

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: P545075

Luminaire Tested: **FMR-12-1-LD4-2LO-35-UNV-93-88-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: P545075
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-LD4-2LO-35-UNV-93-88-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

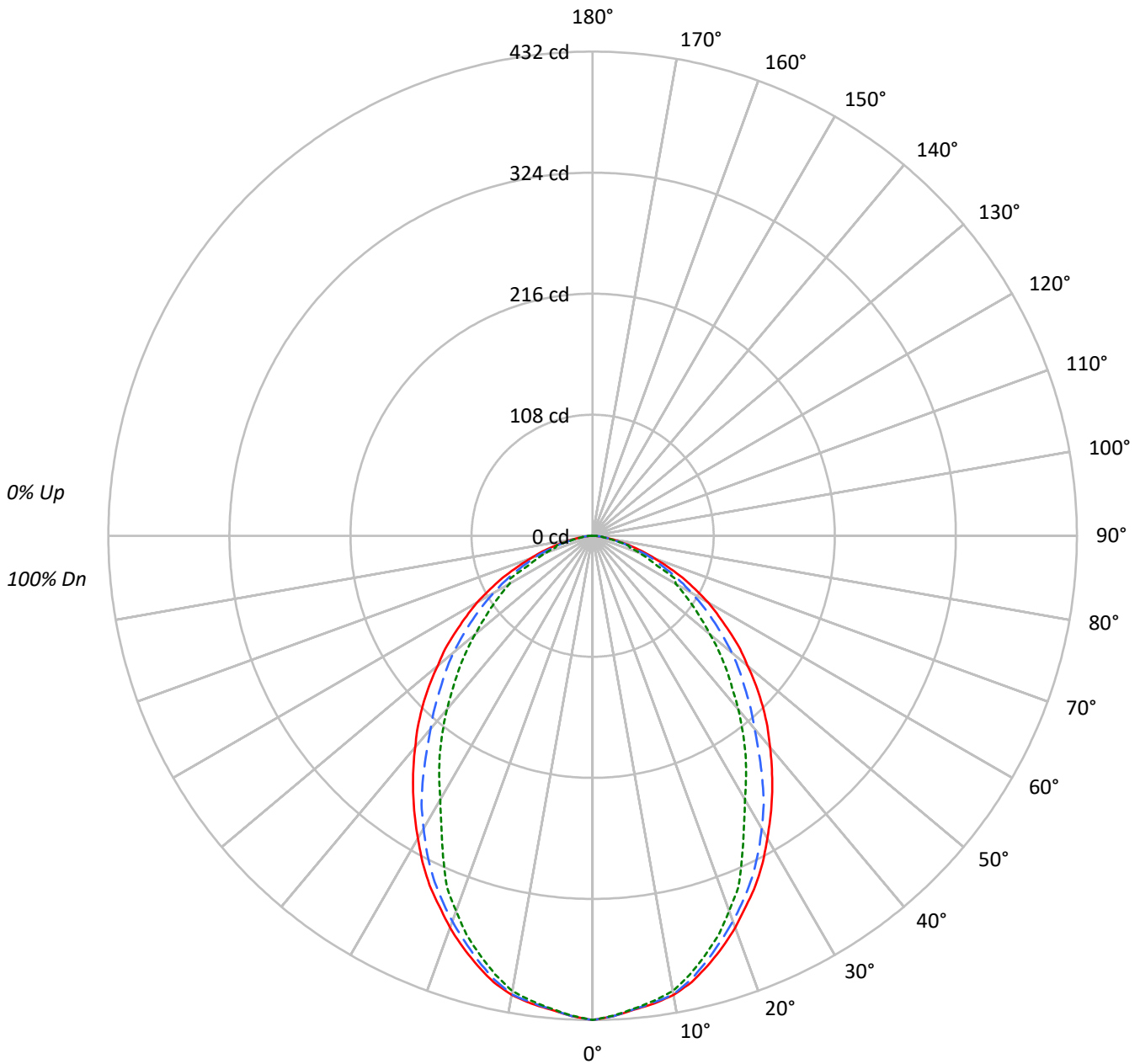
Lumens per Lamp: N/A
Luminaire Lumens: 848.0 lumens
Efficiency: N/A
Efficacy: 72.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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°	4650	4650	4650
5°	4587	4581	4576
10°	4547	4541	4509
15°	4424	4379	4318
20°	4261	4192	4079
25°	4087	3998	3748
30°	3873	3749	3377
35°	3669	3465	3123
40°	3459	3157	2841
45°	3261	2920	2570
50°	3019	2709	2291
55°	2792	2455	2053
60°	2560	2194	1838
65°	2252	1920	1628
70°	1854	1681	1382
75°	1476	1289	1352
80°	992	930	868
85°	618	741	865



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.2	4.7
10°-20°	110.3	13.0
20°-30°	152.8	18.0
30°-40°	162.9	19.2
40°-50°	148.6	17.5
50°-60°	116.4	13.7
60°-70°	75.9	8.9
70°-80°	33.6	4.0
80°-90°	7.2	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°	303.3	35.8
0°-40°	466.2	55.0
0°-60°	731.3	86.2
0°-90°	848.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	848.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	432	432	432	432	432	
5°	424	424	424	424	424	40
15°	397	397	393	389	388	112
25°	344	342	337	325	316	158
35°	279	277	264	244	238	175
45°	214	210	192	176	169	165
55°	149	144	131	115	109	133
65°	88	83	75	77	64	87
75°	36	33	31	30	32	38
85°	5	6	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°	432.0	432.0	432.0	432.0	432.0
2.5°	429.0	429.0	429.0	428.5	428.5
5°	424.5	424.0	424.0	423.5	423.5
7.5°	421.0	420.5	420.0	419.5	418.5
10°	416.0	416.0	415.5	413.0	412.5
12.5°	408.0	407.5	405.5	402.0	401.0
15°	397.0	397.0	393.0	389.0	387.5
17.5°	385.0	384.5	379.5	375.5	373.5
20°	372.0	371.0	366.0	359.6	356.1
22.5°	357.6	357.6	351.6	343.1	339.6
25°	344.1	342.1	336.6	324.6	315.6
27.5°	328.6	325.6	319.6	302.6	292.1
30°	311.6	310.1	301.6	279.7	271.7
32.5°	295.6	293.1	284.1	261.2	254.7
35°	279.2	277.2	263.7	243.7	237.7
37.5°	262.7	260.2	243.2	227.2	219.7
40°	246.2	243.2	224.7	210.2	202.2
42.5°	230.7	226.7	208.7	193.3	184.3
45°	214.2	209.7	191.8	175.8	168.8
47.5°	197.8	193.8	177.3	160.8	152.8
50°	180.3	176.8	161.8	145.3	136.8
52.5°	165.8	160.3	145.8	129.3	122.3
55°	148.8	144.3	130.8	115.4	109.4
57.5°	133.3	128.8	116.4	101.9	96.9
60°	118.9	112.4	101.9	89.4	85.4
62.5°	102.9	97.9	88.9	78.4	83.4
65°	88.4	83.4	75.4	76.9	63.9
67.5°	72.4	69.9	62.9	55.9	53.9
70°	58.9	55.9	53.4	45.9	43.9
72.5°	46.9	43.9	40.4	36.5	35.0
75°	35.5	33.0	31.0	29.5	32.5
77.5°	24.5	23.5	22.0	20.5	20.0
80°	16.0	15.5	15.0	14.5	14.0
82.5°	9.5	9.5	9.5	9.5	9.5
85°	5.0	5.5	6.0	6.5	7.0
87.5°	3.0	3.0	3.5	4.0	4.5
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)