

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: P544877

Luminaire Tested: **FMR-12-1-LD4-1STD-35-UNV-82-96-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: P544877
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-LD4-1STD-35-UNV-82-96-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

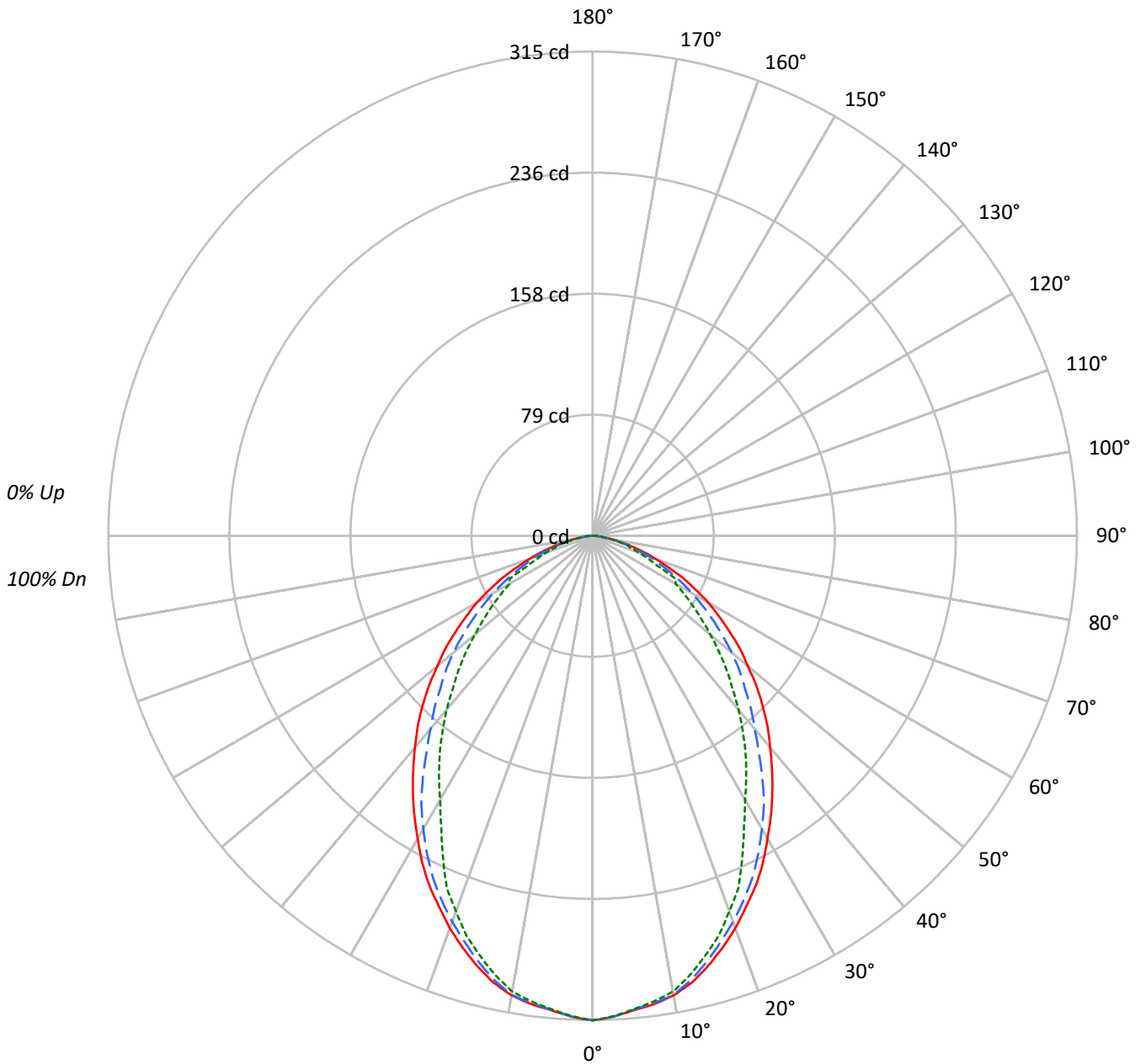
Lumens per Lamp: N/A
Luminaire Lumens: 619.0 lumens
Efficiency: N/A
Efficacy: 74.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 8.3
Input Voltage (V): NR
Input Current (A_{in}): 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	39	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°	3394	3394	3394
5°	3347	3344	3340
10°	3318	3315	3291
15°	3229	3197	3153
20°	3111	3061	2977
25°	2983	2918	2736
30°	2828	2737	2465
35°	2678	2530	2280
40°	2525	2304	2074
45°	2381	2131	1875
50°	2204	1978	1673
55°	2038	1792	1498
60°	1869	1602	1341
65°	1643	1401	1189
70°	1353	1227	1010
75°	1077	940	986
80°	725	676	632
85°	445	543	630



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.4	4.7
10°-20°	80.6	13.0
20°-30°	111.5	18.0
30°-40°	118.9	19.2
40°-50°	108.5	17.5
50°-60°	85.0	13.7
60°-70°	55.4	8.9
70°-80°	24.5	4.0
80°-90°	5.3	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°	221.4	35.8
0°-40°	340.3	55.0
0°-60°	533.8	86.2
0°-90°	619.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	619.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	315	315	315	315	315	
5°	310	310	310	309	309	29
15°	290	290	287	284	283	81
25°	251	250	246	237	230	115
35°	204	202	192	178	174	127
45°	156	153	140	128	123	120
55°	109	105	96	84	80	97
65°	64	61	55	56	47	64
75°	26	24	23	22	24	28
85°	4	4	4	5	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	315.3	315.3	315.3	315.3	315.3
2.5°	313.1	313.1	313.1	312.8	312.8
5°	309.8	309.5	309.5	309.1	309.1
7.5°	307.3	306.9	306.6	306.2	305.5
10°	303.6	303.6	303.3	301.5	301.1
12.5°	297.8	297.4	296.0	293.4	292.7
15°	289.8	289.8	286.9	284.0	282.9
17.5°	281.0	280.7	277.0	274.1	272.7
20°	271.6	270.8	267.2	262.5	259.9
22.5°	261.0	261.0	256.6	250.4	247.9
25°	251.2	249.7	245.7	236.9	230.4
27.5°	239.9	237.7	233.3	220.9	213.2
30°	227.5	226.4	220.2	204.1	198.3
32.5°	215.8	214.0	207.4	190.6	185.9
35°	203.8	202.3	192.5	177.9	173.5
37.5°	191.7	189.9	177.5	165.9	160.4
40°	179.7	177.5	164.0	153.5	147.6
42.5°	168.4	165.5	152.4	141.1	134.5
45°	156.4	153.1	140.0	128.3	123.2
47.5°	144.4	141.4	129.4	117.4	111.5
50°	131.6	129.0	118.1	106.1	99.9
52.5°	121.0	117.0	106.4	94.4	89.3
55°	108.6	105.3	95.5	84.2	79.8
57.5°	97.3	94.0	84.9	74.4	70.7
60°	86.8	82.0	74.4	65.2	62.3
62.5°	75.1	71.4	64.9	57.2	60.9
65°	64.5	60.9	55.0	56.1	46.7
67.5°	52.9	51.0	45.9	40.8	39.4
70°	43.0	40.8	39.0	33.5	32.1
72.5°	34.3	32.1	29.5	26.6	25.5
75°	25.9	24.1	22.6	21.5	23.7
77.5°	17.9	17.1	16.0	14.9	14.6
80°	11.7	11.3	10.9	10.6	10.2
82.5°	6.9	6.9	6.9	6.9	6.9
85°	3.6	4.0	4.4	4.7	5.1
87.5°	2.2	2.2	2.6	2.9	3.3
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)