

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: P589715

Luminaire Tested: **FMR-24-2-LD4-4LO-40-UNV-93-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589715
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-93-96-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

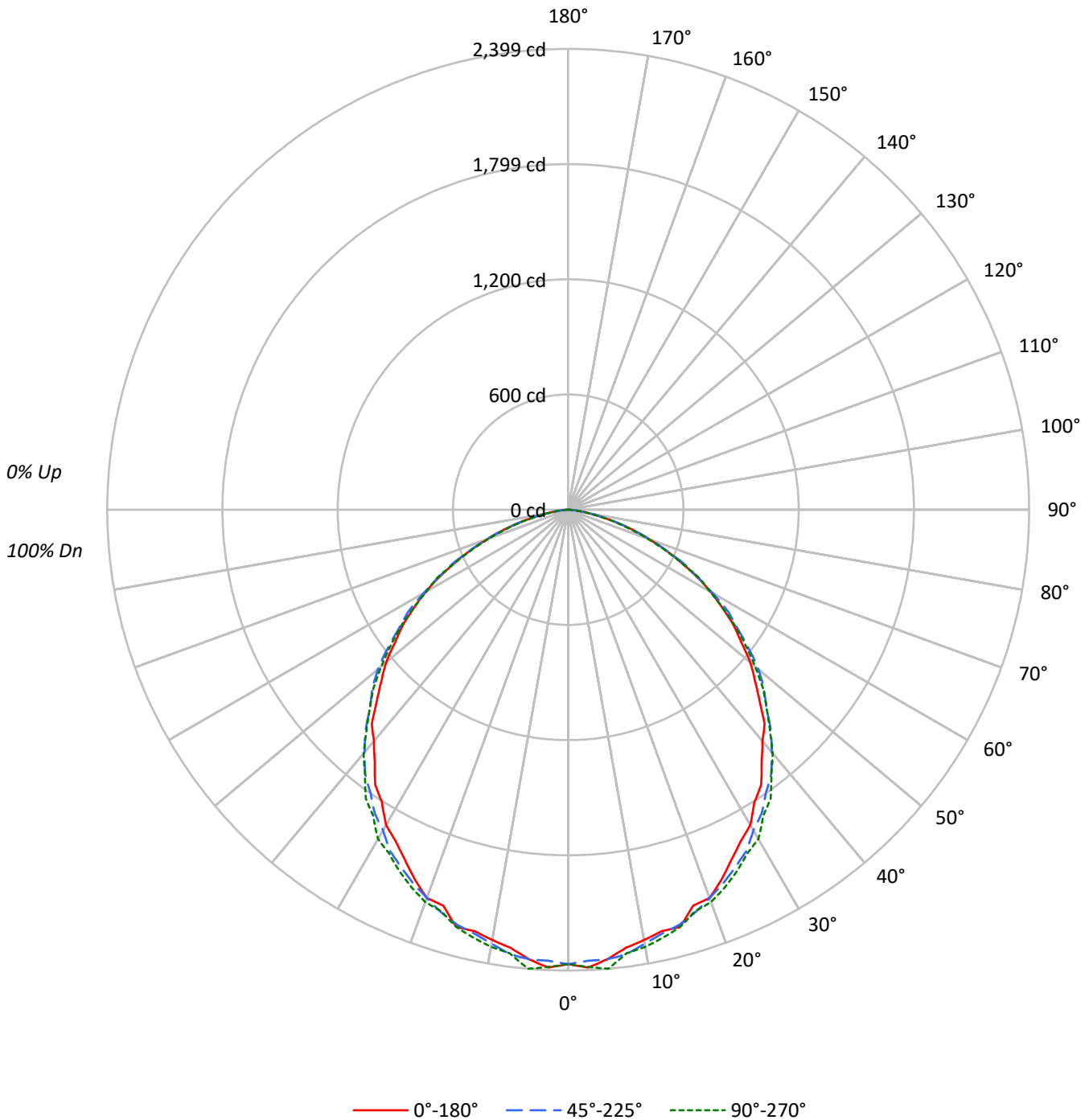
Lumens per Lamp: N/A
Luminaire Lumens: 5961.0 lumens
Efficiency: N/A
Efficacy: 127.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
Input Voltage (V): NR
Input Current (A_{in}): 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°	6365	6365	6365
5°	6344	6346	6480
10°	6215	6269	6313
15°	6264	6230	6265
20°	6158	6158	6224
25°	5969	6100	6167
30°	5887	5991	6150
35°	5748	5899	6031
40°	5525	5791	5817
45°	5358	5548	5556
50°	5182	5416	5312
55°	4937	5033	4997
60°	4617	4663	4579
65°	4117	4222	4087
70°	3532	3544	3445
75°	2797	2791	2682
80°	1874	1822	1751
85°	1019	1010	942



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	222.5	3.7
10°-20°	630.5	10.6
20°-30°	944.7	15.8
30°-40°	1119.6	18.8
40°-50°	1121.7	18.8
50°-60°	952.1	16.0
60°-70°	641.9	10.8
70°-80°	282.1	4.7
80°-90°	45.8	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°	1797.7	30.2
0°-40°	2917.3	48.9
0°-60°	4991.2	83.7
0°-90°	5961.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5961.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2365	2365	2365	2365	2365	
5°	2348	2343	2349	2342	2399	221
15°	2248	2223	2236	2248	2249	626
25°	2010	2021	2054	2081	2077	929
35°	1750	1755	1796	1837	1836	1086
45°	1408	1434	1458	1495	1460	1089
55°	1052	1045	1073	1066	1065	936
65°	646	638	663	638	642	643
75°	269	264	268	250	258	288
85°	33	32	33	32	30	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2365.2	2365.2	2365.2	2365.2	2365.2
2.5°	2385.6	2367.6	2350.8	2370.4	2382.3
5°	2348.4	2342.9	2349.3	2342.3	2398.8
7.5°	2300.1	2321.2	2333.4	2325.8	2329.1
10°	2274.5	2267.1	2294.3	2313.3	2310.5
12.5°	2247.0	2258.0	2259.5	2280.0	2281.8
15°	2248.5	2222.6	2236.3	2247.9	2248.8
17.5°	2161.2	2189.3	2198.7	2225.3	2192.3
20°	2150.5	2130.0	2150.5	2177.7	2173.4
22.5°	2084.8	2061.9	2105.9	2130.0	2128.5
25°	2010.3	2021.3	2054.3	2081.2	2076.9
27.5°	1945.0	1957.8	2004.8	2041.8	2018.0
30°	1894.6	1888.2	1927.9	1960.9	1979.2
32.5°	1804.5	1827.7	1874.1	1906.8	1889.4
35°	1749.8	1755.0	1795.6	1837.2	1835.9
37.5°	1654.2	1678.4	1735.5	1747.1	1736.4
40°	1572.7	1596.8	1648.4	1661.0	1655.8
42.5°	1512.6	1516.8	1561.1	1575.5	1552.6
45°	1407.8	1434.1	1457.9	1495.4	1460.0
47.5°	1318.6	1330.8	1382.2	1392.2	1373.6
50°	1237.7	1242.0	1293.6	1281.1	1268.9
52.5°	1136.0	1154.0	1183.0	1180.6	1166.2
55°	1052.3	1045.3	1072.8	1065.5	1065.2
57.5°	951.9	964.1	986.7	975.1	956.5
60°	857.8	858.1	866.4	853.2	850.8
62.5°	753.1	756.7	758.6	742.4	768.6
65°	646.5	637.9	663.0	637.6	641.9
67.5°	548.5	552.7	550.3	534.4	540.5
70°	448.9	454.4	450.4	432.4	437.9
72.5°	357.9	351.2	355.5	332.9	343.2
75°	269.0	263.5	268.4	249.5	258.0
77.5°	183.2	187.5	184.4	174.4	180.2
80°	120.9	117.6	117.6	111.8	113.0
82.5°	70.5	67.2	66.3	64.4	67.2
85°	33.0	32.1	32.7	31.8	30.5
87.5°	11.9	12.2	12.2	11.6	11.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)