

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: P589304

Luminaire Tested: **FMR-24-2-LD4-3HI-40-UNV-80-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589304
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-LD4-3HI-40-UNV-80-87-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

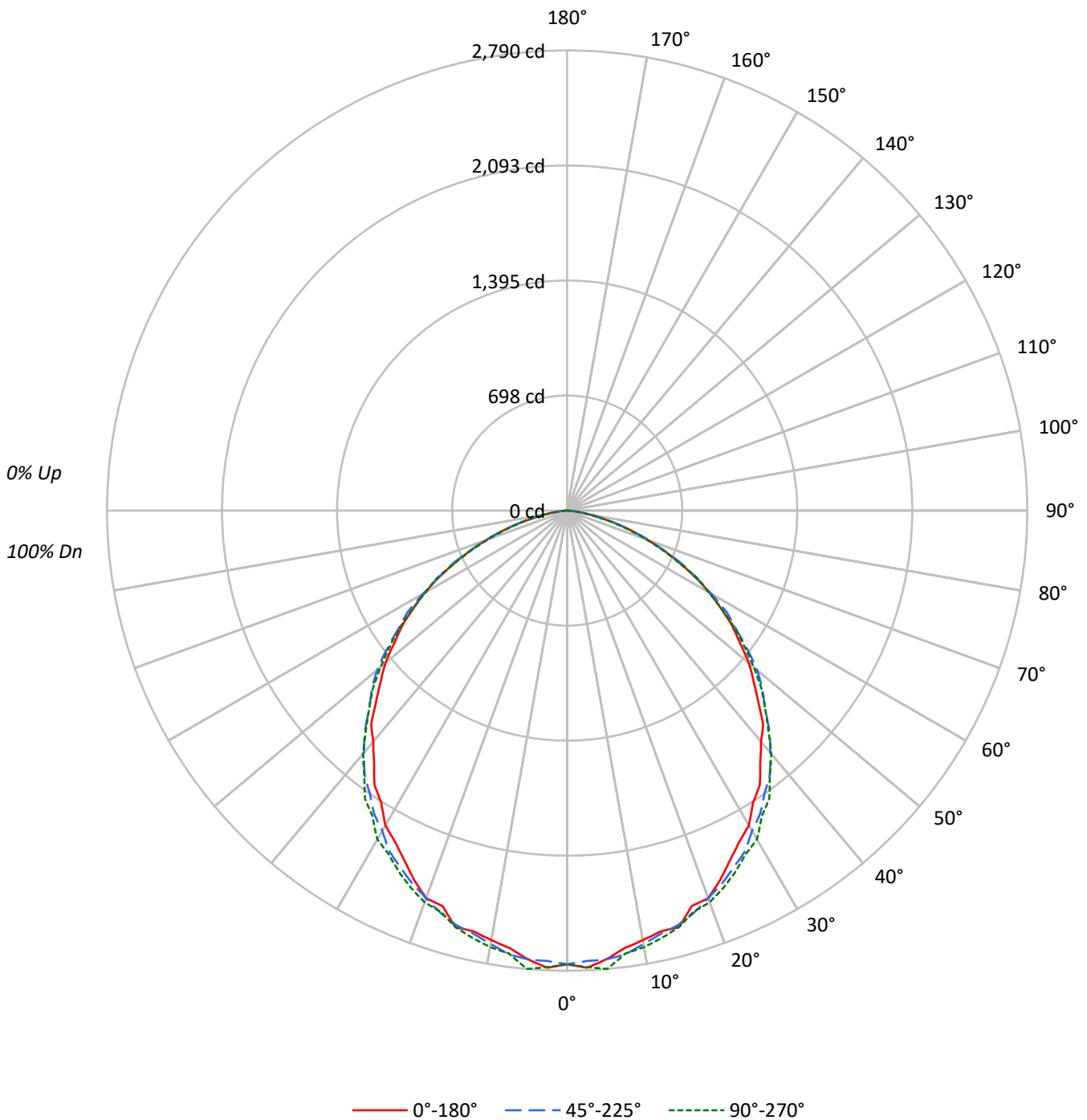
Lumens per Lamp: N/A
Luminaire Lumens: 6932.0 lumens
Efficiency: N/A
Efficacy: 107.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 64.8
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	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°	7401	7401	7401
5°	7377	7380	7535
10°	7227	7291	7342
15°	7285	7245	7285
20°	7161	7161	7238
25°	6941	7093	7171
30°	6846	6966	7152
35°	6685	6860	7014
40°	6425	6734	6764
45°	6230	6452	6462
50°	6026	6298	6177
55°	5742	5853	5811
60°	5369	5422	5325
65°	4787	4909	4753
70°	4107	4121	4006
75°	3253	3246	3120
80°	2179	2118	2036
85°	1186	1173	1096



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	258.7	3.7
10°-20°	733.2	10.6
20°-30°	1098.6	15.8
30°-40°	1302.0	18.8
40°-50°	1304.4	18.8
50°-60°	1107.2	16.0
60°-70°	746.5	10.8
70°-80°	328.0	4.7
80°-90°	53.3	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°	2090.5	30.2
0°-40°	3392.5	48.9
0°-60°	5804.2	83.7
0°-90°	6932.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6932.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2750	2750	2750	2750	2750	
5°	2731	2724	2732	2724	2790	257
15°	2615	2585	2601	2614	2615	729
25°	2338	2351	2389	2420	2415	1081
35°	2035	2041	2088	2136	2135	1263
45°	1637	1668	1695	1739	1698	1266
55°	1224	1216	1248	1239	1239	1089
65°	752	742	771	742	746	748
75°	313	306	312	290	300	335
85°	38	37	38	37	36	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2750.4	2750.4	2750.4	2750.4	2750.4
2.5°	2774.2	2753.3	2733.8	2756.5	2770.3
5°	2730.9	2724.5	2732.0	2723.8	2789.5
7.5°	2674.8	2699.3	2713.5	2704.6	2708.5
10°	2645.0	2636.4	2668.1	2690.1	2686.9
12.5°	2613.0	2625.8	2627.6	2651.4	2653.5
15°	2614.8	2584.6	2600.6	2614.1	2615.1
17.5°	2513.2	2545.9	2556.9	2587.8	2549.4
20°	2500.8	2477.0	2500.8	2532.4	2527.4
22.5°	2424.4	2397.8	2448.9	2477.0	2475.2
25°	2337.8	2350.6	2388.9	2420.2	2415.2
27.5°	2261.8	2276.7	2331.4	2374.4	2346.7
30°	2203.2	2195.7	2241.9	2280.3	2301.6
32.5°	2098.4	2125.4	2179.4	2217.4	2197.2
35°	2034.9	2040.9	2088.1	2136.4	2135.0
37.5°	1923.7	1951.8	2018.2	2031.7	2019.2
40°	1828.9	1856.9	1917.0	1931.5	1925.5
42.5°	1758.9	1763.9	1815.4	1832.1	1805.5
45°	1637.1	1667.7	1695.4	1739.0	1697.9
47.5°	1533.4	1547.6	1607.3	1619.0	1597.4
50°	1439.3	1444.3	1504.3	1489.7	1475.5
52.5°	1321.1	1342.0	1375.8	1372.9	1356.2
55°	1223.8	1215.6	1247.6	1239.0	1238.7
57.5°	1106.9	1121.1	1147.4	1133.9	1112.3
60°	997.5	997.9	1007.5	992.2	989.4
62.5°	875.7	880.0	882.1	863.3	893.8
65°	751.8	741.9	771.0	741.5	746.5
67.5°	637.8	642.8	639.9	621.5	628.6
70°	522.0	528.4	523.8	502.9	509.2
72.5°	416.2	408.4	413.4	387.1	399.2
75°	312.9	306.5	312.2	290.1	300.1
77.5°	213.1	218.0	214.5	202.8	209.5
80°	140.6	136.7	136.7	130.0	131.4
82.5°	82.0	78.1	77.1	74.9	78.1
85°	38.4	37.3	38.0	36.9	35.5
87.5°	13.8	14.2	14.2	13.5	12.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)