

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: P545322

Luminaire Tested: **FMR-12-2-LD4-1HI-50-UNV-82-87-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: P545322
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-LD4-1HI-50-UNV-82-87-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC 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

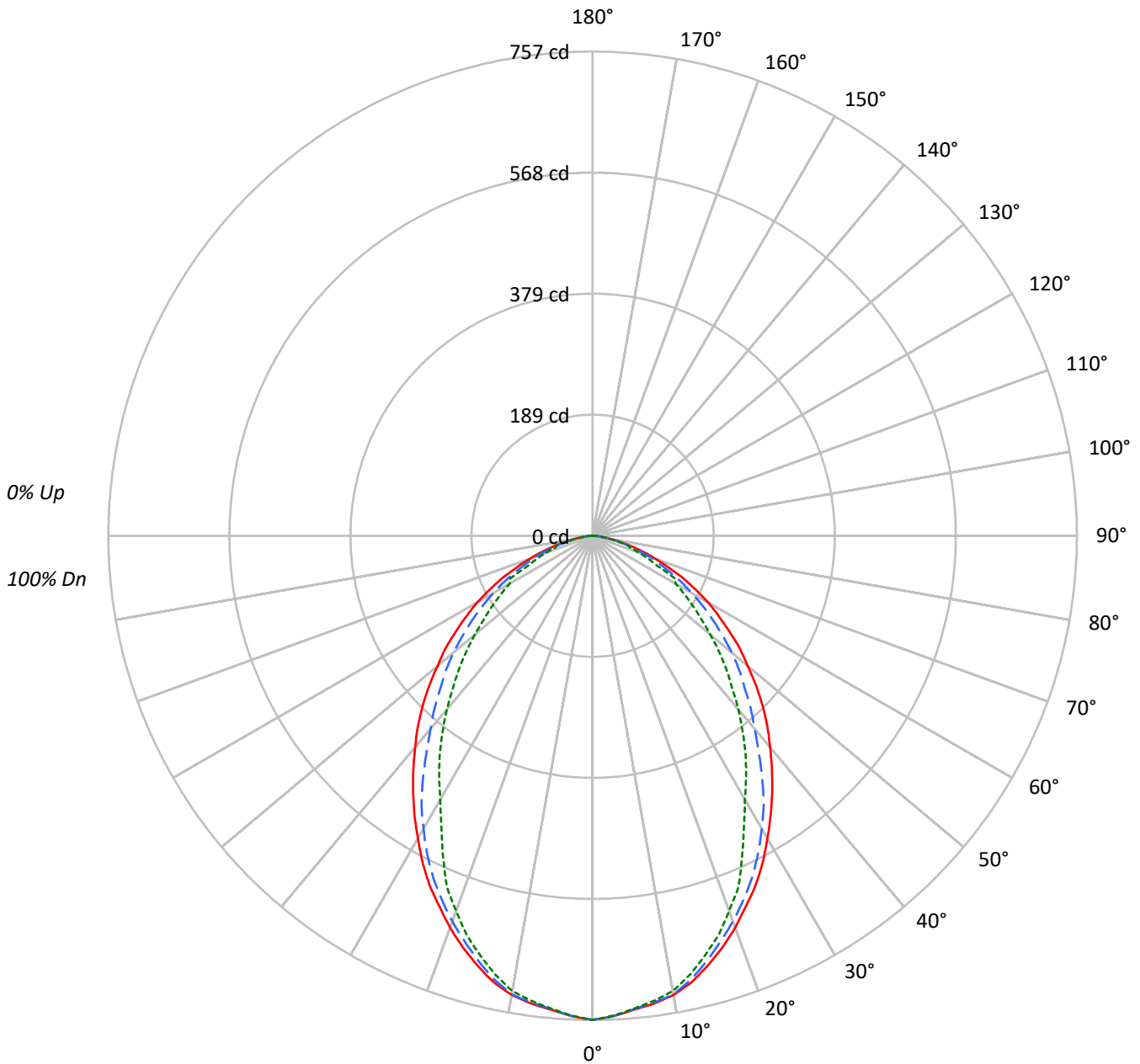
Lumens per Lamp: N/A
Luminaire Lumens: 1486.0 lumens
Efficiency: N/A
Efficacy: 68.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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°	4074	4074	4074
5°	4018	4014	4009
10°	3983	3979	3950
15°	3876	3837	3784
20°	3734	3674	3573
25°	3580	3502	3284
30°	3394	3285	2958
35°	3214	3035	2736
40°	3031	2767	2490
45°	2857	2557	2251
50°	2645	2374	2008
55°	2447	2152	1798
60°	2242	1921	1610
65°	1973	1682	1426
70°	1626	1473	1212
75°	1291	1129	1183
80°	868	815	759
85°	543	648	760



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.5	4.7
10°-20°	193.4	13.0
20°-30°	267.7	18.0
30°-40°	285.5	19.2
40°-50°	260.4	17.5
50°-60°	204.0	13.7
60°-70°	133.0	8.9
70°-80°	58.9	4.0
80°-90°	12.6	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°	531.6	35.8
0°-40°	817.0	55.0
0°-60°	1281.5	86.2
0°-90°	1486.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1486.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	757	757	757	757	757	
5°	744	743	743	742	742	71
15°	696	696	689	682	679	196
25°	603	599	590	569	553	277
35°	489	486	462	427	416	306
45°	375	368	336	308	296	289
55°	261	253	229	202	192	234
65°	155	146	132	135	112	153
75°	62	58	54	52	57	67
85°	9	10	10	11	12	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	756.9	756.9	756.9	756.9	756.9
2.5°	751.7	751.7	751.7	750.8	750.8
5°	743.8	742.9	742.9	742.1	742.1
7.5°	737.7	736.8	735.9	735.1	733.3
10°	728.9	728.9	728.1	723.7	722.8
12.5°	714.9	714.1	710.6	704.4	702.7
15°	695.7	695.7	688.7	681.7	679.1
17.5°	674.7	673.8	665.1	658.1	654.6
20°	651.9	650.2	641.4	630.1	623.9
22.5°	626.6	626.6	616.1	601.2	595.1
25°	602.9	599.4	589.8	568.8	553.1
27.5°	575.8	570.6	560.1	530.3	511.9
30°	546.1	543.4	528.6	490.0	476.0
32.5°	518.1	513.7	497.9	457.7	446.3
35°	489.2	485.7	462.0	427.0	416.5
37.5°	460.3	455.9	426.2	398.2	385.0
40°	431.4	426.2	393.8	368.4	354.4
42.5°	404.3	397.3	365.8	338.7	322.9
45°	375.4	367.5	336.0	308.0	295.8
47.5°	346.5	339.5	310.7	281.8	267.8
50°	315.9	309.8	283.5	254.6	239.8
52.5°	290.5	280.9	255.5	226.6	214.4
55°	260.8	252.9	229.3	202.1	191.6
57.5°	233.6	225.8	203.9	178.5	169.8
60°	208.3	196.9	178.5	156.6	149.6
62.5°	180.3	171.5	155.8	137.4	146.1
65°	154.9	146.1	132.1	134.8	112.0
67.5°	126.9	122.5	110.3	98.0	94.5
70°	103.3	98.0	93.6	80.5	77.0
72.5°	82.3	77.0	70.9	63.9	61.3
75°	62.1	57.8	54.3	51.6	56.9
77.5°	42.9	41.1	38.5	35.9	35.0
80°	28.0	27.1	26.3	25.4	24.5
82.5°	16.6	16.6	16.6	16.6	16.6
85°	8.8	9.6	10.5	11.4	12.3
87.5°	5.3	5.3	6.1	7.0	7.9
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)