

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: P545691

Luminaire Tested: **FMR-12-2-LD4-2LO-50-UNV-80-88-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: P545691
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-50-UNV-80-88-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

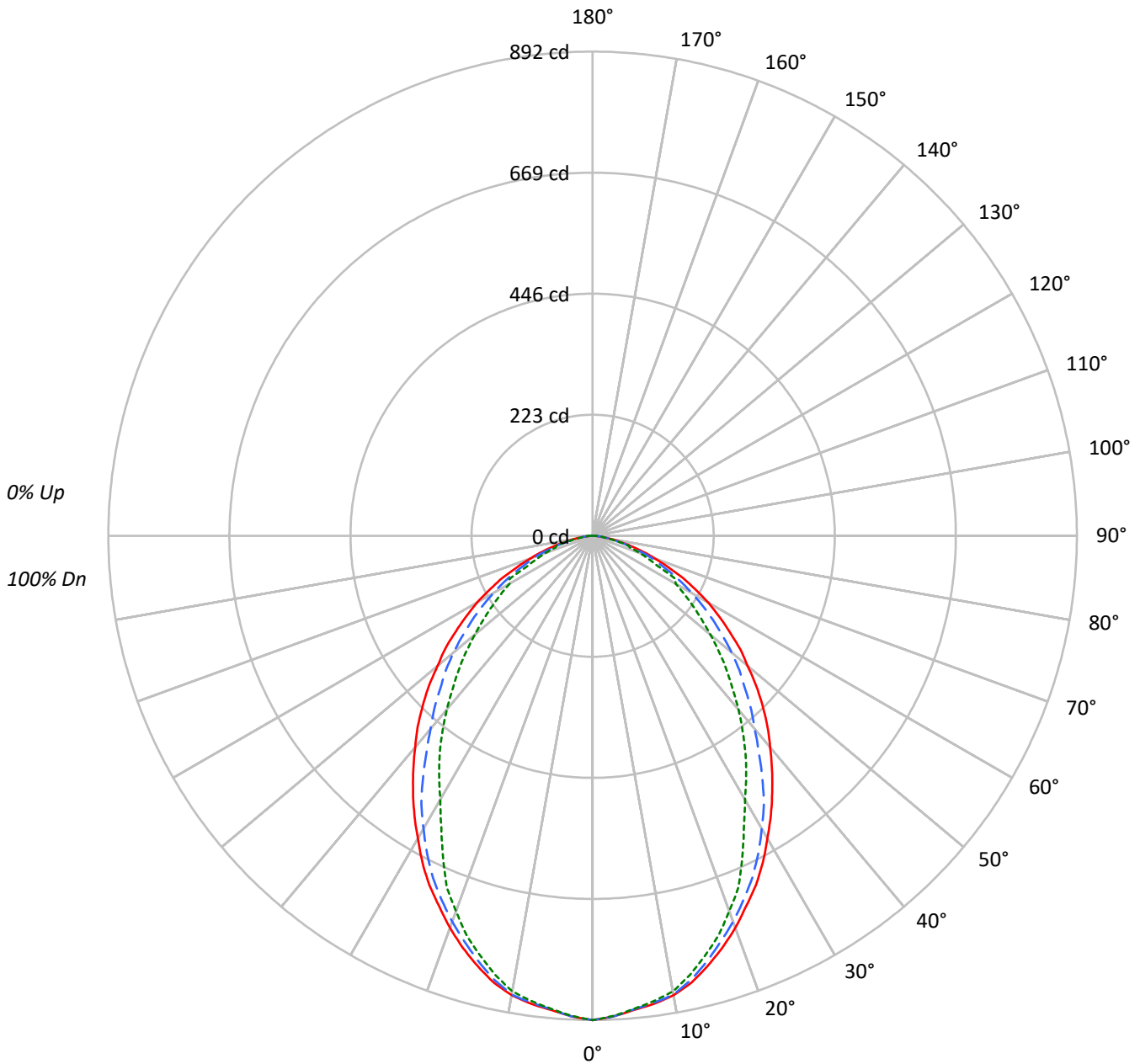
Lumens per Lamp: N/A
Luminaire Lumens: 1752.0 lumens
Efficiency: N/A
Efficacy: 74.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	4803	4803	4803
5°	4738	4732	4727
10°	4697	4691	4657
15°	4570	4524	4461
20°	4402	4332	4213
25°	4222	4130	3872
30°	4001	3873	3488
35°	3789	3579	3227
40°	3573	3262	2936
45°	3369	3016	2654
50°	3119	2799	2367
55°	2885	2536	2120
60°	2644	2266	1899
65°	2325	1984	1682
70°	1915	1737	1429
75°	1524	1331	1395
80°	1023	961	896
85°	636	766	889



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.1	4.7
10°-20°	228.0	13.0
20°-30°	315.6	18.0
30°-40°	336.6	19.2
40°-50°	307.0	17.5
50°-60°	240.5	13.7
60°-70°	156.8	8.9
70°-80°	69.5	4.0
80°-90°	14.9	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°	626.7	35.8
0°-40°	963.3	55.0
0°-60°	1510.9	86.2
0°-90°	1752.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1752.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	892	892	892	892	892	
5°	877	876	876	875	875	83
15°	820	820	812	804	801	231
25°	711	707	695	671	652	326
35°	577	573	545	504	491	361
45°	443	433	396	363	349	341
55°	308	298	270	238	226	276
65°	183	172	156	159	132	180
75°	73	68	64	61	67	79
85°	10	11	12	13	14	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	892.4	892.4	892.4	892.4	892.4
2.5°	886.3	886.3	886.3	885.2	885.2
5°	877.0	875.9	875.9	874.9	874.9
7.5°	869.7	868.7	867.7	866.7	864.6
10°	859.4	859.4	858.4	853.2	852.2
12.5°	842.9	841.9	837.8	830.5	828.5
15°	820.2	820.2	812.0	803.7	800.6
17.5°	795.5	794.4	784.1	775.9	771.7
20°	768.6	766.6	756.3	742.8	735.6
22.5°	738.7	738.7	726.3	708.8	701.6
25°	710.9	706.7	695.4	670.6	652.1
27.5°	678.9	672.7	660.3	625.2	603.6
30°	643.8	640.7	623.2	577.8	561.3
32.5°	610.8	605.6	587.1	539.6	526.2
35°	576.7	572.6	544.8	503.5	491.1
37.5°	542.7	537.5	502.5	469.4	454.0
40°	508.6	502.5	464.3	434.4	417.9
42.5°	476.7	468.4	431.3	399.3	380.7
45°	442.6	433.3	396.2	363.2	348.7
47.5°	408.6	400.3	366.3	332.2	315.7
50°	372.5	365.2	334.3	300.2	282.7
52.5°	342.5	331.2	301.3	267.2	252.8
55°	307.5	298.2	270.3	238.3	225.9
57.5°	275.5	266.2	240.4	210.5	200.2
60°	245.6	232.1	210.5	184.7	176.4
62.5°	212.5	202.2	183.6	162.0	172.3
65°	182.6	172.3	155.8	158.9	132.1
67.5°	149.6	144.4	130.0	115.6	111.4
70°	121.7	115.6	110.4	94.9	90.8
72.5°	97.0	90.8	83.6	75.3	72.2
75°	73.3	68.1	64.0	60.9	67.1
77.5°	50.6	48.5	45.4	42.3	41.3
80°	33.0	32.0	31.0	29.9	28.9
82.5°	19.6	19.6	19.6	19.6	19.6
85°	10.3	11.3	12.4	13.4	14.4
87.5°	6.2	6.2	7.2	8.3	9.3
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)