

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: P545804

Luminaire Tested: **FMR-12-2-LD4-2STD-50-UNV-82-94-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: P545804
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-LD4-2STD-50-UNV-82-94-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

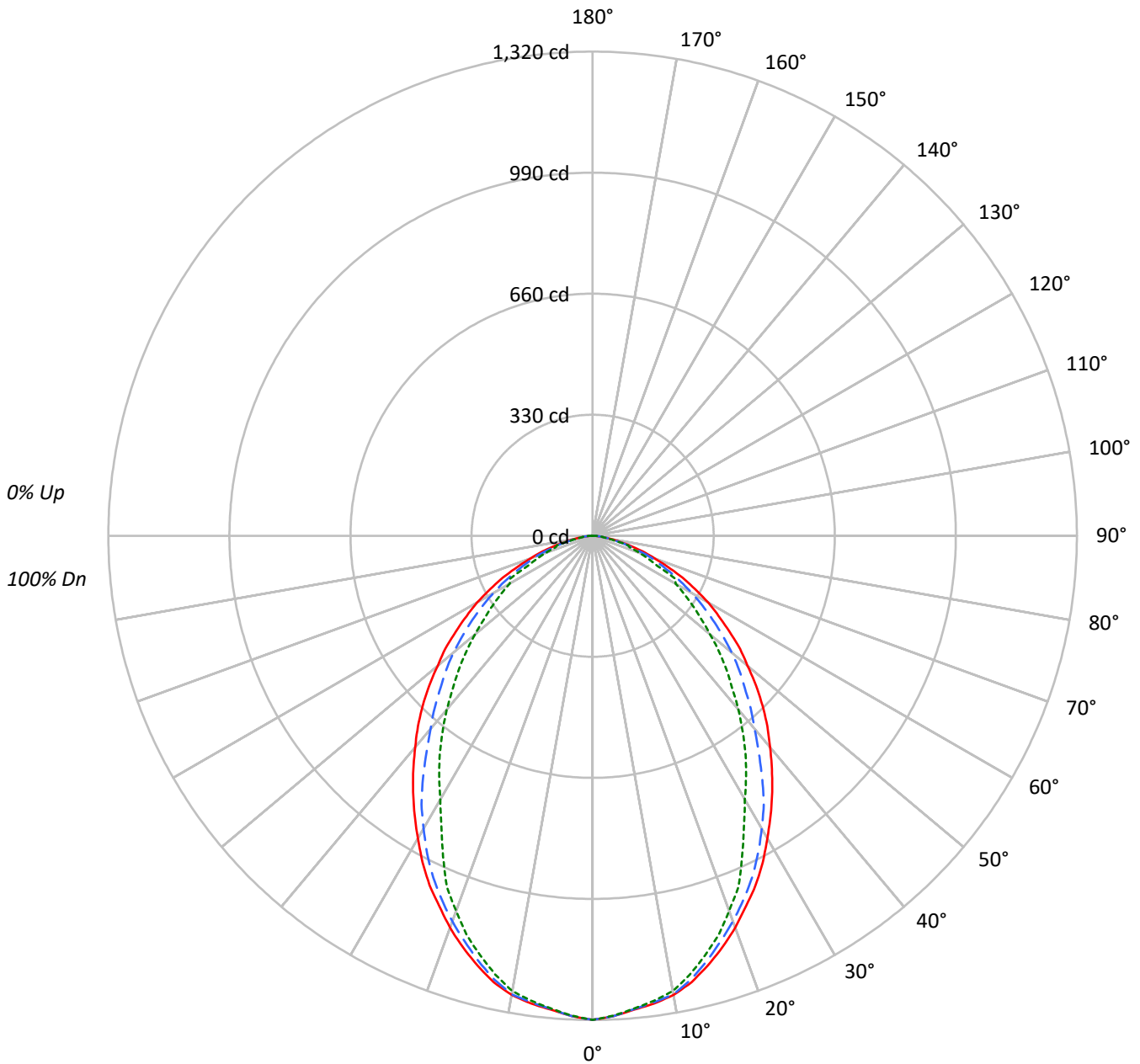
Lumens per Lamp: N/A
Luminaire Lumens: 2591.0 lumens
Efficiency: N/A
Efficacy: 77.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	7103	7103	7103
5°	7007	6998	6990
10°	6946	6938	6888
15°	6759	6691	6597
20°	6510	6405	6231
25°	6243	6107	5726
30°	5917	5727	5158
35°	5604	5293	4772
40°	5285	4824	4342
45°	4982	4459	3925
50°	4612	4140	3501
55°	4267	3751	3136
60°	3908	3351	2808
65°	3440	2934	2487
70°	2832	2570	2113
75°	2252	1967	2063
80°	1512	1420	1323
85°	945	1130	1321



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.9	4.7
10°-20°	337.2	13.0
20°-30°	466.8	18.0
30°-40°	497.7	19.2
40°-50°	454.1	17.5
50°-60°	355.7	13.7
60°-70°	231.9	8.9
70°-80°	102.7	4.0
80°-90°	22.1	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°	926.8	35.8
0°-40°	1424.6	55.0
0°-60°	2234.4	86.2
0°-90°	2591.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2591.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1320	1320	1320	1320	1320	
5°	1297	1295	1295	1294	1294	123
15°	1213	1213	1201	1189	1184	341
25°	1051	1045	1028	992	964	483
35°	853	847	806	745	726	533
45°	655	641	586	537	516	504
55°	455	441	400	352	334	408
65°	270	255	230	235	195	266
75°	108	101	95	90	99	116
85°	15	17	18	20	21	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1319.8	1319.8	1319.8	1319.8	1319.8
2.5°	1310.7	1310.7	1310.7	1309.1	1309.1
5°	1296.9	1295.4	1295.4	1293.9	1293.9
7.5°	1286.3	1284.7	1283.2	1281.7	1278.6
10°	1271.0	1271.0	1269.5	1261.8	1260.3
12.5°	1246.6	1245.1	1239.0	1228.3	1225.2
15°	1213.0	1213.0	1200.8	1188.6	1184.0
17.5°	1176.4	1174.9	1159.6	1147.4	1141.3
20°	1136.7	1133.7	1118.4	1098.6	1087.9
22.5°	1092.5	1092.5	1074.2	1048.2	1037.5
25°	1051.3	1045.2	1028.4	991.8	964.3
27.5°	1004.0	994.8	976.5	924.6	892.6
30°	952.1	947.5	921.6	854.5	830.0
32.5°	903.3	895.6	868.2	798.0	778.2
35°	852.9	846.8	805.6	744.6	726.3
37.5°	802.6	794.9	743.1	694.2	671.4
40°	752.2	743.1	686.6	642.4	618.0
42.5°	704.9	692.7	637.8	590.5	563.0
45°	654.6	640.8	585.9	537.1	515.7
47.5°	604.2	592.0	541.7	491.3	466.9
50°	550.8	540.1	494.4	444.0	418.1
52.5°	506.6	489.8	445.5	395.2	373.8
55°	454.7	441.0	399.8	352.5	334.2
57.5°	407.4	393.7	355.5	311.3	296.0
60°	363.1	343.3	311.3	273.1	260.9
62.5°	314.3	299.1	271.6	239.6	254.8
65°	270.1	254.8	230.4	235.0	195.3
67.5°	221.2	213.6	192.3	170.9	164.8
70°	180.0	170.9	163.3	140.4	134.3
72.5°	143.4	134.3	123.6	111.4	106.8
75°	108.3	100.7	94.6	90.0	99.2
77.5°	74.8	71.7	67.1	62.6	61.0
80°	48.8	47.3	45.8	44.2	42.7
82.5°	29.0	29.0	29.0	29.0	29.0
85°	15.3	16.8	18.3	19.8	21.4
87.5°	9.2	9.2	10.7	12.2	13.7
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)