

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: P559983

Luminaire Tested: FSR-12-2-LD4-1LO-50-UNV-93-97-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559983
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-12-2-LD4-1LO-50-UNV-93-97-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1120.0 lumens
Efficiency: N/A
Efficacy: 95.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

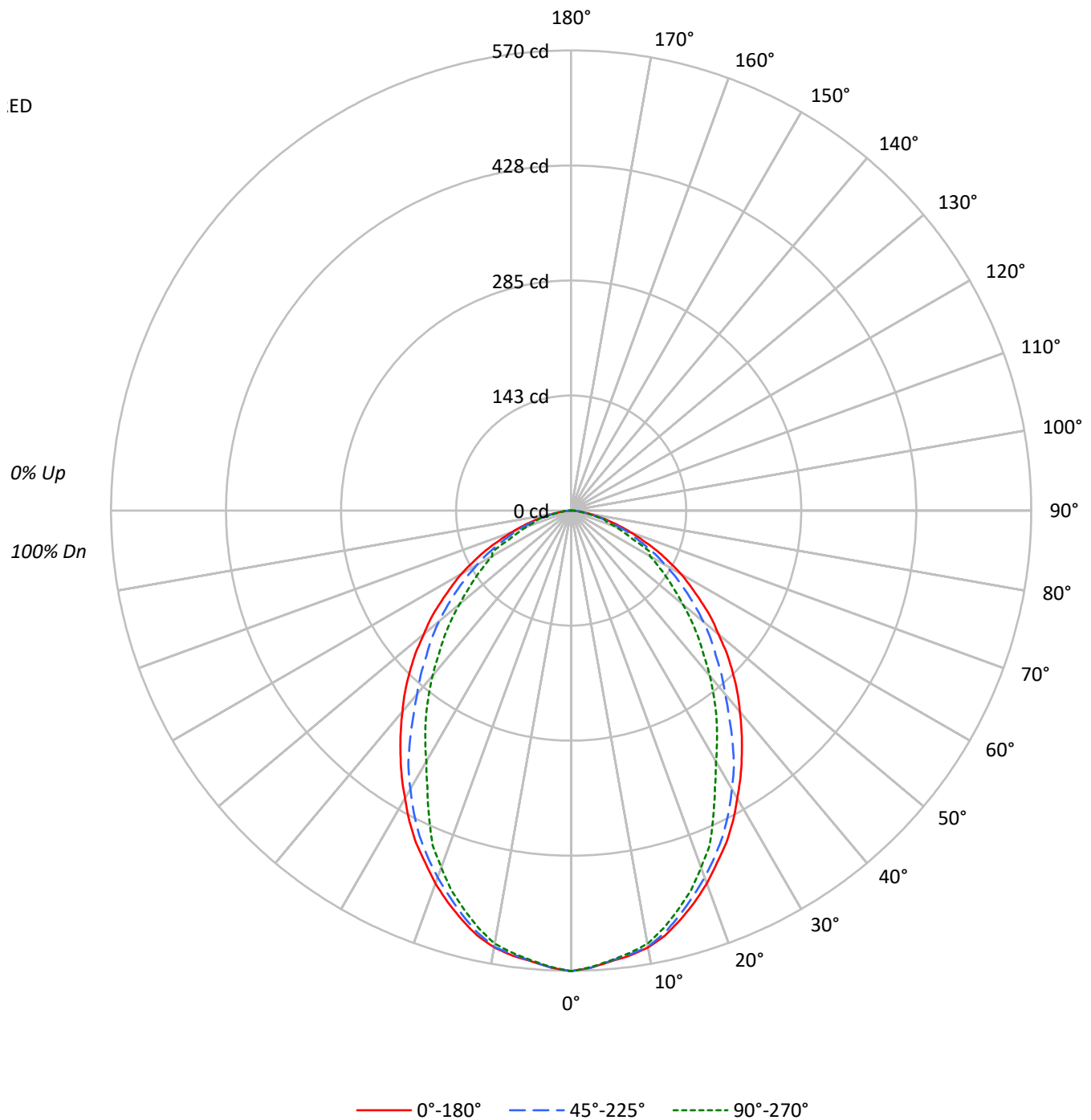
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					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°	3070	3070	3070
5°	3029	3025	3022
10°	3002	2999	2977
15°	2921	2892	2852
20°	2814	2769	2694
25°	2698	2640	2475
30°	2558	2476	2230
35°	2422	2288	2062
40°	2285	2085	1877
45°	2153	1928	1697
50°	1994	1789	1513
55°	1844	1621	1355
60°	1690	1448	1214
65°	1486	1268	1075
70°	1224	1111	913
75°	973	850	892
80°	654	614	573
85°	408	488	568

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2153 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.1	4.7
10°-20°	145.7	13.0
20°-30°	201.8	18.0
30°-40°	215.2	19.2
40°-50°	196.3	17.5
50°-60°	153.8	13.7
60°-70°	100.2	8.9
70°-80°	44.4	4.0
80°-90°	9.5	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°	400.6	35.8
0°-40°	615.8	55.0
0°-60°	965.8	86.2
0°-90°	1120.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1120.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	570	570	570	570	570	
5°	561	560	560	559	559	53
15°	524	524	519	514	512	147
25°	454	452	444	429	417	209
35°	369	366	348	322	314	231
45°	283	277	253	232	223	218
55°	196	191	173	152	144	176
65°	117	110	100	102	84	115
75°	47	44	41	39	43	50
85°	7	7	8	9	9	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	570.5	570.5	570.5	570.5	570.5
2.5°	566.6	566.6	566.6	565.9	565.9
5°	560.6	560.0	560.0	559.3	559.3
7.5°	556.0	555.3	554.7	554.0	552.7
10°	549.4	549.4	548.7	545.5	544.8
12.5°	538.9	538.2	535.6	530.9	529.6
15°	524.3	524.3	519.1	513.8	511.8
17.5°	508.5	507.9	501.3	496.0	493.3
20°	491.4	490.0	483.5	474.9	470.3
22.5°	472.2	472.2	464.3	453.1	448.5
25°	454.4	451.8	444.5	428.7	416.8
27.5°	434.0	430.0	422.1	399.7	385.8
30°	411.6	409.6	398.4	369.3	358.8
32.5°	390.5	387.2	375.3	344.9	336.4
35°	368.7	366.1	348.2	321.9	313.9
37.5°	346.9	343.6	321.2	300.1	290.2
40°	325.2	321.2	296.8	277.7	267.1
42.5°	304.7	299.4	275.7	255.2	243.4
45°	282.9	277.0	253.3	232.2	222.9
47.5°	261.2	255.9	234.1	212.4	201.8
50°	238.1	233.5	213.7	191.9	180.7
52.5°	219.0	211.7	192.6	170.8	161.6
55°	196.5	190.6	172.8	152.4	144.4
57.5°	176.1	170.2	153.7	134.5	128.0
60°	157.0	148.4	134.5	118.1	112.8
62.5°	135.9	129.3	117.4	103.5	110.1
65°	116.7	110.1	99.6	101.6	84.4
67.5°	95.6	92.3	83.1	73.9	71.2
70°	77.8	73.9	70.6	60.7	58.0
72.5°	62.0	58.0	53.4	48.1	46.2
75°	46.8	43.5	40.9	38.9	42.9
77.5°	32.3	31.0	29.0	27.0	26.4
80°	21.1	20.4	19.8	19.1	18.5
82.5°	12.5	12.5	12.5	12.5	12.5
85°	6.6	7.3	7.9	8.6	9.2
87.5°	4.0	4.0	4.6	5.3	5.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)