

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: P545152

Luminaire Tested: **FMR-12-1-LD4-2STD-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: P545152
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-12-1-LD4-2STD-35-UNV-81-85-EDD
Description: 1X1 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

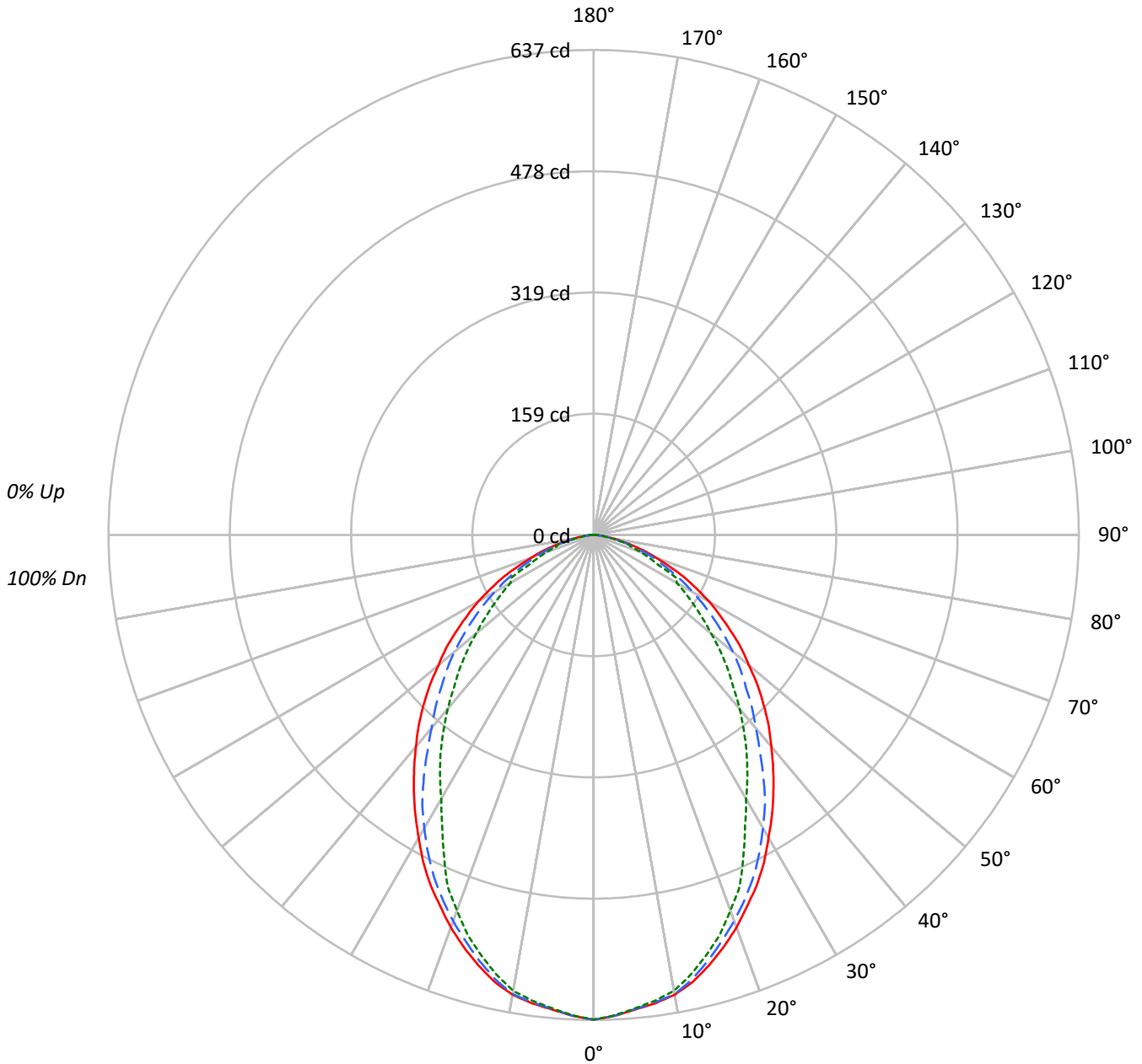
Lumens per Lamp: N/A
Luminaire Lumens: 1250.0 lumens
Efficiency: N/A
Efficacy: 75.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (A_{in}): 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					
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								
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°	6853	6853	6853
5°	6761	6753	6745
10°	6702	6694	6645
15°	6521	6456	6365
20°	6282	6181	6011
25°	6024	5892	5525
30°	5709	5526	4977
35°	5407	5108	4604
40°	5099	4654	4189
45°	4807	4303	3787
50°	4449	3994	3378
55°	4117	3620	3025
60°	3772	3233	2710
65°	3319	2832	2399
70°	2735	2480	2039
75°	2175	1896	1988
80°	1463	1370	1277
85°	914	1087	1272



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.3	4.7
10°-20°	162.7	13.0
20°-30°	225.2	18.0
30°-40°	240.1	19.2
40°-50°	219.1	17.5
50°-60°	171.6	13.7
60°-70°	111.9	8.9
70°-80°	49.5	4.0
80°-90°	10.6	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°	447.1	35.8
0°-40°	687.3	55.0
0°-60°	1077.9	86.2
0°-90°	1250.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1250.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	637	637	637	637	637	
5°	626	625	625	624	624	59
15°	585	585	579	573	571	165
25°	507	504	496	478	465	233
35°	412	408	389	359	350	257
45°	316	309	283	259	249	243
55°	219	213	193	170	161	197
65°	130	123	111	113	94	128
75°	52	49	46	43	48	56
85°	7	8	9	10	10	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	636.7	636.7	636.7	636.7	636.7
2.5°	632.3	632.3	632.3	631.6	631.6
5°	625.7	625.0	625.0	624.2	624.2
7.5°	620.5	619.8	619.1	618.3	616.9
10°	613.2	613.2	612.4	608.8	608.0
12.5°	601.4	600.7	597.7	592.6	591.1
15°	585.2	585.2	579.3	573.4	571.2
17.5°	567.5	566.8	559.4	553.6	550.6
20°	548.4	546.9	539.6	530.0	524.8
22.5°	527.1	527.1	518.2	505.7	500.6
25°	507.2	504.2	496.1	478.5	465.2
27.5°	484.4	479.9	471.1	446.1	430.6
30°	459.3	457.1	444.6	412.2	400.4
32.5°	435.8	432.1	418.8	385.0	375.4
35°	411.5	408.5	388.7	359.2	350.4
37.5°	387.2	383.5	358.5	334.9	323.9
40°	362.9	358.5	331.2	309.9	298.1
42.5°	340.1	334.2	307.7	284.9	271.6
45°	315.8	309.2	282.7	259.1	248.8
47.5°	291.5	285.6	261.3	237.0	225.2
50°	265.7	260.6	238.5	214.2	201.7
52.5°	244.4	236.3	214.9	190.7	180.3
55°	219.4	212.7	192.9	170.0	161.2
57.5°	196.5	189.9	171.5	150.2	142.8
60°	175.2	165.6	150.2	131.8	125.9
62.5°	151.6	144.3	131.0	115.6	122.9
65°	130.3	122.9	111.2	113.4	94.2
67.5°	106.7	103.1	92.7	82.4	79.5
70°	86.9	82.4	78.8	67.7	64.8
72.5°	69.2	64.8	59.6	53.7	51.5
75°	52.3	48.6	45.6	43.4	47.8
77.5°	36.1	34.6	32.4	30.2	29.4
80°	23.6	22.8	22.1	21.3	20.6
82.5°	14.0	14.0	14.0	14.0	14.0
85°	7.4	8.1	8.8	9.6	10.3
87.5°	4.4	4.4	5.2	5.9	6.6
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)