

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: P558616

Luminaire Tested: FSR-12-1-LD4-1HI-50-UNV-82-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558616
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-50-UNV-82-88-EDD-90
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 677.0 lumens
Efficiency: N/A
Efficacy: 62.7 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

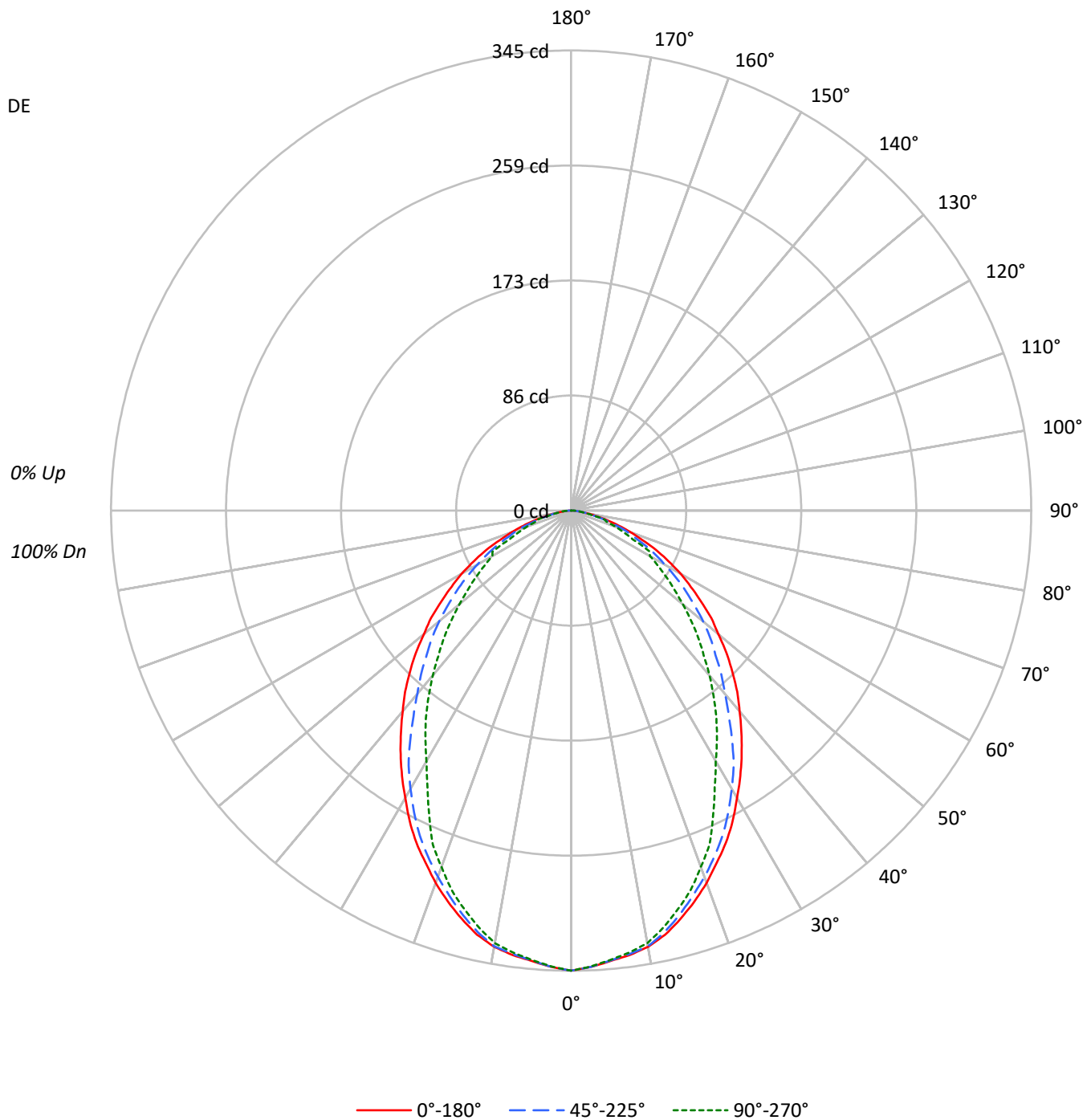
Input Watts (W): 10.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	47	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°	3712	3712	3712
5°	3662	3658	3653
10°	3630	3625	3599
15°	3531	3497	3448
20°	3402	3347	3257
25°	3263	3191	2993
30°	3092	2993	2696
35°	2929	2766	2494
40°	2761	2521	2269
45°	2603	2331	2052
50°	2410	2164	1829
55°	2229	1961	1638
60°	2043	1750	1468
65°	1798	1533	1299
70°	1479	1344	1105
75°	1177	1027	1077
80°	793	744	694
85°	494	593	692

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2603 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.1	4.7
10°-20°	88.1	13.0
20°-30°	122.0	18.0
30°-40°	130.1	19.2
40°-50°	118.6	17.5
50°-60°	93.0	13.7
60°-70°	60.6	8.9
70°-80°	26.8	4.0
80°-90°	5.8	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°	242.2	35.8
0°-40°	372.2	55.0
0°-60°	583.8	86.2
0°-90°	677.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	677.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	345	345	345	345	345	
5°	339	338	338	338	338	32
15°	317	317	314	311	309	89
25°	275	273	269	259	252	126
35°	223	221	210	195	190	139
45°	171	167	153	140	135	132
55°	119	115	104	92	87	107
65°	71	67	60	61	51	70
75°	28	26	25	24	26	30
85°	4	4	5	5	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	344.9	344.9	344.9	344.9	344.9
2.5°	342.5	342.5	342.5	342.1	342.1
5°	338.9	338.5	338.5	338.1	338.1
7.5°	336.1	335.7	335.3	334.9	334.1
10°	332.1	332.1	331.7	329.7	329.3
12.5°	325.7	325.3	323.7	320.9	320.1
15°	316.9	316.9	313.8	310.6	309.4
17.5°	307.4	307.0	303.0	299.8	298.2
20°	297.0	296.2	292.2	287.0	284.3
22.5°	285.5	285.5	280.7	273.9	271.1
25°	274.7	273.1	268.7	259.1	252.0
27.5°	262.3	259.9	255.2	241.6	233.2
30°	248.8	247.6	240.8	223.3	216.9
32.5°	236.0	234.0	226.8	208.5	203.3
35°	222.9	221.3	210.5	194.6	189.8
37.5°	209.7	207.7	194.2	181.4	175.4
40°	196.5	194.2	179.4	167.8	161.5
42.5°	184.2	181.0	166.6	154.3	147.1
45°	171.0	167.4	153.1	140.3	134.8
47.5°	157.9	154.7	141.5	128.4	122.0
50°	143.9	141.1	129.2	116.0	109.2
52.5°	132.4	128.0	116.4	103.3	97.7
55°	118.8	115.2	104.5	92.1	87.3
57.5°	106.4	102.9	92.9	81.3	77.3
60°	94.9	89.7	81.3	71.4	68.2
62.5°	82.1	78.1	71.0	62.6	66.6
65°	70.6	66.6	60.2	61.4	51.0
67.5°	57.8	55.8	50.2	44.7	43.1
70°	47.0	44.7	42.7	36.7	35.1
72.5°	37.5	35.1	32.3	29.1	27.9
75°	28.3	26.3	24.7	23.5	25.9
77.5°	19.5	18.7	17.5	16.3	15.9
80°	12.8	12.4	12.0	11.6	11.2
82.5°	7.6	7.6	7.6	7.6	7.6
85°	4.0	4.4	4.8	5.2	5.6
87.5°	2.4	2.4	2.8	3.2	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)