

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: P588994

Luminaire Tested: **FMR-24-2-LD4-2HI-35-UNV-81-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588994
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-81-94-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

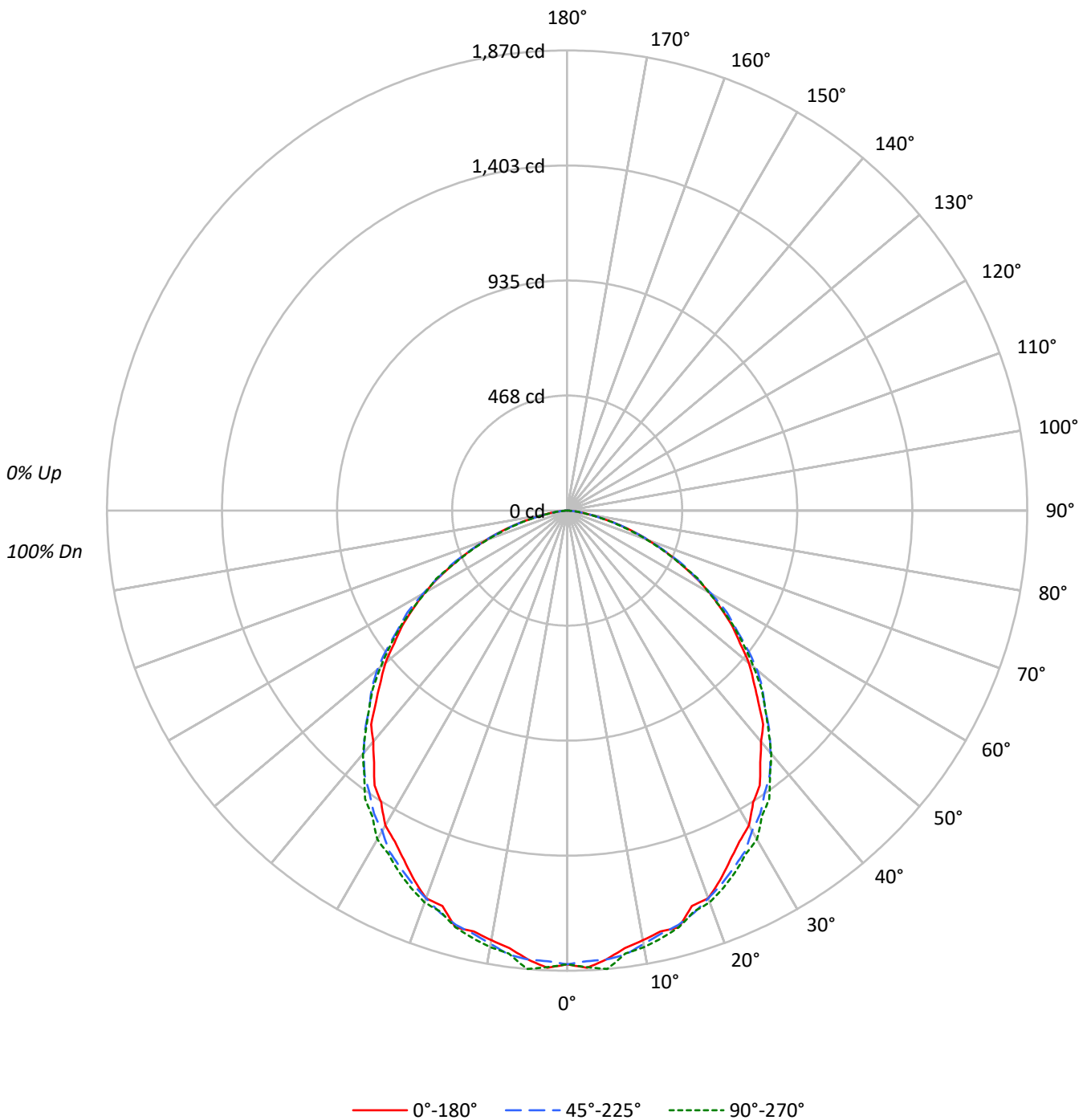
Lumens per Lamp: N/A
Luminaire Lumens: 4647.0 lumens
Efficiency: N/A
Efficacy: 107.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	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				
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°	4962	4962	4962
5°	4945	4947	5051
10°	4845	4887	4922
15°	4883	4857	4884
20°	4801	4801	4852
25°	4653	4755	4807
30°	4589	4670	4794
35°	4481	4598	4702
40°	4307	4514	4534
45°	4177	4325	4332
50°	4039	4222	4141
55°	3849	3924	3896
60°	3599	3635	3569
65°	3209	3291	3186
70°	2754	2762	2686
75°	2180	2176	2092
80°	1461	1421	1365
85°	794	787	735



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.4	3.7
10°-20°	491.5	10.6
20°-30°	736.4	15.8
30°-40°	872.8	18.8
40°-50°	874.4	18.8
50°-60°	742.3	16.0
60°-70°	500.4	10.8
70°-80°	219.9	4.7
80°-90°	35.7	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°	1401.4	30.2
0°-40°	2274.2	48.9
0°-60°	3891.0	83.7
0°-90°	4647.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4647.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1844	1844	1844	1844	1844	
5°	1831	1826	1831	1826	1870	173
15°	1753	1733	1743	1752	1753	488
25°	1567	1576	1602	1622	1619	725
35°	1364	1368	1400	1432	1431	847
45°	1098	1118	1136	1166	1138	849
55°	820	815	836	831	830	730
65°	504	497	517	497	500	501
75°	210	205	209	194	201	225
85°	26	25	26	25	24	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1843.8	1843.8	1843.8	1843.8	1843.8
2.5°	1859.8	1845.7	1832.6	1847.9	1857.1
5°	1830.7	1826.4	1831.4	1826.0	1870.0
7.5°	1793.1	1809.5	1819.1	1813.1	1815.7
10°	1773.1	1767.4	1788.6	1803.3	1801.2
12.5°	1751.7	1760.3	1761.4	1777.4	1778.8
15°	1752.9	1732.6	1743.3	1752.4	1753.1
17.5°	1684.8	1706.7	1714.1	1734.8	1709.1
20°	1676.5	1660.5	1676.5	1697.6	1694.3
22.5°	1625.3	1607.4	1641.7	1660.5	1659.3
25°	1567.2	1575.8	1601.5	1622.4	1619.1
27.5°	1516.2	1526.2	1562.9	1591.7	1573.1
30°	1477.0	1472.0	1502.9	1528.6	1542.9
32.5°	1406.7	1424.8	1461.0	1486.5	1472.9
35°	1364.1	1368.2	1399.8	1432.2	1431.2
37.5°	1289.6	1308.4	1352.9	1362.0	1353.6
40°	1226.0	1244.8	1285.1	1294.8	1290.8
42.5°	1179.1	1182.5	1217.0	1228.2	1210.3
45°	1097.5	1118.0	1136.5	1165.8	1138.2
47.5°	1028.0	1037.5	1077.5	1085.3	1070.8
50°	964.9	968.2	1008.4	998.7	989.2
52.5°	885.6	899.6	922.3	920.4	909.2
55°	820.4	814.9	836.3	830.6	830.4
57.5°	742.0	751.6	769.2	760.1	745.6
60°	668.7	669.0	675.4	665.2	663.2
62.5°	587.1	589.9	591.4	578.7	599.2
65°	504.0	497.3	516.8	497.1	500.4
67.5°	427.6	430.9	429.0	416.6	421.4
70°	350.0	354.2	351.1	337.1	341.4
72.5°	279.0	273.8	277.1	259.5	267.6
75°	209.7	205.4	209.3	194.5	201.2
77.5°	142.8	146.2	143.8	135.9	140.5
80°	94.3	91.7	91.7	87.1	88.1
82.5°	55.0	52.4	51.7	50.2	52.4
85°	25.7	25.0	25.5	24.8	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)