

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: P588989

Luminaire Tested: **FMR-24-2-LD4-2HI-35-UNV-81-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588989
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-35-UNV-81-84-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

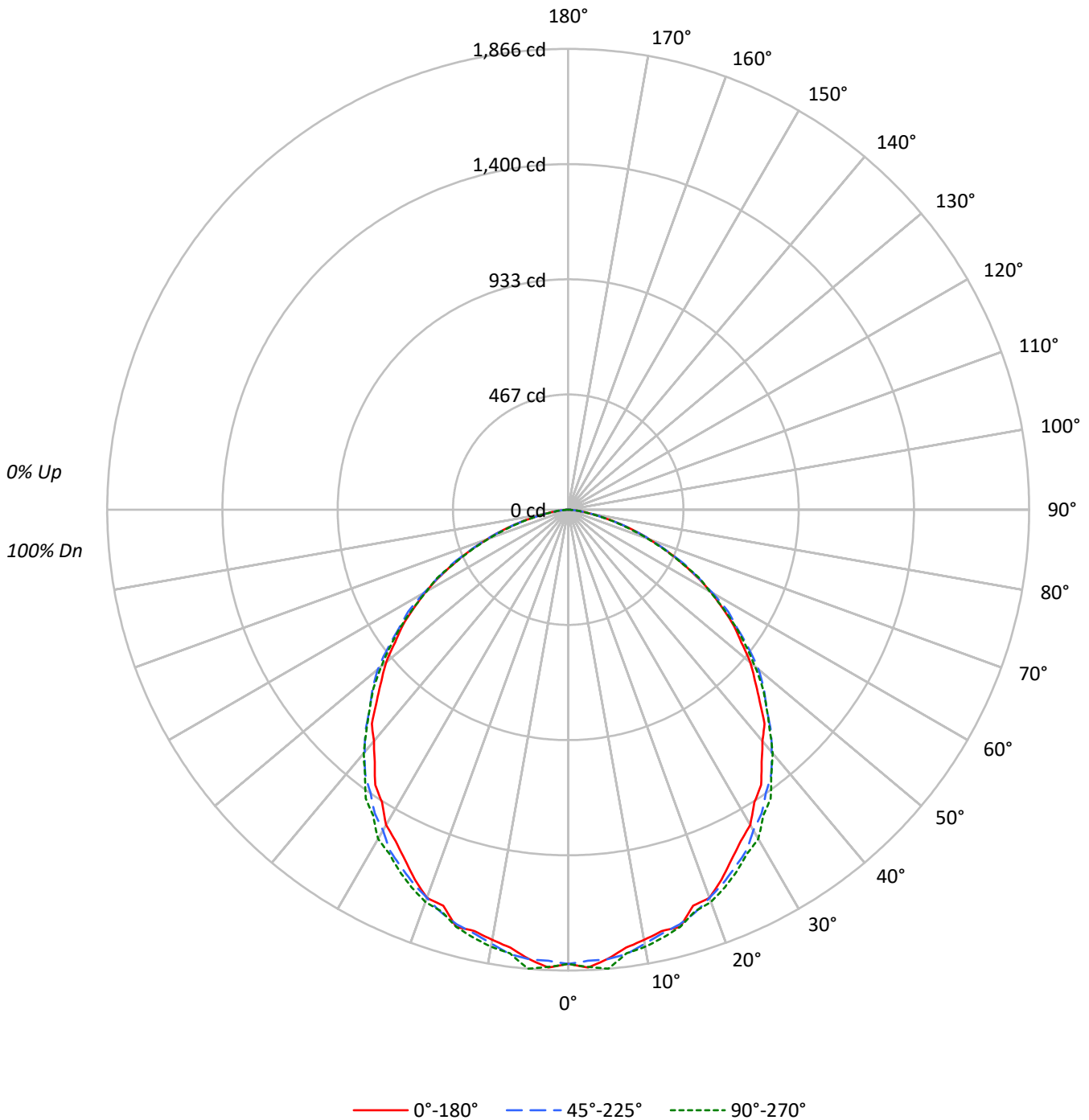
Lumens per Lamp: N/A
Luminaire Lumens: 4636.0 lumens
Efficiency: N/A
Efficacy: 107.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	4950	4950	4950
5°	4934	4935	5039
10°	4834	4876	4910
15°	4872	4845	4873
20°	4790	4790	4840
25°	4642	4744	4796
30°	4579	4659	4783
35°	4471	4588	4691
40°	4297	4503	4523
45°	4167	4315	4321
50°	4030	4212	4131
55°	3840	3914	3887
60°	3590	3626	3561
65°	3202	3283	3179
70°	2747	2756	2680
75°	2175	2171	2087
80°	1458	1416	1362
85°	794	784	735



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.0	3.7
10°-20°	490.4	10.6
20°-30°	734.7	15.8
30°-40°	870.8	18.8
40°-50°	872.4	18.8
50°-60°	740.5	16.0
60°-70°	499.2	10.8
70°-80°	219.4	4.7
80°-90°	35.6	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°	1398.1	30.2
0°-40°	2268.9	48.9
0°-60°	3881.7	83.7
0°-90°	4636.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4636.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1839	1839	1839	1839	1839	
5°	1826	1822	1827	1822	1866	172
15°	1749	1728	1739	1748	1749	487
25°	1564	1572	1598	1619	1615	723
35°	1361	1365	1396	1429	1428	845
45°	1095	1115	1134	1163	1136	847
55°	818	813	834	829	828	728
65°	503	496	516	496	499	500
75°	209	205	209	194	201	224
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°	1839.4	1839.4	1839.4	1839.4	1839.4
2.5°	1855.4	1841.3	1828.3	1843.5	1852.7
5°	1826.4	1822.1	1827.1	1821.6	1865.6
7.5°	1788.9	1805.2	1814.7	1808.8	1811.4
10°	1768.9	1763.2	1784.3	1799.1	1796.9
12.5°	1747.5	1756.1	1757.3	1773.2	1774.6
15°	1748.7	1728.5	1739.2	1748.2	1749.0
17.5°	1680.8	1702.6	1710.0	1730.7	1705.0
20°	1672.5	1656.6	1672.5	1693.6	1690.3
22.5°	1621.4	1603.6	1637.8	1656.6	1655.4
25°	1563.5	1572.0	1597.7	1618.6	1615.2
27.5°	1512.6	1522.6	1559.2	1587.9	1569.4
30°	1473.5	1468.5	1499.3	1525.0	1539.2
32.5°	1403.4	1421.4	1457.5	1483.0	1469.4
35°	1360.9	1364.9	1396.5	1428.8	1427.9
37.5°	1286.5	1305.3	1349.7	1358.7	1350.4
40°	1223.1	1241.9	1282.0	1291.8	1287.7
42.5°	1176.3	1179.7	1214.1	1225.3	1207.5
45°	1094.9	1115.3	1133.8	1163.0	1135.5
47.5°	1025.5	1035.0	1074.9	1082.8	1068.3
50°	962.6	965.9	1006.1	996.3	986.8
52.5°	883.5	897.5	920.1	918.2	907.0
55°	818.4	813.0	834.3	828.6	828.4
57.5°	740.3	749.8	767.4	758.3	743.9
60°	667.1	667.4	673.8	663.6	661.7
62.5°	585.7	588.5	590.0	577.4	597.8
65°	502.8	496.1	515.6	495.9	499.2
67.5°	426.6	429.9	428.0	415.6	420.4
70°	349.1	353.4	350.3	336.3	340.6
72.5°	278.4	273.1	276.5	258.9	267.0
75°	209.2	205.0	208.8	194.0	200.7
77.5°	142.5	145.8	143.5	135.6	140.1
80°	94.1	91.4	91.4	86.9	87.9
82.5°	54.9	52.3	51.5	50.1	52.3
85°	25.7	24.9	25.4	24.7	23.8
87.5°	9.3	9.5	9.5	9.0	8.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)