

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: P558969

Luminaire Tested: FSR-12-1-LD4-1STD-50-UNV-80-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558969
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-LD4-1STD-50-UNV-80-88-EDD
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONM
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 682.0 lumens
Efficiency: N/A
Efficacy: 82.2 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

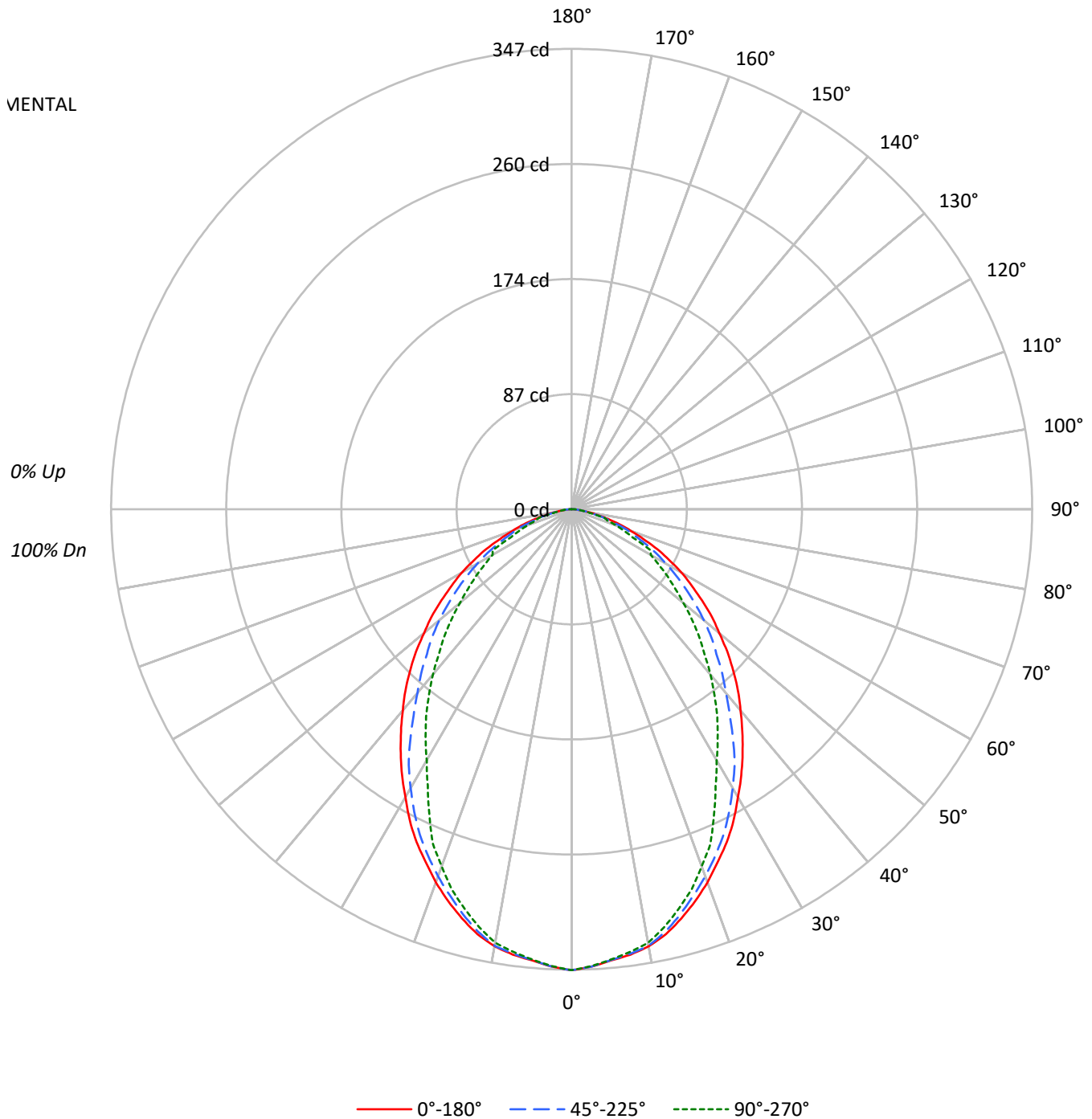
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	3739	3739	3739
5°	3689	3685	3680
10°	3656	3652	3625
15°	3558	3522	3473
20°	3427	3372	3281
25°	3286	3215	3014
30°	3115	3015	2716
35°	2950	2787	2512
40°	2782	2539	2286
45°	2623	2347	2066
50°	2428	2179	1842
55°	2246	1974	1651
60°	2058	1763	1479
65°	1811	1543	1309
70°	1492	1353	1111
75°	1185	1036	1085
80°	800	744	694
85°	494	593	692

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2623 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.3	4.7
10°-20°	88.7	13.0
20°-30°	122.9	18.0
30°-40°	131.0	19.2
40°-50°	119.5	17.5
50°-60°	93.6	13.7
60°-70°	61.0	8.9
70°-80°	27.0	4.0
80°-90°	5.8	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°	244.0	35.8
0°-40°	375.0	55.0
0°-60°	588.1	86.2
0°-90°	682.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	682.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	347	347	347	347	347	
5°	341	341	341	341	341	32
15°	319	319	316	313	312	90
25°	277	275	271	261	254	127
35°	224	223	212	196	191	140
45°	172	169	154	141	136	133
55°	120	116	105	93	88	107
65°	71	67	61	62	51	70
75°	28	26	25	24	26	31
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°	347.4	347.4	347.4	347.4	347.4
2.5°	345.0	345.0	345.0	344.6	344.6
5°	341.4	341.0	341.0	340.6	340.6
7.5°	338.6	338.2	337.8	337.4	336.6
10°	334.5	334.5	334.1	332.1	331.7
12.5°	328.1	327.7	326.1	323.3	322.5
15°	319.3	319.3	316.1	312.9	311.7
17.5°	309.6	309.2	305.2	302.0	300.4
20°	299.2	298.4	294.4	289.2	286.4
22.5°	287.6	287.6	282.7	275.9	273.1
25°	276.7	275.1	270.7	261.1	253.8
27.5°	264.3	261.9	257.0	243.4	234.9
30°	250.6	249.4	242.6	224.9	218.5
32.5°	237.8	235.8	228.5	210.0	204.8
35°	224.5	222.9	212.1	196.0	191.2
37.5°	211.3	209.2	195.6	182.7	176.7
40°	198.0	195.6	180.7	169.1	162.7
42.5°	185.5	182.3	167.9	155.4	148.2
45°	172.3	168.7	154.2	141.4	135.7
47.5°	159.0	155.8	142.6	129.3	122.9
50°	145.0	142.2	130.1	116.9	110.0
52.5°	133.3	128.9	117.3	104.0	98.4
55°	119.7	116.1	105.2	92.8	88.0
57.5°	107.2	103.6	93.6	81.9	77.9
60°	95.6	90.4	81.9	71.9	68.7
62.5°	82.7	78.7	71.5	63.1	67.1
65°	71.1	67.1	60.6	61.8	51.4
67.5°	58.2	56.2	50.6	45.0	43.4
70°	47.4	45.0	43.0	36.9	35.3
72.5°	37.8	35.3	32.5	29.3	28.1
75°	28.5	26.5	24.9	23.7	26.1
77.5°	19.7	18.9	17.7	16.5	16.1
80°	12.9	12.5	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)