

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: P544756

Luminaire Tested: **FMR-12-1-LD4-1HI-50-UNV-93-94-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: P544756
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-12-1-LD4-1HI-50-UNV-93-94-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

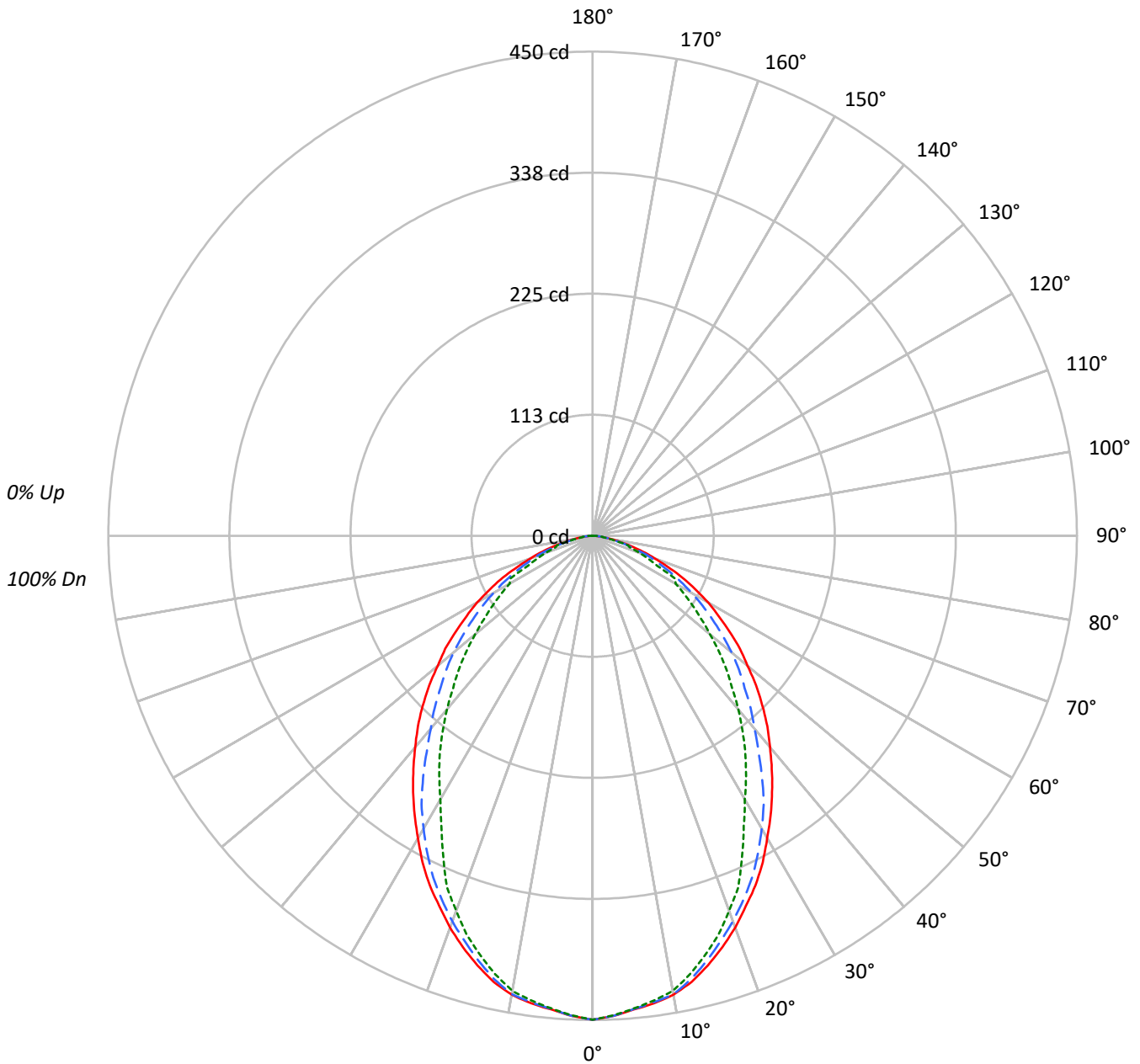
Lumens per Lamp: N/A
Luminaire Lumens: 883.0 lumens
Efficiency: N/A
Efficacy: 81.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 10.8
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°	4842	4842	4842
5°	4776	4770	4764
10°	4734	4728	4694
15°	4607	4560	4496
20°	4438	4367	4247
25°	4255	4163	3903
30°	4033	3904	3516
35°	3820	3608	3252
40°	3603	3288	2959
45°	3396	3040	2676
50°	3143	2822	2386
55°	2909	2556	2137
60°	2665	2284	1914
65°	2343	1999	1696
70°	1932	1750	1441
75°	1535	1339	1406
80°	1029	967	905
85°	642	766	902



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.9	4.7
10°-20°	114.9	13.0
20°-30°	159.1	18.0
30°-40°	169.6	19.2
40°-50°	154.8	17.5
50°-60°	121.2	13.7
60°-70°	79.0	8.9
70°-80°	35.0	4.0
80°-90°	7.5	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°	315.9	35.8
0°-40°	485.5	55.0
0°-60°	761.5	86.2
0°-90°	883.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	883.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	450	450	450	450	450	
5°	442	442	442	441	441	42
15°	413	413	409	405	404	116
25°	358	356	350	338	329	164
35°	291	289	275	254	248	182
45°	223	218	200	183	176	172
55°	155	150	136	120	114	139
65°	92	87	78	80	67	91
75°	37	34	32	31	34	40
85°	5	6	6	7	7	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	449.8	449.8	449.8	449.8	449.8
2.5°	446.7	446.7	446.7	446.1	446.1
5°	442.0	441.5	441.5	440.9	440.9
7.5°	438.3	437.8	437.3	436.8	435.7
10°	433.1	433.1	432.6	430.0	429.5
12.5°	424.8	424.3	422.2	418.6	417.5
15°	413.4	413.4	409.2	405.1	403.5
17.5°	400.9	400.4	395.2	391.0	388.9
20°	387.4	386.4	381.2	374.4	370.8
22.5°	372.3	372.3	366.1	357.2	353.6
25°	358.3	356.2	350.5	338.0	328.6
27.5°	342.2	339.0	332.8	315.1	304.2
30°	324.5	322.9	314.1	291.2	282.9
32.5°	307.8	305.2	295.9	272.0	265.2
35°	290.7	288.6	274.6	253.8	247.5
37.5°	273.5	270.9	253.2	236.6	228.8
40°	256.4	253.2	234.0	218.9	210.6
42.5°	240.2	236.1	217.4	201.2	191.9
45°	223.1	218.4	199.7	183.0	175.8
47.5°	205.9	201.8	184.6	167.4	159.1
50°	187.7	184.1	168.5	151.3	142.5
52.5°	172.6	166.9	151.8	134.7	127.4
55°	155.0	150.3	136.2	120.1	113.9
57.5°	138.8	134.2	121.2	106.1	100.9
60°	123.8	117.0	106.1	93.1	88.9
62.5°	107.1	101.9	92.6	81.6	86.8
65°	92.0	86.8	78.5	80.1	66.6
67.5°	75.4	72.8	65.5	58.2	56.2
70°	61.4	58.2	55.6	47.8	45.8
72.5°	48.9	45.8	42.1	38.0	36.4
75°	36.9	34.3	32.2	30.7	33.8
77.5°	25.5	24.4	22.9	21.3	20.8
80°	16.6	16.1	15.6	15.1	14.6
82.5°	9.9	9.9	9.9	9.9	9.9
85°	5.2	5.7	6.2	6.8	7.3
87.5°	3.1	3.1	3.6	4.2	4.7
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)