

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: P545344

Luminaire Tested: **FMR-12-2-LD4-1LO-35-UNV-81-85-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: P545344
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-35-UNV-81-85-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

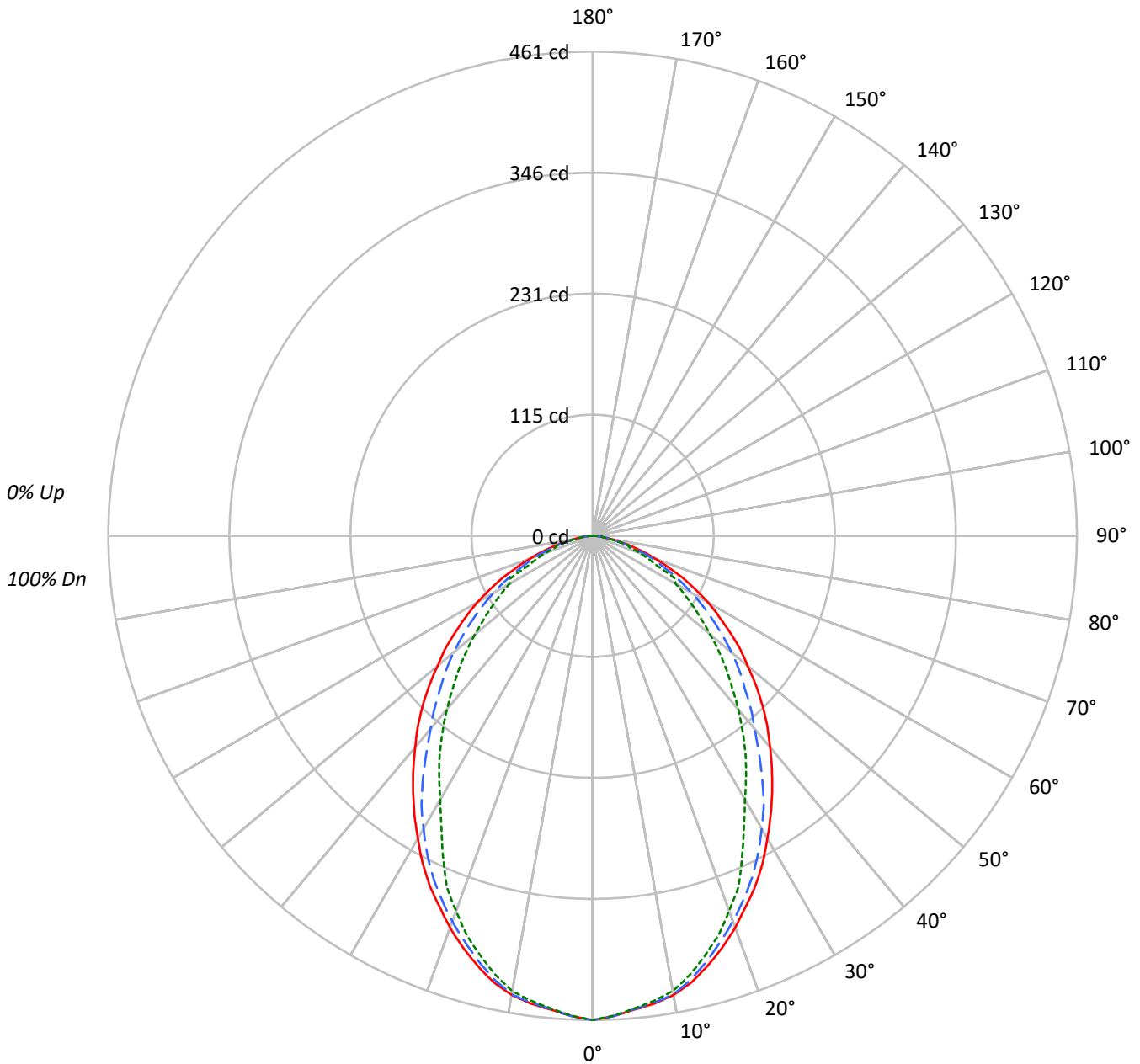
Lumens per Lamp: N/A
Luminaire Lumens: 905.0 lumens
Efficiency: N/A
Efficacy: 77.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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				20				20	
RC	80				70				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				100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87				87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75				75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65				65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56				56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50				50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44				44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40				40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36				36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33				33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30				30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2481	2481	2481
5°	2447	2445	2441
10°	2426	2423	2406
15°	2361	2337	2305
20°	2274	2237	2176
25°	2181	2133	2000
30°	2067	2000	1802
35°	1957	1849	1667
40°	1846	1685	1516
45°	1740	1557	1371
50°	1611	1446	1222
55°	1490	1310	1095
60°	1365	1170	981
65°	1201	1025	869
70°	990	897	738
75°	786	686	719
80°	530	496	462
85°	327	395	463



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.9	4.7
10°-20°	117.8	13.0
20°-30°	163.0	18.0
30°-40°	173.8	19.2
40°-50°	158.6	17.5
50°-60°	124.2	13.7
60°-70°	81.0	8.9
70°-80°	35.9	4.0
80°-90°	7.7	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°	323.7	35.8
0°-40°	497.6	55.0
0°-60°	780.4	86.2
0°-90°	905.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	905.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	461	461	461	461	461	
5°	453	452	452	452	452	43
15°	424	424	419	415	414	119
25°	367	365	359	346	337	169
35°	298	296	281	260	254	186
45°	229	224	205	188	180	176
55°	159	154	140	123	117	142
65°	94	89	80	82	68	93
75°	38	35	33	31	35	41
85°	5	6	6	7	8	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	461.0	461.0	461.0	461.0	461.0
2.5°	457.8	457.8	457.8	457.3	457.3
5°	453.0	452.5	452.5	451.9	451.9
7.5°	449.3	448.7	448.2	447.7	446.6
10°	443.9	443.9	443.4	440.7	440.2
12.5°	435.4	434.9	432.7	429.0	428.0
15°	423.7	423.7	419.4	415.2	413.6
17.5°	410.9	410.4	405.0	400.8	398.6
20°	397.0	396.0	390.6	383.7	380.0
22.5°	381.6	381.6	375.2	366.1	362.4
25°	367.2	365.1	359.2	346.4	336.8
27.5°	350.7	347.5	341.1	323.0	311.8
30°	332.6	331.0	321.9	298.4	289.9
32.5°	315.5	312.8	303.2	278.7	271.8
35°	297.9	295.8	281.4	260.1	253.7
37.5°	280.3	277.7	259.5	242.5	234.5
40°	262.7	259.5	239.8	224.4	215.8
42.5°	246.2	242.0	222.8	206.2	196.7
45°	228.6	223.8	204.6	187.6	180.1
47.5°	211.0	206.8	189.2	171.6	163.1
50°	192.4	188.7	172.7	155.1	146.0
52.5°	176.9	171.1	155.6	138.0	130.6
55°	158.8	154.0	139.6	123.1	116.7
57.5°	142.3	137.5	124.2	108.7	103.4
60°	126.8	119.9	108.7	95.4	91.1
62.5°	109.8	104.5	94.9	83.7	89.0
65°	94.3	89.0	80.5	82.1	68.2
67.5°	77.3	74.6	67.2	59.7	57.6
70°	62.9	59.7	57.0	49.0	46.9
72.5°	50.1	46.9	43.2	38.9	37.3
75°	37.8	35.2	33.0	31.4	34.6
77.5°	26.1	25.0	23.4	21.9	21.3
80°	17.1	16.5	16.0	15.5	14.9
82.5°	10.1	10.1	10.1	10.1	10.1
85°	5.3	5.9	6.4	6.9	7.5
87.5°	3.2	3.2	3.7	4.3	4.8
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)