

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: P545566

Luminaire Tested: **FMR-12-2-LD4-2HI-40-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: P545566
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-80-97-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

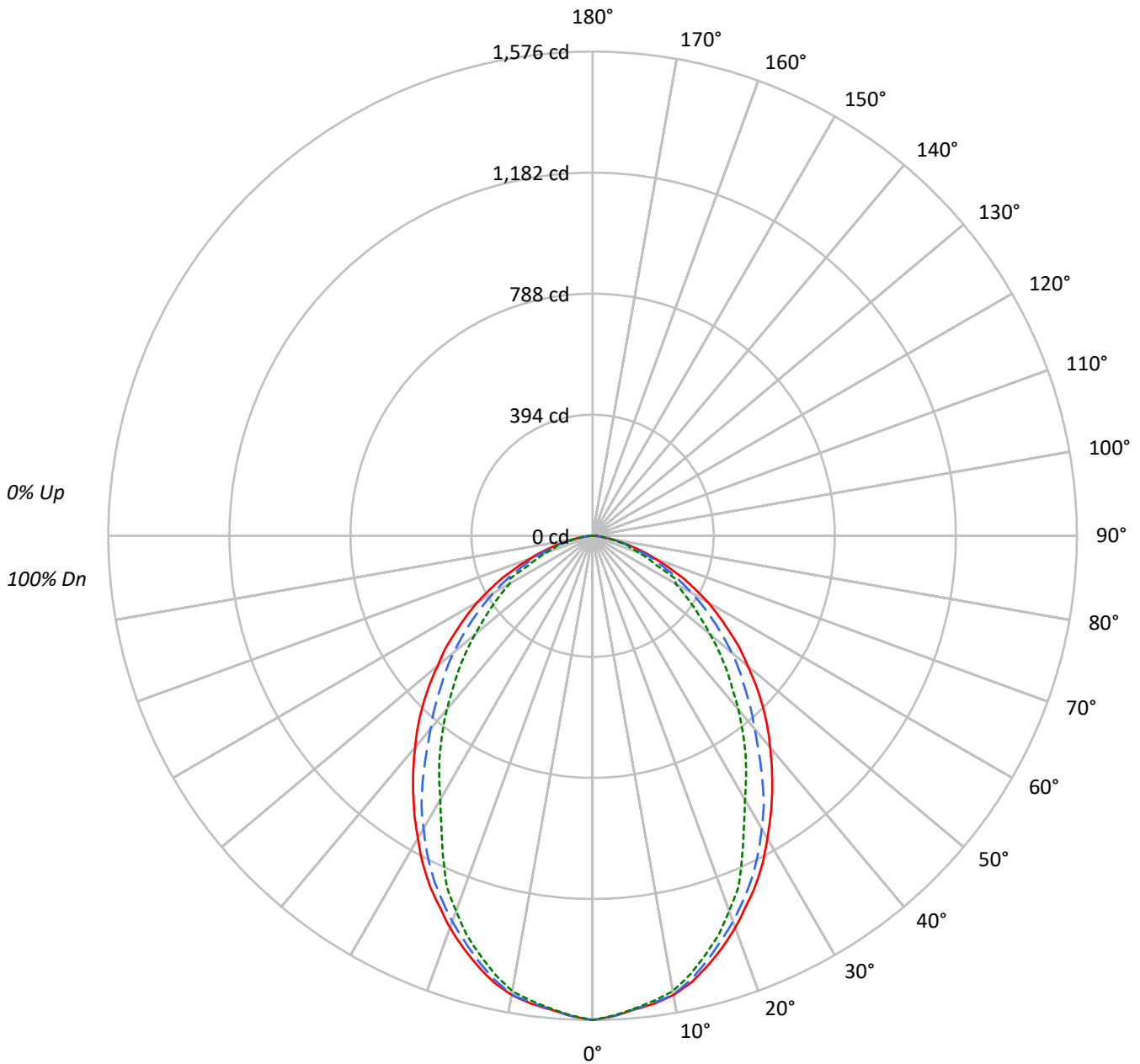
Lumens per Lamp: N/A
Luminaire Lumens: 3094.0 lumens
Efficiency: N/A
Efficacy: 71.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (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

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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°	8482	8482	8482
5°	8367	8357	8347
10°	8294	8284	8225
15°	8071	7989	7878
20°	7774	7649	7440
25°	7455	7292	6838
30°	7065	6839	6160
35°	6692	6320	5698
40°	6311	5760	5184
45°	5949	5326	4687
50°	5507	4942	4180
55°	5095	4480	3744
60°	4667	4001	3354
65°	4107	3503	2970
70°	3383	3068	2522
75°	2691	2350	2462
80°	1807	1695	1581
85°	1124	1352	1575



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.7	4.7
10°-20°	402.6	13.0
20°-30°	557.4	18.0
30°-40°	594.4	19.2
40°-50°	542.2	17.5
50°-60°	424.8	13.7
60°-70°	276.9	8.9
70°-80°	122.7	4.0
80°-90°	26.3	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°	1106.8	35.8
0°-40°	1701.1	55.0
0°-60°	2668.1	86.2
0°-90°	3094.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3094.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1576	1576	1576	1576	1576	
5°	1549	1547	1547	1545	1545	147
15°	1448	1448	1434	1419	1414	407
25°	1255	1248	1228	1184	1152	576
35°	1018	1011	962	889	867	637
45°	782	765	700	641	616	602
55°	543	527	477	421	399	487
65°	322	304	275	281	233	318
75°	129	120	113	108	118	139
85°	18	20	22	24	26	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1576.0	1576.0	1576.0	1576.0	1576.0
2.5°	1565.1	1565.1	1565.1	1563.3	1563.3
5°	1548.7	1546.9	1546.9	1545.1	1545.1
7.5°	1536.0	1534.1	1532.3	1530.5	1526.8
10°	1517.7	1517.7	1515.9	1506.8	1505.0
12.5°	1488.6	1486.8	1479.5	1466.7	1463.1
15°	1448.5	1448.5	1433.9	1419.3	1413.9
17.5°	1404.8	1403.0	1384.7	1370.2	1362.9
20°	1357.4	1353.8	1335.5	1311.9	1299.1
22.5°	1304.6	1304.6	1282.7	1251.7	1239.0
25°	1255.4	1248.1	1228.0	1184.3	1151.5
27.5°	1198.9	1188.0	1166.1	1104.1	1065.9
30°	1136.9	1131.5	1100.5	1020.3	991.2
32.5°	1078.6	1069.5	1036.7	952.9	929.2
35°	1018.5	1011.2	962.0	889.1	867.3
37.5°	958.4	949.3	887.3	829.0	801.7
40°	898.3	887.3	819.9	767.1	737.9
42.5°	841.8	827.2	761.6	705.1	672.3
45°	781.6	765.2	699.7	641.3	615.8
47.5°	721.5	706.9	646.8	586.7	557.5
50°	657.7	645.0	590.3	530.2	499.2
52.5°	604.9	584.9	532.0	471.9	446.4
55°	543.0	526.6	477.4	420.9	399.0
57.5°	486.5	470.1	424.5	371.7	353.5
60°	433.6	410.0	371.7	326.1	311.6
62.5°	375.3	357.1	324.3	286.1	304.3
65°	322.5	304.3	275.1	280.6	233.2
67.5°	264.2	255.1	229.6	204.1	196.8
70°	215.0	204.1	195.0	167.6	160.3
72.5°	171.3	160.3	147.6	133.0	127.5
75°	129.4	120.3	113.0	107.5	118.4
77.5°	89.3	85.6	80.2	74.7	72.9
80°	58.3	56.5	54.7	52.8	51.0
82.5°	34.6	34.6	34.6	34.6	34.6
85°	18.2	20.0	21.9	23.7	25.5
87.5°	10.9	10.9	12.8	14.6	16.4
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)