

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: P545710

Luminaire Tested: **FMR-12-2-LD4-2LO-50-UNV-82-97-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: P545710
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-82-97-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

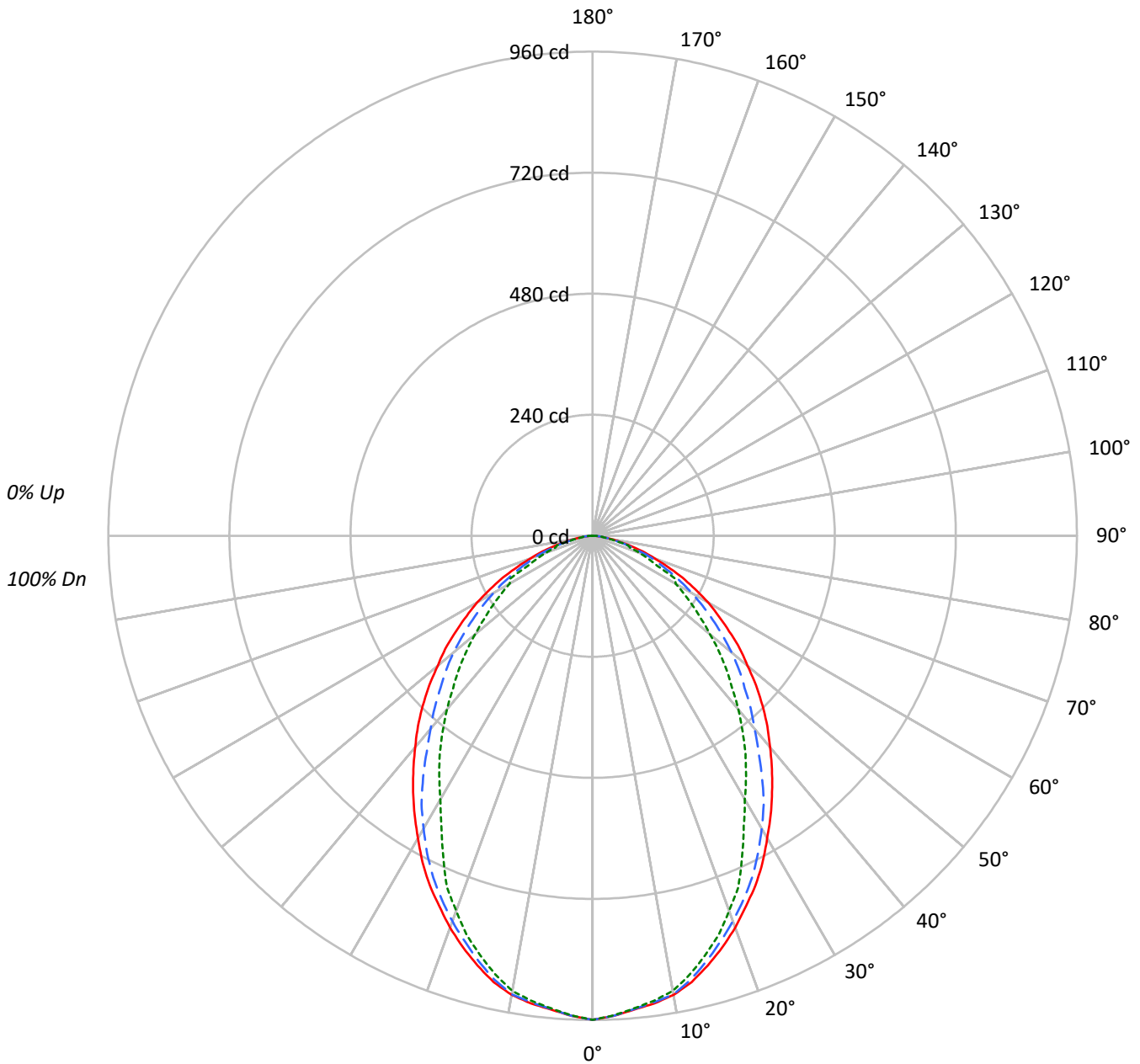
Lumens per Lamp: N/A
Luminaire Lumens: 1884.0 lumens
Efficiency: N/A
Efficacy: 80.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	5165	5165	5165
5°	5095	5089	5083
10°	5051	5045	5008
15°	4914	4865	4797
20°	4734	4657	4530
25°	4539	4441	4164
30°	4302	4164	3750
35°	4075	3849	3470
40°	3843	3508	3157
45°	3623	3242	2854
50°	3353	3010	2545
55°	3102	2728	2280
60°	2843	2436	2042
65°	2501	2133	1808
70°	2060	1868	1536
75°	1639	1431	1499
80°	1100	1032	964
85°	685	821	957



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.3	4.7
10°-20°	245.2	13.0
20°-30°	339.4	18.0
30°-40°	361.9	19.2
40°-50°	330.2	17.5
50°-60°	258.7	13.7
60°-70°	168.6	8.9
70°-80°	74.7	4.0
80°-90°	16.0	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°	673.9	35.8
0°-40°	1035.8	55.0
0°-60°	1624.7	86.2
0°-90°	1884.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1884.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	960	960	960	960	960	
5°	943	942	942	941	941	90
15°	882	882	873	864	861	248
25°	764	760	748	721	701	351
35°	620	616	586	541	528	388
45°	476	466	426	390	375	367
55°	331	321	291	256	243	297
65°	196	185	168	171	142	194
75°	79	73	69	66	72	84
85°	11	12	13	14	16	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	959.7	959.7	959.7	959.7	959.7
2.5°	953.0	953.0	953.0	951.9	951.9
5°	943.0	941.9	941.9	940.8	940.8
7.5°	935.3	934.2	933.1	931.9	929.7
10°	924.2	924.2	923.1	917.5	916.4
12.5°	906.4	905.3	900.9	893.1	890.9
15°	882.0	882.0	873.1	864.3	860.9
17.5°	855.4	854.3	843.2	834.3	829.9
20°	826.5	824.3	813.2	798.8	791.0
22.5°	794.4	794.4	781.1	762.2	754.4
25°	764.4	760.0	747.8	721.2	701.2
27.5°	730.0	723.4	710.1	672.3	649.0
30°	692.3	689.0	670.1	621.3	603.5
32.5°	656.8	651.3	631.3	580.2	565.8
35°	620.2	615.8	585.8	541.4	528.1
37.5°	583.6	578.0	540.3	504.8	488.2
40°	547.0	540.3	499.3	467.1	449.3
42.5°	512.6	503.7	463.8	429.4	409.4
45°	476.0	466.0	426.0	390.5	375.0
47.5°	439.3	430.5	393.9	357.2	339.5
50°	400.5	392.7	359.5	322.9	304.0
52.5°	368.3	356.1	324.0	287.4	271.8
55°	330.6	320.6	290.7	256.3	243.0
57.5°	296.2	286.2	258.5	226.3	215.2
60°	264.1	249.6	226.3	198.6	189.7
62.5°	228.5	217.5	197.5	174.2	185.3
65°	196.4	185.3	167.5	170.9	142.0
67.5°	160.9	155.3	139.8	124.3	119.8
70°	130.9	124.3	118.7	102.1	97.6
72.5°	104.3	97.6	89.9	81.0	77.7
75°	78.8	73.2	68.8	65.5	72.1
77.5°	54.4	52.1	48.8	45.5	44.4
80°	35.5	34.4	33.3	32.2	31.1
82.5°	21.1	21.1	21.1	21.1	21.1
85°	11.1	12.2	13.3	14.4	15.5
87.5°	6.7	6.7	7.8	8.9	10.0
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)