

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: P544724

Luminaire Tested: **FMR-12-1-LD4-1HI-40-UNV-93-94-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: P544724
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-93-94-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

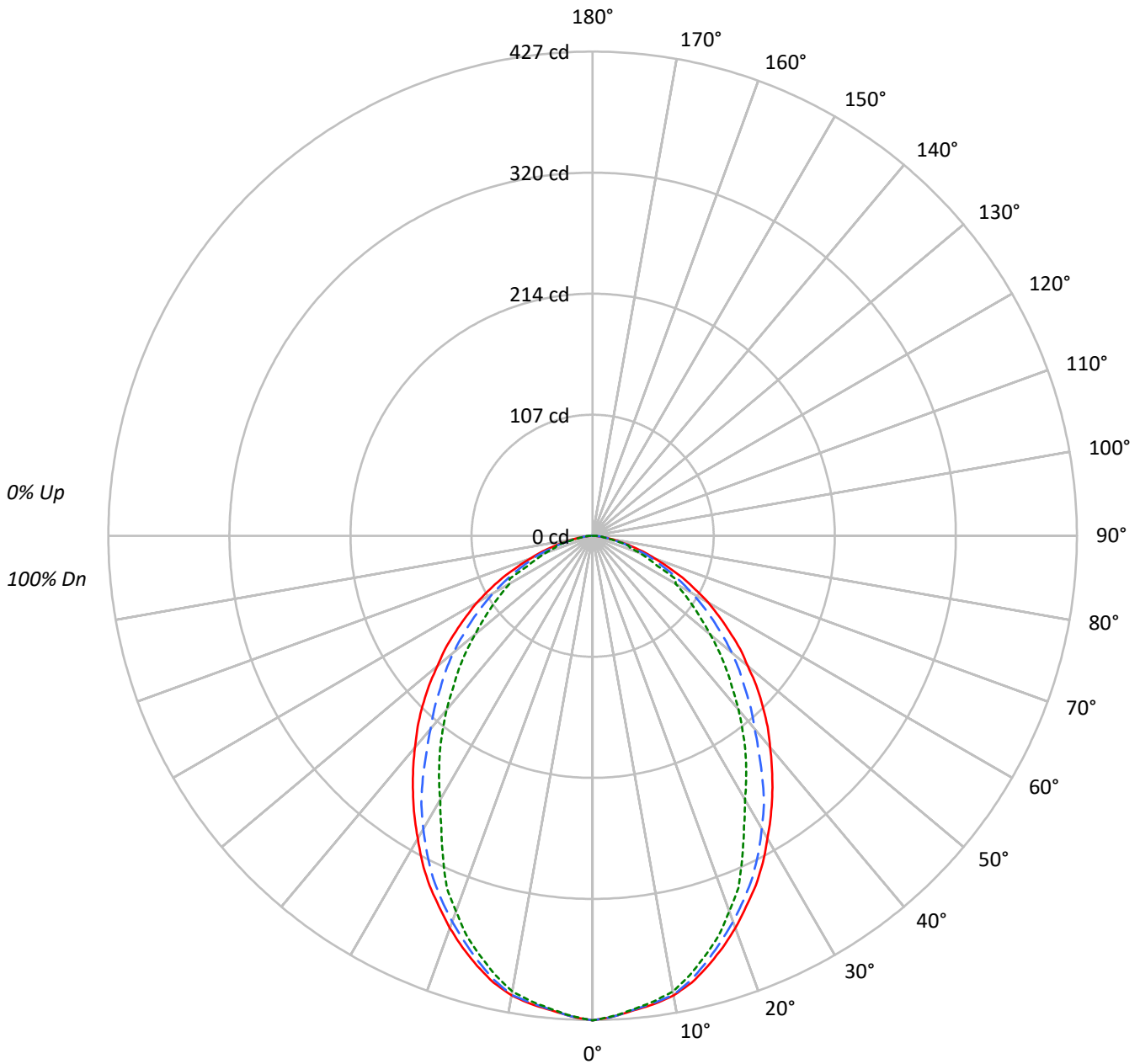
Lumens per Lamp: N/A
Luminaire Lumens: 839.0 lumens
Efficiency: N/A
Efficacy: 77.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 10.8
Input Voltage (V): NR
Input Current (A_{in}): 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°	4600	4600	4600
5°	4538	4533	4527
10°	4499	4493	4461
15°	4377	4333	4272
20°	4216	4149	4035
25°	4043	3955	3709
30°	3832	3709	3341
35°	3629	3428	3091
40°	3423	3124	2812
45°	3227	2888	2542
50°	2987	2681	2267
55°	2762	2428	2031
60°	2532	2170	1819
65°	2229	1900	1610
70°	1835	1665	1369
75°	1460	1273	1335
80°	979	917	855
85°	605	729	852



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.8	4.7
10°-20°	109.2	13.0
20°-30°	151.1	18.0
30°-40°	161.2	19.2
40°-50°	147.0	17.5
50°-60°	115.2	13.7
60°-70°	75.1	8.9
70°-80°	33.3	4.0
80°-90°	7.1	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°	300.1	35.8
0°-40°	461.3	55.0
0°-60°	723.5	86.2
0°-90°	839.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	839.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	427	427	427	427	427	
5°	420	420	420	419	419	40
15°	393	393	389	385	383	110
25°	340	338	333	321	312	156
35°	276	274	261	241	235	173
45°	212	208	190	174	167	163
55°	147	143	129	114	108	132
65°	88	82	75	76	63	86
75°	35	33	31	29	32	38
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°	427.4	427.4	427.4	427.4	427.4
2.5°	424.4	424.4	424.4	423.9	423.9
5°	420.0	419.5	419.5	419.0	419.0
7.5°	416.5	416.0	415.5	415.0	414.0
10°	411.6	411.6	411.1	408.6	408.1
12.5°	403.7	403.2	401.2	397.7	396.7
15°	392.8	392.8	388.8	384.9	383.4
17.5°	380.9	380.4	375.5	371.5	369.6
20°	368.1	367.1	362.2	355.7	352.3
22.5°	353.8	353.8	347.8	339.4	336.0
25°	340.4	338.4	333.0	321.1	312.3
27.5°	325.1	322.1	316.2	299.4	289.0
30°	308.3	306.8	298.4	276.7	268.8
32.5°	292.5	290.0	281.1	258.4	252.0
35°	276.2	274.2	260.9	241.1	235.2
37.5°	259.9	257.4	240.6	224.8	217.4
40°	243.6	240.6	222.3	208.0	200.1
42.5°	228.3	224.3	206.5	191.2	182.3
45°	212.0	207.5	189.7	173.9	167.0
47.5°	195.7	191.7	175.4	159.1	151.2
50°	178.4	174.9	160.1	143.8	135.4
52.5°	164.0	158.6	144.3	128.0	121.0
55°	147.2	142.8	129.4	114.1	108.2
57.5°	131.9	127.5	115.1	100.8	95.9
60°	117.6	111.2	100.8	88.4	84.5
62.5°	101.8	96.8	87.9	77.6	82.5
65°	87.5	82.5	74.6	76.1	63.2
67.5°	71.6	69.2	62.3	55.3	53.4
70°	58.3	55.3	52.9	45.5	43.5
72.5°	46.4	43.5	40.0	36.1	34.6
75°	35.1	32.6	30.6	29.2	32.1
77.5°	24.2	23.2	21.7	20.3	19.8
80°	15.8	15.3	14.8	14.3	13.8
82.5°	9.4	9.4	9.4	9.4	9.4
85°	4.9	5.4	5.9	6.4	6.9
87.5°	3.0	3.0	3.5	4.0	4.4
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)