

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: P545596

Luminaire Tested: **FMR-12-2-LD4-2HI-50-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: P545596
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-80-94-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

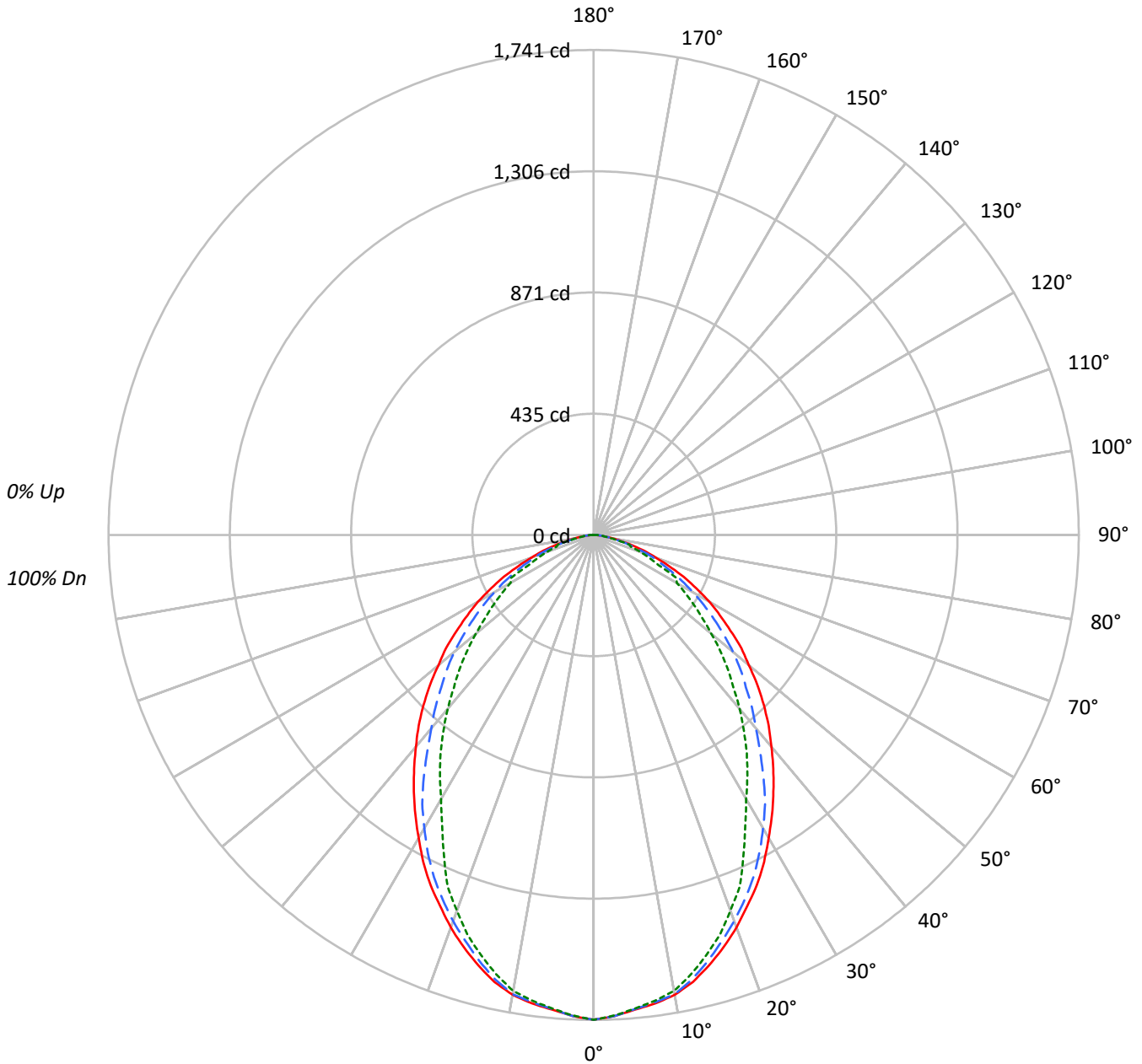
Lumens per Lamp: N/A
Luminaire Lumens: 3417.0 lumens
Efficiency: N/A
Efficacy: 79.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	9368	9368	9368
5°	9240	9230	9219
10°	9160	9149	9083
15°	8913	8824	8700
20°	8586	8448	8217
25°	8233	8054	7552
30°	7803	7553	6803
35°	7390	6981	6293
40°	6969	6362	5726
45°	6570	5881	5176
50°	6082	5459	4616
55°	5626	4947	4135
60°	5155	4419	3704
65°	4536	3869	3280
70°	3736	3388	2787
75°	2972	2595	2720
80°	1996	1872	1745
85°	1241	1488	1741



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.0	4.7
10°-20°	444.7	13.0
20°-30°	615.6	18.0
30°-40°	656.4	19.2
40°-50°	598.8	17.5
50°-60°	469.1	13.7
60°-70°	305.8	8.9
70°-80°	135.5	4.0
80°-90°	29.1	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°	1222.3	35.8
0°-40°	1878.7	55.0
0°-60°	2946.7	86.2
0°-90°	3417.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3417.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1741	1741	1741	1741	1741	
5°	1710	1708	1708	1706	1706	162
15°	1600	1600	1584	1568	1562	450
25°	1386	1378	1356	1308	1272	636
35°	1125	1117	1062	982	958	703
45°	863	845	773	708	680	665
55°	600	582	527	465	441	538
65°	356	336	304	310	258	351
75°	143	133	125	119	131	153
85°	20	22	24	26	28	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1740.6	1740.6	1740.6	1740.6	1740.6
2.5°	1728.5	1728.5	1728.5	1726.5	1726.5
5°	1710.4	1708.4	1708.4	1706.4	1706.4
7.5°	1696.3	1694.3	1692.3	1690.3	1686.2
10°	1676.2	1676.2	1674.2	1664.1	1662.1
12.5°	1644.0	1642.0	1633.9	1619.8	1615.8
15°	1599.7	1599.7	1583.6	1567.5	1561.5
17.5°	1551.4	1549.4	1529.3	1513.2	1505.1
20°	1499.1	1495.1	1475.0	1448.8	1434.7
22.5°	1440.8	1440.8	1416.6	1382.4	1368.3
25°	1386.4	1378.4	1356.2	1307.9	1271.7
27.5°	1324.0	1312.0	1287.8	1219.4	1177.2
30°	1255.6	1249.6	1215.4	1126.8	1094.7
32.5°	1191.2	1181.2	1145.0	1052.4	1026.2
35°	1124.8	1116.8	1062.5	982.0	957.8
37.5°	1058.4	1048.4	980.0	915.6	885.4
40°	992.0	980.0	905.5	847.1	815.0
42.5°	929.6	913.5	841.1	778.7	742.5
45°	863.2	845.1	772.7	708.3	680.1
47.5°	796.8	780.7	714.3	647.9	615.7
50°	726.4	712.3	652.0	585.6	551.3
52.5°	668.1	645.9	587.6	521.2	493.0
55°	599.6	581.5	527.2	464.8	440.7
57.5°	537.3	519.2	468.8	410.5	390.4
60°	478.9	452.8	410.5	360.2	344.1
62.5°	414.5	394.4	358.2	315.9	336.0
65°	356.2	336.0	303.8	309.9	257.6
67.5°	291.8	281.7	253.5	225.4	217.3
70°	237.4	225.4	215.3	185.1	177.1
72.5°	189.1	177.1	163.0	146.9	140.9
75°	142.9	132.8	124.8	118.7	130.8
77.5°	98.6	94.6	88.5	82.5	80.5
80°	64.4	62.4	60.4	58.4	56.3
82.5°	38.2	38.2	38.2	38.2	38.2
85°	20.1	22.1	24.1	26.2	28.2
87.5°	12.1	12.1	14.1	16.1	18.1
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)