

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: P545791

Luminaire Tested: **FMR-12-2-LD4-2STD-50-UNV-81-84-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: P545791
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-81-84-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

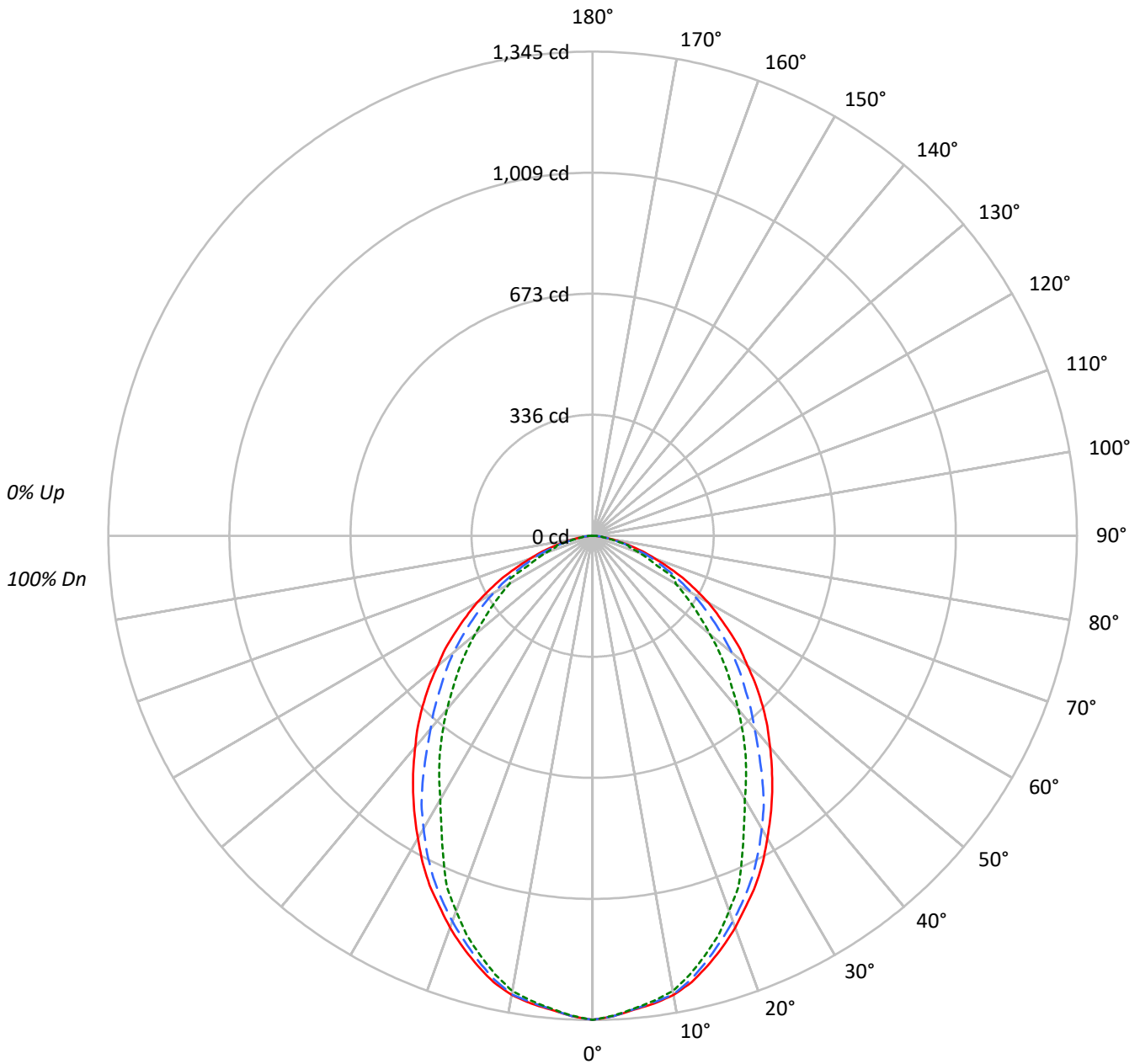
Lumens per Lamp: N/A
Luminaire Lumens: 2640.0 lumens
Efficiency: N/A
Efficacy: 79.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (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°	7238	7238	7238
5°	7139	7131	7123
10°	7077	7069	7018
15°	6887	6817	6722
20°	6633	6527	6349
25°	6361	6222	5834
30°	6029	5835	5256
35°	5710	5393	4862
40°	5384	4915	4423
45°	5076	4544	4000
50°	4699	4217	3567
55°	4347	3822	3195
60°	3983	3414	2861
65°	3505	2990	2534
70°	2886	2617	2153
75°	2296	2005	2102
80°	1540	1444	1348
85°	957	1155	1346



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.2	4.7
10°-20°	343.5	13.0
20°-30°	475.6	18.0
30°-40°	507.2	19.2
40°-50°	462.7	17.5
50°-60°	362.5	13.7
60°-70°	236.2	8.9
70°-80°	104.7	4.0
80°-90°	22.5	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°	944.3	35.8
0°-40°	1451.5	55.0
0°-60°	2276.6	86.2
0°-90°	2640.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2640.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1345	1345	1345	1345	1345	
5°	1322	1320	1320	1318	1318	125
15°	1236	1236	1224	1211	1206	347
25°	1071	1065	1048	1010	982	492
35°	869	863	821	759	740	543
45°	667	653	597	547	526	514
55°	463	449	407	359	340	416
65°	275	260	235	239	199	271
75°	110	103	96	92	101	118
85°	16	17	19	20	22	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1344.8	1344.8	1344.8	1344.8	1344.8
2.5°	1335.5	1335.5	1335.5	1333.9	1333.9
5°	1321.5	1319.9	1319.9	1318.4	1318.4
7.5°	1310.6	1309.0	1307.5	1305.9	1302.8
10°	1295.0	1295.0	1293.5	1285.7	1284.1
12.5°	1270.2	1268.6	1262.4	1251.5	1248.4
15°	1236.0	1236.0	1223.5	1211.1	1206.4
17.5°	1198.6	1197.1	1181.5	1169.1	1162.9
20°	1158.2	1155.1	1139.6	1119.4	1108.5
22.5°	1113.1	1113.1	1094.5	1068.1	1057.2
25°	1071.2	1064.9	1047.8	1010.5	982.5
27.5°	1023.0	1013.6	995.0	942.1	909.5
30°	970.1	965.4	939.0	870.6	845.7
32.5°	920.4	912.6	884.6	813.1	792.9
35°	869.1	862.8	820.9	758.7	740.0
37.5°	817.8	810.0	757.1	707.4	684.1
40°	766.4	757.1	699.6	654.5	629.6
42.5°	718.3	705.8	649.8	601.7	573.7
45°	666.9	653.0	597.0	547.2	525.5
47.5°	615.6	603.2	551.9	500.6	475.7
50°	561.2	550.3	503.7	452.4	426.0
52.5°	516.1	499.0	454.0	402.7	380.9
55°	463.3	449.3	407.3	359.1	340.5
57.5°	415.1	401.1	362.2	317.2	301.6
60°	370.0	349.8	317.2	278.3	265.8
62.5°	320.3	304.7	276.7	244.1	259.6
65°	275.2	259.6	234.8	239.4	199.0
67.5°	225.4	217.7	195.9	174.1	167.9
70°	183.4	174.1	166.3	143.0	136.8
72.5°	146.1	136.8	125.9	113.5	108.8
75°	110.4	102.6	96.4	91.7	101.1
77.5°	76.2	73.1	68.4	63.7	62.2
80°	49.7	48.2	46.6	45.1	43.5
82.5°	29.5	29.5	29.5	29.5	29.5
85°	15.5	17.1	18.7	20.2	21.8
87.5°	9.3	9.3	10.9	12.4	14.0
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)