

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: P544744

Luminaire Tested: **FMR-12-1-LD4-1HI-50-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: P544744
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-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

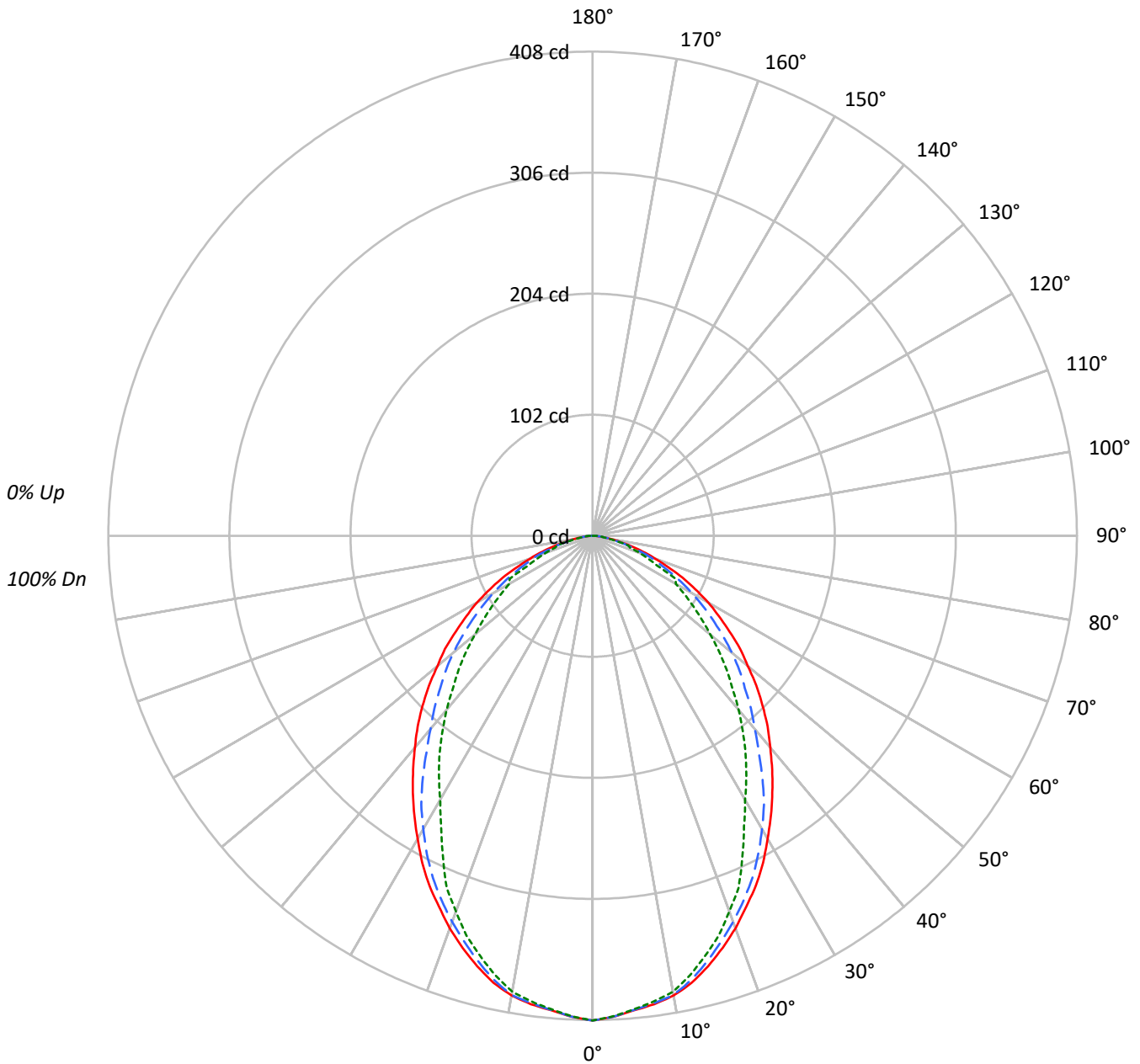
Lumens per Lamp: N/A
Luminaire Lumens: 802.0 lumens
Efficiency: N/A
Efficacy: 74.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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									
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°	4397	4397	4397
5°	4337	4333	4327
10°	4300	4294	4264
15°	4184	4142	4084
20°	4031	3966	3857
25°	3865	3780	3545
30°	3663	3546	3193
35°	3469	3277	2954
40°	3271	2986	2688
45°	3084	2761	2430
50°	2855	2562	2167
55°	2640	2321	1940
60°	2420	2073	1739
65°	2129	1816	1541
70°	1753	1589	1309
75°	1393	1219	1277
80°	936	880	818
85°	580	704	815



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.0	4.7
10°-20°	104.4	13.0
20°-30°	144.5	18.0
30°-40°	154.1	19.2
40°-50°	140.6	17.5
50°-60°	110.1	13.7
60°-70°	71.8	8.9
70°-80°	31.8	4.0
80°-90°	6.8	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°	286.9	35.8
0°-40°	441.0	55.0
0°-60°	691.6	86.2
0°-90°	802.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	802.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	408	408	408	408	408	
5°	401	401	401	400	400	38
15°	376	376	372	368	366	106
25°	325	324	318	307	298	149
35°	264	262	249	230	225	165
45°	203	198	181	166	160	156
55°	141	136	124	109	103	126
65°	84	79	71	73	60	82
75°	34	31	29	28	31	36
85°	5	5	6	6	7	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	408.5	408.5	408.5	408.5	408.5
2.5°	405.7	405.7	405.7	405.2	405.2
5°	401.4	401.0	401.0	400.5	400.5
7.5°	398.1	397.7	397.2	396.7	395.8
10°	393.4	393.4	392.9	390.6	390.1
12.5°	385.9	385.4	383.5	380.2	379.2
15°	375.5	375.5	371.7	367.9	366.5
17.5°	364.1	363.7	358.9	355.2	353.3
20°	351.9	350.9	346.2	340.0	336.7
22.5°	338.2	338.2	332.5	324.5	321.2
25°	325.4	323.5	318.3	307.0	298.5
27.5°	310.8	307.9	302.3	286.2	276.3
30°	294.7	293.3	285.3	264.5	256.9
32.5°	279.6	277.2	268.7	247.0	240.9
35°	264.0	262.1	249.4	230.5	224.8
37.5°	248.4	246.1	230.0	214.9	207.8
40°	232.8	230.0	212.5	198.8	191.3
42.5°	218.2	214.4	197.4	182.8	174.3
45°	202.6	198.4	181.4	166.2	159.6
47.5°	187.0	183.2	167.7	152.1	144.5
50°	170.5	167.2	153.0	137.4	129.4
52.5°	156.8	151.6	137.9	122.3	115.7
55°	140.7	136.5	123.7	109.1	103.4
57.5°	126.1	121.8	110.0	96.3	91.6
60°	112.4	106.3	96.3	84.5	80.8
62.5°	97.3	92.6	84.1	74.1	78.9
65°	83.6	78.9	71.3	72.7	60.5
67.5°	68.5	66.1	59.5	52.9	51.0
70°	55.7	52.9	50.5	43.5	41.6
72.5°	44.4	41.6	38.3	34.5	33.1
75°	33.5	31.2	29.3	27.9	30.7
77.5°	23.1	22.2	20.8	19.4	18.9
80°	15.1	14.6	14.2	13.7	13.2
82.5°	9.0	9.0	9.0	9.0	9.0
85°	4.7	5.2	5.7	6.1	6.6
87.5°	2.8	2.8	3.3	3.8	4.3
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)