

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: P589127

Luminaire Tested: **FMR-24-2-LD4-2LO-40-UNV-82-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589127
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-LD4-2LO-40-UNV-82-86-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

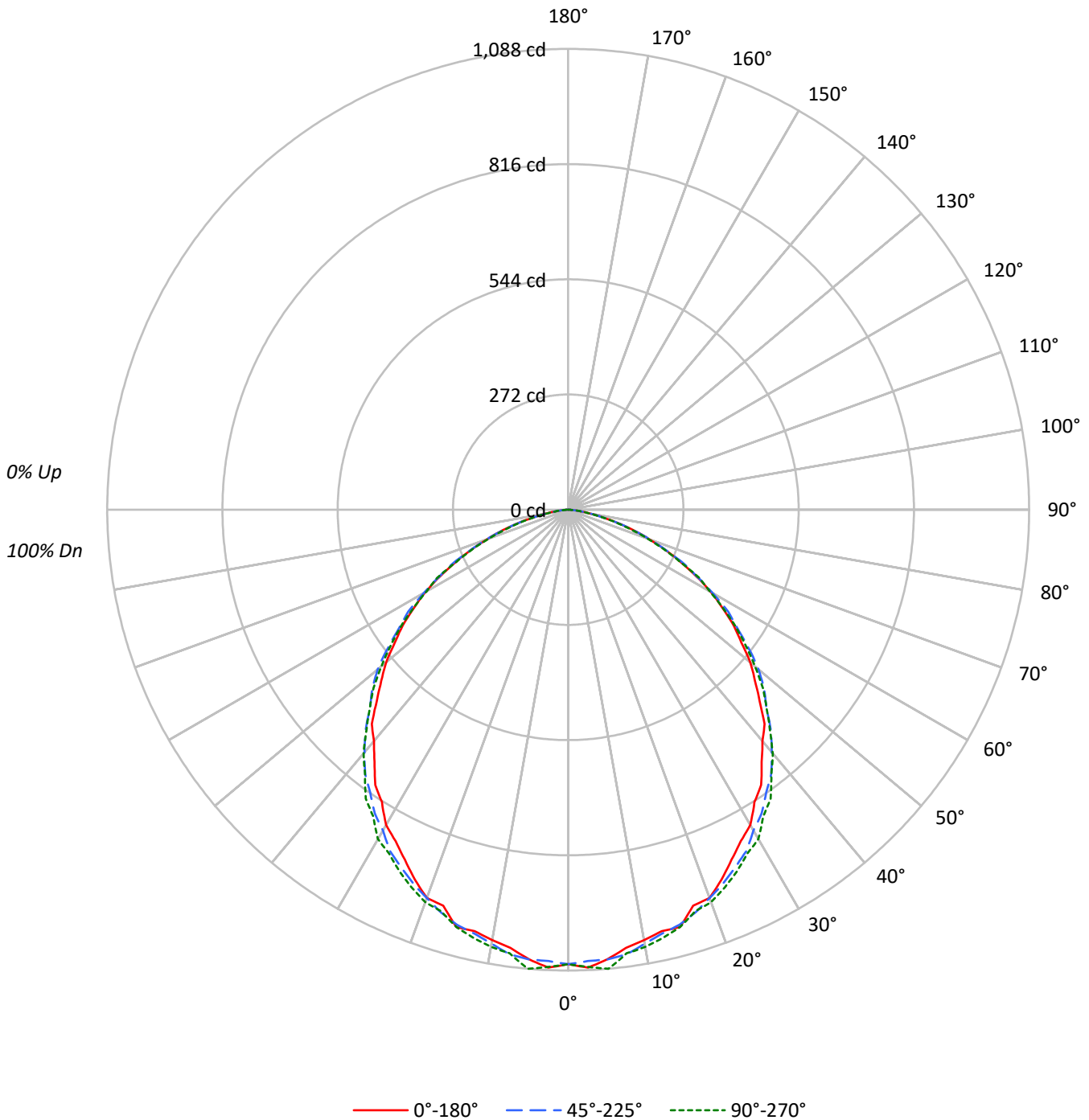
Lumens per Lamp: N/A
Luminaire Lumens: 2704.0 lumens
Efficiency: N/A
Efficacy: 115.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	2887	2887	2887
5°	2878	2879	2939
10°	2819	2844	2864
15°	2842	2826	2842
20°	2794	2794	2823
25°	2708	2767	2797
30°	2670	2717	2790
35°	2608	2676	2736
40°	2506	2627	2638
45°	2430	2517	2520
50°	2350	2457	2410
55°	2240	2283	2267
60°	2094	2115	2077
65°	1868	1915	1854
70°	1602	1607	1563
75°	1268	1266	1218
80°	851	826	795
85°	463	457	429



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.9	3.7
10°-20°	286.0	10.6
20°-30°	428.5	15.8
30°-40°	507.9	18.8
40°-50°	508.8	18.8
50°-60°	431.9	16.0
60°-70°	291.2	10.8
70°-80°	128.0	4.7
80°-90°	20.8	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°	815.5	30.2
0°-40°	1323.3	48.9
0°-60°	2264.1	83.7
0°-90°	2704.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2704.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1073	1073	1073	1073	1073	
5°	1065	1063	1066	1062	1088	100
15°	1020	1008	1014	1020	1020	284
25°	912	917	932	944	942	422
35°	794	796	814	833	833	493
45°	639	650	661	678	662	494
55°	477	474	487	483	483	425
65°	293	289	301	289	291	292
75°	122	120	122	113	117	131
85°	15	14	15	14	14	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1072.9	1072.9	1072.9	1072.9	1072.9
2.5°	1082.2	1074.0	1066.4	1075.2	1080.6
5°	1065.3	1062.8	1065.7	1062.5	1088.1
7.5°	1043.4	1052.9	1058.5	1055.0	1056.5
10°	1031.7	1028.4	1040.7	1049.3	1048.1
12.5°	1019.3	1024.3	1024.9	1034.2	1035.1
15°	1020.0	1008.2	1014.4	1019.7	1020.1
17.5°	980.3	993.1	997.4	1009.4	994.5
20°	975.5	966.2	975.5	987.8	985.9
22.5°	945.7	935.3	955.3	966.2	965.5
25°	911.9	916.9	931.9	944.1	942.1
27.5°	882.3	888.1	909.4	926.2	915.4
30°	859.4	856.5	874.5	889.5	897.8
32.5°	818.5	829.1	850.1	865.0	857.1
35°	793.8	796.1	814.5	833.4	832.8
37.5°	750.4	761.3	787.2	792.5	787.7
40°	713.4	724.3	747.8	753.4	751.1
42.5°	686.1	688.1	708.1	714.7	704.3
45°	638.6	650.5	661.3	678.4	662.3
47.5°	598.2	603.7	627.0	631.5	623.1
50°	561.4	563.4	586.8	581.1	575.6
52.5°	515.3	523.5	536.6	535.5	529.0
55°	477.4	474.2	486.6	483.3	483.2
57.5°	431.8	437.3	447.6	442.3	433.9
60°	389.1	389.3	393.0	387.0	385.9
62.5°	341.6	343.3	344.1	336.8	348.7
65°	293.3	289.4	300.7	289.2	291.2
67.5°	248.8	250.7	249.6	242.4	245.2
70°	203.6	206.1	204.3	196.2	198.6
72.5°	162.4	159.3	161.2	151.0	155.7
75°	122.0	119.5	121.8	113.2	117.1
77.5°	83.1	85.1	83.7	79.1	81.7
80°	54.9	53.3	53.3	50.7	51.3
82.5°	32.0	30.5	30.1	29.2	30.5
85°	15.0	14.5	14.8	14.4	13.9
87.5°	5.4	5.5	5.5	5.3	5.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)