

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: P544887

Luminaire Tested: **FMR-12-1-LD4-1STD-40-UNV-80-84-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: P544887
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-80-84-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

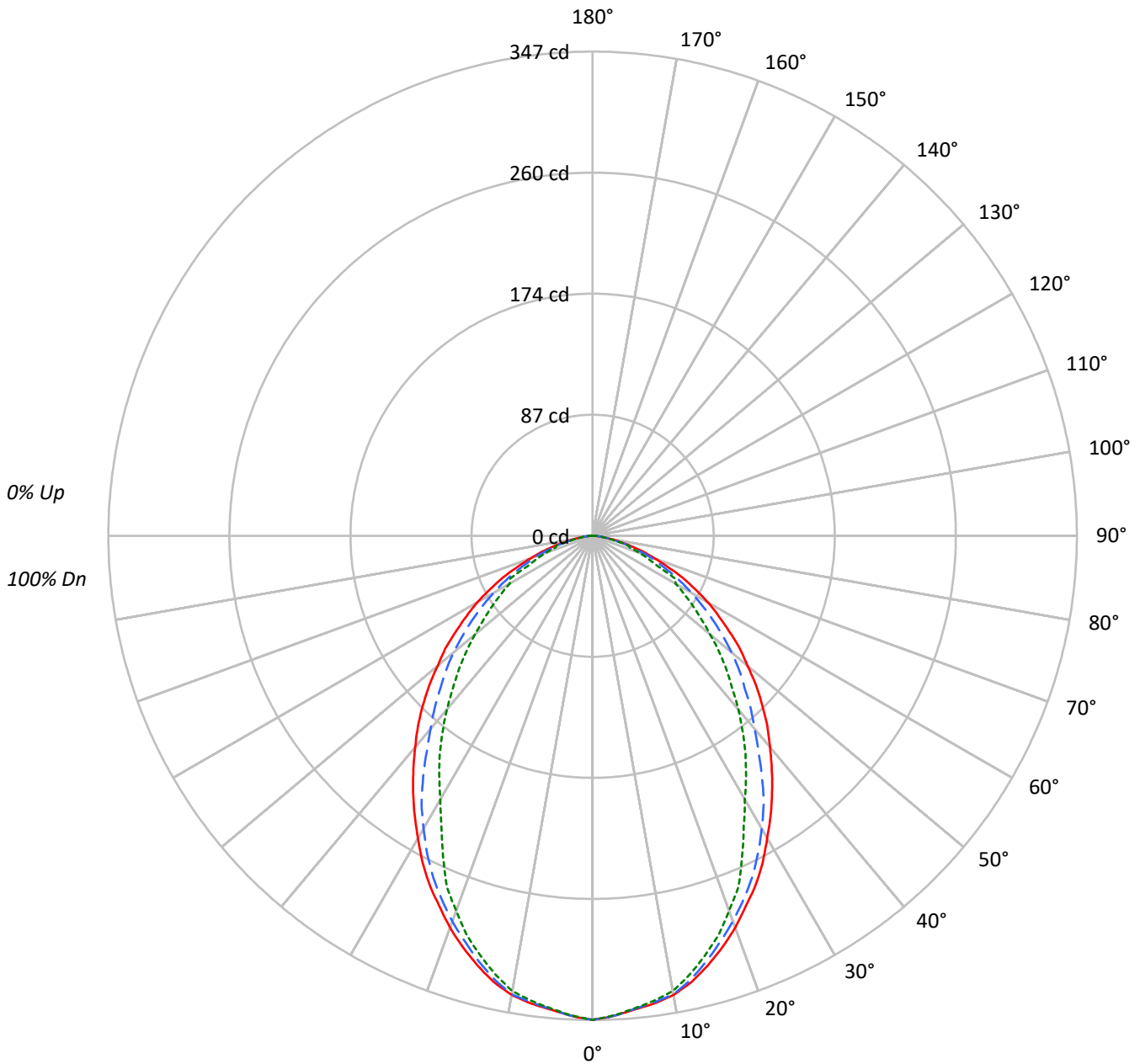
Lumens per Lamp: N/A
Luminaire Lumens: 681.0 lumens
Efficiency: N/A
Efficacy: 82.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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	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°	3734	3734	3734
5°	3683	3679	3675
10°	3652	3647	3621
15°	3553	3517	3468
20°	3423	3368	3275
25°	3282	3210	3011
30°	3110	3010	2712
35°	2946	2782	2508
40°	2778	2536	2282
45°	2618	2344	2063
50°	2425	2175	1840
55°	2243	1972	1648
60°	2054	1761	1477
65°	1808	1543	1307
70°	1489	1350	1111
75°	1185	1036	1085
80°	793	744	694
85°	494	593	692



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.3	4.7
10°-20°	88.6	13.0
20°-30°	122.7	18.0
30°-40°	130.8	19.2
40°-50°	119.3	17.5
50°-60°	93.5	13.7
60°-70°	60.9	8.9
70°-80°	27.0	4.0
80°-90°	5.8	0.8
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°	243.6	35.8
0°-40°	374.4	55.0
0°-60°	587.3	86.2
0°-90°	681.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	681.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	347	347	347	347	347	
5°	341	340	340	340	340	32
15°	319	319	316	312	311	90
25°	276	275	270	261	254	127
35°	224	223	212	196	191	140
45°	172	168	154	141	136	133
55°	120	116	105	93	88	107
65°	71	67	61	62	51	70
75°	28	26	25	24	26	31
85°	4	4	5	5	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	346.9	346.9	346.9	346.9	346.9
2.5°	344.5	344.5	344.5	344.1	344.1
5°	340.9	340.5	340.5	340.1	340.1
7.5°	338.1	337.7	337.3	336.9	336.1
10°	334.1	334.1	333.7	331.7	331.3
12.5°	327.6	327.2	325.6	322.8	322.0
15°	318.8	318.8	315.6	312.4	311.2
17.5°	309.2	308.8	304.8	301.6	300.0
20°	298.8	298.0	294.0	288.7	285.9
22.5°	287.1	287.1	282.3	275.5	272.7
25°	276.3	274.7	270.3	260.7	253.5
27.5°	263.9	261.5	256.7	243.0	234.6
30°	250.2	249.0	242.2	224.6	218.2
32.5°	237.4	235.4	228.2	209.7	204.5
35°	224.2	222.6	211.7	195.7	190.9
37.5°	210.9	208.9	195.3	182.5	176.5
40°	197.7	195.3	180.5	168.8	162.4
42.5°	185.3	182.1	167.6	155.2	148.0
45°	172.0	168.4	154.0	141.2	135.5
47.5°	158.8	155.6	142.4	129.1	122.7
50°	144.8	142.0	129.9	116.7	109.9
52.5°	133.1	128.7	117.1	103.9	98.3
55°	119.5	115.9	105.1	92.6	87.8
57.5°	107.1	103.5	93.4	81.8	77.8
60°	95.4	90.2	81.8	71.8	68.6
62.5°	82.6	78.6	71.4	63.0	67.0
65°	71.0	67.0	60.6	61.8	51.3
67.5°	58.1	56.1	50.5	44.9	43.3
70°	47.3	44.9	42.9	36.9	35.3
72.5°	37.7	35.3	32.5	29.3	28.1
75°	28.5	26.5	24.9	23.7	26.1
77.5°	19.7	18.8	17.6	16.4	16.0
80°	12.8	12.4	12.0	11.6	11.2
82.5°	7.6	7.6	7.6	7.6	7.6
85°	4.0	4.4	4.8	5.2	5.6
87.5°	2.4	2.4	2.8	3.2	3.6
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)