

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: P544986

Luminaire Tested: **FMR-12-1-LD4-2HI-40-UNV-80-87-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: P544986
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-80-87-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

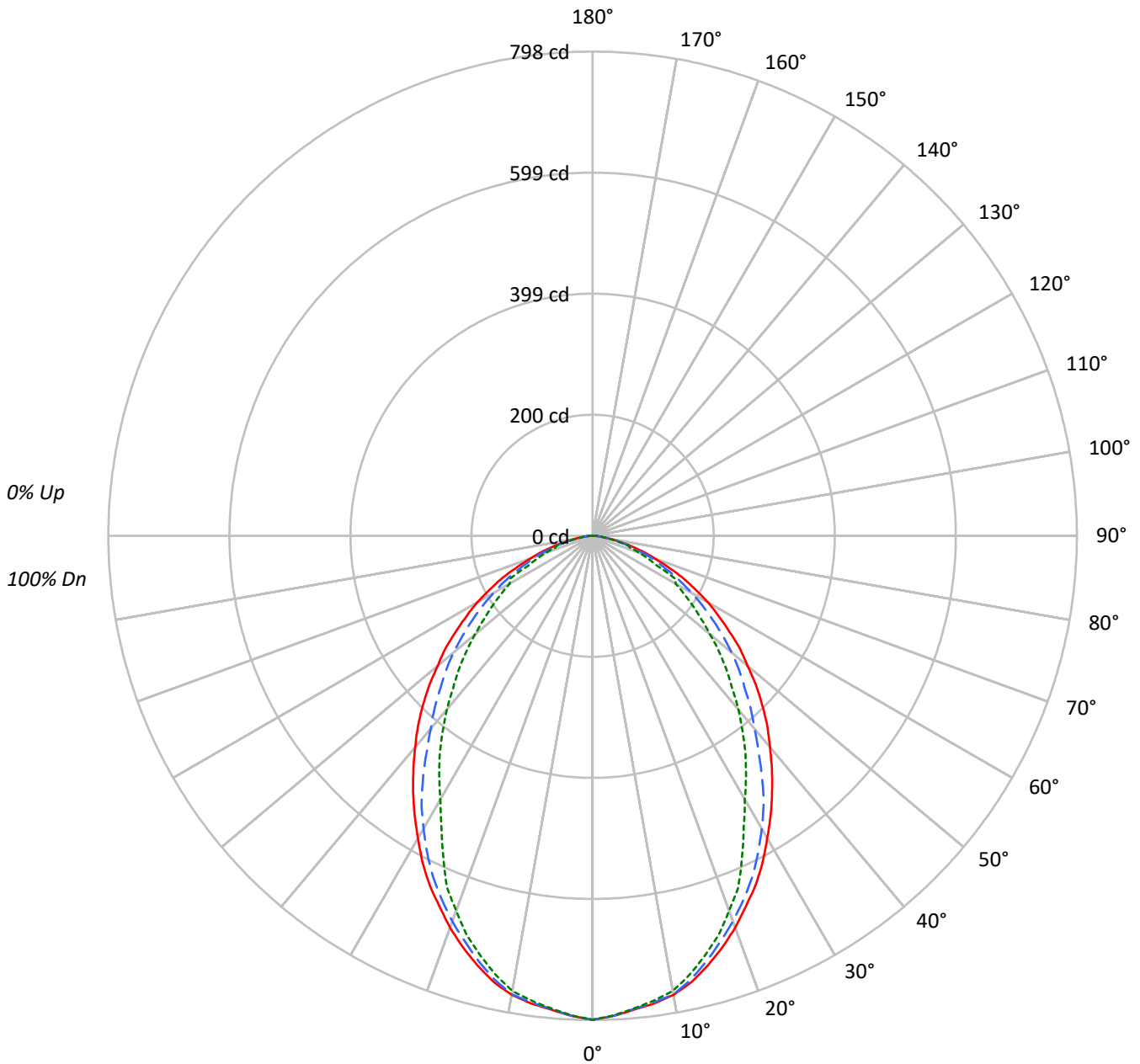
Lumens per Lamp: N/A
Luminaire Lumens: 1566.0 lumens
Efficiency: N/A
Efficacy: 72.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P544986

CATALOG NUMBER: FMR-12-1-LD4-2HI-40-UNV-80-87-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P544986

CATALOG NUMBER: FMR-12-1-LD4-2HI-40-UNV-80-87-EDD

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°	8586	8586	8586
5°	8470	8459	8450
10°	8396	8387	8325
15°	8169	8088	7974
20°	7869	7743	7531
25°	7546	7383	6922
30°	7153	6923	6236
35°	6774	6398	5769
40°	6388	5831	5248
45°	6022	5390	4745
50°	5575	5004	4232
55°	5157	4534	3791
60°	4725	4049	3395
65°	4157	3548	3005
70°	3424	3106	2555
75°	2724	2379	2491
80°	1829	1717	1599
85°	1136	1371	1593



TEST NUMBER: P544986

CATALOG NUMBER: FMR-12-1-LD4-2HI-40-UNV-80-87-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.3	4.7
10°-20°	203.8	13.0
20°-30°	282.1	18.0
30°-40°	300.8	19.2
40°-50°	274.4	17.5
50°-60°	215.0	13.7
60°-70°	140.1	8.9
70°-80°	62.1	4.0
80°-90°	13.3	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°	560.2	35.8
0°-40°	861.0	55.0
0°-60°	1350.4	86.2
0°-90°	1566.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1566.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	798	798	798	798	798	
5°	784	783	783	782	782	74
15°	733	733	726	718	716	206
25°	635	632	622	599	583	292
35°	516	512	487	450	439	322
45°	396	387	354	325	312	305
55°	275	266	242	213	202	246
65°	163	154	139	142	118	161
75°	66	61	57	54	60	70
85°	9	10	11	12	13	13
90°	0	0	0	0	0	



TEST NUMBER: P544986

CATALOG NUMBER: FMR-12-1-LD4-2HI-40-UNV-80-87-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	797.7	797.7	797.7	797.7	797.7
2.5°	792.2	792.2	792.2	791.2	791.2
5°	783.9	782.9	782.9	782.0	782.0
7.5°	777.4	776.5	775.6	774.6	772.8
10°	768.2	768.2	767.3	762.7	761.7
12.5°	753.4	752.5	748.8	742.4	740.5
15°	733.1	733.1	725.8	718.4	715.6
17.5°	711.0	710.1	700.9	693.5	689.8
20°	687.0	685.2	676.0	664.0	657.5
22.5°	660.3	660.3	649.2	633.5	627.1
25°	635.4	631.7	621.6	599.4	582.8
27.5°	606.8	601.3	590.2	558.9	539.5
30°	575.5	572.7	557.0	516.4	501.7
32.5°	545.9	541.3	524.7	482.3	470.3
35°	515.5	511.8	486.9	450.0	439.0
37.5°	485.1	480.5	449.1	419.6	405.8
40°	454.6	449.1	415.0	388.2	373.5
42.5°	426.1	418.7	385.5	356.9	340.3
45°	395.6	387.3	354.1	324.6	311.7
47.5°	365.2	357.8	327.4	296.9	282.2
50°	332.9	326.5	298.8	268.4	252.7
52.5°	306.2	296.0	269.3	238.8	225.9
55°	274.8	266.5	241.6	213.0	202.0
57.5°	246.2	237.9	214.9	188.1	178.9
60°	219.5	207.5	188.1	165.1	157.7
62.5°	190.0	180.8	164.2	144.8	154.0
65°	163.2	154.0	139.3	142.0	118.0
67.5°	133.7	129.1	116.2	103.3	99.6
70°	108.8	103.3	98.7	84.8	81.2
72.5°	86.7	81.2	74.7	67.3	64.6
75°	65.5	60.9	57.2	54.4	59.9
77.5°	45.2	43.3	40.6	37.8	36.9
80°	29.5	28.6	27.7	26.7	25.8
82.5°	17.5	17.5	17.5	17.5	17.5
85°	9.2	10.1	11.1	12.0	12.9
87.5°	5.5	5.5	6.5	7.4	8.3
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)