

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: P545512

Luminaire Tested: **FMR-12-2-LD4-1STD-50-UNV-82-85-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: P545512
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-LD4-1STD-50-UNV-82-85-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

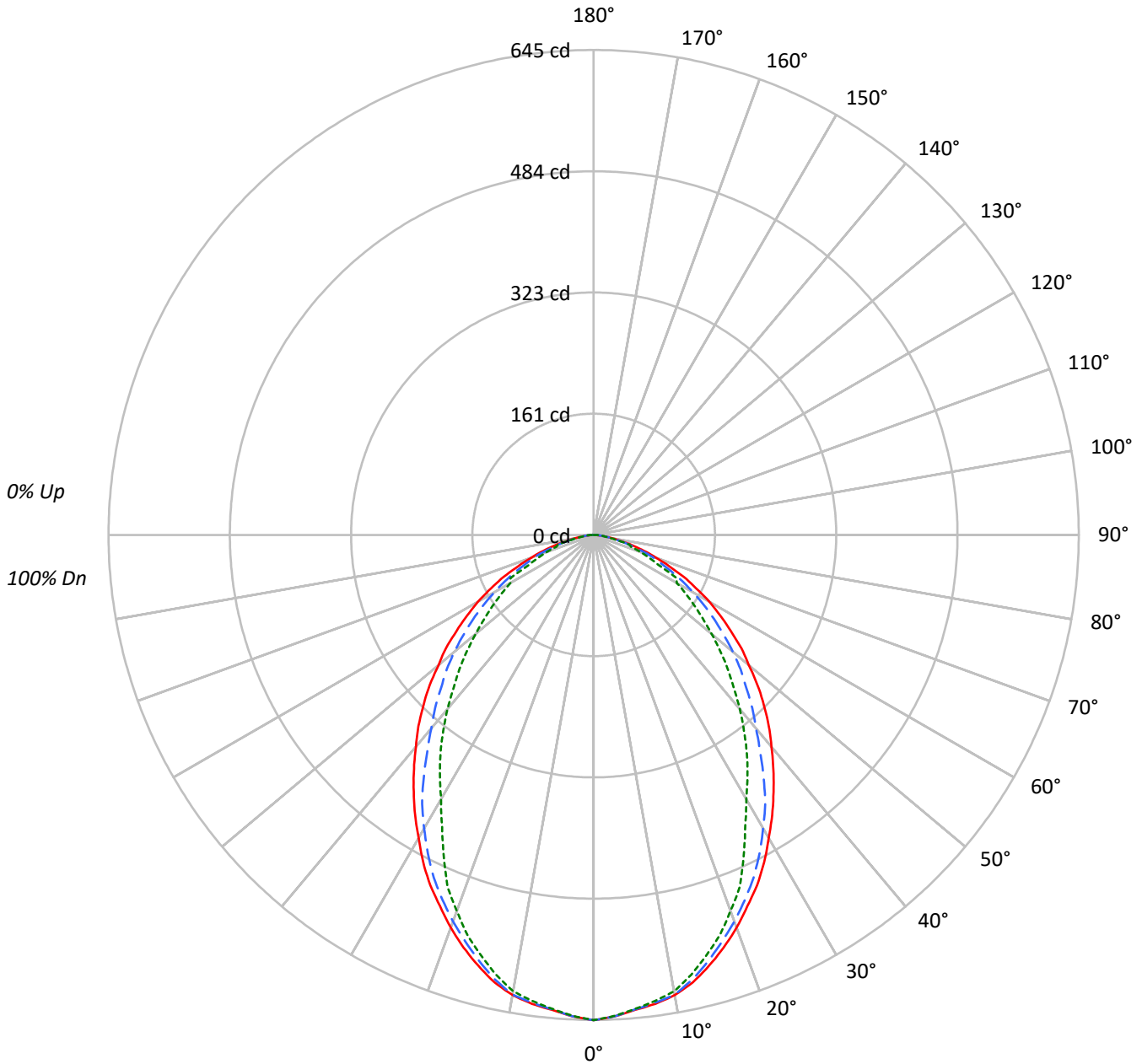
Lumens per Lamp: N/A
Luminaire Lumens: 1267.0 lumens
Efficiency: N/A
Efficacy: 76.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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°	3474	3474	3474
5°	3426	3422	3418
10°	3396	3393	3368
15°	3305	3272	3226
20°	3184	3132	3047
25°	3053	2986	2800
30°	2893	2801	2522
35°	2740	2589	2334
40°	2584	2359	2123
45°	2436	2181	1920
50°	2255	2024	1711
55°	2086	1834	1533
60°	1912	1638	1373
65°	1682	1435	1216
70°	1385	1256	1034
75°	1102	963	1009
80°	741	694	648
85°	463	556	642



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.1	4.7
10°-20°	164.9	13.0
20°-30°	228.3	18.0
30°-40°	243.4	19.2
40°-50°	222.0	17.5
50°-60°	173.9	13.7
60°-70°	113.4	8.9
70°-80°	50.2	4.0
80°-90°	10.8	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°	453.2	35.8
0°-40°	696.6	55.0
0°-60°	1092.6	86.2
0°-90°	1267.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1267.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	645	645	645	645	645	
5°	634	634	634	633	633	60
15°	593	593	587	581	579	167
25°	514	511	503	485	472	236
35°	417	414	394	364	355	261
45°	320	313	286	263	252	247
55°	222	216	196	172	163	199
65°	132	125	113	115	96	130
75°	53	49	46	44	48	57
85°	8	8	9	10	10	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	645.4	645.4	645.4	645.4	645.4
2.5°	640.9	640.9	640.9	640.2	640.2
5°	634.2	633.5	633.5	632.7	632.7
7.5°	629.0	628.2	627.5	626.7	625.2
10°	621.5	621.5	620.8	617.0	616.3
12.5°	609.6	608.8	605.8	600.6	599.1
15°	593.2	593.2	587.2	581.2	579.0
17.5°	575.3	574.5	567.1	561.1	558.1
20°	555.9	554.4	546.9	537.2	532.0
22.5°	534.2	534.2	525.3	512.6	507.4
25°	514.1	511.1	502.9	485.0	471.5
27.5°	490.9	486.5	477.5	452.1	436.5
30°	465.6	463.3	450.7	417.8	405.9
32.5°	441.7	438.0	424.5	390.2	380.5
35°	417.1	414.1	394.0	364.1	355.2
37.5°	392.5	388.7	363.4	339.5	328.3
40°	367.8	363.4	335.8	314.1	302.2
42.5°	344.7	338.7	311.9	288.7	275.3
45°	320.1	313.4	286.5	262.6	252.2
47.5°	295.5	289.5	264.9	240.3	228.3
50°	269.3	264.1	241.7	217.1	204.4
52.5°	247.7	239.5	217.9	193.2	182.8
55°	222.3	215.6	195.5	172.4	163.4
57.5°	199.2	192.5	173.8	152.2	144.7
60°	177.6	167.9	152.2	133.6	127.6
62.5°	153.7	146.2	132.8	117.1	124.6
65°	132.1	124.6	112.7	114.9	95.5
67.5°	108.2	104.5	94.0	83.6	80.6
70°	88.0	83.6	79.8	68.6	65.7
72.5°	70.1	65.7	60.4	54.5	52.2
75°	53.0	49.2	46.3	44.0	48.5
77.5°	36.6	35.1	32.8	30.6	29.8
80°	23.9	23.1	22.4	21.6	20.9
82.5°	14.2	14.2	14.2	14.2	14.2
85°	7.5	8.2	9.0	9.7	10.4
87.5°	4.5	4.5	5.2	6.0	6.7
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)