

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: P589097

Luminaire Tested: **FMR-24-2-LD4-2LO-35-UNV-82-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589097
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-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

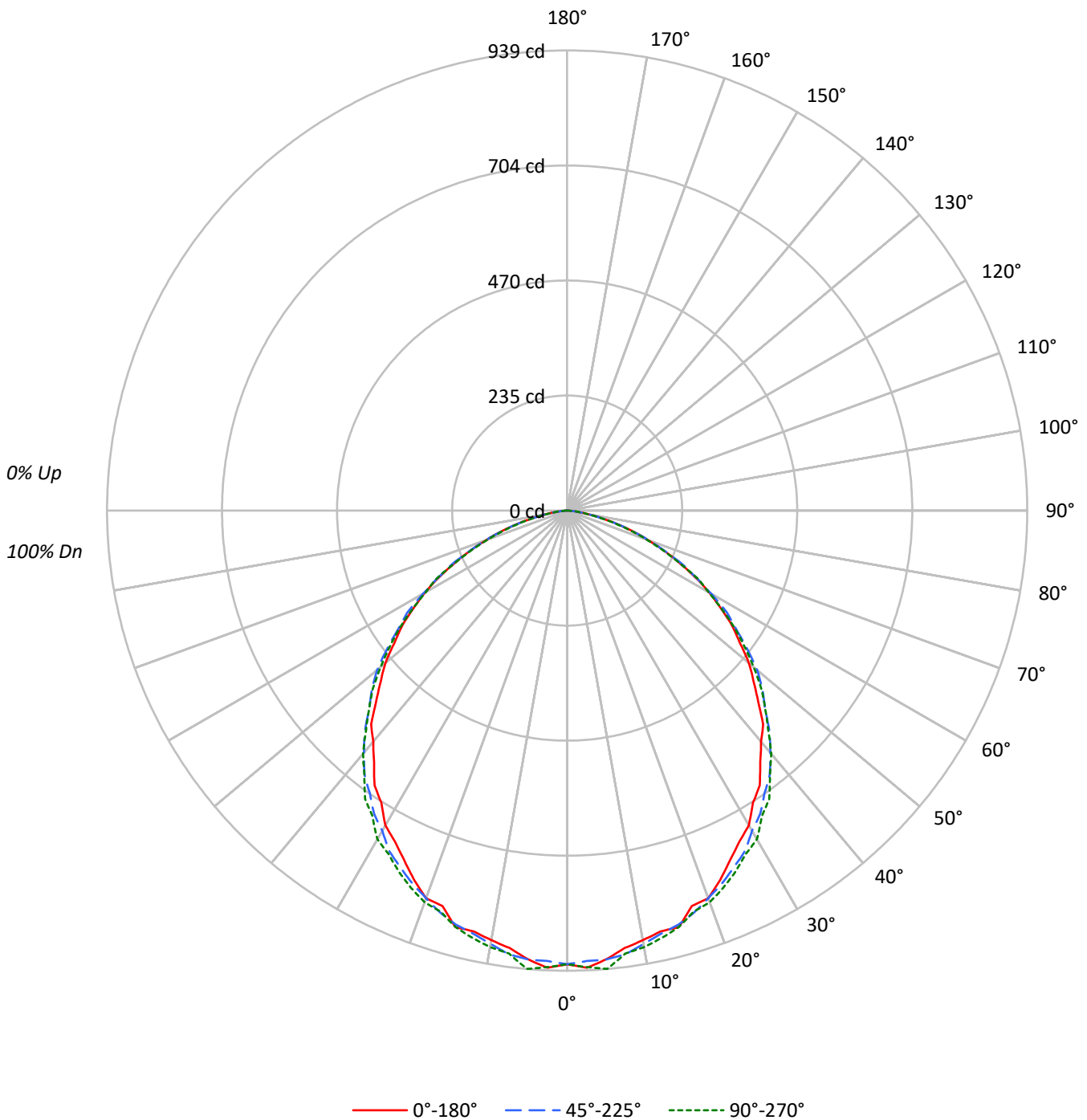
Lumens per Lamp: N/A
Luminaire Lumens: 2333.0 lumens
Efficiency: N/A
Efficacy: 99.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	2491	2491	2491
5°	2483	2484	2536
10°	2432	2454	2471
15°	2452	2438	2452
20°	2410	2410	2436
25°	2336	2387	2413
30°	2304	2344	2407
35°	2250	2309	2360
40°	2162	2266	2276
45°	2097	2171	2175
50°	2028	2120	2079
55°	1932	1970	1956
60°	1807	1825	1792
65°	1611	1652	1599
70°	1382	1387	1349
75°	1095	1093	1050
80°	733	713	685
85°	398	395	371



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.1	3.7
10°-20°	246.8	10.6
20°-30°	369.7	15.8
30°-40°	438.2	18.8
40°-50°	439.0	18.8
50°-60°	372.6	16.0
60°-70°	251.2	10.8
70°-80°	110.4	4.7
80°-90°	17.9	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°	703.6	30.2
0°-40°	1141.8	48.9
0°-60°	1953.4	83.7
0°-90°	2333.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2333.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	926	926	926	926	926	
5°	919	917	920	917	939	87
15°	880	870	875	880	880	245
25°	787	791	804	814	813	364
35°	685	687	703	719	718	425
45°	551	561	571	585	571	426
55°	412	409	420	417	417	366
65°	253	250	260	250	251	252
75°	105	103	105	98	101	113
85°	13	12	13	12	12	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	925.7	925.7	925.7	925.7	925.7
2.5°	933.7	926.6	920.1	927.7	932.4
5°	919.1	917.0	919.5	916.7	938.8
7.5°	900.2	908.5	913.2	910.3	911.6
10°	890.2	887.3	897.9	905.4	904.3
12.5°	879.4	883.7	884.3	892.3	893.0
15°	880.0	869.9	875.2	879.8	880.1
17.5°	845.8	856.8	860.5	870.9	858.0
20°	841.7	833.6	841.7	852.3	850.6
22.5°	816.0	807.0	824.2	833.6	833.0
25°	786.8	791.1	804.0	814.5	812.8
27.5°	761.2	766.2	784.6	799.1	789.8
30°	741.5	739.0	754.5	767.4	774.6
32.5°	706.2	715.3	733.5	746.3	739.5
35°	684.8	686.9	702.8	719.0	718.5
37.5°	647.4	656.9	679.2	683.8	679.6
40°	615.5	625.0	645.2	650.1	648.0
42.5°	592.0	593.7	611.0	616.6	607.6
45°	551.0	561.3	570.6	585.3	571.4
47.5°	516.1	520.9	540.9	544.9	537.6
50°	484.4	486.1	506.3	501.4	496.6
52.5°	444.6	451.7	463.0	462.1	456.4
55°	411.9	409.1	419.9	417.0	416.9
57.5°	372.5	377.3	386.2	381.6	374.3
60°	335.7	335.8	339.1	333.9	333.0
62.5°	294.7	296.2	296.9	290.6	300.8
65°	253.0	249.7	259.5	249.6	251.2
67.5°	214.7	216.3	215.4	209.2	211.5
70°	175.7	177.8	176.3	169.2	171.4
72.5°	140.1	137.4	139.1	130.3	134.3
75°	105.3	103.1	105.1	97.6	101.0
77.5°	71.7	73.4	72.2	68.2	70.5
80°	47.3	46.0	46.0	43.7	44.2
82.5°	27.6	26.3	25.9	25.2	26.3
85°	12.9	12.5	12.8	12.4	12.0
87.5°	4.7	4.8	4.8	4.5	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)