

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: P545000

Luminaire Tested: **FMR-12-1-LD4-2HI-40-UNV-82-85-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: P545000
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-LD4-2HI-40-UNV-82-85-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

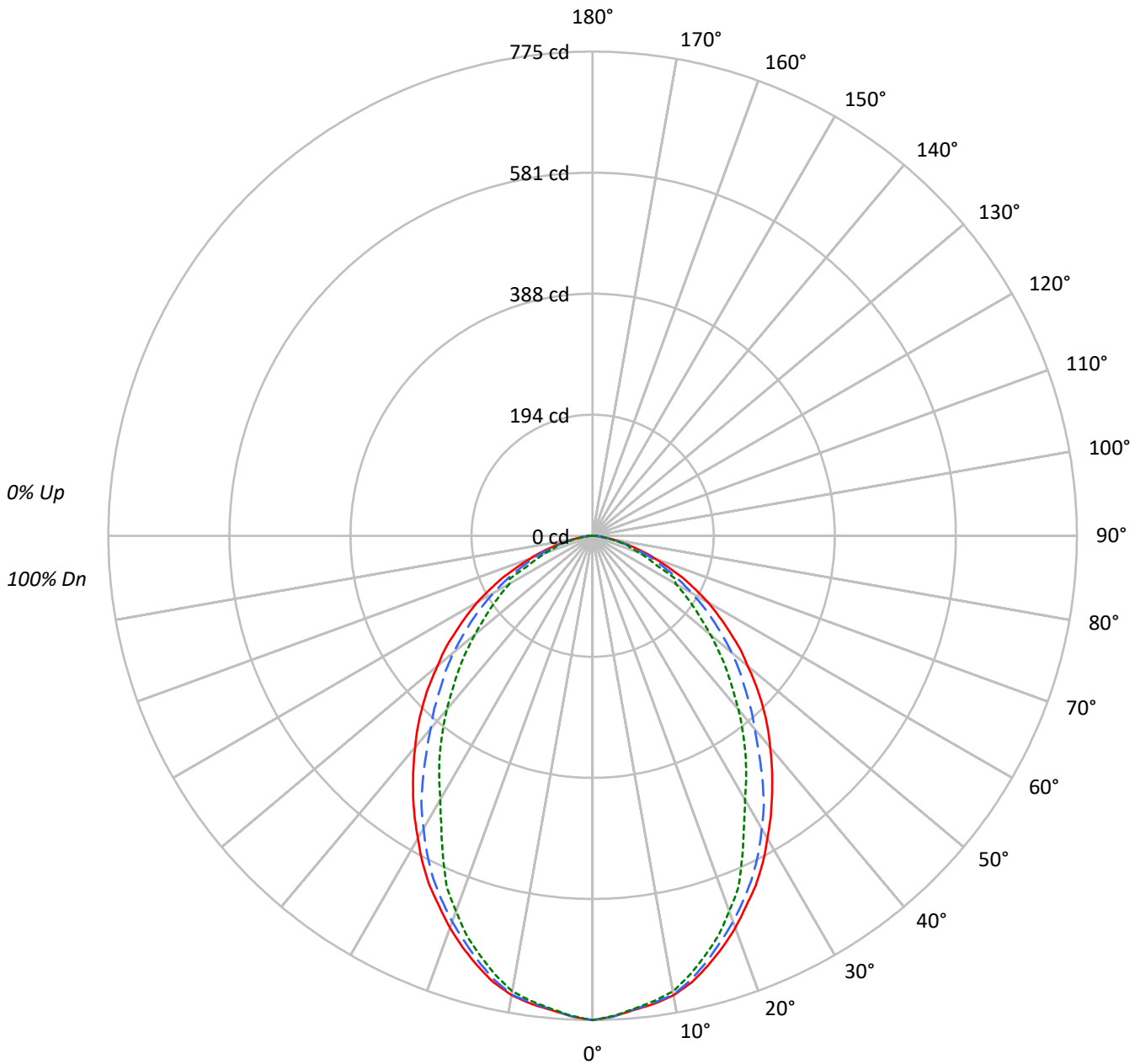
Lumens per Lamp: N/A
Luminaire Lumens: 1522.0 lumens
Efficiency: N/A
Efficacy: 70.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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°	8345	8345	8345
5°	8231	8222	8212
10°	8160	8150	8091
15°	7940	7861	7750
20°	7648	7526	7321
25°	7334	7175	6728
30°	6952	6729	6060
35°	6583	6218	5606
40°	6209	5667	5101
45°	5853	5240	4611
50°	5419	4863	4113
55°	5012	4406	3684
60°	4592	3935	3300
65°	4039	3446	2921
70°	3330	3018	2483
75°	2645	2312	2425
80°	1779	1667	1556
85°	1112	1334	1544



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.2	4.7
10°-20°	198.1	13.0
20°-30°	274.2	18.0
30°-40°	292.4	19.2
40°-50°	266.7	17.5
50°-60°	209.0	13.7
60°-70°	136.2	8.9
70°-80°	60.3	4.0
80°-90°	13.0	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°	544.4	35.8
0°-40°	836.8	55.0
0°-60°	1312.5	86.2
0°-90°	1522.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1522.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	775	775	775	775	775	
5°	762	761	761	760	760	72
15°	712	712	705	698	696	200
25°	618	614	604	583	566	284
35°	501	497	473	437	427	313
45°	384	376	344	316	303	296
55°	267	259	235	207	196	240
65°	159	150	135	138	115	156
75°	64	59	56	53	58	68
85°	9	10	11	12	12	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	775.3	775.3	775.3	775.3	775.3
2.5°	769.9	769.9	769.9	769.0	769.0
5°	761.8	760.9	760.9	760.0	760.0
7.5°	755.6	754.7	753.8	752.9	751.1
10°	746.6	746.6	745.7	741.2	740.3
12.5°	732.3	731.4	727.8	721.5	719.7
15°	712.5	712.5	705.4	698.2	695.5
17.5°	691.0	690.1	681.2	674.0	670.4
20°	667.7	665.9	657.0	645.3	639.1
22.5°	641.7	641.7	631.0	615.7	609.5
25°	617.5	614.0	604.1	582.6	566.5
27.5°	589.8	584.4	573.6	543.1	524.3
30°	559.3	556.6	541.4	501.9	487.6
32.5°	530.6	526.1	510.0	468.8	457.1
35°	501.0	497.4	473.2	437.4	426.6
37.5°	471.4	467.0	436.5	407.8	394.4
40°	441.9	436.5	403.3	377.3	363.0
42.5°	414.1	406.9	374.6	346.9	330.7
45°	384.5	376.4	344.2	315.5	302.9
47.5°	354.9	347.8	318.2	288.6	274.3
50°	323.6	317.3	290.4	260.8	245.6
52.5°	297.6	287.7	261.7	232.1	219.6
55°	267.1	259.0	234.8	207.0	196.3
57.5°	239.3	231.2	208.8	182.8	173.9
60°	213.3	201.7	182.8	160.4	153.3
62.5°	184.6	175.7	159.5	140.7	149.7
65°	158.6	149.7	135.3	138.0	114.7
67.5°	130.0	125.5	112.9	100.4	96.8
70°	105.8	100.4	95.9	82.5	78.9
72.5°	84.3	78.9	72.6	65.4	62.7
75°	63.6	59.2	55.6	52.9	58.3
77.5°	43.9	42.1	39.4	36.7	35.9
80°	28.7	27.8	26.9	26.0	25.1
82.5°	17.0	17.0	17.0	17.0	17.0
85°	9.0	9.9	10.8	11.7	12.5
87.5°	5.4	5.4	6.3	7.2	8.1
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)