

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: P545640

Luminaire Tested: **FMR-12-2-LD4-2LO-35-UNV-82-85-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: P545640
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-35-UNV-82-85-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC 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

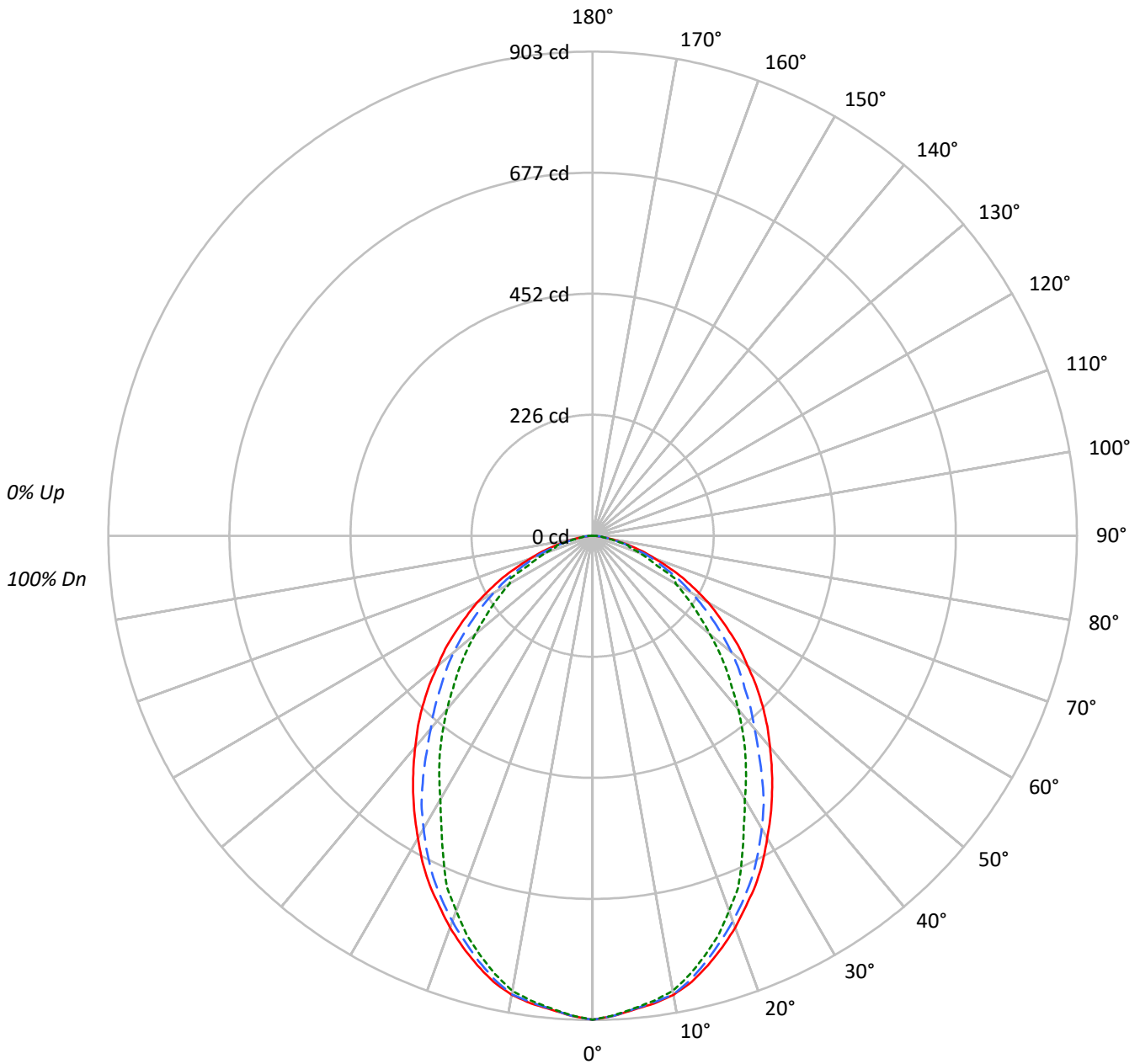
Lumens per Lamp: N/A
Luminaire Lumens: 1772.0 lumens
Efficiency: N/A
Efficacy: 75.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	4858	4858	4858
5°	4792	4786	4781
10°	4750	4745	4710
15°	4622	4576	4512
20°	4452	4381	4261
25°	4270	4176	3916
30°	4046	3917	3528
35°	3832	3620	3263
40°	3614	3299	2969
45°	3408	3050	2684
50°	3154	2831	2394
55°	2918	2565	2144
60°	2674	2292	1920
65°	2352	2007	1701
70°	1937	1758	1445
75°	1541	1345	1410
80°	1035	970	905
85°	642	772	902



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.0	4.7
10°-20°	230.6	13.0
20°-30°	319.2	18.0
30°-40°	340.4	19.2
40°-50°	310.5	17.5
50°-60°	243.3	13.7
60°-70°	158.6	8.9
70°-80°	70.2	4.0
80°-90°	15.1	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°	633.9	35.8
0°-40°	974.3	55.0
0°-60°	1528.1	86.2
0°-90°	1772.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1772.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	903	903	903	903	903	
5°	887	886	886	885	885	84
15°	830	830	821	813	810	233
25°	719	715	703	678	660	330
35°	583	579	551	509	497	365
45°	448	438	401	367	353	345
55°	311	302	273	241	228	279
65°	185	174	158	161	134	182
75°	74	69	65	62	68	79
85°	10	12	12	14	15	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	902.6	902.6	902.6	902.6	902.6
2.5°	896.4	896.4	896.4	895.3	895.3
5°	887.0	885.9	885.9	884.9	884.9
7.5°	879.7	878.6	877.6	876.5	874.5
10°	869.2	869.2	868.2	863.0	861.9
12.5°	852.5	851.5	847.3	840.0	837.9
15°	829.6	829.6	821.2	812.9	809.8
17.5°	804.5	803.5	793.1	784.7	780.5
20°	777.4	775.3	764.9	751.3	744.0
22.5°	747.2	747.2	734.6	716.9	709.6
25°	719.0	714.8	703.3	678.3	659.5
27.5°	686.6	680.4	667.8	632.4	610.5
30°	651.1	648.0	630.3	584.4	567.7
32.5°	617.8	612.5	593.8	545.8	532.2
35°	583.3	579.1	551.0	509.2	496.7
37.5°	548.9	543.7	508.2	474.8	459.1
40°	514.4	508.2	469.6	439.3	422.6
42.5°	482.1	473.8	436.2	403.8	385.1
45°	447.7	438.3	400.7	367.3	352.7
47.5°	413.2	404.9	370.4	336.0	319.3
50°	376.7	369.4	338.1	303.7	285.9
52.5°	346.4	335.0	304.7	270.3	255.7
55°	311.0	301.6	273.4	241.1	228.5
57.5°	278.6	269.2	243.1	212.9	202.4
60°	248.4	234.8	212.9	186.8	178.4
62.5°	215.0	204.5	185.7	163.8	174.3
65°	184.7	174.3	157.6	160.7	133.6
67.5°	151.3	146.1	131.5	116.9	112.7
70°	123.1	116.9	111.7	96.0	91.8
72.5°	98.1	91.8	84.5	76.2	73.0
75°	74.1	68.9	64.7	61.6	67.8
77.5°	51.1	49.0	45.9	42.8	41.7
80°	33.4	32.3	31.3	30.3	29.2
82.5°	19.8	19.8	19.8	19.8	19.8
85°	10.4	11.5	12.5	13.6	14.6
87.5°	6.3	6.3	7.3	8.3	9.4
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)