

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: P544691

Luminaire Tested: **FMR-12-1-LD4-1HI-35-UNV-93-88-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: P544691
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-LD4-1HI-35-UNV-93-88-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

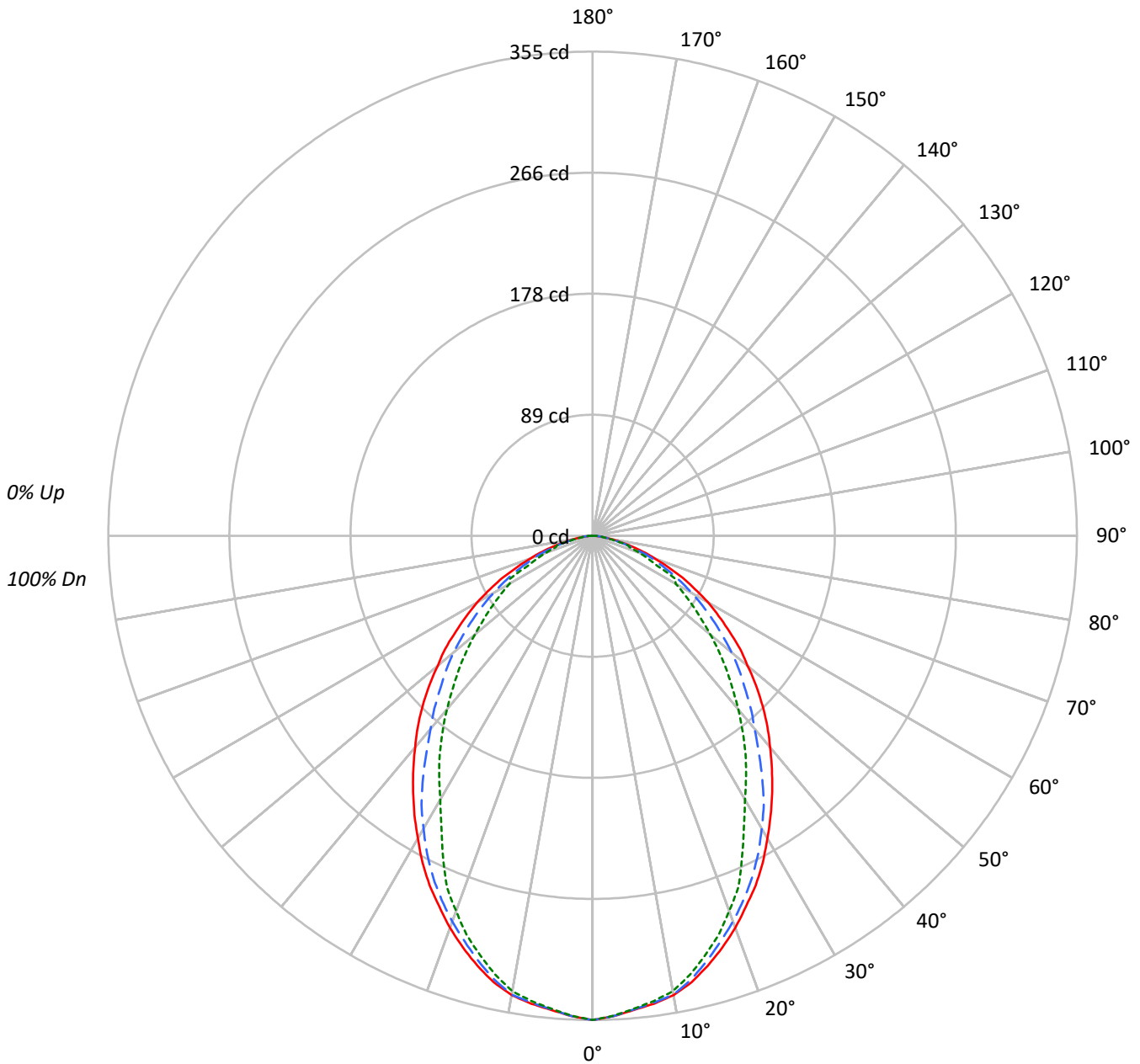
Lumens per Lamp: N/A
Luminaire Lumens: 697.0 lumens
Efficiency: N/A
Efficacy: 64.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 10.8
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

TEST NUMBER: P544691

CATALOG NUMBER: FMR-12-1-LD4-1HI-35-UNV-93-88-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	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°	3821	3821	3821
5°	3770	3766	3761
10°	3737	3733	3705
15°	3636	3599	3549
20°	3503	3447	3353
25°	3359	3285	3081
30°	3183	3081	2775
35°	3014	2848	2568
40°	2844	2595	2335
45°	2681	2399	2111
50°	2482	2227	1884
55°	2295	2017	1687
60°	2103	1802	1511
65°	1852	1579	1337
70°	1523	1382	1136
75°	1210	1056	1110
80°	812	762	713
85°	506	605	704



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.1	4.7
10°-20°	90.7	13.0
20°-30°	125.6	18.0
30°-40°	133.9	19.2
40°-50°	122.2	17.5
50°-60°	95.7	13.7
60°-70°	62.4	8.9
70°-80°	27.6	4.0
80°-90°	5.9	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°	249.3	35.8
0°-40°	383.2	55.0
0°-60°	601.1	86.2
0°-90°	697.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	697.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	355	355	355	355	355	
5°	349	348	348	348	348	33
15°	326	326	323	320	318	92
25°	283	281	277	267	259	130
35°	229	228	217	200	195	143
45°	176	172	158	144	139	136
55°	122	119	108	95	90	110
65°	73	68	62	63	52	72
75°	29	27	25	24	27	31
85°	4	4	5	5	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	355.0	355.0	355.0	355.0	355.0
2.5°	352.6	352.6	352.6	352.2	352.2
5°	348.9	348.5	348.5	348.1	348.1
7.5°	346.0	345.6	345.2	344.8	344.0
10°	341.9	341.9	341.5	339.4	339.0
12.5°	335.3	334.9	333.3	330.4	329.6
15°	326.3	326.3	323.0	319.7	318.5
17.5°	316.5	316.0	311.9	308.7	307.0
20°	305.8	305.0	300.9	295.5	292.7
22.5°	293.9	293.9	289.0	282.0	279.1
25°	282.8	281.2	276.6	266.8	259.4
27.5°	270.1	267.6	262.7	248.7	240.1
30°	256.1	254.9	247.9	229.9	223.3
32.5°	243.0	240.9	233.5	214.7	209.3
35°	229.4	227.8	216.7	200.3	195.4
37.5°	215.9	213.8	199.9	186.8	180.6
40°	202.4	199.9	184.7	172.8	166.2
42.5°	189.6	186.3	171.6	158.8	151.5
45°	176.1	172.4	157.6	144.5	138.7
47.5°	162.5	159.3	145.7	132.2	125.6
50°	148.2	145.3	133.0	119.4	112.5
52.5°	136.3	131.8	119.9	106.3	100.6
55°	122.3	118.6	107.5	94.8	89.9
57.5°	109.6	105.9	95.6	83.7	79.6
60°	97.7	92.4	83.7	73.5	70.2
62.5°	84.6	80.4	73.1	64.4	68.5
65°	72.7	68.5	62.0	63.2	52.5
67.5°	59.5	57.5	51.7	46.0	44.3
70°	48.4	46.0	43.9	37.8	36.1
72.5°	38.6	36.1	33.2	30.0	28.7
75°	29.1	27.1	25.4	24.2	26.7
77.5°	20.1	19.3	18.1	16.8	16.4
80°	13.1	12.7	12.3	11.9	11.5
82.5°	7.8	7.8	7.8	7.8	7.8
85°	4.1	4.5	4.9	5.3	5.7
87.5°	2.5	2.5	2.9	3.3	3.7
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)