

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: P589538

Luminaire Tested: **FMR-24-2-LD4-3STD-50-UNV-81-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589538
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-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

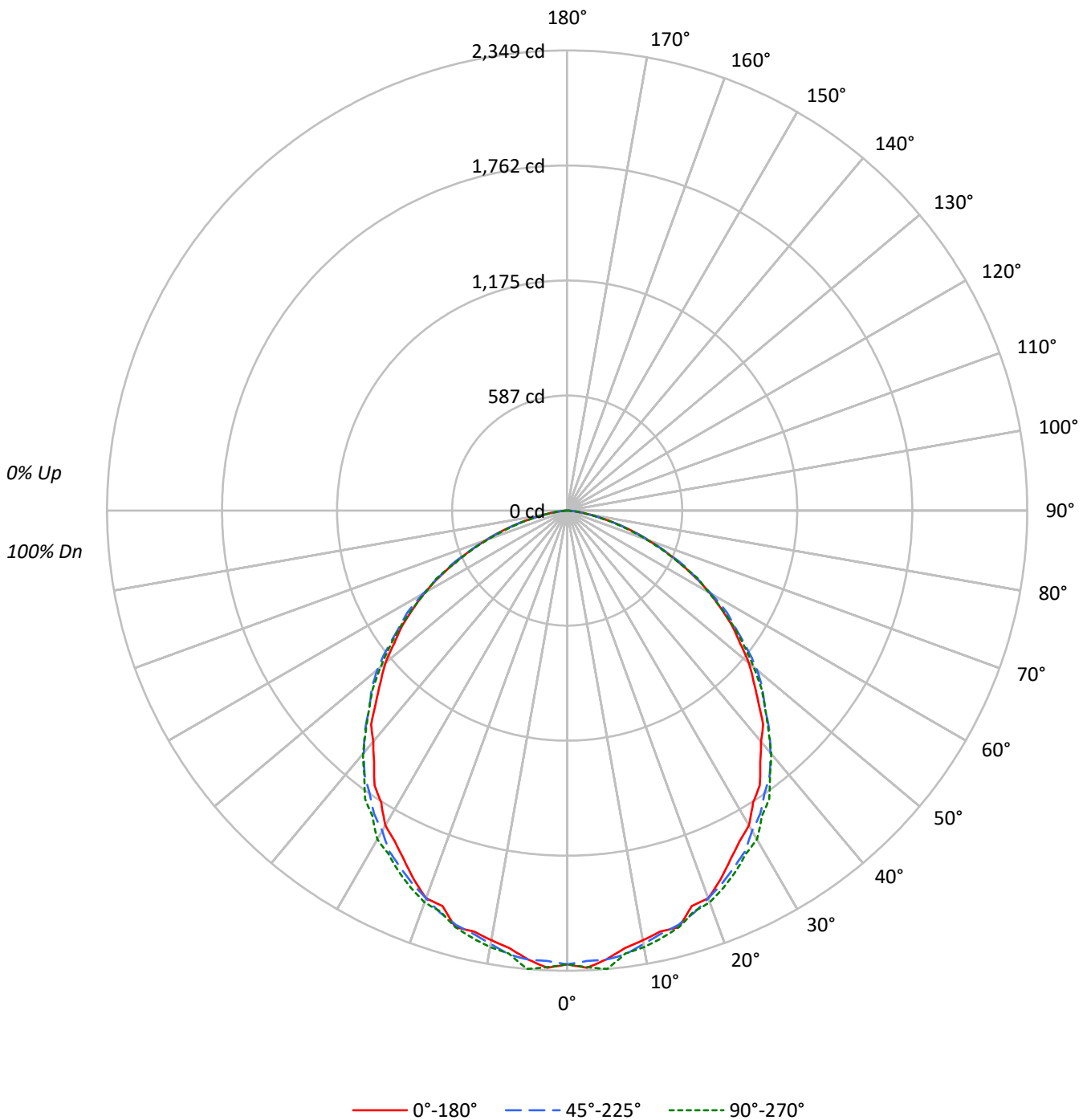
Lumens per Lamp: N/A
Luminaire Lumens: 5837.0 lumens
Efficiency: N/A
Efficacy: 116.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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: P589538

CATALOG NUMBER: FMR-24-2-LD4-3STD-50-UNV-81-94-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589538

CATALOG NUMBER: FMR-24-2-LD4-3STD-50-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°	6232	6232	6232
5°	6212	6214	6345
10°	6086	6139	6182
15°	6134	6101	6135
20°	6030	6030	6094
25°	5845	5973	6038
30°	5765	5866	6022
35°	5629	5776	5906
40°	5410	5670	5695
45°	5246	5433	5441
50°	5074	5303	5202
55°	4835	4929	4893
60°	4521	4566	4484
65°	4031	4134	4003
70°	3459	3471	3374
75°	2739	2732	2627
80°	1835	1784	1714
85°	997	988	923



TEST NUMBER: P589538

CATALOG NUMBER: FMR-24-2-LD4-3STD-50-UNV-81-94-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.9	3.7
10°-20°	617.4	10.6
20°-30°	925.0	15.8
30°-40°	1096.3	18.8
40°-50°	1098.4	18.8
50°-60°	932.3	16.0
60°-70°	628.6	10.8
70°-80°	276.2	4.7
80°-90°	44.9	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°	1760.3	30.2
0°-40°	2856.6	48.9
0°-60°	4887.3	83.7
0°-90°	5837.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5837.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2316	2316	2316	2316	2316	
5°	2300	2294	2300	2294	2349	217
15°	2202	2176	2190	2201	2202	613
25°	1968	1979	2012	2038	2034	910
35°	1713	1718	1758	1799	1798	1064
45°	1378	1404	1428	1464	1430	1066
55°	1030	1024	1050	1043	1043	917
65°	633	625	649	624	629	630
75°	263	258	263	244	253	282
85°	32	31	32	31	30	47
90°	0	0	0	0	0	



TEST NUMBER: P589538

CATALOG NUMBER: FMR-24-2-LD4-3STD-50-UNV-81-94-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2316.0	2316.0	2316.0	2316.0	2316.0
2.5°	2336.0	2318.4	2301.9	2321.1	2332.7
5°	2299.5	2294.1	2300.4	2293.5	2348.9
7.5°	2252.3	2272.9	2284.9	2277.4	2280.7
10°	2227.2	2220.0	2246.6	2265.1	2262.4
12.5°	2200.3	2211.0	2212.5	2232.5	2234.3
15°	2201.7	2176.3	2189.8	2201.1	2202.0
17.5°	2116.2	2143.7	2153.0	2179.0	2146.7
20°	2105.8	2085.7	2105.8	2132.4	2128.2
22.5°	2041.5	2019.0	2062.1	2085.7	2084.2
25°	1968.5	1979.3	2011.6	2037.9	2033.7
27.5°	1904.5	1917.1	1963.1	1999.3	1976.0
30°	1855.2	1848.9	1887.8	1920.1	1938.0
32.5°	1767.0	1789.7	1835.1	1867.1	1850.1
35°	1713.4	1718.5	1758.3	1799.0	1797.8
37.5°	1619.8	1643.5	1699.4	1710.7	1700.3
40°	1540.0	1563.6	1614.2	1626.4	1621.3
42.5°	1481.1	1485.3	1528.6	1542.7	1520.3
45°	1378.5	1404.2	1427.6	1464.3	1429.7
47.5°	1291.2	1303.2	1353.4	1363.3	1345.0
50°	1212.0	1216.1	1266.7	1254.4	1242.5
52.5°	1112.4	1130.0	1158.4	1156.0	1142.0
55°	1030.5	1023.6	1050.5	1043.3	1043.0
57.5°	932.1	944.0	966.2	954.8	936.6
60°	840.0	840.3	848.3	835.5	833.1
62.5°	737.4	741.0	742.8	726.9	752.7
65°	633.0	624.7	649.2	624.4	628.6
67.5°	537.1	541.2	538.8	523.3	529.3
70°	439.6	445.0	441.1	423.4	428.8
72.5°	350.5	343.9	348.1	325.9	336.1
75°	263.4	258.1	262.8	244.3	252.7
77.5°	179.4	183.6	180.6	170.7	176.4
80°	118.4	115.1	115.1	109.4	110.6
82.5°	69.1	65.8	64.9	63.1	65.8
85°	32.3	31.4	32.0	31.1	29.9
87.5°	11.7	12.0	12.0	11.4	10.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)