

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: P545033

Luminaire Tested: **FMR-12-1-LD4-2HI-50-UNV-82-86-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: P545033
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-LD4-2HI-50-UNV-82-86-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

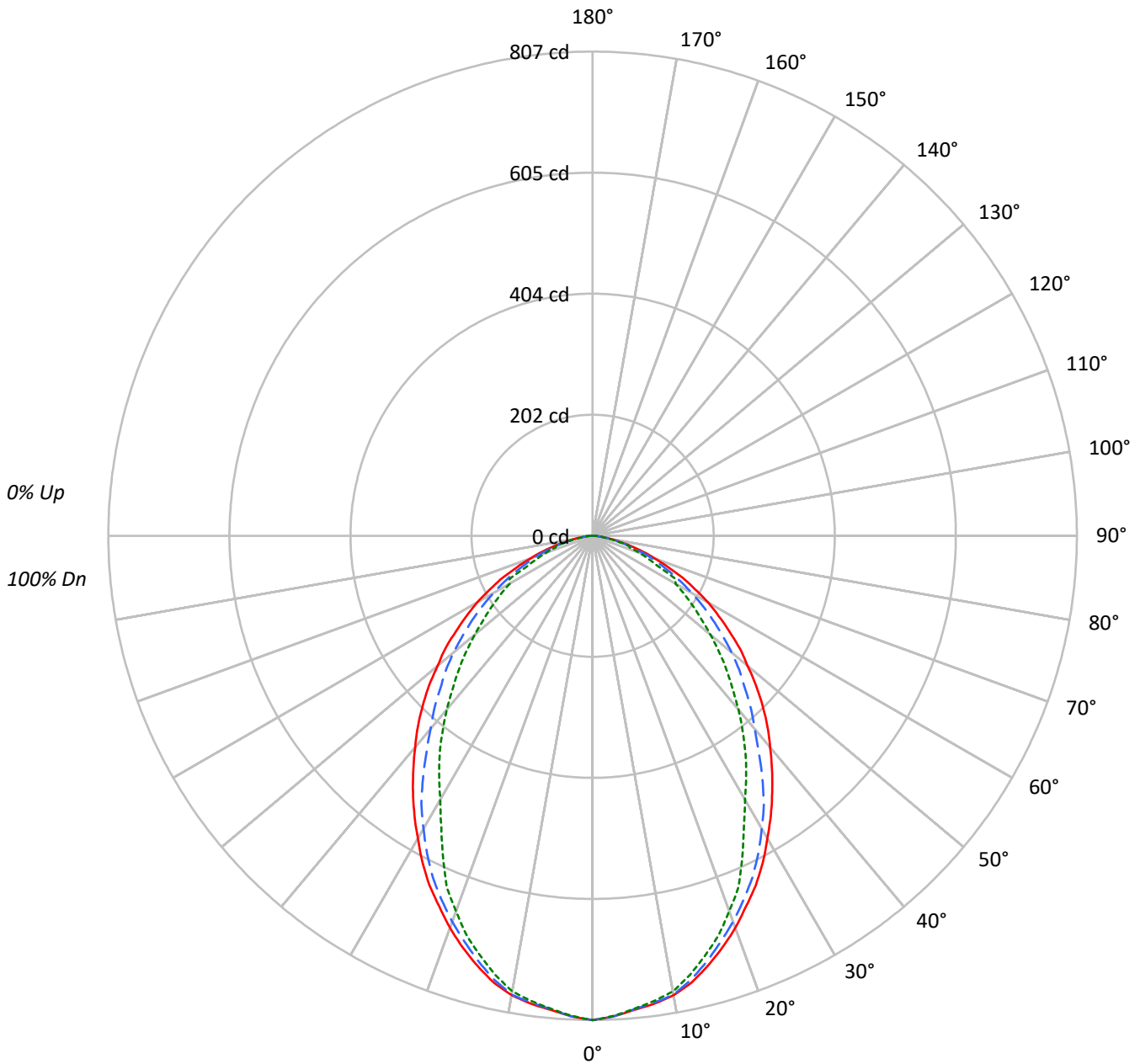
Lumens per Lamp: N/A
Luminaire Lumens: 1585.0 lumens
Efficiency: N/A
Efficacy: 73.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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°	8691	8691	8691
5°	8573	8562	8552
10°	8498	8488	8427
15°	8269	8186	8071
20°	7966	7837	7623
25°	7638	7472	7006
30°	7239	7008	6311
35°	6857	6476	5838
40°	6466	5902	5311
45°	6095	5456	4803
50°	5643	5064	4282
55°	5219	4588	3836
60°	4781	4099	3436
65°	4208	3589	3044
70°	3465	3144	2584
75°	2757	2408	2524
80°	1853	1736	1618
85°	1149	1383	1618



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.2	4.7
10°-20°	206.3	13.0
20°-30°	285.6	18.0
30°-40°	304.5	19.2
40°-50°	277.8	17.5
50°-60°	217.6	13.7
60°-70°	141.8	8.9
70°-80°	62.8	4.0
80°-90°	13.5	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°	567.0	35.8
0°-40°	871.5	55.0
0°-60°	1366.8	86.2
0°-90°	1585.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1585.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	807	807	807	807	807	
5°	793	792	792	792	792	75
15°	742	742	735	727	724	209
25°	643	639	629	607	590	295
35°	522	518	493	456	444	326
45°	400	392	358	329	316	308
55°	278	270	244	216	204	249
65°	165	156	141	144	120	163
75°	66	62	58	55	61	71
85°	9	10	11	12	13	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	807.4	807.4	807.4	807.4	807.4
2.5°	801.8	801.8	801.8	800.8	800.8
5°	793.4	792.4	792.4	791.5	791.5
7.5°	786.8	785.9	785.0	784.0	782.2
10°	777.5	777.5	776.6	771.9	771.0
12.5°	762.6	761.6	757.9	751.4	749.5
15°	742.0	742.0	734.6	727.1	724.3
17.5°	719.6	718.7	709.4	701.9	698.2
20°	695.4	693.5	684.2	672.0	665.5
22.5°	668.3	668.3	657.1	641.2	634.7
25°	643.1	639.4	629.1	606.7	589.9
27.5°	614.2	608.6	597.4	565.6	546.0
30°	582.4	579.6	563.8	522.7	507.8
32.5°	552.6	547.9	531.1	488.2	476.0
35°	521.8	518.0	492.8	455.5	444.3
37.5°	491.0	486.3	454.6	424.7	410.7
40°	460.2	454.6	420.0	393.0	378.0
42.5°	431.2	423.8	390.2	361.2	344.4
45°	400.4	392.0	358.4	328.6	315.5
47.5°	369.6	362.2	331.4	300.5	285.6
50°	337.0	330.4	302.4	271.6	255.7
52.5°	309.9	299.6	272.5	241.7	228.7
55°	278.1	269.7	244.5	215.6	204.4
57.5°	249.2	240.8	217.5	190.4	181.1
60°	222.1	210.0	190.4	167.1	159.6
62.5°	192.3	182.9	166.1	146.5	155.9
65°	165.2	155.9	140.9	143.7	119.5
67.5°	135.3	130.7	117.6	104.5	100.8
70°	110.1	104.5	99.9	85.9	82.1
72.5°	87.7	82.1	75.6	68.1	65.3
75°	66.3	61.6	57.9	55.1	60.7
77.5°	45.7	43.9	41.1	38.3	37.3
80°	29.9	28.9	28.0	27.1	26.1
82.5°	17.7	17.7	17.7	17.7	17.7
85°	9.3	10.3	11.2	12.1	13.1
87.5°	5.6	5.6	6.5	7.5	8.4
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)