

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: P545622

Luminaire Tested: **FMR-12-2-LD4-2HI-50-UNV-93-97-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: P545622
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-93-97-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

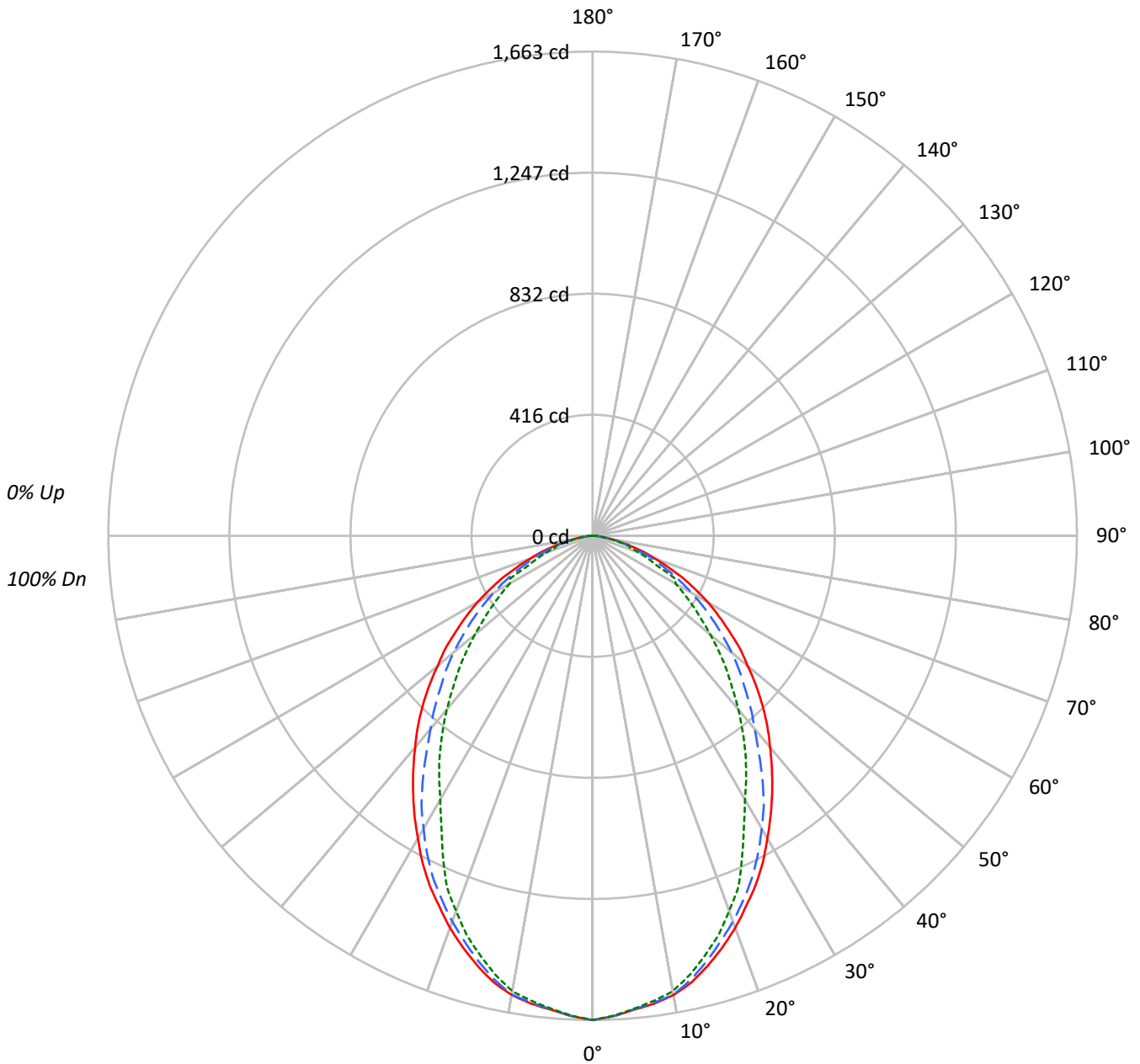
Lumens per Lamp: N/A
Luminaire Lumens: 3265.0 lumens
Efficiency: N/A
Efficacy: 75.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	8951	8951	8951
5°	8829	8819	8809
10°	8753	8742	8679
15°	8517	8431	8313
20°	8204	8072	7852
25°	7867	7695	7216
30°	7456	7217	6500
35°	7062	6670	6013
40°	6660	6079	5471
45°	6278	5619	4947
50°	5812	5216	4411
55°	5377	4727	3951
60°	4926	4222	3539
65°	4334	3697	3134
70°	3570	3237	2662
75°	2838	2479	2599
80°	1906	1788	1667
85°	1186	1426	1661



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.8	4.7
10°-20°	424.9	13.0
20°-30°	588.2	18.0
30°-40°	627.2	19.2
40°-50°	572.2	17.5
50°-60°	448.3	13.7
60°-70°	292.2	8.9
70°-80°	129.4	4.0
80°-90°	27.8	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°	1167.9	35.8
0°-40°	1795.1	55.0
0°-60°	2815.6	86.2
0°-90°	3265.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3265.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1663	1663	1663	1663	1663	
5°	1634	1632	1632	1630	1630	155
15°	1529	1529	1513	1498	1492	430
25°	1325	1317	1296	1250	1215	608
35°	1075	1067	1015	938	915	672
45°	825	808	738	677	650	635
55°	573	556	504	444	421	514
65°	340	321	290	296	246	335
75°	136	127	119	113	125	146
85°	19	21	23	25	27	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1663.1	1663.1	1663.1	1663.1	1663.1
2.5°	1651.6	1651.6	1651.6	1649.7	1649.7
5°	1634.3	1632.4	1632.4	1630.5	1630.5
7.5°	1620.8	1618.9	1617.0	1615.1	1611.2
10°	1601.6	1601.6	1599.7	1590.1	1588.2
12.5°	1570.9	1568.9	1561.2	1547.8	1543.9
15°	1528.6	1528.6	1513.2	1497.8	1492.0
17.5°	1482.4	1480.5	1461.3	1445.9	1438.2
20°	1432.4	1428.6	1409.3	1384.4	1370.9
22.5°	1376.7	1376.7	1353.6	1320.9	1307.4
25°	1324.7	1317.1	1295.9	1249.8	1215.2
27.5°	1265.1	1253.6	1230.5	1165.2	1124.8
30°	1199.8	1194.0	1161.3	1076.7	1046.0
32.5°	1138.2	1128.6	1094.0	1005.6	980.6
35°	1074.8	1067.1	1015.2	938.3	915.2
37.5°	1011.3	1001.7	936.4	874.8	846.0
40°	947.9	936.4	865.2	809.5	778.7
42.5°	888.3	872.9	803.7	744.1	709.5
45°	824.8	807.5	738.3	676.8	649.9
47.5°	761.4	746.0	682.6	619.1	588.4
50°	694.1	680.6	623.0	559.5	526.8
52.5°	638.3	617.2	561.4	498.0	471.1
55°	573.0	555.7	503.8	444.1	421.1
57.5°	513.4	496.1	448.0	392.2	373.0
60°	457.6	432.6	392.2	344.2	328.8
62.5°	396.1	376.9	342.2	301.9	321.1
65°	340.3	321.1	290.3	296.1	246.1
67.5°	278.8	269.2	242.3	215.3	207.7
70°	226.9	215.3	205.7	176.9	169.2
72.5°	180.7	169.2	155.7	140.4	134.6
75°	136.5	126.9	119.2	113.4	125.0
77.5°	94.2	90.4	84.6	78.8	76.9
80°	61.5	59.6	57.7	55.8	53.8
82.5°	36.5	36.5	36.5	36.5	36.5
85°	19.2	21.1	23.1	25.0	26.9
87.5°	11.5	11.5	13.5	15.4	17.3
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)