

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: P547063

Luminaire Tested: **FMR-24-4-LD4-3LO-35-UNV-80-84-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: P547063
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-80-84-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

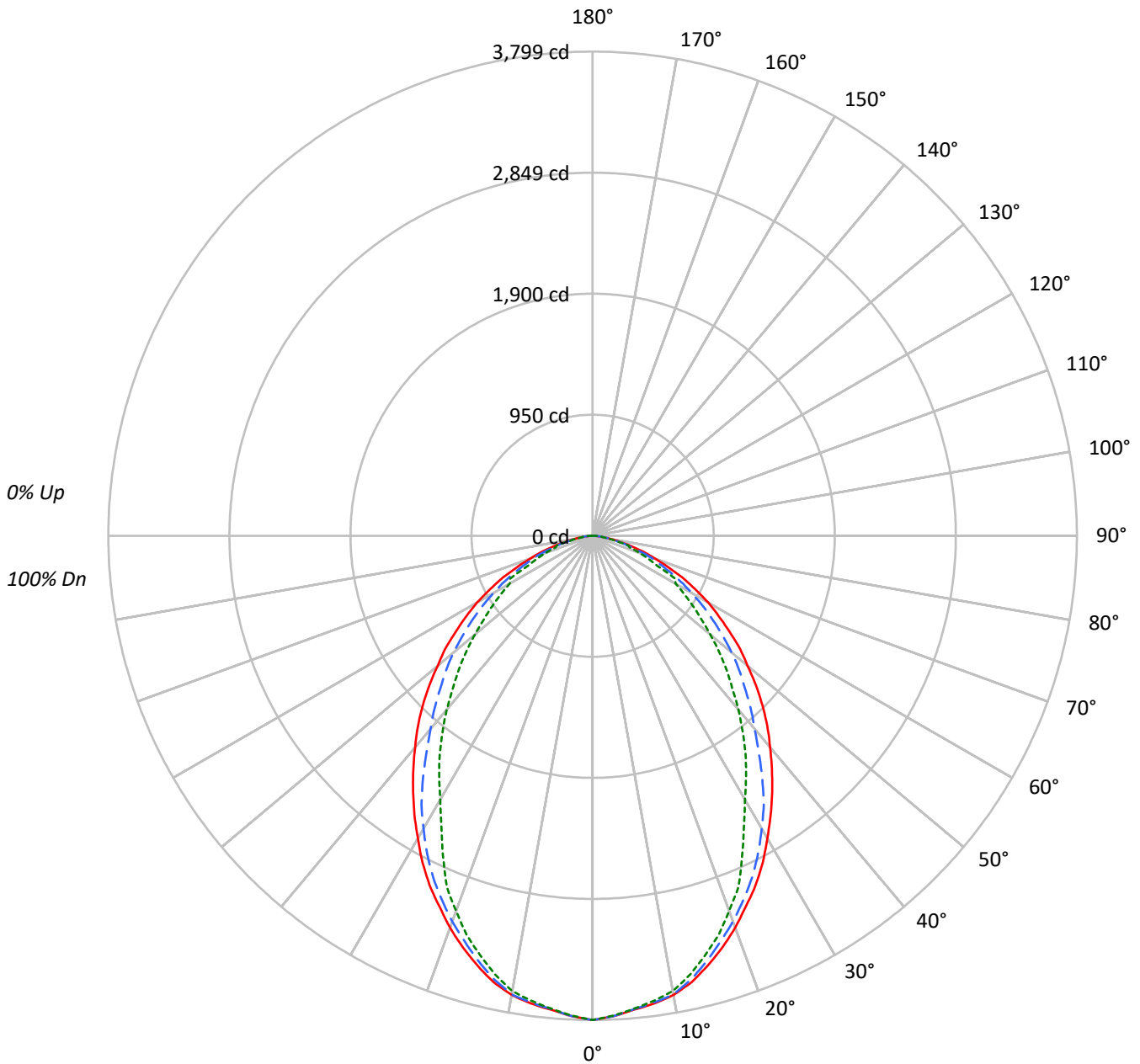
Lumens per Lamp: N/A
Luminaire Lumens: 7458.0 lumens
Efficiency: N/A
Efficacy: 106.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	5112	5112	5112
5°	5042	5036	5030
10°	4998	4992	4956
15°	4864	4815	4747
20°	4685	4610	4484
25°	4492	4395	4121
30°	4258	4121	3712
35°	4033	3809	3434
40°	3803	3471	3124
45°	3585	3209	2825
50°	3319	2979	2519
55°	3070	2699	2256
60°	2813	2411	2021
65°	2475	2111	1790
70°	2039	1849	1520
75°	1621	1416	1484
80°	1089	1021	953
85°	678	814	949



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	353.6	4.7
10°-20°	970.5	13.0
20°-30°	1343.6	18.0
30°-40°	1432.7	19.2
40°-50°	1307.0	17.5
50°-60°	1024.0	13.7
60°-70°	667.4	8.9
70°-80°	295.7	4.0
80°-90°	63.5	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°	2667.8	35.8
0°-40°	4100.5	55.0
0°-60°	6431.5	86.2
0°-90°	7458.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7458.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3799	3799	3799	3799	3799	
5°	3733	3729	3729	3724	3724	354
15°	3492	3492	3456	3421	3408	982
25°	3026	3008	2960	2855	2776	1389
35°	2455	2438	2319	2143	2091	1535
45°	1884	1845	1686	1546	1484	1451
55°	1309	1269	1151	1014	962	1174
65°	777	733	663	676	562	766
75°	312	290	272	259	286	334
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°	3799.0	3799.0	3799.0	3799.0	3799.0
2.5°	3772.7	3772.7	3772.7	3768.3	3768.3
5°	3733.1	3728.7	3728.7	3724.3	3724.3
7.5°	3702.4	3698.0	3693.6	3689.2	3680.4
10°	3658.5	3658.5	3654.1	3632.1	3627.7
12.5°	3588.2	3583.8	3566.2	3535.5	3526.7
15°	3491.6	3491.6	3456.4	3421.3	3408.1
17.5°	3386.2	3381.8	3337.9	3302.7	3285.2
20°	3272.0	3263.2	3219.3	3162.2	3131.4
22.5°	3144.6	3144.6	3091.9	3017.2	2986.5
25°	3026.0	3008.5	2960.1	2854.7	2775.7
27.5°	2889.9	2863.5	2810.8	2661.5	2569.3
30°	2740.6	2727.4	2652.7	2459.5	2389.2
32.5°	2600.0	2578.1	2499.0	2297.0	2239.9
35°	2455.1	2437.5	2318.9	2143.3	2090.6
37.5°	2310.1	2288.2	2138.9	1998.3	1932.4
40°	2165.2	2138.9	1976.4	1849.0	1778.7
42.5°	2029.1	1993.9	1835.8	1699.7	1620.6
45°	1884.1	1844.6	1686.5	1546.0	1484.5
47.5°	1739.2	1704.1	1559.1	1414.2	1343.9
50°	1585.5	1554.7	1423.0	1278.0	1203.4
52.5°	1458.1	1409.8	1282.4	1137.5	1076.0
55°	1308.8	1269.3	1150.7	1014.5	961.8
57.5°	1172.6	1133.1	1023.3	896.0	852.0
60°	1045.3	988.2	896.0	786.2	751.0
62.5°	904.7	860.8	781.8	689.5	733.4
65°	777.4	733.4	663.2	676.4	562.2
67.5°	636.8	614.9	553.4	491.9	474.3
70°	518.2	491.9	469.9	404.1	386.5
72.5°	412.8	386.5	355.7	320.6	307.4
75°	311.8	289.9	272.3	259.1	285.5
77.5°	215.2	206.4	193.2	180.1	175.7
80°	140.5	136.1	131.8	127.4	123.0
82.5°	83.4	83.4	83.4	83.4	83.4
85°	43.9	48.3	52.7	57.1	61.5
87.5°	26.4	26.4	30.7	35.1	39.5
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)