

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: P546588

Luminaire Tested: **FMR-24-4-LD4-1STD-35-UNV-80-94-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: P546588
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-24-4-LD4-1STD-35-UNV-80-94-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

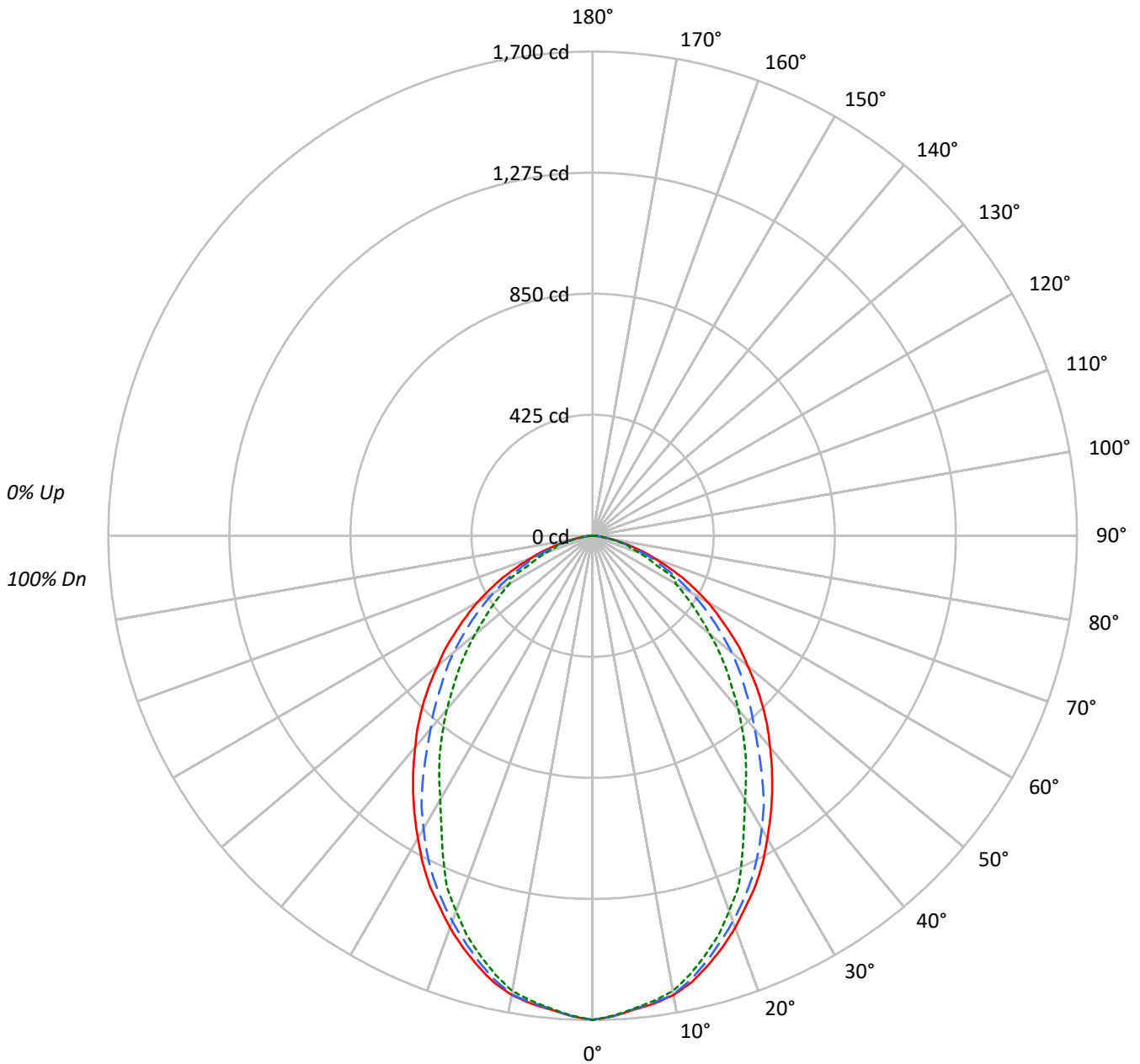
Lumens per Lamp: N/A
Luminaire Lumens: 3337.0 lumens
Efficiency: N/A
Efficacy: 100.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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: P546588

CATALOG NUMBER: FMR-24-4-LD4-1STD-35-UNV-80-94-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P546588

CATALOG NUMBER: FMR-24-4-LD4-1STD-35-UNV-80-94-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°	2287	2287	2287
5°	2256	2253	2251
10°	2236	2234	2218
15°	2176	2154	2124
20°	2096	2062	2006
25°	2010	1966	1844
30°	1905	1844	1661
35°	1804	1704	1536
40°	1702	1553	1398
45°	1604	1436	1264
50°	1485	1333	1127
55°	1374	1208	1010
60°	1259	1079	904
65°	1107	945	801
70°	912	827	680
75°	725	633	664
80°	487	457	426
85°	304	364	425



TEST NUMBER: P546588

CATALOG NUMBER: FMR-24-4-LD4-1STD-35-UNV-80-94-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.2	4.7
10°-20°	434.2	13.0
20°-30°	601.2	18.0
30°-40°	641.0	19.2
40°-50°	584.8	17.5
50°-60°	458.2	13.7
60°-70°	298.6	8.9
70°-80°	132.3	4.0
80°-90°	28.4	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°	1193.7	35.8
0°-40°	1834.7	55.0
0°-60°	2877.7	86.2
0°-90°	3337.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3337.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1700	1700	1700	1700	1700	
5°	1670	1668	1668	1666	1666	159
15°	1562	1562	1546	1531	1525	439
25°	1354	1346	1324	1277	1242	622
35°	1098	1091	1038	959	935	687
45°	843	825	755	692	664	649
55°	586	568	515	454	430	525
65°	348	328	297	303	252	343
75°	140	130	122	116	128	150
85°	20	22	24	26	28	27
90°	0	0	0	0	0	



TEST NUMBER: P546588

CATALOG NUMBER: FMR-24-4-LD4-1STD-35-UNV-80-94-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1699.8	1699.8	1699.8	1699.8	1699.8
2.5°	1688.0	1688.0	1688.0	1686.1	1686.1
5°	1670.3	1668.4	1668.4	1666.4	1666.4
7.5°	1656.6	1654.6	1652.7	1650.7	1646.8
10°	1636.9	1636.9	1635.0	1625.1	1623.2
12.5°	1605.5	1603.5	1595.7	1581.9	1578.0
15°	1562.3	1562.3	1546.5	1530.8	1524.9
17.5°	1515.1	1513.1	1493.5	1477.8	1469.9
20°	1464.0	1460.1	1440.4	1414.9	1401.1
22.5°	1407.0	1407.0	1383.4	1350.0	1336.3
25°	1354.0	1346.1	1324.5	1277.3	1242.0
27.5°	1293.0	1281.3	1257.7	1190.9	1149.6
30°	1226.2	1220.3	1186.9	1100.5	1069.0
32.5°	1163.3	1153.5	1118.1	1027.8	1002.2
35°	1098.5	1090.6	1037.6	959.0	935.4
37.5°	1033.6	1023.8	957.0	894.1	864.6
40°	968.8	957.0	884.3	827.3	795.9
42.5°	907.9	892.2	821.4	760.5	725.1
45°	843.0	825.3	754.6	691.7	664.2
47.5°	778.2	762.5	697.6	632.8	601.3
50°	709.4	695.7	636.7	571.8	538.4
52.5°	652.4	630.8	573.8	509.0	481.5
55°	585.6	567.9	514.9	453.9	430.4
57.5°	524.7	507.0	457.9	400.9	381.2
60°	467.7	442.2	400.9	351.8	336.0
62.5°	404.8	385.2	349.8	308.5	328.2
65°	347.8	328.2	296.7	302.6	251.5
67.5°	284.9	275.1	247.6	220.1	212.2
70°	231.9	220.1	210.3	180.8	172.9
72.5°	184.7	172.9	159.2	143.5	137.6
75°	139.5	129.7	121.8	115.9	127.7
77.5°	96.3	92.4	86.5	80.6	78.6
80°	62.9	60.9	59.0	57.0	55.0
82.5°	37.3	37.3	37.3	37.3	37.3
85°	19.7	21.6	23.6	25.5	27.5
87.5°	11.8	11.8	13.8	15.7	17.7
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)