

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: P545557

Luminaire Tested: **FMR-12-2-LD4-2HI-35-UNV-93-96-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: P545557
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-35-UNV-93-96-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

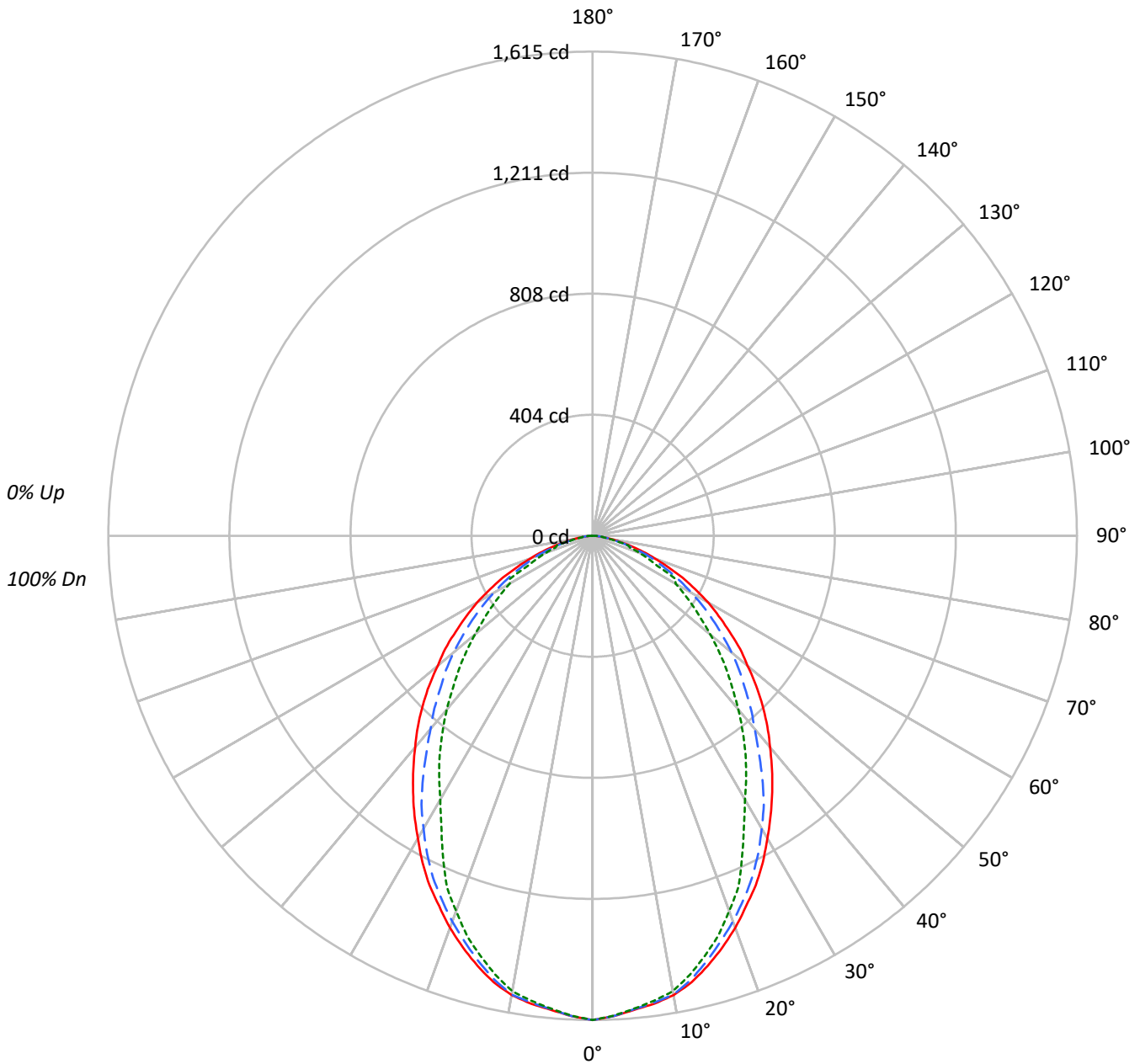
Lumens per Lamp: N/A
Luminaire Lumens: 3171.0 lumens
Efficiency: N/A
Efficacy: 73.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (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				20				
RC	80				70				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			100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87			87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75			75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65			65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56			56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50			50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44			44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40			40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36			36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33			33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30			30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8693	8693	8693
5°	8575	8565	8555
10°	8501	8490	8429
15°	8271	8188	8074
20°	7968	7840	7625
25°	7640	7474	7008
30°	7241	7009	6313
35°	6859	6478	5840
40°	6468	5904	5313
45°	6097	5458	4804
50°	5644	5066	4284
55°	5222	4590	3838
60°	4783	4100	3437
65°	4209	3591	3044
70°	3467	3144	2585
75°	2757	2408	2524
80°	1853	1736	1621
85°	1155	1383	1612



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.4	4.7
10°-20°	412.6	13.0
20°-30°	571.3	18.0
30°-40°	609.2	19.2
40°-50°	555.7	17.5
50°-60°	435.4	13.7
60°-70°	283.7	8.9
70°-80°	125.7	4.0
80°-90°	27.0	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°	1134.3	35.8
0°-40°	1743.4	55.0
0°-60°	2734.5	86.2
0°-90°	3171.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3171.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1615	1615	1615	1615	1615	
5°	1587	1585	1585	1584	1584	151
15°	1484	1484	1470	1455	1449	417
25°	1287	1279	1259	1214	1180	591
35°	1044	1036	986	911	889	653
45°	801	784	717	657	631	617
55°	556	540	489	431	409	499
65°	330	312	282	288	239	326
75°	133	123	116	110	121	142
85°	19	20	22	24	26	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1615.3	1615.3	1615.3	1615.3	1615.3
2.5°	1604.1	1604.1	1604.1	1602.2	1602.2
5°	1587.3	1585.4	1585.4	1583.5	1583.5
7.5°	1574.2	1572.3	1570.4	1568.6	1564.8
10°	1555.5	1555.5	1553.6	1544.3	1542.4
12.5°	1525.6	1523.8	1516.3	1503.2	1499.5
15°	1484.5	1484.5	1469.6	1454.7	1449.1
17.5°	1439.7	1437.9	1419.2	1404.3	1396.8
20°	1391.2	1387.4	1368.8	1344.5	1331.4
22.5°	1337.0	1337.0	1314.6	1282.9	1269.8
25°	1286.6	1279.1	1258.6	1213.8	1180.2
27.5°	1228.7	1217.5	1195.1	1131.6	1092.4
30°	1165.2	1159.6	1127.9	1045.7	1015.8
32.5°	1105.5	1096.1	1062.5	976.6	952.4
35°	1043.9	1036.4	986.0	911.3	888.9
37.5°	982.2	972.9	909.4	849.6	821.6
40°	920.6	909.4	840.3	786.2	756.3
42.5°	862.7	847.8	780.6	722.7	689.1
45°	801.1	784.3	717.1	657.3	631.2
47.5°	739.5	724.5	662.9	601.3	571.4
50°	674.1	661.0	605.0	543.4	511.7
52.5°	620.0	599.4	545.3	483.6	457.5
55°	556.5	539.7	489.2	431.4	409.0
57.5°	498.6	481.8	435.1	380.9	362.3
60°	444.4	420.2	380.9	334.3	319.3
62.5°	384.7	366.0	332.4	293.2	311.8
65°	330.5	311.8	282.0	287.6	239.0
67.5°	270.8	261.4	235.3	209.1	201.7
70°	220.3	209.1	199.8	171.8	164.3
72.5°	175.5	164.3	151.3	136.3	130.7
75°	132.6	123.2	115.8	110.2	121.4
77.5°	91.5	87.8	82.2	76.6	74.7
80°	59.8	57.9	56.0	54.2	52.3
82.5°	35.5	35.5	35.5	35.5	35.5
85°	18.7	20.5	22.4	24.3	26.1
87.5°	11.2	11.2	13.1	14.9	16.8
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)