

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: P558762

Luminaire Tested: FSR-12-1-LD4-1LO-40-UNV-93-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558762
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-40-UNV-93-94-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 501.0 lumens
Efficiency: N/A
Efficacy: 86.4 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

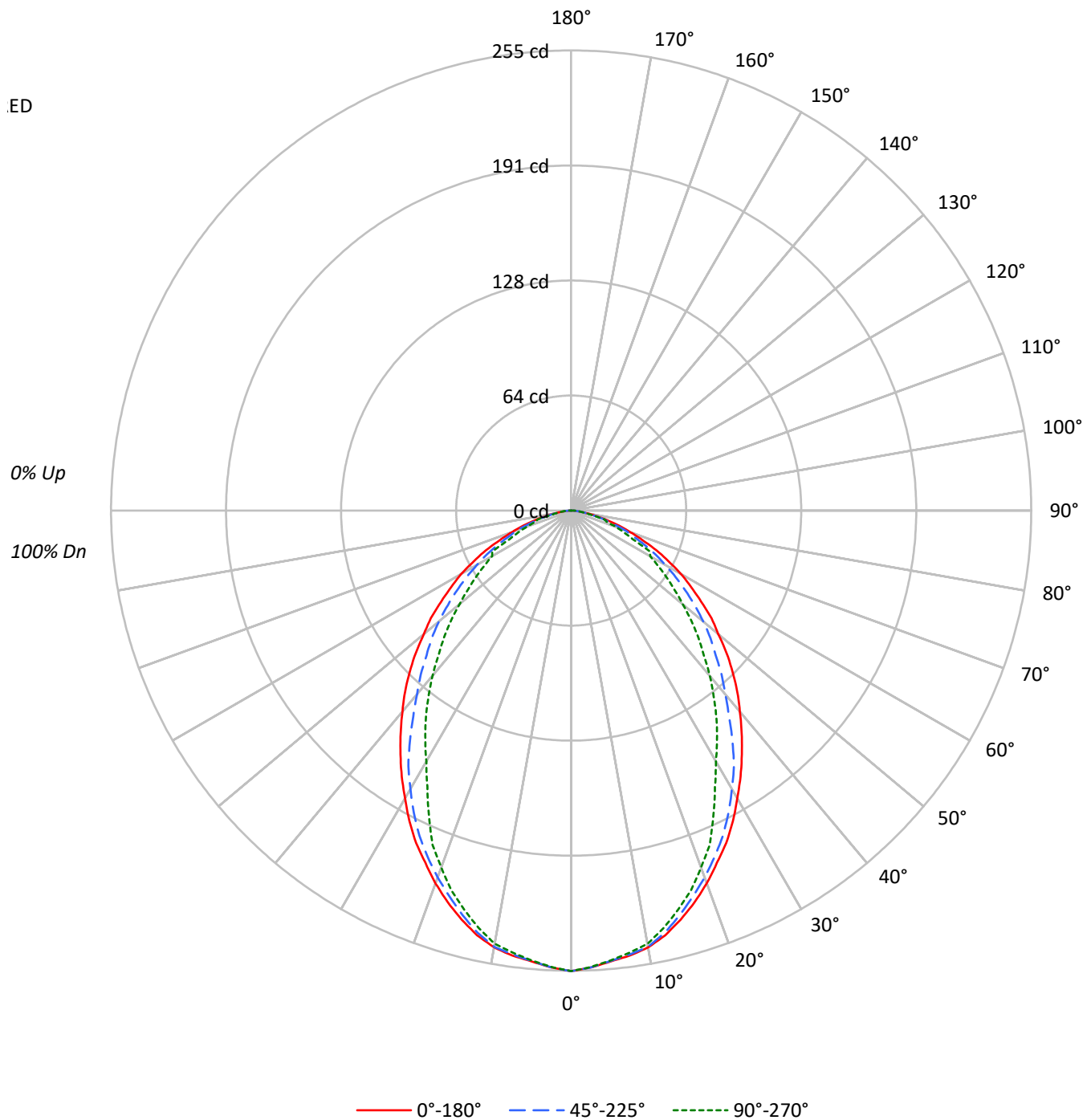
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2747	2747	2747
5°	2710	2707	2703
10°	2687	2683	2664
15°	2614	2588	2551
20°	2518	2478	2410
25°	2415	2362	2215
30°	2288	2215	1995
35°	2167	2047	1845
40°	2044	1866	1679
45°	1927	1725	1518
50°	1783	1601	1353
55°	1650	1451	1212
60°	1511	1296	1087
65°	1330	1133	963
70°	1095	995	818
75°	869	761	799
80°	583	552	514
85°	371	432	506

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1927 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.8	4.7
10°-20°	65.2	13.0
20°-30°	90.3	18.0
30°-40°	96.2	19.2
40°-50°	87.8	17.5
50°-60°	68.8	13.7
60°-70°	44.8	8.9
70°-80°	19.9	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°	179.2	35.8
0°-40°	275.5	55.0
0°-60°	432.0	86.2
0°-90°	501.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	501.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	255	255	255	255	255	
5°	251	250	250	250	250	24
15°	235	235	232	230	229	66
25°	203	202	199	192	186	93
35°	165	164	156	144	140	103
45°	127	124	113	104	100	97
55°	88	85	77	68	65	79
65°	52	49	44	45	38	51
75°	21	20	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°	255.2	255.2	255.2	255.2	255.2
2.5°	253.4	253.4	253.4	253.1	253.1
5°	250.8	250.5	250.5	250.2	250.2
7.5°	248.7	248.4	248.1	247.8	247.2
10°	245.8	245.8	245.5	244.0	243.7
12.5°	241.0	240.7	239.6	237.5	236.9
15°	234.6	234.6	232.2	229.8	228.9
17.5°	227.5	227.2	224.2	221.9	220.7
20°	219.8	219.2	216.3	212.4	210.4
22.5°	211.2	211.2	207.7	202.7	200.6
25°	203.3	202.1	198.9	191.8	186.5
27.5°	194.1	192.4	188.8	178.8	172.6
30°	184.1	183.2	178.2	165.2	160.5
32.5°	174.7	173.2	167.9	154.3	150.5
35°	164.9	163.7	155.8	144.0	140.4
37.5°	155.2	153.7	143.7	134.2	129.8
40°	145.5	143.7	132.8	124.2	119.5
42.5°	136.3	133.9	123.3	114.2	108.9
45°	126.6	123.9	113.3	103.9	99.7
47.5°	116.8	114.5	104.7	95.0	90.3
50°	106.5	104.4	95.6	85.9	80.8
52.5°	98.0	94.7	86.1	76.4	72.3
55°	87.9	85.3	77.3	68.2	64.6
57.5°	78.8	76.1	68.7	60.2	57.2
60°	70.2	66.4	60.2	52.8	50.5
62.5°	60.8	57.8	52.5	46.3	49.3
65°	52.2	49.3	44.5	45.4	37.8
67.5°	42.8	41.3	37.2	33.0	31.9
70°	34.8	33.0	31.6	27.1	26.0
72.5°	27.7	26.0	23.9	21.5	20.7
75°	20.9	19.5	18.3	17.4	19.2
77.5°	14.5	13.9	13.0	12.1	11.8
80°	9.4	9.1	8.9	8.6	8.3
82.5°	5.6	5.6	5.6	5.6	5.6
85°	3.0	3.2	3.5	3.8	4.1
87.5°	1.8	1.8	2.1	2.4	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)