

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: P544975

Luminaire Tested: **FMR-12-1-LD4-2HI-35-UNV-93-84-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: P544975
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-LD4-2HI-35-UNV-93-84-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

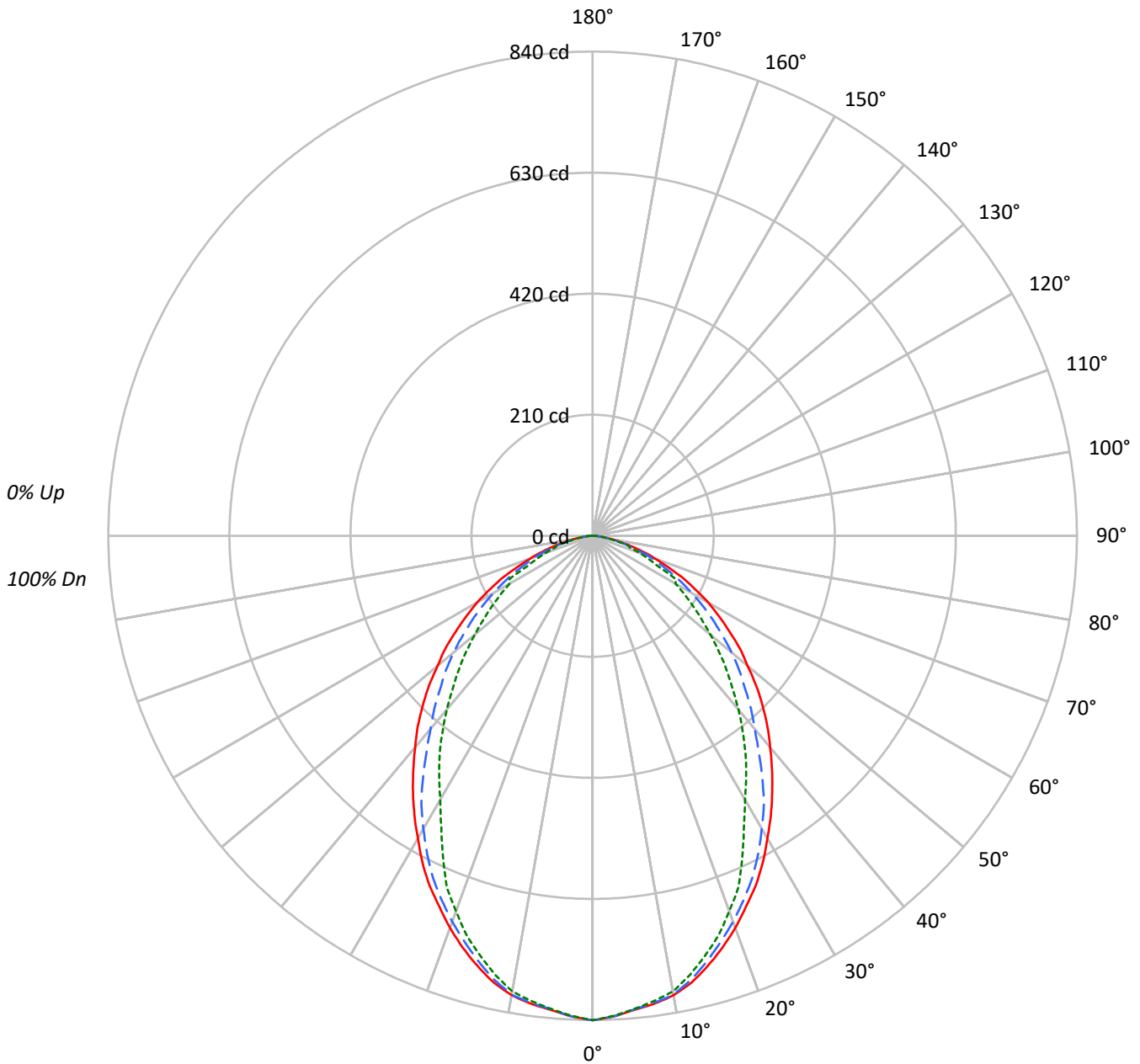
Lumens per Lamp: N/A
Luminaire Lumens: 1650.0 lumens
Efficiency: N/A
Efficacy: 76.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	9047	9047	9047
5°	8924	8913	8903
10°	8847	8836	8772
15°	8608	8522	8402
20°	8292	8158	7936
25°	7951	7778	7293
30°	7536	7295	6570
35°	7138	6741	6077
40°	6731	6143	5529
45°	6345	5680	4999
50°	5874	5272	4458
55°	5435	4778	3993
60°	4979	4267	3578
65°	4381	3736	3168
70°	3610	3273	2691
75°	2870	2504	2628
80°	1928	1804	1686
85°	1198	1445	1680



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.2	4.7
10°-20°	214.7	13.0
20°-30°	297.3	18.0
30°-40°	317.0	19.2
40°-50°	289.2	17.5
50°-60°	226.5	13.7
60°-70°	147.6	8.9
70°-80°	65.4	4.0
80°-90°	14.1	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°	590.2	35.8
0°-40°	907.2	55.0
0°-60°	1422.9	86.2
0°-90°	1650.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1650.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	840	840	840	840	840	
5°	826	825	825	824	824	78
15°	772	772	765	757	754	217
25°	670	666	655	632	614	307
35°	543	539	513	474	462	340
45°	417	408	373	342	328	321
55°	290	281	255	224	213	260
65°	172	162	147	150	124	170
75°	69	64	60	57	63	74
85°	10	11	12	13	14	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	840.5	840.5	840.5	840.5	840.5
2.5°	834.7	834.7	834.7	833.7	833.7
5°	825.9	824.9	824.9	824.0	824.0
7.5°	819.1	818.1	817.2	816.2	814.3
10°	809.4	809.4	808.4	803.6	802.6
12.5°	793.8	792.9	789.0	782.2	780.2
15°	772.5	772.5	764.7	756.9	754.0
17.5°	749.2	748.2	738.5	730.7	726.8
20°	723.9	721.9	712.2	699.6	692.8
22.5°	695.7	695.7	684.1	667.5	660.7
25°	669.5	665.6	654.9	631.6	614.1
27.5°	639.4	633.5	621.9	588.8	568.4
30°	606.3	603.4	586.9	544.1	528.6
32.5°	575.2	570.4	552.9	508.2	495.5
35°	543.2	539.3	513.0	474.2	462.5
37.5°	511.1	506.2	473.2	442.1	427.5
40°	479.0	473.2	437.2	409.1	393.5
42.5°	448.9	441.1	406.2	376.0	358.5
45°	416.8	408.1	373.1	342.0	328.4
47.5°	384.8	377.0	344.9	312.9	297.3
50°	350.8	344.0	314.8	282.8	266.2
52.5°	322.6	311.9	283.7	251.7	238.1
55°	289.6	280.8	254.6	224.5	212.8
57.5°	259.4	250.7	226.4	198.2	188.5
60°	231.3	218.6	198.2	173.9	166.2
62.5°	200.2	190.4	173.0	152.6	162.3
65°	172.0	162.3	146.7	149.6	124.4
67.5°	140.9	136.0	122.4	108.8	104.9
70°	114.7	108.8	104.0	89.4	85.5
72.5°	91.3	85.5	78.7	70.9	68.0
75°	69.0	64.1	60.2	57.3	63.2
77.5°	47.6	45.7	42.8	39.8	38.9
80°	31.1	30.1	29.1	28.2	27.2
82.5°	18.5	18.5	18.5	18.5	18.5
85°	9.7	10.7	11.7	12.6	13.6
87.5°	5.8	5.8	6.8	7.8	8.7
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)