

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: P588969

Luminaire Tested: **FMR-24-2-LD4-1STD-50-UNV-82-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588969
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-50-UNV-82-88-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

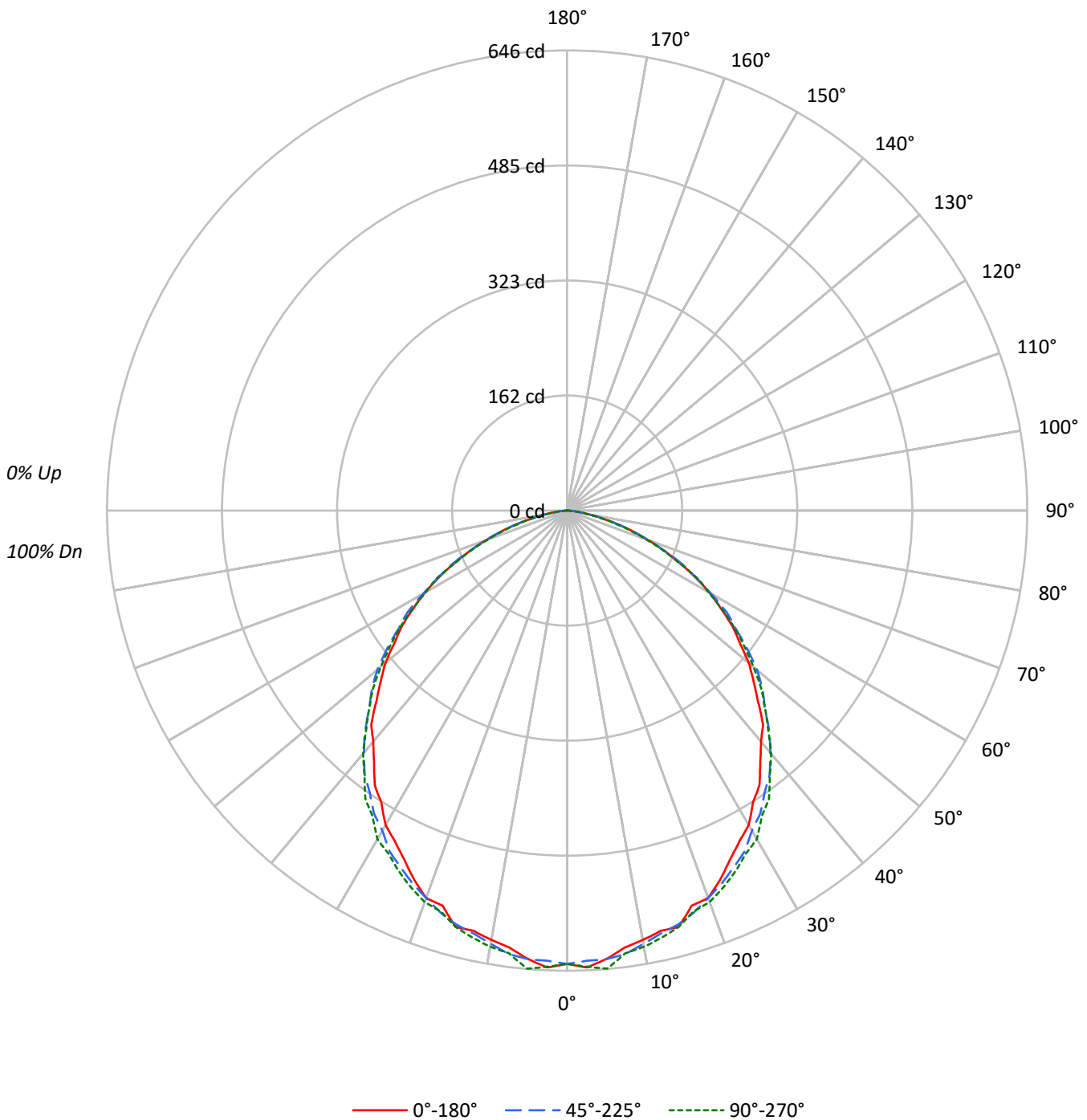
Lumens per Lamp: N/A
Luminaire Lumens: 1604.0 lumens
Efficiency: N/A
Efficacy: 96.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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: P588969

CATALOG NUMBER: FMR-24-2-LD4-1STD-50-UNV-82-88-EDD

Luminous Intensity Polar Plot





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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°	1713	1713	1713
5°	1707	1708	1744
10°	1672	1687	1699
15°	1685	1676	1686
20°	1657	1657	1675
25°	1606	1641	1659
30°	1584	1612	1655
35°	1547	1587	1623
40°	1487	1558	1565
45°	1442	1493	1495
50°	1394	1457	1429
55°	1329	1354	1345
60°	1242	1255	1232
65°	1108	1136	1100
70°	950	954	927
75°	753	751	722
80°	504	490	471
85°	275	272	253



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.9	3.7
10°-20°	169.7	10.6
20°-30°	254.2	15.8
30°-40°	301.3	18.8
40°-50°	301.8	18.8
50°-60°	256.2	16.0
60°-70°	172.7	10.8
70°-80°	75.9	4.7
80°-90°	12.3	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°	483.7	30.2
0°-40°	785.0	48.9
0°-60°	1343.0	83.7
0°-90°	1604.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1604.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	636	636	636	636	636	
5°	632	630	632	630	646	60
15°	605	598	602	605	605	169
25°	541	544	553	560	559	250
35°	471	472	483	494	494	292
45°	379	386	392	402	393	293
55°	283	281	289	287	287	252
65°	174	172	178	172	173	173
75°	72	71	72	67	69	78
85°	9	9	9	8	8	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	636.4	636.4	636.4	636.4	636.4
2.5°	641.9	637.1	632.6	637.8	641.0
5°	631.9	630.4	632.2	630.3	645.5
7.5°	618.9	624.6	627.9	625.8	626.7
10°	612.0	610.0	617.4	622.5	621.7
12.5°	604.6	607.6	608.0	613.5	614.0
15°	605.0	598.1	601.7	604.9	605.1
17.5°	581.5	589.1	591.6	598.8	589.9
20°	578.7	573.2	578.7	586.0	584.8
22.5°	561.0	554.8	566.7	573.2	572.7
25°	540.9	543.9	552.8	560.0	558.9
27.5°	523.4	526.8	539.5	549.4	543.0
30°	509.8	508.1	518.8	527.6	532.6
32.5°	485.6	491.8	504.3	513.1	508.4
35°	470.8	472.2	483.2	494.4	494.0
37.5°	445.1	451.6	467.0	470.1	467.2
40°	423.2	429.7	443.6	446.9	445.5
42.5°	407.0	408.2	420.1	423.9	417.8
45°	378.8	385.9	392.3	402.4	392.9
47.5°	354.8	358.1	371.9	374.6	369.6
50°	333.0	334.2	348.1	344.7	341.4
52.5°	305.7	310.5	318.3	317.7	313.8
55°	283.2	281.3	288.7	286.7	286.6
57.5°	256.1	259.4	265.5	262.4	257.4
60°	230.8	230.9	233.1	229.6	228.9
62.5°	202.6	203.6	204.1	199.8	206.8
65°	174.0	171.7	178.4	171.6	172.7
67.5°	147.6	148.7	148.1	143.8	145.4
70°	120.8	122.3	121.2	116.4	117.8
72.5°	96.3	94.5	95.6	89.6	92.4
75°	72.4	70.9	72.2	67.1	69.4
77.5°	49.3	50.5	49.6	46.9	48.5
80°	32.5	31.6	31.6	30.1	30.4
82.5°	19.0	18.1	17.8	17.3	18.1
85°	8.9	8.6	8.8	8.5	8.2
87.5°	3.2	3.3	3.3	3.1	3.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)