

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: P545657

Luminaire Tested: **FMR-12-2-LD4-2LO-40-UNV-80-86-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: P545657
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-12-2-LD4-2LO-40-UNV-80-86-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

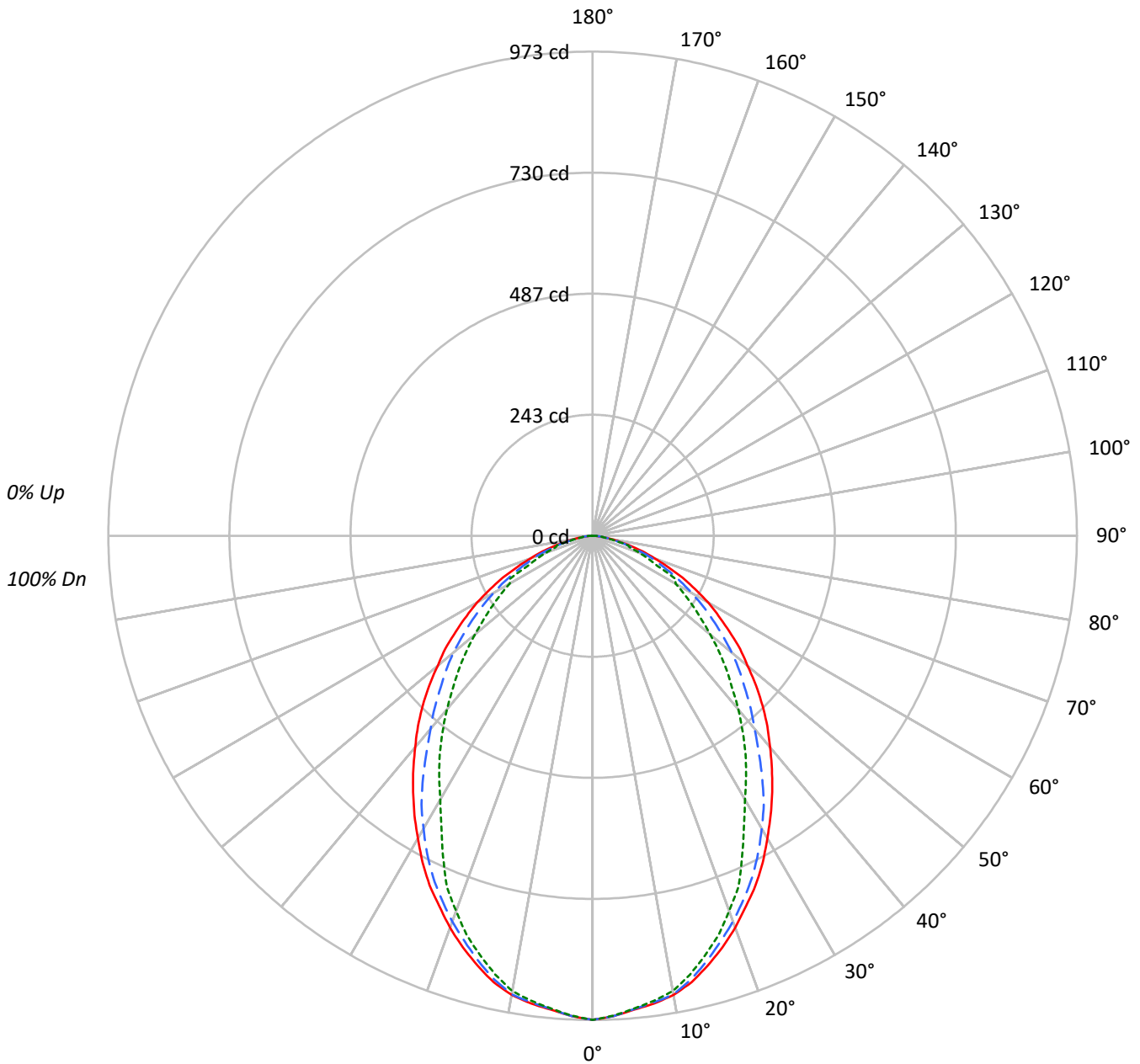
Lumens per Lamp: N/A
Luminaire Lumens: 1910.0 lumens
Efficiency: N/A
Efficacy: 81.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	5236	5236	5236
5°	5165	5159	5153
10°	5120	5114	5078
15°	4982	4932	4863
20°	4800	4722	4593
25°	4602	4502	4222
30°	4362	4222	3803
35°	4131	3902	3518
40°	3896	3556	3200
45°	3672	3287	2894
50°	3399	3051	2581
55°	3145	2765	2311
60°	2882	2470	2070
65°	2535	2162	1834
70°	2088	1895	1558
75°	1661	1449	1520
80°	1116	1044	976
85°	692	834	969



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.6	4.7
10°-20°	248.6	13.0
20°-30°	344.1	18.0
30°-40°	366.9	19.2
40°-50°	334.7	17.5
50°-60°	262.2	13.7
60°-70°	170.9	8.9
70°-80°	75.7	4.0
80°-90°	16.3	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°	683.2	35.8
0°-40°	1050.1	55.0
0°-60°	1647.1	86.2
0°-90°	1910.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1910.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	973	973	973	973	973	
5°	956	955	955	954	954	91
15°	894	894	885	876	873	251
25°	775	770	758	731	711	356
35°	629	624	594	549	535	393
45°	482	472	432	396	380	372
55°	335	325	295	260	246	301
65°	199	188	170	173	144	196
75°	80	74	70	66	73	86
85°	11	12	14	15	16	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	972.9	972.9	972.9	972.9	972.9
2.5°	966.2	966.2	966.2	965.1	965.1
5°	956.1	954.9	954.9	953.8	953.8
7.5°	948.2	947.1	945.9	944.8	942.6
10°	936.9	936.9	935.8	930.2	929.1
12.5°	918.9	917.8	913.3	905.4	903.2
15°	894.2	894.2	885.2	876.2	872.8
17.5°	867.2	866.1	854.8	845.8	841.3
20°	838.0	835.7	824.5	809.8	802.0
22.5°	805.3	805.3	791.8	772.7	764.8
25°	775.0	770.5	758.1	731.1	710.9
27.5°	740.1	733.4	719.9	681.6	658.0
30°	701.9	698.5	679.4	629.9	611.9
32.5°	665.9	660.2	640.0	588.3	573.6
35°	628.7	624.2	593.9	548.9	535.4
37.5°	591.6	586.0	547.8	511.8	494.9
40°	554.5	547.8	506.1	473.5	455.5
42.5°	519.6	510.6	470.2	435.3	415.0
45°	482.5	472.4	431.9	395.9	380.2
47.5°	445.4	436.4	399.3	362.2	344.2
50°	406.0	398.2	364.4	327.3	308.2
52.5°	373.4	361.1	328.4	291.3	275.6
55°	335.2	325.1	294.7	259.8	246.3
57.5°	300.3	290.2	262.1	229.5	218.2
60°	267.7	253.1	229.5	201.3	192.3
62.5°	231.7	220.5	200.2	176.6	187.8
65°	199.1	187.8	169.8	173.2	144.0
67.5°	163.1	157.5	141.7	126.0	121.5
70°	132.7	126.0	120.4	103.5	99.0
72.5°	105.7	99.0	91.1	82.1	78.7
75°	79.9	74.2	69.7	66.4	73.1
77.5°	55.1	52.9	49.5	46.1	45.0
80°	36.0	34.9	33.7	32.6	31.5
82.5°	21.4	21.4	21.4	21.4	21.4
85°	11.2	12.4	13.5	14.6	15.7
87.5°	6.7	6.7	7.9	9.0	10.1
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)