

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: P588896

Luminaire Tested: **FMR-24-2-LD4-1STD-35-UNV-81-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588896
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-35-UNV-81-87-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

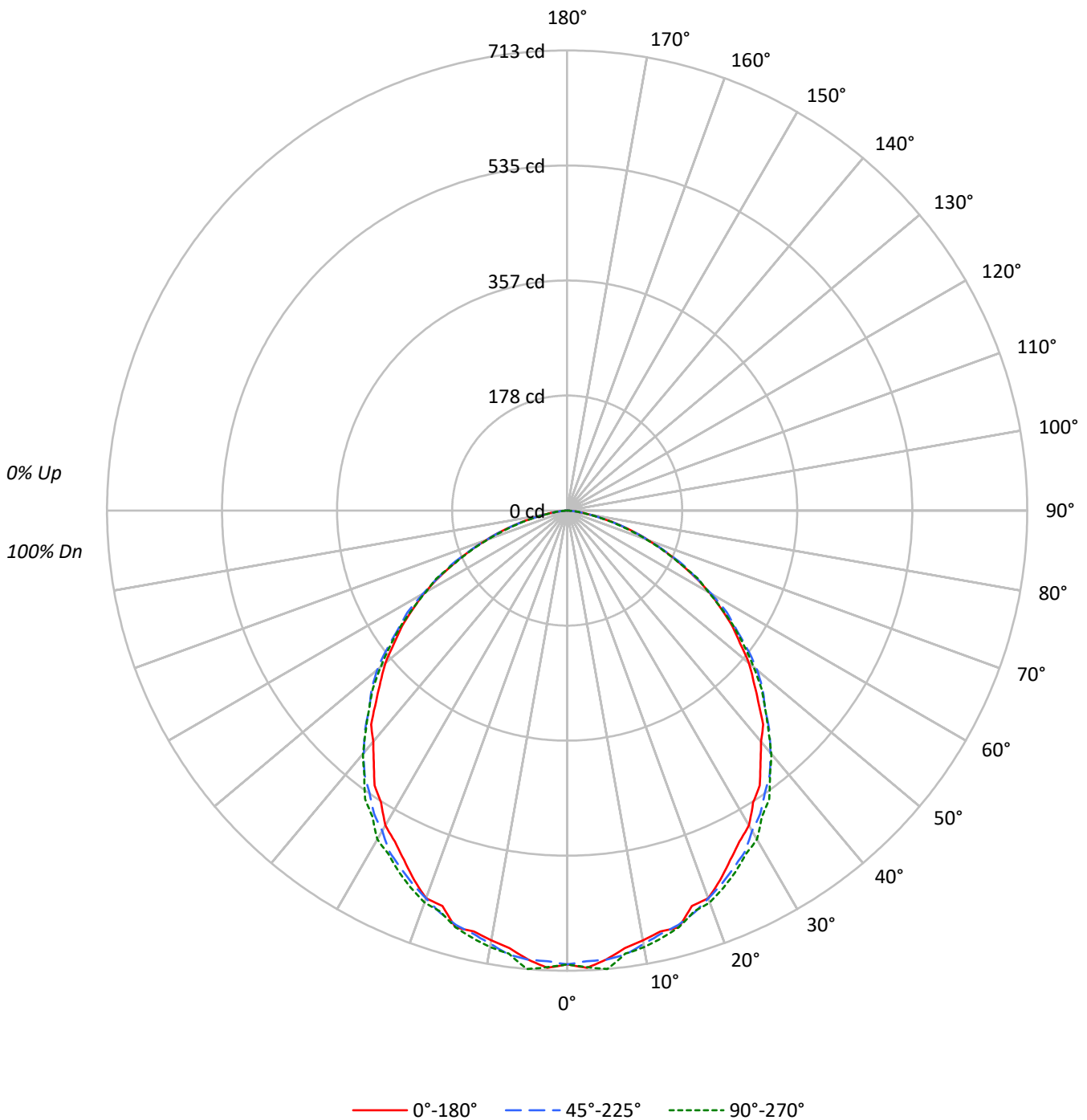
Lumens per Lamp: N/A
Luminaire Lumens: 1772.0 lumens
Efficiency: N/A
Efficacy: 106.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P588896

CATALOG NUMBER: FMR-24-2-LD4-1STD-35-UNV-81-87-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P588896

CATALOG NUMBER: FMR-24-2-LD4-1STD-35-UNV-81-87-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°	1892	1892	1892
5°	1886	1887	1926
10°	1847	1864	1877
15°	1862	1852	1862
20°	1831	1831	1850
25°	1774	1813	1833
30°	1750	1781	1828
35°	1709	1754	1793
40°	1642	1721	1729
45°	1593	1649	1652
50°	1540	1610	1579
55°	1468	1496	1485
60°	1372	1386	1361
65°	1224	1255	1215
70°	1050	1054	1024
75°	832	830	797
80°	556	541	521
85°	303	299	281



TEST NUMBER: P588896

CATALOG NUMBER: FMR-24-2-LD4-1STD-35-UNV-81-87-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.1	3.7
10°-20°	187.4	10.6
20°-30°	280.8	15.8
30°-40°	332.8	18.8
40°-50°	333.4	18.8
50°-60°	283.0	16.0
60°-70°	190.8	10.8
70°-80°	83.8	4.7
80°-90°	13.6	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°	534.4	30.2
0°-40°	867.2	48.9
0°-60°	1483.7	83.7
0°-90°	1772.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1772.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	703	703	703	703	703	
5°	698	696	698	696	713	66
15°	668	661	665	668	668	186
25°	598	601	611	619	617	276
35°	520	522	534	546	546	323
45°	418	426	433	444	434	324
55°	313	311	319	317	317	278
65°	192	190	197	190	191	191
75°	80	78	80	74	77	86
85°	10	10	10	9	9	14
90°	0	0	0	0	0	



TEST NUMBER: P588896

CATALOG NUMBER: FMR-24-2-LD4-1STD-35-UNV-81-87-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	703.1	703.1	703.1	703.1	703.1
2.5°	709.2	703.8	698.8	704.6	708.2
5°	698.1	696.5	698.4	696.3	713.1
7.5°	683.7	690.0	693.6	691.4	692.4
10°	676.1	673.9	682.0	687.7	686.8
12.5°	668.0	671.2	671.7	677.8	678.3
15°	668.4	660.7	664.8	668.2	668.5
17.5°	642.4	650.8	653.6	661.5	651.7
20°	639.3	633.2	639.3	647.3	646.1
22.5°	619.7	612.9	626.0	633.2	632.7
25°	597.6	600.9	610.7	618.7	617.4
27.5°	578.2	582.0	596.0	606.9	599.9
30°	563.2	561.3	573.1	582.9	588.3
32.5°	536.4	543.3	557.1	566.8	561.7
35°	520.2	521.7	533.8	546.1	545.8
37.5°	491.8	498.9	515.9	519.3	516.2
40°	467.5	474.7	490.0	493.7	492.2
42.5°	449.6	450.9	464.1	468.3	461.5
45°	418.5	426.3	433.4	444.5	434.0
47.5°	392.0	395.6	410.9	413.9	408.3
50°	367.9	369.2	384.5	380.8	377.2
52.5°	337.7	343.1	351.7	351.0	346.7
55°	312.8	310.7	318.9	316.7	316.6
57.5°	283.0	286.6	293.3	289.9	284.3
60°	255.0	255.1	257.5	253.6	252.9
62.5°	223.9	225.0	225.5	220.7	228.5
65°	192.2	189.6	197.1	189.5	190.8
67.5°	163.0	164.3	163.6	158.9	160.7
70°	133.4	135.1	133.9	128.5	130.2
72.5°	106.4	104.4	105.7	98.9	102.0
75°	80.0	78.3	79.8	74.2	76.7
77.5°	54.5	55.7	54.8	51.8	53.6
80°	35.9	34.9	34.9	33.2	33.6
82.5°	21.0	20.0	19.7	19.2	20.0
85°	9.8	9.5	9.7	9.4	9.1
87.5°	3.5	3.6	3.6	3.4	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)