

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: P545672

Luminaire Tested: **FMR-12-2-LD4-2LO-40-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: P545672
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-82-85-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

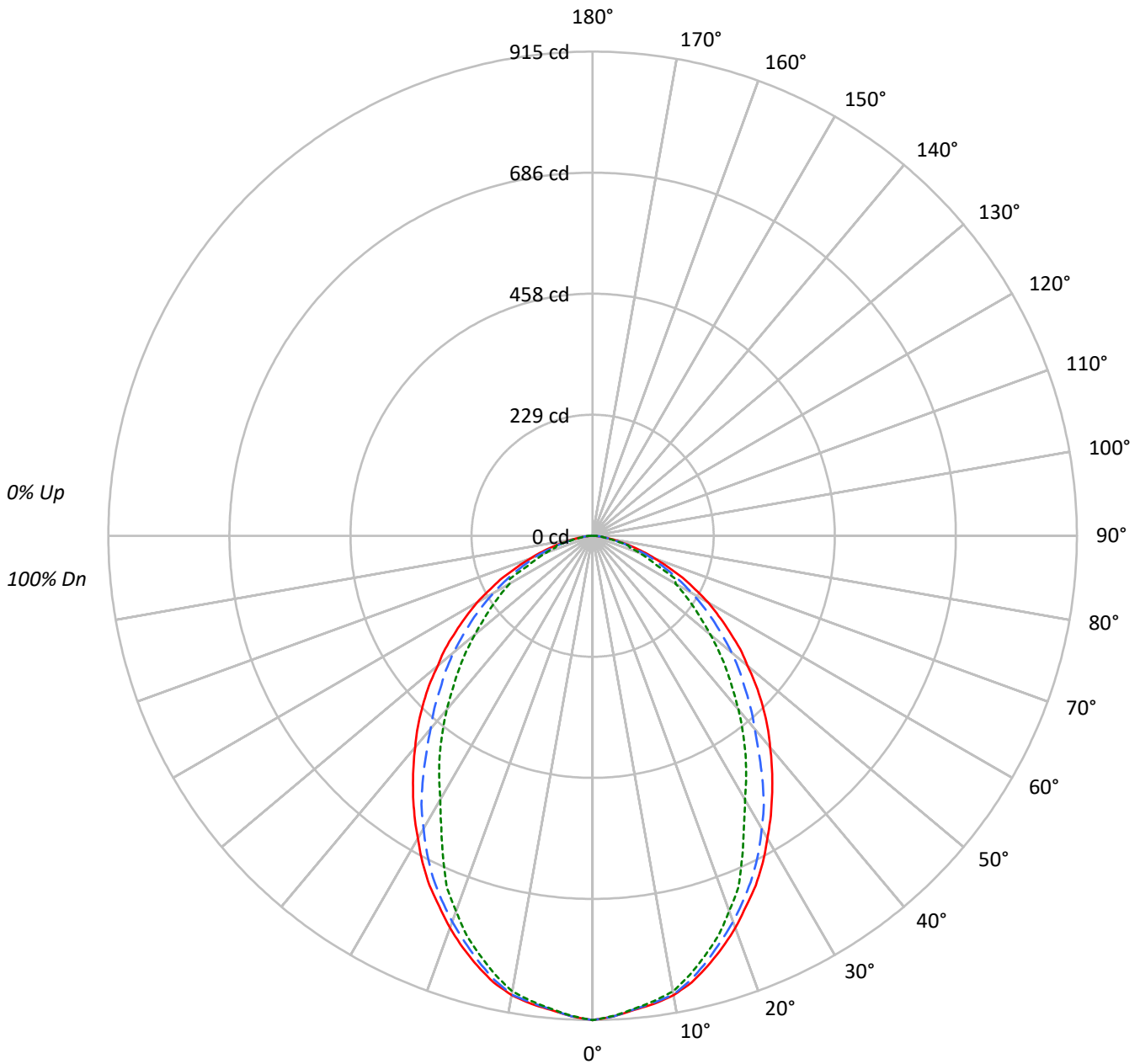
Lumens per Lamp: N/A
Luminaire Lumens: 1797.0 lumens
Efficiency: N/A
Efficacy: 76.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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				20				
RC	80				70				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°	4927	4927	4927
5°	4860	4854	4848
10°	4817	4811	4777
15°	4688	4640	4576
20°	4515	4443	4321
25°	4330	4235	3972
30°	4103	3972	3578
35°	3886	3671	3309
40°	3665	3346	3011
45°	3456	3093	2723
50°	3198	2871	2428
55°	2959	2602	2175
60°	2711	2324	1948
65°	2385	2035	1726
70°	1965	1781	1465
75°	1562	1364	1431
80°	1051	982	917
85°	655	784	914



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.2	4.7
10°-20°	233.9	13.0
20°-30°	323.7	18.0
30°-40°	345.2	19.2
40°-50°	314.9	17.5
50°-60°	246.7	13.7
60°-70°	160.8	8.9
70°-80°	71.2	4.0
80°-90°	15.3	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°	642.8	35.8
0°-40°	988.0	55.0
0°-60°	1549.7	86.2
0°-90°	1797.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1797.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	915	915	915	915	915	
5°	900	898	898	897	897	85
15°	841	841	833	824	821	237
25°	729	725	713	688	669	335
35°	592	587	559	516	504	370
45°	454	444	406	372	358	350
55°	315	306	277	244	232	283
65°	187	177	160	163	136	185
75°	75	70	66	62	69	81
85°	11	12	13	14	15	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	915.4	915.4	915.4	915.4	915.4
2.5°	909.0	909.0	909.0	908.0	908.0
5°	899.5	898.4	898.4	897.4	897.4
7.5°	892.1	891.0	890.0	888.9	886.8
10°	881.5	881.5	880.4	875.2	874.1
12.5°	864.6	863.5	859.3	851.9	849.8
15°	841.3	841.3	832.8	824.4	821.2
17.5°	815.9	814.8	804.3	795.8	791.6
20°	788.4	786.3	775.7	761.9	754.5
22.5°	757.7	757.7	745.0	727.0	719.6
25°	729.1	724.9	713.2	687.8	668.8
27.5°	696.3	690.0	677.3	641.3	619.1
30°	660.3	657.2	639.2	592.6	575.7
32.5°	626.5	621.2	602.1	553.5	539.7
35°	591.5	587.3	558.7	516.4	503.7
37.5°	556.6	551.3	515.4	481.5	465.6
40°	521.7	515.4	476.2	445.5	428.6
42.5°	488.9	480.4	442.3	409.5	390.5
45°	454.0	444.5	406.4	372.5	357.7
47.5°	419.1	410.6	375.7	340.7	323.8
50°	382.0	374.6	342.9	307.9	290.0
52.5°	351.3	339.7	309.0	274.1	259.3
55°	315.4	305.8	277.3	244.5	231.8
57.5°	282.5	273.0	246.6	215.9	205.3
60°	251.9	238.1	215.9	189.4	181.0
62.5°	218.0	207.4	188.4	166.1	176.7
65°	187.3	176.7	159.8	163.0	135.5
67.5°	153.4	148.2	133.3	118.5	114.3
70°	124.9	118.5	113.2	97.4	93.1
72.5°	99.5	93.1	85.7	77.3	74.1
75°	75.1	69.8	65.6	62.4	68.8
77.5°	51.9	49.7	46.6	43.4	42.3
80°	33.9	32.8	31.7	30.7	29.6
82.5°	20.1	20.1	20.1	20.1	20.1
85°	10.6	11.6	12.7	13.8	14.8
87.5°	6.3	6.3	7.4	8.5	9.5
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)