

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: P544725

Luminaire Tested: **FMR-12-1-LD4-1HI-40-UNV-93-96-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: P544725
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-93-96-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

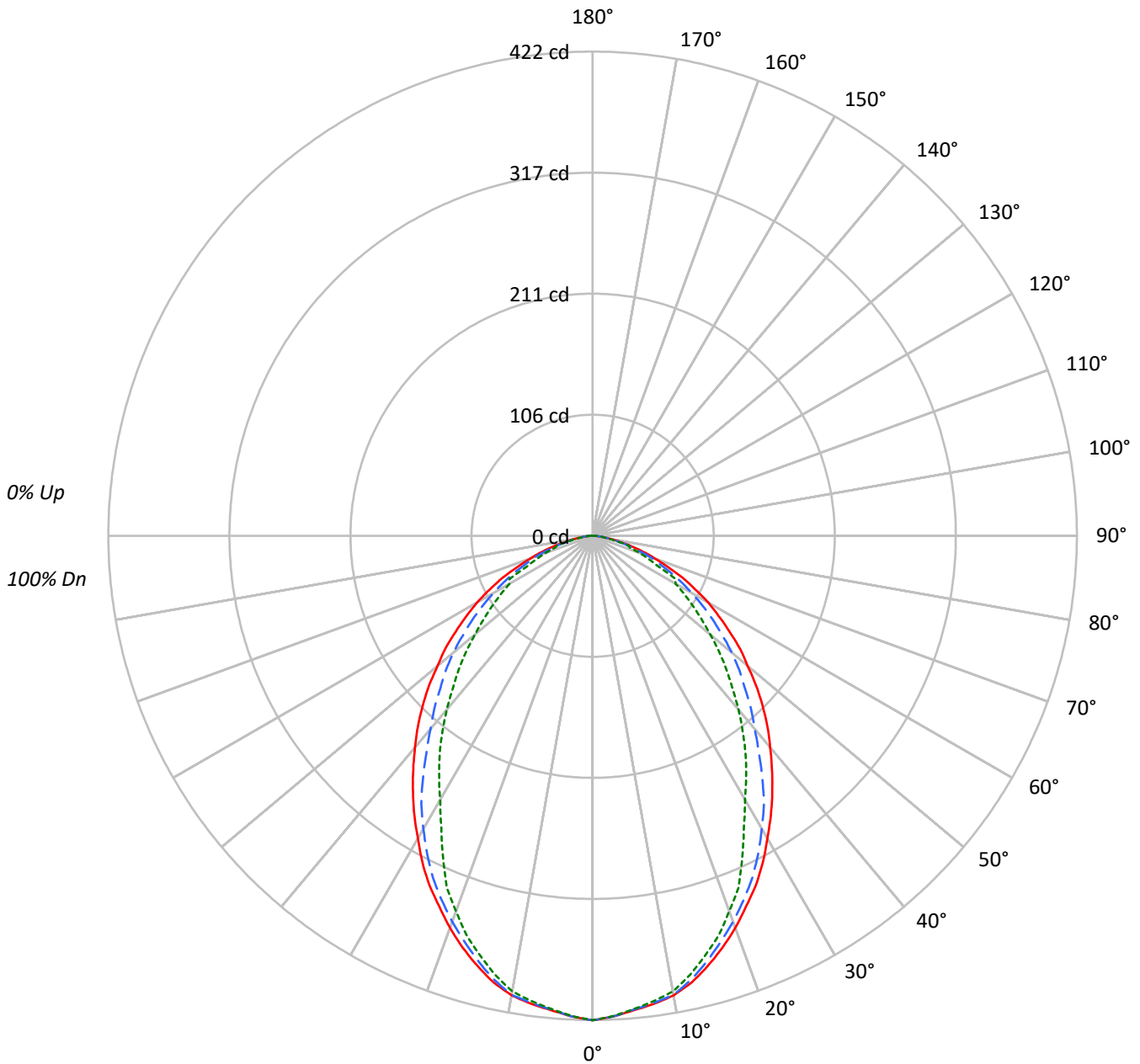
Lumens per Lamp: N/A
Luminaire Lumens: 829.0 lumens
Efficiency: N/A
Efficacy: 76.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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°	4546	4546	4546
5°	4484	4479	4473
10°	4445	4440	4407
15°	4325	4281	4221
20°	4166	4098	3987
25°	3995	3907	3664
30°	3786	3665	3301
35°	3586	3388	3054
40°	3382	3087	2778
45°	3188	2854	2512
50°	2951	2649	2241
55°	2730	2400	2006
60°	2502	2144	1798
65°	2201	1877	1592
70°	1813	1643	1353
75°	1443	1260	1318
80°	967	905	849
85°	605	729	840



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.3	4.7
10°-20°	107.9	13.0
20°-30°	149.3	18.0
30°-40°	159.2	19.2
40°-50°	145.3	17.5
50°-60°	113.8	13.7
60°-70°	74.2	8.9
70°-80°	32.9	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°	296.5	35.8
0°-40°	455.8	55.0
0°-60°	714.9	86.2
0°-90°	829.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	829.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	422	422	422	422	422	
5°	415	414	414	414	414	39
15°	388	388	384	380	379	109
25°	336	334	329	317	308	154
35°	273	271	258	238	232	171
45°	209	205	188	172	165	161
55°	146	141	128	113	107	130
65°	86	82	74	75	62	85
75°	35	32	30	29	32	37
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°	422.3	422.3	422.3	422.3	422.3
2.5°	419.4	419.4	419.4	418.9	418.9
5°	415.0	414.5	414.5	414.0	414.0
7.5°	411.5	411.1	410.6	410.1	409.1
10°	406.7	406.7	406.2	403.7	403.2
12.5°	398.8	398.4	396.4	393.0	392.0
15°	388.1	388.1	384.2	380.3	378.8
17.5°	376.4	375.9	371.0	367.1	365.2
20°	363.7	362.7	357.8	351.5	348.1
22.5°	349.5	349.5	343.7	335.4	332.0
25°	336.4	334.4	329.0	317.3	308.5
27.5°	321.2	318.3	312.4	295.8	285.6
30°	304.6	303.2	294.9	273.4	265.6
32.5°	289.0	286.6	277.8	255.3	249.0
35°	272.9	270.9	257.8	238.2	232.4
37.5°	256.8	254.3	237.7	222.1	214.8
40°	240.7	237.7	219.7	205.5	197.7
42.5°	225.5	221.6	204.1	188.9	180.1
45°	209.4	205.0	187.5	171.8	165.0
47.5°	193.3	189.4	173.3	157.2	149.4
50°	176.2	172.8	158.2	142.1	133.8
52.5°	162.1	156.7	142.6	126.4	119.6
55°	145.5	141.1	127.9	112.8	106.9
57.5°	130.3	126.0	113.7	99.6	94.7
60°	116.2	109.8	99.6	87.4	83.5
62.5°	100.6	95.7	86.9	76.6	81.5
65°	86.4	81.5	73.7	75.2	62.5
67.5°	70.8	68.3	61.5	54.7	52.7
70°	57.6	54.7	52.2	44.9	43.0
72.5°	45.9	43.0	39.5	35.6	34.2
75°	34.7	32.2	30.3	28.8	31.7
77.5°	23.9	22.9	21.5	20.0	19.5
80°	15.6	15.1	14.6	14.2	13.7
82.5°	9.3	9.3	9.3	9.3	9.3
85°	4.9	5.4	5.9	6.3	6.8
87.5°	2.9	2.9	3.4	3.9	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)