

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: P589717

Luminaire Tested: **FMR-24-2-LD4-4LO-50-UNV-80-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589717
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-LD4-4LO-50-UNV-80-84-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

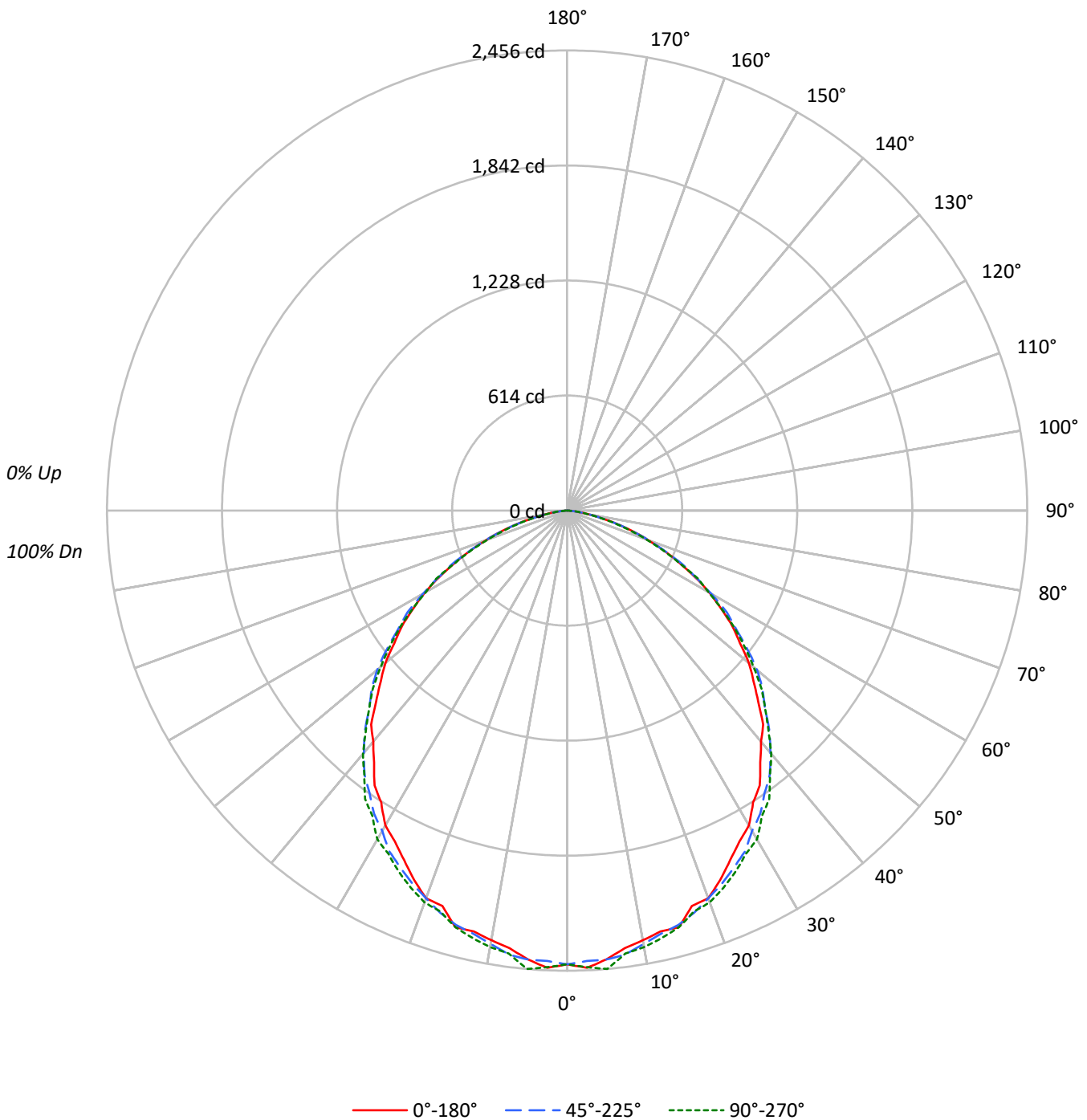
Lumens per Lamp: N/A
Luminaire Lumens: 6103.0 lumens
Efficiency: N/A
Efficacy: 130.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	6516	6516	6516
5°	6495	6497	6634
10°	6363	6419	6464
15°	6413	6379	6414
20°	6305	6305	6372
25°	6111	6245	6314
30°	6027	6133	6296
35°	5885	6039	6175
40°	5656	5929	5955
45°	5485	5680	5689
50°	5305	5544	5439
55°	5055	5153	5116
60°	4726	4774	4688
65°	4215	4322	4185
70°	3616	3629	3527
75°	2863	2857	2747
80°	1918	1866	1793
85°	1044	1034	966



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	227.8	3.7
10°-20°	645.6	10.6
20°-30°	967.2	15.8
30°-40°	1146.3	18.8
40°-50°	1148.4	18.8
50°-60°	974.8	16.0
60°-70°	657.2	10.8
70°-80°	288.8	4.7
80°-90°	46.9	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°	1840.5	30.2
0°-40°	2986.8	48.9
0°-60°	5110.1	83.7
0°-90°	6103.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6103.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2422	2422	2422	2422	2422	
5°	2404	2399	2405	2398	2456	227
15°	2302	2276	2290	2302	2302	641
25°	2058	2070	2103	2131	2126	952
35°	1792	1797	1838	1881	1880	1112
45°	1441	1468	1493	1531	1495	1115
55°	1077	1070	1098	1091	1090	958
65°	662	653	679	653	657	658
75°	275	270	275	255	264	295
85°	34	33	34	32	31	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2421.5	2421.5	2421.5	2421.5	2421.5
2.5°	2442.5	2424.0	2406.8	2426.8	2439.0
5°	2404.3	2398.7	2405.3	2398.1	2455.9
7.5°	2354.9	2376.5	2389.0	2381.2	2384.6
10°	2328.7	2321.2	2349.0	2368.4	2365.6
12.5°	2300.5	2311.8	2313.3	2334.3	2336.2
15°	2302.1	2275.5	2289.6	2301.5	2302.4
17.5°	2212.7	2241.4	2251.1	2278.3	2244.6
20°	2201.7	2180.8	2201.7	2229.5	2225.2
22.5°	2134.5	2111.0	2156.1	2180.8	2179.2
25°	2058.2	2069.5	2103.2	2130.7	2126.4
27.5°	1991.3	2004.4	2052.6	2090.4	2066.0
30°	1939.7	1933.1	1973.8	2007.6	2026.3
32.5°	1847.5	1871.2	1918.8	1952.2	1934.4
35°	1791.5	1796.8	1838.4	1880.9	1879.7
37.5°	1693.7	1718.4	1776.8	1788.7	1777.8
40°	1610.2	1634.9	1687.7	1700.5	1695.2
42.5°	1548.6	1553.0	1598.3	1613.0	1589.5
45°	1441.3	1468.2	1492.6	1531.1	1494.8
47.5°	1350.0	1362.6	1415.1	1425.4	1406.3
50°	1267.2	1271.6	1324.4	1311.6	1299.1
52.5°	1163.1	1181.5	1211.2	1208.7	1194.0
55°	1077.4	1070.2	1098.4	1090.9	1090.5
57.5°	974.5	987.1	1010.2	998.3	979.2
60°	878.2	878.6	887.0	873.6	871.1
62.5°	771.0	774.8	776.6	760.1	787.0
65°	661.9	653.1	678.8	652.8	657.2
67.5°	561.5	565.9	563.4	547.1	553.4
70°	459.6	465.2	461.2	442.7	448.3
72.5°	366.4	359.6	363.9	340.8	351.4
75°	275.4	269.8	274.8	255.4	264.2
77.5°	187.6	192.0	188.8	178.5	184.5
80°	123.8	120.4	120.4	114.4	115.7
82.5°	72.2	68.8	67.8	66.0	68.8
85°	33.8	32.8	33.5	32.5	31.3
87.5°	12.2	12.5	12.5	11.9	11.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)