

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: P544816

Luminaire Tested: **FMR-12-1-LD4-1LO-40-UNV-93-85-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: P544816
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-LD4-1LO-40-UNV-93-85-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS 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

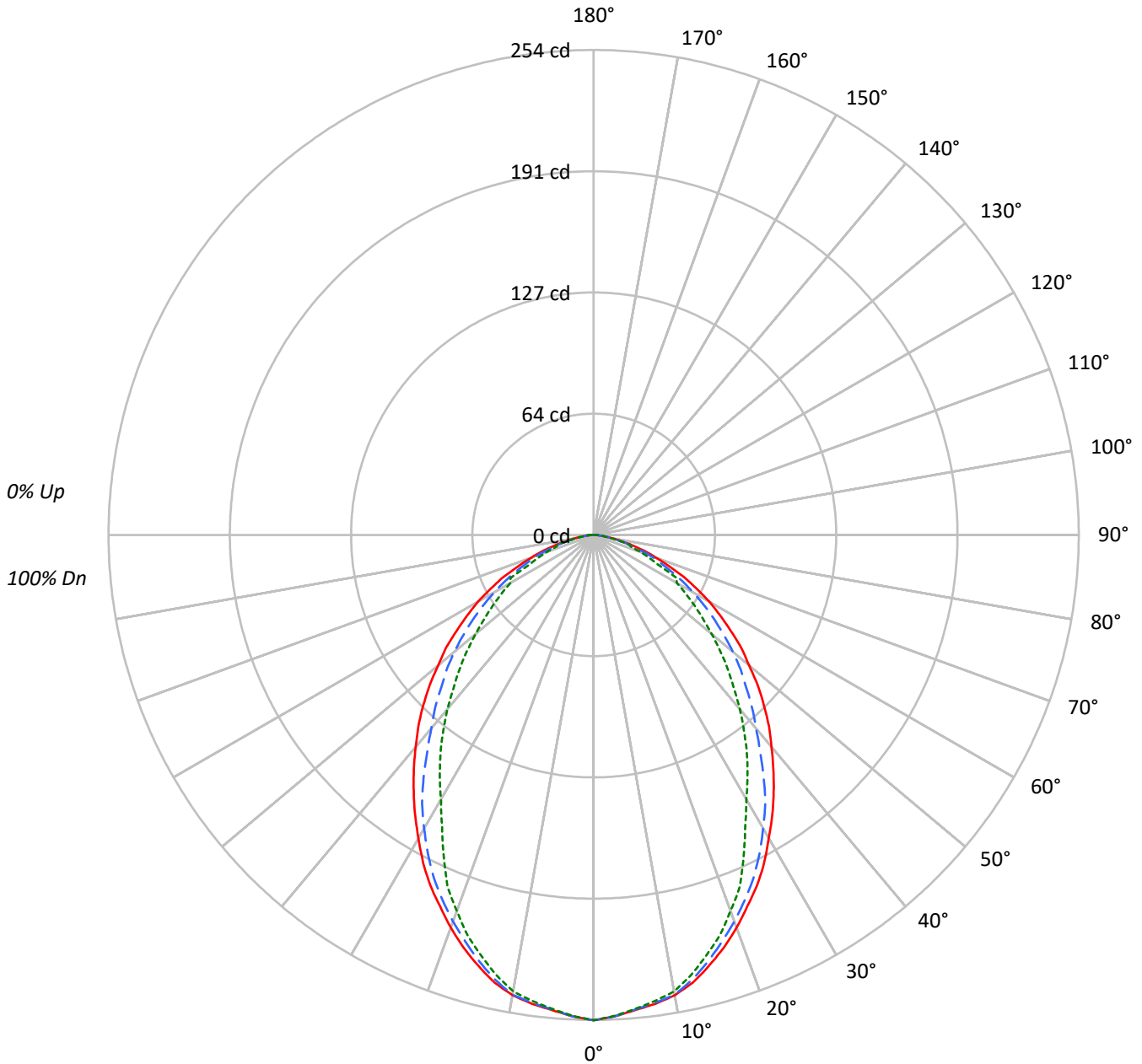
Lumens per Lamp: N/A
Luminaire Lumens: 499.0 lumens
Efficiency: N/A
Efficacy: 86.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 5.8
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°	2736	2736	2736
5°	2699	2696	2693
10°	2676	2672	2653
15°	2603	2578	2541
20°	2507	2467	2400
25°	2405	2353	2205
30°	2279	2206	1987
35°	2159	2039	1838
40°	2036	1858	1672
45°	1920	1717	1512
50°	1777	1594	1348
55°	1644	1445	1209
60°	1505	1290	1081
65°	1324	1131	958
70°	1092	988	815
75°	869	757	794
80°	583	545	508
85°	358	432	506



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.7	4.7
10°-20°	64.9	13.0
20°-30°	89.9	18.0
30°-40°	95.9	19.2
40°-50°	87.4	17.5
50°-60°	68.5	13.7
60°-70°	44.6	8.9
70°-80°	19.8	4.0
80°-90°	4.3	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°	178.5	35.8
0°-40°	274.4	55.0
0°-60°	430.3	86.2
0°-90°	499.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	499.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	254	254	254	254	254	
5°	250	250	250	249	249	24
15°	234	234	231	229	228	66
25°	202	201	198	191	186	93
35°	164	163	155	143	140	103
45°	126	123	113	103	99	97
55°	88	85	77	68	64	79
65°	52	49	44	45	38	51
75°	21	19	18	17	19	22
85°	3	3	4	4	4	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	254.2	254.2	254.2	254.2	254.2
2.5°	252.4	252.4	252.4	252.1	252.1
5°	249.8	249.5	249.5	249.2	249.2
7.5°	247.7	247.4	247.1	246.8	246.2
10°	244.8	244.8	244.5	243.0	242.7
12.5°	240.1	239.8	238.6	236.6	236.0
15°	233.6	233.6	231.3	228.9	228.0
17.5°	226.6	226.3	223.3	221.0	219.8
20°	218.9	218.3	215.4	211.6	209.5
22.5°	210.4	210.4	206.9	201.9	199.8
25°	202.5	201.3	198.1	191.0	185.7
27.5°	193.4	191.6	188.1	178.1	171.9
30°	183.4	182.5	177.5	164.6	159.9
32.5°	174.0	172.5	167.2	153.7	149.9
35°	164.3	163.1	155.2	143.4	139.9
37.5°	154.6	153.1	143.1	133.7	129.3
40°	144.9	143.1	132.2	123.7	119.0
42.5°	135.8	133.4	122.8	113.7	108.4
45°	126.1	123.4	112.8	103.4	99.3
47.5°	116.4	114.0	104.3	94.6	89.9
50°	106.1	104.0	95.2	85.5	80.5
52.5°	97.6	94.3	85.8	76.1	72.0
55°	87.6	84.9	77.0	67.9	64.4
57.5°	78.5	75.8	68.5	59.9	57.0
60°	69.9	66.1	59.9	52.6	50.2
62.5°	60.5	57.6	52.3	46.1	49.1
65°	52.0	49.1	44.4	45.3	37.6
67.5°	42.6	41.1	37.0	32.9	31.7
70°	34.7	32.9	31.4	27.0	25.9
72.5°	27.6	25.9	23.8	21.5	20.6
75°	20.9	19.4	18.2	17.3	19.1
77.5°	14.4	13.8	12.9	12.0	11.8
80°	9.4	9.1	8.8	8.5	8.2
82.5°	5.6	5.6	5.6	5.6	5.6
85°	2.9	3.2	3.5	3.8	4.1
87.5°	1.8	1.8	2.1	2.4	2.6
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)