

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: P589129

Luminaire Tested: **FMR-24-2-LD4-2LO-40-UNV-82-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589129
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-82-88-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

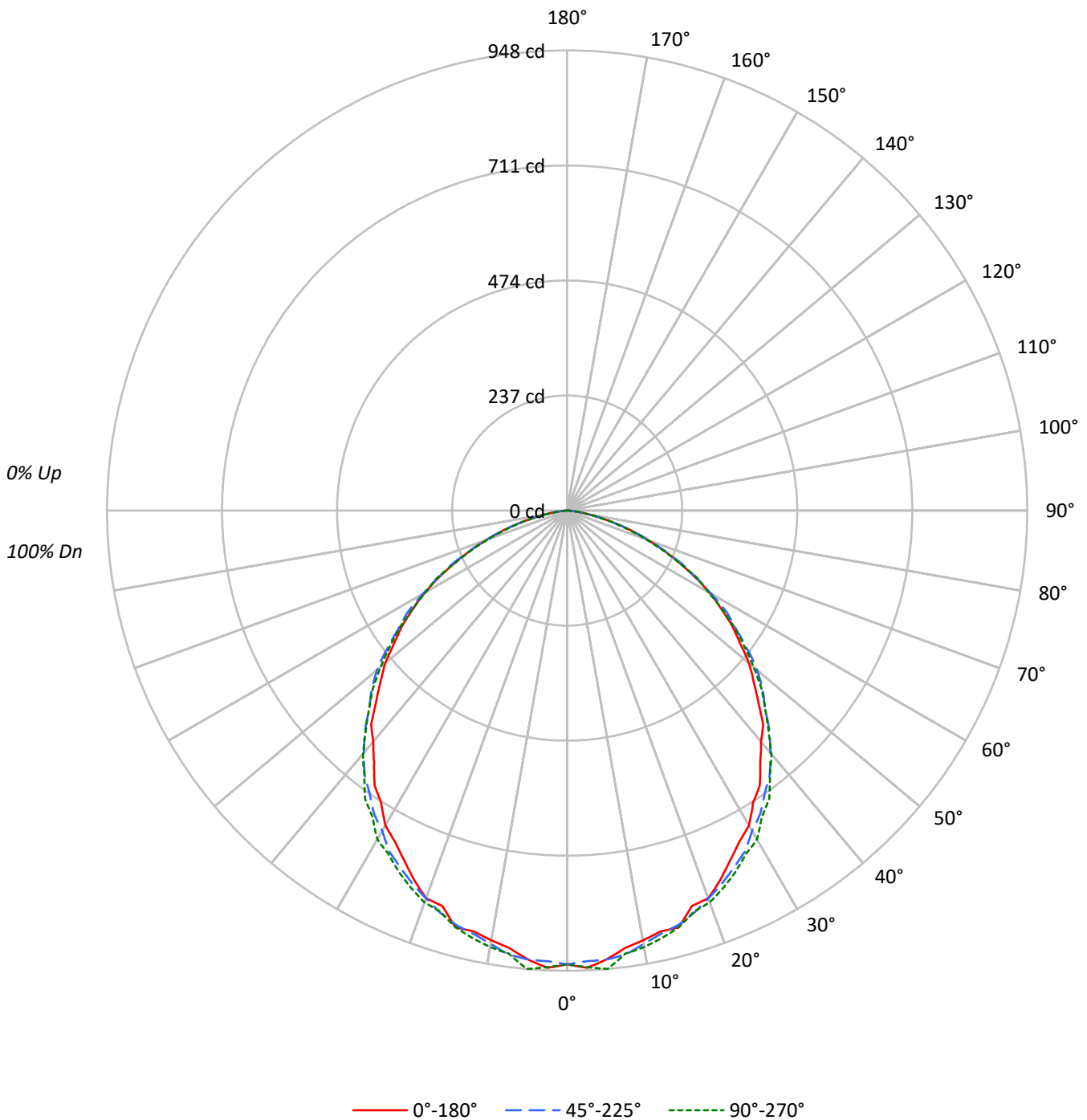
Lumens per Lamp: N/A
Luminaire Lumens: 2356.0 lumens
Efficiency: N/A
Efficacy: 100.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	2516	2516	2516
5°	2507	2508	2561
10°	2457	2478	2495
15°	2476	2462	2476
20°	2434	2434	2460
25°	2359	2411	2437
30°	2327	2368	2431
35°	2272	2331	2384
40°	2184	2289	2299
45°	2117	2193	2196
50°	2048	2141	2099
55°	1951	1989	1975
60°	1824	1843	1810
65°	1627	1668	1615
70°	1396	1400	1362
75°	1105	1103	1061
80°	741	721	693
85°	401	398	374



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.9	3.7
10°-20°	249.2	10.6
20°-30°	373.4	15.8
30°-40°	442.5	18.8
40°-50°	443.3	18.8
50°-60°	376.3	16.0
60°-70°	253.7	10.8
70°-80°	111.5	4.7
80°-90°	18.1	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°	710.5	30.2
0°-40°	1153.0	48.9
0°-60°	1972.7	83.7
0°-90°	2356.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2356.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	935	935	935	935	935	
5°	928	926	928	926	948	88
15°	889	878	884	888	889	248
25°	795	799	812	823	821	367
35°	692	694	710	726	726	429
45°	556	567	576	591	577	430
55°	416	413	424	421	421	370
65°	256	252	262	252	254	254
75°	106	104	106	99	102	114
85°	13	13	13	13	12	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	934.8	934.8	934.8	934.8	934.8
2.5°	942.9	935.8	929.1	936.9	941.6
5°	928.2	926.0	928.5	925.7	948.1
7.5°	909.1	917.4	922.2	919.2	920.6
10°	899.0	896.1	906.8	914.3	913.2
12.5°	888.1	892.4	893.0	901.1	901.9
15°	888.7	878.4	883.9	888.5	888.8
17.5°	854.2	865.3	869.0	879.5	866.5
20°	850.0	841.9	850.0	860.7	859.0
22.5°	824.0	814.9	832.3	841.9	841.3
25°	794.6	798.9	811.9	822.6	820.9
27.5°	768.7	773.8	792.4	807.0	797.6
30°	748.8	746.3	762.0	775.0	782.2
32.5°	713.2	722.4	740.7	753.6	746.8
35°	691.6	693.6	709.7	726.1	725.6
37.5°	653.8	663.4	685.9	690.5	686.3
40°	621.6	631.1	651.5	656.5	654.4
42.5°	597.8	599.5	617.0	622.7	613.6
45°	556.4	566.8	576.2	591.1	577.1
47.5°	521.2	526.0	546.3	550.3	542.9
50°	489.2	490.9	511.3	506.3	501.5
52.5°	449.0	456.1	467.6	466.6	460.9
55°	415.9	413.1	424.0	421.1	421.0
57.5°	376.2	381.0	390.0	385.4	378.0
60°	339.0	339.2	342.4	337.2	336.3
62.5°	297.6	299.1	299.8	293.4	303.8
65°	255.5	252.1	262.0	252.0	253.7
67.5°	216.8	218.5	217.5	211.2	213.6
70°	177.4	179.6	178.0	170.9	173.1
72.5°	141.5	138.8	140.5	131.6	135.7
75°	106.3	104.2	106.1	98.6	102.0
77.5°	72.4	74.1	72.9	68.9	71.2
80°	47.8	46.5	46.5	44.2	44.7
82.5°	27.9	26.6	26.2	25.5	26.6
85°	13.0	12.7	12.9	12.6	12.1
87.5°	4.7	4.8	4.8	4.6	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)