

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: P588717

Luminaire Tested: **FMR-24-2-LD4-1HI-35-UNV-93-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588717
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-LD4-1HI-35-UNV-93-84-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

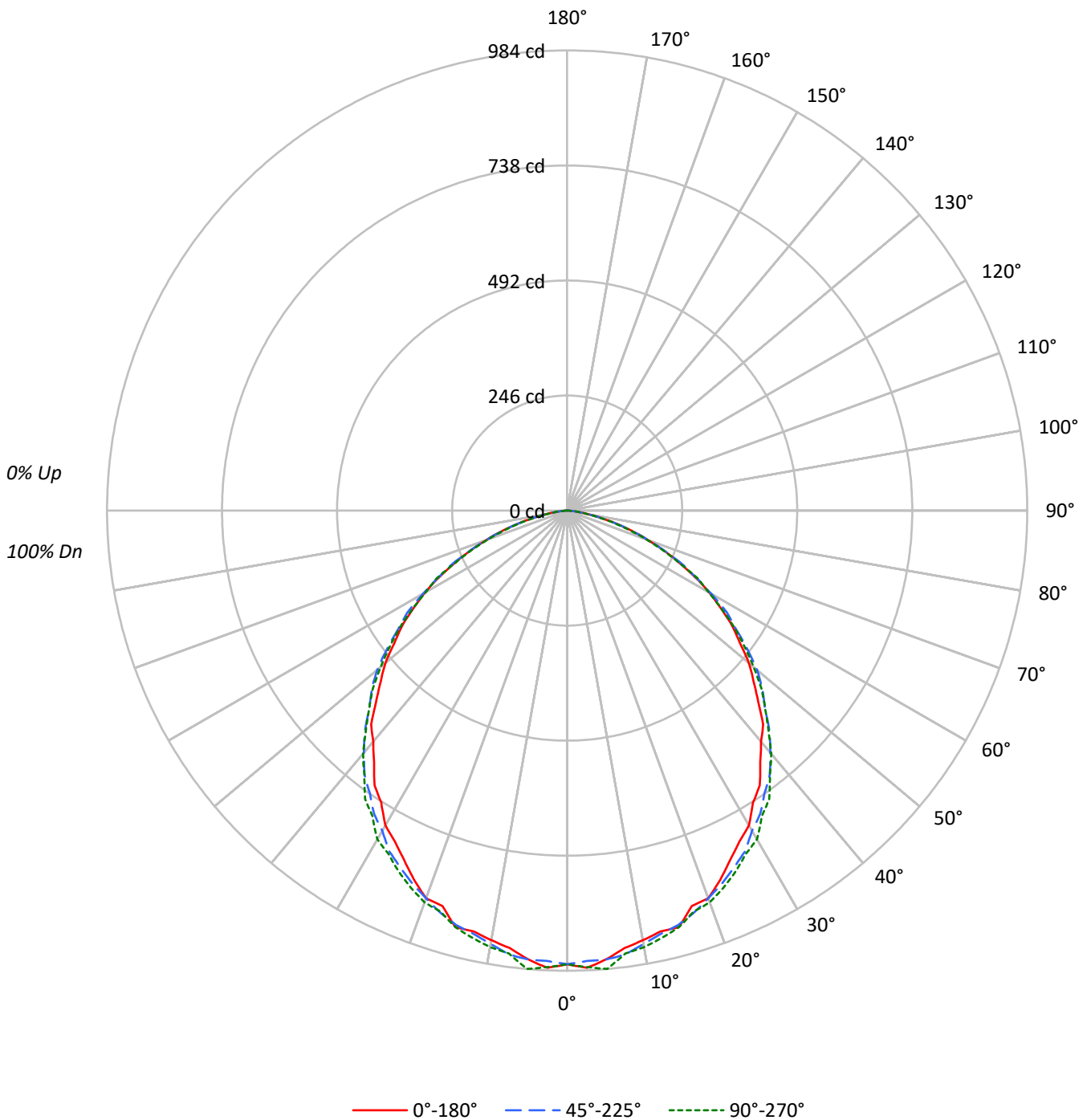
Lumens per Lamp: N/A
Luminaire Lumens: 2445.0 lumens
Efficiency: N/A
Efficacy: 113.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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

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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°	2611	2611	2611
5°	2602	2603	2658
10°	2549	2572	2590
15°	2569	2556	2570
20°	2526	2526	2553
25°	2448	2502	2529
30°	2415	2457	2522
35°	2358	2419	2474
40°	2266	2375	2386
45°	2197	2276	2279
50°	2125	2221	2179
55°	2025	2064	2050
60°	1893	1913	1878
65°	1689	1731	1677
70°	1448	1454	1413
75°	1148	1145	1100
80°	769	747	717
85°	417	414	386



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.3	3.7
10°-20°	258.6	10.6
20°-30°	387.5	15.8
30°-40°	459.2	18.8
40°-50°	460.1	18.8
50°-60°	390.5	16.0
60°-70°	263.3	10.8
70°-80°	115.7	4.7
80°-90°	18.8	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°	737.4	30.2
0°-40°	1196.6	48.9
0°-60°	2047.2	83.7
0°-90°	2445.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2445.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	970	970	970	970	970	
5°	963	961	964	961	984	91
15°	922	912	917	922	922	257
25°	825	829	843	854	852	381
35°	718	720	736	754	753	446
45°	577	588	598	613	599	447
55°	432	429	440	437	437	384
65°	265	262	272	262	263	264
75°	110	108	110	102	106	118
85°	14	13	13	13	12	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	970.1	970.1	970.1	970.1	970.1
2.5°	978.5	971.1	964.2	972.2	977.1
5°	963.2	961.0	963.6	960.7	983.9
7.5°	943.4	952.1	957.1	954.0	955.3
10°	932.9	929.9	941.1	948.8	947.7
12.5°	921.6	926.1	926.8	935.2	935.9
15°	922.3	911.6	917.3	922.0	922.4
17.5°	886.4	898.0	901.8	912.7	899.2
20°	882.1	873.7	882.1	893.2	891.5
22.5°	855.1	845.7	863.8	873.7	873.0
25°	824.6	829.1	842.6	853.6	851.9
27.5°	797.8	803.0	822.3	837.5	827.7
30°	777.1	774.5	790.7	804.3	811.8
32.5°	740.1	749.7	768.7	782.1	775.0
35°	717.7	719.9	736.5	753.5	753.0
37.5°	678.5	688.4	711.8	716.6	712.2
40°	645.1	655.0	676.1	681.3	679.1
42.5°	620.4	622.2	640.3	646.2	636.8
45°	577.4	588.2	598.0	613.4	598.9
47.5°	540.9	545.9	566.9	571.0	563.4
50°	507.7	509.4	530.6	525.5	520.4
52.5°	466.0	473.3	485.2	484.2	478.4
55°	431.6	428.8	440.0	437.0	436.9
57.5°	390.4	395.4	404.7	399.9	392.3
60°	351.8	352.0	355.4	350.0	349.0
62.5°	308.9	310.4	311.1	304.5	315.3
65°	265.2	261.7	271.9	261.5	263.3
67.5°	225.0	226.7	225.7	219.2	221.7
70°	184.1	186.4	184.8	177.4	179.6
72.5°	146.8	144.0	145.8	136.5	140.8
75°	110.4	108.1	110.1	102.3	105.8
77.5°	75.2	76.9	75.7	71.5	73.9
80°	49.6	48.2	48.2	45.8	46.3
82.5°	28.9	27.6	27.2	26.4	27.6
85°	13.5	13.2	13.4	13.0	12.5
87.5°	4.9	5.0	5.0	4.8	4.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)