

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: P590073

Luminaire Tested: FSR-24-2-LD4-1STD-40-UNV-80-88-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590073
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-LD4-1STD-40-UNV-80-88-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONM
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1664.0 lumens
Efficiency: N/A
Efficacy: 100.2 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

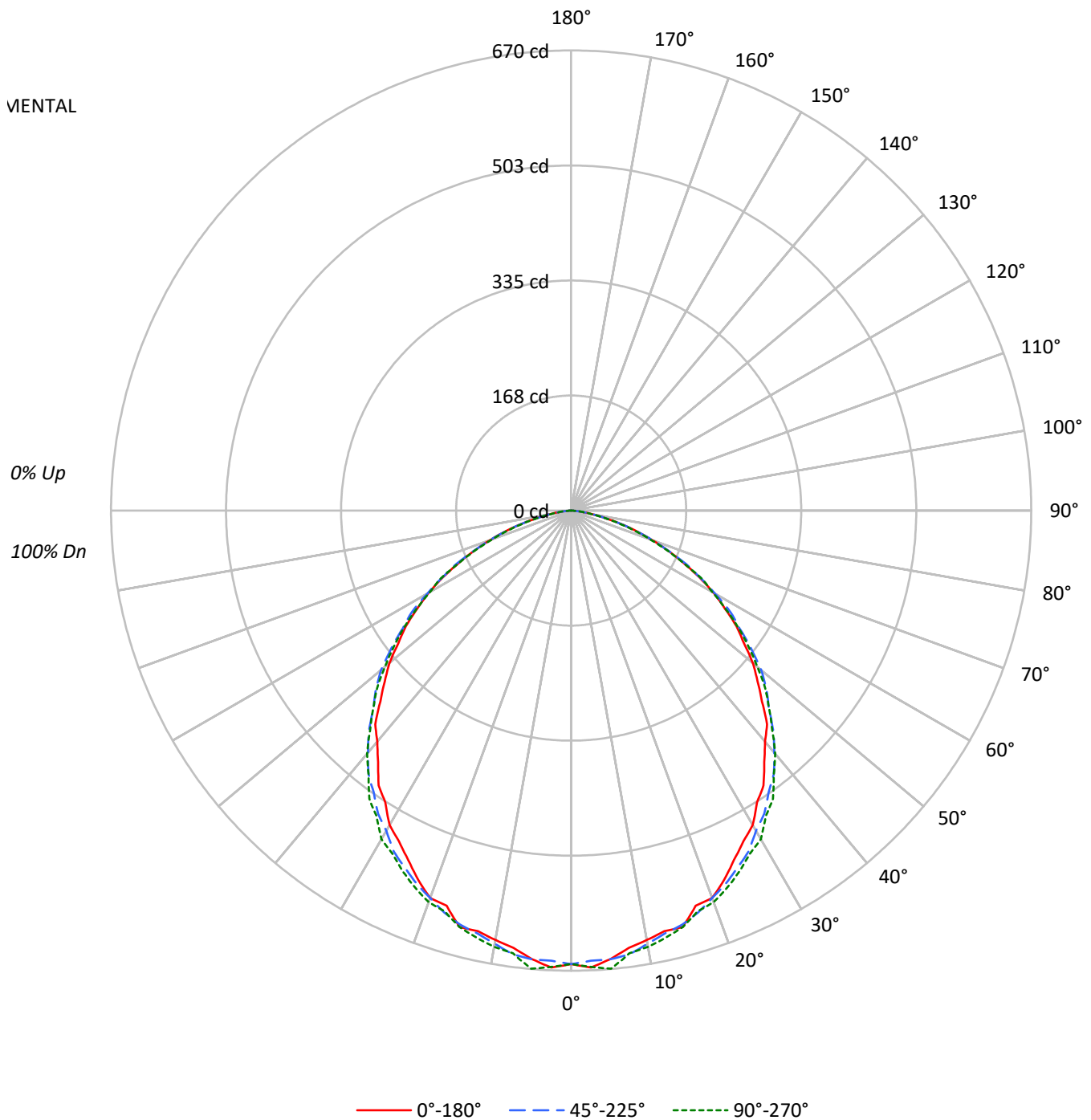
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P590073

CATALOG NUMBER: FSR-24-2-LD4-1STD-40-UNV-80-88-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P590073

CATALOG NUMBER: FSR-24-2-LD4-1STD-40-UNV-80-88-EDD

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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86				86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73				73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62				62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53				53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46				46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41				41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36				36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32				32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29				29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26				26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1777	1777	1777
5°	1771	1771	1809
10°	1735	1750	1762
15°	1749	1739	1749
20°	1719	1719	1737
25°	1666	1703	1722
30°	1643	1672	1717
35°	1605	1646	1684
40°	1542	1617	1624
45°	1496	1549	1551
50°	1446	1512	1483
55°	1378	1405	1395
60°	1289	1301	1278
65°	1149	1179	1141
70°	986	989	961
75°	781	779	749
80°	524	508	488
85°	284	281	262

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1589 cd/sqm



TEST NUMBER: P590073

CATALOG NUMBER: FSR-24-2-LD4-1STD-40-UNV-80-88-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.1	3.7
10°-20°	176.0	10.6
20°-30°	263.7	15.8
30°-40°	312.5	18.8
40°-50°	313.1	18.8
50°-60°	265.8	16.0
60°-70°	179.2	10.8
70°-80°	78.7	4.7
80°-90°	12.8	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°	501.8	30.2
0°-40°	814.4	48.9
0°-60°	1393.3	83.7
0°-90°	1664.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1664.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	660	660	660	660	660	
5°	656	654	656	654	670	62
15°	628	620	624	628	628	175
25°	561	564	574	581	580	259
35°	488	490	501	513	512	303
45°	393	400	407	418	408	304
55°	294	292	300	297	297	261
65°	180	178	185	178	179	179
75°	75	74	75	70	72	80
85°	9	9	9	9	8	13
90°	0	0	0	0	0	



TEST NUMBER: P590073

CATALOG NUMBER: FSR-24-2-LD4-1STD-40-UNV-80-88-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	660.2	660.2	660.2	660.2	660.2
2.5°	665.9	660.9	656.2	661.7	665.0
5°	655.5	654.0	655.8	653.8	669.6
7.5°	642.1	648.0	651.4	649.2	650.2
10°	634.9	632.9	640.5	645.7	645.0
12.5°	627.2	630.3	630.7	636.4	637.0
15°	627.7	620.4	624.3	627.5	627.8
17.5°	603.3	611.1	613.8	621.2	612.0
20°	600.3	594.6	600.3	607.9	606.7
22.5°	582.0	575.6	587.9	594.6	594.2
25°	561.2	564.2	573.5	581.0	579.8
27.5°	542.9	546.5	559.6	570.0	563.3
30°	528.9	527.1	538.2	547.4	552.5
32.5°	503.7	510.2	523.2	532.3	527.4
35°	488.5	489.9	501.2	512.8	512.5
37.5°	461.8	468.5	484.5	487.7	484.7
40°	439.0	445.8	460.2	463.7	462.2
42.5°	422.2	423.4	435.8	439.8	433.4
45°	393.0	400.3	407.0	417.5	407.6
47.5°	368.1	371.5	385.8	388.6	383.4
50°	345.5	346.7	361.1	357.6	354.2
52.5°	317.1	322.1	330.2	329.6	325.6
55°	293.8	291.8	299.5	297.4	297.3
57.5°	265.7	269.1	275.4	272.2	267.0
60°	239.5	239.5	241.8	238.2	237.5
62.5°	210.2	211.2	211.8	207.2	214.6
65°	180.5	178.1	185.1	178.0	179.2
67.5°	153.1	154.3	153.6	149.2	150.9
70°	125.3	126.8	125.7	120.7	122.2
72.5°	99.9	98.0	99.2	92.9	95.8
75°	75.1	73.6	74.9	69.6	72.0
77.5°	51.1	52.3	51.5	48.7	50.3
80°	33.8	32.8	32.8	31.2	31.5
82.5°	19.7	18.8	18.5	18.0	18.8
85°	9.2	9.0	9.1	8.9	8.5
87.5°	3.3	3.4	3.4	3.2	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)