

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: P545077

Luminaire Tested: **FMR-12-1-LD4-2LO-35-UNV-93-96-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: P545077
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-93-96-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS 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

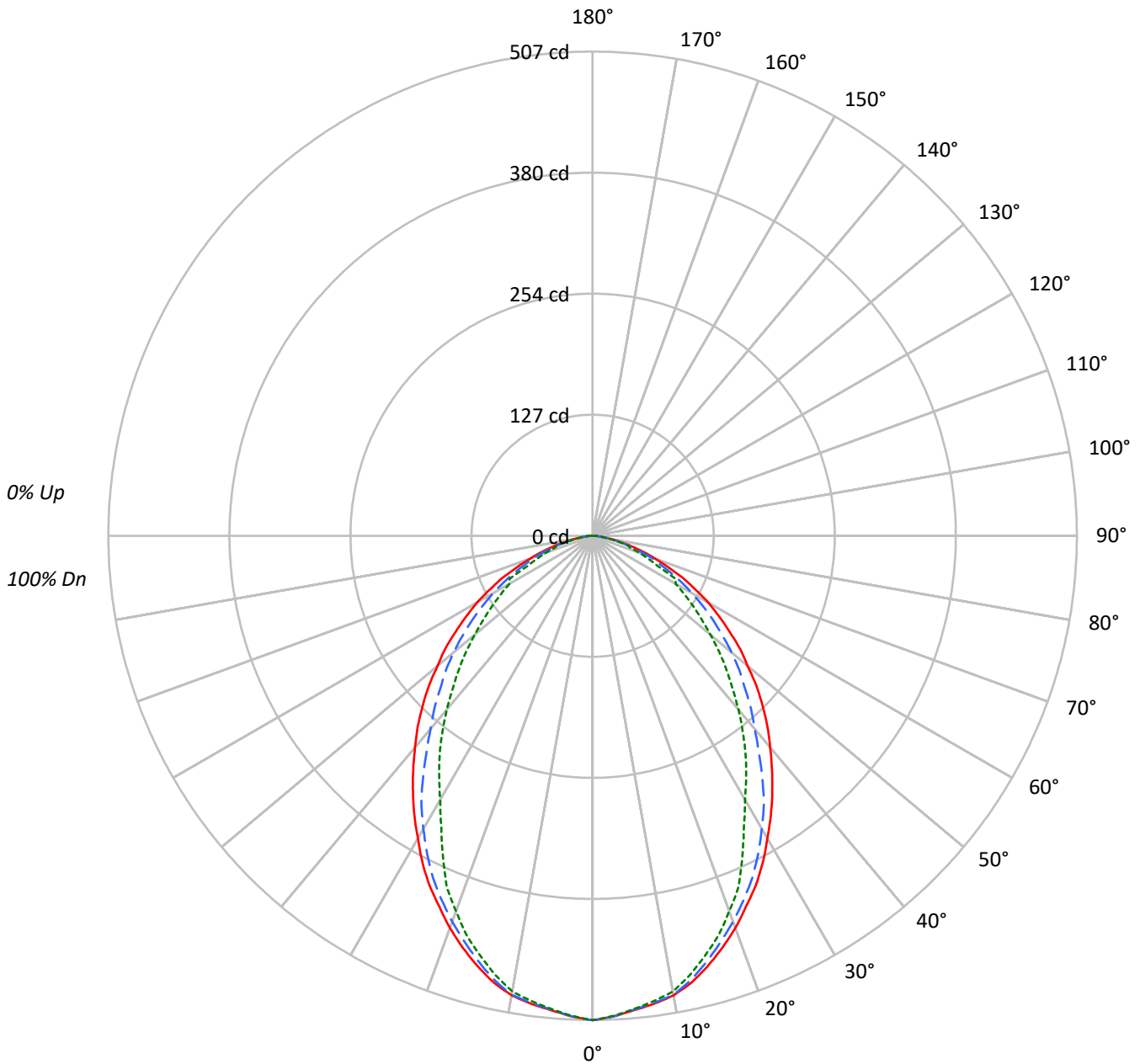
Lumens per Lamp: N/A
Luminaire Lumens: 996.0 lumens
Efficiency: N/A
Efficacy: 85.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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°	5461	5461	5461
5°	5387	5381	5374
10°	5340	5334	5296
15°	5196	5144	5071
20°	5006	4924	4790
25°	4799	4695	4403
30°	4549	4404	3966
35°	4309	4070	3669
40°	4064	3708	3337
45°	3830	3428	3017
50°	3545	3182	2691
55°	3280	2884	2411
60°	3005	2577	2159
65°	2644	2257	1913
70°	2178	1976	1624
75°	1730	1514	1585
80°	1165	1091	1017
85°	729	865	1013



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.2	4.7
10°-20°	129.6	13.0
20°-30°	179.4	18.0
30°-40°	191.3	19.2
40°-50°	174.6	17.5
50°-60°	136.8	13.7
60°-70°	89.1	8.9
70°-80°	39.5	4.0
80°-90°	8.5	0.8
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°	356.3	35.8
0°-40°	547.6	55.0
0°-60°	858.9	86.2
0°-90°	996.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	996.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	507	507	507	507	507	
5°	499	498	498	497	497	47
15°	466	466	462	457	455	131
25°	404	402	395	381	371	186
35°	328	326	310	286	279	205
45°	252	246	225	206	198	194
55°	175	170	154	136	128	157
65°	104	98	89	90	75	102
75°	42	39	36	35	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°	507.3	507.3	507.3	507.3	507.3
2.5°	503.8	503.8	503.8	503.2	503.2
5°	498.6	498.0	498.0	497.4	497.4
7.5°	494.4	493.9	493.3	492.7	491.5
10°	488.6	488.6	488.0	485.1	484.5
12.5°	479.2	478.6	476.3	472.2	471.0
15°	466.3	466.3	461.6	456.9	455.1
17.5°	452.2	451.6	445.8	441.1	438.7
20°	437.0	435.8	429.9	422.3	418.2
22.5°	420.0	420.0	412.9	402.9	398.8
25°	404.1	401.8	395.3	381.2	370.7
27.5°	385.9	382.4	375.4	355.4	343.1
30°	366.0	364.2	354.3	328.5	319.1
32.5°	347.2	344.3	333.7	306.8	299.1
35°	327.9	325.5	309.7	286.2	279.2
37.5°	308.5	305.6	285.6	266.9	258.1
40°	289.2	285.6	263.9	246.9	237.5
42.5°	271.0	266.3	245.2	227.0	216.4
45°	251.6	246.3	225.2	206.5	198.2
47.5°	232.3	227.6	208.2	188.9	179.5
50°	211.7	207.6	190.0	170.7	160.7
52.5°	194.7	188.3	171.3	151.9	143.7
55°	174.8	169.5	153.7	135.5	128.5
57.5°	156.6	151.3	136.7	119.7	113.8
60°	139.6	132.0	119.7	105.0	100.3
62.5°	120.8	115.0	104.4	92.1	98.0
65°	103.8	98.0	88.6	90.3	75.1
67.5°	85.0	82.1	73.9	65.7	63.3
70°	69.2	65.7	62.8	54.0	51.6
72.5°	55.1	51.6	47.5	42.8	41.1
75°	41.6	38.7	36.4	34.6	38.1
77.5°	28.7	27.6	25.8	24.0	23.5
80°	18.8	18.2	17.6	17.0	16.4
82.5°	11.1	11.1	11.1	11.1	11.1
85°	5.9	6.5	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)