

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: P589769

Luminaire Tested: **FMR-24-2-LD4-4STD-35-UNV-82-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589769
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-LD4-4STD-35-UNV-82-88-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

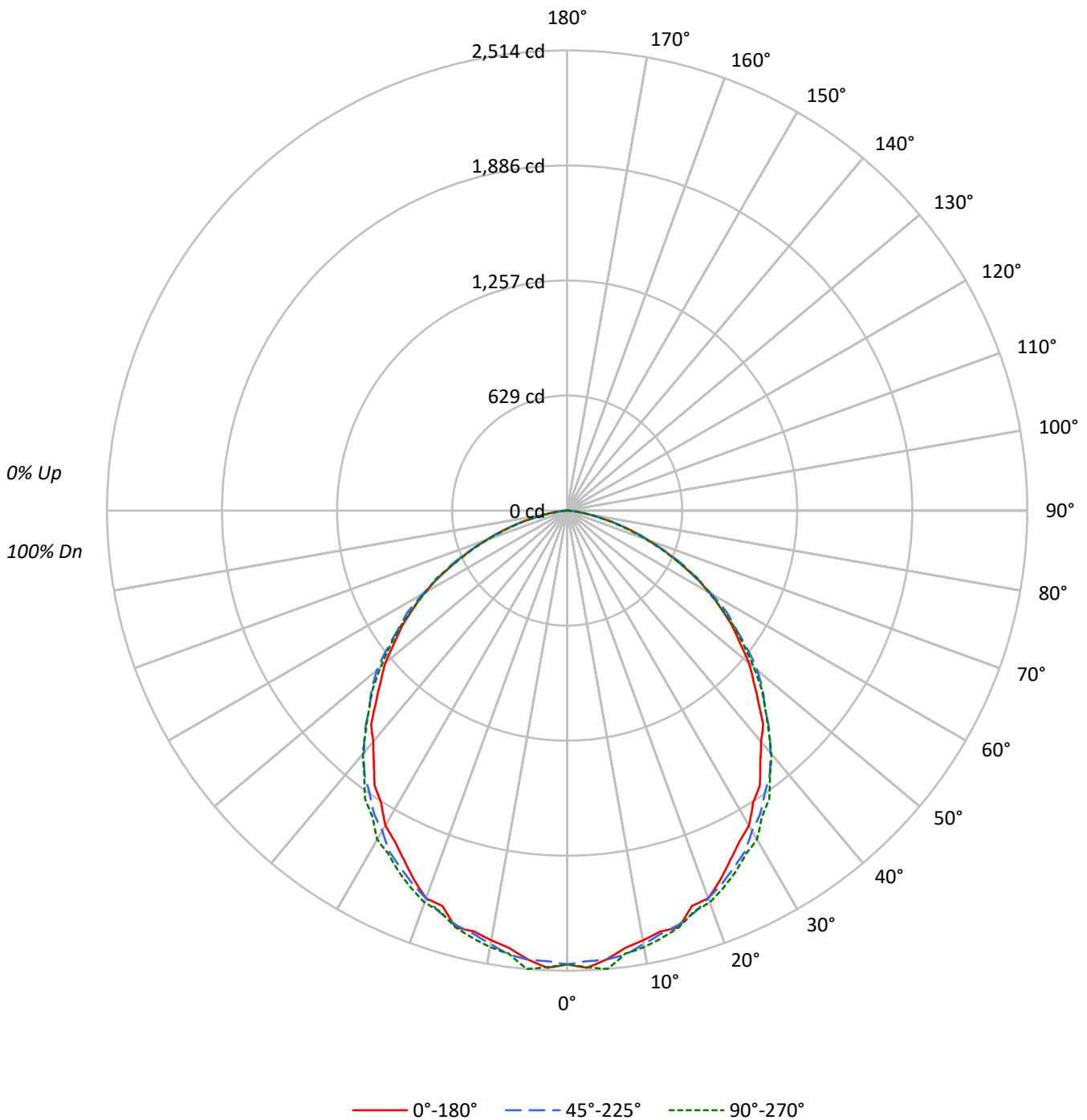
Lumens per Lamp: N/A
Luminaire Lumens: 6248.0 lumens
Efficiency: N/A
Efficacy: 93.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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

TEST NUMBER: P589769

CATALOG NUMBER: FMR-24-2-LD4-4STD-35-UNV-82-88-EDD

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°	6671	6671	6671
5°	6649	6652	6792
10°	6514	6571	6618
15°	6566	6530	6567
20°	6455	6455	6523
25°	6256	6393	6464
30°	6170	6279	6446
35°	6025	6183	6321
40°	5791	6069	6097
45°	5616	5815	5824
50°	5431	5676	5568
55°	5175	5276	5238
60°	4839	4887	4800
65°	4315	4425	4284
70°	3702	3714	3611
75°	2932	2926	2812
80°	1965	1909	1835
85°	1068	1056	988



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.2	3.7
10°-20°	660.9	10.6
20°-30°	990.2	15.8
30°-40°	1173.5	18.8
40°-50°	1175.7	18.8
50°-60°	998.0	16.0
60°-70°	672.8	10.8
70°-80°	295.6	4.7
80°-90°	48.0	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°	1884.2	30.2
0°-40°	3057.8	48.9
0°-60°	5231.5	83.7
0°-90°	6248.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6248.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2479	2479	2479	2479	2479	
5°	2461	2456	2462	2455	2514	232
15°	2357	2330	2344	2356	2357	657
25°	2107	2119	2153	2181	2177	974
35°	1834	1840	1882	1926	1924	1139
45°	1476	1503	1528	1568	1530	1141
55°	1103	1096	1124	1117	1116	981
65°	678	669	695	668	673	674
75°	282	276	281	262	270	302
85°	35	34	34	33	32	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2479.0	2479.0	2479.0	2479.0	2479.0
2.5°	2500.5	2481.6	2464.0	2484.5	2497.0
5°	2461.4	2455.7	2462.4	2455.0	2514.3
7.5°	2410.9	2433.0	2445.8	2437.8	2441.3
10°	2384.0	2376.3	2404.8	2424.6	2421.8
12.5°	2355.2	2366.7	2368.3	2389.7	2391.7
15°	2356.8	2329.6	2344.0	2356.1	2357.1
17.5°	2265.2	2294.7	2304.6	2332.5	2297.9
20°	2254.0	2232.6	2254.0	2282.5	2278.0
22.5°	2185.2	2161.2	2207.3	2232.6	2231.0
25°	2107.1	2118.6	2153.2	2181.4	2176.9
27.5°	2038.6	2052.1	2101.3	2140.1	2115.1
30°	1985.8	1979.1	2020.7	2055.3	2074.5
32.5°	1891.4	1915.7	1964.4	1998.6	1980.4
35°	1834.1	1839.5	1882.1	1925.6	1924.3
37.5°	1733.9	1759.2	1819.0	1831.2	1820.0
40°	1648.4	1673.7	1727.8	1740.9	1735.5
42.5°	1585.4	1589.9	1636.3	1651.3	1627.3
45°	1475.6	1503.1	1528.1	1567.5	1530.3
47.5°	1382.1	1394.9	1448.7	1459.3	1439.7
50°	1297.3	1301.8	1355.9	1342.8	1329.9
52.5°	1190.7	1209.6	1240.0	1237.4	1222.4
55°	1103.0	1095.6	1124.5	1116.8	1116.5
57.5°	997.7	1010.5	1034.2	1022.0	1002.5
60°	899.1	899.4	908.1	894.3	891.8
62.5°	789.3	793.2	795.1	778.1	805.7
65°	677.6	668.7	694.9	668.3	672.8
67.5°	574.9	579.4	576.8	560.1	566.5
70°	470.5	476.3	472.1	453.2	459.0
72.5°	375.1	368.1	372.6	348.9	359.8
75°	282.0	276.2	281.4	261.5	270.5
77.5°	192.1	196.5	193.3	182.8	188.8
80°	126.8	123.2	123.2	117.2	118.4
82.5°	73.9	70.4	69.5	67.5	70.4
85°	34.6	33.6	34.2	33.3	32.0
87.5°	12.5	12.8	12.8	12.2	11.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)