

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: P544790

Luminaire Tested: **FMR-12-1-LD4-1LO-35-UNV-93-97-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: P544790
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-93-97-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

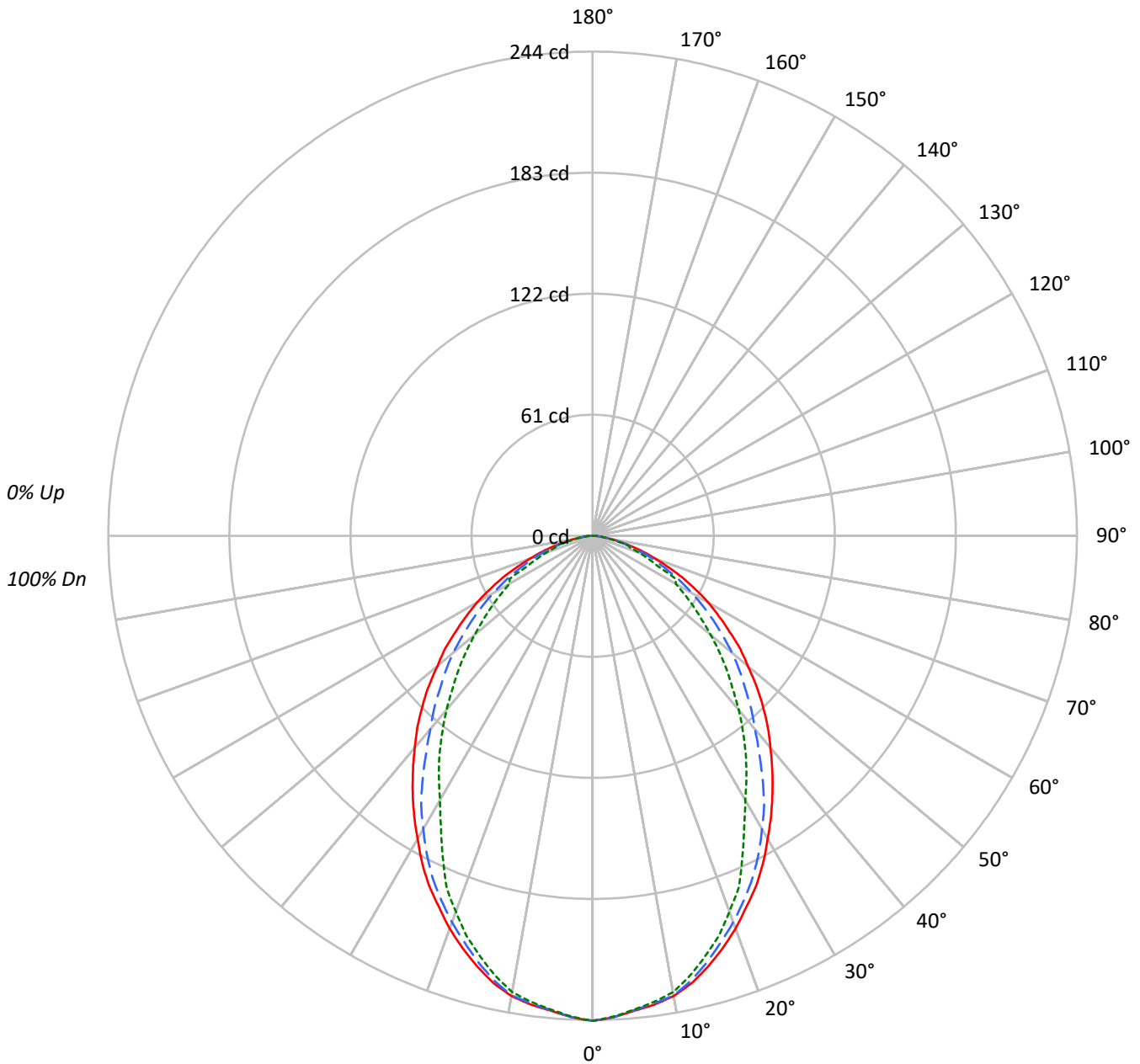
Lumens per Lamp: N/A
Luminaire Lumens: 480.0 lumens
Efficiency: N/A
Efficacy: 82.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 5.8
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

TEST NUMBER: P544790

CATALOG NUMBER: FMR-12-1-LD4-1LO-35-UNV-93-97-EDD

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	47	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°	2632	2632	2632
5°	2596	2593	2590
10°	2574	2571	2552
15°	2504	2479	2444
20°	2412	2373	2308
25°	2314	2263	2121
30°	2192	2122	1912
35°	2076	1961	1767
40°	1959	1787	1609
45°	1846	1652	1454
50°	1708	1534	1298
55°	1580	1391	1162
60°	1449	1242	1040
65°	1273	1088	922
70°	1051	950	784
75°	836	728	765
80°	558	527	490
85°	346	420	494



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.8	4.7
10°-20°	62.5	13.0
20°-30°	86.5	18.0
30°-40°	92.2	19.2
40°-50°	84.1	17.5
50°-60°	65.9	13.7
60°-70°	43.0	8.9
70°-80°	19.0	4.0
80°-90°	4.1	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°	171.7	35.8
0°-40°	263.9	55.0
0°-60°	413.9	86.2
0°-90°	480.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	480.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	244	244	244	244	244	
5°	240	240	240	240	240	23
15°	225	225	222	220	219	63
25°	195	194	190	184	179	89
35°	158	157	149	138	134	99
45°	121	119	108	100	96	93
55°	84	82	74	65	62	76
65°	50	47	43	44	36	49
75°	20	19	18	17	18	22
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°	244.5	244.5	244.5	244.5	244.5
2.5°	242.8	242.8	242.8	242.5	242.5
5°	240.3	240.0	240.0	239.7	239.7
7.5°	238.3	238.0	237.7	237.4	236.9
10°	235.5	235.5	235.2	233.8	233.5
12.5°	230.9	230.7	229.5	227.5	227.0
15°	224.7	224.7	222.5	220.2	219.3
17.5°	217.9	217.7	214.8	212.6	211.4
20°	210.6	210.0	207.2	203.5	201.5
22.5°	202.4	202.4	199.0	194.2	192.2
25°	194.8	193.6	190.5	183.7	178.6
27.5°	186.0	184.3	180.9	171.3	165.4
30°	176.4	175.5	170.7	158.3	153.8
32.5°	167.3	165.9	160.8	147.8	144.2
35°	158.0	156.9	149.2	137.9	134.5
37.5°	148.7	147.3	137.7	128.6	124.4
40°	139.4	137.7	127.2	119.0	114.5
42.5°	130.6	128.3	118.2	109.4	104.3
45°	121.3	118.7	108.5	99.5	95.5
47.5°	111.9	109.7	100.3	91.0	86.5
50°	102.0	100.1	91.6	82.3	77.5
52.5°	93.8	90.7	82.5	73.2	69.3
55°	84.2	81.7	74.1	65.3	61.9
57.5°	75.5	72.9	65.9	57.7	54.8
60°	67.3	63.6	57.7	50.6	48.3
62.5°	58.2	55.4	50.3	44.4	47.2
65°	50.0	47.2	42.7	43.5	36.2
67.5°	41.0	39.6	35.6	31.7	30.5
70°	33.4	31.7	30.2	26.0	24.9
72.5°	26.6	24.9	22.9	20.6	19.8
75°	20.1	18.7	17.5	16.7	18.4
77.5°	13.9	13.3	12.4	11.6	11.3
80°	9.0	8.8	8.5	8.2	7.9
82.5°	5.4	5.4	5.4	5.4	5.4
85°	2.8	3.1	3.4	3.7	4.0
87.5°	1.7	1.7	2.0	2.3	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)