

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: P559007

Luminaire Tested: FSR-12-1-LD4-1STD-50-UNV-82-97-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559007
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-82-97-EDD
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 734.0 lumens
Efficiency: N/A
Efficacy: 88.4 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

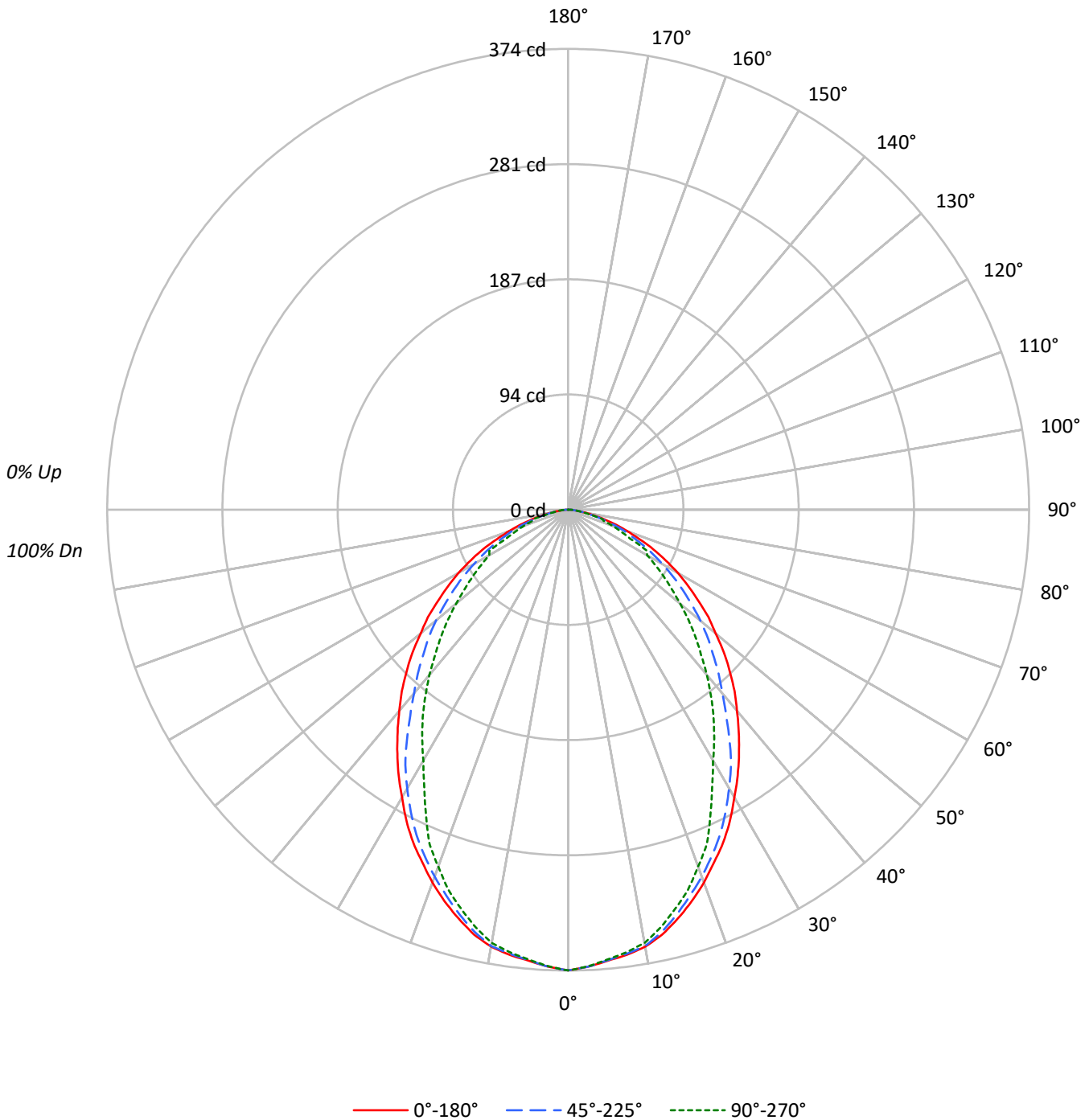
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100	100	100	100		
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87	87	87	87	87	87	87		
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75	75	75	75	75	75	75		
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65	65	65	65	65	65	65		
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56	56	56	56	56	56	56		
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50	50	50	50	50	50	50		
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44	44	44	44	44	44	44		
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40	40	40	40	40	40	40		
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36	36	36	36	36	36	36		
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33	33	33	33	33	33	33		
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30	30	30	30	30	30	30		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4025	4025	4025
5°	3970	3965	3960
10°	3936	3930	3902
15°	3829	3791	3738
20°	3688	3629	3530
25°	3537	3460	3245
30°	3352	3245	2922
35°	3175	2999	2703
40°	2994	2733	2460
45°	2822	2527	2224
50°	2612	2344	1983
55°	2417	2124	1777
60°	2215	1899	1591
65°	1948	1663	1408
70°	1605	1454	1196
75°	1277	1115	1169
80°	855	806	750
85°	531	642	753

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2822 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.8	4.7
10°-20°	95.5	13.0
20°-30°	132.2	18.0
30°-40°	141.0	19.2
40°-50°	128.6	17.5
50°-60°	100.8	13.7
60°-70°	65.7	8.9
70°-80°	29.1	4.0
80°-90°	6.2	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°	262.6	35.8
0°-40°	403.6	55.0
0°-60°	633.0	86.2
0°-90°	734.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	734.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	374	374	374	374	374	
5°	367	367	367	366	366	35
15°	344	344	340	337	335	97
25°	298	296	291	281	273	137
35°	242	240	228	211	206	151
45°	185	182	166	152	146	143
55°	129	125	113	100	95	116
65°	76	72	65	67	55	75
75°	31	28	27	26	28	33
85°	4	5	5	6	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	373.9	373.9	373.9	373.9	373.9
2.5°	371.3	371.3	371.3	370.9	370.9
5°	367.4	367.0	367.0	366.5	366.5
7.5°	364.4	363.9	363.5	363.1	362.2
10°	360.1	360.1	359.6	357.5	357.0
12.5°	353.1	352.7	351.0	348.0	347.1
15°	343.6	343.6	340.2	336.7	335.4
17.5°	333.3	332.8	328.5	325.0	323.3
20°	322.0	321.2	316.8	311.2	308.2
22.5°	309.5	309.5	304.3	297.0	293.9
25°	297.8	296.1	291.3	281.0	273.2
27.5°	284.4	281.8	276.6	261.9	252.9
30°	269.7	268.4	261.1	242.1	235.1
32.5°	255.9	253.7	245.9	226.1	220.4
35°	241.6	239.9	228.2	210.9	205.7
37.5°	227.4	225.2	210.5	196.7	190.2
40°	213.1	210.5	194.5	182.0	175.1
42.5°	199.7	196.2	180.7	167.3	159.5
45°	185.4	181.5	166.0	152.1	146.1
47.5°	171.2	167.7	153.4	139.2	132.3
50°	156.0	153.0	140.0	125.8	118.4
52.5°	143.5	138.7	126.2	112.0	105.9
55°	128.8	124.9	113.2	99.8	94.7
57.5°	115.4	111.5	100.7	88.2	83.9
60°	102.9	97.3	88.2	77.4	73.9
62.5°	89.0	84.7	76.9	67.9	72.2
65°	76.5	72.2	65.3	66.6	55.3
67.5°	62.7	60.5	54.5	48.4	46.7
70°	51.0	48.4	46.2	39.8	38.0
72.5°	40.6	38.0	35.0	31.6	30.3
75°	30.7	28.5	26.8	25.5	28.1
77.5°	21.2	20.3	19.0	17.7	17.3
80°	13.8	13.4	13.0	12.5	12.1
82.5°	8.2	8.2	8.2	8.2	8.2
85°	4.3	4.8	5.2	5.6	6.1
87.5°	2.6	2.6	3.0	3.5	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)