

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: P590200

Luminaire Tested: FSR-24-2-LD4-2HI-50-UNV-80-87-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590200
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-LD4-2HI-50-UNV-80-87-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONM
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4610.0 lumens
Efficiency: N/A
Efficacy: 106.7 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

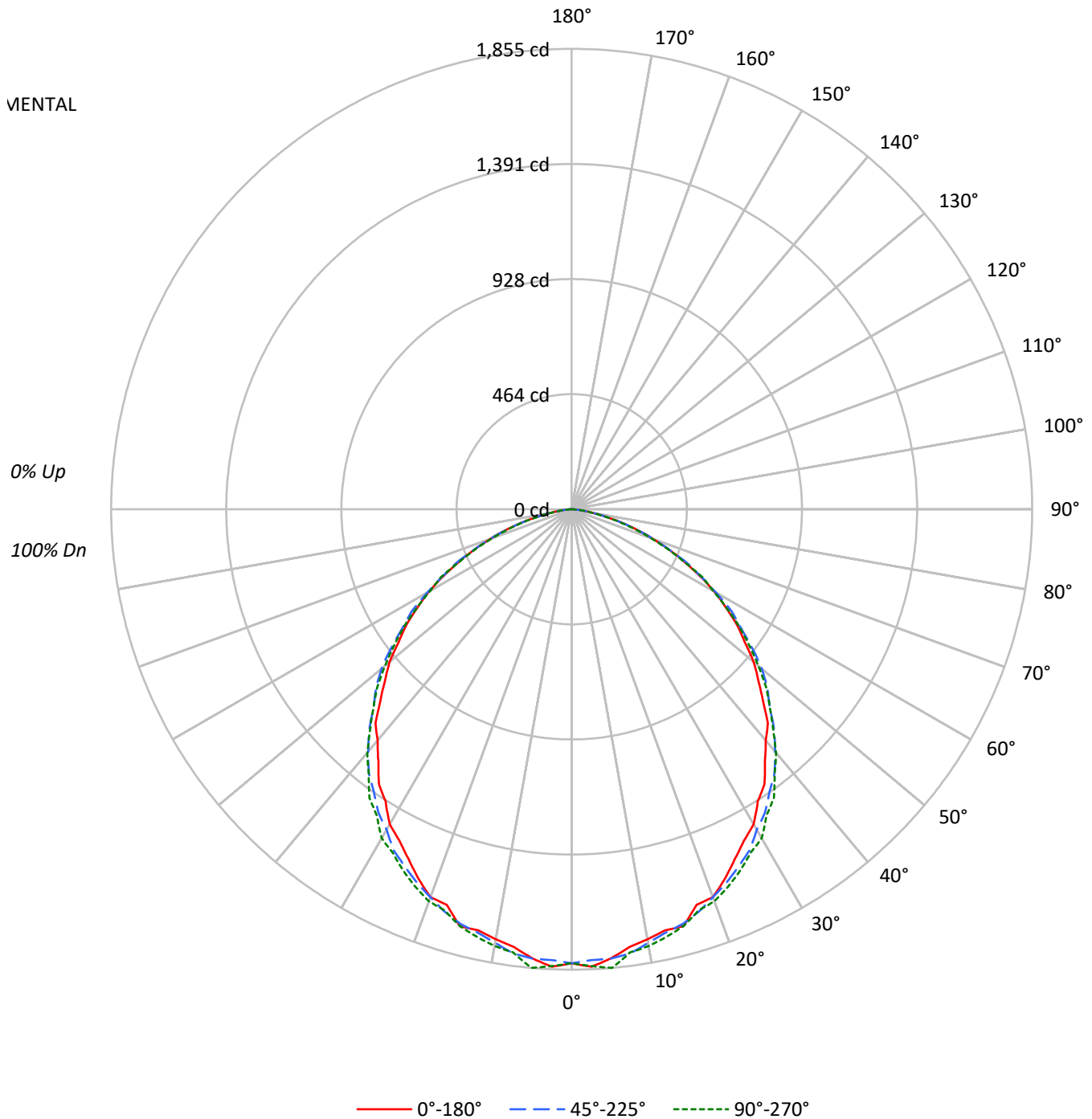
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	4922	4922	4922
5°	4906	4908	5011
10°	4806	4848	4883
15°	4844	4818	4845
20°	4763	4763	4813
25°	4616	4717	4769
30°	4553	4633	4756
35°	4446	4562	4664
40°	4273	4478	4498
45°	4143	4291	4297
50°	4007	4188	4108
55°	3818	3893	3865
60°	3570	3606	3541
65°	3184	3265	3161
70°	2732	2740	2665
75°	2164	2158	2075
80°	1449	1409	1354
85°	787	781	729

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 4401 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.1	3.7
10°-20°	487.6	10.6
20°-30°	730.6	15.8
30°-40°	865.9	18.8
40°-50°	867.5	18.8
50°-60°	736.3	16.0
60°-70°	496.4	10.8
70°-80°	218.1	4.7
80°-90°	35.4	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°	1390.3	30.2
0°-40°	2256.1	48.9
0°-60°	3860.0	83.7
0°-90°	4610.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4610.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1829	1829	1829	1829	1829	
5°	1816	1812	1817	1811	1855	171
15°	1739	1719	1730	1738	1739	484
25°	1555	1563	1589	1610	1606	719
35°	1353	1357	1389	1421	1420	840
45°	1089	1109	1128	1156	1129	842
55°	814	808	830	824	824	724
65°	500	493	513	493	496	497
75°	208	204	208	193	200	223
85°	26	25	25	25	24	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1829.1	1829.1	1829.1	1829.1	1829.1
2.5°	1845.0	1831.0	1818.0	1833.1	1842.4
5°	1816.1	1811.9	1816.9	1811.4	1855.1
7.5°	1778.8	1795.1	1804.6	1798.7	1801.3
10°	1759.0	1753.3	1774.3	1789.0	1786.9
12.5°	1737.7	1746.2	1747.4	1763.2	1764.7
15°	1738.9	1718.8	1729.5	1738.4	1739.2
17.5°	1671.4	1693.1	1700.4	1721.0	1695.5
20°	1663.1	1647.3	1663.1	1684.1	1680.8
22.5°	1612.3	1594.6	1628.6	1647.3	1646.1
25°	1554.7	1563.2	1588.7	1609.5	1606.2
27.5°	1504.2	1514.1	1550.5	1579.0	1560.6
30°	1465.2	1460.2	1490.9	1516.4	1530.6
32.5°	1395.5	1413.5	1449.4	1474.6	1461.2
35°	1353.3	1357.3	1388.7	1420.8	1419.9
37.5°	1279.3	1298.0	1342.2	1351.1	1342.9
40°	1216.3	1234.9	1274.8	1284.5	1280.5
42.5°	1169.7	1173.1	1207.3	1218.4	1200.7
45°	1088.7	1109.1	1127.5	1156.5	1129.1
47.5°	1019.8	1029.2	1068.9	1076.7	1062.3
50°	957.2	960.5	1000.4	990.7	981.3
52.5°	878.5	892.5	914.9	913.0	901.9
55°	813.8	808.4	829.7	824.0	823.8
57.5°	736.1	745.6	763.1	754.1	739.7
60°	663.4	663.6	670.0	659.9	658.0
62.5°	582.4	585.2	586.6	574.1	594.4
65°	500.0	493.4	512.7	493.1	496.4
67.5°	424.2	427.5	425.6	413.3	418.0
70°	347.2	351.4	348.3	334.4	338.7
72.5°	276.8	271.6	274.9	257.4	265.5
75°	208.1	203.8	207.6	193.0	199.6
77.5°	141.7	145.0	142.6	134.9	139.3
80°	93.5	90.9	90.9	86.4	87.4
82.5°	54.6	52.0	51.2	49.8	52.0
85°	25.5	24.8	25.3	24.6	23.6
87.5°	9.2	9.4	9.4	9.0	8.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)