

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: P545739

Luminaire Tested: **FMR-12-2-LD4-2STD-35-UNV-82-88-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: P545739
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-LD4-2STD-35-UNV-82-88-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

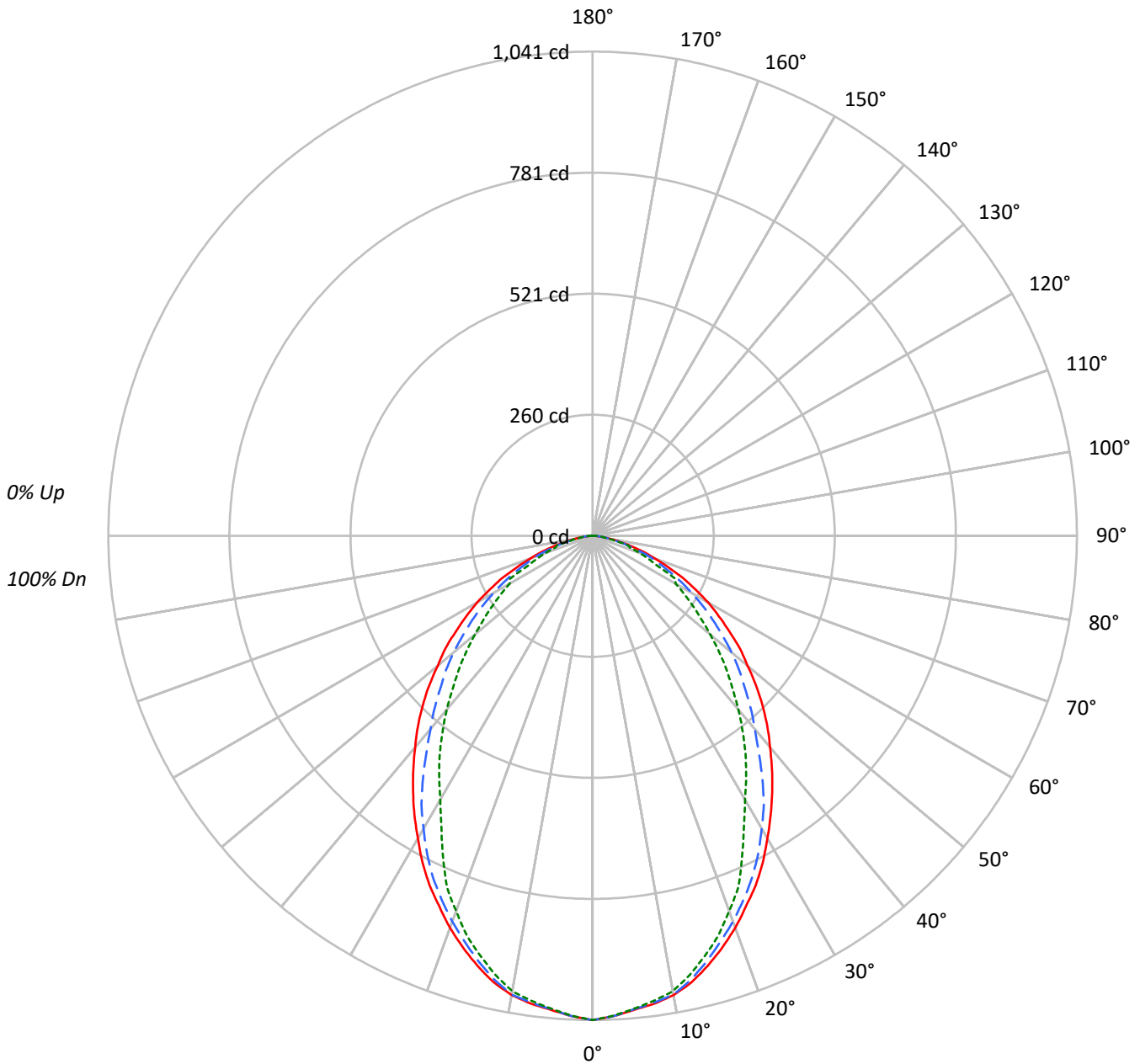
Lumens per Lamp: N/A
Luminaire Lumens: 2044.0 lumens
Efficiency: N/A
Efficacy: 61.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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	100	100	100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87	87	87	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75	75	75	75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65	65	65	65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56	56	56	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50	50	50	50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44	44	44	44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40	40	40	40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36	36	36	36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33	33	33	33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30	30	30	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5604	5604	5604
5°	5527	5521	5514
10°	5480	5473	5433
15°	5332	5278	5205
20°	5136	5053	4915
25°	4925	4818	4517
30°	4668	4518	4069
35°	4421	4175	3765
40°	4169	3806	3425
45°	3930	3518	3096
50°	3638	3265	2761
55°	3366	2959	2473
60°	3084	2644	2215
65°	2714	2315	1962
70°	2234	2027	1666
75°	1778	1551	1626
80°	1193	1119	1044
85°	741	889	1044



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.9	4.7
10°-20°	266.0	13.0
20°-30°	368.2	18.0
30°-40°	392.7	19.2
40°-50°	358.2	17.5
50°-60°	280.7	13.7
60°-70°	182.9	8.9
70°-80°	81.0	4.0
80°-90°	17.4	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°	731.2	35.8
0°-40°	1123.8	55.0
0°-60°	1762.7	86.2
0°-90°	2044.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2044.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1041	1041	1041	1041	1041	
5°	1023	1022	1022	1021	1021	97
15°	957	957	947	938	934	269
25°	829	824	811	782	761	381
35°	673	668	636	587	573	421
45°	516	506	462	424	407	398
55°	359	348	315	278	264	322
65°	213	201	182	185	154	210
75°	86	79	75	71	78	92
85°	12	13	14	16	17	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1041.2	1041.2	1041.2	1041.2	1041.2
2.5°	1034.0	1034.0	1034.0	1032.8	1032.8
5°	1023.1	1021.9	1021.9	1020.7	1020.7
7.5°	1014.7	1013.5	1012.3	1011.1	1008.7
10°	1002.7	1002.7	1001.5	995.4	994.2
12.5°	983.4	982.2	977.4	969.0	966.6
15°	956.9	956.9	947.3	937.7	934.1
17.5°	928.0	926.8	914.8	905.2	900.4
20°	896.7	894.3	882.3	866.7	858.2
22.5°	861.8	861.8	847.4	826.9	818.5
25°	829.3	824.5	811.3	782.4	760.7
27.5°	792.0	784.8	770.4	729.4	704.2
30°	751.1	747.5	727.0	674.1	654.8
32.5°	712.6	706.6	684.9	629.5	613.9
35°	672.9	668.0	635.5	587.4	573.0
37.5°	633.1	627.1	586.2	547.7	529.6
40°	593.4	586.2	541.7	506.8	487.5
42.5°	556.1	546.5	503.1	465.8	444.2
45°	516.4	505.5	462.2	423.7	406.8
47.5°	476.7	467.0	427.3	387.6	368.3
50°	434.5	426.1	390.0	350.3	329.8
52.5°	399.6	386.4	351.5	311.8	294.9
55°	358.7	347.9	315.4	278.1	263.6
57.5°	321.4	310.6	280.5	245.6	233.5
60°	286.5	270.8	245.6	215.5	205.8
62.5°	248.0	235.9	214.3	189.0	201.0
65°	213.1	201.0	181.8	185.4	154.1
67.5°	174.5	168.5	151.7	134.8	130.0
70°	142.0	134.8	128.8	110.7	105.9
72.5°	113.1	105.9	97.5	87.9	84.3
75°	85.5	79.4	74.6	71.0	78.2
77.5°	59.0	56.6	53.0	49.4	48.1
80°	38.5	37.3	36.1	34.9	33.7
82.5°	22.9	22.9	22.9	22.9	22.9
85°	12.0	13.2	14.4	15.6	16.9
87.5°	7.2	7.2	8.4	9.6	10.8
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)