

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: P544720

Luminaire Tested: **FMR-12-1-LD4-1HI-40-UNV-93-85-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: P544720
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-93-85-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS 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

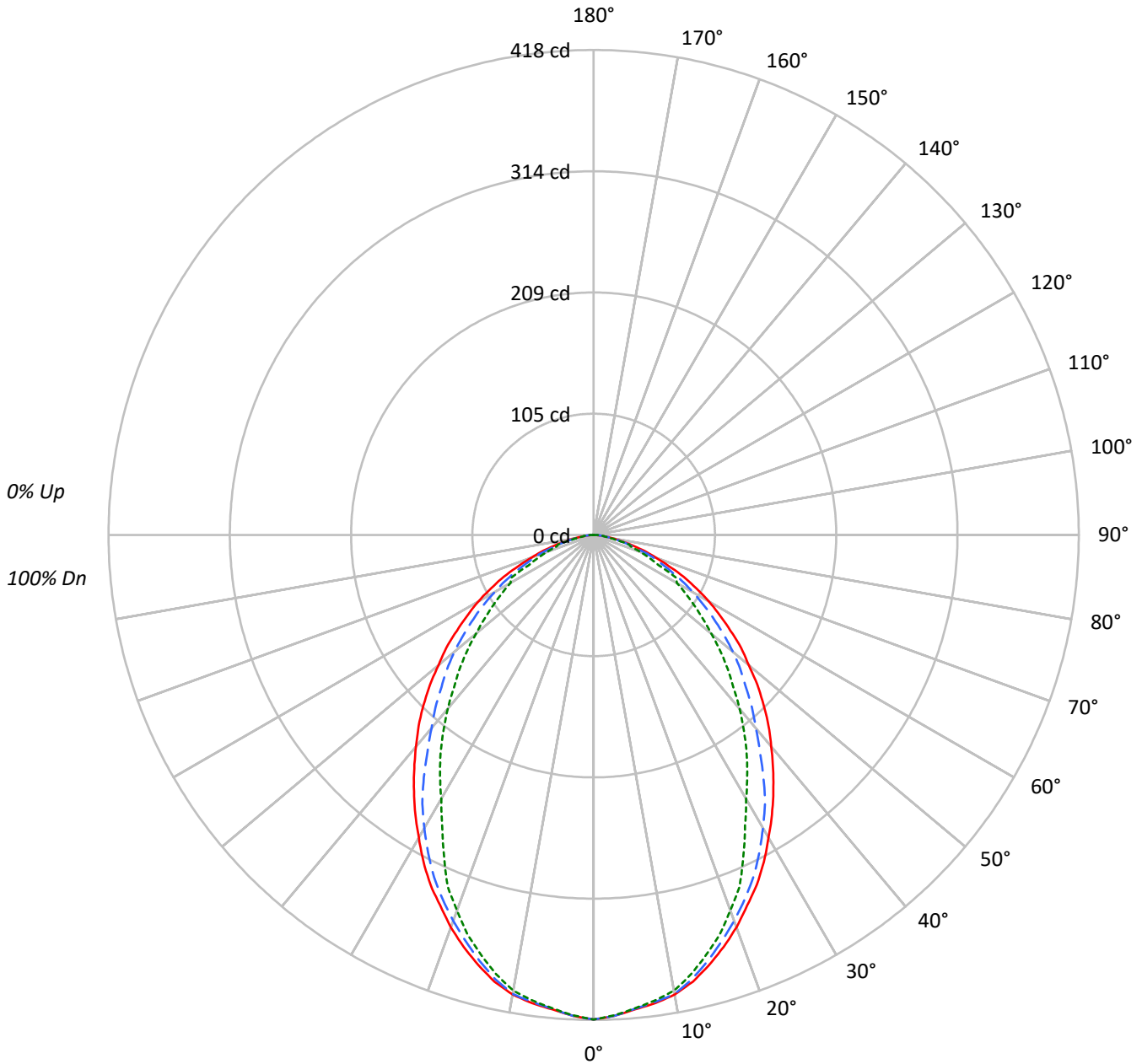
Lumens per Lamp: N/A
Luminaire Lumens: 820.0 lumens
Efficiency: N/A
Efficacy: 75.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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°	4496	4496	4496
5°	4435	4430	4425
10°	4396	4392	4360
15°	4278	4235	4176
20°	4121	4055	3944
25°	3951	3866	3625
30°	3745	3626	3265
35°	3547	3351	3021
40°	3346	3053	2748
45°	3154	2822	2484
50°	2919	2621	2215
55°	2700	2374	1985
60°	2474	2120	1778
65°	2178	1857	1574
70°	1794	1627	1338
75°	1426	1243	1306
80°	961	899	837
85°	593	716	840



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.9	4.7
10°-20°	106.7	13.0
20°-30°	147.7	18.0
30°-40°	157.5	19.2
40°-50°	143.7	17.5
50°-60°	112.6	13.7
60°-70°	73.4	8.9
70°-80°	32.5	4.0
80°-90°	7.0	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°	293.3	35.8
0°-40°	450.8	55.0
0°-60°	707.1	86.2
0°-90°	820.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	820.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	418	418	418	418	418	
5°	410	410	410	410	410	39
15°	384	384	380	376	375	108
25°	333	331	326	314	305	153
35°	270	268	255	236	230	169
45°	207	203	185	170	163	160
55°	144	140	126	112	106	129
65°	86	81	73	74	62	84
75°	34	32	30	28	31	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°	417.7	417.7	417.7	417.7	417.7
2.5°	414.8	414.8	414.8	414.3	414.3
5°	410.5	410.0	410.0	409.5	409.5
7.5°	407.1	406.6	406.1	405.6	404.7
10°	402.2	402.2	401.8	399.3	398.9
12.5°	394.5	394.0	392.1	388.7	387.8
15°	383.9	383.9	380.0	376.2	374.7
17.5°	372.3	371.8	367.0	363.1	361.2
20°	359.8	358.8	354.0	347.7	344.3
22.5°	345.7	345.7	340.0	331.7	328.4
25°	332.7	330.8	325.5	313.9	305.2
27.5°	317.7	314.8	309.0	292.6	282.5
30°	301.3	299.9	291.7	270.4	262.7
32.5°	285.9	283.5	274.8	252.5	246.3
35°	269.9	268.0	255.0	235.6	229.9
37.5°	254.0	251.6	235.2	219.7	212.5
40°	238.1	235.2	217.3	203.3	195.6
42.5°	223.1	219.2	201.8	186.9	178.2
45°	207.2	202.8	185.4	170.0	163.2
47.5°	191.2	187.4	171.4	155.5	147.8
50°	174.3	170.9	156.5	140.5	132.3
52.5°	160.3	155.0	141.0	125.1	118.3
55°	143.9	139.6	126.5	111.5	105.8
57.5°	128.9	124.6	112.5	98.5	93.7
60°	114.9	108.6	98.5	86.4	82.6
62.5°	99.5	94.6	86.0	75.8	80.6
65°	85.5	80.6	72.9	74.4	61.8
67.5°	70.0	67.6	60.8	54.1	52.2
70°	57.0	54.1	51.7	44.4	42.5
72.5°	45.4	42.5	39.1	35.3	33.8
75°	34.3	31.9	29.9	28.5	31.4
77.5°	23.7	22.7	21.2	19.8	19.3
80°	15.5	15.0	14.5	14.0	13.5
82.5°	9.2	9.2	9.2	9.2	9.2
85°	4.8	5.3	5.8	6.3	6.8
87.5°	2.9	2.9	3.4	3.9	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)