

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: P589947

Luminaire Tested: FSR-24-2-LD4-1LO-35-UNV-80-96-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P589947
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-1LO-35-UNV-80-96-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1444.0 lumens
Efficiency: N/A
Efficacy: 123.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

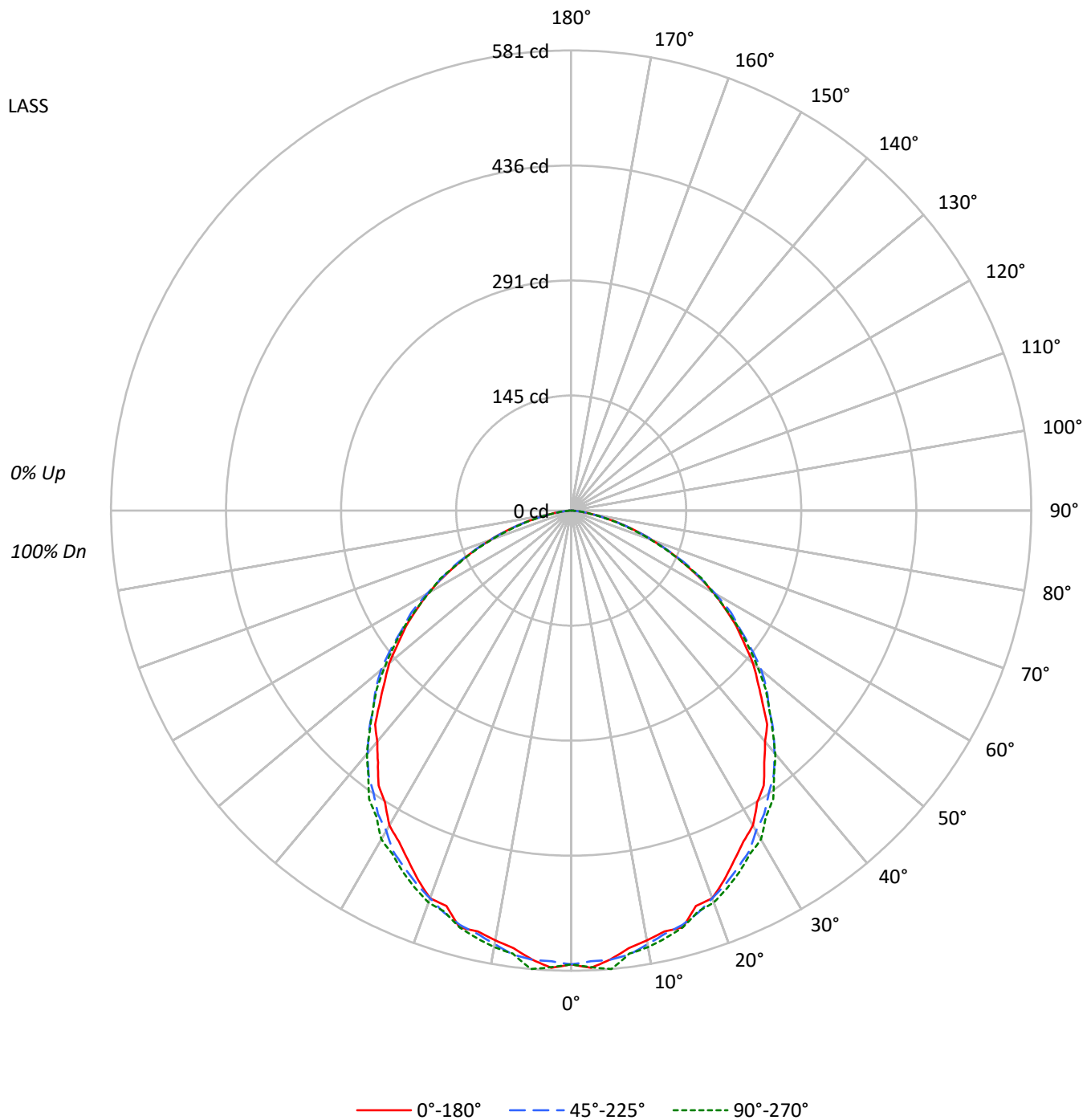
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1542	1542	1542
5°	1537	1537	1570
10°	1506	1519	1529
15°	1517	1509	1518
20°	1492	1492	1508
25°	1446	1477	1494
30°	1426	1451	1490
35°	1393	1429	1461
40°	1338	1403	1409
45°	1298	1344	1346
50°	1255	1312	1287
55°	1196	1219	1210
60°	1118	1130	1109
65°	997	1023	990
70°	855	858	835
75°	678	676	650
80°	454	442	425
85°	247	244	228

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1379 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.9	3.7
10°-20°	152.7	10.6
20°-30°	228.8	15.8
30°-40°	271.2	18.8
40°-50°	271.7	18.8
50°-60°	230.7	16.0
60°-70°	155.5	10.8
70°-80°	68.3	4.7
80°-90°	11.1	0.8
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°	435.5	30.2
0°-40°	706.7	48.9
0°-60°	1209.1	83.7
0°-90°	1444.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1444.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	573	573	573	573	573	
5°	569	568	569	567	581	54
15°	545	538	542	544	545	152
25°	487	490	498	504	503	225
35°	424	425	435	445	445	263
45°	341	347	353	362	354	264
55°	255	253	260	258	258	227
65°	157	154	161	154	156	156
75°	65	64	65	60	62	70
85°	8	8	8	8	7	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	572.9	572.9	572.9	572.9	572.9
2.5°	577.9	573.5	569.5	574.2	577.1
5°	568.9	567.5	569.1	567.4	581.1
7.5°	557.2	562.3	565.2	563.4	564.2
10°	551.0	549.2	555.8	560.4	559.7
12.5°	544.3	547.0	547.3	552.3	552.7
15°	544.7	538.4	541.7	544.5	544.8
17.5°	523.5	530.3	532.6	539.1	531.1
20°	520.9	516.0	520.9	527.5	526.5
22.5°	505.0	499.5	510.1	516.0	515.6
25°	487.0	489.6	497.6	504.1	503.1
27.5°	471.2	474.3	485.7	494.6	488.8
30°	458.9	457.4	467.0	475.0	479.4
32.5°	437.1	442.7	454.0	461.9	457.7
35°	423.9	425.1	435.0	445.0	444.7
37.5°	400.7	406.6	420.4	423.2	420.6
40°	381.0	386.8	399.3	402.4	401.1
42.5°	366.4	367.4	378.2	381.6	376.1
45°	341.0	347.4	353.2	362.3	353.7
47.5°	319.4	322.4	334.8	337.3	332.7
50°	299.8	300.9	313.4	310.3	307.4
52.5°	275.2	279.6	286.6	286.0	282.5
55°	254.9	253.2	259.9	258.1	258.0
57.5°	230.6	233.5	239.0	236.2	231.7
60°	207.8	207.9	209.9	206.7	206.1
62.5°	182.4	183.3	183.8	179.8	186.2
65°	156.6	154.5	160.6	154.5	155.5
67.5°	132.9	133.9	133.3	129.5	130.9
70°	108.7	110.1	109.1	104.7	106.1
72.5°	86.7	85.1	86.1	80.6	83.1
75°	65.2	63.8	65.0	60.4	62.5
77.5°	44.4	45.4	44.7	42.2	43.6
80°	29.3	28.5	28.5	27.1	27.4
82.5°	17.1	16.3	16.1	15.6	16.3
85°	8.0	7.8	7.9	7.7	7.4
87.5°	2.9	3.0	3.0	2.8	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)