

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: P544767

Luminaire Tested: **FMR-12-1-LD4-1LO-35-UNV-81-84-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: P544767
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-35-UNV-81-84-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

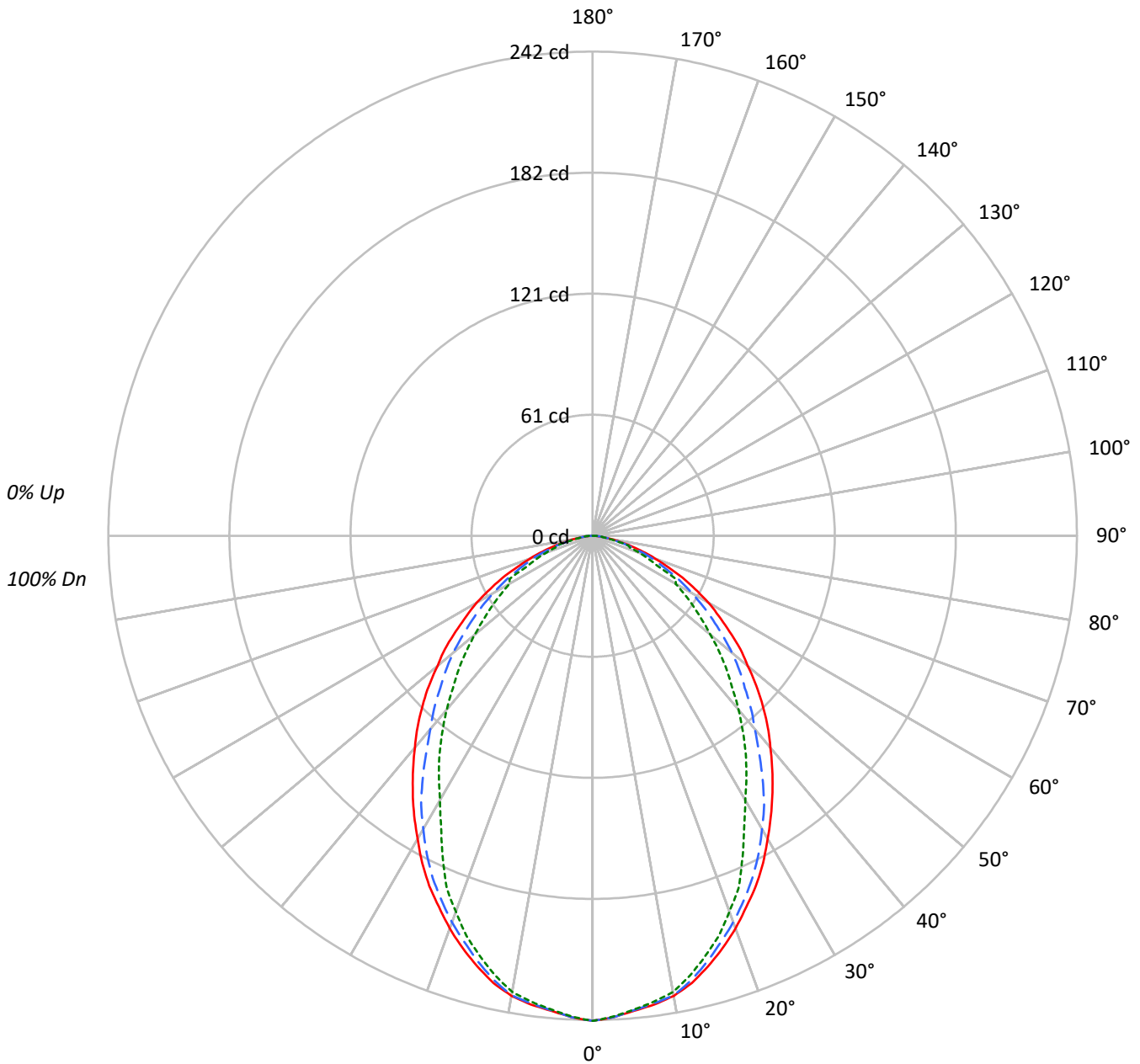
Lumens per Lamp: N/A
Luminaire Lumens: 476.0 lumens
Efficiency: N/A
Efficacy: 82.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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°	2610	2610	2610
5°	2575	2572	2568
10°	2552	2549	2530
15°	2483	2458	2424
20°	2392	2354	2290
25°	2293	2244	2105
30°	2174	2104	1895
35°	2059	1945	1753
40°	1942	1772	1595
45°	1831	1638	1442
50°	1695	1521	1286
55°	1567	1377	1152
60°	1436	1231	1031
65°	1263	1077	914
70°	1042	944	777
75°	828	724	757
80°	558	521	483
85°	346	420	482



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.6	4.7
10°-20°	61.9	13.0
20°-30°	85.8	18.0
30°-40°	91.4	19.2
40°-50°	83.4	17.5
50°-60°	65.4	13.7
60°-70°	42.6	8.9
70°-80°	18.9	4.0
80°-90°	4.0	0.8
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°	170.3	35.8
0°-40°	261.7	55.0
0°-60°	410.5	86.2
0°-90°	476.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	476.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	242	242	242	242	242	
5°	238	238	238	238	238	23
15°	223	223	221	218	218	63
25°	193	192	189	182	177	89
35°	157	156	148	137	133	98
45°	120	118	108	99	95	93
55°	84	81	73	65	61	75
65°	50	47	42	43	36	49
75°	20	18	17	16	18	21
85°	3	3	3	4	4	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	242.5	242.5	242.5	242.5	242.5
2.5°	240.8	240.8	240.8	240.5	240.5
5°	238.3	238.0	238.0	237.7	237.7
7.5°	236.3	236.0	235.7	235.5	234.9
10°	233.5	233.5	233.2	231.8	231.5
12.5°	229.0	228.7	227.6	225.6	225.1
15°	222.8	222.8	220.6	218.4	217.5
17.5°	216.1	215.8	213.0	210.8	209.7
20°	208.8	208.3	205.5	201.8	199.9
22.5°	200.7	200.7	197.3	192.6	190.6
25°	193.1	192.0	188.9	182.2	177.2
27.5°	184.4	182.8	179.4	169.9	164.0
30°	174.9	174.1	169.3	157.0	152.5
32.5°	165.9	164.5	159.5	146.6	143.0
35°	156.7	155.6	148.0	136.8	133.4
37.5°	147.4	146.0	136.5	127.5	123.3
40°	138.2	136.5	126.1	118.0	113.5
42.5°	129.5	127.3	117.2	108.5	103.4
45°	120.3	117.7	107.6	98.7	94.7
47.5°	111.0	108.8	99.5	90.3	85.8
50°	101.2	99.2	90.8	81.6	76.8
52.5°	93.1	90.0	81.9	72.6	68.7
55°	83.5	81.0	73.4	64.8	61.4
57.5°	74.8	72.3	65.3	57.2	54.4
60°	66.7	63.1	57.2	50.2	47.9
62.5°	57.7	54.9	49.9	44.0	46.8
65°	49.6	46.8	42.3	43.2	35.9
67.5°	40.6	39.2	35.3	31.4	30.3
70°	33.1	31.4	30.0	25.8	24.7
72.5°	26.3	24.7	22.7	20.5	19.6
75°	19.9	18.5	17.4	16.5	18.2
77.5°	13.7	13.2	12.3	11.5	11.2
80°	9.0	8.7	8.4	8.1	7.8
82.5°	5.3	5.3	5.3	5.3	5.3
85°	2.8	3.1	3.4	3.6	3.9
87.5°	1.7	1.7	2.0	2.2	2.5
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)