

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: P589501

Luminaire Tested: **FMR-24-2-LD4-3STD-40-UNV-81-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589501
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-LD4-3STD-40-UNV-81-84-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

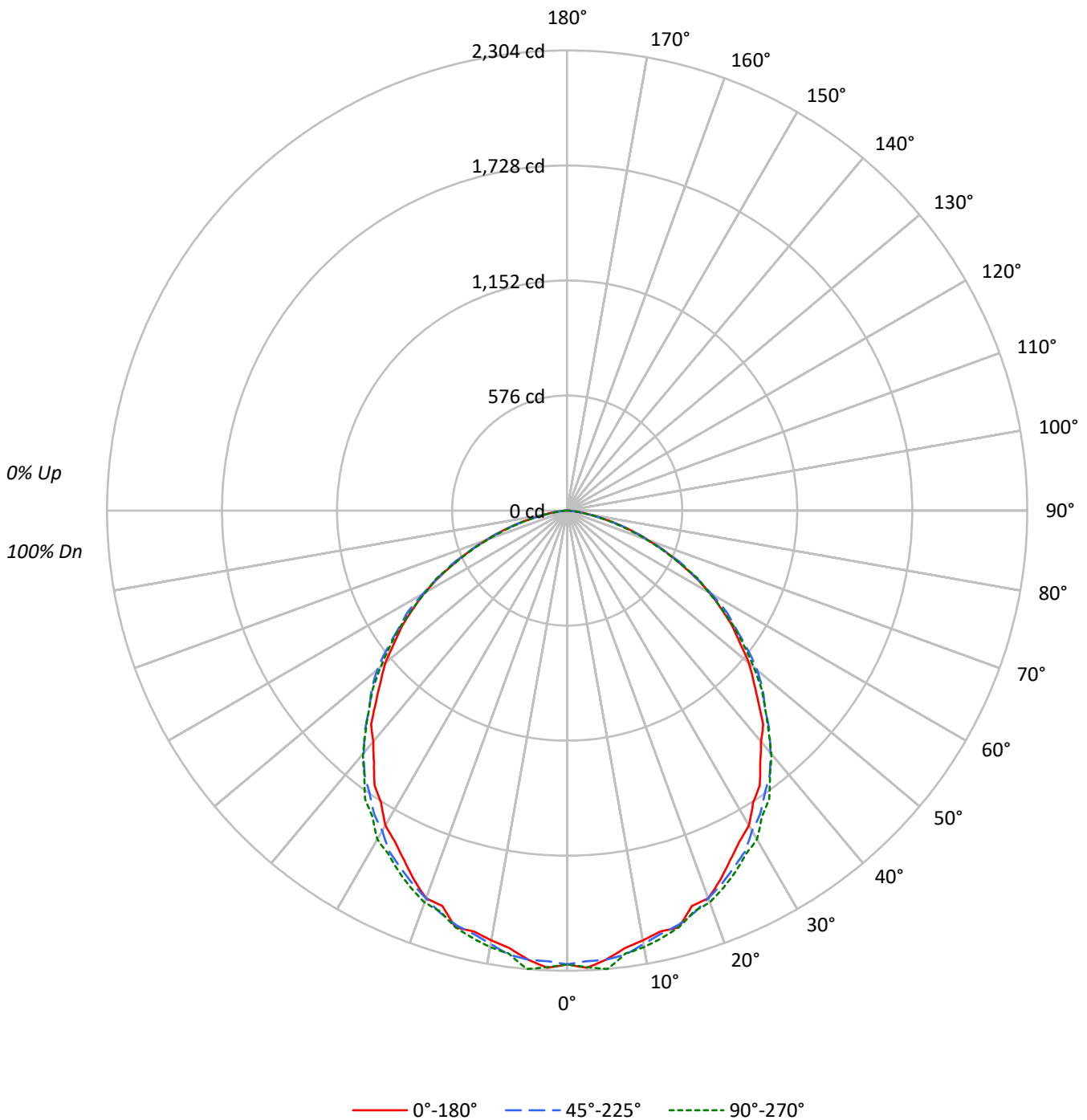
Lumens per Lamp: N/A
Luminaire Lumens: 5726.0 lumens
Efficiency: N/A
Efficacy: 114.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
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: P589501

CATALOG NUMBER: FMR-24-2-LD4-3STD-40-UNV-81-84-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589501

CATALOG NUMBER: FMR-24-2-LD4-3STD-40-UNV-81-84-EDD

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°	6114	6114	6114
5°	6093	6096	6224
10°	5970	6022	6064
15°	6017	5984	6018
20°	5916	5916	5979
25°	5734	5859	5923
30°	5655	5754	5907
35°	5522	5666	5794
40°	5307	5563	5587
45°	5146	5329	5337
50°	4977	5202	5102
55°	4743	4835	4800
60°	4435	4479	4399
65°	3954	4055	3926
70°	3393	3404	3310
75°	2687	2680	2577
80°	1801	1750	1681
85°	979	969	905



TEST NUMBER: P589501

CATALOG NUMBER: FMR-24-2-LD4-3STD-40-UNV-81-84-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.7	3.7
10°-20°	605.7	10.6
20°-30°	907.4	15.8
30°-40°	1075.5	18.8
40°-50°	1077.5	18.8
50°-60°	914.6	16.0
60°-70°	616.6	10.8
70°-80°	270.9	4.7
80°-90°	44.0	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°	1726.8	30.2
0°-40°	2802.3	48.9
0°-60°	4794.4	83.7
0°-90°	5726.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5726.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2272	2272	2272	2272	2272	
5°	2256	2250	2257	2250	2304	213
15°	2160	2135	2148	2159	2160	602
25°	1931	1942	1973	1999	1995	893
35°	1681	1686	1725	1765	1764	1044
45°	1352	1378	1400	1436	1402	1046
55°	1011	1004	1030	1024	1023	899
65°	621	613	637	612	617	618
75°	258	253	258	240	248	277
85°	32	31	31	30	29	46
90°	0	0	0	0	0	



TEST NUMBER: P589501

CATALOG NUMBER: FMR-24-2-LD4-3STD-40-UNV-81-84-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2271.9	2271.9	2271.9	2271.9	2271.9
2.5°	2291.6	2274.3	2258.1	2276.9	2288.4
5°	2255.8	2250.5	2256.7	2249.9	2304.2
7.5°	2209.5	2229.7	2241.4	2234.1	2237.3
10°	2184.8	2177.8	2203.9	2222.1	2219.4
12.5°	2158.4	2169.0	2170.4	2190.1	2191.8
15°	2159.9	2134.9	2148.1	2159.3	2160.2
17.5°	2076.0	2103.0	2112.1	2137.6	2105.9
20°	2065.7	2046.1	2065.7	2091.8	2087.7
22.5°	2002.6	1980.6	2022.9	2046.1	2044.6
25°	1931.1	1941.6	1973.3	1999.1	1995.0
27.5°	1868.3	1880.6	1925.8	1961.3	1938.4
30°	1819.9	1813.7	1851.9	1883.5	1901.1
32.5°	1733.4	1755.7	1800.2	1831.6	1814.9
35°	1680.8	1685.8	1724.8	1764.7	1763.6
37.5°	1589.0	1612.2	1667.1	1678.2	1667.9
40°	1510.7	1533.9	1583.5	1595.5	1590.5
42.5°	1452.9	1457.0	1499.6	1513.4	1491.3
45°	1352.3	1377.5	1400.4	1436.5	1402.5
47.5°	1266.6	1278.4	1327.7	1337.3	1319.5
50°	1188.9	1193.0	1242.6	1230.6	1218.8
52.5°	1091.2	1108.5	1136.4	1134.1	1120.3
55°	1010.9	1004.1	1030.5	1023.5	1023.2
57.5°	914.3	926.1	947.8	936.6	918.7
60°	824.0	824.3	832.2	819.6	817.3
62.5°	723.4	726.9	728.7	713.1	738.3
65°	621.0	612.8	636.8	612.5	616.6
67.5°	526.8	530.9	528.6	513.3	519.2
70°	431.2	436.5	432.7	415.4	420.7
72.5°	343.8	337.3	341.4	319.7	329.7
75°	258.4	253.2	257.8	239.7	247.9
77.5°	176.0	180.1	177.2	167.5	173.1
80°	116.2	112.9	112.9	107.4	108.5
82.5°	67.8	64.5	63.7	61.9	64.5
85°	31.7	30.8	31.4	30.5	29.3
87.5°	11.4	11.7	11.7	11.1	10.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)