

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: P545592

Luminaire Tested: **FMR-12-2-LD4-2HI-50-UNV-80-85-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: P545592
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-50-UNV-80-85-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

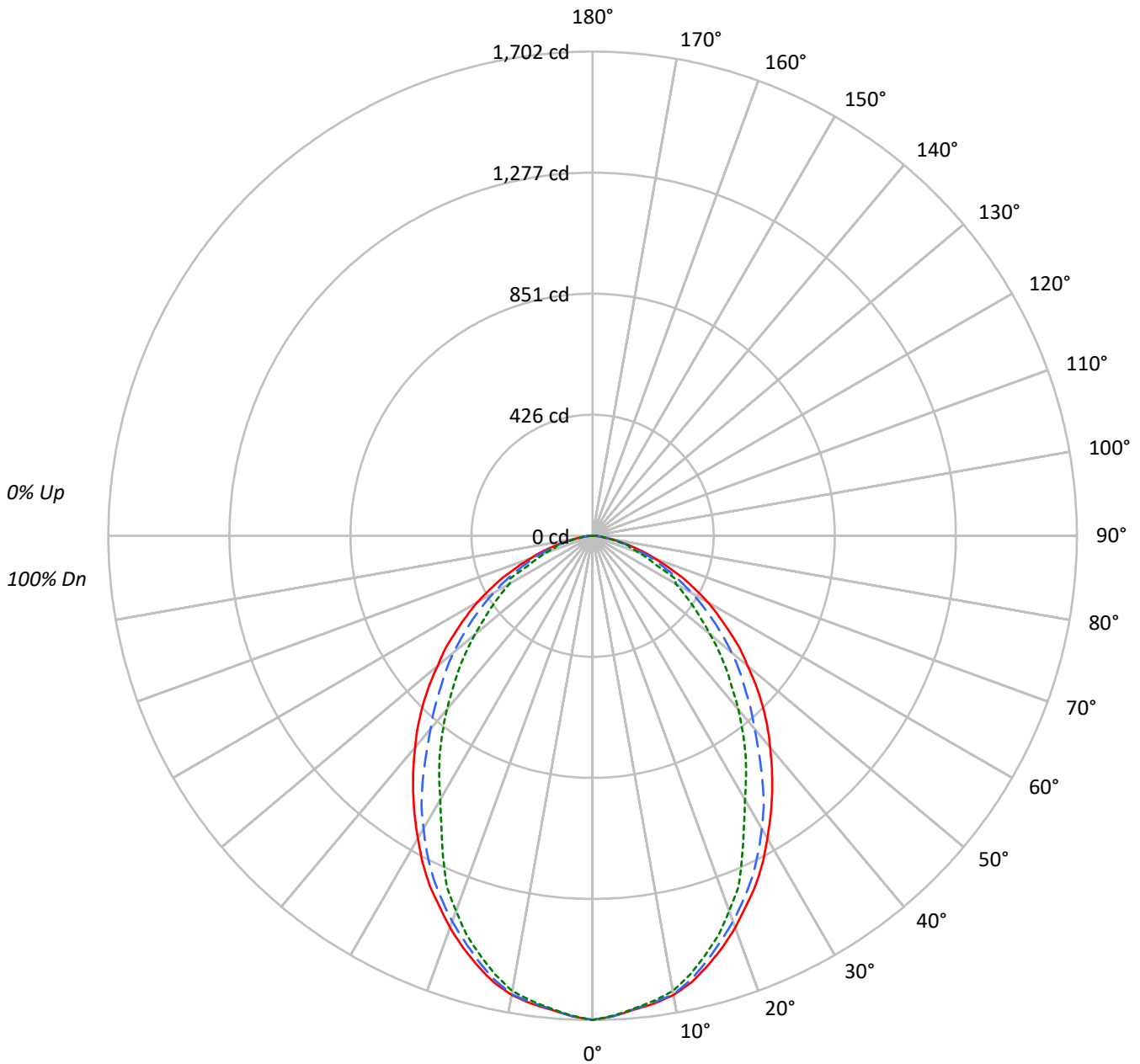
Lumens per Lamp: N/A
Luminaire Lumens: 3341.0 lumens
Efficiency: N/A
Efficacy: 77.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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

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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°	9160	9160	9160
5°	9035	9024	9014
10°	8957	8946	8881
15°	8715	8627	8507
20°	8395	8260	8034
25°	8050	7875	7384
30°	7630	7385	6651
35°	7226	6825	6153
40°	6815	6221	5598
45°	6424	5750	5061
50°	5947	5338	4514
55°	5501	4837	4043
60°	5041	4321	3621
65°	4434	3784	3207
70°	3654	3312	2724
75°	2905	2537	2660
80°	1953	1829	1708
85°	1216	1457	1698



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.4	4.7
10°-20°	434.8	13.0
20°-30°	601.9	18.0
30°-40°	641.8	19.2
40°-50°	585.5	17.5
50°-60°	458.7	13.7
60°-70°	299.0	8.9
70°-80°	132.5	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°	1195.1	35.8
0°-40°	1836.9	55.0
0°-60°	2881.2	86.2
0°-90°	3341.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3341.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1702	1702	1702	1702	1702	
5°	1672	1670	1670	1668	1668	159
15°	1564	1564	1548	1533	1527	440
25°	1356	1348	1326	1279	1243	622
35°	1100	1092	1039	960	936	688
45°	844	826	756	692	665	650
55°	586	569	516	454	431	526
65°	348	329	297	303	252	343
75°	140	130	122	116	128	150
85°	20	22	24	26	28	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1701.9	1701.9	1701.9	1701.9	1701.9
2.5°	1690.1	1690.1	1690.1	1688.1	1688.1
5°	1672.3	1670.4	1670.4	1668.4	1668.4
7.5°	1658.6	1656.6	1654.6	1652.7	1648.7
10°	1638.9	1638.9	1636.9	1627.1	1625.1
12.5°	1607.4	1605.5	1597.6	1583.8	1579.9
15°	1564.1	1564.1	1548.4	1532.7	1526.8
17.5°	1516.9	1515.0	1495.3	1479.5	1471.7
20°	1465.8	1461.8	1442.2	1416.6	1402.8
22.5°	1408.7	1408.7	1385.1	1351.7	1337.9
25°	1355.6	1347.7	1326.1	1278.9	1243.4
27.5°	1294.6	1282.8	1259.2	1192.3	1151.0
30°	1227.7	1221.8	1188.4	1101.8	1070.3
32.5°	1164.7	1154.9	1119.5	1029.0	1003.4
35°	1099.8	1091.9	1038.8	960.1	936.5
37.5°	1034.9	1025.1	958.2	895.2	865.7
40°	970.0	958.2	885.4	828.3	796.8
42.5°	909.0	893.2	822.4	761.4	726.0
45°	844.0	826.3	755.5	692.5	665.0
47.5°	779.1	763.4	698.5	633.5	602.0
50°	710.3	696.5	637.5	572.5	539.1
52.5°	653.2	631.6	574.5	509.6	482.0
55°	586.3	568.6	515.5	454.5	430.9
57.5°	525.3	507.6	458.4	401.4	381.7
60°	468.3	442.7	401.4	352.2	336.4
62.5°	405.3	385.6	350.2	308.9	328.6
65°	348.2	328.6	297.1	303.0	251.8
67.5°	285.3	275.4	247.9	220.4	212.5
70°	232.2	220.4	210.5	181.0	173.1
72.5°	184.9	173.1	159.4	143.6	137.7
75°	139.7	129.9	122.0	116.1	127.9
77.5°	96.4	92.5	86.6	80.7	78.7
80°	63.0	61.0	59.0	57.1	55.1
82.5°	37.4	37.4	37.4	37.4	37.4
85°	19.7	21.6	23.6	25.6	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)