

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: P589719

Luminaire Tested: **FMR-24-2-LD4-4LO-50-UNV-80-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589719
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-80-86-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

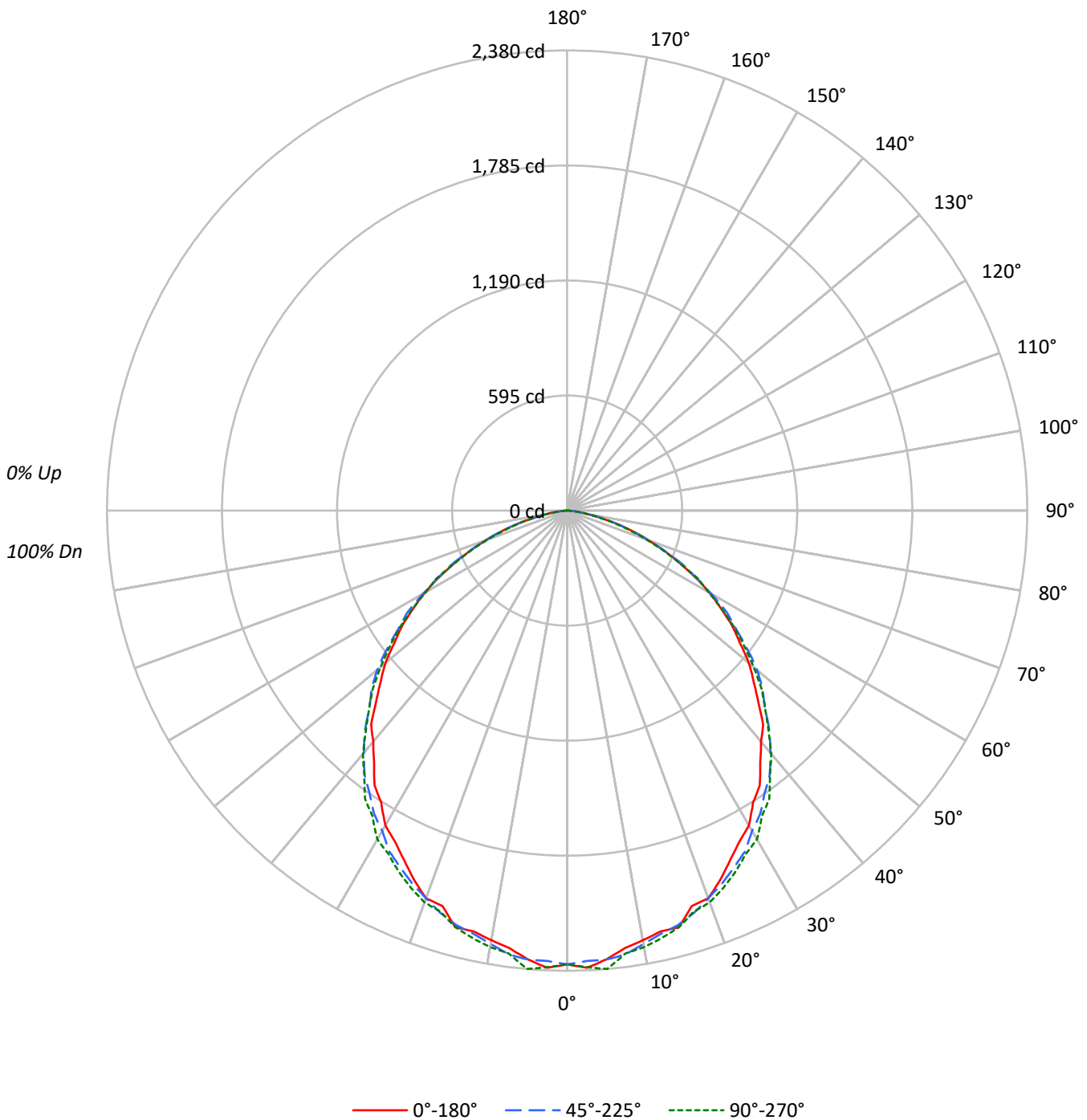
Lumens per Lamp: N/A
Luminaire Lumens: 5914.0 lumens
Efficiency: N/A
Efficacy: 126.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	6314	6314	6314
5°	6294	6296	6429
10°	6166	6220	6264
15°	6215	6181	6216
20°	6110	6110	6175
25°	5922	6051	6118
30°	5840	5943	6101
35°	5703	5852	5984
40°	5481	5745	5771
45°	5315	5504	5512
50°	5141	5373	5270
55°	4898	4993	4958
60°	4581	4626	4543
65°	4084	4188	4055
70°	3504	3516	3419
75°	2775	2769	2662
80°	1860	1807	1737
85°	1010	1000	936



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.7	3.7
10°-20°	625.6	10.6
20°-30°	937.2	15.8
30°-40°	1110.8	18.8
40°-50°	1112.9	18.8
50°-60°	944.6	16.0
60°-70°	636.9	10.8
70°-80°	279.8	4.7
80°-90°	45.5	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°	1783.5	30.2
0°-40°	2894.3	48.9
0°-60°	4951.8	83.7
0°-90°	5914.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5914.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2346	2346	2346	2346	2346	
5°	2330	2324	2331	2324	2380	220
15°	2231	2205	2219	2230	2231	622
25°	1994	2005	2038	2065	2060	922
35°	1736	1741	1782	1823	1822	1078
45°	1397	1423	1446	1484	1448	1080
55°	1044	1037	1064	1057	1057	929
65°	641	633	658	633	637	638
75°	267	262	266	248	256	286
85°	33	32	32	32	30	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2346.5	2346.5	2346.5	2346.5	2346.5
2.5°	2366.8	2348.9	2332.3	2351.7	2363.5
5°	2329.9	2324.4	2330.8	2323.8	2379.9
7.5°	2282.0	2302.9	2315.0	2307.4	2310.8
10°	2256.5	2249.3	2276.2	2295.0	2292.3
12.5°	2229.3	2240.2	2241.7	2262.0	2263.8
15°	2230.8	2205.0	2218.7	2230.2	2231.1
17.5°	2144.1	2172.0	2181.4	2207.8	2175.0
20°	2133.5	2113.2	2133.5	2160.5	2156.3
22.5°	2068.4	2045.7	2089.3	2113.2	2111.7
25°	1994.5	2005.4	2038.1	2064.8	2060.5
27.5°	1929.6	1942.4	1989.0	2025.7	2002.0
30°	1879.6	1873.3	1912.7	1945.4	1963.6
32.5°	1790.3	1813.3	1859.3	1891.8	1874.5
35°	1736.0	1741.2	1781.5	1822.7	1821.5
37.5°	1641.2	1665.1	1721.8	1733.3	1722.7
40°	1560.3	1584.2	1635.4	1647.9	1642.7
42.5°	1500.6	1504.9	1548.8	1563.0	1540.3
45°	1396.7	1422.8	1446.4	1483.7	1448.5
47.5°	1308.2	1320.4	1371.3	1381.3	1362.8
50°	1227.9	1232.2	1283.4	1271.0	1258.9
52.5°	1127.1	1144.9	1173.7	1171.3	1157.1
55°	1044.0	1037.1	1064.3	1057.1	1056.8
57.5°	944.4	956.5	978.9	967.4	948.9
60°	851.1	851.4	859.5	846.5	844.1
62.5°	747.1	750.8	752.6	736.5	762.6
65°	641.4	632.9	657.8	632.6	636.8
67.5°	544.1	548.4	546.0	530.2	536.3
70°	445.4	450.8	446.9	429.0	434.5
72.5°	355.1	348.4	352.7	330.2	340.5
75°	266.9	261.5	266.3	247.5	256.0
77.5°	181.8	186.0	183.0	173.0	178.8
80°	120.0	116.6	116.6	110.9	112.1
82.5°	70.0	66.7	65.7	63.9	66.7
85°	32.7	31.8	32.4	31.5	30.3
87.5°	11.8	12.1	12.1	11.5	10.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)