

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: P545562

Luminaire Tested: **FMR-12-2-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: P545562
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-LD4-2HI-40-UNV-80-87-EDD
Description: 1X2 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

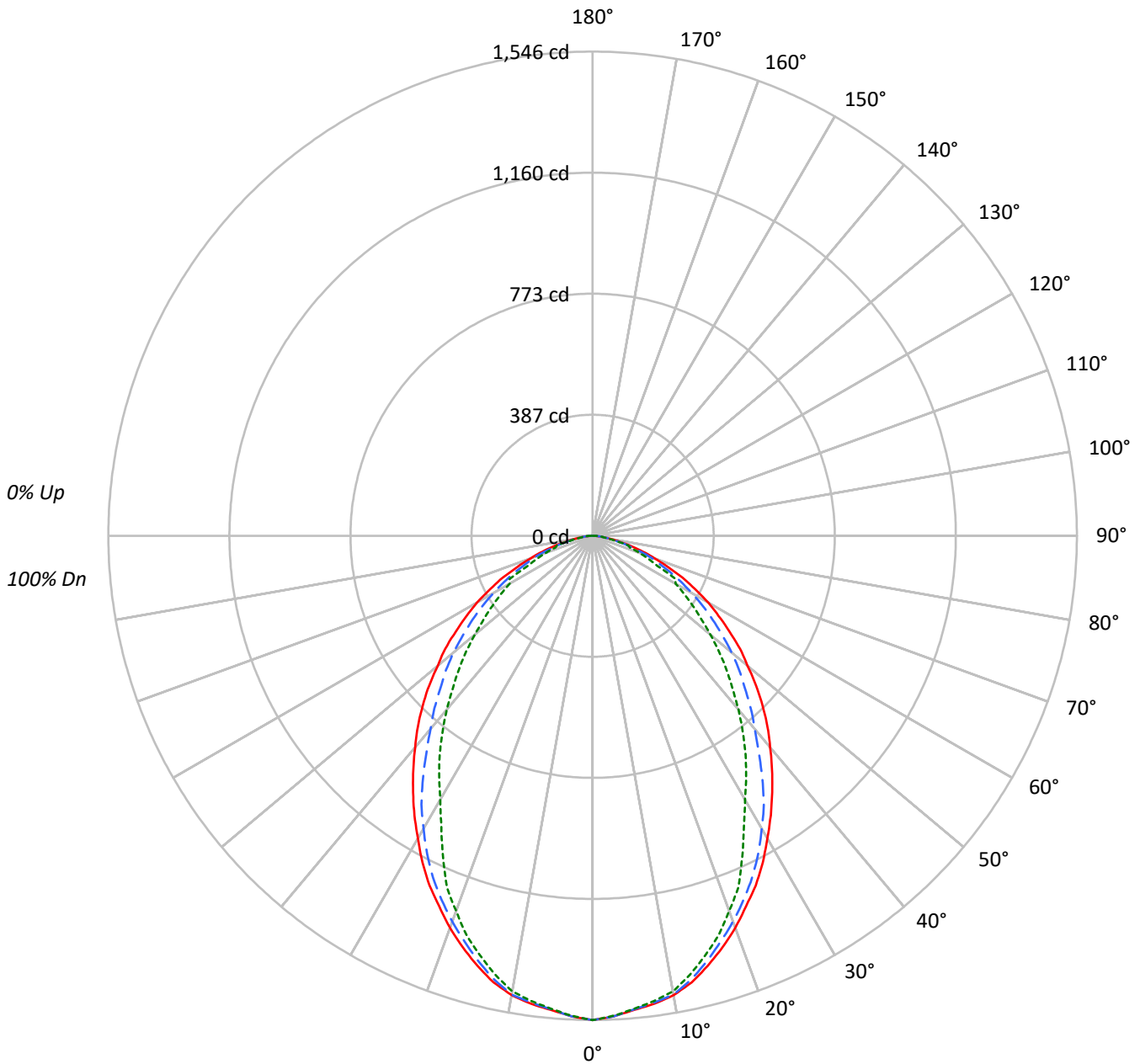
Lumens per Lamp: N/A
Luminaire Lumens: 3036.0 lumens
Efficiency: N/A
Efficacy: 70.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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: P545562

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

Luminous Intensity Polar Plot





TEST NUMBER: P545562

CATALOG NUMBER: FMR-12-2-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°	8323	8323	8323
5°	8210	8200	8191
10°	8139	8129	8071
15°	7919	7840	7730
20°	7629	7506	7301
25°	7315	7156	6710
30°	6933	6711	6044
35°	6566	6202	5591
40°	6192	5652	5087
45°	5838	5225	4599
50°	5404	4850	4102
55°	4999	4395	3674
60°	4580	3926	3291
65°	4031	3438	2914
70°	3320	3010	2475
75°	2639	2304	2416
80°	1773	1661	1553
85°	1105	1328	1544



TEST NUMBER: P545562

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.0	4.7
10°-20°	395.1	13.0
20°-30°	547.0	18.0
30°-40°	583.2	19.2
40°-50°	532.1	17.5
50°-60°	416.8	13.7
60°-70°	271.7	8.9
70°-80°	120.4	4.0
80°-90°	25.8	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°	1086.0	35.8
0°-40°	1669.2	55.0
0°-60°	2618.1	86.2
0°-90°	3036.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3036.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1546	1546	1546	1546	1546	
5°	1520	1518	1518	1516	1516	144
15°	1421	1421	1407	1393	1387	400
25°	1232	1225	1205	1162	1130	566
35°	999	992	944	872	851	625
45°	767	751	686	629	604	591
55°	533	517	468	413	392	478
65°	316	299	270	275	229	312
75°	127	118	111	106	116	136
85°	18	20	22	23	25	25
90°	0	0	0	0	0	



TEST NUMBER: P545562

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1546.5	1546.5	1546.5	1546.5	1546.5
2.5°	1535.8	1535.8	1535.8	1534.0	1534.0
5°	1519.7	1517.9	1517.9	1516.1	1516.1
7.5°	1507.2	1505.4	1503.6	1501.8	1498.2
10°	1489.3	1489.3	1487.5	1478.6	1476.8
12.5°	1460.7	1458.9	1451.7	1439.2	1435.7
15°	1421.3	1421.3	1407.0	1392.7	1387.4
17.5°	1378.4	1376.7	1358.8	1344.5	1337.3
20°	1332.0	1328.4	1310.5	1287.3	1274.7
22.5°	1280.1	1280.1	1258.7	1228.3	1215.7
25°	1231.8	1224.7	1205.0	1162.1	1129.9
27.5°	1176.4	1165.7	1144.2	1083.4	1045.9
30°	1115.6	1110.3	1079.9	1001.2	972.6
32.5°	1058.4	1049.5	1017.3	935.1	911.8
35°	999.4	992.3	944.0	872.5	851.0
37.5°	940.4	931.5	870.7	813.5	786.7
40°	881.4	870.7	804.5	752.7	724.1
42.5°	826.0	811.7	747.3	691.9	659.7
45°	767.0	750.9	686.5	629.3	604.3
47.5°	708.0	693.7	634.7	575.7	547.1
50°	645.4	632.9	579.3	520.3	489.9
52.5°	593.6	573.9	522.1	463.1	438.0
55°	532.8	516.7	468.4	413.0	391.5
57.5°	477.4	461.3	416.6	364.7	346.8
60°	425.5	402.3	364.7	320.0	305.7
62.5°	368.3	350.4	318.2	280.7	298.6
65°	316.5	298.6	270.0	275.3	228.8
67.5°	259.2	250.3	225.3	200.2	193.1
70°	211.0	200.2	191.3	164.5	157.3
72.5°	168.1	157.3	144.8	130.5	125.2
75°	126.9	118.0	110.8	105.5	116.2
77.5°	87.6	84.0	78.7	73.3	71.5
80°	57.2	55.4	53.6	51.8	50.1
82.5°	34.0	34.0	34.0	34.0	34.0
85°	17.9	19.7	21.5	23.2	25.0
87.5°	10.7	10.7	12.5	14.3	16.1
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)