

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: P544985

Luminaire Tested: **FMR-12-1-LD4-2HI-40-UNV-80-86-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: P544985
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-LD4-2HI-40-UNV-80-86-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

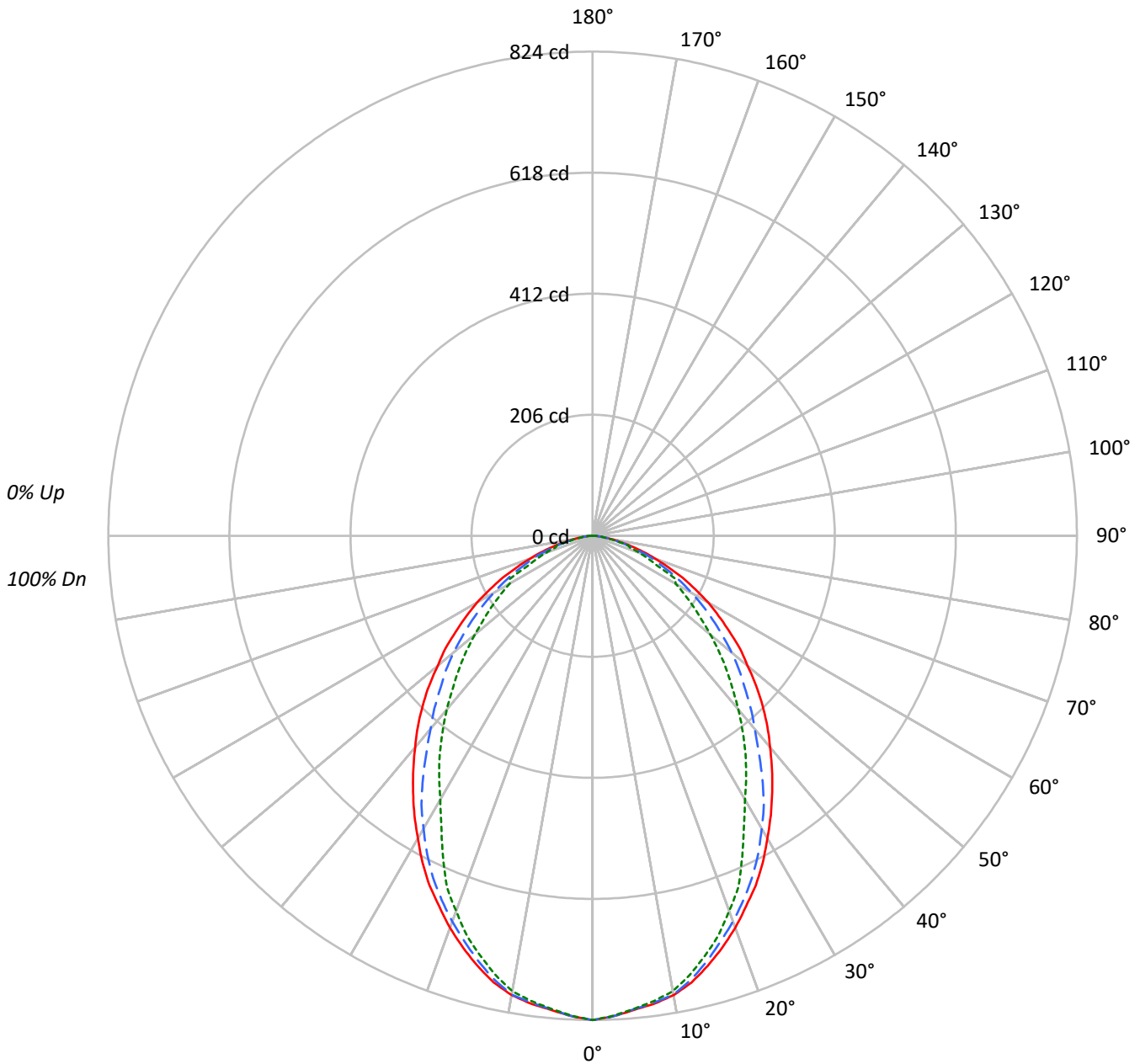
Lumens per Lamp: N/A
Luminaire Lumens: 1618.0 lumens
Efficiency: N/A
Efficacy: 74.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	8872	8872	8872
5°	8751	8740	8730
10°	8675	8664	8602
15°	8441	8357	8240
20°	8131	8000	7782
25°	7797	7627	7152
30°	7390	7153	6442
35°	6999	6611	5959
40°	6600	6025	5422
45°	6223	5570	4903
50°	5761	5169	4372
55°	5328	4684	3917
60°	4883	4185	3507
65°	4294	3665	3107
70°	3537	3210	2637
75°	2816	2458	2574
80°	1891	1773	1655
85°	1173	1408	1643



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.7	4.7
10°-20°	210.6	13.0
20°-30°	291.5	18.0
30°-40°	310.8	19.2
40°-50°	283.6	17.5
50°-60°	222.1	13.7
60°-70°	144.8	8.9
70°-80°	64.2	4.0
80°-90°	13.8	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°	578.8	35.8
0°-40°	889.6	55.0
0°-60°	1395.3	86.2
0°-90°	1618.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1618.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	824	824	824	824	824	
5°	810	809	809	808	808	77
15°	758	758	750	742	739	213
25°	656	653	642	619	602	301
35°	533	529	503	465	454	333
45°	409	400	366	335	322	315
55°	284	275	250	220	209	255
65°	169	159	144	147	122	166
75°	68	63	59	56	62	73
85°	10	10	11	12	13	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	824.2	824.2	824.2	824.2	824.2
2.5°	818.5	818.5	818.5	817.5	817.5
5°	809.9	808.9	808.9	808.0	808.0
7.5°	803.2	802.3	801.3	800.4	798.5
10°	793.7	793.7	792.7	788.0	787.0
12.5°	778.5	777.5	773.7	767.0	765.1
15°	757.5	757.5	749.9	742.2	739.4
17.5°	734.6	733.7	724.1	716.5	712.7
20°	709.8	707.9	698.4	686.0	679.4
22.5°	682.2	682.2	670.8	654.6	647.9
25°	656.5	652.7	642.2	619.3	602.2
27.5°	627.0	621.2	609.8	577.4	557.4
30°	594.6	591.7	575.5	533.6	518.3
32.5°	564.1	559.3	542.2	498.3	485.9
35°	532.6	528.8	503.1	465.0	453.5
37.5°	501.2	496.4	464.0	433.5	419.2
40°	469.7	464.0	428.8	401.1	385.9
42.5°	440.2	432.6	398.3	368.7	351.6
45°	408.8	400.2	365.9	335.4	322.1
47.5°	377.3	369.7	338.3	306.8	291.6
50°	344.0	337.3	308.7	277.3	261.1
52.5°	316.3	305.9	278.2	246.8	233.4
55°	283.9	275.4	249.6	220.1	208.7
57.5°	254.4	245.8	222.0	194.4	184.8
60°	226.8	214.4	194.4	170.6	162.9
62.5°	196.3	186.8	169.6	149.6	159.1
65°	168.6	159.1	143.9	146.7	122.0
67.5°	138.2	133.4	120.1	106.7	102.9
70°	112.4	106.7	102.0	87.7	83.8
72.5°	89.6	83.8	77.2	69.6	66.7
75°	67.7	62.9	59.1	56.2	61.9
77.5°	46.7	44.8	41.9	39.1	38.1
80°	30.5	29.5	28.6	27.6	26.7
82.5°	18.1	18.1	18.1	18.1	18.1
85°	9.5	10.5	11.4	12.4	13.3
87.5°	5.7	5.7	6.7	7.6	8.6
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)