

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: P545716

Luminaire Tested: **FMR-12-2-LD4-2LO-50-UNV-93-94-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: P545716
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-93-94-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS 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

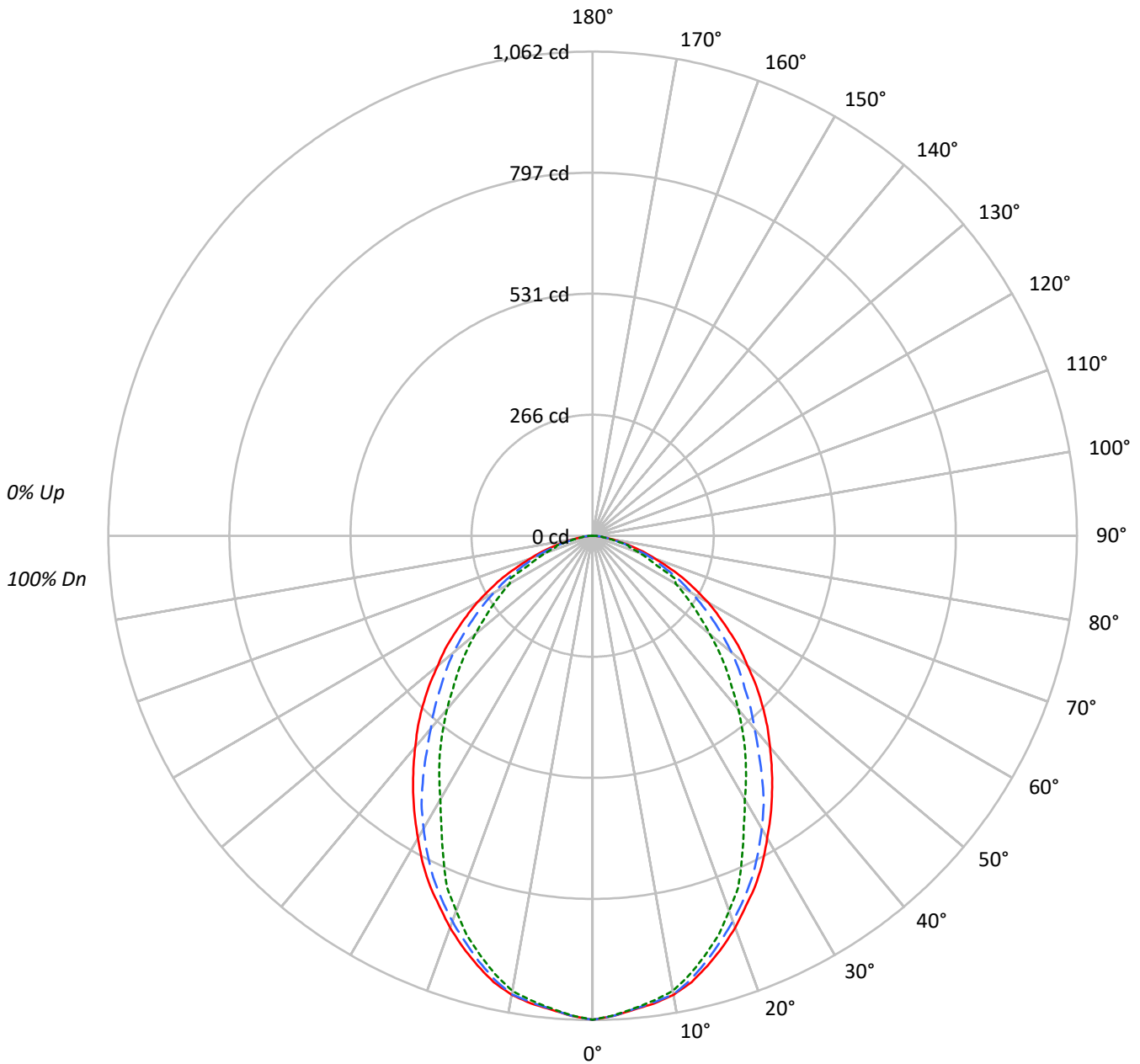
Lumens per Lamp: N/A
Luminaire Lumens: 2084.0 lumens
Efficiency: N/A
Efficacy: 89.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	5713	5713	5713
5°	5636	5629	5622
10°	5587	5580	5540
15°	5436	5381	5306
20°	5237	5152	5011
25°	5021	4912	4606
30°	4759	4607	4149
35°	4507	4257	3838
40°	4251	3880	3492
45°	4007	3587	3157
50°	3709	3329	2816
55°	3431	3017	2522
60°	3144	2695	2259
65°	2766	2360	2001
70°	2279	2066	1699
75°	1811	1582	1659
80°	1218	1141	1066
85°	760	908	1062



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.8	4.7
10°-20°	271.2	13.0
20°-30°	375.5	18.0
30°-40°	400.3	19.2
40°-50°	365.2	17.5
50°-60°	286.1	13.7
60°-70°	186.5	8.9
70°-80°	82.6	4.0
80°-90°	17.7	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°	745.5	35.8
0°-40°	1145.8	55.0
0°-60°	1797.2	86.2
0°-90°	2084.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2084.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1062	1062	1062	1062	1062	
5°	1043	1042	1042	1041	1041	99
15°	976	976	966	956	952	274
25°	846	841	827	798	776	388
35°	686	681	648	599	584	429
45°	526	515	471	432	415	406
55°	366	355	322	284	269	328
65°	217	205	185	189	157	214
75°	87	81	76	72	80	93
85°	12	14	15	16	17	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1061.6	1061.6	1061.6	1061.6	1061.6
2.5°	1054.2	1054.2	1054.2	1053.0	1053.0
5°	1043.2	1041.9	1041.9	1040.7	1040.7
7.5°	1034.6	1033.3	1032.1	1030.9	1028.4
10°	1022.3	1022.3	1021.1	1014.9	1013.7
12.5°	1002.7	1001.4	996.5	987.9	985.5
15°	975.7	975.7	965.8	956.0	952.3
17.5°	946.2	945.0	932.7	922.9	918.0
20°	914.3	911.8	899.6	883.6	875.0
22.5°	878.7	878.7	864.0	843.1	834.5
25°	845.6	840.7	827.2	797.7	775.6
27.5°	807.5	800.2	785.4	743.7	717.9
30°	765.8	762.1	741.3	687.3	667.6
32.5°	726.5	720.4	698.3	641.8	625.9
35°	686.0	681.1	648.0	598.9	584.2
37.5°	645.5	639.4	597.7	558.4	540.0
40°	605.0	597.7	552.3	516.7	497.0
42.5°	567.0	557.2	513.0	474.9	452.9
45°	526.5	515.4	471.3	432.0	414.8
47.5°	486.0	476.2	435.7	395.2	375.5
50°	443.0	434.4	397.6	357.1	336.3
52.5°	407.4	393.9	358.4	317.9	300.7
55°	365.7	354.7	321.5	283.5	268.8
57.5°	327.7	316.6	285.9	250.4	238.1
60°	292.1	276.1	250.4	219.7	209.9
62.5°	252.8	240.5	218.4	192.7	204.9
65°	217.2	204.9	185.3	189.0	157.1
67.5°	177.9	171.8	154.6	137.5	132.5
70°	144.8	137.5	131.3	112.9	108.0
72.5°	115.4	108.0	99.4	89.6	85.9
75°	87.1	81.0	76.1	72.4	79.8
77.5°	60.1	57.7	54.0	50.3	49.1
80°	39.3	38.0	36.8	35.6	34.4
82.5°	23.3	23.3	23.3	23.3	23.3
85°	12.3	13.5	14.7	16.0	17.2
87.5°	7.4	7.4	8.6	9.8	11.0
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)