

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: P546750

Luminaire Tested: **FMR-24-4-LD4-2HI-50-UNV-80-97-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: P546750
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-LD4-2HI-50-UNV-80-97-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

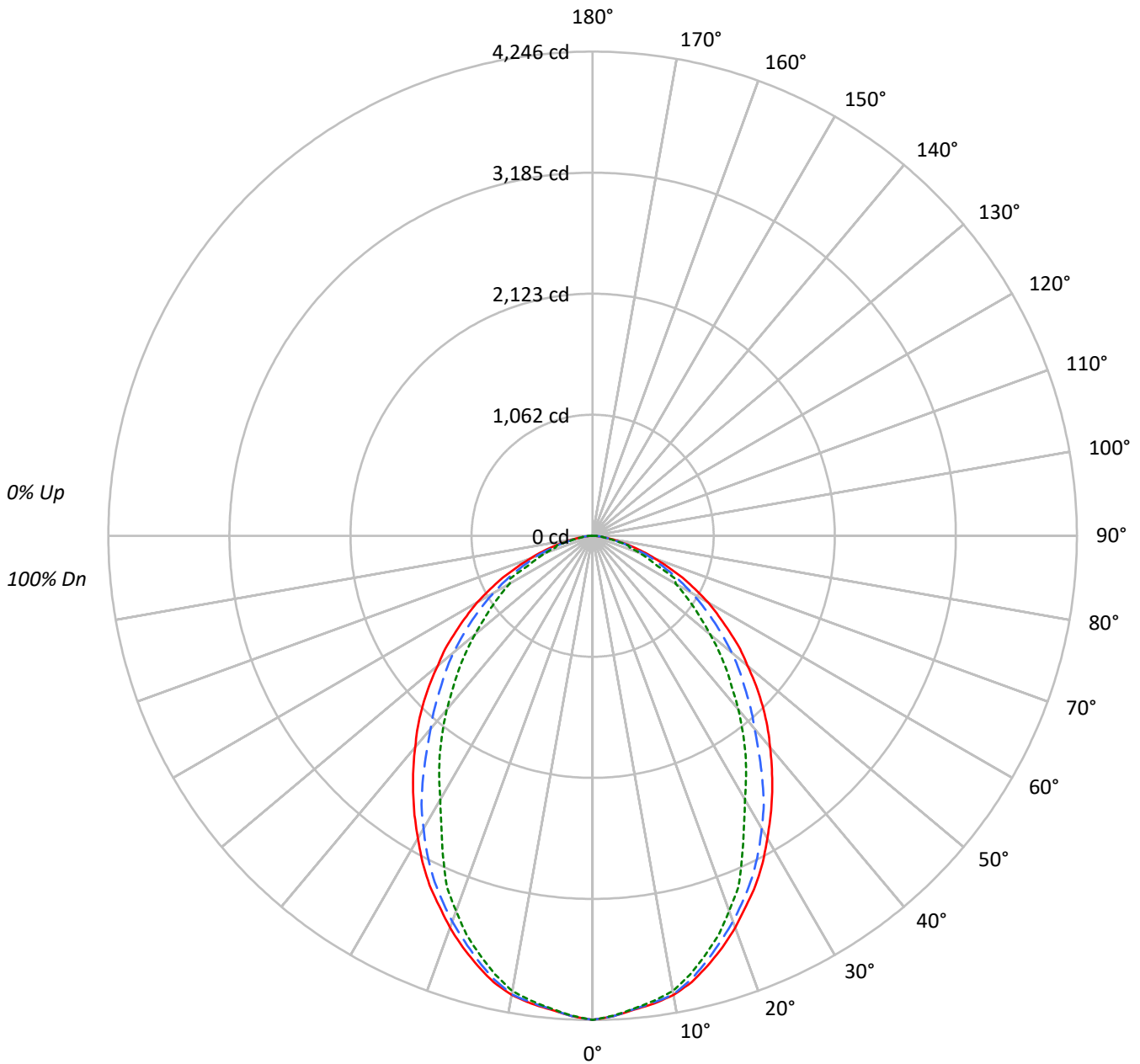
Lumens per Lamp: N/A
Luminaire Lumens: 8335.0 lumens
Efficiency: N/A
Efficacy: 96.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
Input Voltage (V): NR
Input Current (A_{in}): 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°	5713	5713	5713
5°	5635	5628	5622
10°	5586	5579	5539
15°	5436	5381	5306
20°	5236	5151	5011
25°	5021	4911	4605
30°	4758	4606	4149
35°	4507	4257	3838
40°	4250	3880	3492
45°	4007	3586	3157
50°	3709	3329	2815
55°	3431	3017	2521
60°	3144	2694	2259
65°	2766	2360	2000
70°	2279	2066	1699
75°	1812	1582	1658
80°	1217	1141	1065
85°	758	909	1061



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	395.2	4.7
10°-20°	1084.7	13.0
20°-30°	1501.6	18.0
30°-40°	1601.2	19.2
40°-50°	1460.7	17.5
50°-60°	1144.4	13.7
60°-70°	745.8	8.9
70°-80°	330.4	4.0
80°-90°	71.0	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°	2981.5	35.8
0°-40°	4582.7	55.0
0°-60°	7187.8	86.2
0°-90°	8335.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8335.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4246	4246	4246	4246	4246	
5°	4172	4167	4167	4162	4162	396
15°	3902	3902	3863	3824	3809	1097
25°	3382	3362	3308	3190	3102	1553
35°	2744	2724	2592	2395	2336	1715
45°	2106	2062	1885	1728	1659	1622
55°	1463	1418	1286	1134	1075	1312
65°	869	820	741	756	628	856
75°	348	324	304	290	319	374
85°	49	54	59	64	69	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4245.7	4245.7	4245.7	4245.7	4245.7
2.5°	4216.3	4216.3	4216.3	4211.4	4211.4
5°	4172.1	4167.2	4167.2	4162.3	4162.3
7.5°	4137.8	4132.8	4127.9	4123.0	4113.2
10°	4088.7	4088.7	4083.8	4059.2	4054.3
12.5°	4010.1	4005.2	3985.6	3951.2	3941.4
15°	3902.2	3902.2	3862.9	3823.6	3808.9
17.5°	3784.4	3779.4	3730.4	3691.1	3671.5
20°	3656.7	3646.9	3597.8	3534.0	3499.7
22.5°	3514.4	3514.4	3455.5	3372.0	3337.7
25°	3381.9	3362.2	3308.2	3190.4	3102.1
27.5°	3229.7	3200.3	3141.4	2974.5	2871.4
30°	3062.8	3048.1	2964.7	2748.7	2670.2
32.5°	2905.8	2881.2	2792.9	2567.1	2503.3
35°	2743.8	2724.1	2591.6	2395.3	2336.4
37.5°	2581.8	2557.3	2390.4	2233.3	2159.7
40°	2419.8	2390.4	2208.8	2066.4	1987.9
42.5°	2267.7	2228.4	2051.7	1899.5	1811.2
45°	2105.7	2061.5	1884.8	1727.7	1659.0
47.5°	1943.7	1904.4	1742.5	1580.5	1502.0
50°	1771.9	1737.6	1590.3	1428.3	1344.9
52.5°	1629.6	1575.6	1433.2	1271.3	1202.5
55°	1462.7	1418.5	1286.0	1133.8	1074.9
57.5°	1310.5	1266.4	1143.6	1001.3	952.2
60°	1168.2	1104.4	1001.3	878.6	839.3
62.5°	1011.1	962.0	873.7	770.6	819.7
65°	868.8	819.7	741.2	755.9	628.3
67.5°	711.7	687.2	618.5	549.7	530.1
70°	579.2	549.7	525.2	451.6	431.9
72.5°	461.4	431.9	397.6	358.3	343.6
75°	348.5	324.0	304.3	289.6	319.0
77.5°	240.5	230.7	216.0	201.2	196.3
80°	157.1	152.2	147.3	142.3	137.4
82.5°	93.3	93.3	93.3	93.3	93.3
85°	49.1	54.0	58.9	63.8	68.7
87.5°	29.5	29.5	34.4	39.3	44.2
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)