

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: P589830

Luminaire Tested: **FMR-24-2-LD4-4STD-50-UNV-82-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589830
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-82-85-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

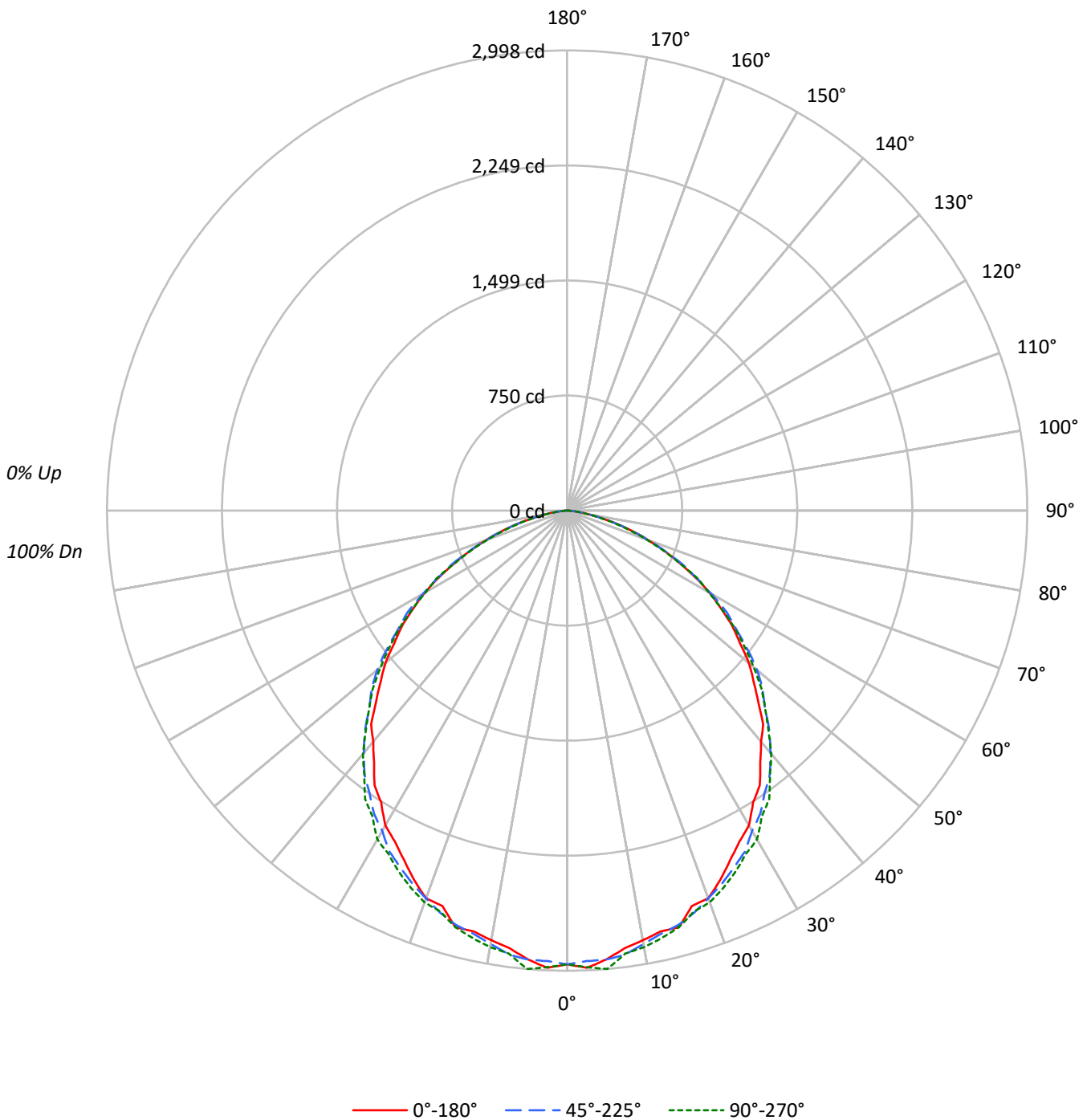
Lumens per Lamp: N/A
Luminaire Lumens: 7450.0 lumens
Efficiency: N/A
Efficacy: 111.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	7955	7955	7955
5°	7928	7931	8098
10°	7767	7835	7891
15°	7829	7786	7830
20°	7697	7697	7779
25°	7460	7623	7707
30°	7357	7487	7686
35°	7184	7372	7538
40°	6905	7237	7269
45°	6696	6934	6944
50°	6476	6768	6639
55°	6170	6290	6245
60°	5770	5828	5723
65°	5145	5276	5109
70°	4414	4430	4306
75°	3496	3488	3353
80°	2342	2276	2188
85°	1272	1260	1179



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	278.1	3.7
10°-20°	788.0	10.6
20°-30°	1180.6	15.8
30°-40°	1399.3	18.8
40°-50°	1401.9	18.8
50°-60°	1190.0	16.0
60°-70°	802.3	10.8
70°-80°	352.5	4.7
80°-90°	57.3	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°	2246.7	30.2
0°-40°	3646.0	48.9
0°-60°	6237.9	83.7
0°-90°	7450.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7450.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2956	2956	2956	2956	2956	
5°	2935	2928	2936	2927	2998	277
15°	2810	2778	2795	2809	2811	783
25°	2512	2526	2567	2601	2596	1162
35°	2187	2193	2244	2296	2295	1358
45°	1760	1792	1822	1869	1825	1361
55°	1315	1306	1341	1332	1331	1170
65°	808	797	829	797	802	804
75°	336	329	336	312	322	360
85°	41	40	41	40	38	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2956.0	2956.0	2956.0	2956.0	2956.0
2.5°	2981.5	2959.0	2938.0	2962.5	2977.3
5°	2935.0	2928.1	2936.1	2927.3	2998.0
7.5°	2874.7	2901.0	2916.3	2906.7	2910.9
10°	2842.6	2833.5	2867.4	2891.1	2887.7
12.5°	2808.3	2822.0	2823.9	2849.5	2851.8
15°	2810.2	2777.7	2794.9	2809.4	2810.6
17.5°	2701.0	2736.1	2748.0	2781.2	2740.0
20°	2687.7	2662.1	2687.7	2721.6	2716.3
22.5°	2605.6	2577.0	2631.9	2662.1	2660.2
25°	2512.5	2526.2	2567.4	2601.0	2595.7
27.5°	2430.8	2446.8	2505.6	2551.8	2522.0
30°	2367.8	2359.8	2409.4	2450.7	2473.6
32.5°	2255.2	2284.2	2342.3	2383.1	2361.3
35°	2186.9	2193.4	2244.2	2296.1	2294.6
37.5°	2067.5	2097.6	2169.0	2183.5	2170.1
40°	1965.6	1995.7	2060.2	2075.9	2069.4
42.5°	1890.4	1895.7	1951.1	1969.0	1940.4
45°	1759.5	1792.3	1822.1	1869.0	1824.7
47.5°	1648.0	1663.3	1727.4	1740.0	1716.7
50°	1546.9	1552.2	1616.7	1601.1	1585.8
52.5°	1419.8	1442.3	1478.6	1475.5	1457.6
55°	1315.2	1306.4	1340.8	1331.6	1331.2
57.5°	1189.6	1204.9	1233.1	1218.6	1195.4
60°	1072.1	1072.5	1082.8	1066.4	1063.3
62.5°	941.2	945.8	948.0	927.8	960.6
65°	808.0	797.3	828.6	796.9	802.3
67.5°	685.5	690.8	687.8	667.9	675.5
70°	561.0	567.9	563.0	540.4	547.3
72.5°	447.3	438.9	444.3	416.0	429.0
75°	336.2	329.4	335.5	311.8	322.5
77.5°	229.0	234.3	230.5	217.9	225.2
80°	151.1	146.9	146.9	139.7	141.2
82.5°	88.2	84.0	82.8	80.5	84.0
85°	41.2	40.1	40.8	39.7	38.2
87.5°	14.9	15.3	15.3	14.5	13.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)