

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: P590551

Luminaire Tested: FSR-24-2-LD4-3LO-40-UNV-80-86-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590551
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-LD4-3LO-40-UNV-80-86-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4278.0 lumens
Efficiency: N/A
Efficacy: 121.9 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

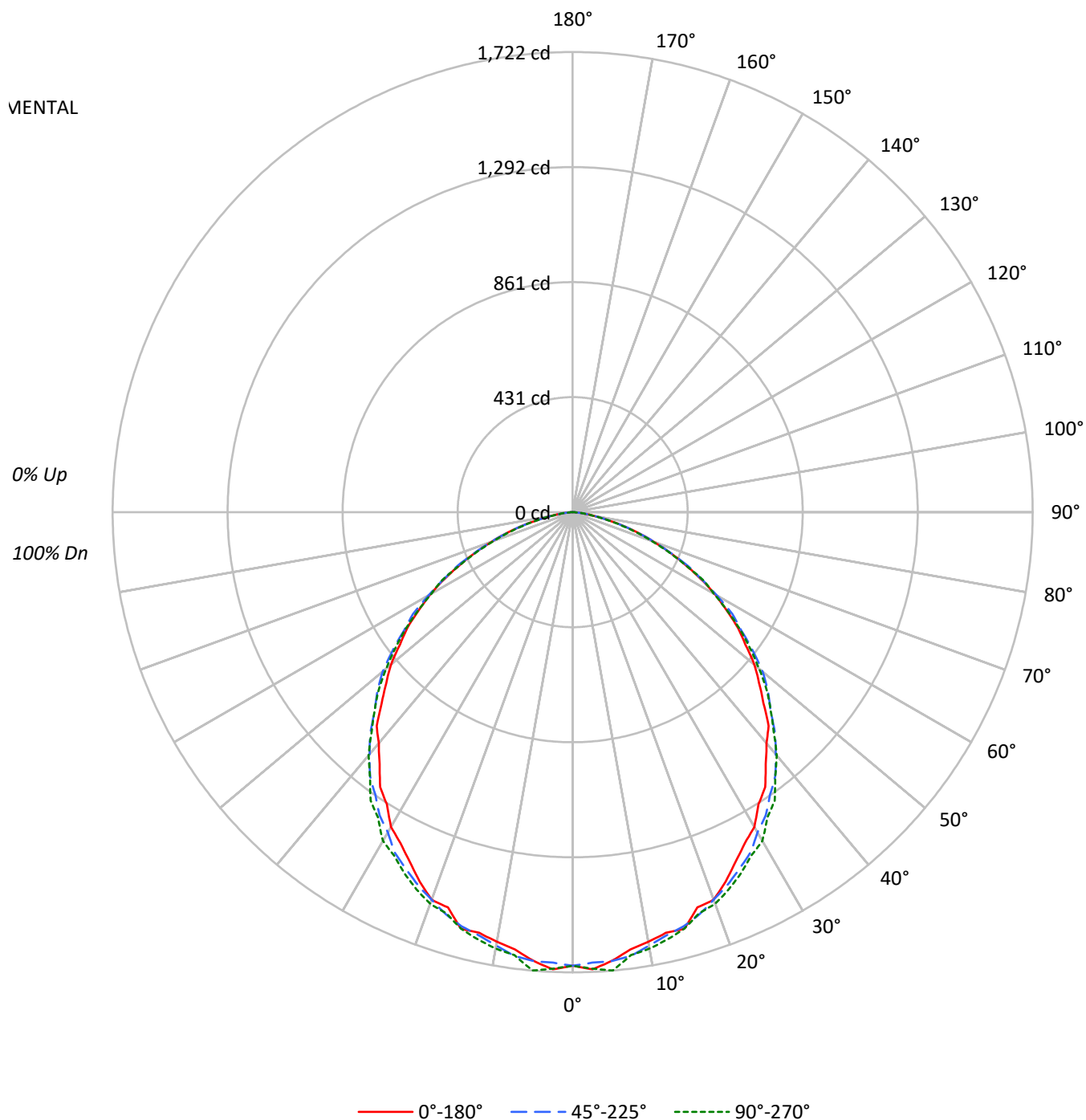
Input Watts (W): 35.1
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	4568	4568	4568
5°	4552	4554	4650
10°	4460	4499	4531
15°	4496	4471	4496
20°	4420	4420	4467
25°	4284	4377	4426
30°	4225	4299	4414
35°	4125	4233	4328
40°	3965	4156	4174
45°	3845	3982	3988
50°	3719	3887	3812
55°	3543	3612	3586
60°	3313	3347	3286
65°	2954	3030	2933
70°	2535	2544	2473
75°	2008	2002	1926
80°	1345	1308	1257
85°	732	726	676

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°

Vertical Angle: 45°

Luminance: 4084 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.7	3.7
10°-20°	452.5	10.6
20°-30°	678.0	15.8
30°-40°	803.5	18.8
40°-50°	805.0	18.8
50°-60°	683.3	16.0
60°-70°	460.7	10.8
70°-80°	202.4	4.7
80°-90°	32.9	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°	1290.1	30.2
0°-40°	2093.7	48.9
0°-60°	3582.0	83.7
0°-90°	4278.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4278.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1697	1697	1697	1697	1697	
5°	1685	1681	1686	1681	1722	159
15°	1614	1595	1605	1613	1614	450
25°	1443	1451	1474	1494	1490	667
35°	1256	1260	1289	1318	1318	780
45°	1010	1029	1046	1073	1048	782
55°	755	750	770	765	764	672
65°	464	458	476	458	461	461
75°	193	189	193	179	185	207
85°	24	23	24	23	22	34
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1697.4	1697.4	1697.4	1697.4	1697.4
2.5°	1712.1	1699.2	1687.1	1701.1	1709.7
5°	1685.3	1681.4	1686.0	1681.0	1721.5
7.5°	1650.7	1665.8	1674.6	1669.1	1671.5
10°	1632.3	1627.1	1646.6	1660.1	1658.2
12.5°	1612.6	1620.5	1621.6	1636.3	1637.6
15°	1613.7	1595.1	1604.9	1613.2	1613.9
17.5°	1551.0	1571.2	1578.0	1597.0	1573.4
20°	1543.3	1528.6	1543.3	1562.8	1559.8
22.5°	1496.2	1479.8	1511.3	1528.6	1527.6
25°	1442.7	1450.6	1474.3	1493.6	1490.5
27.5°	1395.8	1405.0	1438.8	1465.3	1448.2
30°	1359.7	1355.1	1383.6	1407.2	1420.4
32.5°	1295.0	1311.7	1345.0	1368.4	1355.9
35°	1255.8	1259.5	1288.7	1318.5	1317.6
37.5°	1187.2	1204.5	1245.5	1253.8	1246.1
40°	1128.7	1146.0	1183.0	1192.0	1188.3
42.5°	1085.5	1088.6	1120.4	1130.7	1114.2
45°	1010.3	1029.2	1046.3	1073.2	1047.8
47.5°	946.3	955.1	991.9	999.2	985.8
50°	888.3	891.3	928.4	919.4	910.6
52.5°	815.3	828.2	849.0	847.3	837.0
55°	755.2	750.2	769.9	764.7	764.4
57.5°	683.1	691.9	708.1	699.8	686.4
60°	615.6	615.8	621.8	612.3	610.6
62.5°	540.5	543.1	544.4	532.8	551.6
65°	464.0	457.8	475.8	457.6	460.7
67.5°	393.6	396.7	394.9	383.5	387.9
70°	322.2	326.1	323.3	310.3	314.3
72.5°	256.9	252.0	255.1	238.9	246.3
75°	193.1	189.1	192.6	179.1	185.2
77.5°	131.5	134.6	132.4	125.1	129.3
80°	86.8	84.4	84.4	80.2	81.1
82.5°	50.6	48.2	47.6	46.2	48.2
85°	23.7	23.0	23.5	22.8	21.9
87.5°	8.5	8.8	8.8	8.3	7.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)