

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: P559970

Luminaire Tested: FSR-12-2-LD4-1LO-50-UNV-93-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559970
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-93-85-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1000.0 lumens
Efficiency: N/A
Efficacy: 85.5 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

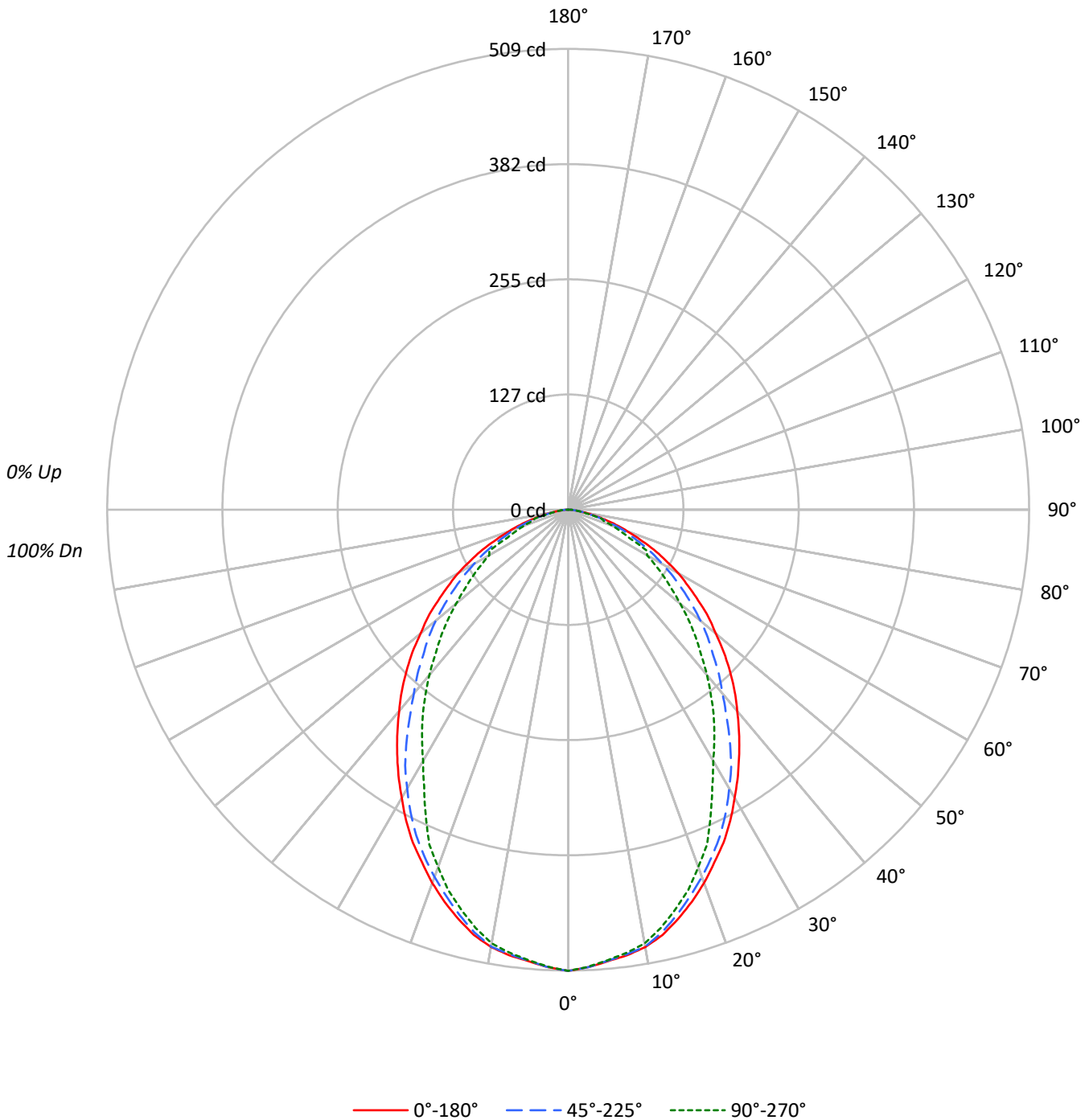
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					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°	2742	2742	2742
5°	2704	2701	2698
10°	2681	2678	2658
15°	2609	2583	2546
20°	2513	2473	2405
25°	2409	2357	2210
30°	2284	2211	1991
35°	2163	2043	1842
40°	2040	1862	1676
45°	1923	1721	1515
50°	1780	1598	1351
55°	1647	1448	1210
60°	1509	1293	1084
65°	1327	1132	960
70°	1094	991	815
75°	869	759	796
80°	583	549	511
85°	364	438	506

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1923 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.4	4.7
10°-20°	130.1	13.0
20°-30°	180.2	18.0
30°-40°	192.1	19.2
40°-50°	175.3	17.5
50°-60°	137.3	13.7
60°-70°	89.5	8.9
70°-80°	39.6	4.0
80°-90°	8.5	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°	357.7	35.8
0°-40°	549.8	55.0
0°-60°	862.4	86.2
0°-90°	1000.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1000.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	509	509	509	509	509	
5°	501	500	500	499	499	48
15°	468	468	464	459	457	132
25°	406	403	397	383	372	186
35°	329	327	311	287	280	206
45°	253	247	226	207	199	195
55°	176	170	154	136	129	157
65°	104	98	89	91	75	103
75°	42	39	36	35	38	45
85°	6	6	7	8	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	509.4	509.4	509.4	509.4	509.4
2.5°	505.9	505.9	505.9	505.3	505.3
5°	500.6	500.0	500.0	499.4	499.4
7.5°	496.4	495.8	495.3	494.7	493.5
10°	490.5	490.5	490.0	487.0	486.4
12.5°	481.1	480.5	478.2	474.1	472.9
15°	468.2	468.2	463.5	458.7	457.0
17.5°	454.0	453.4	447.6	442.8	440.5
20°	438.7	437.5	431.7	424.0	419.9
22.5°	421.6	421.6	414.6	404.6	400.4
25°	405.7	403.4	396.9	382.8	372.2
27.5°	387.5	384.0	376.9	356.9	344.5
30°	367.5	365.7	355.7	329.8	320.4
32.5°	348.6	345.7	335.1	308.0	300.3
35°	329.2	326.8	310.9	287.4	280.3
37.5°	309.8	306.8	286.8	267.9	259.1
40°	290.3	286.8	265.0	247.9	238.5
42.5°	272.1	267.4	246.2	227.9	217.3
45°	252.6	247.3	226.1	207.3	199.0
47.5°	233.2	228.5	209.1	189.6	180.2
50°	212.6	208.5	190.8	171.4	161.4
52.5°	195.5	189.0	172.0	152.5	144.3
55°	175.5	170.2	154.3	136.0	129.0
57.5°	157.2	151.9	137.2	120.1	114.2
60°	140.2	132.5	120.1	105.4	100.7
62.5°	121.3	115.4	104.8	92.5	98.3
65°	104.2	98.3	88.9	90.7	75.4
67.5°	85.4	82.4	74.2	66.0	63.6
70°	69.5	66.0	63.0	54.2	51.8
72.5°	55.4	51.8	47.7	43.0	41.2
75°	41.8	38.9	36.5	34.7	38.3
77.5°	28.9	27.7	25.9	24.1	23.6
80°	18.8	18.3	17.7	17.1	16.5
82.5°	11.2	11.2	11.2	11.2	11.2
85°	5.9	6.5	7.1	7.7	8.2
87.5°	3.5	3.5	4.1	4.7	5.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)