

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: P545526

Luminaire Tested: **FMR-12-2-LD4-1STD-50-UNV-93-97-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: P545526
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-LD4-1STD-50-UNV-93-97-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

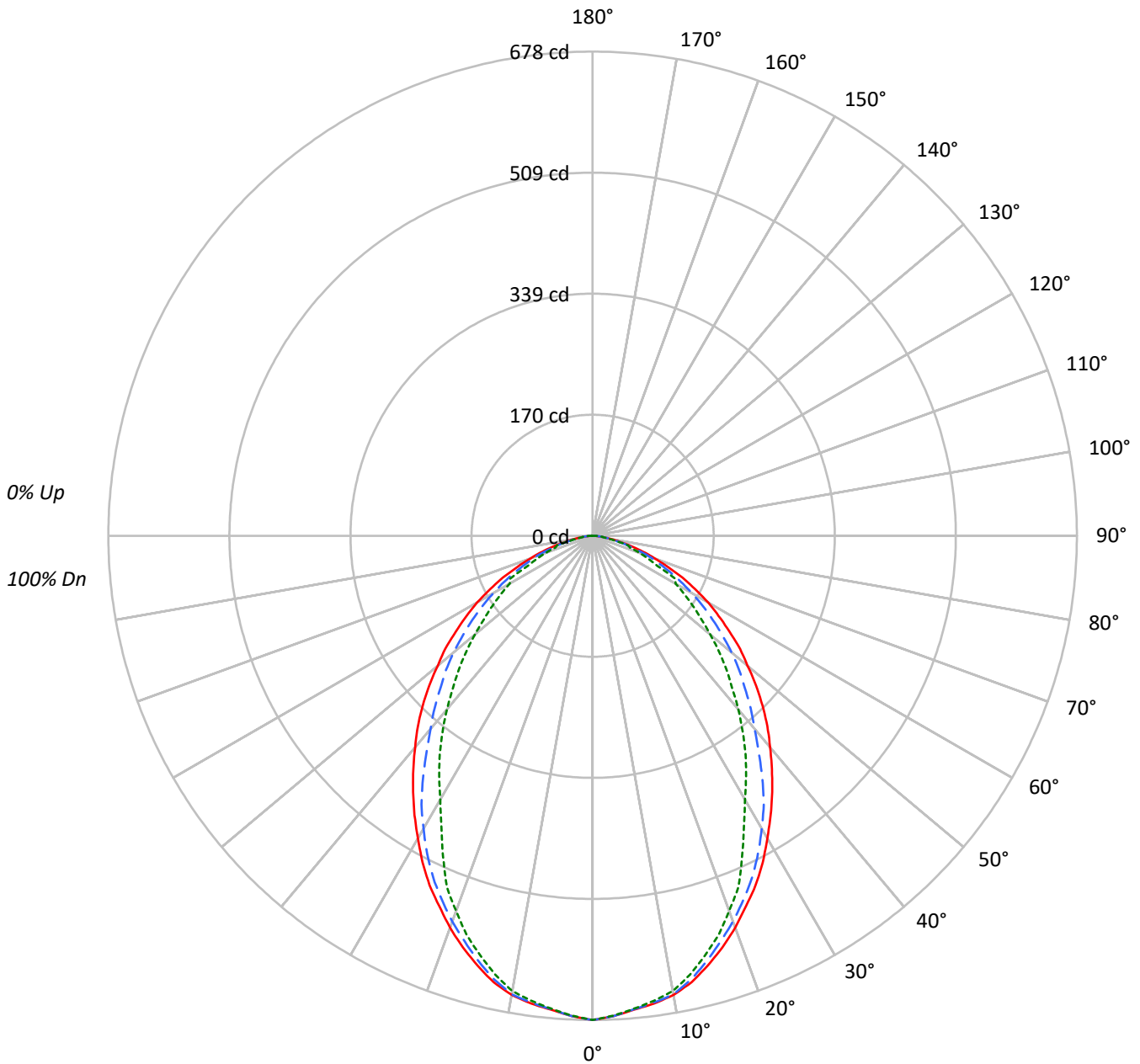
Lumens per Lamp: N/A
Luminaire Lumens: 1331.0 lumens
Efficiency: N/A
Efficacy: 80.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (A_{in}): 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°	3649	3649	3649
5°	3599	3595	3591
10°	3568	3564	3538
15°	3472	3437	3389
20°	3344	3290	3201
25°	3207	3137	2942
30°	3040	2942	2650
35°	2878	2719	2451
40°	2715	2478	2230
45°	2560	2291	2016
50°	2370	2127	1798
55°	2192	1927	1611
60°	2007	1721	1442
65°	1766	1508	1277
70°	1456	1320	1086
75°	1158	1011	1058
80°	778	728	679
85°	482	580	679



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.1	4.7
10°-20°	173.2	13.0
20°-30°	239.8	18.0
30°-40°	255.7	19.2
40°-50°	233.3	17.5
50°-60°	182.7	13.7
60°-70°	119.1	8.9
70°-80°	52.8	4.0
80°-90°	11.3	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°	476.1	35.8
0°-40°	731.8	55.0
0°-60°	1147.8	86.2
0°-90°	1331.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1331.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	678	678	678	678	678	
5°	666	666	666	665	665	63
15°	623	623	617	611	608	175
25°	540	537	528	510	495	248
35°	438	435	414	382	373	274
45°	336	329	301	276	265	259
55°	234	226	205	181	172	210
65°	139	131	118	121	100	137
75°	56	52	49	46	51	60
85°	8	9	9	10	11	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	678.0	678.0	678.0	678.0	678.0
2.5°	673.3	673.3	673.3	672.5	672.5
5°	666.2	665.5	665.5	664.7	664.7
7.5°	660.7	660.0	659.2	658.4	656.8
10°	652.9	652.9	652.1	648.2	647.4
12.5°	640.4	639.6	636.5	631.0	629.4
15°	623.1	623.1	616.9	610.6	608.2
17.5°	604.3	603.5	595.7	589.4	586.3
20°	583.9	582.4	574.5	564.3	558.9
22.5°	561.2	561.2	551.8	538.5	533.0
25°	540.0	536.9	528.3	509.5	495.4
27.5°	515.7	511.0	501.6	475.0	458.5
30°	489.1	486.7	473.4	438.9	426.4
32.5°	464.0	460.1	446.0	409.9	399.7
35°	438.1	435.0	413.9	382.5	373.1
37.5°	412.3	408.4	381.7	356.6	344.9
40°	386.4	381.7	352.7	330.0	317.4
42.5°	362.1	355.8	327.6	303.3	289.2
45°	336.3	329.2	301.0	275.9	264.9
47.5°	310.4	304.1	278.3	252.4	239.8
50°	283.0	277.5	254.0	228.1	214.8
52.5°	260.2	251.6	228.9	203.0	192.0
55°	233.6	226.5	205.4	181.1	171.7
57.5°	209.3	202.2	182.6	159.9	152.1
60°	186.5	176.4	159.9	140.3	134.0
62.5°	161.5	153.6	139.5	123.1	130.9
65°	138.7	130.9	118.4	120.7	100.3
67.5°	113.7	109.7	98.8	87.8	84.7
70°	92.5	87.8	83.9	72.1	69.0
72.5°	73.7	69.0	63.5	57.2	54.9
75°	55.7	51.7	48.6	46.2	50.9
77.5°	38.4	36.8	34.5	32.1	31.4
80°	25.1	24.3	23.5	22.7	21.9
82.5°	14.9	14.9	14.9	14.9	14.9
85°	7.8	8.6	9.4	10.2	11.0
87.5°	4.7	4.7	5.5	6.3	7.1
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)