

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: P545336

Luminaire Tested: **FMR-12-2-LD4-1LO-35-UNV-80-85-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: P545336
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-80-85-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC 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

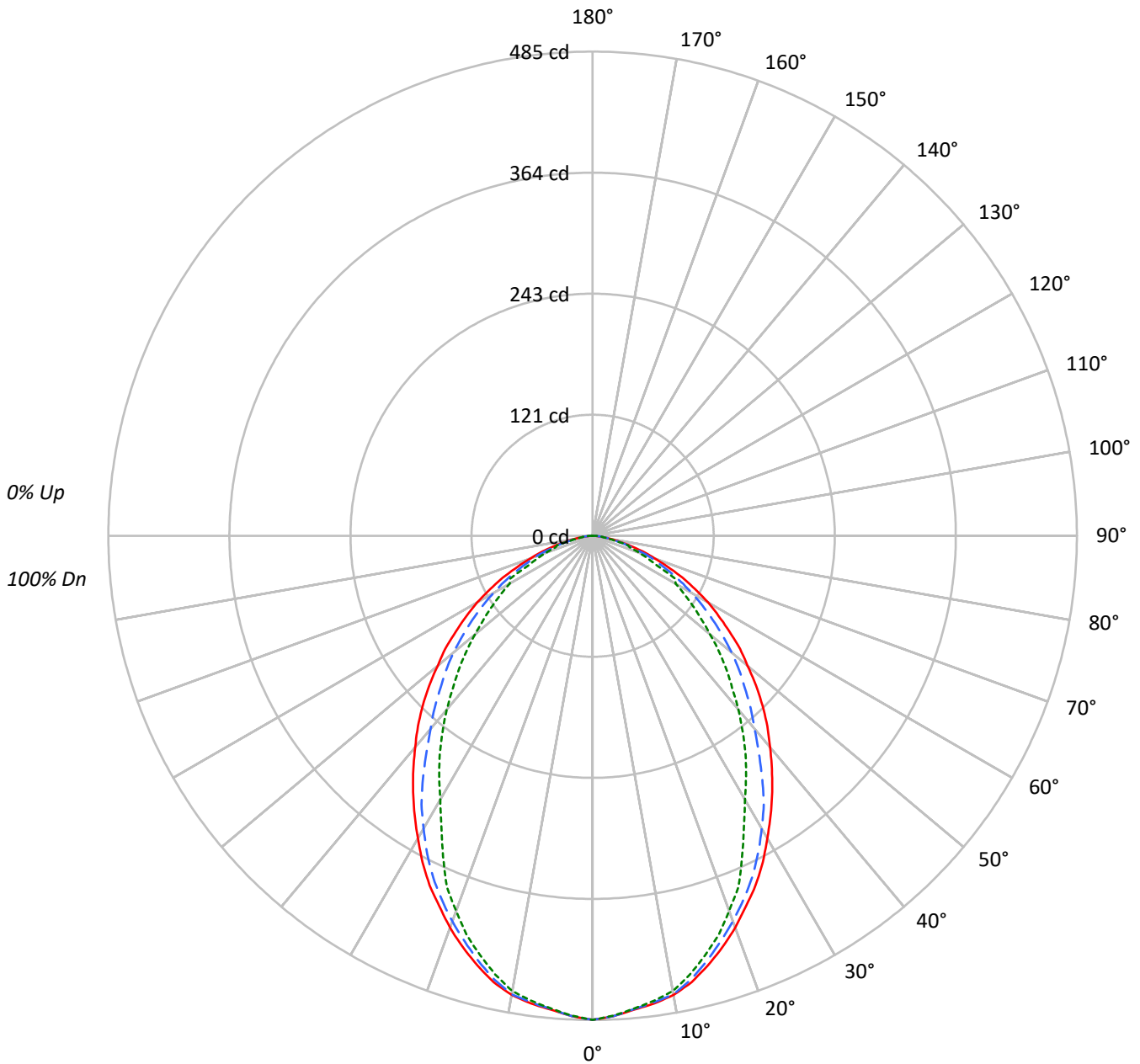
Lumens per Lamp: N/A
Luminaire Lumens: 952.0 lumens
Efficiency: N/A
Efficacy: 81.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	2610	2610	2610
5°	2574	2572	2568
10°	2552	2549	2531
15°	2483	2458	2424
20°	2392	2353	2289
25°	2294	2244	2104
30°	2174	2104	1895
35°	2059	1945	1754
40°	1942	1773	1596
45°	1831	1639	1442
50°	1695	1521	1286
55°	1568	1378	1152
60°	1436	1231	1032
65°	1263	1079	914
70°	1042	944	776
75°	828	724	757
80°	555	521	487
85°	346	414	482



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.1	4.7
10°-20°	123.9	13.0
20°-30°	171.5	18.0
30°-40°	182.9	19.2
40°-50°	166.8	17.5
50°-60°	130.7	13.7
60°-70°	85.2	8.9
70°-80°	37.7	4.0
80°-90°	8.1	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°	340.5	35.8
0°-40°	523.4	55.0
0°-60°	821.0	86.2
0°-90°	952.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	952.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	485	485	485	485	485	
5°	476	476	476	475	475	45
15°	446	446	441	437	435	125
25°	386	384	378	364	354	177
35°	313	311	296	274	267	196
45°	240	236	215	197	190	185
55°	167	162	147	130	123	150
65°	99	94	85	86	72	98
75°	40	37	35	33	36	43
85°	6	6	7	7	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	484.9	484.9	484.9	484.9	484.9
2.5°	481.6	481.6	481.6	481.0	481.0
5°	476.5	476.0	476.0	475.4	475.4
7.5°	472.6	472.0	471.5	470.9	469.8
10°	467.0	467.0	466.4	463.6	463.1
12.5°	458.0	457.5	455.2	451.3	450.2
15°	445.7	445.7	441.2	436.7	435.0
17.5°	432.2	431.7	426.1	421.6	419.3
20°	417.7	416.5	410.9	403.6	399.7
22.5°	401.4	401.4	394.7	385.1	381.2
25°	386.3	384.0	377.9	364.4	354.3
27.5°	368.9	365.5	358.8	339.7	328.0
30°	349.8	348.1	338.6	313.9	305.0
32.5°	331.9	329.1	319.0	293.2	285.9
35°	313.4	311.1	296.0	273.6	266.9
37.5°	294.9	292.1	273.0	255.1	246.7
40°	276.4	273.0	252.3	236.0	227.1
42.5°	259.0	254.5	234.3	217.0	206.9
45°	240.5	235.5	215.3	197.3	189.5
47.5°	222.0	217.5	199.0	180.5	171.5
50°	202.4	198.5	181.6	163.1	153.6
52.5°	186.1	180.0	163.7	145.2	137.4
55°	167.1	162.0	146.9	129.5	122.8
57.5°	149.7	144.6	130.6	114.4	108.8
60°	133.4	126.1	114.4	100.4	95.9
62.5°	115.5	109.9	99.8	88.0	93.6
65°	99.2	93.6	84.7	86.3	71.8
67.5°	81.3	78.5	70.6	62.8	60.5
70°	66.2	62.8	60.0	51.6	49.3
72.5°	52.7	49.3	45.4	40.9	39.2
75°	39.8	37.0	34.8	33.1	36.4
77.5°	27.5	26.3	24.7	23.0	22.4
80°	17.9	17.4	16.8	16.3	15.7
82.5°	10.7	10.7	10.7	10.7	10.7
85°	5.6	6.2	6.7	7.3	7.8
87.5°	3.4	3.4	3.9	4.5	5.0
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)