

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: P589116

Luminaire Tested: **FMR-24-2-LD4-2LO-40-UNV-80-97-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589116
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-80-97-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

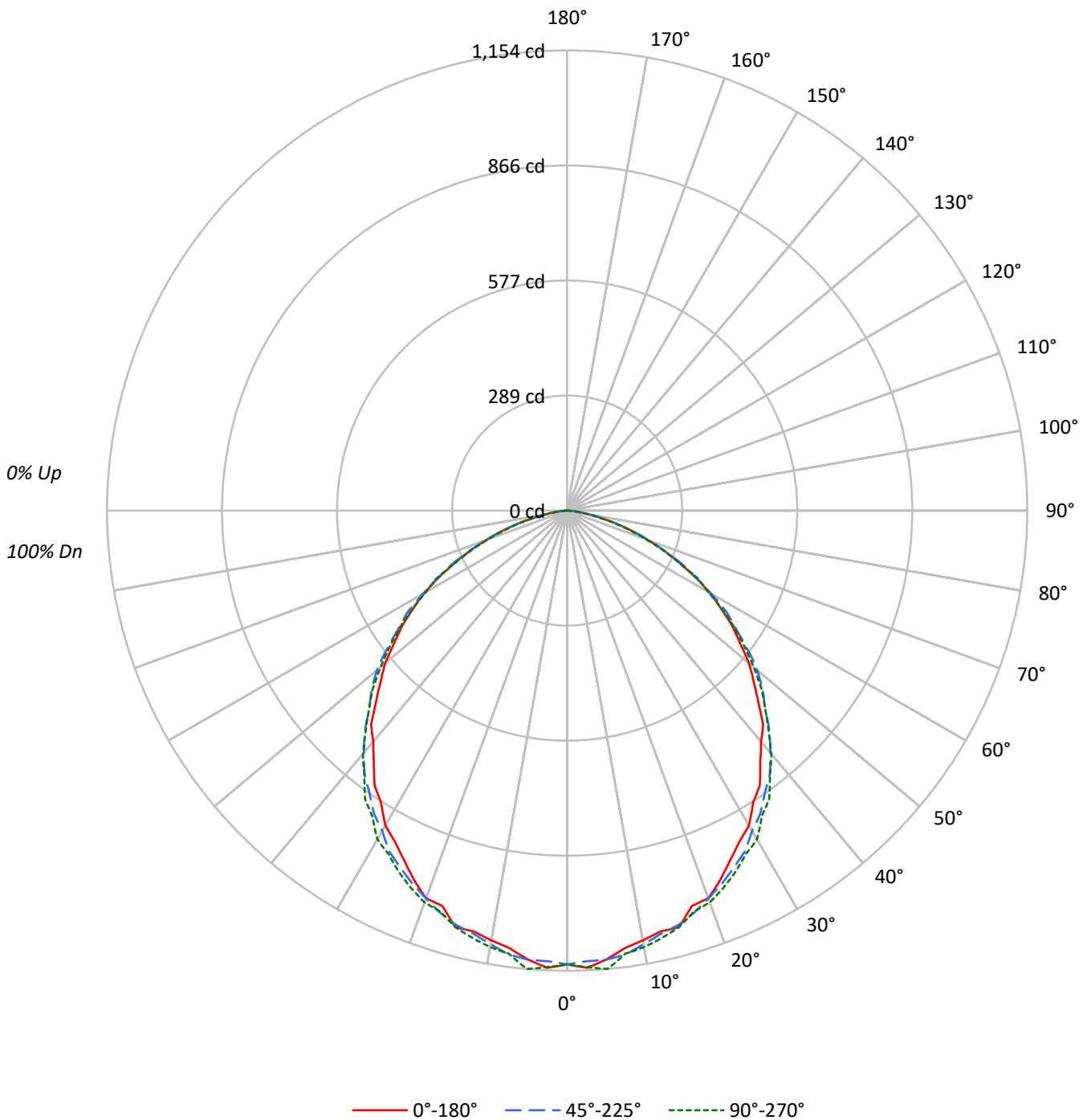
Lumens per Lamp: N/A
Luminaire Lumens: 2868.0 lumens
Efficiency: N/A
Efficacy: 122.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (A_{in}): 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°	3062	3062	3062
5°	3052	3053	3118
10°	2990	3016	3038
15°	3014	2997	3014
20°	2963	2963	2995
25°	2872	2935	2967
30°	2832	2882	2959
35°	2766	2838	2902
40°	2658	2786	2798
45°	2578	2669	2673
50°	2493	2606	2556
55°	2375	2422	2404
60°	2221	2243	2203
65°	1980	2031	1966
70°	1699	1705	1658
75°	1345	1342	1291
80°	902	877	843
85°	491	485	454



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.0	3.7
10°-20°	303.4	10.6
20°-30°	454.5	15.8
30°-40°	538.7	18.8
40°-50°	539.7	18.8
50°-60°	458.1	16.0
60°-70°	308.8	10.8
70°-80°	135.7	4.7
80°-90°	22.1	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°	864.9	30.2
0°-40°	1403.6	48.9
0°-60°	2401.4	83.7
0°-90°	2868.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2868.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1138	1138	1138	1138	1138	
5°	1130	1127	1130	1127	1154	107
15°	1082	1069	1076	1082	1082	301
25°	967	972	988	1001	999	447
35°	842	844	864	884	883	523
45°	677	690	701	720	702	524
55°	506	503	516	513	512	450
65°	311	307	319	307	309	309
75°	129	127	129	120	124	139
85°	16	15	16	15	15	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1137.9	1137.9	1137.9	1137.9	1137.9
2.5°	1147.8	1139.1	1131.0	1140.4	1146.2
5°	1129.9	1127.2	1130.3	1126.9	1154.1
7.5°	1106.7	1116.8	1122.7	1119.0	1120.6
10°	1094.3	1090.8	1103.9	1113.0	1111.7
12.5°	1081.1	1086.4	1087.1	1097.0	1097.8
15°	1081.8	1069.3	1075.9	1081.5	1082.0
17.5°	1039.8	1053.3	1057.9	1070.7	1054.8
20°	1034.7	1024.8	1034.7	1047.7	1045.7
22.5°	1003.1	992.1	1013.2	1024.8	1024.1
25°	967.2	972.5	988.4	1001.3	999.3
27.5°	935.8	941.9	964.6	982.4	970.9
30°	911.5	908.4	927.6	943.4	952.2
32.5°	868.2	879.4	901.7	917.4	909.0
35°	841.9	844.4	863.9	883.9	883.3
37.5°	795.9	807.5	835.0	840.6	835.4
40°	756.7	768.3	793.1	799.1	796.6
42.5°	727.7	729.8	751.1	758.0	747.0
45°	677.3	690.0	701.4	719.5	702.5
47.5°	634.4	640.3	665.0	669.8	660.9
50°	595.5	597.6	622.4	616.4	610.5
52.5°	546.6	555.2	569.2	568.0	561.1
55°	506.3	502.9	516.2	512.6	512.5
57.5°	458.0	463.8	474.7	469.1	460.2
60°	412.7	412.9	416.8	410.5	409.3
62.5°	362.3	364.1	365.0	357.2	369.8
65°	311.0	306.9	319.0	306.8	308.8
67.5°	263.9	265.9	264.8	257.1	260.1
70°	216.0	218.6	216.7	208.0	210.7
72.5°	172.2	169.0	171.0	160.2	165.1
75°	129.4	126.8	129.1	120.0	124.2
77.5°	88.2	90.2	88.7	83.9	86.7
80°	58.2	56.6	56.6	53.8	54.4
82.5°	33.9	32.3	31.9	31.0	32.3
85°	15.9	15.4	15.7	15.3	14.7
87.5°	5.7	5.9	5.9	5.6	5.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)