

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: P544715

Luminaire Tested: **FMR-12-1-LD4-1HI-40-UNV-82-88-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: P544715
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-LD4-1HI-40-UNV-82-88-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

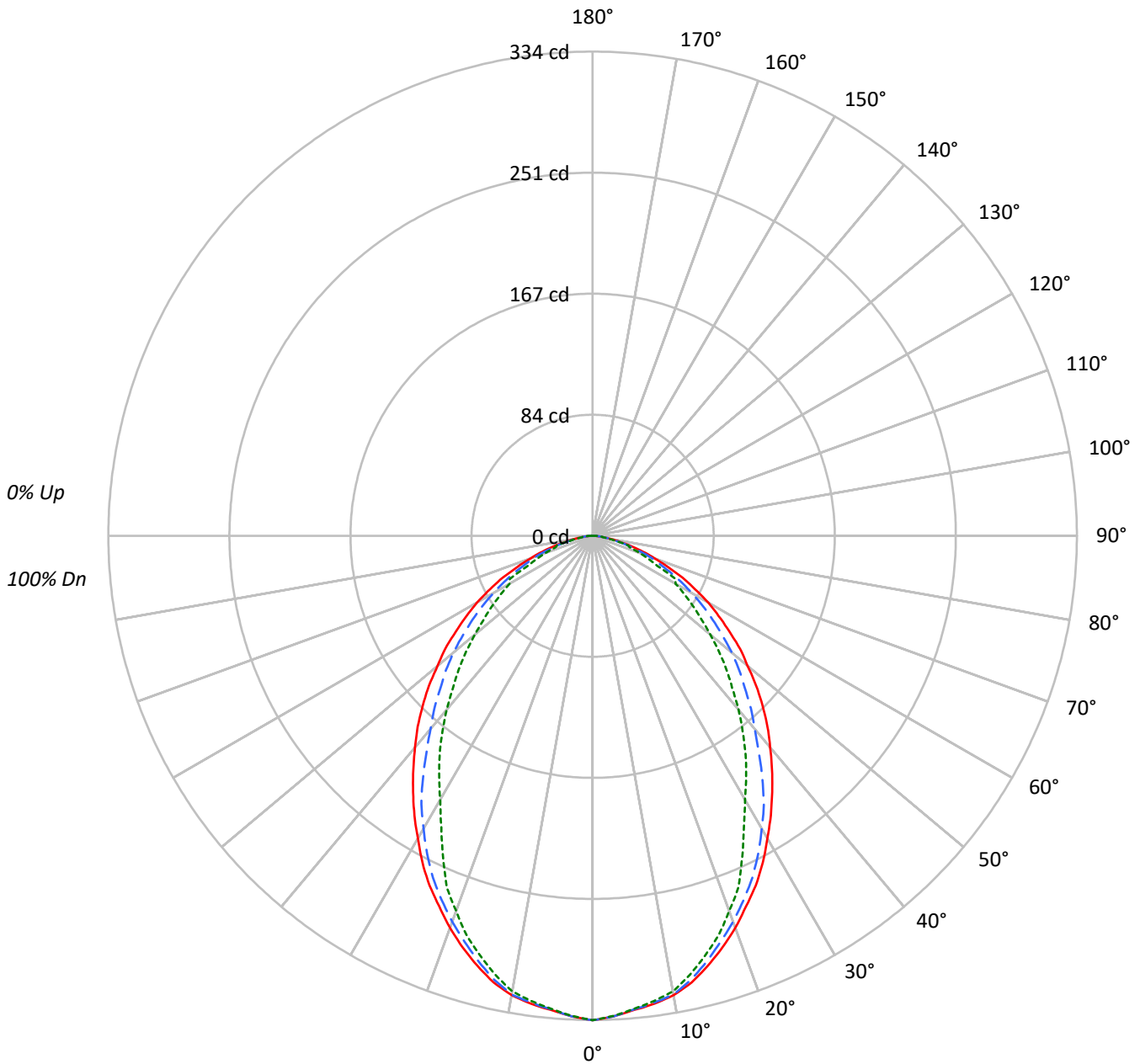
Lumens per Lamp: N/A
Luminaire Lumens: 656.0 lumens
Efficiency: N/A
Efficacy: 60.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 10.8
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				20				
RC	80				70				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	100	100	100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87	87	87	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75	75	75	75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65	65	65	65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56	56	56	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50	50	50	50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44	44	44	44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40	40	40	40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36	36	36	36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33	33	33	33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30	30	30	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3597	3597	3597
5°	3548	3544	3540
10°	3517	3513	3488
15°	3422	3388	3341
20°	3297	3244	3155
25°	3162	3093	2899
30°	2997	2900	2613
35°	2837	2681	2417
40°	2677	2442	2199
45°	2522	2257	1988
50°	2336	2097	1772
55°	2160	1899	1588
60°	1978	1696	1423
65°	1742	1485	1258
70°	1435	1300	1070
75°	1140	998	1044
80°	769	719	669
85°	482	568	667



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.1	4.7
10°-20°	85.4	13.0
20°-30°	118.2	18.0
30°-40°	126.0	19.2
40°-50°	115.0	17.5
50°-60°	90.1	13.7
60°-70°	58.7	8.9
70°-80°	26.0	4.0
80°-90°	5.6	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°	234.7	35.8
0°-40°	360.7	55.0
0°-60°	565.7	86.2
0°-90°	656.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	656.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	334	334	334	334	334	
5°	328	328	328	328	328	31
15°	307	307	304	301	300	86
25°	266	265	260	251	244	122
35°	216	214	204	188	184	135
45°	166	162	148	136	131	128
55°	115	112	101	89	85	103
65°	68	64	58	60	49	67
75°	27	26	24	23	25	29
85°	4	4	5	5	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	334.2	334.2	334.2	334.2	334.2
2.5°	331.8	331.8	331.8	331.5	331.5
5°	328.4	328.0	328.0	327.6	327.6
7.5°	325.7	325.3	324.9	324.5	323.7
10°	321.8	321.8	321.4	319.5	319.1
12.5°	315.6	315.2	313.7	311.0	310.2
15°	307.1	307.1	304.0	300.9	299.8
17.5°	297.8	297.5	293.6	290.5	289.0
20°	287.8	287.0	283.2	278.1	275.4
22.5°	276.6	276.6	272.0	265.4	262.7
25°	266.2	264.6	260.4	251.1	244.1
27.5°	254.2	251.9	247.2	234.1	226.0
30°	241.1	239.9	233.3	216.3	210.2
32.5°	228.7	226.8	219.8	202.0	197.0
35°	215.9	214.4	204.0	188.5	183.9
37.5°	203.2	201.3	188.1	175.8	170.0
40°	190.5	188.1	173.8	162.6	156.5
42.5°	178.5	175.4	161.5	149.5	142.5
45°	165.7	162.2	148.3	136.0	130.6
47.5°	153.0	149.9	137.1	124.4	118.2
50°	139.5	136.8	125.2	112.4	105.8
52.5°	128.3	124.0	112.8	100.1	94.6
55°	115.1	111.6	101.2	89.2	84.6
57.5°	103.1	99.7	90.0	78.8	74.9
60°	91.9	86.9	78.8	69.1	66.1
62.5°	79.6	75.7	68.8	60.7	64.5
65°	68.4	64.5	58.3	59.5	49.4
67.5°	56.0	54.1	48.7	43.3	41.7
70°	45.6	43.3	41.3	35.5	34.0
72.5°	36.3	34.0	31.3	28.2	27.0
75°	27.4	25.5	24.0	22.8	25.1
77.5°	18.9	18.2	17.0	15.8	15.5
80°	12.4	12.0	11.6	11.2	10.8
82.5°	7.3	7.3	7.3	7.3	7.3
85°	3.9	4.2	4.6	5.0	5.4
87.5°	2.3	2.3	2.7	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)