

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: P544778

Luminaire Tested: **FMR-12-1-LD4-1LO-35-UNV-82-87-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: P544778
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-82-87-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

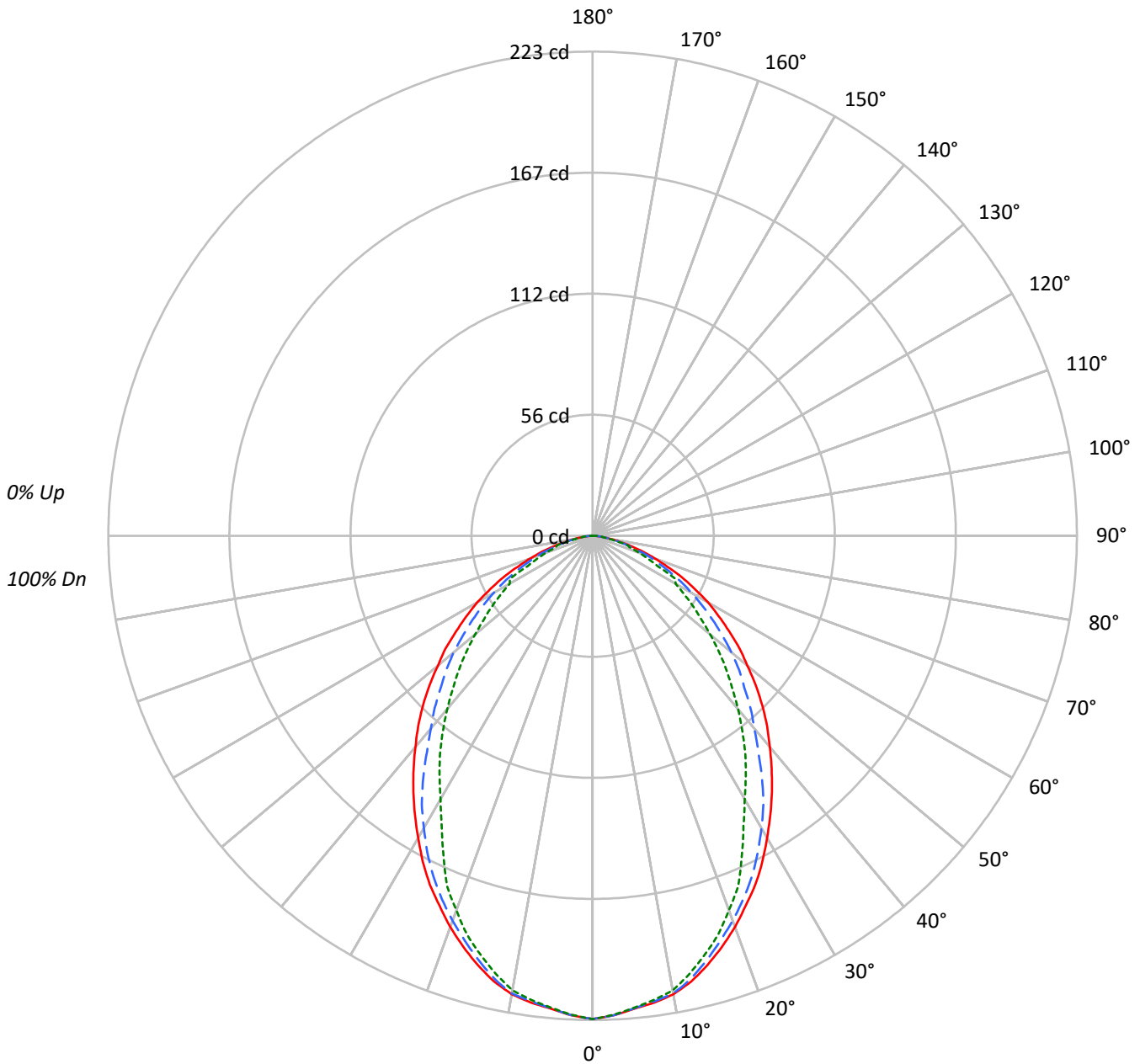
Lumens per Lamp: N/A
Luminaire Lumens: 437.0 lumens
Efficiency: N/A
Efficacy: 75.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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°	2396	2396	2396
5°	2363	2361	2358
10°	2343	2340	2324
15°	2280	2257	2225
20°	2196	2160	2102
25°	2106	2059	1931
30°	1996	1931	1740
35°	1891	1786	1610
40°	1783	1627	1464
45°	1681	1504	1324
50°	1556	1397	1181
55°	1439	1265	1058
60°	1318	1130	947
65°	1159	991	838
70°	957	865	711
75°	761	665	695
80°	508	477	446
85°	321	383	445



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.7	4.7
10°-20°	56.9	13.0
20°-30°	78.7	18.0
30°-40°	83.9	19.2
40°-50°	76.6	17.5
50°-60°	60.0	13.7
60°-70°	39.1	8.9
70°-80°	17.3	4.0
80°-90°	3.7	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°	156.3	35.8
0°-40°	240.3	55.0
0°-60°	376.9	86.2
0°-90°	437.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	437.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	223	223	223	223	223	
5°	219	218	218	218	218	21
15°	205	205	202	200	200	58
25°	177	176	173	167	163	81
35°	144	143	136	126	122	90
45°	110	108	99	91	87	85
55°	77	74	67	59	56	69
65°	46	43	39	40	33	45
75°	18	17	16	15	17	20
85°	3	3	3	3	4	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	222.6	222.6	222.6	222.6	222.6
2.5°	221.1	221.1	221.1	220.8	220.8
5°	218.7	218.5	218.5	218.2	218.2
7.5°	216.9	216.7	216.4	216.2	215.7
10°	214.4	214.4	214.1	212.8	212.6
12.5°	210.2	210.0	209.0	207.2	206.6
15°	204.6	204.6	202.5	200.5	199.7
17.5°	198.4	198.2	195.6	193.5	192.5
20°	191.7	191.2	188.6	185.3	183.5
22.5°	184.3	184.3	181.2	176.8	175.0
25°	177.3	176.3	173.4	167.3	162.6
27.5°	169.3	167.8	164.7	156.0	150.5
30°	160.6	159.8	155.4	144.1	140.0
32.5°	152.3	151.1	146.4	134.6	131.2
35°	143.9	142.8	135.9	125.6	122.5
37.5°	135.4	134.1	125.3	117.1	113.2
40°	126.9	125.3	115.8	108.3	104.2
42.5°	118.9	116.8	107.6	99.6	95.0
45°	110.4	108.1	98.8	90.6	87.0
47.5°	101.9	99.8	91.4	82.9	78.7
50°	92.9	91.1	83.4	74.9	70.5
52.5°	85.4	82.6	75.1	66.7	63.0
55°	76.7	74.4	67.4	59.4	56.4
57.5°	68.7	66.4	60.0	52.5	49.9
60°	61.2	57.9	52.5	46.1	44.0
62.5°	53.0	50.4	45.8	40.4	43.0
65°	45.5	43.0	38.9	39.6	32.9
67.5°	37.3	36.0	32.4	28.8	27.8
70°	30.4	28.8	27.5	23.7	22.6
72.5°	24.2	22.6	20.8	18.8	18.0
75°	18.3	17.0	16.0	15.2	16.7
77.5°	12.6	12.1	11.3	10.6	10.3
80°	8.2	8.0	7.7	7.5	7.2
82.5°	4.9	4.9	4.9	4.9	4.9
85°	2.6	2.8	3.1	3.3	3.6
87.5°	1.5	1.5	1.8	2.1	2.3
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)