

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P589055

Luminaire Tested: **FMR-24-2-LD4-2HI-50-UNV-81-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589055
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 (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMR-24-2-LD4-2HI-50-UNV-81-86-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

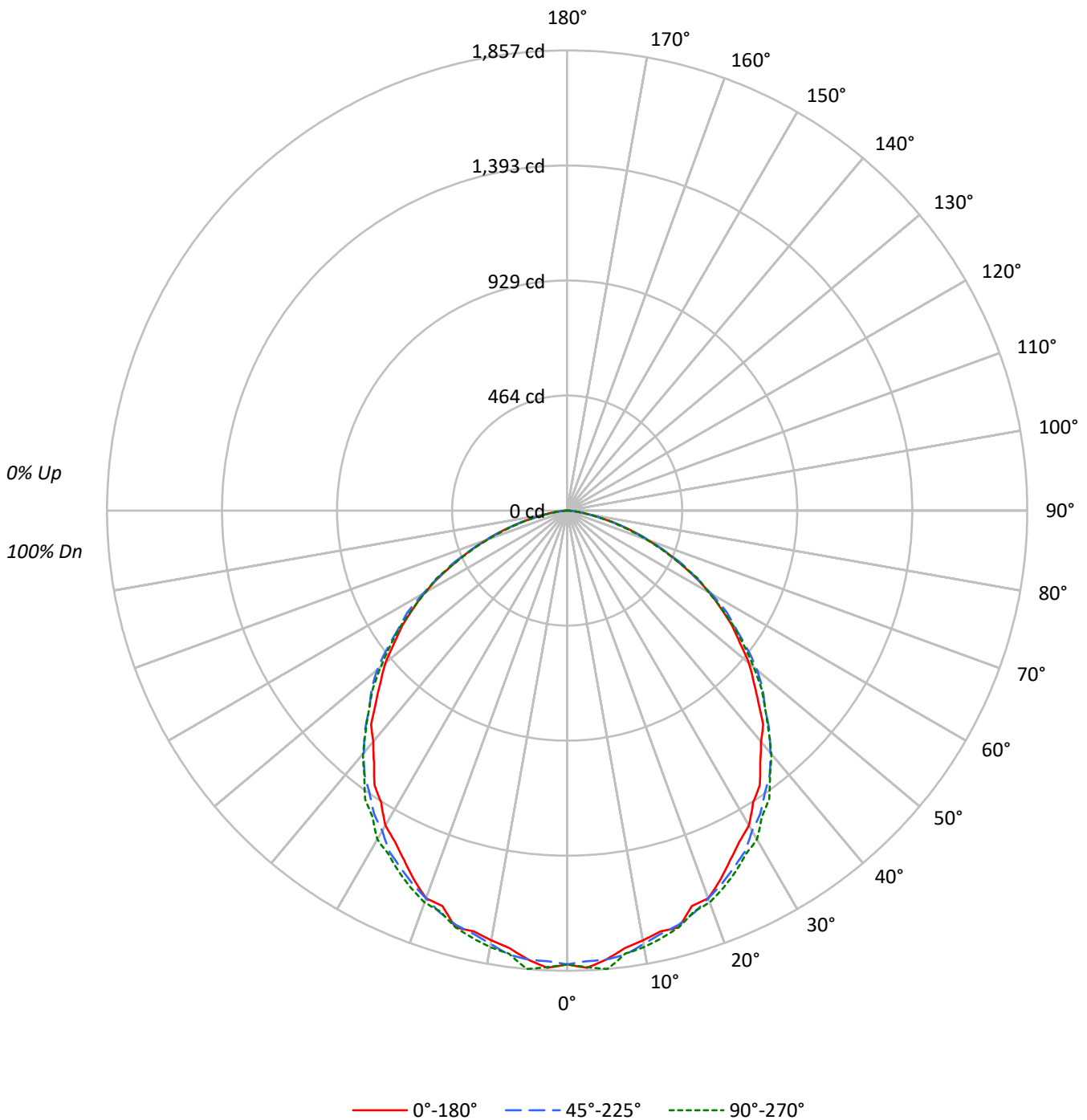
Lumens per Lamp: N/A
Luminaire Lumens: 4615.0 lumens
Efficiency: N/A
Efficacy: 106.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
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: 25 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°	4927	4927	4927
5°	4911	4913	5017
10°	4812	4854	4888
15°	4850	4823	4850
20°	4768	4768	4818
25°	4621	4722	4774
30°	4558	4638	4761
35°	4450	4567	4669
40°	4277	4483	4503
45°	4148	4295	4302
50°	4011	4193	4112
55°	3822	3897	3869
60°	3574	3610	3545
65°	3187	3268	3165
70°	2734	2744	2667
75°	2166	2161	2077
80°	1450	1410	1356
85°	787	781	729



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.2	3.7
10°-20°	488.2	10.6
20°-30°	731.4	15.8
30°-40°	866.8	18.8
40°-50°	868.4	18.8
50°-60°	737.1	16.0
60°-70°	497.0	10.8
70°-80°	218.4	4.7
80°-90°	35.5	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°	1391.8	30.2
0°-40°	2258.6	48.9
0°-60°	3864.1	83.7
0°-90°	4615.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4615.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1831	1831	1831	1831	1831	
5°	1818	1814	1819	1813	1857	171
15°	1741	1721	1731	1740	1741	485
25°	1556	1565	1590	1611	1608	720
35°	1355	1359	1390	1422	1421	841
45°	1090	1110	1129	1158	1130	843
55°	815	809	831	825	825	725
65°	500	494	513	494	497	498
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°	1831.1	1831.1	1831.1	1831.1	1831.1
2.5°	1847.0	1833.0	1820.0	1835.1	1844.4
5°	1818.1	1813.9	1818.8	1813.4	1857.1
7.5°	1780.8	1797.1	1806.5	1800.6	1803.2
10°	1760.9	1755.2	1776.3	1790.9	1788.8
12.5°	1739.6	1748.1	1749.3	1765.2	1766.6
15°	1740.8	1720.7	1731.3	1740.3	1741.0
17.5°	1673.2	1694.9	1702.3	1722.8	1697.3
20°	1664.9	1649.1	1664.9	1686.0	1682.6
22.5°	1614.1	1596.3	1630.4	1649.1	1647.9
25°	1556.4	1564.9	1590.4	1611.2	1607.9
27.5°	1505.8	1515.7	1552.1	1580.7	1562.3
30°	1466.8	1461.8	1492.6	1518.1	1532.3
32.5°	1397.0	1415.0	1450.9	1476.2	1462.8
35°	1354.7	1358.7	1390.2	1422.3	1421.4
37.5°	1280.7	1299.4	1343.6	1352.6	1344.3
40°	1217.6	1236.3	1276.2	1285.9	1281.9
42.5°	1171.0	1174.3	1208.6	1219.7	1202.0
45°	1089.9	1110.3	1128.7	1157.8	1130.4
47.5°	1020.9	1030.3	1070.1	1077.9	1063.4
50°	958.2	961.5	1001.5	991.8	982.3
52.5°	879.5	893.5	915.9	914.0	902.9
55°	814.7	809.3	830.6	824.9	824.7
57.5°	736.9	746.4	763.9	754.9	740.5
60°	664.1	664.4	670.7	660.6	658.7
62.5°	583.0	585.9	587.3	574.8	595.1
65°	500.5	493.9	513.3	493.7	497.0
67.5°	424.6	427.9	426.0	413.7	418.5
70°	347.5	351.8	348.7	334.8	339.0
72.5°	277.1	271.9	275.2	257.7	265.7
75°	208.3	204.0	207.8	193.2	199.8
77.5°	141.9	145.2	142.8	135.0	139.5
80°	93.6	91.0	91.0	86.5	87.5
82.5°	54.6	52.0	51.3	49.9	52.0
85°	25.5	24.8	25.3	24.6	23.6
87.5°	9.2	9.5	9.5	9.0	8.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)