°	48.2	45.7	43.7	37.5	35.9
72.5°	38.4	35.9	33.1	29.8	28.6
75°	29.0	26.9	25.3	24.1	26.5
77.5°	20.0	19.2	18.0	16.7	16.3
80°	13.1	12.7	12.2	11.8	11.4
82.5°	7.8	7.8	7.8	7.8	7.8
85°	4.1	4.5	4.9	5.3	5.7
87.5°	2.4	2.4	2.9	3.3	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)