

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: P545591

Luminaire Tested: **FMR-12-2-LD4-2HI-50-UNV-80-84-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: P545591
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-80-84-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

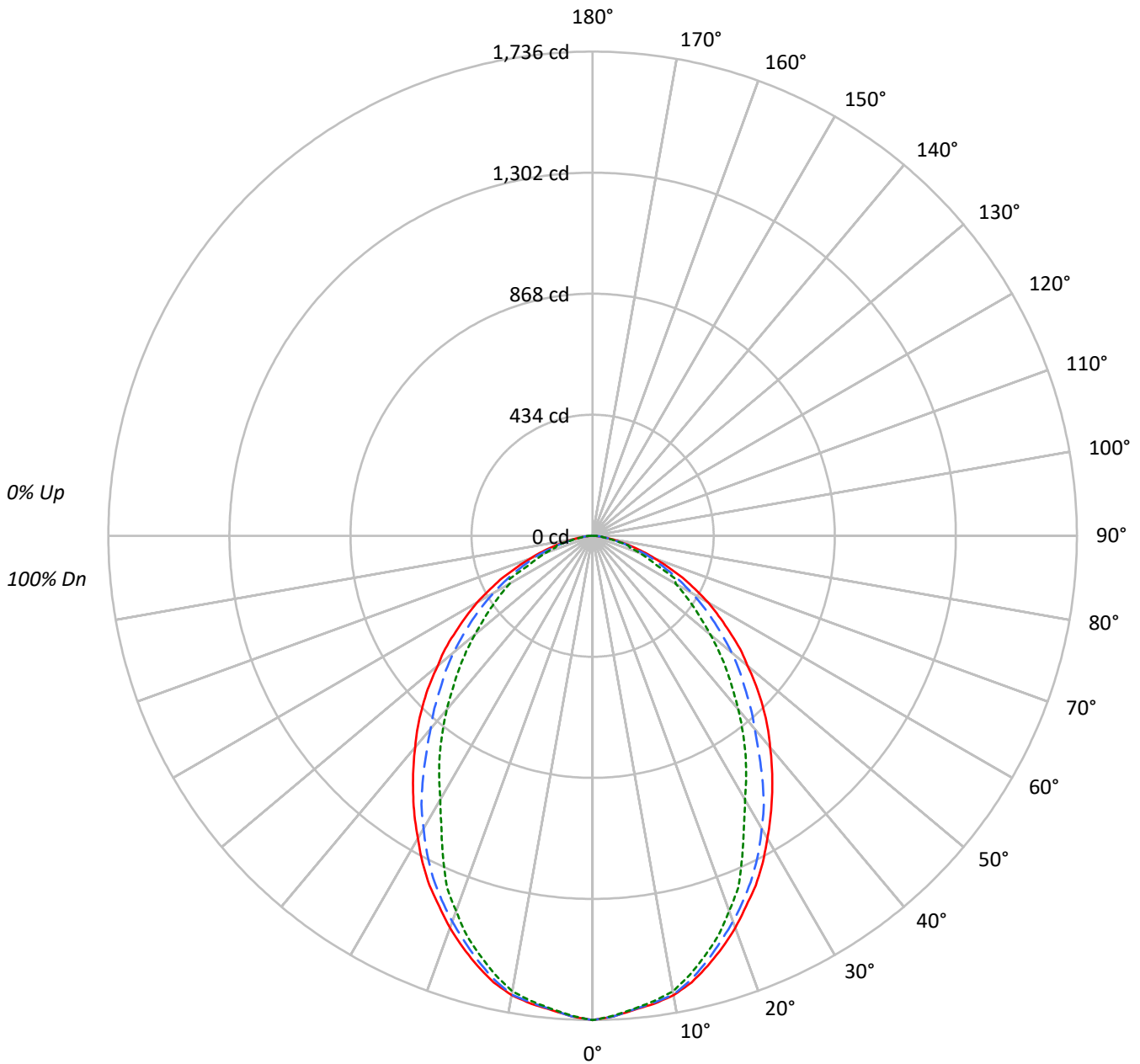
Lumens per Lamp: N/A
Luminaire Lumens: 3409.0 lumens
Efficiency: N/A
Efficacy: 78.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	9346	9346	9346
5°	9219	9208	9197
10°	9139	9128	9062
15°	8893	8803	8680
20°	8566	8428	8198
25°	8214	8035	7534
30°	7785	7535	6787
35°	7373	6964	6278
40°	6953	6347	5712
45°	6555	5868	5164
50°	6068	5446	4606
55°	5613	4936	4125
60°	5143	4408	3695
65°	4525	3860	3273
70°	3728	3380	2781
75°	2963	2589	2714
80°	1990	1866	1742
85°	1241	1488	1735



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.6	4.7
10°-20°	443.6	13.0
20°-30°	614.2	18.0
30°-40°	654.9	19.2
40°-50°	597.4	17.5
50°-60°	468.0	13.7
60°-70°	305.0	8.9
70°-80°	135.1	4.0
80°-90°	29.0	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°	1219.4	35.8
0°-40°	1874.3	55.0
0°-60°	2939.8	86.2
0°-90°	3409.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3409.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1736	1736	1736	1736	1736	
5°	1706	1704	1704	1702	1702	162
15°	1596	1596	1580	1564	1558	449
25°	1383	1375	1353	1305	1269	635
35°	1122	1114	1060	980	956	702
45°	861	843	771	707	678	663
55°	598	580	526	464	440	537
65°	355	335	303	309	257	350
75°	142	132	124	118	130	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°	1736.5	1736.5	1736.5	1736.5	1736.5
2.5°	1724.5	1724.5	1724.5	1722.4	1722.4
5°	1706.4	1704.4	1704.4	1702.4	1702.4
7.5°	1692.3	1690.3	1688.3	1686.3	1682.3
10°	1672.3	1672.3	1670.3	1660.2	1658.2
12.5°	1640.1	1638.1	1630.1	1616.0	1612.0
15°	1596.0	1596.0	1579.9	1563.9	1557.8
17.5°	1547.8	1545.8	1525.7	1509.7	1501.6
20°	1495.6	1491.6	1471.5	1445.4	1431.4
22.5°	1437.4	1437.4	1413.3	1379.2	1365.1
25°	1383.2	1375.1	1353.1	1304.9	1268.7
27.5°	1320.9	1308.9	1284.8	1216.6	1174.4
30°	1252.7	1246.7	1212.5	1124.2	1092.1
32.5°	1188.4	1178.4	1142.3	1049.9	1023.8
35°	1122.2	1114.2	1060.0	979.7	955.6
37.5°	1056.0	1045.9	977.7	913.4	883.3
40°	989.7	977.7	903.4	845.2	813.0
42.5°	927.5	911.4	839.1	776.9	740.8
45°	861.2	843.2	770.9	706.6	678.5
47.5°	795.0	778.9	712.7	646.4	614.3
50°	724.7	710.7	650.4	584.2	550.1
52.5°	666.5	644.4	586.2	519.9	491.8
55°	598.2	580.2	526.0	463.7	439.6
57.5°	536.0	517.9	467.8	409.5	389.5
60°	477.8	451.7	409.5	359.3	343.3
62.5°	413.5	393.5	357.3	315.2	335.3
65°	355.3	335.3	303.1	309.2	257.0
67.5°	291.1	281.1	252.9	224.8	216.8
70°	236.9	224.8	214.8	184.7	176.7
72.5°	188.7	176.7	162.6	146.5	140.5
75°	142.5	132.5	124.5	118.4	130.5
77.5°	98.4	94.4	88.3	82.3	80.3
80°	64.2	62.2	60.2	58.2	56.2
82.5°	38.1	38.1	38.1	38.1	38.1
85°	20.1	22.1	24.1	26.1	28.1
87.5°	12.0	12.0	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)