

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: P589506

Luminaire Tested: **FMR-24-2-LD4-3STD-40-UNV-81-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589506
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-81-94-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

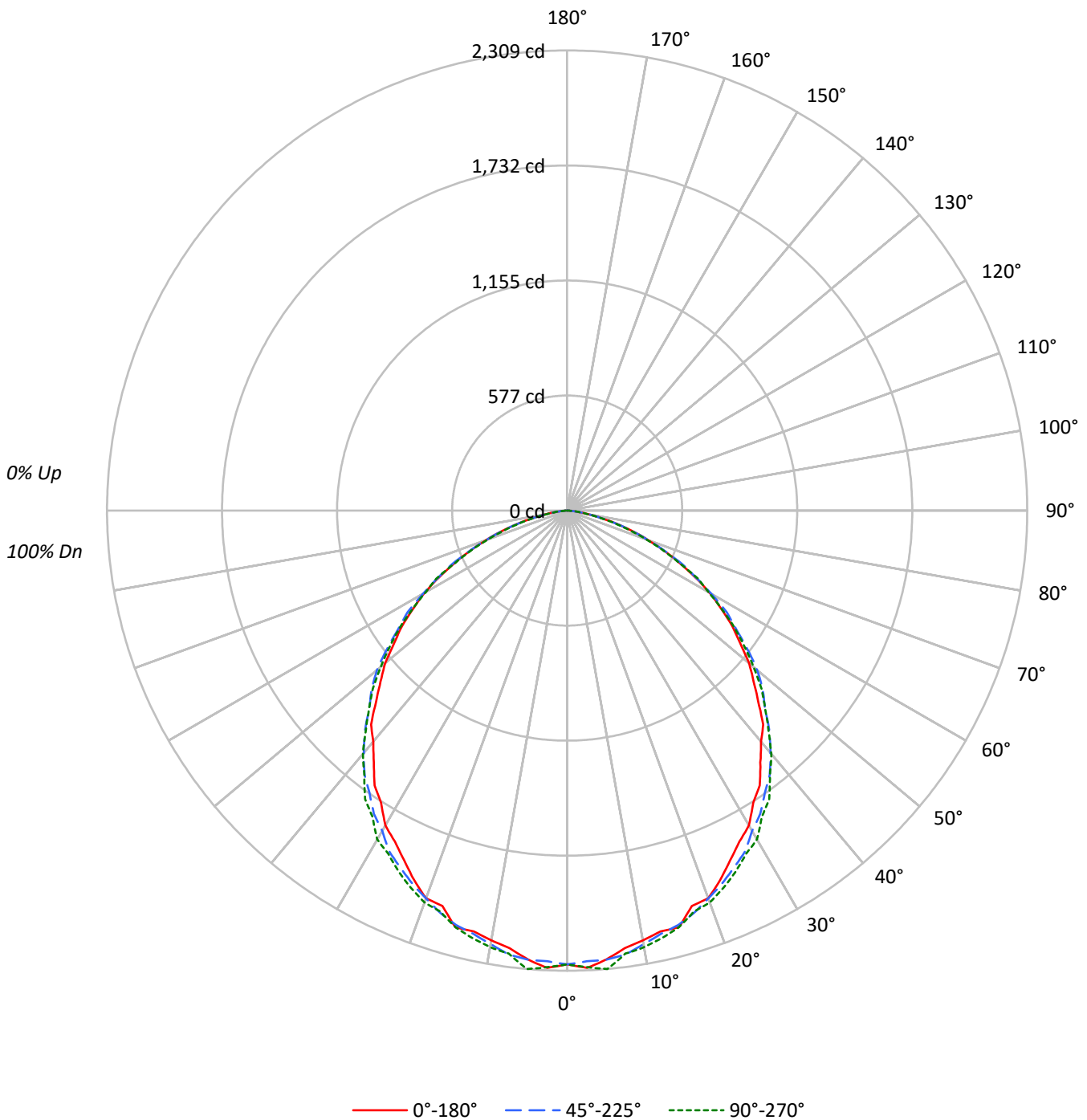
Lumens per Lamp: N/A
Luminaire Lumens: 5739.0 lumens
Efficiency: N/A
Efficacy: 114.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P589506

CATALOG NUMBER: FMR-24-2-LD4-3STD-40-UNV-81-94-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589506

CATALOG NUMBER: FMR-24-2-LD4-3STD-40-UNV-81-94-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°	6128	6128	6128
5°	6107	6110	6238
10°	5984	6036	6078
15°	6031	5998	6032
20°	5929	5929	5992
25°	5747	5872	5937
30°	5668	5767	5921
35°	5534	5679	5807
40°	5319	5575	5600
45°	5158	5342	5350
50°	4989	5214	5114
55°	4754	4845	4811
60°	4445	4489	4408
65°	3963	4064	3935
70°	3401	3412	3317
75°	2693	2687	2583
80°	1804	1754	1686
85°	982	973	908



TEST NUMBER: P589506

CATALOG NUMBER: FMR-24-2-LD4-3STD-40-UNV-81-94-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.2	3.7
10°-20°	607.1	10.6
20°-30°	909.5	15.8
30°-40°	1077.9	18.8
40°-50°	1079.9	18.8
50°-60°	916.7	16.0
60°-70°	618.0	10.8
70°-80°	271.6	4.7
80°-90°	44.1	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°	1730.7	30.2
0°-40°	2808.7	48.9
0°-60°	4805.3	83.7
0°-90°	5739.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5739.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2277	2277	2277	2277	2277	
5°	2261	2256	2262	2255	2309	213
15°	2165	2140	2153	2164	2165	603
25°	1936	1946	1978	2004	2000	895
35°	1685	1690	1729	1769	1768	1046
45°	1355	1381	1404	1440	1406	1048
55°	1013	1006	1033	1026	1026	901
65°	622	614	638	614	618	619
75°	259	254	258	240	248	278
85°	32	31	32	31	29	46
90°	0	0	0	0	0	



TEST NUMBER: P589506

CATALOG NUMBER: FMR-24-2-LD4-3STD-40-UNV-81-94-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2277.1	2277.1	2277.1	2277.1	2277.1
2.5°	2296.8	2279.4	2263.3	2282.1	2293.6
5°	2260.9	2255.6	2261.8	2255.0	2309.4
7.5°	2214.5	2234.8	2246.5	2239.2	2242.4
10°	2189.8	2182.7	2208.9	2227.1	2224.5
12.5°	2163.3	2173.9	2175.4	2195.1	2196.8
15°	2164.8	2139.8	2153.0	2164.2	2165.1
17.5°	2080.7	2107.7	2116.9	2142.4	2110.7
20°	2070.4	2050.7	2070.4	2096.6	2092.5
22.5°	2007.2	1985.1	2027.5	2050.7	2049.2
25°	1935.5	1946.0	1977.8	2003.7	1999.5
27.5°	1872.5	1884.9	1930.2	1965.7	1942.8
30°	1824.0	1817.9	1856.1	1887.8	1905.5
32.5°	1737.3	1759.6	1804.3	1835.8	1819.0
35°	1684.7	1689.7	1728.8	1768.8	1767.6
37.5°	1592.6	1615.9	1670.8	1682.0	1671.7
40°	1514.1	1537.4	1587.1	1599.1	1594.1
42.5°	1456.2	1460.3	1503.0	1516.8	1494.7
45°	1355.4	1380.7	1403.6	1439.8	1405.7
47.5°	1269.5	1281.3	1330.7	1340.4	1322.4
50°	1191.6	1195.7	1245.4	1233.4	1221.6
52.5°	1093.7	1111.1	1139.0	1136.6	1122.8
55°	1013.2	1006.4	1032.8	1025.8	1025.5
57.5°	916.4	928.2	949.9	938.8	920.8
60°	825.9	826.2	834.1	821.5	819.1
62.5°	725.0	728.6	730.3	714.7	740.0
65°	622.4	614.2	638.3	613.9	618.0
67.5°	528.0	532.2	529.8	514.5	520.4
70°	432.2	437.5	433.7	416.3	421.6
72.5°	344.6	338.1	342.2	320.5	330.5
75°	259.0	253.7	258.4	240.2	248.4
77.5°	176.4	180.5	177.6	167.9	173.5
80°	116.4	113.2	113.2	107.6	108.8
82.5°	67.9	64.7	63.8	62.0	64.7
85°	31.8	30.9	31.5	30.6	29.4
87.5°	11.5	11.8	11.8	11.2	10.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)