

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: P545694

Luminaire Tested: **FMR-12-2-LD4-2LO-50-UNV-80-97-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: P545694
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-50-UNV-80-97-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

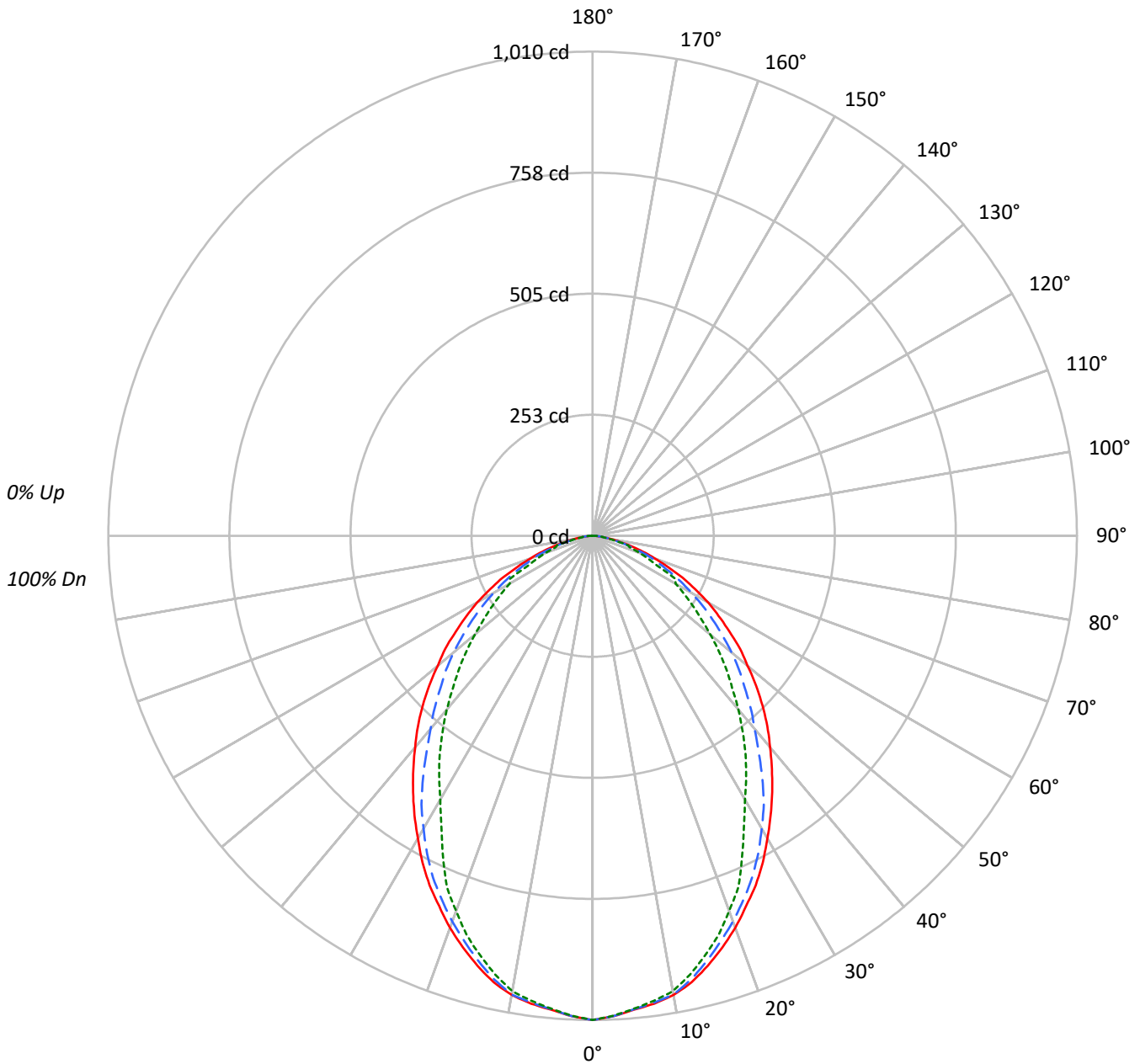
Lumens per Lamp: N/A
Luminaire Lumens: 1983.0 lumens
Efficiency: N/A
Efficacy: 84.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P545694

CATALOG NUMBER: FMR-12-2-LD4-2LO-50-UNV-80-97-EDD

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°	5436	5436	5436
5°	5363	5356	5350
10°	5316	5310	5272
15°	5173	5120	5049
20°	4983	4903	4769
25°	4778	4674	4382
30°	4529	4383	3948
35°	4289	4051	3652
40°	4045	3692	3322
45°	3813	3413	3004
50°	3530	3168	2679
55°	3265	2871	2399
60°	2991	2564	2150
65°	2632	2245	1904
70°	2168	1967	1618
75°	1724	1506	1578
80°	1159	1085	1013
85°	722	865	1007



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.0	4.7
10°-20°	258.1	13.0
20°-30°	357.3	18.0
30°-40°	380.9	19.2
40°-50°	347.5	17.5
50°-60°	272.3	13.7
60°-70°	177.4	8.9
70°-80°	78.6	4.0
80°-90°	16.9	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°	709.3	35.8
0°-40°	1090.3	55.0
0°-60°	1710.1	86.2
0°-90°	1983.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1983.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1010	1010	1010	1010	1010	
5°	993	991	991	990	990	94
15°	928	928	919	910	906	261
25°	805	800	787	759	738	369
35°	653	648	617	570	556	408
45°	501	490	448	411	395	386
55°	348	338	306	270	256	312
65°	207	195	176	180	150	204
75°	83	77	72	69	76	89
85°	12	13	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°	1010.1	1010.1	1010.1	1010.1	1010.1
2.5°	1003.1	1003.1	1003.1	1001.9	1001.9
5°	992.6	991.4	991.4	990.3	990.3
7.5°	984.4	983.3	982.1	980.9	978.6
10°	972.7	972.7	971.6	965.7	964.6
12.5°	954.1	952.9	948.2	940.0	937.7
15°	928.4	928.4	919.0	909.7	906.2
17.5°	900.3	899.2	887.5	878.2	873.5
20°	870.0	867.6	856.0	840.8	832.6
22.5°	836.1	836.1	822.1	802.3	794.1
25°	804.6	799.9	787.1	759.0	738.0
27.5°	768.4	761.4	747.4	707.7	683.1
30°	728.7	725.2	705.3	653.9	635.3
32.5°	691.3	685.5	664.5	610.7	595.6
35°	652.8	648.1	616.6	569.9	555.9
37.5°	614.2	608.4	568.7	531.3	513.8
40°	575.7	568.7	525.5	491.6	472.9
42.5°	539.5	530.2	488.1	451.9	430.9
45°	501.0	490.5	448.4	411.1	394.7
47.5°	462.4	453.1	414.6	376.0	357.3
50°	421.6	413.4	378.4	339.8	320.0
52.5°	387.7	374.9	341.0	302.5	286.1
55°	348.0	337.5	306.0	269.8	255.7
57.5°	311.8	301.3	272.1	238.2	226.5
60°	277.9	262.7	238.2	209.0	199.7
62.5°	240.6	228.9	207.9	183.3	195.0
65°	206.7	195.0	176.3	179.8	149.5
67.5°	169.3	163.5	147.1	130.8	126.1
70°	137.8	130.8	125.0	107.4	102.8
72.5°	109.8	102.8	94.6	85.2	81.7
75°	82.9	77.1	72.4	68.9	75.9
77.5°	57.2	54.9	51.4	47.9	46.7
80°	37.4	36.2	35.0	33.9	32.7
82.5°	22.2	22.2	22.2	22.2	22.2
85°	11.7	12.8	14.0	15.2	16.3
87.5°	7.0	7.0	8.2	9.3	10.5
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)