

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: P588920

Luminaire Tested: **FMR-24-2-LD4-1STD-40-UNV-80-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588920
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-LD4-1STD-40-UNV-80-87-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

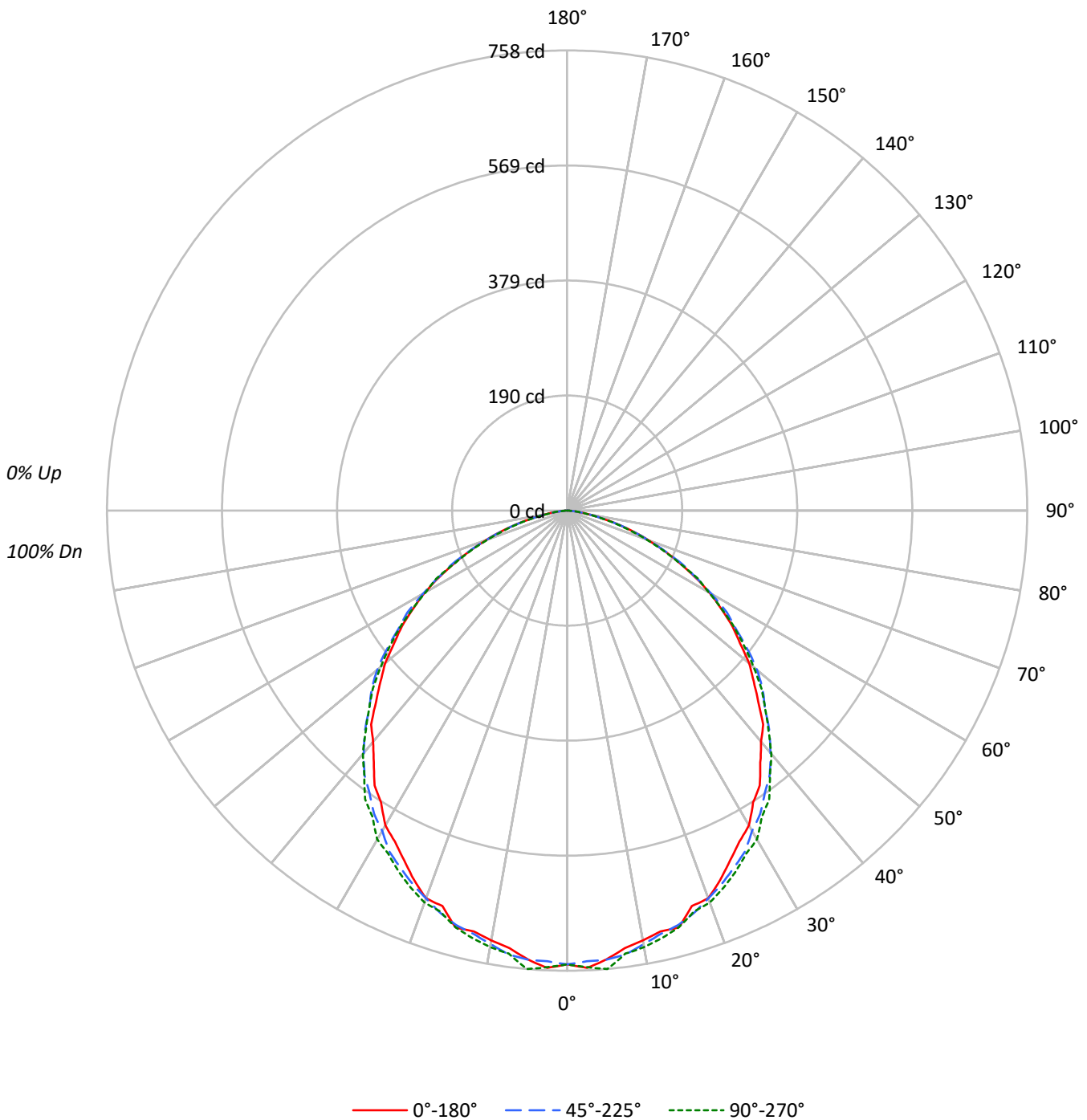
Lumens per Lamp: N/A
Luminaire Lumens: 1884.0 lumens
Efficiency: N/A
Efficacy: 113.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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: P588920

CATALOG NUMBER: FMR-24-2-LD4-1STD-40-UNV-80-87-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P588920

CATALOG NUMBER: FMR-24-2-LD4-1STD-40-UNV-80-87-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°	2012	2012	2012
5°	2005	2006	2048
10°	1964	1981	1995
15°	1980	1969	1980
20°	1946	1946	1967
25°	1887	1928	1949
30°	1861	1893	1944
35°	1817	1864	1906
40°	1746	1830	1838
45°	1693	1754	1756
50°	1638	1711	1679
55°	1560	1591	1580
60°	1459	1474	1447
65°	1301	1334	1292
70°	1116	1120	1089
75°	884	882	848
80°	592	576	553
85°	321	318	299



TEST NUMBER: P588920

CATALOG NUMBER: FMR-24-2-LD4-1STD-40-UNV-80-87-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.3	3.7
10°-20°	199.3	10.6
20°-30°	298.6	15.8
30°-40°	353.9	18.8
40°-50°	354.5	18.8
50°-60°	300.9	16.0
60°-70°	202.9	10.8
70°-80°	89.2	4.7
80°-90°	14.5	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°	568.2	30.2
0°-40°	922.0	48.9
0°-60°	1577.5	83.7
0°-90°	1884.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1884.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	748	748	748	748	748	
5°	742	740	742	740	758	70
15°	711	702	707	710	711	198
25°	635	639	649	658	656	294
35°	553	555	568	581	580	343
45°	445	453	461	473	461	344
55°	333	330	339	337	337	296
65°	204	202	210	202	203	203
75°	85	83	85	79	82	91
85°	10	10	10	10	10	15
90°	0	0	0	0	0	



TEST NUMBER: P588920

CATALOG NUMBER: FMR-24-2-LD4-1STD-40-UNV-80-87-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	747.5	747.5	747.5	747.5	747.5
2.5°	754.0	748.3	743.0	749.2	752.9
5°	742.2	740.5	742.5	740.3	758.1
7.5°	727.0	733.6	737.5	735.1	736.1
10°	718.9	716.5	725.1	731.1	730.2
12.5°	710.2	713.6	714.1	720.6	721.2
15°	710.7	702.5	706.8	710.5	710.8
17.5°	683.1	691.9	694.9	703.3	692.9
20°	679.7	673.2	679.7	688.3	686.9
22.5°	658.9	651.7	665.6	673.2	672.7
25°	635.4	638.8	649.3	657.8	656.4
27.5°	614.7	618.8	633.6	645.3	637.8
30°	598.8	596.8	609.3	619.7	625.5
32.5°	570.3	577.7	592.3	602.7	597.2
35°	553.0	554.7	567.5	580.6	580.3
37.5°	522.8	530.5	548.5	552.2	548.8
40°	497.1	504.7	521.0	525.0	523.3
42.5°	478.0	479.4	493.4	497.9	490.7
45°	444.9	453.2	460.8	472.6	461.4
47.5°	416.8	420.6	436.8	440.0	434.1
50°	391.2	392.5	408.8	404.9	401.0
52.5°	359.0	364.7	373.9	373.1	368.6
55°	332.6	330.4	339.1	336.7	336.7
57.5°	300.8	304.7	311.8	308.2	302.3
60°	271.1	271.2	273.8	269.7	268.9
62.5°	238.0	239.2	239.7	234.6	242.9
65°	204.3	201.6	209.5	201.5	202.9
67.5°	173.3	174.7	173.9	168.9	170.8
70°	141.9	143.6	142.4	136.7	138.4
72.5°	113.1	111.0	112.3	105.2	108.5
75°	85.0	83.3	84.8	78.9	81.6
77.5°	57.9	59.3	58.3	55.1	56.9
80°	38.2	37.2	37.2	35.3	35.7
82.5°	22.3	21.2	20.9	20.4	21.2
85°	10.4	10.1	10.3	10.0	9.7
87.5°	3.8	3.9	3.9	3.7	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)