

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: P545708

Luminaire Tested: **FMR-12-2-LD4-2LO-50-UNV-82-94-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: P545708
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-12-2-LD4-2LO-50-UNV-82-94-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

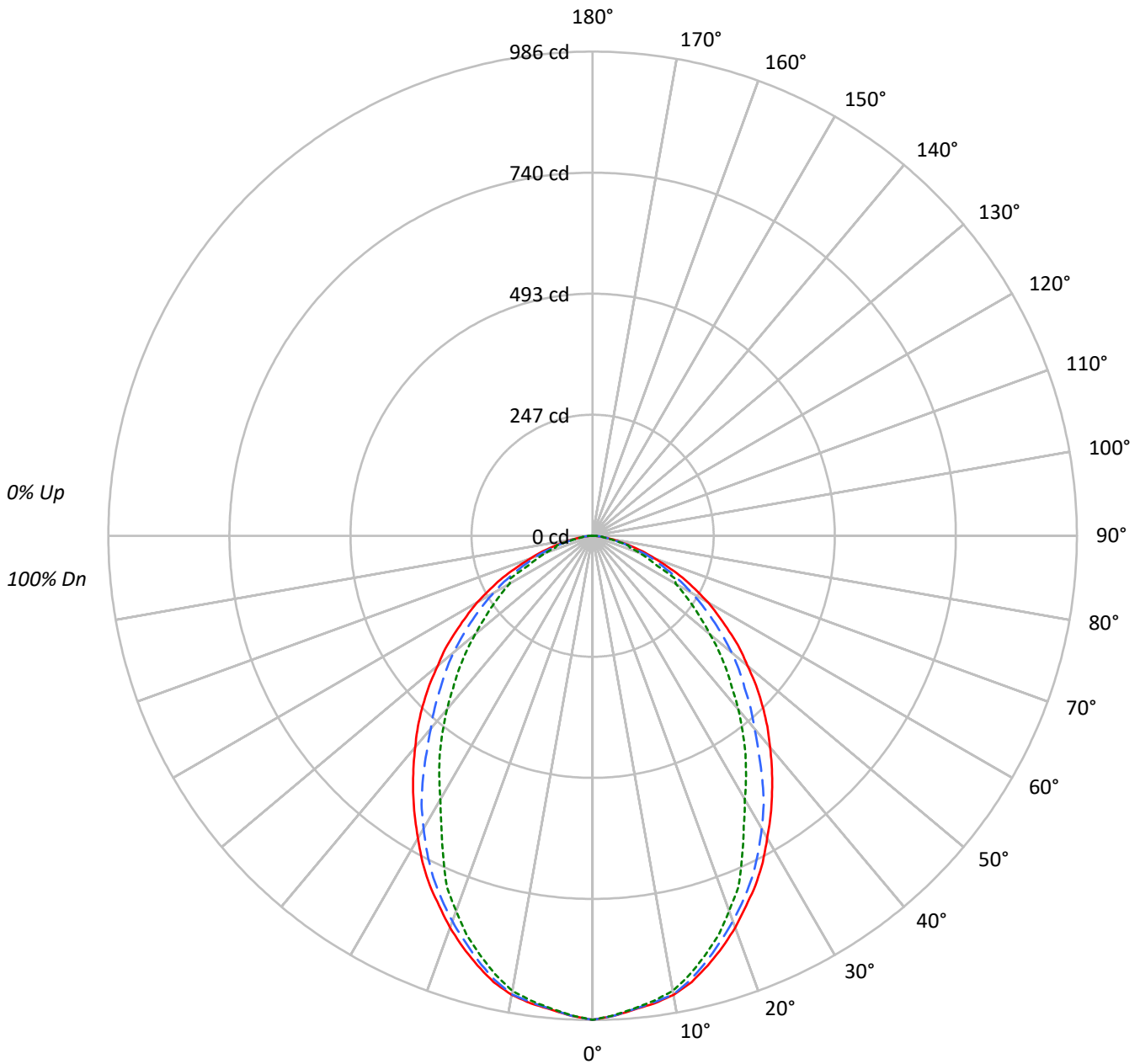
Lumens per Lamp: N/A
Luminaire Lumens: 1935.0 lumens
Efficiency: N/A
Efficacy: 82.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	5305	5305	5305
5°	5233	5226	5220
10°	5187	5181	5144
15°	5048	4997	4927
20°	4862	4783	4653
25°	4662	4561	4277
30°	4419	4277	3852
35°	4185	3953	3564
40°	3947	3603	3242
45°	3720	3331	2931
50°	3445	3091	2614
55°	3187	2801	2341
60°	2919	2503	2098
65°	2569	2192	1858
70°	2116	1918	1578
75°	1682	1468	1541
80°	1131	1060	989
85°	704	846	988



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.8	4.7
10°-20°	251.8	13.0
20°-30°	348.6	18.0
30°-40°	371.7	19.2
40°-50°	339.1	17.5
50°-60°	265.7	13.7
60°-70°	173.2	8.9
70°-80°	76.7	4.0
80°-90°	16.5	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°	692.2	35.8
0°-40°	1063.9	55.0
0°-60°	1668.7	86.2
0°-90°	1935.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1935.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	986	986	986	986	986	
5°	969	967	967	966	966	92
15°	906	906	897	888	884	255
25°	785	781	768	741	720	360
35°	637	632	602	556	542	398
45°	489	479	438	401	385	377
55°	340	329	298	263	250	305
65°	202	190	172	176	146	199
75°	81	75	71	67	74	87
85°	11	12	14	15	16	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	985.7	985.7	985.7	985.7	985.7
2.5°	978.8	978.8	978.8	977.7	977.7
5°	968.6	967.4	967.4	966.3	966.3
7.5°	960.6	959.5	958.3	957.2	954.9
10°	949.2	949.2	948.1	942.4	941.2
12.5°	931.0	929.8	925.3	917.3	915.0
15°	905.9	905.9	896.8	887.7	884.2
17.5°	878.6	877.4	866.0	856.9	852.3
20°	848.9	846.6	835.2	820.4	812.5
22.5°	815.9	815.9	802.2	782.8	774.9
25°	785.1	780.6	768.0	740.7	720.2
27.5°	749.8	743.0	729.3	690.5	666.6
30°	711.0	707.6	688.3	638.1	619.9
32.5°	674.6	668.9	648.4	596.0	581.1
35°	637.0	632.4	601.7	556.1	542.4
37.5°	599.4	593.7	554.9	518.5	501.4
40°	561.8	554.9	512.8	479.7	461.5
42.5°	526.4	517.3	476.3	441.0	420.5
45°	488.8	478.6	437.6	401.1	385.1
47.5°	451.2	442.1	404.5	366.9	348.7
50°	411.4	403.4	369.2	331.6	312.2
52.5°	378.3	365.8	332.7	295.1	279.2
55°	339.6	329.3	298.5	263.2	249.5
57.5°	304.2	294.0	265.5	232.5	221.1
60°	271.2	256.4	232.5	204.0	194.9
62.5°	234.7	223.3	202.8	178.9	190.3
65°	201.7	190.3	172.1	175.5	145.9
67.5°	165.2	159.5	143.6	127.6	123.1
70°	134.5	127.6	121.9	104.8	100.3
72.5°	107.1	100.3	92.3	83.2	79.8
75°	80.9	75.2	70.6	67.2	74.1
77.5°	55.8	53.6	50.1	46.7	45.6
80°	36.5	35.3	34.2	33.0	31.9
82.5°	21.7	21.7	21.7	21.7	21.7
85°	11.4	12.5	13.7	14.8	16.0
87.5°	6.8	6.8	8.0	9.1	10.3
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)