

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: P589835

Luminaire Tested: **FMR-24-2-LD4-4STD-50-UNV-82-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589835
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-LD4-4STD-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

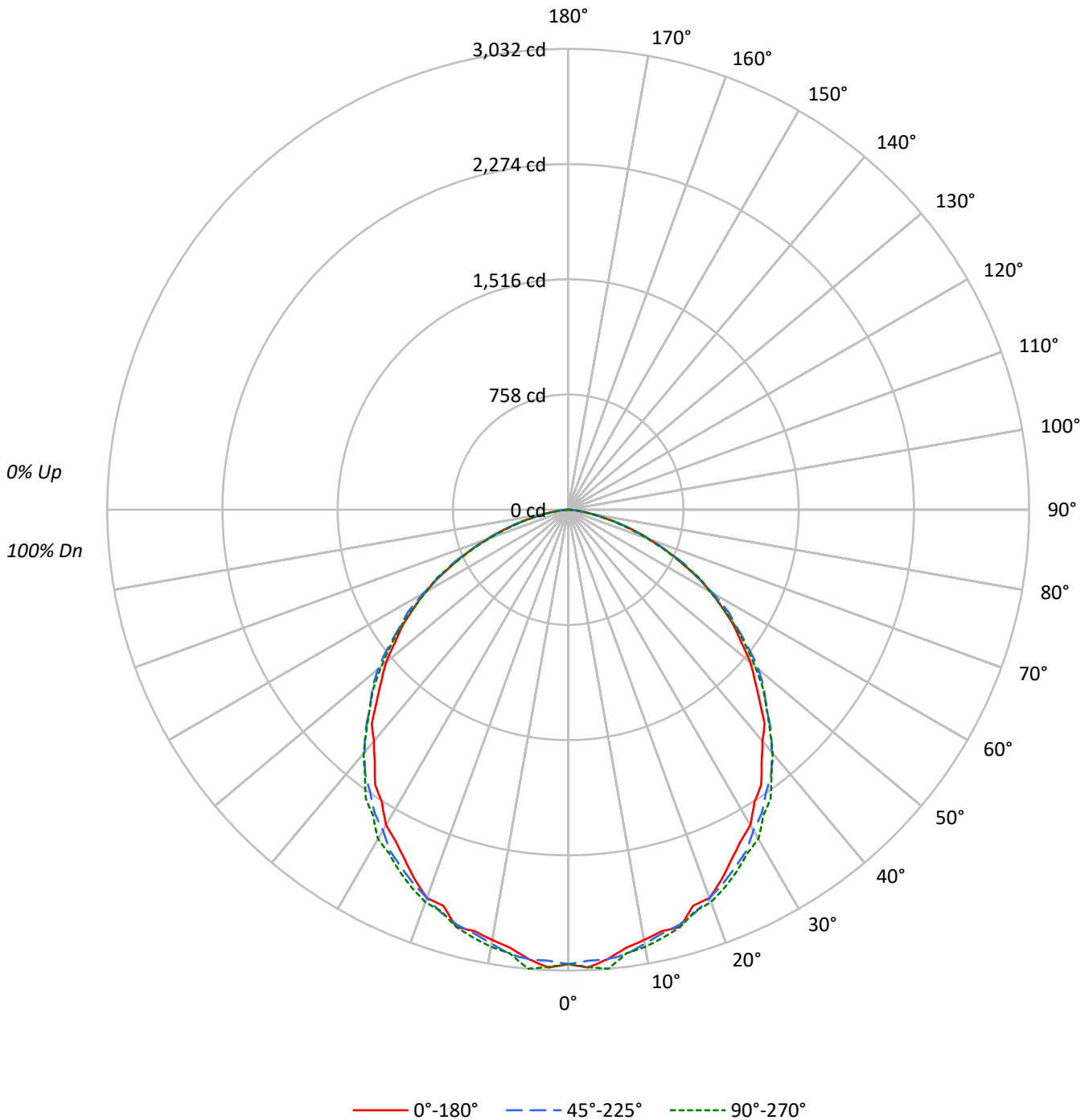
Lumens per Lamp: N/A
Luminaire Lumens: 7534.0 lumens
Efficiency: N/A
Efficacy: 113.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	8044	8044	8044
5°	8018	8021	8190
10°	7855	7924	7979
15°	7917	7874	7918
20°	7783	7783	7866
25°	7544	7709	7794
30°	7440	7571	7773
35°	7265	7455	7623
40°	6982	7319	7351
45°	6771	7012	7023
50°	6549	6844	6714
55°	6240	6361	6316
60°	5835	5893	5787
65°	5203	5335	5166
70°	4464	4479	4355
75°	3535	3528	3391
80°	2368	2303	2213
85°	1288	1275	1192



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	281.2	3.7
10°-20°	796.9	10.6
20°-30°	1194.0	15.8
30°-40°	1415.1	18.8
40°-50°	1417.7	18.8
50°-60°	1203.4	16.0
60°-70°	811.3	10.8
70°-80°	356.5	4.7
80°-90°	57.9	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°	2272.1	30.2
0°-40°	3687.2	48.9
0°-60°	6308.2	83.7
0°-90°	7534.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7534.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2989	2989	2989	2989	2989	
5°	2968	2961	2969	2960	3032	280
15°	2842	2809	2826	2841	2842	792
25°	2541	2555	2596	2630	2625	1175
35°	2212	2218	2270	2322	2320	1373
45°	1779	1812	1843	1890	1845	1376
55°	1330	1321	1356	1347	1346	1183
65°	817	806	838	806	811	813
75°	340	333	339	315	326	364
85°	42	40	41	40	39	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2989.3	2989.3	2989.3	2989.3	2989.3
2.5°	3015.2	2992.4	2971.2	2995.9	3010.9
5°	2968.1	2961.1	2969.2	2960.4	3031.8
7.5°	2907.1	2933.7	2949.2	2939.5	2943.8
10°	2874.7	2865.4	2899.8	2923.7	2920.2
12.5°	2839.9	2853.8	2855.8	2881.6	2883.9
15°	2841.9	2809.1	2826.4	2841.1	2842.2
17.5°	2731.5	2767.0	2778.9	2812.5	2770.8
20°	2718.0	2692.1	2718.0	2752.3	2746.9
22.5°	2635.0	2606.0	2661.6	2692.1	2690.2
25°	2540.8	2554.7	2596.4	2630.4	2624.9
27.5°	2458.2	2474.4	2533.9	2580.6	2550.5
30°	2394.5	2386.4	2436.6	2478.3	2501.4
32.5°	2280.7	2310.0	2368.7	2410.0	2388.0
35°	2211.6	2218.1	2269.5	2322.0	2320.4
37.5°	2090.8	2121.3	2193.4	2208.1	2194.6
40°	1987.7	2018.2	2083.4	2099.3	2092.7
42.5°	1911.7	1917.1	1973.1	1991.2	1962.2
45°	1779.3	1812.5	1842.6	1890.1	1845.3
47.5°	1666.6	1682.0	1746.9	1759.6	1736.1
50°	1564.3	1569.7	1634.9	1619.1	1603.7
52.5°	1435.8	1458.6	1495.2	1492.1	1474.0
55°	1330.0	1321.2	1355.9	1346.6	1346.2
57.5°	1203.1	1218.5	1247.1	1232.4	1208.8
60°	1084.2	1084.6	1095.0	1078.4	1075.3
62.5°	951.8	956.4	958.7	938.3	971.5
65°	817.1	806.3	837.9	805.9	811.3
67.5°	693.2	698.6	695.5	675.4	683.2
70°	567.4	574.3	569.3	546.5	553.5
72.5°	452.4	443.9	449.3	420.7	433.8
75°	340.0	333.1	339.3	315.3	326.1
77.5°	231.6	237.0	233.1	220.4	227.7
80°	152.8	148.6	148.6	141.3	142.8
82.5°	89.2	84.9	83.8	81.4	84.9
85°	41.7	40.5	41.3	40.1	38.6
87.5°	15.1	15.4	15.4	14.7	13.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)