

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: P546874

Luminaire Tested: **FMR-24-4-LD4-2STD-35-UNV-80-87-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: P546874
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-LD4-2STD-35-UNV-80-87-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

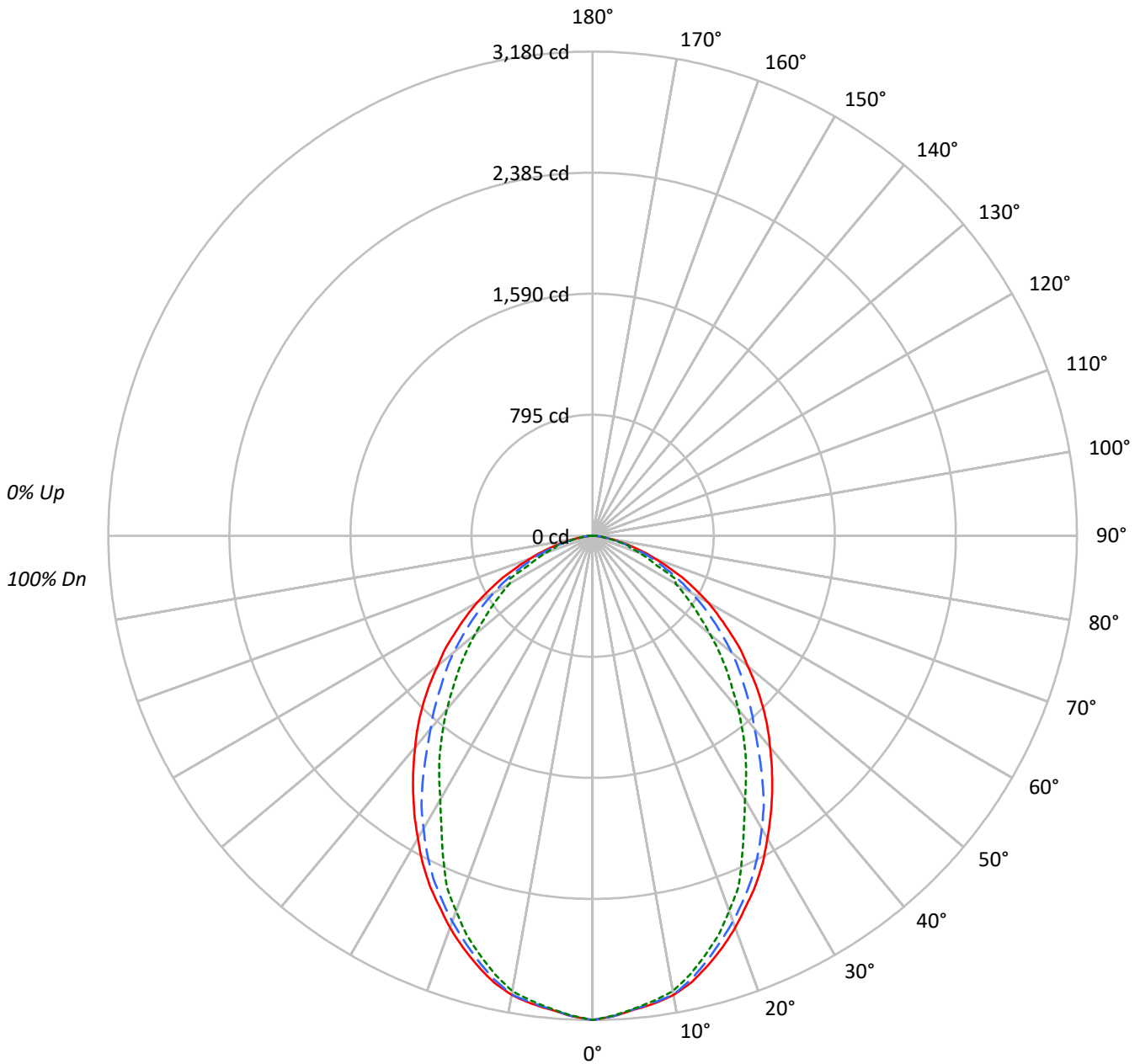
Lumens per Lamp: N/A
Luminaire Lumens: 6243.0 lumens
Efficiency: N/A
Efficacy: 93.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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									
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°	4279	4279	4279
5°	4221	4216	4211
10°	4184	4179	4149
15°	4071	4030	3974
20°	3922	3859	3753
25°	3761	3679	3449
30°	3564	3450	3107
35°	3376	3188	2874
40°	3183	2906	2615
45°	3001	2686	2364
50°	2778	2493	2108
55°	2570	2259	1889
60°	2355	2018	1692
65°	2072	1767	1498
70°	1707	1548	1273
75°	1357	1185	1242
80°	911	855	797
85°	568	681	795



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	296.0	4.7
10°-20°	812.4	13.0
20°-30°	1124.7	18.0
30°-40°	1199.3	19.2
40°-50°	1094.1	17.5
50°-60°	857.1	13.7
60°-70°	558.7	8.9
70°-80°	247.5	4.0
80°-90°	53.2	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°	2233.2	35.8
0°-40°	3432.5	55.0
0°-60°	5383.7	86.2
0°-90°	6243.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6243.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3180	3180	3180	3180	3180	
5°	3125	3121	3121	3118	3118	297
15°	2923	2923	2893	2864	2853	822
25°	2533	2518	2478	2390	2324	1163
35°	2055	2040	1941	1794	1750	1285
45°	1577	1544	1412	1294	1243	1215
55°	1096	1062	963	849	805	983
65°	651	614	555	566	471	641
75°	261	243	228	217	239	280
85°	37	40	44	48	52	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3180.1	3180.1	3180.1	3180.1	3180.1
2.5°	3158.0	3158.0	3158.0	3154.4	3154.4
5°	3125.0	3121.3	3121.3	3117.6	3117.6
7.5°	3099.2	3095.5	3091.9	3088.2	3080.8
10°	3062.5	3062.5	3058.8	3040.4	3036.7
12.5°	3003.6	3000.0	2985.3	2959.5	2952.2
15°	2922.8	2922.8	2893.3	2863.9	2852.9
17.5°	2834.5	2830.8	2794.1	2764.7	2750.0
20°	2738.9	2731.6	2694.8	2647.0	2621.3
22.5°	2632.3	2632.3	2588.2	2525.7	2500.0
25°	2533.1	2518.3	2477.9	2389.7	2323.5
27.5°	2419.1	2397.0	2352.9	2227.9	2150.7
30°	2294.1	2283.1	2220.6	2058.8	2000.0
32.5°	2176.4	2158.1	2091.9	1922.8	1875.0
35°	2055.1	2040.4	1941.1	1794.1	1750.0
37.5°	1933.8	1915.4	1790.4	1672.8	1617.6
40°	1812.5	1790.4	1654.4	1547.8	1488.9
42.5°	1698.5	1669.1	1536.7	1422.8	1356.6
45°	1577.2	1544.1	1411.7	1294.1	1242.6
47.5°	1455.9	1426.4	1305.1	1183.8	1125.0
50°	1327.2	1301.5	1191.2	1069.8	1007.3
52.5°	1220.6	1180.1	1073.5	952.2	900.7
55°	1095.6	1062.5	963.2	849.3	805.1
57.5°	981.6	948.5	856.6	750.0	713.2
60°	875.0	827.2	750.0	658.1	628.7
62.5°	757.3	720.6	654.4	577.2	614.0
65°	650.7	614.0	555.1	566.2	470.6
67.5°	533.1	514.7	463.2	411.8	397.1
70°	433.8	411.8	393.4	338.2	323.5
72.5°	345.6	323.5	297.8	268.4	257.3
75°	261.0	242.6	227.9	216.9	239.0
77.5°	180.1	172.8	161.8	150.7	147.1
80°	117.6	114.0	110.3	106.6	102.9
82.5°	69.9	69.9	69.9	69.9	69.9
85°	36.8	40.4	44.1	47.8	51.5
87.5°	22.1	22.1	25.7	29.4	33.1
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)