

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: P589687

Luminaire Tested: **FMR-24-2-LD4-4LO-40-UNV-80-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589687
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-40-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 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

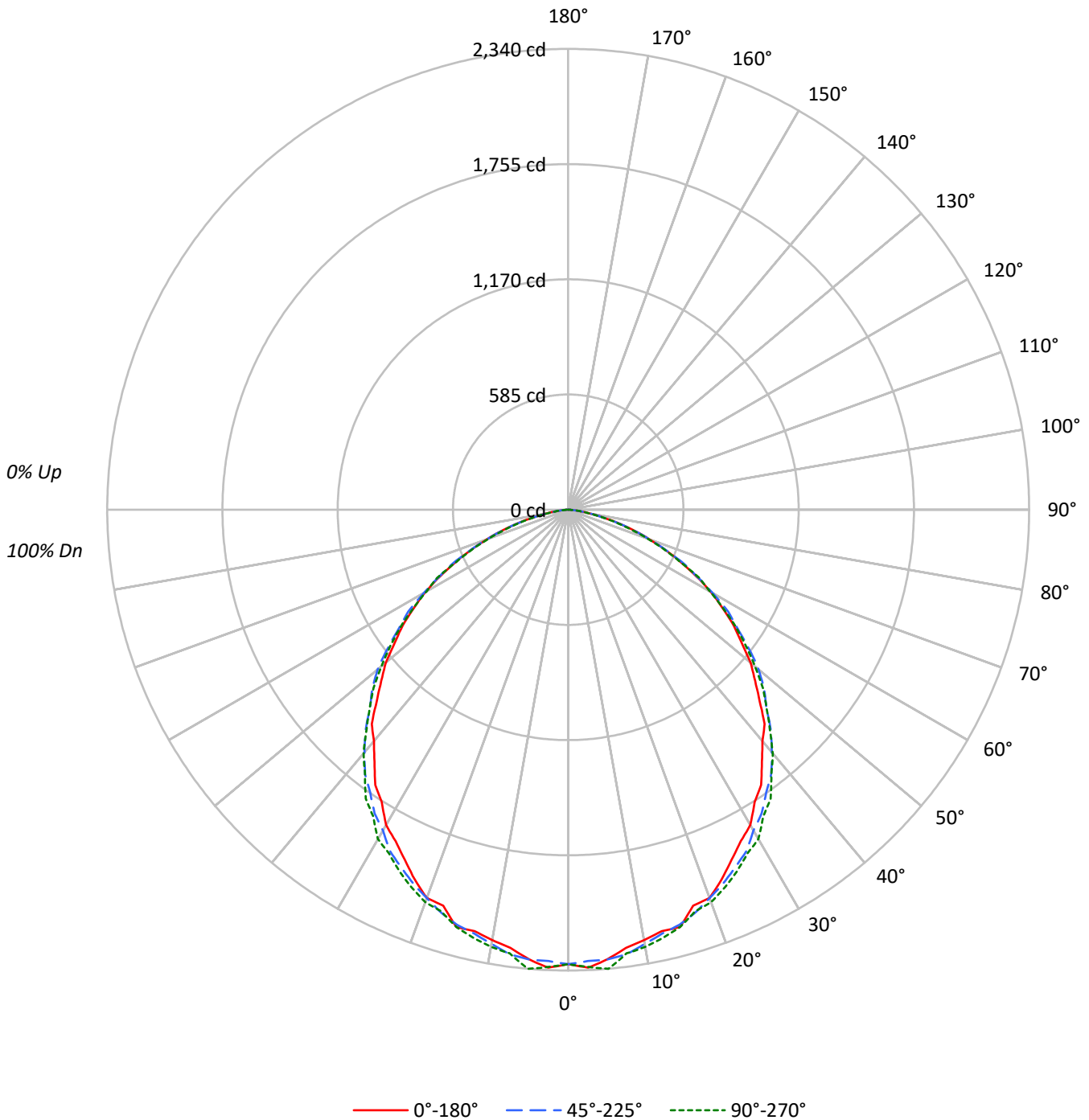
Lumens per Lamp: N/A
Luminaire Lumens: 5816.0 lumens
Efficiency: N/A
Efficacy: 124.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	6210	6210	6210
5°	6189	6192	6322
10°	6064	6117	6160
15°	6112	6079	6113
20°	6009	6009	6072
25°	5824	5951	6017
30°	5744	5845	6000
35°	5609	5755	5885
40°	5390	5650	5675
45°	5227	5413	5421
50°	5056	5284	5183
55°	4817	4911	4876
60°	4504	4549	4468
65°	4017	4119	3988
70°	3446	3458	3362
75°	2729	2723	2618
80°	1829	1777	1708
85°	994	985	920



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.1	3.7
10°-20°	615.2	10.6
20°-30°	921.7	15.8
30°-40°	1092.4	18.8
40°-50°	1094.4	18.8
50°-60°	929.0	16.0
60°-70°	626.3	10.8
70°-80°	275.2	4.7
80°-90°	44.7	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°	1754.0	30.2
0°-40°	2846.4	48.9
0°-60°	4869.8	83.7
0°-90°	5816.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5816.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2308	2308	2308	2308	2308	
5°	2291	2286	2292	2285	2340	216
15°	2194	2168	2182	2193	2194	611
25°	1961	1972	2004	2030	2026	907
35°	1707	1712	1752	1792	1791	1060
45°	1374	1399	1422	1459	1424	1063
55°	1027	1020	1047	1040	1039	913
65°	631	622	647	622	626	627
75°	262	257	262	243	252	281
85°	32	31	32	31	30	47
90°	0	0	0	0	0	



TEST NUMBER: P589687

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2307.6	2307.6	2307.6	2307.6	2307.6
2.5°	2327.6	2310.0	2293.6	2312.7	2324.3
5°	2291.3	2285.9	2292.1	2285.3	2340.4
7.5°	2244.2	2264.7	2276.7	2269.2	2272.5
10°	2219.2	2212.0	2238.5	2257.0	2254.3
12.5°	2192.3	2203.1	2204.6	2224.5	2226.3
15°	2193.8	2168.5	2181.9	2193.2	2194.1
17.5°	2108.6	2136.0	2145.3	2171.2	2139.0
20°	2098.2	2078.2	2098.2	2124.7	2120.5
22.5°	2034.1	2011.8	2054.7	2078.2	2076.7
25°	1961.4	1972.1	2004.3	2030.5	2026.4
27.5°	1897.7	1910.2	1956.1	1992.1	1968.9
30°	1848.5	1842.2	1881.0	1913.2	1931.0
32.5°	1760.6	1783.2	1828.5	1860.4	1843.4
35°	1707.3	1712.3	1752.0	1792.5	1791.3
37.5°	1614.0	1637.5	1693.3	1704.6	1694.2
40°	1534.5	1558.0	1608.3	1620.6	1615.5
42.5°	1475.8	1479.9	1523.1	1537.1	1514.8
45°	1373.6	1399.2	1422.4	1459.1	1424.5
47.5°	1286.6	1298.5	1348.5	1358.4	1340.2
50°	1207.6	1211.8	1262.1	1249.9	1238.0
52.5°	1108.4	1126.0	1154.3	1151.9	1137.9
55°	1026.7	1019.9	1046.7	1039.6	1039.3
57.5°	928.7	940.6	962.7	951.4	933.2
60°	836.9	837.2	845.3	832.5	830.1
62.5°	734.8	738.3	740.1	724.3	749.9
65°	630.8	622.4	646.9	622.1	626.3
67.5°	535.1	539.3	536.9	521.4	527.4
70°	438.0	443.4	439.5	421.9	427.3
72.5°	349.2	342.6	346.8	324.8	334.9
75°	262.5	257.1	261.9	243.4	251.8
77.5°	178.8	182.9	180.0	170.1	175.8
80°	118.0	114.7	114.7	109.1	110.2
82.5°	68.8	65.5	64.7	62.9	65.5
85°	32.2	31.3	31.9	31.0	29.8
87.5°	11.6	11.9	11.9	11.3	10.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)