

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: P545534

Luminaire Tested: **FMR-12-2-LD4-2HI-35-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: P545534
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-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

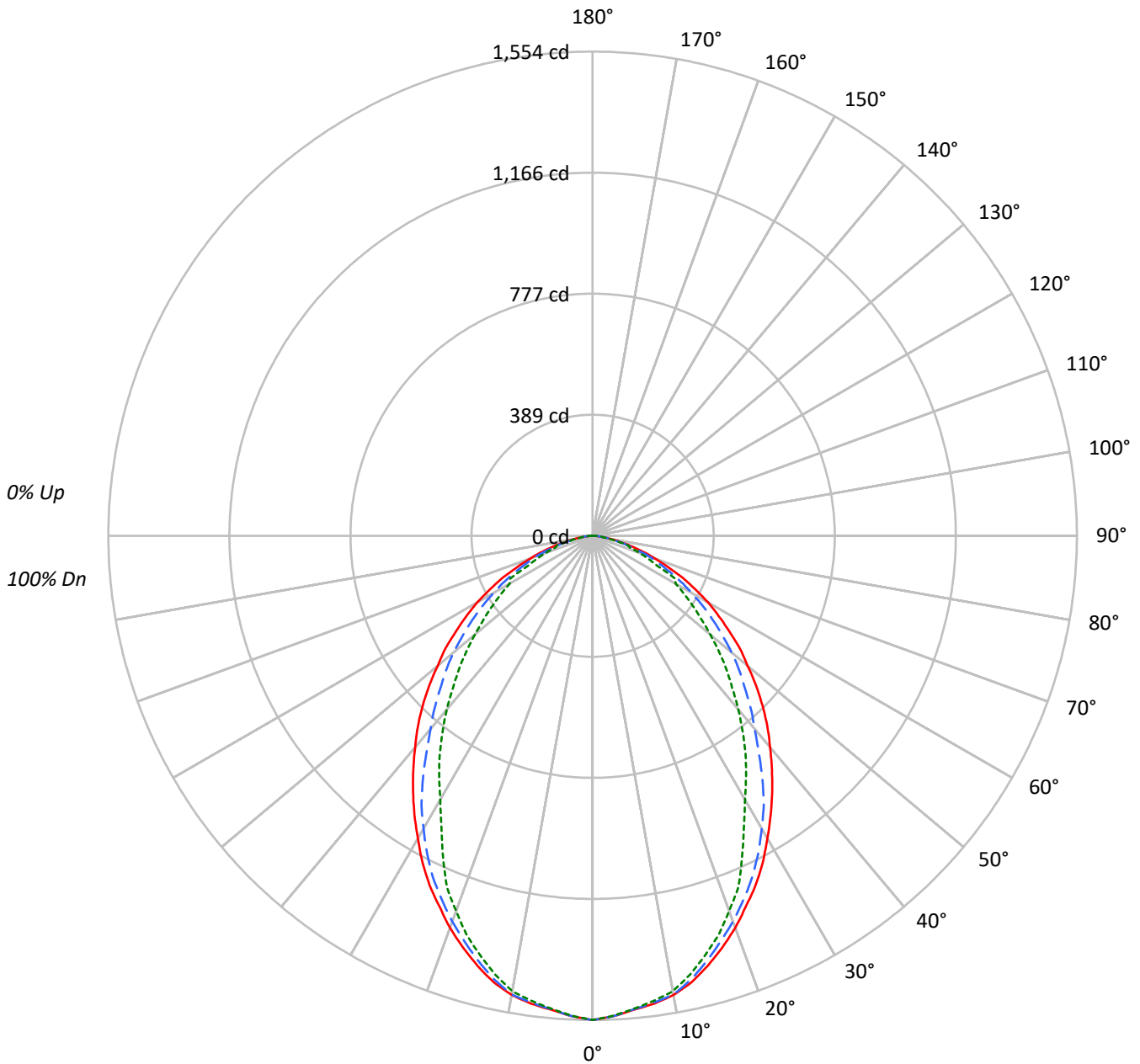
Lumens per Lamp: N/A
Luminaire Lumens: 3051.0 lumens
Efficiency: N/A
Efficacy: 70.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P545534

CATALOG NUMBER: FMR-12-2-LD4-2HI-35-UNV-80-97-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P545534

CATALOG NUMBER: FMR-12-2-LD4-2HI-35-UNV-80-97-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°	8364	8364	8364
5°	8251	8241	8231
10°	8179	8169	8111
15°	7959	7879	7768
20°	7666	7543	7337
25°	7351	7191	6743
30°	6967	6744	6074
35°	6599	6233	5619
40°	6223	5680	5113
45°	5867	5251	4622
50°	5431	4874	4122
55°	5024	4417	3692
60°	4603	3945	3307
65°	4050	3455	2929
70°	3336	3024	2488
75°	2653	2316	2429
80°	1782	1671	1559
85°	1112	1334	1556



TEST NUMBER: P545534

CATALOG NUMBER: FMR-12-2-LD4-2HI-35-UNV-80-97-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.7	4.7
10°-20°	397.0	13.0
20°-30°	549.7	18.0
30°-40°	586.1	19.2
40°-50°	534.7	17.5
50°-60°	418.9	13.7
60°-70°	273.0	8.9
70°-80°	121.0	4.0
80°-90°	26.0	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°	1091.4	35.8
0°-40°	1677.5	55.0
0°-60°	2631.0	86.2
0°-90°	3051.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3051.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1554	1554	1554	1554	1554	
5°	1527	1525	1525	1524	1524	145
15°	1428	1428	1414	1400	1394	402
25°	1238	1231	1211	1168	1136	568
35°	1004	997	949	877	855	628
45°	771	755	690	632	607	594
55°	535	519	471	415	394	480
65°	318	300	271	277	230	313
75°	128	119	111	106	117	137
85°	18	20	22	23	25	25
90°	0	0	0	0	0	



TEST NUMBER: P545534

CATALOG NUMBER: FMR-12-2-LD4-2HI-35-UNV-80-97-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1554.1	1554.1	1554.1	1554.1	1554.1
2.5°	1543.4	1543.4	1543.4	1541.6	1541.6
5°	1527.2	1525.4	1525.4	1523.6	1523.6
7.5°	1514.6	1512.8	1511.0	1509.2	1505.6
10°	1496.6	1496.6	1494.8	1485.9	1484.1
12.5°	1467.9	1466.1	1458.9	1446.3	1442.7
15°	1428.4	1428.4	1414.0	1399.6	1394.2
17.5°	1385.2	1383.5	1365.5	1351.1	1343.9
20°	1338.5	1334.9	1317.0	1293.6	1281.0
22.5°	1286.4	1286.4	1264.9	1234.3	1221.8
25°	1237.9	1230.7	1211.0	1167.8	1135.5
27.5°	1182.2	1171.4	1149.9	1088.8	1051.1
30°	1121.1	1115.7	1085.2	1006.1	977.4
32.5°	1063.6	1054.7	1022.3	939.7	916.3
35°	1004.4	997.2	948.7	876.8	855.2
37.5°	945.1	936.1	875.0	817.5	790.5
40°	885.8	875.0	808.5	756.4	727.7
42.5°	830.1	815.7	751.0	695.3	663.0
45°	770.8	754.6	689.9	632.4	607.3
47.5°	711.5	697.1	637.8	578.5	549.8
50°	648.6	636.0	582.1	522.8	492.3
52.5°	596.5	576.7	524.6	465.3	440.2
55°	535.4	519.2	470.7	415.0	393.5
57.5°	479.7	463.5	418.6	366.5	348.6
60°	427.6	404.3	366.5	321.6	307.2
62.5°	370.1	352.2	319.8	282.1	300.0
65°	318.0	300.0	271.3	276.7	230.0
67.5°	260.5	251.5	226.4	201.2	194.0
70°	212.0	201.2	192.2	165.3	158.1
72.5°	168.9	158.1	145.5	131.2	125.8
75°	127.6	118.6	111.4	106.0	116.8
77.5°	88.0	84.4	79.1	73.7	71.9
80°	57.5	55.7	53.9	52.1	50.3
82.5°	34.1	34.1	34.1	34.1	34.1
85°	18.0	19.8	21.6	23.4	25.2
87.5°	10.8	10.8	12.6	14.4	16.2
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)