

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: P544797

Luminaire Tested: **FMR-12-1-LD4-1LO-40-UNV-80-96-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: P544797
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-LD4-1LO-40-UNV-80-96-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

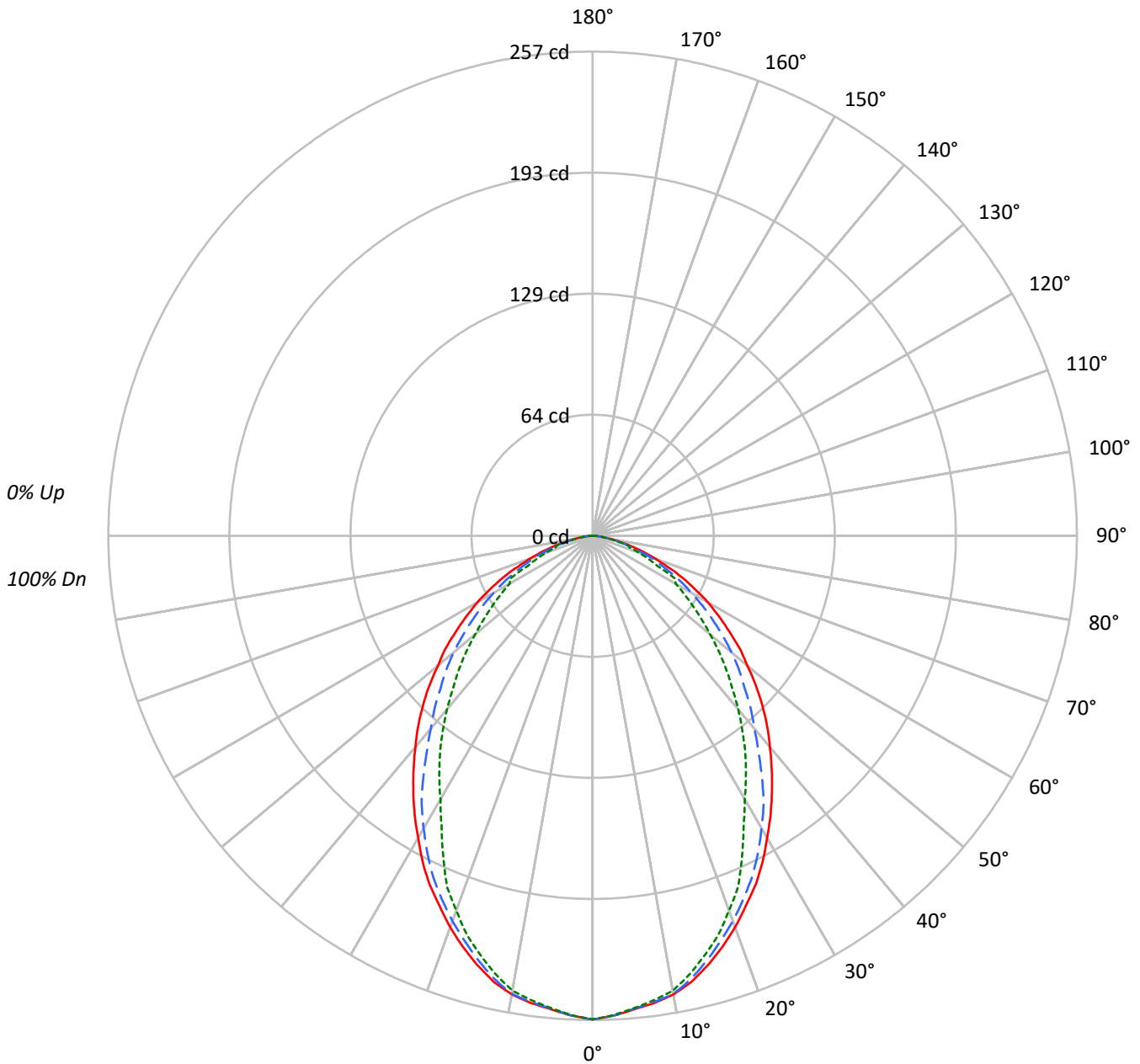
Lumens per Lamp: N/A
Luminaire Lumens: 504.0 lumens
Efficiency: N/A
Efficacy: 86.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 5.8
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°	2763	2763	2763
5°	2726	2723	2720
10°	2702	2699	2680
15°	2630	2603	2566
20°	2533	2493	2424
25°	2429	2375	2228
30°	2302	2229	2007
35°	2180	2059	1857
40°	2056	1877	1689
45°	1938	1735	1527
50°	1793	1611	1361
55°	1659	1460	1220
60°	1520	1302	1094
65°	1337	1141	968
70°	1102	1001	821
75°	878	765	803
80°	589	552	514
85°	371	445	519



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.9	4.7
10°-20°	65.6	13.0
20°-30°	90.8	18.0
30°-40°	96.8	19.2
40°-50°	88.3	17.5
50°-60°	69.2	13.7
60°-70°	45.1	8.9
70°-80°	20.0	4.0
80°-90°	4.3	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°	180.3	35.8
0°-40°	277.1	55.0
0°-60°	434.6	86.2
0°-90°	504.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	504.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	257	257	257	257	257	
5°	252	252	252	252	252	24
15°	236	236	234	231	230	66
25°	204	203	200	193	188	94
35°	166	165	157	145	141	104
45°	127	125	114	104	100	98
55°	88	86	78	69	65	79
65°	52	50	45	46	38	52
75°	21	20	18	18	19	23
85°	3	3	4	4	4	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	256.7	256.7	256.7	256.7	256.7
2.5°	255.0	255.0	255.0	254.7	254.7
5°	252.3	252.0	252.0	251.7	251.7
7.5°	250.2	249.9	249.6	249.3	248.7
10°	247.2	247.2	246.9	245.5	245.2
12.5°	242.5	242.2	241.0	238.9	238.3
15°	236.0	236.0	233.6	231.2	230.3
17.5°	228.8	228.5	225.6	223.2	222.0
20°	221.1	220.5	217.6	213.7	211.6
22.5°	212.5	212.5	208.9	203.9	201.8
25°	204.5	203.3	200.0	192.9	187.6
27.5°	195.3	193.5	190.0	179.9	173.6
30°	185.2	184.3	179.3	166.2	161.5
32.5°	175.7	174.2	168.9	155.2	151.4
35°	165.9	164.7	156.7	144.8	141.3
37.5°	156.1	154.6	144.5	135.0	130.6
40°	146.3	144.5	133.6	125.0	120.2
42.5°	137.1	134.7	124.1	114.9	109.5
45°	127.3	124.7	114.0	104.5	100.3
47.5°	117.5	115.2	105.4	95.6	90.8
50°	107.1	105.1	96.2	86.4	81.3
52.5°	98.5	95.3	86.7	76.9	72.7
55°	88.4	85.8	77.8	68.6	65.0
57.5°	79.2	76.6	69.2	60.5	57.6
60°	70.6	66.8	60.5	53.1	50.8
62.5°	61.1	58.2	52.8	46.6	49.6
65°	52.5	49.6	44.8	45.7	38.0
67.5°	43.0	41.6	37.4	33.2	32.1
70°	35.0	33.2	31.8	27.3	26.1
72.5°	27.9	26.1	24.0	21.7	20.8
75°	21.1	19.6	18.4	17.5	19.3
77.5°	14.5	13.9	13.1	12.2	11.9
80°	9.5	9.2	8.9	8.6	8.3
82.5°	5.6	5.6	5.6	5.6	5.6
85°	3.0	3.3	3.6	3.9	4.2
87.5°	1.8	1.8	2.1	2.4	2.7
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)