

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: P589998

Luminaire Tested: FSR-24-2-LD4-1LO-40-UNV-93-85-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P589998
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-40-UNV-93-85-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1445.0 lumens
Efficiency: N/A
Efficacy: 123.5 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

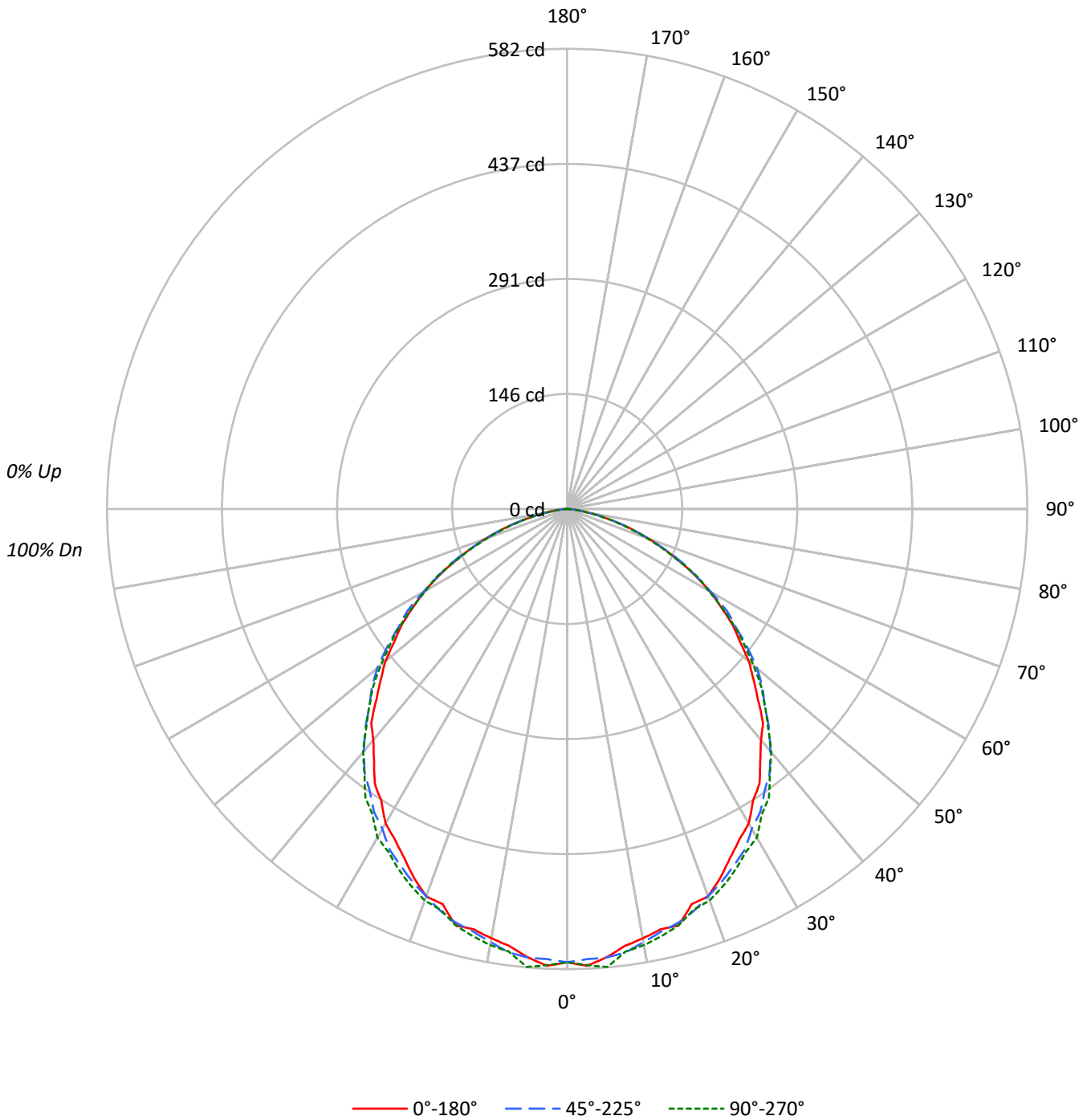
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	1543	1543	1543
5°	1538	1538	1571
10°	1507	1520	1530
15°	1519	1510	1519
20°	1493	1493	1509
25°	1447	1479	1495
30°	1427	1452	1491
35°	1394	1430	1462
40°	1339	1404	1410
45°	1299	1345	1347
50°	1256	1313	1288
55°	1197	1220	1211
60°	1119	1130	1110
65°	998	1023	991
70°	856	859	836
75°	678	677	651
80°	454	442	425
85°	247	244	228

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1380 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.9	3.7
10°-20°	152.8	10.6
20°-30°	229.0	15.8
30°-40°	271.4	18.8
40°-50°	271.9	18.8
50°-60°	230.8	16.0
60°-70°	155.6	10.8
70°-80°	68.4	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°	435.8	30.2
0°-40°	707.2	48.9
0°-60°	1209.9	83.7
0°-90°	1445.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1445.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	573	573	573	573	573	
5°	569	568	570	568	582	54
15°	545	539	542	545	545	152
25°	487	490	498	504	504	225
35°	424	425	435	445	445	263
45°	341	348	353	362	354	264
55°	255	253	260	258	258	227
65°	157	155	161	155	156	156
75°	65	64	65	60	63	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°	573.3	573.3	573.3	573.3	573.3
2.5°	578.3	573.9	569.9	574.6	577.5
5°	569.3	567.9	569.5	567.8	581.5
7.5°	557.6	562.7	565.6	563.8	564.6
10°	551.4	549.6	556.2	560.8	560.1
12.5°	544.7	547.4	547.7	552.7	553.1
15°	545.1	538.8	542.1	544.9	545.1
17.5°	523.9	530.7	533.0	539.4	531.4
20°	521.3	516.3	521.3	527.9	526.9
22.5°	505.4	499.8	510.5	516.3	516.0
25°	487.3	490.0	498.0	504.5	503.5
27.5°	471.5	474.6	486.0	494.9	489.2
30°	459.3	457.7	467.3	475.3	479.8
32.5°	437.4	443.1	454.3	462.2	458.0
35°	424.2	425.4	435.3	445.3	445.1
37.5°	401.0	406.9	420.7	423.5	420.9
40°	381.2	387.1	399.6	402.6	401.4
42.5°	366.7	367.7	378.4	381.9	376.4
45°	341.3	347.6	353.4	362.5	353.9
47.5°	319.6	322.6	335.0	337.5	333.0
50°	300.0	301.1	313.6	310.5	307.6
52.5°	275.4	279.7	286.8	286.2	282.7
55°	255.1	253.4	260.1	258.3	258.2
57.5°	230.7	233.7	239.2	236.4	231.9
60°	207.9	208.0	210.0	206.8	206.2
62.5°	182.6	183.4	183.9	180.0	186.3
65°	156.7	154.6	160.7	154.6	155.6
67.5°	133.0	134.0	133.4	129.5	131.0
70°	108.8	110.2	109.2	104.8	106.2
72.5°	86.8	85.1	86.2	80.7	83.2
75°	65.2	63.9	65.1	60.5	62.6
77.5°	44.4	45.5	44.7	42.3	43.7
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)