

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: P559401

Luminaire Tested: FSR-12-1-LD4-2LO-50-UNV-93-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559401
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-LD4-2LO-50-UNV-93-88-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1021.0 lumens
Efficiency: N/A
Efficacy: 87.3 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

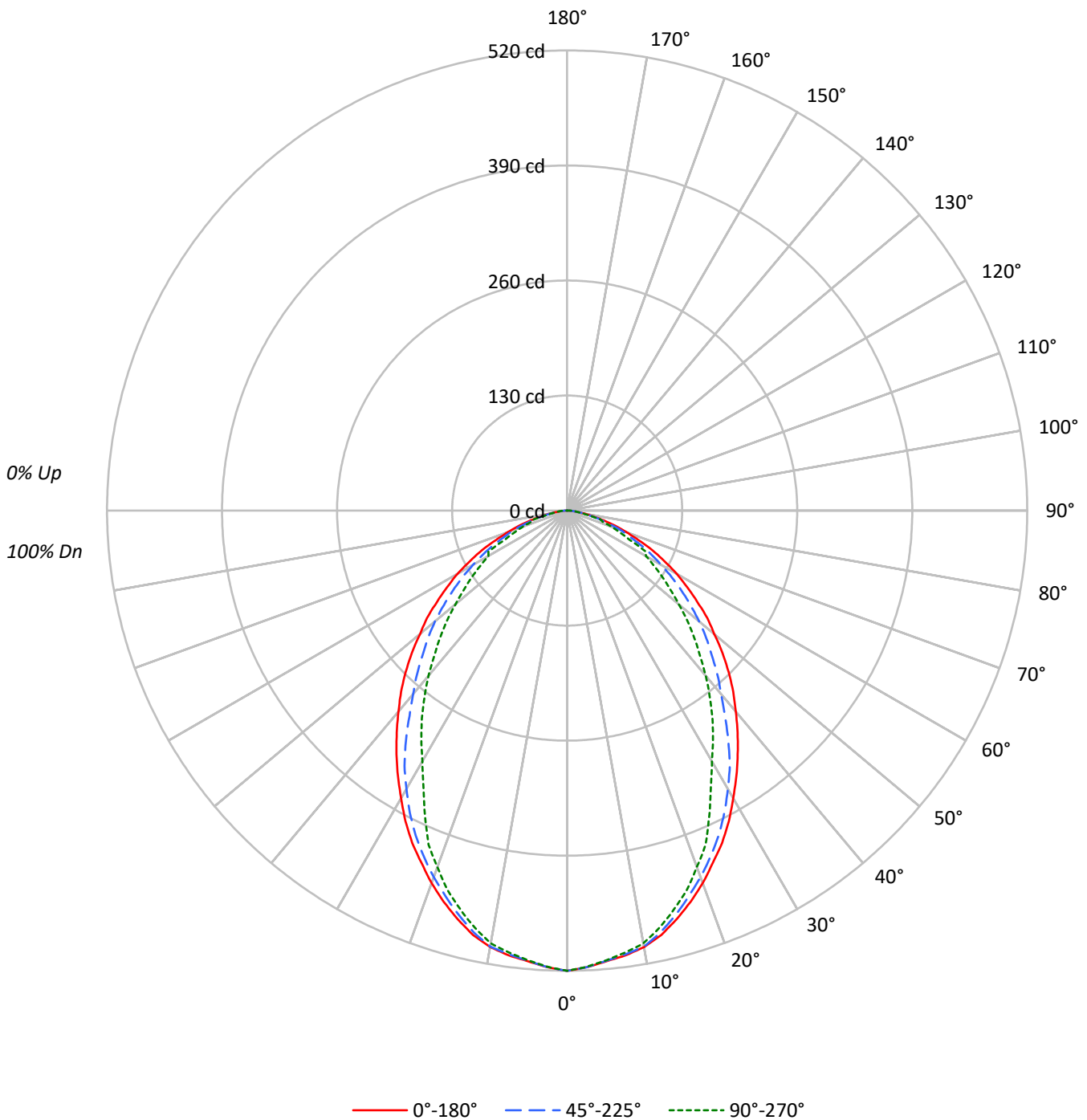
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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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	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°	5598	5598	5598
5°	5522	5516	5509
10°	5474	5467	5428
15°	5327	5273	5200
20°	5131	5048	4911
25°	4921	4812	4513
30°	4663	4514	4066
35°	4416	4172	3761
40°	4165	3802	3421
45°	3926	3515	3093
50°	3635	3262	2758
55°	3363	2956	2472
60°	3081	2641	2213
65°	2710	2313	1961
70°	2231	2024	1665
75°	1776	1551	1626
80°	1190	1116	1041
85°	741	889	1037

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3926 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.4	4.7
10°-20°	132.9	13.0
20°-30°	183.9	18.0
30°-40°	196.1	19.2
40°-50°	178.9	17.5
50°-60°	140.2	13.7
60°-70°	91.4	8.9
70°-80°	40.5	4.0
80°-90°	8.7	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°	365.2	35.8
0°-40°	561.4	55.0
0°-60°	880.5	86.2
0°-90°	1021.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1021.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	520	520	520	520	520	
5°	511	510	510	510	510	49
15°	478	478	473	468	467	134
25°	414	412	405	391	380	190
35°	336	334	318	293	286	210
45°	258	252	231	212	203	199
55°	179	174	158	139	132	161
65°	106	100	91	93	77	105
75°	43	40	37	36	39	46
85°	6	7	7	8	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	520.1	520.1	520.1	520.1	520.1
2.5°	516.5	516.5	516.5	515.9	515.9
5°	511.1	510.5	510.5	509.9	509.9
7.5°	506.9	506.3	505.7	505.1	503.8
10°	500.8	500.8	500.2	497.2	496.6
12.5°	491.2	490.6	488.2	484.0	482.8
15°	478.0	478.0	473.2	468.4	466.6
17.5°	463.6	463.0	457.0	452.1	449.7
20°	447.9	446.7	440.7	432.9	428.7
22.5°	430.5	430.5	423.3	413.1	408.9
25°	414.3	411.9	405.2	390.8	380.0
27.5°	395.6	392.0	384.8	364.4	351.7
30°	375.2	373.4	363.2	336.7	327.1
32.5°	355.9	352.9	342.1	314.5	306.6
35°	336.1	333.7	317.5	293.4	286.2
37.5°	316.3	313.3	292.8	273.6	264.6
40°	296.4	292.8	270.6	253.1	243.5
42.5°	277.8	273.0	251.3	232.7	221.9
45°	257.9	252.5	230.9	211.6	203.2
47.5°	238.1	233.3	213.4	193.6	184.0
50°	217.1	212.8	194.8	175.0	164.7
52.5°	199.6	193.0	175.6	155.7	147.3
55°	179.2	173.8	157.5	138.9	131.7
57.5°	160.5	155.1	140.1	122.7	116.6
60°	143.1	135.3	122.7	107.6	102.8
62.5°	123.9	117.8	107.0	94.4	100.4
65°	106.4	100.4	90.8	92.6	77.0
67.5°	87.2	84.2	75.8	67.3	64.9
70°	70.9	67.3	64.3	55.3	52.9
72.5°	56.5	52.9	48.7	43.9	42.1
75°	42.7	39.7	37.3	35.5	39.1
77.5°	29.5	28.3	26.5	24.7	24.1
80°	19.2	18.6	18.0	17.4	16.8
82.5°	11.4	11.4	11.4	11.4	11.4
85°	6.0	6.6	7.2	7.8	8.4
87.5°	3.6	3.6	4.2	4.8	5.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)