

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: P545023

Luminaire Tested: **FMR-12-1-LD4-2HI-50-UNV-81-84-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: P545023
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-81-84-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

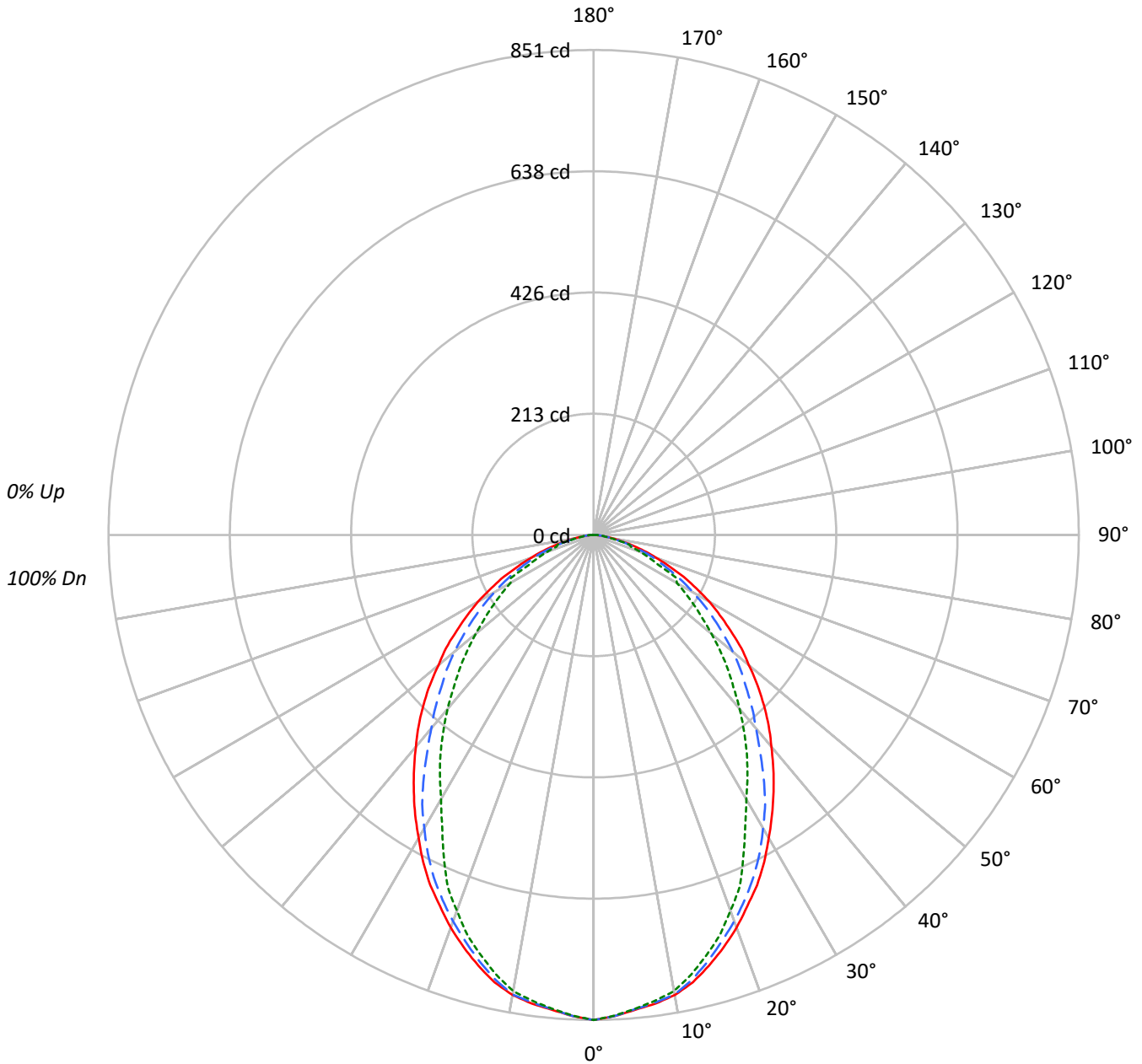
Lumens per Lamp: N/A
Luminaire Lumens: 1671.0 lumens
Efficiency: N/A
Efficacy: 77.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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°	9162	9162	9162
5°	9037	9027	9017
10°	8959	8948	8884
15°	8718	8630	8509
20°	8397	8262	8037
25°	8052	7877	7386
30°	7631	7388	6653
35°	7228	6828	6155
40°	6816	6222	5599
45°	6425	5753	5063
50°	5948	5339	4515
55°	5502	4838	4044
60°	5042	4321	3623
65°	4437	3785	3209
70°	3654	3314	2725
75°	2907	2537	2662
80°	1953	1829	1711
85°	1210	1457	1704



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.2	4.7
10°-20°	217.5	13.0
20°-30°	301.0	18.0
30°-40°	321.0	19.2
40°-50°	292.8	17.5
50°-60°	229.4	13.7
60°-70°	149.5	8.9
70°-80°	66.2	4.0
80°-90°	14.2	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°	597.7	35.8
0°-40°	918.7	55.0
0°-60°	1441.0	86.2
0°-90°	1671.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1671.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	851	851	851	851	851	
5°	836	835	835	834	834	79
15°	782	782	774	767	764	220
25°	678	674	663	640	622	311
35°	550	546	520	480	468	344
45°	422	413	378	346	333	325
55°	293	284	258	227	216	263
65°	174	164	149	152	126	172
75°	70	65	61	58	64	75
85°	10	11	12	13	14	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	851.2	851.2	851.2	851.2	851.2
2.5°	845.3	845.3	845.3	844.3	844.3
5°	836.4	835.4	835.4	834.5	834.5
7.5°	829.5	828.6	827.6	826.6	824.6
10°	819.7	819.7	818.7	813.8	812.8
12.5°	804.0	803.0	799.0	792.1	790.2
15°	782.3	782.3	774.4	766.6	763.6
17.5°	758.7	757.7	747.9	740.0	736.1
20°	733.1	731.1	721.3	708.5	701.6
22.5°	704.6	704.6	692.8	676.0	669.1
25°	678.0	674.1	663.2	639.6	621.9
27.5°	647.5	641.6	629.8	596.3	575.7
30°	614.0	611.1	594.4	551.1	535.3
32.5°	582.5	577.6	559.9	514.6	501.9
35°	550.1	546.1	519.6	480.2	468.4
37.5°	517.6	512.7	479.2	447.7	433.0
40°	485.1	479.2	442.8	414.3	398.5
42.5°	454.6	446.7	411.3	380.8	363.1
45°	422.1	413.3	377.9	346.4	332.6
47.5°	389.7	381.8	349.3	316.9	301.1
50°	355.2	348.3	318.8	286.4	269.6
52.5°	326.7	315.9	287.3	254.9	241.1
55°	293.2	284.4	257.8	227.3	215.5
57.5°	262.7	253.9	229.3	200.7	190.9
60°	234.2	221.4	200.7	176.1	168.3
62.5°	202.7	192.9	175.2	154.5	164.3
65°	174.2	164.3	148.6	151.5	126.0
67.5°	142.7	137.8	124.0	110.2	106.3
70°	116.1	110.2	105.3	90.5	86.6
72.5°	92.5	86.6	79.7	71.8	68.9
75°	69.9	64.9	61.0	58.1	64.0
77.5°	48.2	46.2	43.3	40.3	39.4
80°	31.5	30.5	29.5	28.5	27.6
82.5°	18.7	18.7	18.7	18.7	18.7
85°	9.8	10.8	11.8	12.8	13.8
87.5°	5.9	5.9	6.9	7.9	8.9
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)