

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: P559305

Luminaire Tested: FSR-12-1-LD4-2LO-40-UNV-81-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559305
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-81-88-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 952.0 lumens
Efficiency: N/A
Efficacy: 81.4 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

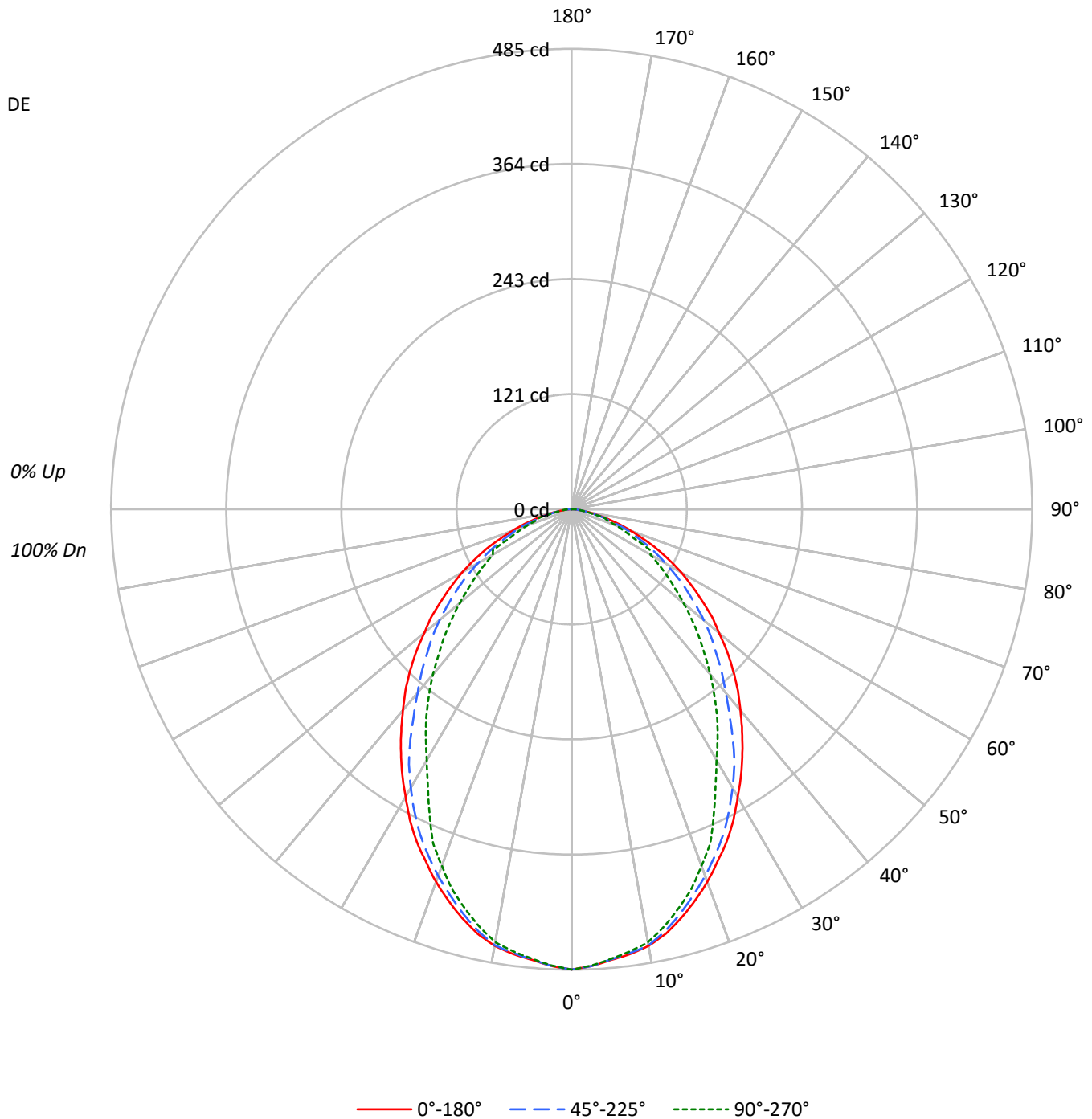
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	5219	5219	5219
5°	5149	5143	5137
10°	5104	5098	5062
15°	4967	4917	4847
20°	4785	4707	4578
25°	4588	4488	4208
30°	4348	4208	3791
35°	4118	3890	3507
40°	3884	3545	3191
45°	3661	3277	2885
50°	3389	3041	2572
55°	3136	2757	2305
60°	2872	2463	2065
65°	2527	2157	1829
70°	2083	1888	1552
75°	1655	1447	1514
80°	1110	1041	973
85°	692	827	963

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3661 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.1	4.7
10°-20°	123.9	13.0
20°-30°	171.5	18.0
30°-40°	182.9	19.2
40°-50°	166.8	17.5
50°-60°	130.7	13.7
60°-70°	85.2	8.9
70°-80°	37.7	4.0
80°-90°	8.1	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°	340.5	35.8
0°-40°	523.4	55.0
0°-60°	821.0	86.2
0°-90°	952.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	952.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	485	485	485	485	485	
5°	476	476	476	475	475	45
15°	446	446	441	437	435	125
25°	386	384	378	364	354	177
35°	313	311	296	274	267	196
45°	240	236	215	197	190	185
55°	167	162	147	130	123	150
65°	99	94	85	86	72	98
75°	40	37	35	33	36	43
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°	484.9	484.9	484.9	484.9	484.9
2.5°	481.6	481.6	481.6	481.0	481.0
5°	476.5	476.0	476.0	475.4	475.4
7.5°	472.6	472.0	471.5	470.9	469.8
10°	467.0	467.0	466.4	463.6	463.1
12.5°	458.0	457.5	455.2	451.3	450.2
15°	445.7	445.7	441.2	436.7	435.0
17.5°	432.2	431.7	426.1	421.6	419.3
20°	417.7	416.5	410.9	403.6	399.7
22.5°	401.4	401.4	394.7	385.1	381.2
25°	386.3	384.0	377.9	364.4	354.3
27.5°	368.9	365.5	358.8	339.7	328.0
30°	349.8	348.1	338.6	313.9	305.0
32.5°	331.9	329.1	319.0	293.2	285.9
35°	313.4	311.1	296.0	273.6	266.9
37.5°	294.9	292.1	273.0	255.1	246.7
40°	276.4	273.0	252.3	236.0	227.1
42.5°	259.0	254.5	234.3	217.0	206.9
45°	240.5	235.5	215.3	197.3	189.5
47.5°	222.0	217.5	199.0	180.5	171.5
50°	202.4	198.5	181.6	163.1	153.6
52.5°	186.1	180.0	163.7	145.2	137.4
55°	167.1	162.0	146.9	129.5	122.8
57.5°	149.7	144.6	130.6	114.4	108.8
60°	133.4	126.1	114.4	100.4	95.9
62.5°	115.5	109.9	99.8	88.0	93.6
65°	99.2	93.6	84.7	86.3	71.8
67.5°	81.3	78.5	70.6	62.8	60.5
70°	66.2	62.8	60.0	51.6	49.3
72.5°	52.7	49.3	45.4	40.9	39.2
75°	39.8	37.0	34.8	33.1	36.4
77.5°	27.5	26.3	24.7	23.0	22.4
80°	17.9	17.4	16.8	16.3	15.7
82.5°	10.7	10.7	10.7	10.7	10.7
85°	5.6	6.2	6.7	7.3	7.8
87.5°	3.4	3.4	3.9	4.5	5.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)