

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: P547068

Luminaire Tested: **FMR-24-4-LD4-3LO-35-UNV-80-94-EDD**

Issue Date: 6/15/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P547068
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 6/15/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMR-24-4-LD4-3LO-35-UNV-80-94-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

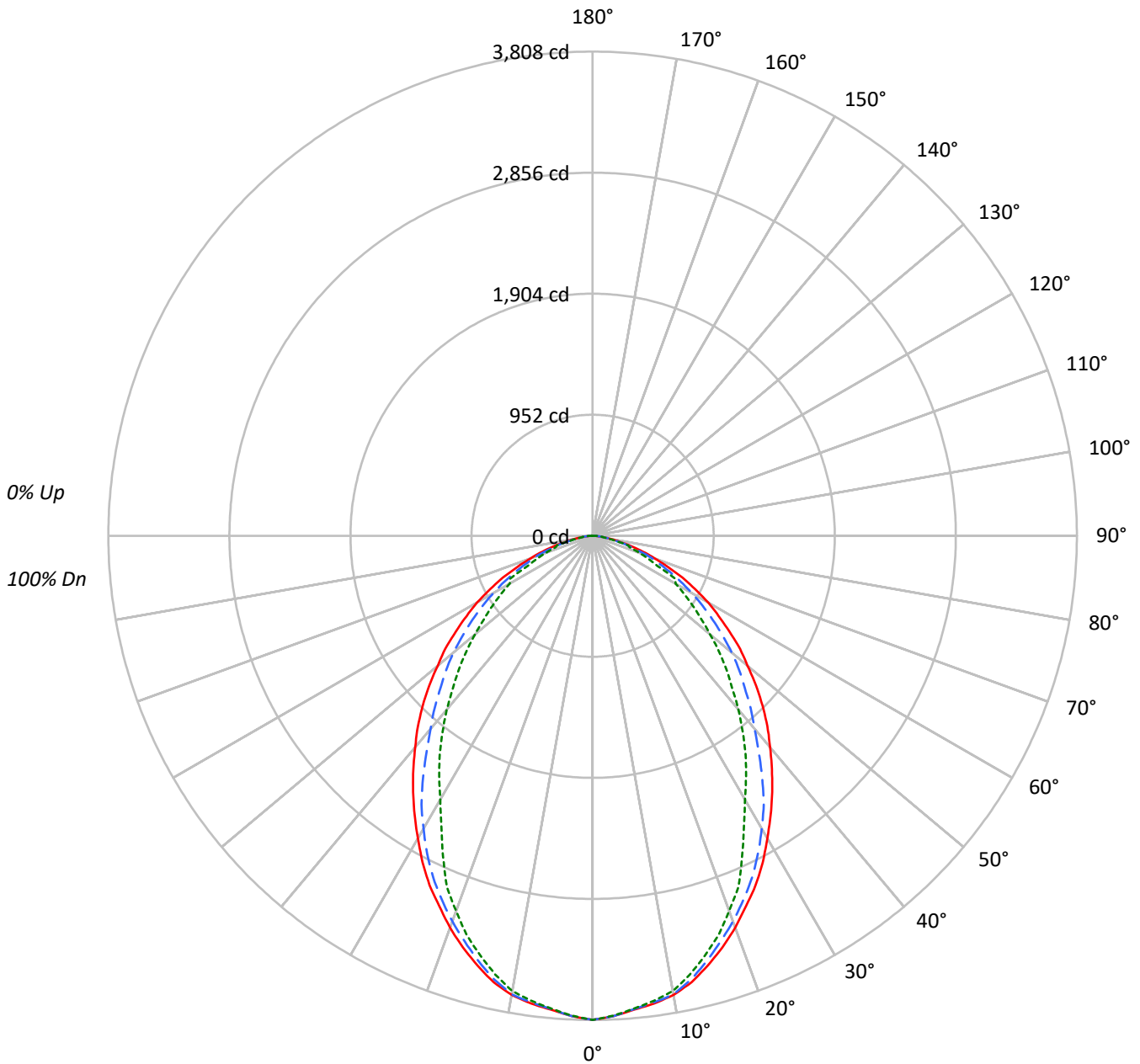
Lumens per Lamp: N/A
Luminaire Lumens: 7475.0 lumens
Efficiency: N/A
Efficacy: 106.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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									
RC	80									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	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87																			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75																			
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65																			
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56																			
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																			
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44																			
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																			
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36																			
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																			
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5123	5123	5123
5°	5054	5048	5042
10°	5010	5004	4968
15°	4875	4826	4758
20°	4696	4620	4494
25°	4503	4405	4130
30°	4268	4131	3720
35°	4042	3818	3442
40°	3812	3479	3131
45°	3593	3216	2831
50°	3326	2985	2525
55°	3077	2705	2261
60°	2819	2416	2025
65°	2480	2116	1794
70°	2043	1853	1524
75°	1625	1419	1487
80°	1092	1024	955
85°	679	815	951



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	354.4	4.7
10°-20°	972.7	13.0
20°-30°	1346.7	18.0
30°-40°	1436.0	19.2
40°-50°	1310.0	17.5
50°-60°	1026.3	13.7
60°-70°	668.9	8.9
70°-80°	296.4	4.0
80°-90°	63.6	0.9
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°	2673.9	35.8
0°-40°	4109.8	55.0
0°-60°	6446.1	86.2
0°-90°	7475.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7475.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3808	3808	3808	3808	3808	
5°	3742	3737	3737	3733	3733	355
15°	3500	3500	3464	3429	3416	984
25°	3033	3015	2967	2861	2782	1392
35°	2461	2443	2324	2148	2095	1538
45°	1888	1849	1690	1550	1488	1455
55°	1312	1272	1153	1017	964	1177
65°	779	735	665	678	563	768
75°	312	290	273	260	286	335
85°	44	48	53	57	62	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3807.7	3807.7	3807.7	3807.7	3807.7
2.5°	3781.3	3781.3	3781.3	3776.9	3776.9
5°	3741.6	3737.2	3737.2	3732.8	3732.8
7.5°	3710.8	3706.4	3702.0	3697.6	3688.8
10°	3666.8	3666.8	3662.4	3640.4	3636.0
12.5°	3596.4	3592.0	3574.4	3543.5	3534.7
15°	3499.5	3499.5	3464.3	3429.1	3415.9
17.5°	3393.9	3389.5	3345.5	3310.2	3292.6
20°	3279.4	3270.6	3226.6	3169.4	3138.6
22.5°	3151.8	3151.8	3099.0	3024.1	2993.3
25°	3032.9	3015.3	2966.9	2861.3	2782.0
27.5°	2896.5	2870.1	2817.2	2667.6	2575.1
30°	2746.8	2733.6	2658.8	2465.1	2394.6
32.5°	2605.9	2583.9	2504.7	2302.2	2245.0
35°	2460.7	2443.1	2324.2	2148.1	2095.3
37.5°	2315.4	2293.4	2143.7	2002.9	1936.8
40°	2170.1	2143.7	1980.9	1853.2	1782.8
42.5°	2033.7	1998.5	1840.0	1703.5	1624.3
45°	1888.4	1848.8	1690.3	1549.5	1487.9
47.5°	1743.2	1707.9	1562.7	1417.4	1347.0
50°	1589.1	1558.3	1426.2	1281.0	1206.1
52.5°	1461.4	1413.0	1285.4	1140.1	1078.5
55°	1311.8	1272.2	1153.3	1016.8	964.0
57.5°	1175.3	1135.7	1025.6	898.0	854.0
60°	1047.7	990.4	898.0	787.9	752.7
62.5°	906.8	862.8	783.5	691.1	735.1
65°	779.1	735.1	664.7	677.9	563.4
67.5°	638.3	616.3	554.6	493.0	475.4
70°	519.4	493.0	471.0	405.0	387.4
72.5°	413.8	387.4	356.6	321.3	308.1
75°	312.5	290.5	272.9	259.7	286.1
77.5°	215.7	206.9	193.7	180.5	176.1
80°	140.9	136.5	132.1	127.7	123.3
82.5°	83.6	83.6	83.6	83.6	83.6
85°	44.0	48.4	52.8	57.2	61.6
87.5°	26.4	26.4	30.8	35.2	39.6
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)