

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: P545154

Luminaire Tested: **FMR-12-1-LD4-2STD-35-UNV-81-87-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: P545154
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-LD4-2STD-35-UNV-81-87-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

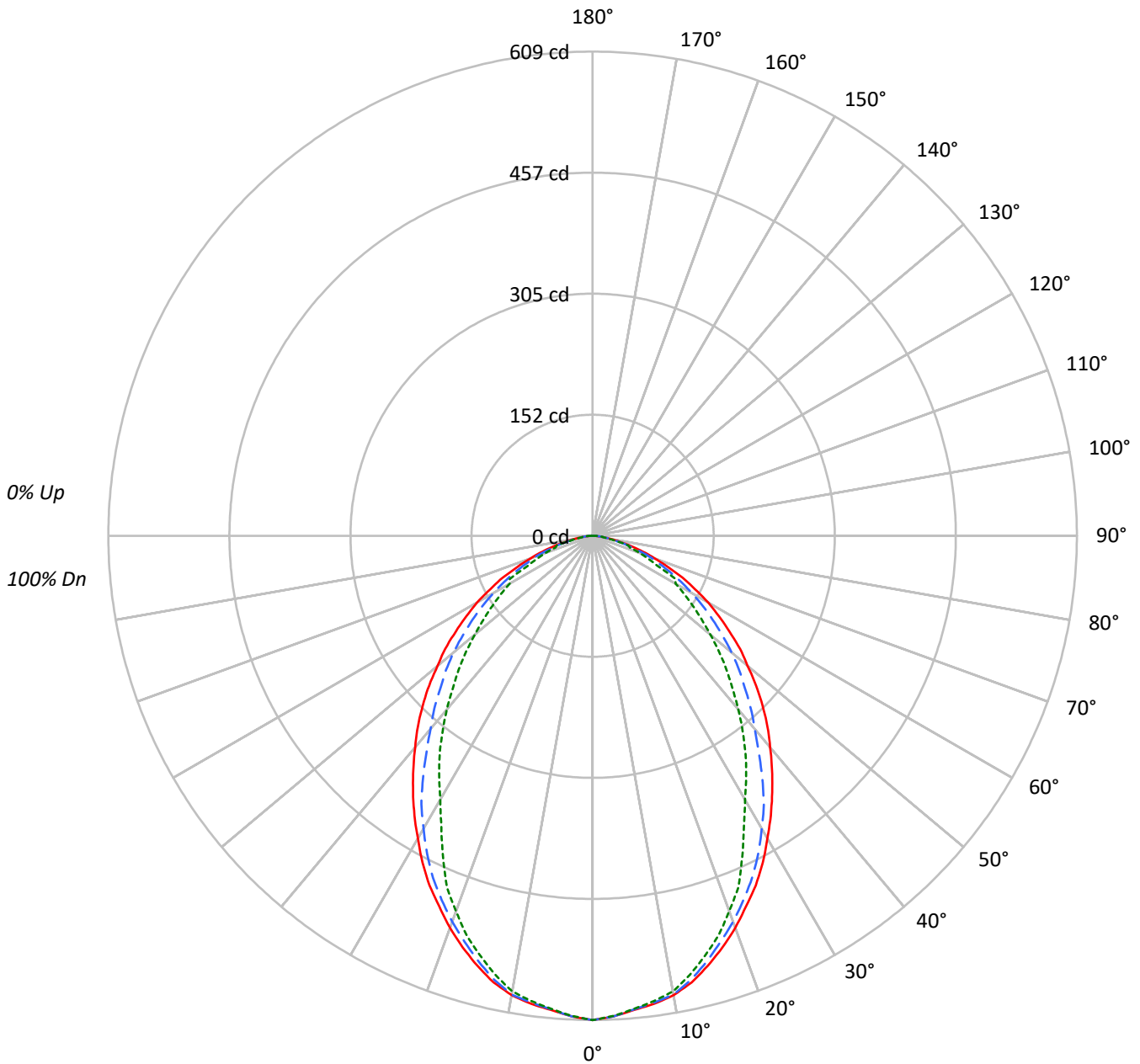
Lumens per Lamp: N/A
Luminaire Lumens: 1196.0 lumens
Efficiency: N/A
Efficacy: 72.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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				20				
RC	80				70				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	100	100	100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87	87	87	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75	75	75	75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65	65	65	65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56	56	56	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50	50	50	50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44	44	44	44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40	40	40	40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36	36	36	36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33	33	33	33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30	30	30	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6557	6557	6557
5°	6469	6461	6454
10°	6413	6405	6359
15°	6239	6177	6090
20°	6010	5914	5753
25°	5764	5638	5286
30°	5463	5287	4762
35°	5173	4887	4406
40°	4879	4453	4007
45°	4599	4118	3624
50°	4258	3821	3232
55°	3939	3462	2894
60°	3608	3094	2592
65°	3176	2710	2297
70°	2615	2373	1951
75°	2079	1817	1905
80°	1395	1308	1221
85°	865	1050	1223



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.7	4.7
10°-20°	155.6	13.0
20°-30°	215.5	18.0
30°-40°	229.8	19.2
40°-50°	209.6	17.5
50°-60°	164.2	13.7
60°-70°	107.0	8.9
70°-80°	47.4	4.0
80°-90°	10.2	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°	427.8	35.8
0°-40°	657.6	55.0
0°-60°	1031.4	86.2
0°-90°	1196.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1196.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	609	609	609	609	609	
5°	599	598	598	597	597	57
15°	560	560	554	549	546	157
25°	485	482	475	458	445	223
35°	394	391	372	344	335	246
45°	302	296	270	248	238	233
55°	210	204	184	163	154	188
65°	125	118	106	108	90	123
75°	50	46	44	42	46	54
85°	7	8	8	9	10	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	609.2	609.2	609.2	609.2	609.2
2.5°	605.0	605.0	605.0	604.3	604.3
5°	598.7	598.0	598.0	597.3	597.3
7.5°	593.7	593.0	592.3	591.6	590.2
10°	586.7	586.7	586.0	582.5	581.8
12.5°	575.4	574.7	571.9	567.0	565.6
15°	559.9	559.9	554.3	548.7	546.5
17.5°	543.0	542.3	535.3	529.6	526.8
20°	524.7	523.3	516.3	507.1	502.2
22.5°	504.3	504.3	495.8	483.9	478.9
25°	485.3	482.5	474.7	457.8	445.1
27.5°	463.4	459.2	450.8	426.8	412.0
30°	439.5	437.4	425.4	394.4	383.1
32.5°	417.0	413.4	400.8	368.4	359.2
35°	393.7	390.9	371.9	343.7	335.3
37.5°	370.5	366.9	343.0	320.5	309.9
40°	347.2	343.0	316.9	296.5	285.2
42.5°	325.4	319.8	294.4	272.6	259.9
45°	302.1	295.8	270.5	247.9	238.1
47.5°	278.9	273.3	250.0	226.8	215.5
50°	254.3	249.3	228.2	205.0	193.0
52.5°	233.8	226.1	205.7	182.4	172.6
55°	209.9	203.5	184.5	162.7	154.2
57.5°	188.1	181.7	164.1	143.7	136.6
60°	167.6	158.5	143.7	126.1	120.4
62.5°	145.1	138.0	125.4	110.6	117.6
65°	124.7	117.6	106.4	108.5	90.2
67.5°	102.1	98.6	88.7	78.9	76.1
70°	83.1	78.9	75.4	64.8	62.0
72.5°	66.2	62.0	57.0	51.4	49.3
75°	50.0	46.5	43.7	41.6	45.8
77.5°	34.5	33.1	31.0	28.9	28.2
80°	22.5	21.8	21.1	20.4	19.7
82.5°	13.4	13.4	13.4	13.4	13.4
85°	7.0	7.7	8.5	9.2	9.9
87.5°	4.2	4.2	4.9	5.6	6.3
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)