

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: P545243

Luminaire Tested: **FMR-12-2-LD4-1HI-35-UNV-80-88-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: P545243
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-12-2-LD4-1HI-35-UNV-80-88-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC 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

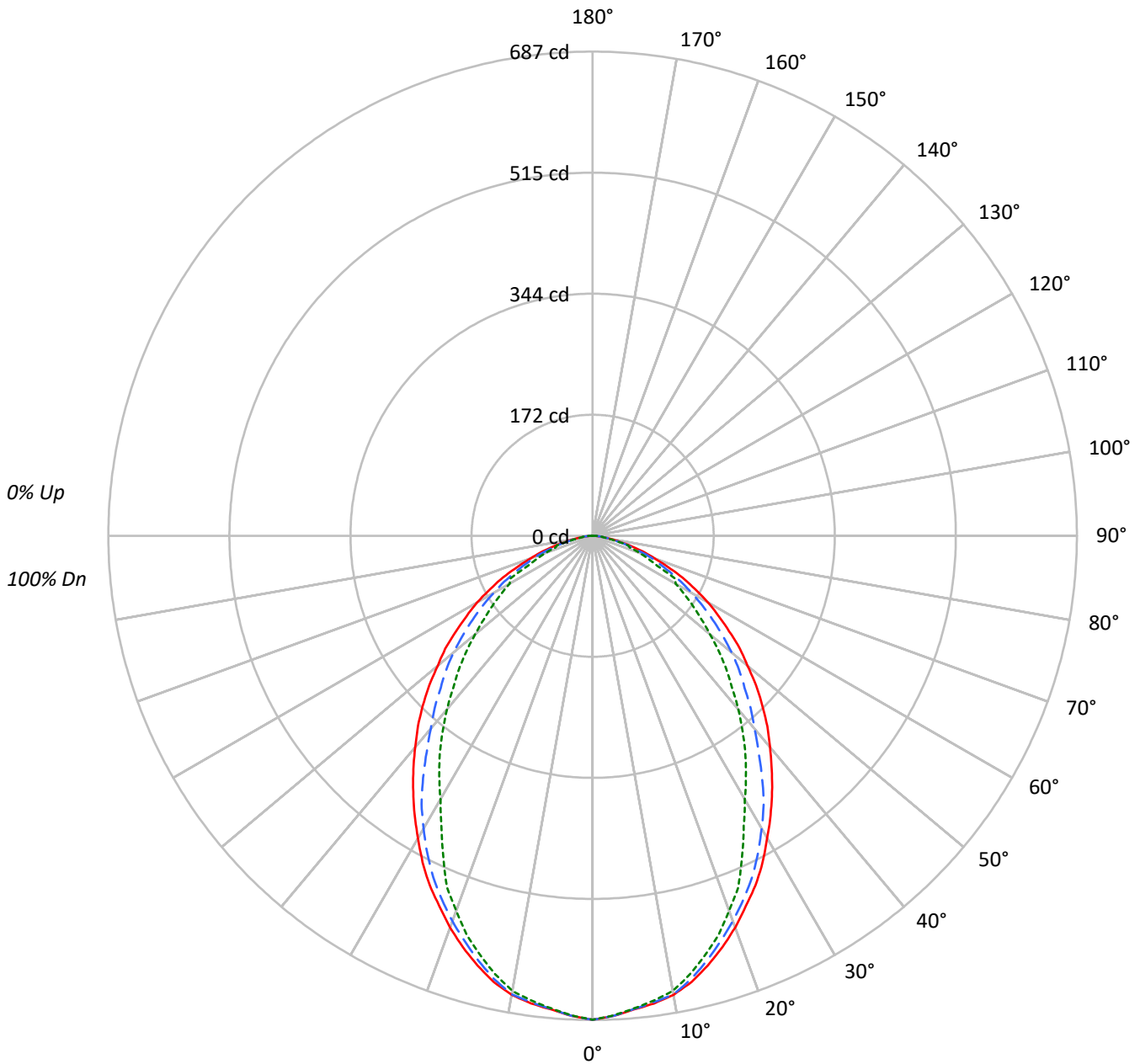
Lumens per Lamp: N/A
Luminaire Lumens: 1348.0 lumens
Efficiency: N/A
Efficacy: 62.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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°	3696	3696	3696
5°	3645	3641	3637
10°	3614	3610	3583
15°	3516	3481	3432
20°	3387	3333	3242
25°	3248	3177	2979
30°	3078	2980	2683
35°	2915	2754	2483
40°	2750	2510	2259
45°	2592	2320	2042
50°	2400	2153	1821
55°	2220	1952	1631
60°	2033	1743	1461
65°	1789	1527	1294
70°	1474	1336	1100
75°	1173	1023	1073
80°	787	738	688
85°	488	587	685



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.9	4.7
10°-20°	175.4	13.0
20°-30°	242.9	18.0
30°-40°	259.0	19.2
40°-50°	236.2	17.5
50°-60°	185.1	13.7
60°-70°	120.6	8.9
70°-80°	53.4	4.0
80°-90°	11.5	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°	482.2	35.8
0°-40°	741.2	55.0
0°-60°	1162.5	86.2
0°-90°	1348.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1348.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	687	687	687	687	687	
5°	675	674	674	673	673	64
15°	631	631	625	618	616	177
25°	547	544	535	516	502	251
35°	444	441	419	387	378	277
45°	340	333	305	279	268	262
55°	237	229	208	183	174	212
65°	140	133	120	122	102	138
75°	56	52	49	47	52	60
85°	8	9	10	10	11	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	686.7	686.7	686.7	686.7	686.7
2.5°	681.9	681.9	681.9	681.1	681.1
5°	674.7	674.0	674.0	673.2	673.2
7.5°	669.2	668.4	667.6	666.8	665.2
10°	661.3	661.3	660.5	656.5	655.7
12.5°	648.5	647.8	644.6	639.0	637.4
15°	631.1	631.1	624.7	618.4	616.0
17.5°	612.0	611.2	603.3	597.0	593.8
20°	591.4	589.8	581.9	571.5	566.0
22.5°	568.4	568.4	558.8	545.4	539.8
25°	546.9	543.8	535.0	516.0	501.7
27.5°	522.3	517.6	508.0	481.1	464.4
30°	495.3	493.0	479.5	444.5	431.8
32.5°	469.9	466.0	451.7	415.2	404.8
35°	443.7	440.6	419.1	387.4	377.9
37.5°	417.5	413.6	386.6	361.2	349.3
40°	391.4	386.6	357.2	334.2	321.5
42.5°	366.7	360.4	331.8	307.2	292.9
45°	340.5	333.4	304.8	279.4	268.3
47.5°	314.4	308.0	281.8	255.6	242.9
50°	286.6	281.0	257.2	231.0	217.5
52.5°	263.5	254.8	231.8	205.6	194.5
55°	236.6	229.4	208.0	183.4	173.8
57.5°	211.9	204.8	185.0	161.9	154.0
60°	188.9	178.6	161.9	142.1	135.7
62.5°	163.5	155.6	141.3	124.6	132.6
65°	140.5	132.6	119.9	122.2	101.6
67.5°	115.1	111.1	100.0	88.9	85.7
70°	93.7	88.9	84.9	73.0	69.9
72.5°	74.6	69.9	64.3	57.9	55.6
75°	56.4	52.4	49.2	46.8	51.6
77.5°	38.9	37.3	34.9	32.5	31.8
80°	25.4	24.6	23.8	23.0	22.2
82.5°	15.1	15.1	15.1	15.1	15.1
85°	7.9	8.7	9.5	10.3	11.1
87.5°	4.8	4.8	5.6	6.4	7.1
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)