

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: P545655

Luminaire Tested: **FMR-12-2-LD4-2LO-40-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: P545655
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-80-84-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

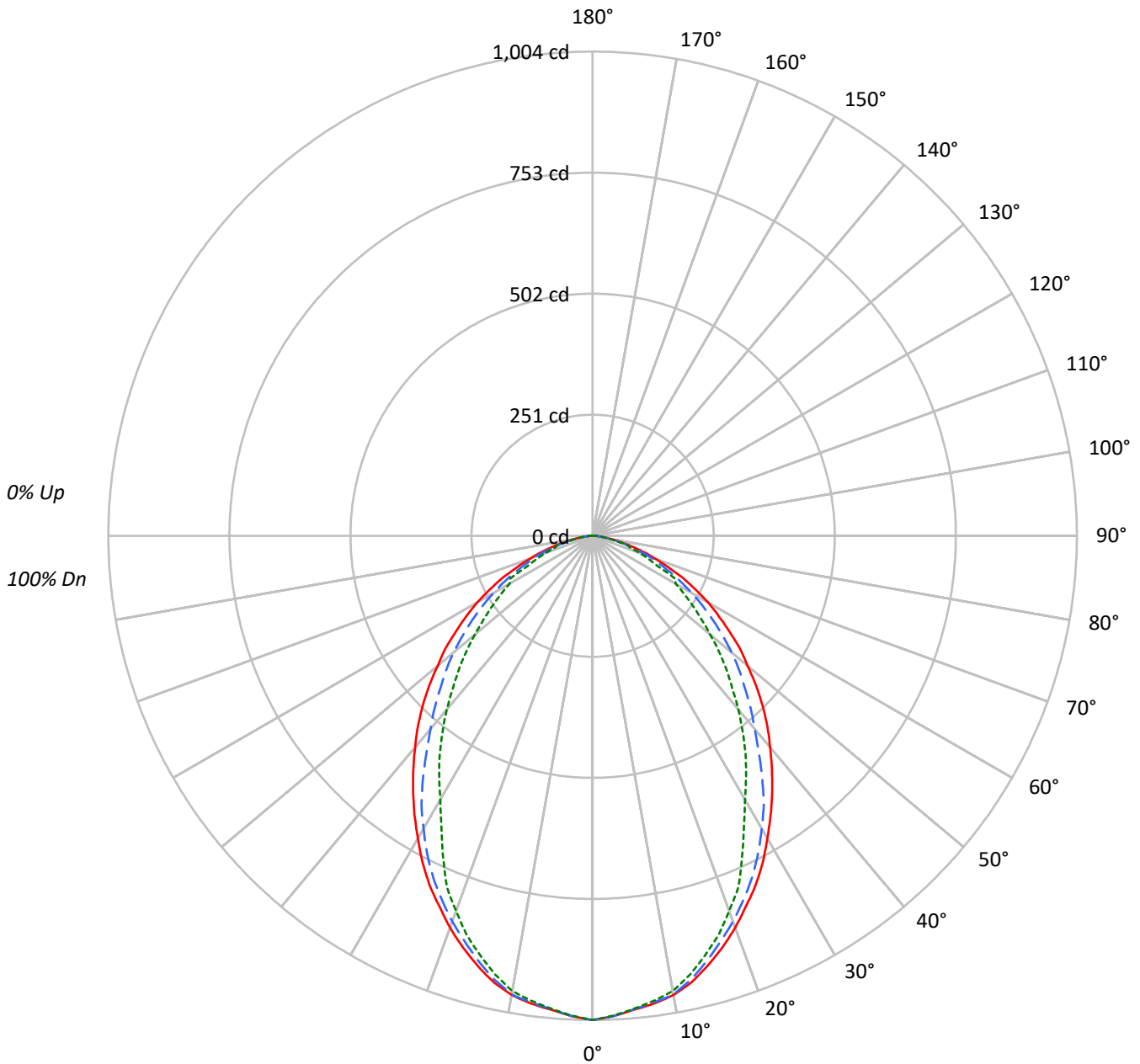
Lumens per Lamp: N/A
Luminaire Lumens: 1971.0 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (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°	5403	5403	5403
5°	5330	5324	5318
10°	5284	5278	5239
15°	5142	5090	5019
20°	4952	4873	4740
25°	4749	4646	4356
30°	4501	4357	3924
35°	4263	4026	3630
40°	4020	3669	3303
45°	3790	3392	2986
50°	3508	3149	2663
55°	3246	2853	2385
60°	2973	2549	2137
65°	2616	2232	1892
70°	2156	1954	1607
75°	1713	1497	1568
80°	1150	1079	1007
85°	716	858	1000



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.5	4.7
10°-20°	256.5	13.0
20°-30°	355.1	18.0
30°-40°	378.6	19.2
40°-50°	345.4	17.5
50°-60°	270.6	13.7
60°-70°	176.4	8.9
70°-80°	78.1	4.0
80°-90°	16.8	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°	705.0	35.8
0°-40°	1083.7	55.0
0°-60°	1699.7	86.2
0°-90°	1971.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1971.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1004	1004	1004	1004	1004	
5°	987	985	985	984	984	94
15°	923	923	914	904	901	259
25°	800	795	782	754	734	367
35°	649	644	613	566	552	406
45°	498	488	446	409	392	384
55°	346	335	304	268	254	310
65°	205	194	175	179	149	202
75°	82	77	72	68	75	88
85°	12	13	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°	1004.0	1004.0	1004.0	1004.0	1004.0
2.5°	997.0	997.0	997.0	995.9	995.9
5°	986.6	985.4	985.4	984.3	984.3
7.5°	978.5	977.3	976.1	975.0	972.7
10°	966.9	966.9	965.7	959.9	958.7
12.5°	948.3	947.1	942.5	934.4	932.0
15°	922.8	922.8	913.5	904.2	900.7
17.5°	894.9	893.7	882.1	872.8	868.2
20°	864.7	862.4	850.8	835.7	827.6
22.5°	831.1	831.1	817.1	797.4	789.3
25°	799.7	795.1	782.3	754.5	733.6
27.5°	763.7	756.8	742.8	703.4	679.0
30°	724.3	720.8	701.1	650.0	631.4
32.5°	687.1	681.3	660.4	607.0	592.0
35°	648.8	644.2	612.8	566.4	552.5
37.5°	610.5	604.7	565.3	528.1	510.7
40°	572.2	565.3	522.3	488.7	470.1
42.5°	536.2	527.0	485.2	449.2	428.3
45°	497.9	487.5	445.7	408.6	392.3
47.5°	459.6	450.3	412.0	373.7	355.2
50°	419.0	410.9	376.1	337.8	318.0
52.5°	385.4	372.6	338.9	300.6	284.4
55°	345.9	335.4	304.1	268.1	254.2
57.5°	309.9	299.5	270.4	236.8	225.2
60°	276.2	261.2	236.8	207.8	198.5
62.5°	239.1	227.5	206.6	182.2	193.8
65°	205.4	193.8	175.3	178.7	148.6
67.5°	168.3	162.5	146.2	130.0	125.4
70°	137.0	130.0	124.2	106.8	102.1
72.5°	109.1	102.1	94.0	84.7	81.2
75°	82.4	76.6	72.0	68.5	75.4
77.5°	56.9	54.6	51.1	47.6	46.4
80°	37.1	36.0	34.8	33.7	32.5
82.5°	22.1	22.1	22.1	22.1	22.1
85°	11.6	12.8	13.9	15.1	16.2
87.5°	7.0	7.0	8.1	9.3	10.4
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)