

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: P545053

Luminaire Tested: **FMR-12-1-LD4-2LO-35-UNV-80-96-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: P545053
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-LD4-2LO-35-UNV-80-96-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

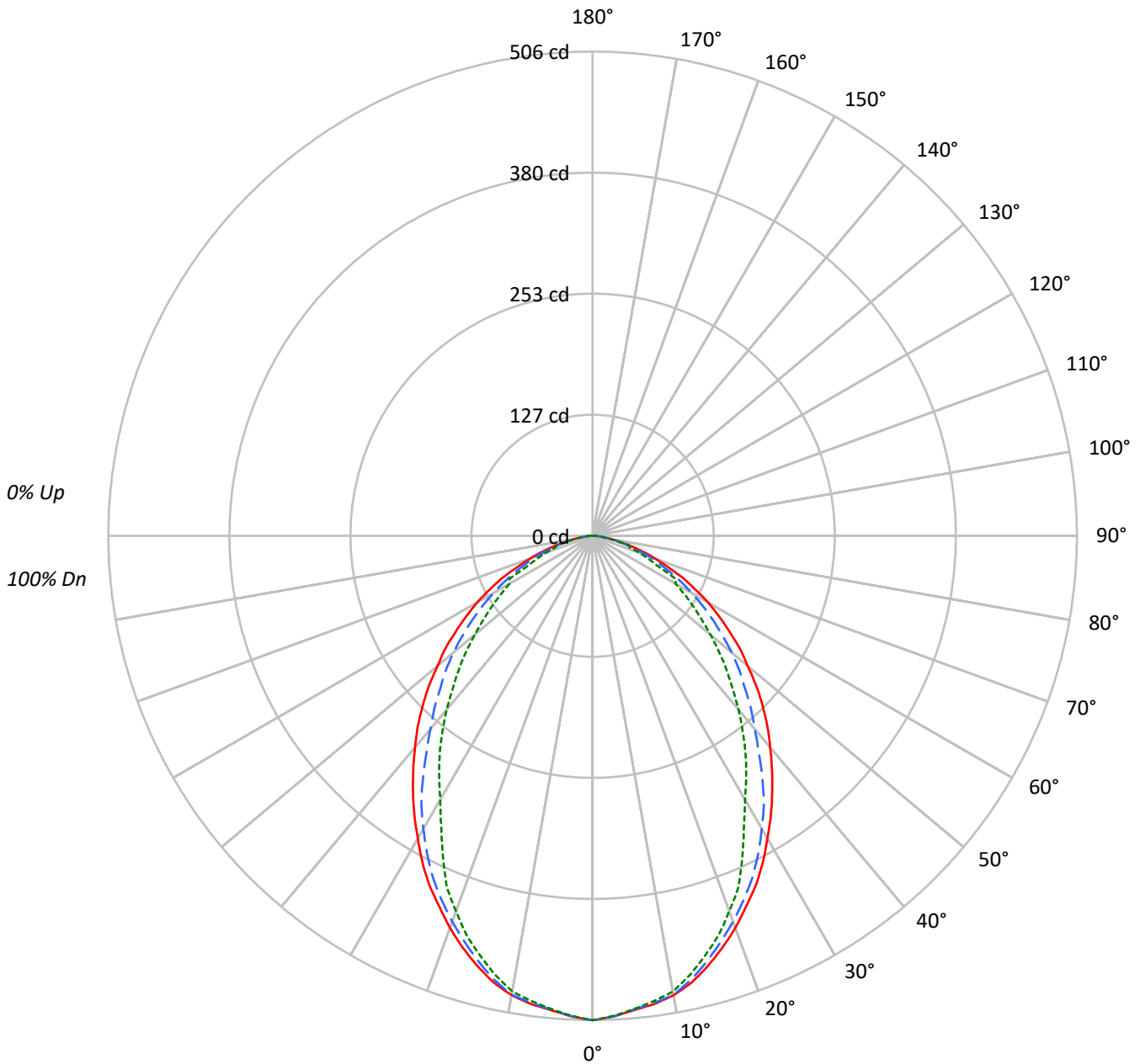
Lumens per Lamp: N/A
Luminaire Lumens: 994.0 lumens
Efficiency: N/A
Efficacy: 85.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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									
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°	5450	5450	5450
5°	5377	5370	5364
10°	5329	5323	5285
15°	5186	5134	5061
20°	4995	4915	4781
25°	4790	4685	4393
30°	4540	4395	3957
35°	4300	4062	3661
40°	4055	3701	3332
45°	3822	3422	3011
50°	3538	3177	2686
55°	3273	2879	2406
60°	2999	2570	2155
65°	2639	2252	1908
70°	2175	1970	1621
75°	1730	1510	1580
80°	1159	1091	1017
85°	729	865	1013



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.1	4.7
10°-20°	129.4	13.0
20°-30°	179.1	18.0
30°-40°	191.0	19.2
40°-50°	174.2	17.5
50°-60°	136.5	13.7
60°-70°	89.0	8.9
70°-80°	39.4	4.0
80°-90°	8.5	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°	355.6	35.8
0°-40°	546.5	55.0
0°-60°	857.2	86.2
0°-90°	994.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	994.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	506	506	506	506	506	
5°	498	497	497	496	496	47
15°	465	465	461	456	454	131
25°	403	401	394	380	370	185
35°	327	325	309	286	279	205
45°	251	246	225	206	198	193
55°	174	169	153	135	128	156
65°	104	98	88	90	75	102
75°	42	39	36	34	38	45
85°	6	6	7	8	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	506.3	506.3	506.3	506.3	506.3
2.5°	502.8	502.8	502.8	502.2	502.2
5°	497.6	497.0	497.0	496.4	496.4
7.5°	493.5	492.9	492.3	491.7	490.5
10°	487.6	487.6	487.0	484.1	483.5
12.5°	478.2	477.6	475.3	471.2	470.0
15°	465.4	465.4	460.7	456.0	454.2
17.5°	451.3	450.7	444.9	440.2	437.8
20°	436.1	434.9	429.1	421.5	417.4
22.5°	419.1	419.1	412.1	402.1	398.0
25°	403.3	401.0	394.5	380.5	369.9
27.5°	385.2	381.7	374.6	354.7	342.4
30°	365.3	363.5	353.6	327.8	318.4
32.5°	346.5	343.6	333.1	306.1	298.5
35°	327.2	324.9	309.1	285.7	278.6
37.5°	307.9	305.0	285.1	266.3	257.6
40°	288.6	285.1	263.4	246.4	237.1
42.5°	270.4	265.8	244.7	226.5	216.0
45°	251.1	245.8	224.8	206.0	197.8
47.5°	231.8	227.1	207.8	188.5	179.1
50°	211.3	207.2	189.7	170.3	160.4
52.5°	194.3	187.9	170.9	151.6	143.4
55°	174.4	169.2	153.4	135.2	128.2
57.5°	156.3	151.0	136.4	119.4	113.6
60°	139.3	131.7	119.4	104.8	100.1
62.5°	120.6	114.7	104.2	91.9	97.8
65°	103.6	97.8	88.4	90.1	74.9
67.5°	84.9	81.9	73.8	65.6	63.2
70°	69.1	65.6	62.6	53.9	51.5
72.5°	55.0	51.5	47.4	42.7	41.0
75°	41.6	38.6	36.3	34.5	38.0
77.5°	28.7	27.5	25.8	24.0	23.4
80°	18.7	18.1	17.6	17.0	16.4
82.5°	11.1	11.1	11.1	11.1	11.1
85°	5.9	6.4	7.0	7.6	8.2
87.5°	3.5	3.5	4.1	4.7	5.3
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)