

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: P544928

Luminaire Tested: **FMR-12-1-LD4-1STD-50-UNV-81-85-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: P544928
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-50-UNV-81-85-EDD
Description: 1X1 FMR TROFFER WITH .156 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

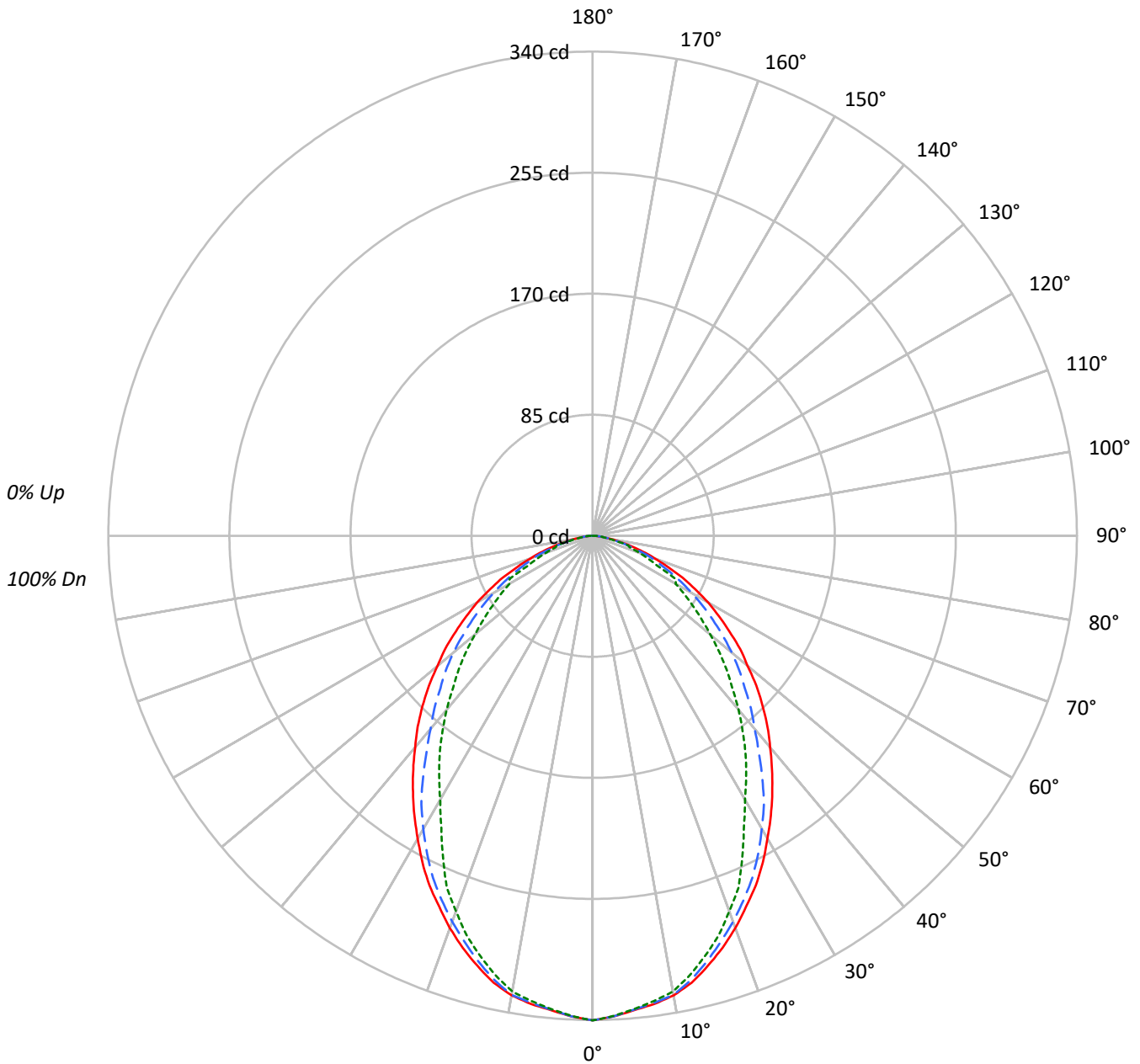
Lumens per Lamp: N/A
Luminaire Lumens: 668.0 lumens
Efficiency: N/A
Efficacy: 80.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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°	3663	3663	3663
5°	3613	3609	3605
10°	3582	3577	3551
15°	3485	3450	3402
20°	3357	3302	3213
25°	3219	3149	2953
30°	3051	2953	2660
35°	2890	2729	2460
40°	2725	2487	2238
45°	2570	2300	2025
50°	2378	2135	1805
55°	2199	1935	1616
60°	2015	1727	1449
65°	1773	1513	1284
70°	1460	1325	1089
75°	1160	1015	1065
80°	781	731	682
85°	482	580	679



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.7	4.7
10°-20°	86.9	13.0
20°-30°	120.3	18.0
30°-40°	128.3	19.2
40°-50°	117.1	17.5
50°-60°	91.7	13.7
60°-70°	59.8	8.9
70°-80°	26.5	4.0
80°-90°	5.7	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°	238.9	35.8
0°-40°	367.3	55.0
0°-60°	576.1	86.2
0°-90°	668.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	668.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	340	340	340	340	340	
5°	334	334	334	334	334	32
15°	313	313	310	306	305	88
25°	271	270	265	256	249	124
35°	220	218	208	192	187	137
45°	169	165	151	138	133	130
55°	117	114	103	91	86	105
65°	70	66	59	61	50	69
75°	28	26	24	23	26	30
85°	4	4	5	5	6	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	340.3	340.3	340.3	340.3	340.3
2.5°	337.9	337.9	337.9	337.5	337.5
5°	334.4	334.0	334.0	333.6	333.6
7.5°	331.6	331.2	330.8	330.4	329.6
10°	327.7	327.7	327.3	325.3	324.9
12.5°	321.4	321.0	319.4	316.7	315.9
15°	312.7	312.7	309.6	306.4	305.3
17.5°	303.3	302.9	299.0	295.8	294.2
20°	293.1	292.3	288.3	283.2	280.5
22.5°	281.7	281.7	276.9	270.2	267.5
25°	271.0	269.5	265.1	255.7	248.6
27.5°	258.8	256.5	251.8	238.4	230.1
30°	245.5	244.3	237.6	220.3	214.0
32.5°	232.9	230.9	223.8	205.7	200.6
35°	219.9	218.3	207.7	192.0	187.2
37.5°	206.9	204.9	191.6	179.0	173.1
40°	193.9	191.6	177.0	165.6	159.3
42.5°	181.7	178.6	164.4	152.2	145.2
45°	168.8	165.2	151.1	138.5	133.0
47.5°	155.8	152.6	139.6	126.7	120.4
50°	142.0	139.3	127.5	114.5	107.8
52.5°	130.6	126.3	114.9	101.9	96.4
55°	117.2	113.7	103.1	90.9	86.1
57.5°	105.0	101.5	91.7	80.2	76.3
60°	93.6	88.5	80.2	70.4	67.3
62.5°	81.0	77.1	70.0	61.8	65.7
65°	69.6	65.7	59.4	60.6	50.4
67.5°	57.0	55.1	49.6	44.1	42.5
70°	46.4	44.1	42.1	36.2	34.6
72.5°	37.0	34.6	31.9	28.7	27.5
75°	27.9	26.0	24.4	23.2	25.6
77.5°	19.3	18.5	17.3	16.1	15.7
80°	12.6	12.2	11.8	11.4	11.0
82.5°	7.5	7.5	7.5	7.5	7.5
85°	3.9	4.3	4.7	5.1	5.5
87.5°	2.4	2.4	2.8	3.1	3.5
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)