

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: P559312

Luminaire Tested: FSR-12-1-LD4-2LO-40-UNV-82-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559312
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-40-UNV-82-84-EDD-90
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 927.0 lumens
Efficiency: N/A
Efficacy: 79.2 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

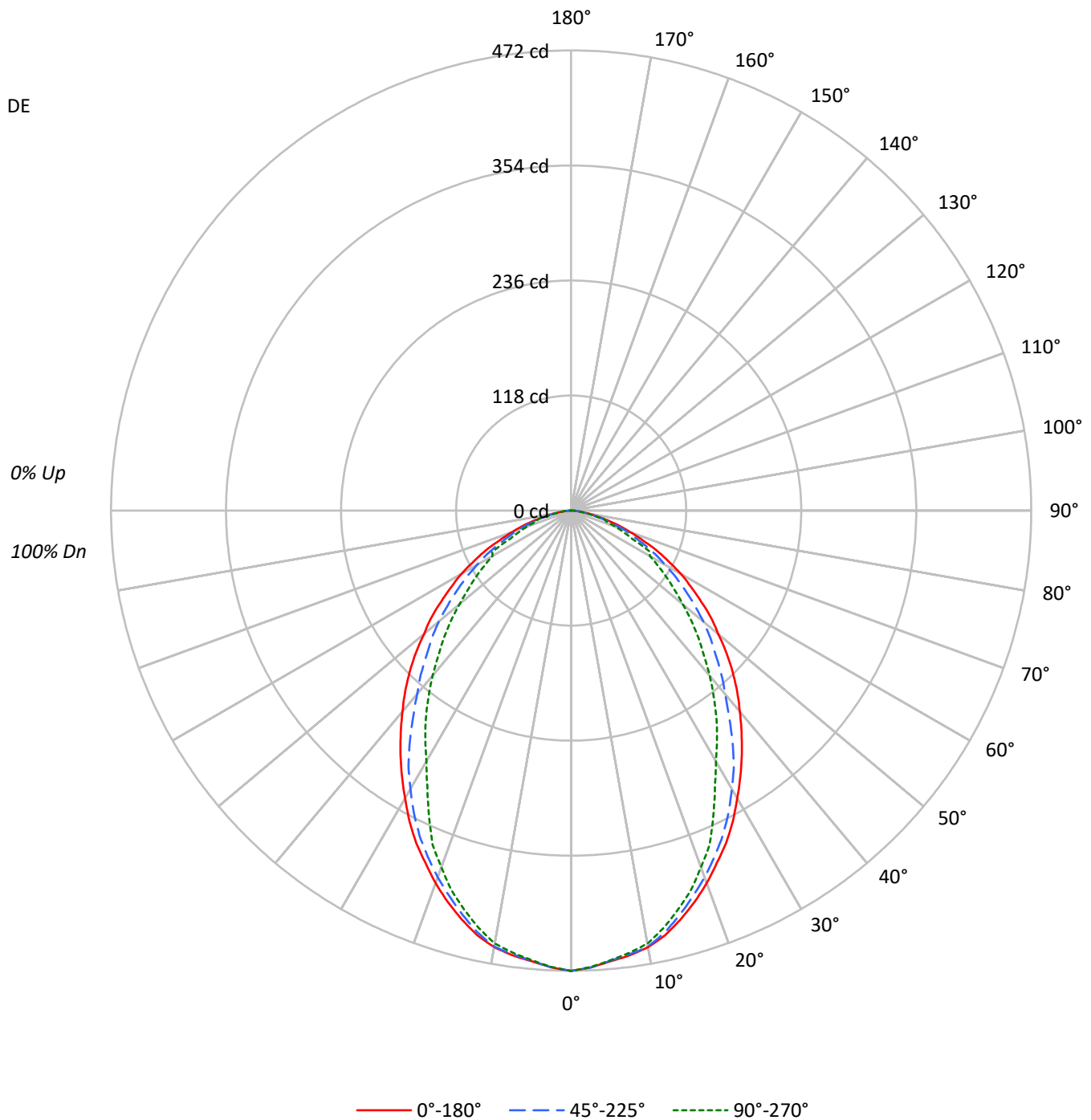
Input Watts (W): 11.7
Input Voltage (V):
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	5083	5083	5083
5°	5014	5008	5002
10°	4970	4964	4928
15°	4836	4787	4720
20°	4659	4583	4458
25°	4467	4369	4097
30°	4233	4098	3691
35°	4010	3787	3414
40°	3781	3452	3107
45°	3565	3191	2809
50°	3301	2962	2505
55°	3053	2684	2244
60°	2796	2398	2009
65°	2460	2099	1780
70°	2027	1838	1511
75°	1614	1406	1476
80°	1085	1017	948
85°	679	815	939

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3565 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.0	4.7
10°-20°	120.6	13.0
20°-30°	167.0	18.0
30°-40°	178.1	19.2
40°-50°	162.5	17.5
50°-60°	127.3	13.7
60°-70°	83.0	8.9
70°-80°	36.7	4.0
80°-90°	7.9	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°	331.6	35.8
0°-40°	509.7	55.0
0°-60°	799.4	86.2
0°-90°	927.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	927.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	472	472	472	472	472	
5°	464	464	464	463	463	44
15°	434	434	430	425	424	122
25°	376	374	368	355	345	173
35°	305	303	288	266	260	191
45°	234	229	210	192	184	180
55°	163	158	143	126	120	146
65°	97	91	82	84	70	95
75°	39	36	34	32	36	42
85°	6	6	7	7	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	472.2	472.2	472.2	472.2	472.2
2.5°	468.9	468.9	468.9	468.4	468.4
5°	464.0	463.5	463.5	462.9	462.9
7.5°	460.2	459.6	459.1	458.6	457.5
10°	454.7	454.7	454.2	451.5	450.9
12.5°	446.0	445.5	443.3	439.4	438.4
15°	434.0	434.0	429.6	425.3	423.6
17.5°	420.9	420.3	414.9	410.5	408.3
20°	406.7	405.6	400.1	393.0	389.2
22.5°	390.9	390.9	384.3	375.0	371.2
25°	376.1	373.9	367.9	354.8	345.0
27.5°	359.2	355.9	349.4	330.8	319.4
30°	340.6	339.0	329.7	305.7	297.0
32.5°	323.2	320.4	310.6	285.5	278.4
35°	305.2	303.0	288.2	266.4	259.8
37.5°	287.1	284.4	265.9	248.4	240.2
40°	269.1	265.9	245.7	229.8	221.1
42.5°	252.2	247.8	228.2	211.3	201.4
45°	234.2	229.3	209.6	192.2	184.5
47.5°	216.2	211.8	193.8	175.8	167.0
50°	197.1	193.2	176.9	158.9	149.6
52.5°	181.2	175.2	159.4	141.4	133.7
55°	162.7	157.8	143.0	126.1	119.6
57.5°	145.8	140.8	127.2	111.4	105.9
60°	129.9	122.8	111.4	97.7	93.3
62.5°	112.5	107.0	97.2	85.7	91.2
65°	96.6	91.2	82.4	84.1	69.9
67.5°	79.2	76.4	68.8	61.1	59.0
70°	64.4	61.1	58.4	50.2	48.0
72.5°	51.3	48.0	44.2	39.9	38.2
75°	38.8	36.0	33.8	32.2	35.5
77.5°	26.7	25.7	24.0	22.4	21.8
80°	17.5	16.9	16.4	15.8	15.3
82.5°	10.4	10.4	10.4	10.4	10.4
85°	5.5	6.0	6.6	7.1	7.6
87.5°	3.3	3.3	3.8	4.4	4.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)