

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: P545594

Luminaire Tested: **FMR-12-2-LD4-2HI-50-UNV-80-87-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: P545594
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-80-87-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

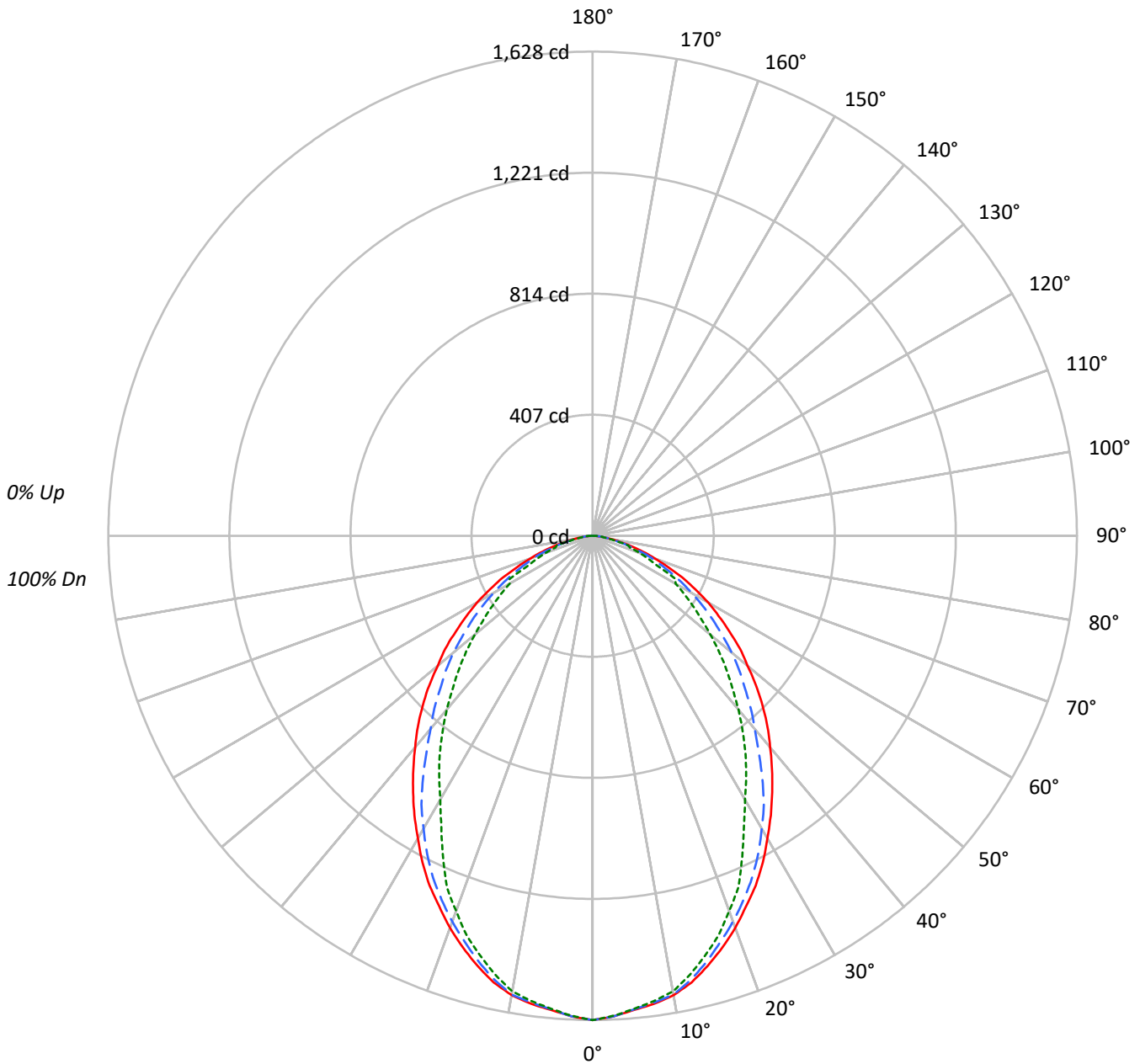
Lumens per Lamp: N/A
Luminaire Lumens: 3197.0 lumens
Efficiency: N/A
Efficacy: 74.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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								
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°	8765	8765	8765
5°	8646	8635	8625
10°	8571	8560	8499
15°	8339	8256	8140
20°	8033	7904	7688
25°	7703	7535	7065
30°	7301	7067	6365
35°	6914	6531	5888
40°	6521	5952	5357
45°	6148	5502	4843
50°	5690	5107	4320
55°	5264	4629	3869
60°	4823	4134	3465
65°	4243	3621	3069
70°	3496	3169	2607
75°	2780	2427	2545
80°	1866	1751	1633
85°	1161	1396	1630



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.6	4.7
10°-20°	416.0	13.0
20°-30°	576.0	18.0
30°-40°	614.1	19.2
40°-50°	560.3	17.5
50°-60°	438.9	13.7
60°-70°	286.1	8.9
70°-80°	126.8	4.0
80°-90°	27.2	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°	1143.6	35.8
0°-40°	1757.7	55.0
0°-60°	2757.0	86.2
0°-90°	3197.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3197.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1628	1628	1628	1628	1628	
5°	1600	1598	1598	1596	1596	152
15°	1497	1497	1482	1467	1461	421
25°	1297	1290	1269	1224	1190	596
35°	1052	1045	994	919	896	658
45°	808	791	723	663	636	622
55°	561	544	493	435	412	503
65°	333	314	284	290	241	328
75°	134	124	117	111	122	143
85°	19	21	23	24	26	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1628.5	1628.5	1628.5	1628.5	1628.5
2.5°	1617.2	1617.2	1617.2	1615.3	1615.3
5°	1600.3	1598.4	1598.4	1596.5	1596.5
7.5°	1587.1	1585.2	1583.3	1581.4	1577.7
10°	1568.3	1568.3	1566.4	1557.0	1555.1
12.5°	1538.1	1536.3	1528.7	1515.5	1511.8
15°	1496.7	1496.7	1481.7	1466.6	1461.0
17.5°	1451.5	1449.7	1430.8	1415.8	1408.2
20°	1402.6	1398.8	1380.0	1355.5	1342.3
22.5°	1348.0	1348.0	1325.4	1293.4	1280.2
25°	1297.2	1289.6	1268.9	1223.7	1189.8
27.5°	1238.8	1227.5	1204.9	1140.9	1101.4
30°	1174.8	1169.1	1137.1	1054.3	1024.2
32.5°	1114.5	1105.1	1071.2	984.6	960.2
35°	1052.4	1044.9	994.0	918.7	896.2
37.5°	990.3	980.9	916.9	856.6	828.4
40°	928.2	916.9	847.2	792.6	762.5
42.5°	869.8	854.7	787.0	728.6	694.7
45°	807.7	790.7	722.9	662.7	636.3
47.5°	745.5	730.5	668.3	606.2	576.1
50°	679.6	666.5	610.0	547.9	515.9
52.5°	625.0	604.3	549.7	487.6	461.3
55°	561.0	544.1	493.3	434.9	412.3
57.5°	502.7	485.7	438.7	384.1	365.2
60°	448.1	423.6	384.1	337.0	321.9
62.5°	387.8	369.0	335.1	295.6	314.4
65°	333.2	314.4	284.3	289.9	241.0
67.5°	273.0	263.6	237.2	210.9	203.3
70°	222.2	210.9	201.4	173.2	165.7
72.5°	177.0	165.7	152.5	137.4	131.8
75°	133.7	124.3	116.7	111.1	122.4
77.5°	92.3	88.5	82.8	77.2	75.3
80°	60.2	58.4	56.5	54.6	52.7
82.5°	35.8	35.8	35.8	35.8	35.8
85°	18.8	20.7	22.6	24.5	26.4
87.5°	11.3	11.3	13.2	15.1	16.9
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)