

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: P558784

Luminaire Tested: FSR-12-1-LD4-1LO-50-UNV-81-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558784
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-50-UNV-81-84-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 499.0 lumens
Efficiency: N/A
Efficacy: 86.0 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

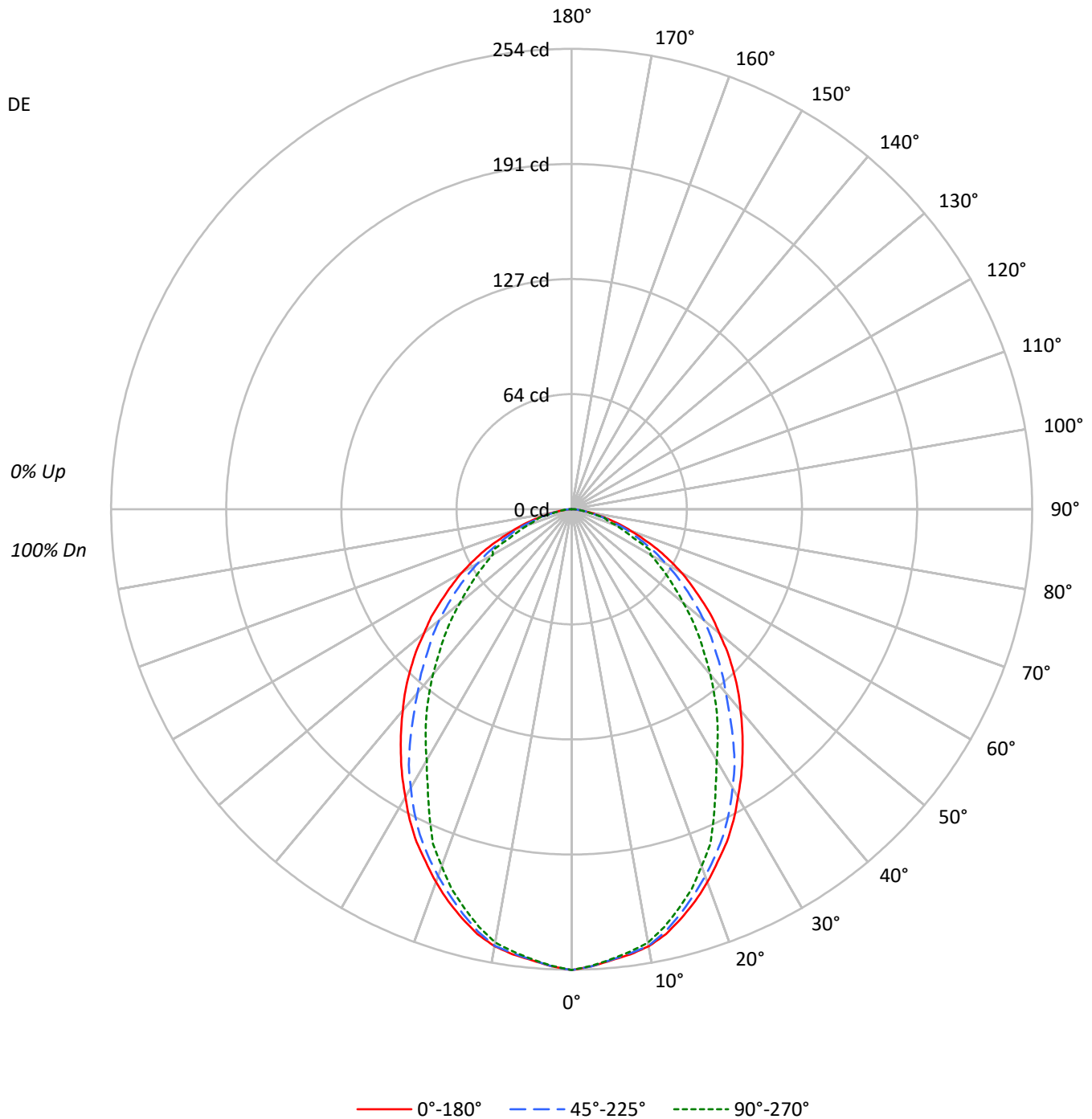
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	2736	2736	2736
5°	2699	2696	2693
10°	2676	2672	2653
15°	2603	2578	2541
20°	2507	2467	2400
25°	2405	2353	2205
30°	2279	2206	1987
35°	2159	2039	1838
40°	2036	1858	1672
45°	1920	1717	1512
50°	1777	1594	1348
55°	1644	1445	1209
60°	1505	1290	1081
65°	1324	1131	958
70°	1092	988	815
75°	869	757	794
80°	583	545	508
85°	358	432	506

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1920 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.7	4.7
10°-20°	64.9	13.0
20°-30°	89.9	18.0
30°-40°	95.9	19.2
40°-50°	87.4	17.5
50°-60°	68.5	13.7
60°-70°	44.6	8.9
70°-80°	19.8	4.0
80°-90°	4.3	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°	178.5	35.8
0°-40°	274.4	55.0
0°-60°	430.3	86.2
0°-90°	499.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	499.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	254	254	254	254	254	
5°	250	250	250	249	249	24
15°	234	234	231	229	228	66
25°	202	201	198	191	186	93
35°	164	163	155	143	140	103
45°	126	123	113	103	99	97
55°	88	85	77	68	64	79
65°	52	49	44	45	38	51
75°	21	19	18	17	19	22
85°	3	3	4	4	4	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	254.2	254.2	254.2	254.2	254.2
2.5°	252.4	252.4	252.4	252.1	252.1
5°	249.8	249.5	249.5	249.2	249.2
7.5°	247.7	247.4	247.1	246.8	246.2
10°	244.8	244.8	244.5	243.0	242.7
12.5°	240.1	239.8	238.6	236.6	236.0
15°	233.6	233.6	231.3	228.9	228.0
17.5°	226.6	226.3	223.3	221.0	219.8
20°	218.9	218.3	215.4	211.6	209.5
22.5°	210.4	210.4	206.9	201.9	199.8
25°	202.5	201.3	198.1	191.0	185.7
27.5°	193.4	191.6	188.1	178.1	171.9
30°	183.4	182.5	177.5	164.6	159.9
32.5°	174.0	172.5	167.2	153.7	149.9
35°	164.3	163.1	155.2	143.4	139.9
37.5°	154.6	153.1	143.1	133.7	129.3
40°	144.9	143.1	132.2	123.7	119.0
42.5°	135.8	133.4	122.8	113.7	108.4
45°	126.1	123.4	112.8	103.4	99.3
47.5°	116.4	114.0	104.3	94.6	89.9
50°	106.1	104.0	95.2	85.5	80.5
52.5°	97.6	94.3	85.8	76.1	72.0
55°	87.6	84.9	77.0	67.9	64.4
57.5°	78.5	75.8	68.5	59.9	57.0
60°	69.9	66.1	59.9	52.6	50.2
62.5°	60.5	57.6	52.3	46.1	49.1
65°	52.0	49.1	44.4	45.3	37.6
67.5°	42.6	41.1	37.0	32.9	31.7
70°	34.7	32.9	31.4	27.0	25.9
72.5°	27.6	25.9	23.8	21.5	20.6
75°	20.9	19.4	18.2	17.3	19.1
77.5°	14.4	13.8	12.9	12.0	11.8
80°	9.4	9.1	8.8	8.5	8.2
82.5°	5.6	5.6	5.6	5.6	5.6
85°	2.9	3.2	3.5	3.8	4.1
87.5°	1.8	1.8	2.1	2.4	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)