

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: P559363

Luminaire Tested: FSR-12-1-LD4-2LO-50-UNV-81-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559363
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-81-85-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1124.0 lumens
Efficiency: N/A
Efficacy: 96.1 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

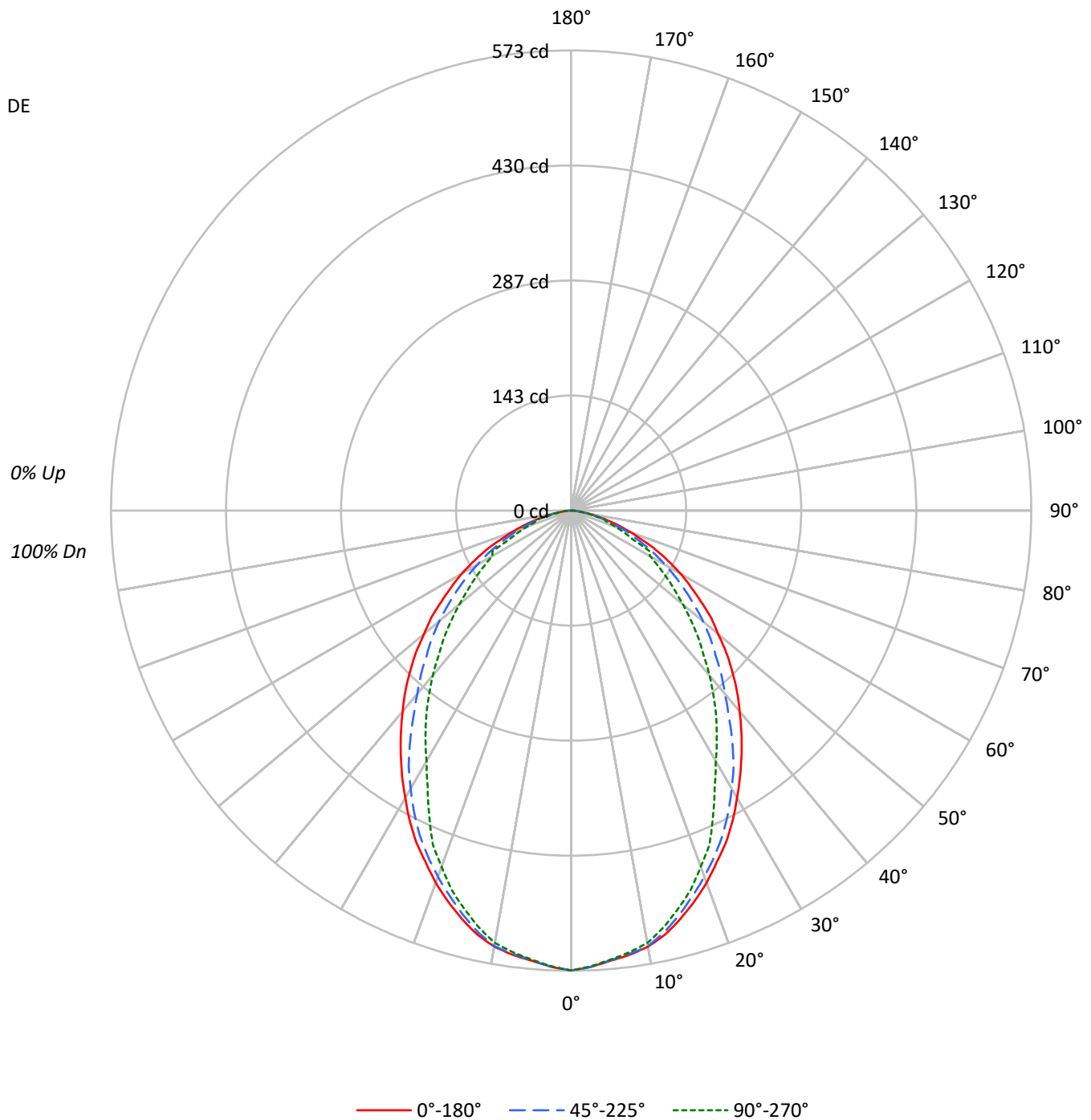
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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	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	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	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	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	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	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	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	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	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	30	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6163	6163	6163
5°	6079	6072	6065
10°	6027	6019	5975
15°	5864	5805	5723
20°	5648	5558	5405
25°	5417	5298	4968
30°	5133	4969	4476
35°	4862	4593	4141
40°	4585	4186	3767
45°	4323	3870	3405
50°	4001	3592	3038
55°	3701	3254	2721
60°	3391	2906	2437
65°	2985	2544	2157
70°	2458	2228	1832
75°	1955	1705	1788
80°	1314	1234	1147
85°	815	976	1149

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4323 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.3	4.7
10°-20°	146.3	13.0
20°-30°	202.5	18.0
30°-40°	215.9	19.2
40°-50°	197.0	17.5
50°-60°	154.3	13.7
60°-70°	100.6	8.9
70°-80°	44.5	4.0
80°-90°	9.6	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°	402.1	35.8
0°-40°	618.0	55.0
0°-60°	969.3	86.2
0°-90°	1124.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1124.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	573	573	573	573	573	
5°	563	562	562	561	561	53
15°	526	526	521	516	514	148
25°	456	453	446	430	418	209
35°	370	367	350	323	315	231
45°	284	278	254	233	224	219
55°	197	191	173	153	145	177
65°	117	110	100	102	85	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°	572.6	572.6	572.6	572.6	572.6
2.5°	568.6	568.6	568.6	567.9	567.9
5°	562.6	562.0	562.0	561.3	561.3
7.5°	558.0	557.3	556.7	556.0	554.7
10°	551.4	551.4	550.7	547.4	546.7
12.5°	540.8	540.1	537.5	532.8	531.5
15°	526.2	526.2	520.9	515.6	513.6
17.5°	510.3	509.7	503.1	497.8	495.1
20°	493.1	491.8	485.2	476.6	471.9
22.5°	473.9	473.9	466.0	454.7	450.1
25°	456.1	453.4	446.1	430.2	418.3
27.5°	435.5	431.6	423.6	401.1	387.2
30°	413.0	411.0	399.8	370.7	360.1
32.5°	391.8	388.5	376.6	346.2	337.6
35°	370.0	367.4	349.5	323.0	315.1
37.5°	348.2	344.9	322.3	301.2	291.2
40°	326.3	322.3	297.9	278.7	268.1
42.5°	305.8	300.5	276.7	256.2	244.2
45°	284.0	278.0	254.2	233.0	223.7
47.5°	262.1	256.8	235.0	213.1	202.5
50°	238.9	234.3	214.5	192.6	181.4
52.5°	219.8	212.5	193.3	171.4	162.2
55°	197.2	191.3	173.4	152.9	145.0
57.5°	176.7	170.8	154.2	135.0	128.4
60°	157.5	148.9	135.0	118.5	113.2
62.5°	136.4	129.7	117.8	103.9	110.5
65°	117.2	110.5	99.9	101.9	84.7
67.5°	96.0	92.7	83.4	74.1	71.5
70°	78.1	74.1	70.8	60.9	58.2
72.5°	62.2	58.2	53.6	48.3	46.3
75°	47.0	43.7	41.0	39.1	43.0
77.5°	32.4	31.1	29.1	27.1	26.5
80°	21.2	20.5	19.9	19.2	18.5
82.5°	12.6	12.6	12.6	12.6	12.6
85°	6.6	7.3	7.9	8.6	9.3
87.5°	4.0	4.0	4.6	5.3	6.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)