

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: P547064

Luminaire Tested: **FMR-24-4-LD4-3LO-35-UNV-80-85-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: P547064
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-80-85-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

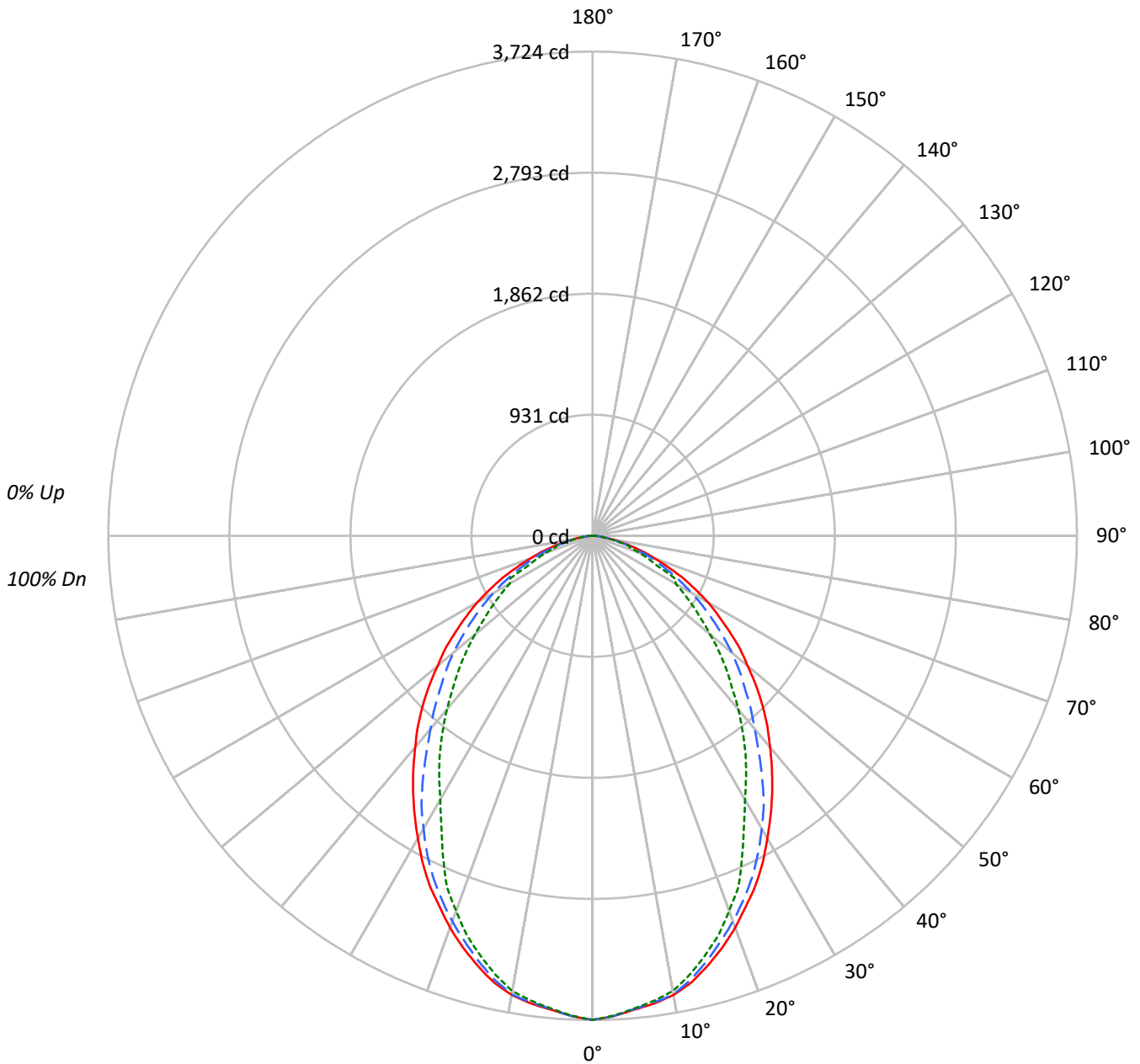
Lumens per Lamp: N/A
Luminaire Lumens: 7310.0 lumens
Efficiency: N/A
Efficacy: 104.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	5010	5010	5010
5°	4942	4936	4930
10°	4899	4893	4858
15°	4767	4719	4653
20°	4592	4518	4395
25°	4403	4307	4039
30°	4173	4040	3638
35°	3953	3733	3366
40°	3727	3402	3062
45°	3514	3145	2769
50°	3253	2919	2469
55°	3009	2646	2211
60°	2757	2363	1981
65°	2426	2069	1754
70°	1998	1812	1490
75°	1589	1387	1455
80°	1068	1000	934
85°	664	798	931



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	346.6	4.7
10°-20°	951.3	13.0
20°-30°	1317.0	18.0
30°-40°	1404.3	19.2
40°-50°	1281.1	17.5
50°-60°	1003.6	13.7
60°-70°	654.1	8.9
70°-80°	289.8	4.0
80°-90°	62.2	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°	2614.8	35.8
0°-40°	4019.1	55.0
0°-60°	6303.8	86.2
0°-90°	7310.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7310.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3724	3724	3724	3724	3724	
5°	3659	3655	3655	3650	3650	347
15°	3422	3422	3388	3353	3340	962
25°	2966	2949	2901	2798	2721	1362
35°	2406	2389	2273	2101	2049	1504
45°	1847	1808	1653	1515	1455	1423
55°	1283	1244	1128	994	943	1151
65°	762	719	650	663	551	751
75°	306	284	267	254	280	328
85°	43	47	52	56	60	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3723.6	3723.6	3723.6	3723.6	3723.6
2.5°	3697.8	3697.8	3697.8	3693.5	3693.5
5°	3659.0	3654.7	3654.7	3650.4	3650.4
7.5°	3628.9	3624.6	3620.3	3616.0	3607.4
10°	3585.9	3585.9	3581.6	3560.0	3555.7
12.5°	3517.0	3512.7	3495.5	3465.3	3456.7
15°	3422.3	3422.3	3387.8	3353.4	3340.5
17.5°	3319.0	3314.7	3271.6	3237.2	3220.0
20°	3207.0	3198.4	3155.4	3099.4	3069.3
22.5°	3082.2	3082.2	3030.6	2957.4	2927.2
25°	2966.0	2948.8	2901.4	2798.1	2720.6
27.5°	2832.5	2806.7	2755.0	2608.7	2518.3
30°	2686.2	2673.3	2600.1	2410.7	2341.8
32.5°	2548.4	2526.9	2449.4	2251.4	2195.4
35°	2406.4	2389.1	2272.9	2100.7	2049.1
37.5°	2264.3	2242.8	2096.4	1958.7	1894.1
40°	2122.2	2096.4	1937.1	1812.3	1743.4
42.5°	1988.8	1954.4	1799.4	1665.9	1588.5
45°	1846.7	1808.0	1653.0	1515.3	1455.0
47.5°	1704.7	1670.2	1528.2	1386.1	1317.3
50°	1554.0	1523.9	1394.7	1252.7	1179.5
52.5°	1429.2	1381.8	1257.0	1114.9	1054.7
55°	1282.8	1244.1	1127.8	994.4	942.7
57.5°	1149.4	1110.6	1003.0	878.2	835.1
60°	1024.5	968.6	878.2	770.6	736.1
62.5°	886.8	843.7	766.2	675.8	718.9
65°	761.9	718.9	650.0	662.9	551.0
67.5°	624.2	602.7	542.4	482.1	464.9
70°	508.0	482.1	460.6	396.0	378.8
72.5°	404.6	378.8	348.7	314.2	301.3
75°	305.6	284.1	266.9	254.0	279.8
77.5°	210.9	202.3	189.4	176.5	172.2
80°	137.8	133.4	129.1	124.8	120.5
82.5°	81.8	81.8	81.8	81.8	81.8
85°	43.0	47.4	51.7	56.0	60.3
87.5°	25.8	25.8	30.1	34.4	38.7
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)