

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: P559368

Luminaire Tested: FSR-12-1-LD4-2LO-50-UNV-81-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559368
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-LD4-2LO-50-UNV-81-88-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 842.0 lumens
Efficiency: N/A
Efficacy: 72.0 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

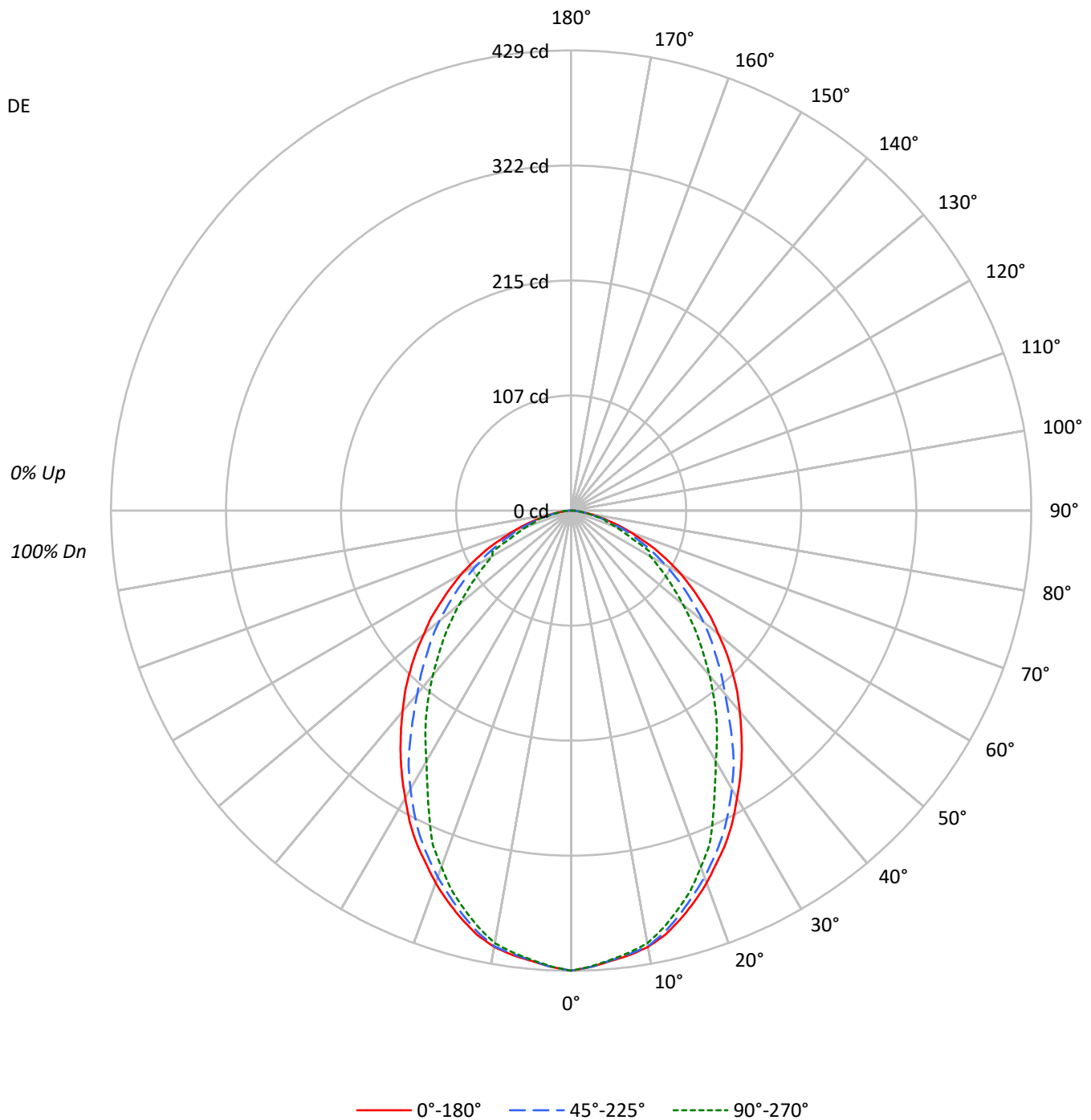
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	4617	4617	4617
5°	4554	4549	4544
10°	4514	4509	4477
15°	4393	4348	4288
20°	4231	4164	4049
25°	4057	3969	3722
30°	3846	3723	3352
35°	3642	3440	3101
40°	3436	3135	2821
45°	3238	2898	2551
50°	2997	2691	2276
55°	2774	2438	2038
60°	2540	2179	1826
65°	2236	1908	1617
70°	1841	1671	1372
75°	1464	1277	1339
80°	986	924	862
85°	618	741	852

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3238 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.9	4.7
10°-20°	109.6	13.0
20°-30°	151.7	18.0
30°-40°	161.7	19.2
40°-50°	147.6	17.5
50°-60°	115.6	13.7
60°-70°	75.4	8.9
70°-80°	33.4	4.0
80°-90°	7.2	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°	301.2	35.8
0°-40°	462.9	55.0
0°-60°	726.1	86.2
0°-90°	842.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	842.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	429	429	429	429	429	
5°	422	421	421	420	420	40
15°	394	394	390	386	385	111
25°	342	340	334	322	313	157
35°	277	275	262	242	236	173
45°	213	208	190	174	168	164
55°	148	143	130	114	109	133
65°	88	83	75	76	64	86
75°	35	33	31	29	32	38
85°	5	6	6	6	7	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	428.9	428.9	428.9	428.9	428.9
2.5°	425.9	425.9	425.9	425.4	425.4
5°	421.5	421.0	421.0	420.5	420.5
7.5°	418.0	417.5	417.0	416.5	415.5
10°	413.0	413.0	412.5	410.1	409.6
12.5°	405.1	404.6	402.6	399.2	398.2
15°	394.2	394.2	390.2	386.3	384.8
17.5°	382.3	381.8	376.8	372.9	370.9
20°	369.4	368.4	363.5	357.0	353.5
22.5°	355.0	355.0	349.1	340.6	337.2
25°	341.6	339.7	334.2	322.3	313.4
27.5°	326.3	323.3	317.3	300.5	290.1
30°	309.4	307.9	299.5	277.7	269.7
32.5°	293.5	291.1	282.1	259.3	252.9
35°	277.2	275.2	261.8	242.0	236.0
37.5°	260.8	258.3	241.5	225.6	218.2
40°	244.5	241.5	223.1	208.7	200.8
42.5°	229.1	225.1	207.3	191.9	183.0
45°	212.7	208.3	190.4	174.5	167.6
47.5°	196.4	192.4	176.0	159.7	151.7
50°	179.0	175.5	160.7	144.3	135.9
52.5°	164.6	159.2	144.8	128.4	121.5
55°	147.8	143.3	129.9	114.5	108.6
57.5°	132.4	127.9	115.5	101.2	96.2
60°	118.0	111.6	101.2	88.8	84.8
62.5°	102.1	97.2	88.3	77.8	82.8
65°	87.8	82.8	74.9	76.4	63.5
67.5°	71.9	69.4	62.5	55.5	53.6
70°	58.5	55.5	53.1	45.6	43.6
72.5°	46.6	43.6	40.2	36.2	34.7
75°	35.2	32.7	30.7	29.3	32.2
77.5°	24.3	23.3	21.8	20.3	19.8
80°	15.9	15.4	14.9	14.4	13.9
82.5°	9.4	9.4	9.4	9.4	9.4
85°	5.0	5.5	6.0	6.4	6.9
87.5°	3.0	3.0	3.5	4.0	4.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)