

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: P545268

Luminaire Tested: **FMR-12-2-LD4-1HI-35-UNV-93-94-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: P545268
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-LD4-1HI-35-UNV-93-94-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

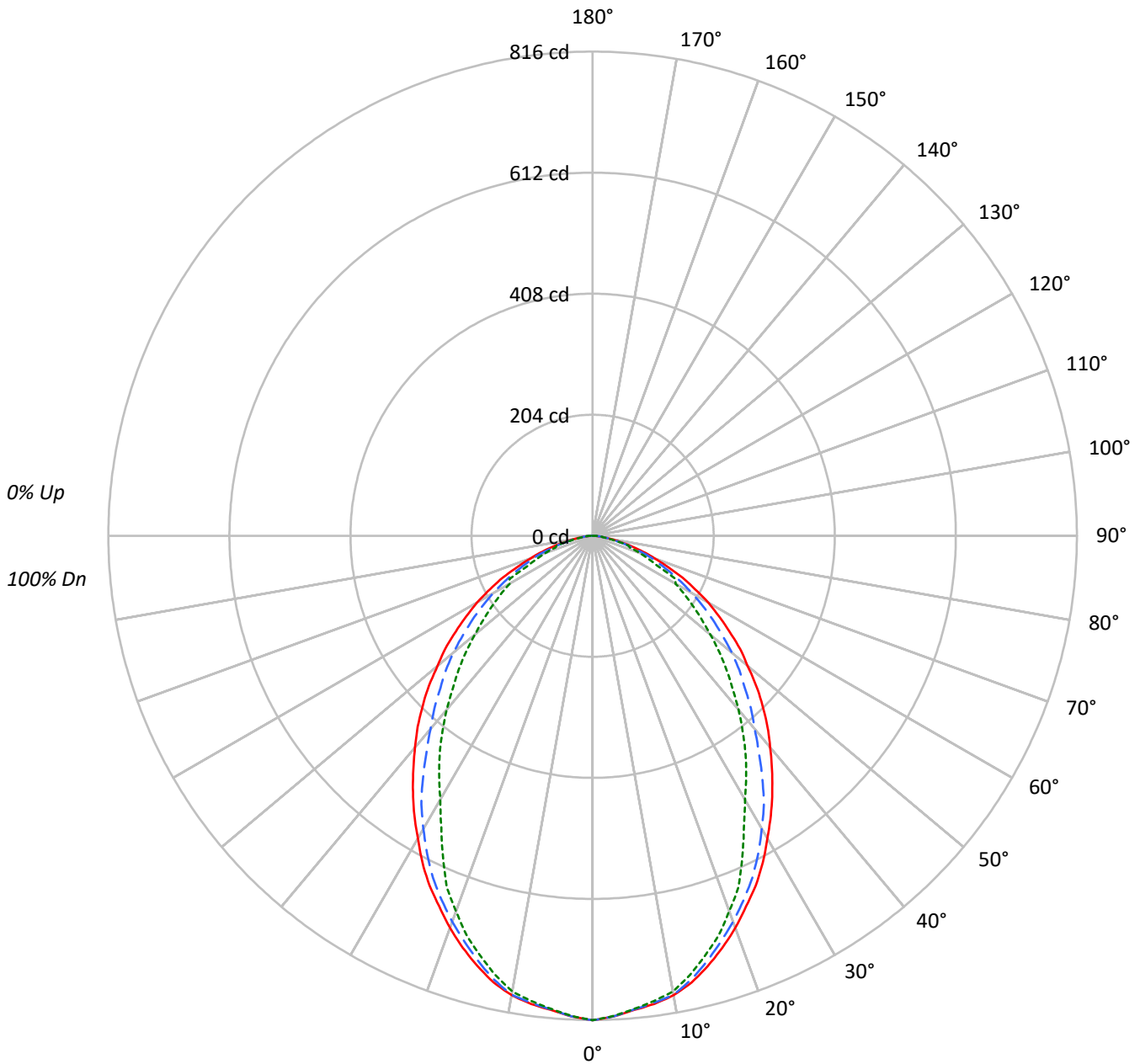
Lumens per Lamp: N/A
Luminaire Lumens: 1603.0 lumens
Efficiency: N/A
Efficacy: 74.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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°	4394	4394	4394
5°	4335	4330	4325
10°	4297	4292	4261
15°	4182	4139	4081
20°	4028	3963	3855
25°	3862	3778	3543
30°	3660	3544	3191
35°	3467	3275	2952
40°	3270	2984	2686
45°	3083	2759	2429
50°	2853	2561	2166
55°	2639	2320	1939
60°	2419	2073	1737
65°	2128	1815	1538
70°	1753	1589	1308
75°	1393	1216	1277
80°	936	877	818
85°	580	698	815



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.0	4.7
10°-20°	208.6	13.0
20°-30°	288.8	18.0
30°-40°	307.9	19.2
40°-50°	280.9	17.5
50°-60°	220.1	13.7
60°-70°	143.4	8.9
70°-80°	63.6	4.0
80°-90°	13.6	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°	573.4	35.8
0°-40°	881.3	55.0
0°-60°	1382.4	86.2
0°-90°	1603.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1603.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	816	816	816	816	816	
5°	802	801	801	800	800	76
15°	750	750	743	735	732	211
25°	650	647	636	614	597	299
35°	528	524	498	461	449	330
45°	405	396	362	332	319	312
55°	281	273	247	218	207	252
65°	167	158	142	145	121	165
75°	67	62	58	56	61	72
85°	9	10	11	12	13	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	816.5	816.5	816.5	816.5	816.5
2.5°	810.9	810.9	810.9	809.9	809.9
5°	802.4	801.4	801.4	800.5	800.5
7.5°	795.8	794.8	793.9	792.9	791.1
10°	786.3	786.3	785.4	780.7	779.7
12.5°	771.2	770.3	766.5	759.9	758.0
15°	750.5	750.5	742.9	735.4	732.5
17.5°	727.8	726.9	717.4	709.9	706.1
20°	703.3	701.4	691.9	679.7	673.1
22.5°	675.9	675.9	664.6	648.5	641.9
25°	650.4	646.6	636.2	613.6	596.6
27.5°	621.1	615.5	604.2	572.1	552.2
30°	589.0	586.2	570.2	528.6	513.5
32.5°	558.8	554.1	537.1	493.7	481.4
35°	527.7	523.9	498.4	460.7	449.3
37.5°	496.5	491.8	459.7	429.5	415.4
40°	465.4	459.7	424.8	397.4	382.3
42.5°	436.1	428.6	394.6	365.3	348.3
45°	405.0	396.5	362.5	332.3	319.1
47.5°	373.8	366.3	335.1	304.0	288.9
50°	340.8	334.2	305.9	274.7	258.7
52.5°	313.4	303.0	275.6	244.5	231.3
55°	281.3	272.8	247.3	218.1	206.7
57.5°	252.0	243.5	219.9	192.6	183.1
60°	224.7	212.4	192.6	169.0	161.4
62.5°	194.5	185.0	168.0	148.2	157.6
65°	167.1	157.6	142.5	145.4	120.8
67.5°	136.9	132.2	118.9	105.7	102.0
70°	111.4	105.7	101.0	86.8	83.1
72.5°	88.7	83.1	76.5	68.9	66.1
75°	67.0	62.3	58.5	55.7	61.4
77.5°	46.3	44.4	41.5	38.7	37.8
80°	30.2	29.3	28.3	27.4	26.4
82.5°	17.9	17.9	17.9	17.9	17.9
85°	9.4	10.4	11.3	12.3	13.2
87.5°	5.7	5.7	6.6	7.6	8.5
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)