

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: P544905

Luminaire Tested: **FMR-12-1-LD4-1STD-40-UNV-82-86-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: P544905
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-12-1-LD4-1STD-40-UNV-82-86-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

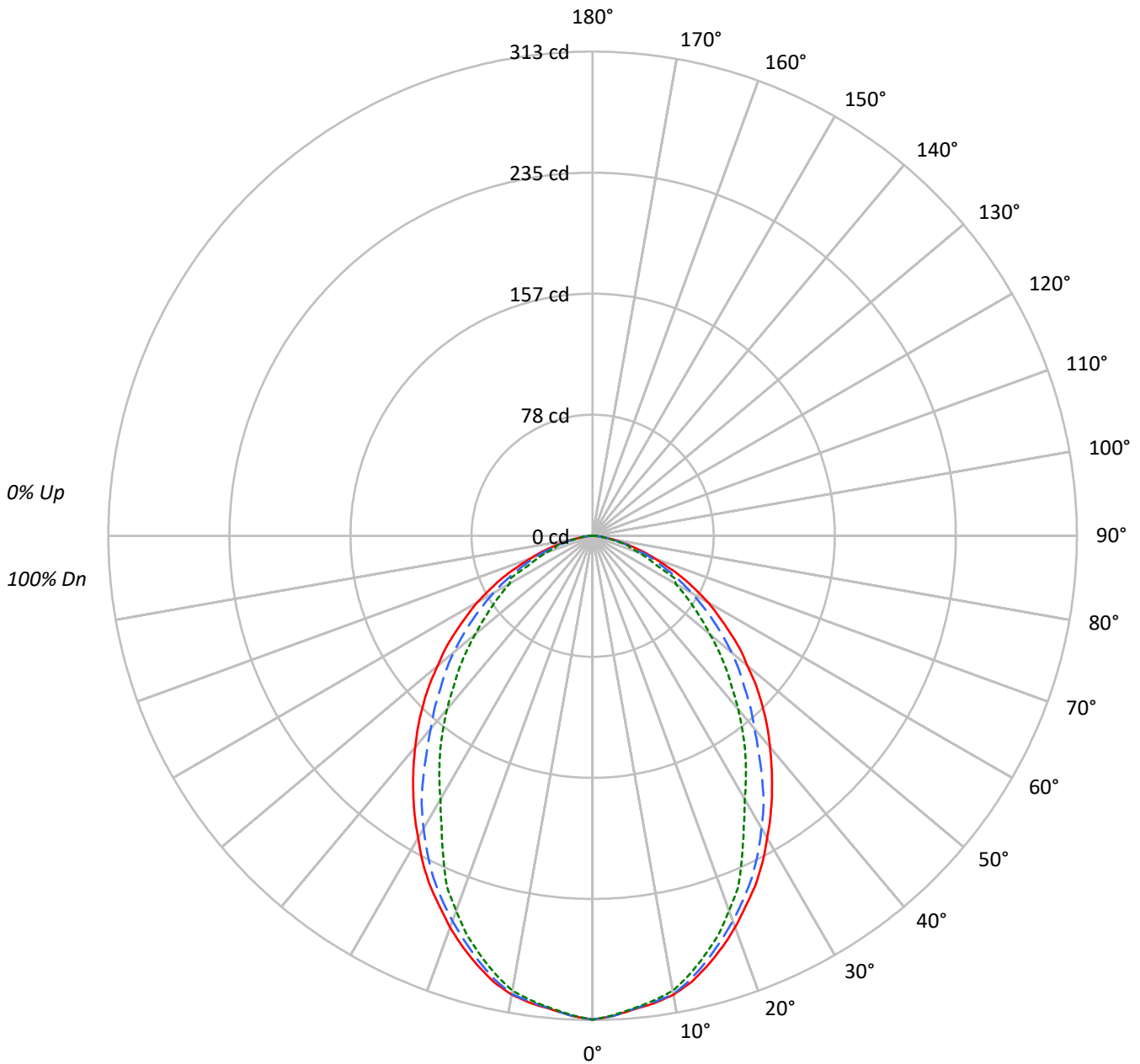
Lumens per Lamp: N/A
Luminaire Lumens: 614.0 lumens
Efficiency: N/A
Efficacy: 74.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 8.3
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	47	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°	3367	3367	3367
5°	3320	3317	3313
10°	3292	3288	3265
15°	3204	3171	3127
20°	3086	3036	2953
25°	2958	2894	2714
30°	2804	2715	2445
35°	2656	2508	2261
40°	2505	2286	2057
45°	2361	2113	1860
50°	2185	1963	1659
55°	2021	1777	1486
60°	1854	1589	1330
65°	1630	1391	1179
70°	1344	1218	1001
75°	1069	932	977
80°	719	669	626
85°	445	531	630



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.1	4.7
10°-20°	79.9	13.0
20°-30°	110.6	18.0
30°-40°	117.9	19.2
40°-50°	107.6	17.5
50°-60°	84.3	13.7
60°-70°	55.0	9.0
70°-80°	24.3	4.0
80°-90°	5.2	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°	219.6	35.8
0°-40°	337.6	55.0
0°-60°	529.5	86.2
0°-90°	614.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	614.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	313	313	313	313	313	
5°	307	307	307	307	307	29
15°	288	288	285	282	281	81
25°	249	248	244	235	228	114
35°	202	201	191	176	172	126
45°	155	152	139	127	122	119
55°	108	104	95	84	79	97
65°	64	60	55	56	46	63
75°	26	24	22	21	24	28
85°	4	4	4	5	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	312.8	312.8	312.8	312.8	312.8
2.5°	310.6	310.6	310.6	310.2	310.2
5°	307.3	307.0	307.0	306.6	306.6
7.5°	304.8	304.4	304.1	303.7	303.0
10°	301.2	301.2	300.8	299.0	298.7
12.5°	295.4	295.0	293.6	291.1	290.3
15°	287.5	287.5	284.6	281.7	280.6
17.5°	278.8	278.4	274.8	271.9	270.5
20°	269.4	268.7	265.0	260.3	257.8
22.5°	258.9	258.9	254.5	248.4	245.9
25°	249.1	247.7	243.7	235.0	228.5
27.5°	237.9	235.7	231.4	219.1	211.5
30°	225.6	224.5	218.4	202.5	196.7
32.5°	214.1	212.2	205.7	189.1	184.4
35°	202.1	200.7	190.9	176.4	172.1
37.5°	190.2	188.4	176.1	164.5	159.1
40°	178.3	176.1	162.7	152.2	146.4
42.5°	167.0	164.2	151.1	139.9	133.4
45°	155.1	151.9	138.8	127.3	122.2
47.5°	143.2	140.3	128.4	116.4	110.6
50°	130.5	128.0	117.2	105.2	99.1
52.5°	120.0	116.1	105.6	93.6	88.6
55°	107.7	104.5	94.7	83.5	79.2
57.5°	96.5	93.3	84.2	73.8	70.1
60°	86.1	81.4	73.8	64.7	61.8
62.5°	74.5	70.9	64.4	56.8	60.4
65°	64.0	60.4	54.6	55.7	46.3
67.5°	52.4	50.6	45.6	40.5	39.1
70°	42.7	40.5	38.7	33.3	31.8
72.5°	34.0	31.8	29.3	26.4	25.3
75°	25.7	23.9	22.4	21.3	23.5
77.5°	17.7	17.0	15.9	14.8	14.5
80°	11.6	11.2	10.8	10.5	10.1
82.5°	6.9	6.9	6.9	6.9	6.9
85°	3.6	4.0	4.3	4.7	5.1
87.5°	2.2	2.2	2.5	2.9	3.3
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)