

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: P559319

Luminaire Tested: FSR-12-1-LD4-2LO-40-UNV-82-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559319
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-82-87-EDD
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1035.0 lumens
Efficiency: N/A
Efficacy: 88.5 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

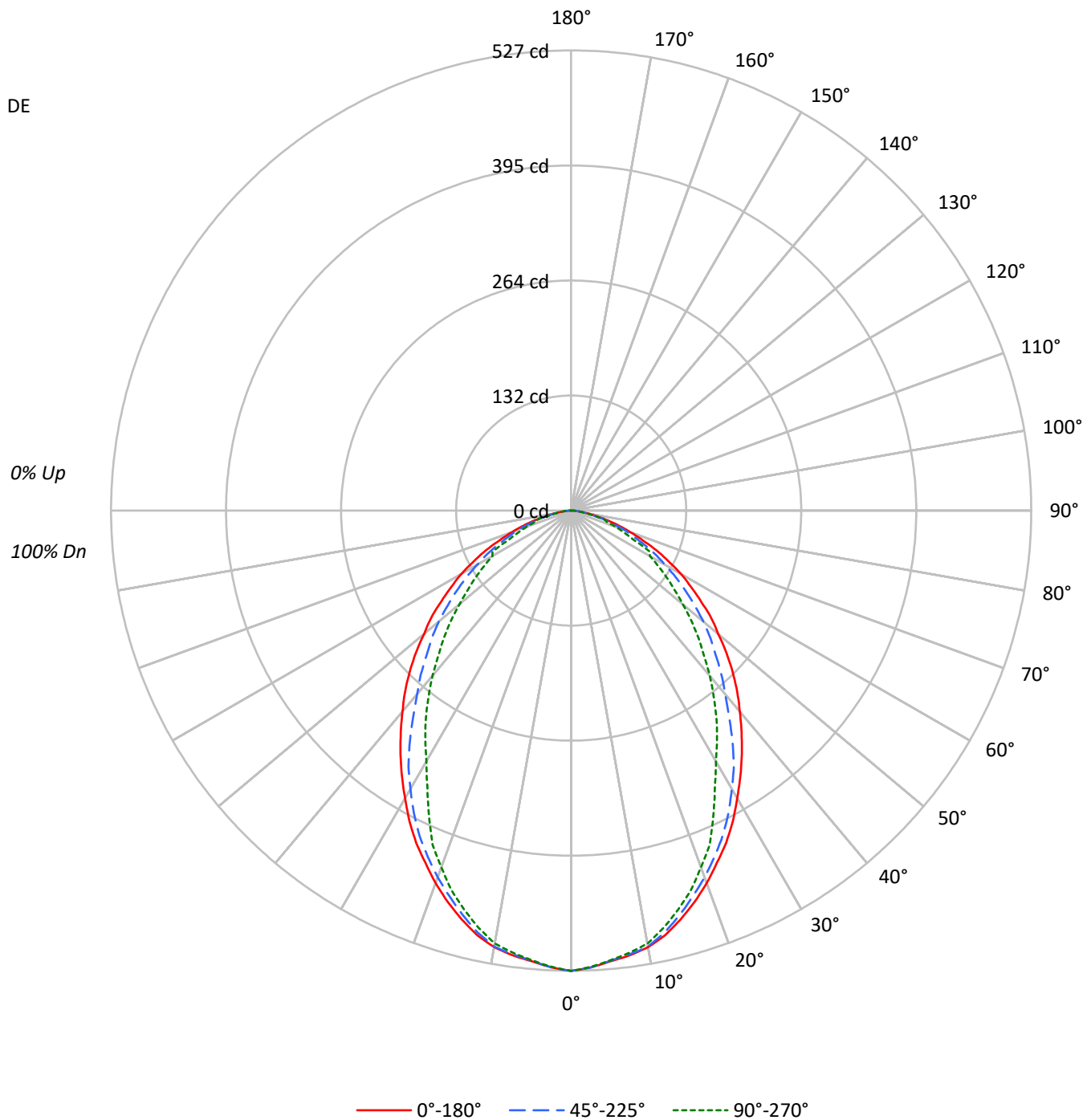
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	5675	5675	5675
5°	5598	5592	5585
10°	5549	5543	5502
15°	5400	5346	5271
20°	5202	5118	4978
25°	4987	4879	4575
30°	4727	4575	4121
35°	4477	4229	3812
40°	4222	3854	3468
45°	3981	3562	3136
50°	3684	3307	2797
55°	3408	2997	2505
60°	3124	2676	2243
65°	2748	2343	1987
70°	2263	2052	1687
75°	1801	1572	1647
80°	1209	1134	1060
85°	753	902	1050

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3981 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.1	4.7
10°-20°	134.7	13.0
20°-30°	186.5	18.0
30°-40°	198.8	19.2
40°-50°	181.4	17.5
50°-60°	142.1	13.7
60°-70°	92.6	8.9
70°-80°	41.0	4.0
80°-90°	8.8	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°	370.2	35.8
0°-40°	569.1	55.0
0°-60°	892.5	86.2
0°-90°	1035.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1035.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	527	527	527	527	527	
5°	518	518	518	517	517	49
15°	485	485	480	475	473	136
25°	420	418	411	396	385	193
35°	341	338	322	297	290	213
45°	262	256	234	214	206	201
55°	182	176	160	141	134	163
65°	108	102	92	94	78	106
75°	43	40	38	36	40	46
85°	6	7	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°	527.2	527.2	527.2	527.2	527.2
2.5°	523.6	523.6	523.6	522.9	522.9
5°	518.1	517.5	517.5	516.9	516.9
7.5°	513.8	513.2	512.6	512.0	510.8
10°	507.7	507.7	507.1	504.1	503.4
12.5°	498.0	497.3	494.9	490.6	489.4
15°	484.6	484.6	479.7	474.8	473.0
17.5°	469.9	469.3	463.2	458.3	455.9
20°	454.1	452.9	446.8	438.8	434.6
22.5°	436.4	436.4	429.1	418.7	414.5
25°	419.9	417.5	410.8	396.2	385.2
27.5°	401.0	397.4	390.1	369.4	356.6
30°	380.3	378.5	368.1	341.3	331.6
32.5°	360.8	357.8	346.8	318.8	310.8
35°	340.7	338.3	321.8	297.4	290.1
37.5°	320.6	317.5	296.8	277.3	268.2
40°	300.5	296.8	274.3	256.6	246.8
42.5°	281.6	276.7	254.8	235.9	224.9
45°	261.5	256.0	234.0	214.5	206.0
47.5°	241.4	236.5	216.4	196.3	186.5
50°	220.0	215.8	197.5	177.4	167.0
52.5°	202.4	195.6	178.0	157.9	149.3
55°	181.6	176.1	159.7	140.8	133.5
57.5°	162.7	157.3	142.0	124.3	118.2
60°	145.1	137.1	124.3	109.1	104.2
62.5°	125.6	119.5	108.5	95.7	101.8
65°	107.9	101.8	92.0	93.9	78.0
67.5°	88.4	85.3	76.8	68.3	65.8
70°	71.9	68.3	65.2	56.1	53.6
72.5°	57.3	53.6	49.4	44.5	42.7
75°	43.3	40.2	37.8	36.0	39.6
77.5°	29.9	28.6	26.8	25.0	24.4
80°	19.5	18.9	18.3	17.7	17.1
82.5°	11.6	11.6	11.6	11.6	11.6
85°	6.1	6.7	7.3	7.9	8.5
87.5°	3.7	3.7	4.3	4.9	5.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)