

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: P545379

Luminaire Tested: **FMR-12-2-LD4-1LO-40-UNV-81-88-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: P545379
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-LD4-1LO-40-UNV-81-88-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

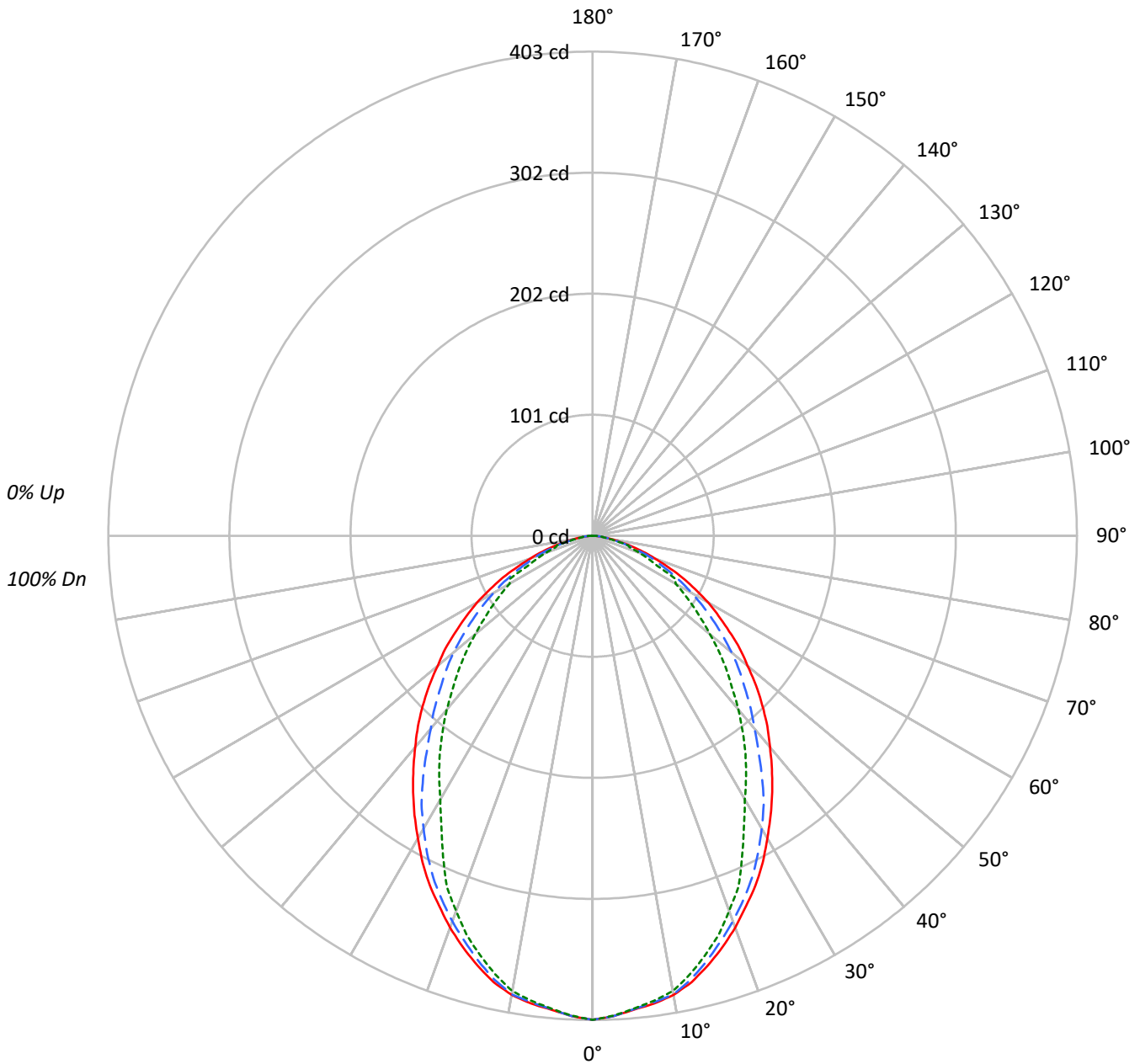
Lumens per Lamp: N/A
Luminaire Lumens: 791.0 lumens
Efficiency: N/A
Efficacy: 67.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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°	2168	2168	2168
5°	2139	2137	2134
10°	2120	2118	2103
15°	2063	2043	2014
20°	1987	1955	1902
25°	1906	1865	1748
30°	1807	1748	1575
35°	1711	1616	1457
40°	1613	1473	1326
45°	1521	1362	1198
50°	1408	1263	1068
55°	1302	1145	957
60°	1194	1023	858
65°	1049	895	759
70°	865	784	645
75°	688	601	630
80°	462	434	403
85°	290	346	401



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.5	4.7
10°-20°	102.9	13.0
20°-30°	142.5	18.0
30°-40°	151.9	19.2
40°-50°	138.6	17.5
50°-60°	108.6	13.7
60°-70°	70.8	8.9
70°-80°	31.4	4.0
80°-90°	6.7	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°	282.9	35.8
0°-40°	434.9	55.0
0°-60°	682.1	86.2
0°-90°	791.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	791.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	403	403	403	403	403	
5°	396	396	396	395	395	38
15°	370	370	367	363	362	104
25°	321	319	314	303	294	147
35°	260	258	246	227	222	163
45°	200	196	179	164	157	154
55°	139	135	122	108	102	125
65°	82	78	70	72	60	81
75°	33	31	29	28	30	35
85°	5	5	6	6	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	402.9	402.9	402.9	402.9	402.9
2.5°	400.1	400.1	400.1	399.7	399.7
5°	395.9	395.5	395.5	395.0	395.0
7.5°	392.7	392.2	391.7	391.3	390.3
10°	388.0	388.0	387.6	385.2	384.8
12.5°	380.6	380.1	378.2	375.0	374.0
15°	370.3	370.3	366.6	362.9	361.5
17.5°	359.1	358.7	354.0	350.3	348.4
20°	347.0	346.1	341.4	335.4	332.1
22.5°	333.5	333.5	327.9	320.0	316.8
25°	320.9	319.1	314.0	302.8	294.4
27.5°	306.5	303.7	298.1	282.3	272.5
30°	290.7	289.3	281.3	260.9	253.4
32.5°	275.8	273.4	265.0	243.6	237.6
35°	260.4	258.5	245.9	227.3	221.7
37.5°	245.0	242.7	226.8	211.9	205.0
40°	229.6	226.8	209.6	196.1	188.7
42.5°	215.2	211.5	194.7	180.3	171.9
45°	199.8	195.6	178.9	164.0	157.4
47.5°	184.5	180.7	165.4	150.0	142.5
50°	168.2	164.9	150.9	135.6	127.6
52.5°	154.6	149.5	136.0	120.6	114.1
55°	138.8	134.6	122.0	107.6	102.0
57.5°	124.4	120.2	108.5	95.0	90.4
60°	110.9	104.8	95.0	83.4	79.7
62.5°	96.0	91.3	82.9	73.1	77.8
65°	82.4	77.8	70.3	71.7	59.6
67.5°	67.5	65.2	58.7	52.2	50.3
70°	55.0	52.2	49.8	42.9	41.0
72.5°	43.8	41.0	37.7	34.0	32.6
75°	33.1	30.7	28.9	27.5	30.3
77.5°	22.8	21.9	20.5	19.1	18.6
80°	14.9	14.4	14.0	13.5	13.0
82.5°	8.9	8.9	8.9	8.9	8.9
85°	4.7	5.1	5.6	6.1	6.5
87.5°	2.8	2.8	3.3	3.7	4.2
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)