

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: P544692

Luminaire Tested: **FMR-12-1-LD4-1HI-35-UNV-93-94-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: P544692
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-93-94-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

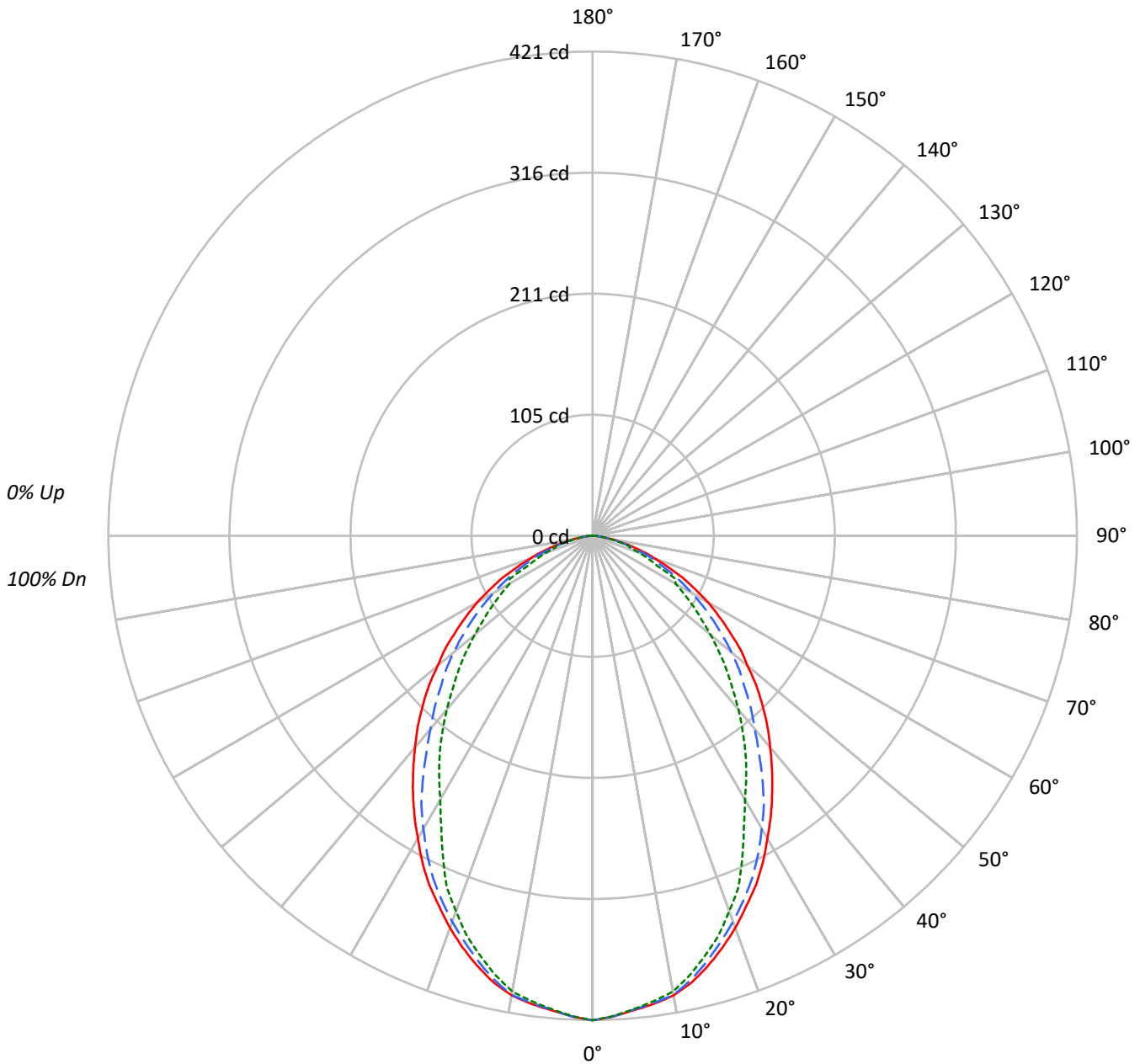
Lumens per Lamp: N/A
Luminaire Lumens: 827.0 lumens
Efficiency: N/A
Efficacy: 76.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 10.8
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

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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°	4535	4535	4535
5°	4473	4468	4462
10°	4434	4429	4397
15°	4315	4271	4211
20°	4156	4089	3977
25°	3985	3898	3656
30°	3777	3657	3292
35°	3577	3378	3046
40°	3374	3080	2771
45°	3180	2847	2506
50°	2944	2642	2234
55°	2723	2395	2002
60°	2495	2138	1793
65°	2195	1872	1587
70°	1810	1640	1350
75°	1439	1256	1318
80°	967	905	843
85°	605	716	840



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.2	4.7
10°-20°	107.6	13.0
20°-30°	149.0	18.0
30°-40°	158.9	19.2
40°-50°	144.9	17.5
50°-60°	113.5	13.7
60°-70°	74.0	8.9
70°-80°	32.8	4.0
80°-90°	7.0	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°	295.8	35.8
0°-40°	454.7	55.0
0°-60°	713.2	86.2
0°-90°	827.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	827.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	421	421	421	421	421	
5°	414	414	414	413	413	39
15°	387	387	383	379	378	109
25°	336	334	328	317	308	154
35°	272	270	257	238	232	170
45°	209	204	187	171	165	161
55°	145	141	128	112	107	130
65°	86	81	74	75	62	85
75°	35	32	30	29	32	37
85°	5	5	6	6	7	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	421.3	421.3	421.3	421.3	421.3
2.5°	418.3	418.3	418.3	417.9	417.9
5°	414.0	413.5	413.5	413.0	413.0
7.5°	410.5	410.1	409.6	409.1	408.1
10°	405.7	405.7	405.2	402.8	402.3
12.5°	397.9	397.4	395.5	392.0	391.1
15°	387.2	387.2	383.3	379.4	377.9
17.5°	375.5	375.0	370.1	366.2	364.3
20°	362.8	361.8	357.0	350.6	347.2
22.5°	348.7	348.7	342.9	334.6	331.2
25°	335.5	333.6	328.2	316.6	307.8
27.5°	320.5	317.5	311.7	295.1	284.9
30°	303.9	302.4	294.2	272.7	264.9
32.5°	288.3	285.9	277.1	254.7	248.4
35°	272.2	270.3	257.1	237.7	231.8
37.5°	256.2	253.7	237.2	221.6	214.3
40°	240.1	237.2	219.2	205.0	197.2
42.5°	225.0	221.1	203.6	188.5	179.7
45°	208.9	204.5	187.0	171.4	164.6
47.5°	192.9	189.0	172.9	156.8	149.0
50°	175.8	172.4	157.8	141.7	133.4
52.5°	161.7	156.3	142.2	126.1	119.3
55°	145.1	140.7	127.6	112.5	106.7
57.5°	130.0	125.6	113.5	99.3	94.5
60°	115.9	109.6	99.3	87.2	83.3
62.5°	100.3	95.5	86.7	76.5	81.3
65°	86.2	81.3	73.5	75.0	62.3
67.5°	70.6	68.2	61.4	54.5	52.6
70°	57.5	54.5	52.1	44.8	42.9
72.5°	45.8	42.9	39.4	35.6	34.1
75°	34.6	32.1	30.2	28.7	31.7
77.5°	23.9	22.9	21.4	20.0	19.5
80°	15.6	15.1	14.6	14.1	13.6
82.5°	9.3	9.3	9.3	9.3	9.3
85°	4.9	5.4	5.8	6.3	6.8
87.5°	2.9	2.9	3.4	3.9	4.4
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)