

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: P545656

Luminaire Tested: **FMR-12-2-LD4-2LO-40-UNV-80-85-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: P545656
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-LD4-2LO-40-UNV-80-85-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

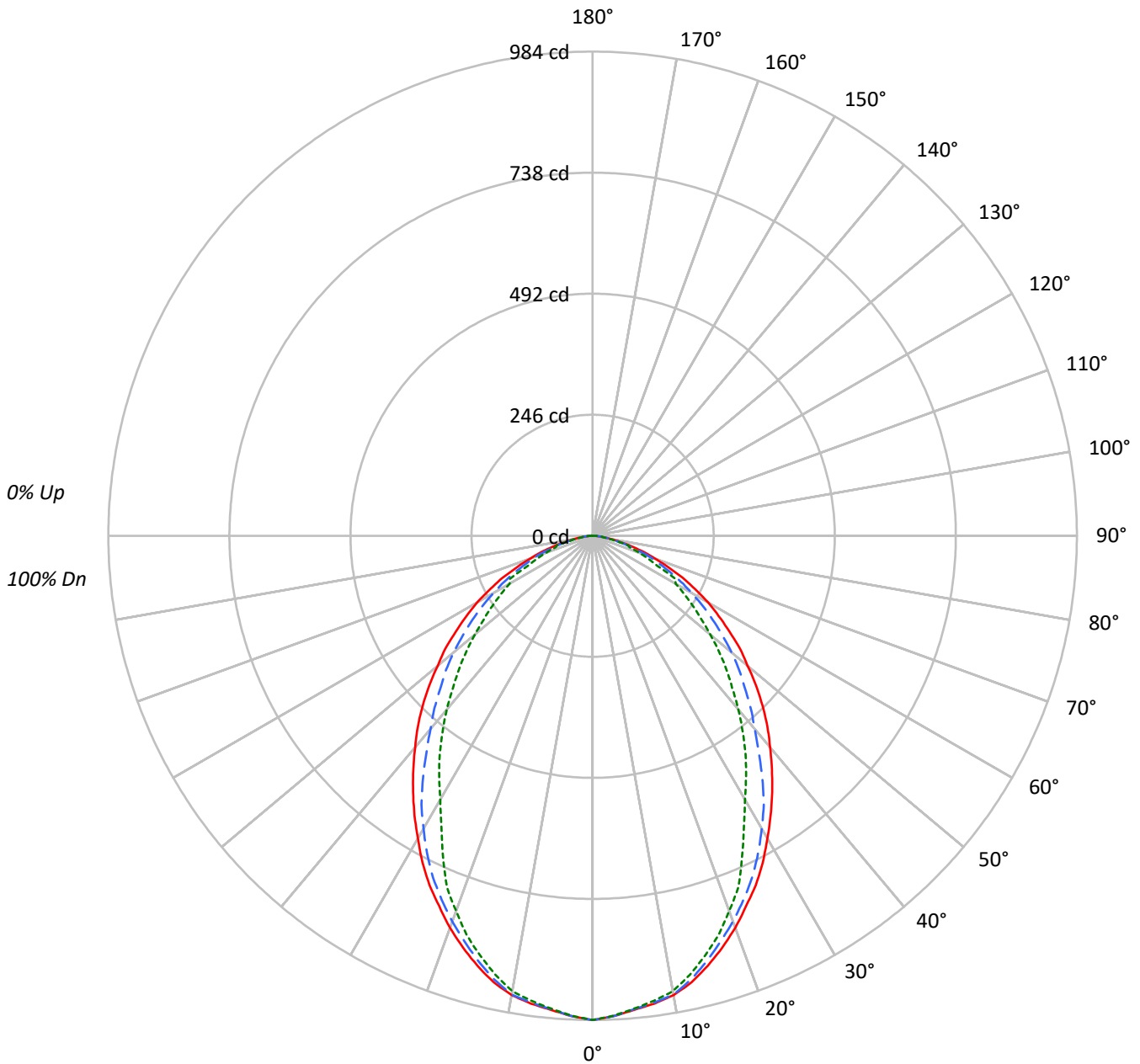
Lumens per Lamp: N/A
Luminaire Lumens: 1932.0 lumens
Efficiency: N/A
Efficacy: 82.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	5296	5296	5296
5°	5225	5218	5212
10°	5179	5173	5136
15°	5040	4989	4919
20°	4855	4777	4646
25°	4655	4554	4270
30°	4412	4271	3846
35°	4179	3947	3558
40°	3941	3597	3237
45°	3715	3325	2927
50°	3439	3086	2610
55°	3181	2797	2338
60°	2915	2498	2095
65°	2565	2188	1854
70°	2113	1915	1575
75°	1680	1466	1539
80°	1128	1057	989
85°	704	846	982



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.6	4.7
10°-20°	251.4	13.0
20°-30°	348.1	18.0
30°-40°	371.1	19.2
40°-50°	338.6	17.5
50°-60°	265.3	13.7
60°-70°	172.9	8.9
70°-80°	76.6	4.0
80°-90°	16.4	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°	691.1	35.8
0°-40°	1062.2	55.0
0°-60°	1666.1	86.2
0°-90°	1932.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1932.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	984	984	984	984	984	
5°	967	966	966	965	965	92
15°	904	904	895	886	883	254
25°	784	779	767	740	719	360
35°	636	631	601	555	542	398
45°	488	478	437	400	385	376
55°	339	329	298	263	249	304
65°	201	190	172	175	146	198
75°	81	75	70	67	74	87
85°	11	12	14	15	16	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	984.1	984.1	984.1	984.1	984.1
2.5°	977.3	977.3	977.3	976.2	976.2
5°	967.1	965.9	965.9	964.8	964.8
7.5°	959.1	958.0	956.8	955.7	953.4
10°	947.7	947.7	946.6	940.9	939.8
12.5°	929.5	928.4	923.8	915.9	913.6
15°	904.5	904.5	895.4	886.3	882.9
17.5°	877.2	876.1	864.7	855.6	851.0
20°	847.6	845.3	834.0	819.2	811.2
22.5°	814.6	814.6	801.0	781.6	773.7
25°	783.9	779.3	766.8	739.5	719.0
27.5°	748.6	741.8	728.1	689.5	665.6
30°	709.9	706.5	687.2	637.1	618.9
32.5°	673.5	667.8	647.4	595.0	580.2
35°	636.0	631.4	600.7	555.2	541.6
37.5°	598.4	592.8	554.1	517.7	500.6
40°	560.9	554.1	512.0	479.0	460.8
42.5°	525.6	516.5	475.6	440.3	419.8
45°	488.1	477.8	436.9	400.5	384.6
47.5°	450.5	441.4	403.9	366.3	348.1
50°	410.7	402.8	368.6	331.1	311.7
52.5°	377.7	365.2	332.2	294.7	278.7
55°	339.0	328.8	298.1	262.8	249.2
57.5°	303.8	293.5	265.1	232.1	220.7
60°	270.8	256.0	232.1	203.7	194.6
62.5°	234.4	223.0	202.5	178.6	190.0
65°	201.4	190.0	171.8	175.2	145.6
67.5°	165.0	159.3	143.4	127.4	122.9
70°	134.3	127.4	121.7	104.7	100.1
72.5°	106.9	100.1	92.2	83.1	79.6
75°	80.8	75.1	70.5	67.1	74.0
77.5°	55.7	53.5	50.1	46.6	45.5
80°	36.4	35.3	34.1	33.0	31.9
82.5°	21.6	21.6	21.6	21.6	21.6
85°	11.4	12.5	13.7	14.8	15.9
87.5°	6.8	6.8	8.0	9.1	10.2
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)