

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: P545704

Luminaire Tested: **FMR-12-2-LD4-2LO-50-UNV-82-85-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: P545704
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-82-85-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

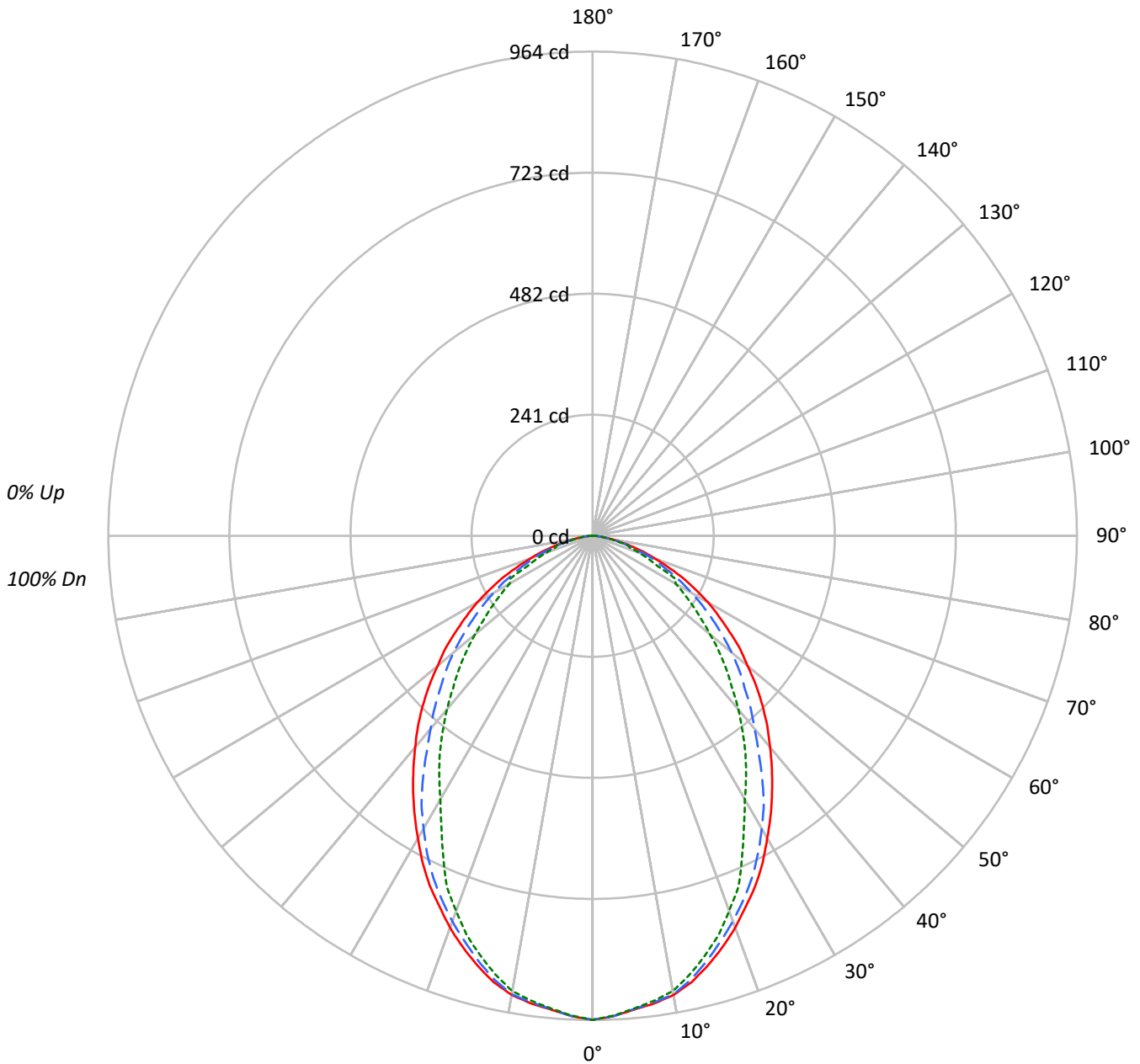
Lumens per Lamp: N/A
Luminaire Lumens: 1892.0 lumens
Efficiency: N/A
Efficacy: 80.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P545704

CATALOG NUMBER: FMR-12-2-LD4-2LO-50-UNV-82-85-EDD

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°	5187	5187	5187
5°	5116	5110	5104
10°	5072	5066	5029
15°	4936	4886	4817
20°	4754	4678	4550
25°	4559	4460	4182
30°	4320	4182	3767
35°	4092	3865	3484
40°	3859	3523	3170
45°	3638	3256	2866
50°	3368	3023	2556
55°	3115	2739	2289
60°	2855	2447	2051
65°	2511	2142	1816
70°	2069	1876	1542
75°	1645	1437	1506
80°	1106	1035	967
85°	685	827	963



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.7	4.7
10°-20°	246.2	13.0
20°-30°	340.9	18.0
30°-40°	363.5	19.2
40°-50°	331.6	17.5
50°-60°	259.8	13.7
60°-70°	169.3	8.9
70°-80°	75.0	4.0
80°-90°	16.1	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°	676.8	35.8
0°-40°	1040.2	55.0
0°-60°	1631.6	86.2
0°-90°	1892.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1892.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	964	964	964	964	964	
5°	947	946	946	945	945	90
15°	886	886	877	868	865	249
25°	768	763	751	724	704	352
35°	623	618	588	544	530	389
45°	478	468	428	392	377	368
55°	332	322	292	257	244	298
65°	197	186	168	172	143	194
75°	79	74	69	66	72	85
85°	11	12	13	14	16	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	963.8	963.8	963.8	963.8	963.8
2.5°	957.1	957.1	957.1	956.0	956.0
5°	947.0	945.9	945.9	944.8	944.8
7.5°	939.2	938.1	937.0	935.9	933.7
10°	928.1	928.1	927.0	921.4	920.3
12.5°	910.3	909.2	904.7	896.9	894.7
15°	885.8	885.8	876.9	867.9	864.6
17.5°	859.0	857.9	846.8	837.9	833.4
20°	830.1	827.8	816.7	802.2	794.4
22.5°	797.7	797.7	784.4	765.4	757.6
25°	767.7	763.2	751.0	724.2	704.2
27.5°	733.1	726.4	713.1	675.2	651.8
30°	695.2	691.9	673.0	623.9	606.1
32.5°	659.6	654.0	634.0	582.7	568.2
35°	622.8	618.4	588.3	543.7	530.3
37.5°	586.1	580.5	542.6	506.9	490.2
40°	549.3	542.6	501.4	469.1	451.2
42.5°	514.7	505.8	465.7	431.2	411.1
45°	478.0	468.0	427.8	392.2	376.6
47.5°	441.2	432.3	395.5	358.8	340.9
50°	402.2	394.4	361.0	324.2	305.3
52.5°	369.9	357.6	325.3	288.6	273.0
55°	332.0	322.0	291.9	257.4	244.0
57.5°	297.5	287.5	259.6	227.3	216.1
60°	265.2	250.7	227.3	199.4	190.5
62.5°	229.5	218.4	198.3	174.9	186.1
65°	197.2	186.1	168.2	171.6	142.6
67.5°	161.6	156.0	140.4	124.8	120.3
70°	131.5	124.8	119.2	102.5	98.0
72.5°	104.7	98.0	90.2	81.3	78.0
75°	79.1	73.5	69.1	65.7	72.4
77.5°	54.6	52.4	49.0	45.7	44.6
80°	35.7	34.5	33.4	32.3	31.2
82.5°	21.2	21.2	21.2	21.2	21.2
85°	11.1	12.3	13.4	14.5	15.6
87.5°	6.7	6.7	7.8	8.9	10.0
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)