

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: P545572

Luminaire Tested: **FMR-12-2-LD4-2HI-40-UNV-81-94-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: P545572
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-81-94-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

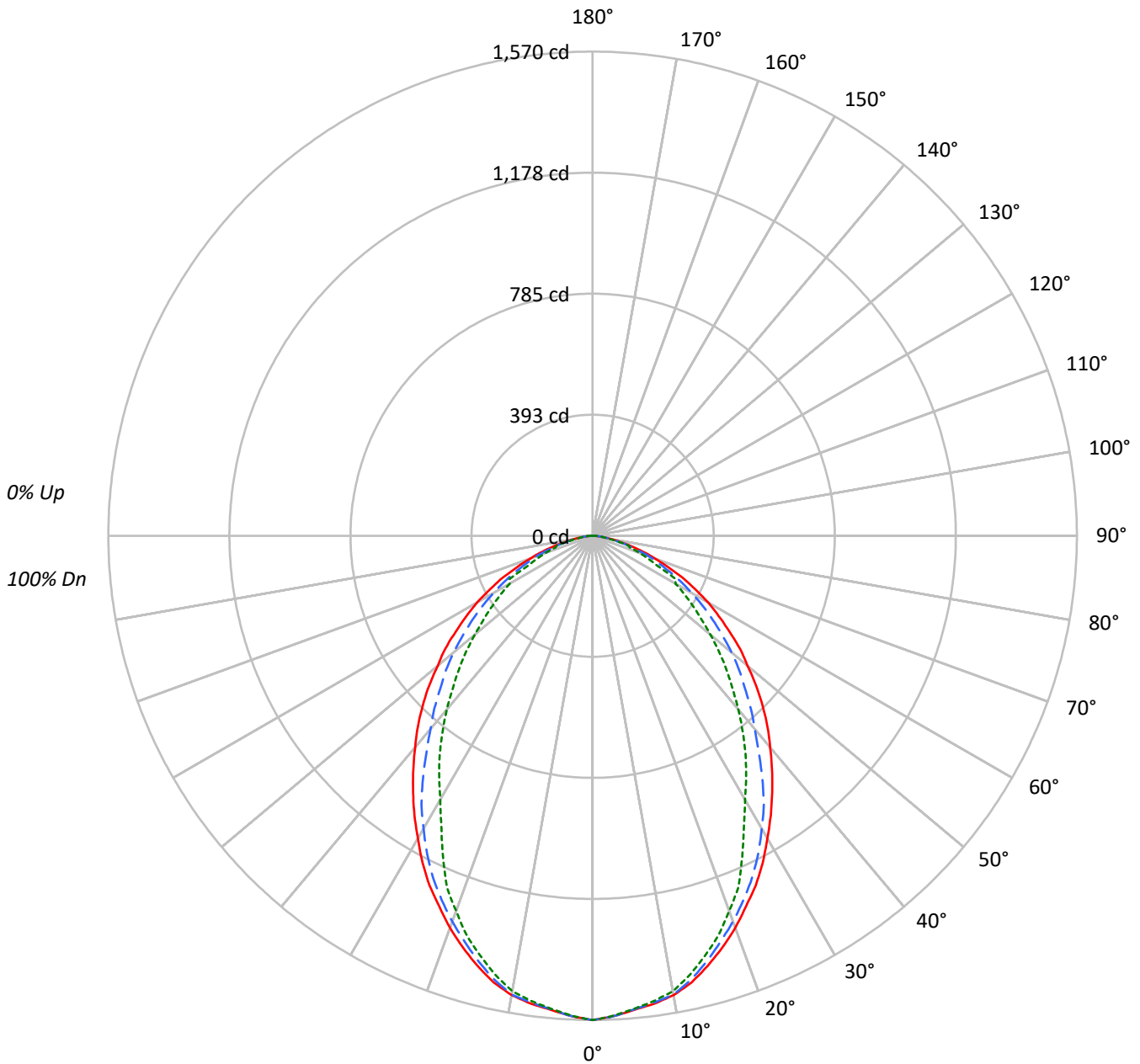
Lumens per Lamp: N/A
Luminaire Lumens: 3083.0 lumens
Efficiency: N/A
Efficacy: 71.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	8452	8452	8452
5°	8337	8327	8318
10°	8265	8255	8195
15°	8042	7961	7850
20°	7747	7622	7414
25°	7428	7267	6814
30°	7040	6815	6138
35°	6668	6298	5678
40°	6289	5740	5166
45°	5928	5307	4671
50°	5488	4925	4165
55°	5076	4464	3731
60°	4651	3987	3342
65°	4092	3491	2960
70°	3371	3057	2515
75°	2680	2341	2454
80°	1801	1689	1574
85°	1124	1346	1568



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.2	4.7
10°-20°	401.2	13.0
20°-30°	555.4	18.0
30°-40°	592.3	19.2
40°-50°	540.3	17.5
50°-60°	423.3	13.7
60°-70°	275.9	8.9
70°-80°	122.2	4.0
80°-90°	26.2	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°	1102.8	35.8
0°-40°	1695.1	55.0
0°-60°	2658.7	86.2
0°-90°	3083.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3083.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1570	1570	1570	1570	1570	
5°	1543	1541	1541	1540	1540	146
15°	1443	1443	1429	1414	1409	406
25°	1251	1244	1224	1180	1147	574
35°	1015	1008	959	886	864	634
45°	779	762	697	639	614	600
55°	541	525	476	419	398	485
65°	321	303	274	280	232	317
75°	129	120	113	107	118	138
85°	18	20	22	24	25	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1570.4	1570.4	1570.4	1570.4	1570.4
2.5°	1559.5	1559.5	1559.5	1557.7	1557.7
5°	1543.2	1541.4	1541.4	1539.6	1539.6
7.5°	1530.5	1528.7	1526.9	1525.1	1521.4
10°	1512.3	1512.3	1510.5	1501.4	1499.6
12.5°	1483.3	1481.5	1474.2	1461.5	1457.9
15°	1443.4	1443.4	1428.8	1414.3	1408.9
17.5°	1399.8	1398.0	1379.8	1365.3	1358.0
20°	1352.6	1348.9	1330.8	1307.2	1294.5
22.5°	1299.9	1299.9	1278.1	1247.3	1234.6
25°	1250.9	1243.6	1223.7	1180.1	1147.4
27.5°	1194.6	1183.7	1161.9	1100.2	1062.1
30°	1132.9	1127.4	1096.6	1016.7	987.7
32.5°	1074.8	1065.7	1033.0	949.5	925.9
35°	1014.9	1007.6	958.6	886.0	864.2
37.5°	955.0	945.9	884.2	826.1	798.8
40°	895.1	884.2	817.0	764.3	735.3
42.5°	838.8	824.3	758.9	702.6	669.9
45°	778.9	762.5	697.2	639.1	613.7
47.5°	719.0	704.4	644.5	584.6	555.6
50°	655.4	642.7	588.2	528.3	497.5
52.5°	602.8	582.8	530.1	470.2	444.8
55°	541.0	524.7	475.7	419.4	397.6
57.5°	484.7	468.4	423.0	370.4	352.2
60°	432.1	408.5	370.4	325.0	310.5
62.5°	374.0	355.8	323.2	285.0	303.2
65°	321.3	303.2	274.1	279.6	232.4
67.5°	263.3	254.2	228.8	203.3	196.1
70°	214.2	203.3	194.3	167.0	159.8
72.5°	170.7	159.8	147.1	132.5	127.1
75°	128.9	119.8	112.6	107.1	118.0
77.5°	89.0	85.3	79.9	74.4	72.6
80°	58.1	56.3	54.5	52.7	50.8
82.5°	34.5	34.5	34.5	34.5	34.5
85°	18.2	20.0	21.8	23.6	25.4
87.5°	10.9	10.9	12.7	14.5	16.3
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)