

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: P589099

Luminaire Tested: **FMR-24-2-LD4-2LO-35-UNV-82-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589099
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-82-96-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

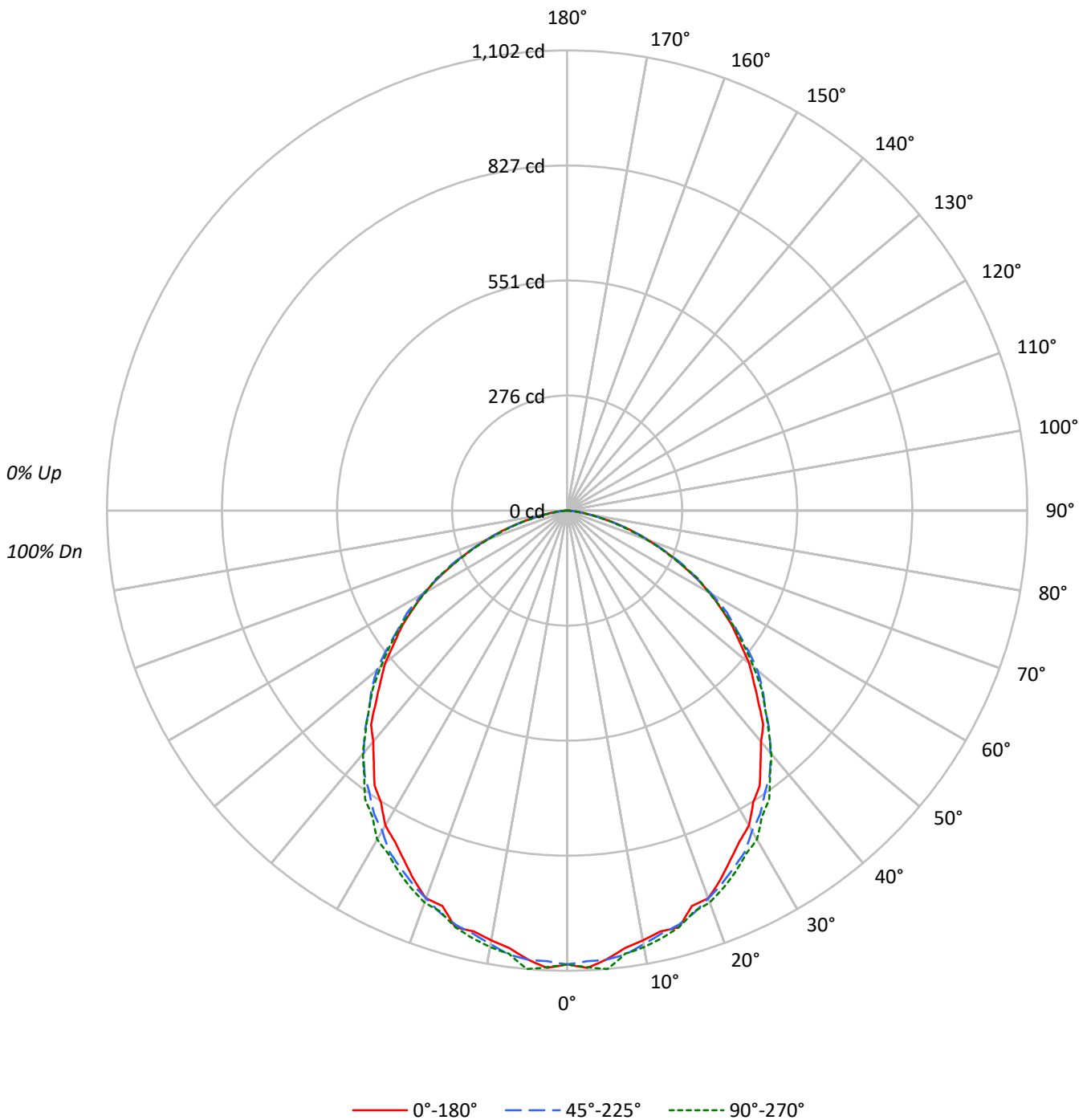
Lumens per Lamp: N/A
Luminaire Lumens: 2739.0 lumens
Efficiency: N/A
Efficacy: 117.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	2925	2925	2925
5°	2915	2916	2977
10°	2856	2881	2901
15°	2878	2863	2879
20°	2830	2830	2860
25°	2743	2803	2833
30°	2705	2752	2826
35°	2641	2711	2771
40°	2538	2661	2673
45°	2462	2549	2553
50°	2381	2488	2441
55°	2268	2312	2296
60°	2122	2143	2104
65°	1892	1940	1878
70°	1623	1629	1583
75°	1285	1282	1233
80°	862	837	804
85°	469	463	432



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.2	3.7
10°-20°	289.7	10.6
20°-30°	434.1	15.8
30°-40°	514.5	18.8
40°-50°	515.4	18.8
50°-60°	437.5	16.0
60°-70°	295.0	10.8
70°-80°	129.6	4.7
80°-90°	21.1	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°	826.0	30.2
0°-40°	1340.5	48.9
0°-60°	2293.4	83.7
0°-90°	2739.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2739.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1087	1087	1087	1087	1087	
5°	1079	1076	1080	1076	1102	102
15°	1033	1021	1028	1033	1033	288
25°	924	929	944	956	954	427
35°	804	806	825	844	844	499
45°	647	659	670	687	671	500
55°	484	480	493	490	489	430
65°	297	293	305	293	295	295
75°	124	121	123	115	119	132
85°	15	15	15	15	14	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1086.8	1086.8	1086.8	1086.8	1086.8
2.5°	1096.2	1087.9	1080.2	1089.2	1094.6
5°	1079.0	1076.5	1079.5	1076.2	1102.2
7.5°	1056.9	1066.6	1072.2	1068.7	1070.2
10°	1045.1	1041.7	1054.2	1062.9	1061.6
12.5°	1032.5	1037.5	1038.2	1047.6	1048.5
15°	1033.2	1021.2	1027.6	1032.9	1033.3
17.5°	993.0	1005.9	1010.3	1022.5	1007.3
20°	988.1	978.7	988.1	1000.6	998.6
22.5°	958.0	947.4	967.6	978.7	978.0
25°	923.7	928.8	943.9	956.3	954.3
27.5°	893.7	899.6	921.2	938.2	927.2
30°	870.5	867.6	885.8	901.0	909.4
32.5°	829.1	839.8	861.1	876.1	868.1
35°	804.0	806.4	825.1	844.2	843.6
37.5°	760.1	771.2	797.4	802.8	797.9
40°	722.6	733.7	757.4	763.2	760.8
42.5°	695.0	697.0	717.3	723.9	713.4
45°	646.9	658.9	669.9	687.1	670.9
47.5°	605.9	611.5	635.1	639.7	631.2
50°	568.7	570.7	594.4	588.6	583.0
52.5°	522.0	530.3	543.6	542.5	535.9
55°	483.5	480.3	492.9	489.6	489.4
57.5°	437.4	443.0	453.4	448.0	439.5
60°	394.2	394.3	398.1	392.0	390.9
62.5°	346.0	347.7	348.6	341.1	353.2
65°	297.1	293.1	304.6	293.0	294.9
67.5°	252.0	254.0	252.9	245.6	248.4
70°	206.3	208.8	207.0	198.7	201.2
72.5°	164.5	161.4	163.3	152.9	157.7
75°	123.6	121.1	123.3	114.6	118.6
77.5°	84.2	86.2	84.8	80.1	82.8
80°	55.6	54.0	54.0	51.4	51.9
82.5°	32.4	30.9	30.4	29.6	30.9
85°	15.2	14.7	15.0	14.6	14.0
87.5°	5.5	5.6	5.6	5.3	5.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)