

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: P545245

Luminaire Tested: **FMR-12-2-LD4-1HI-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: P545245
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-80-96-EDD
Description: 1X2 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

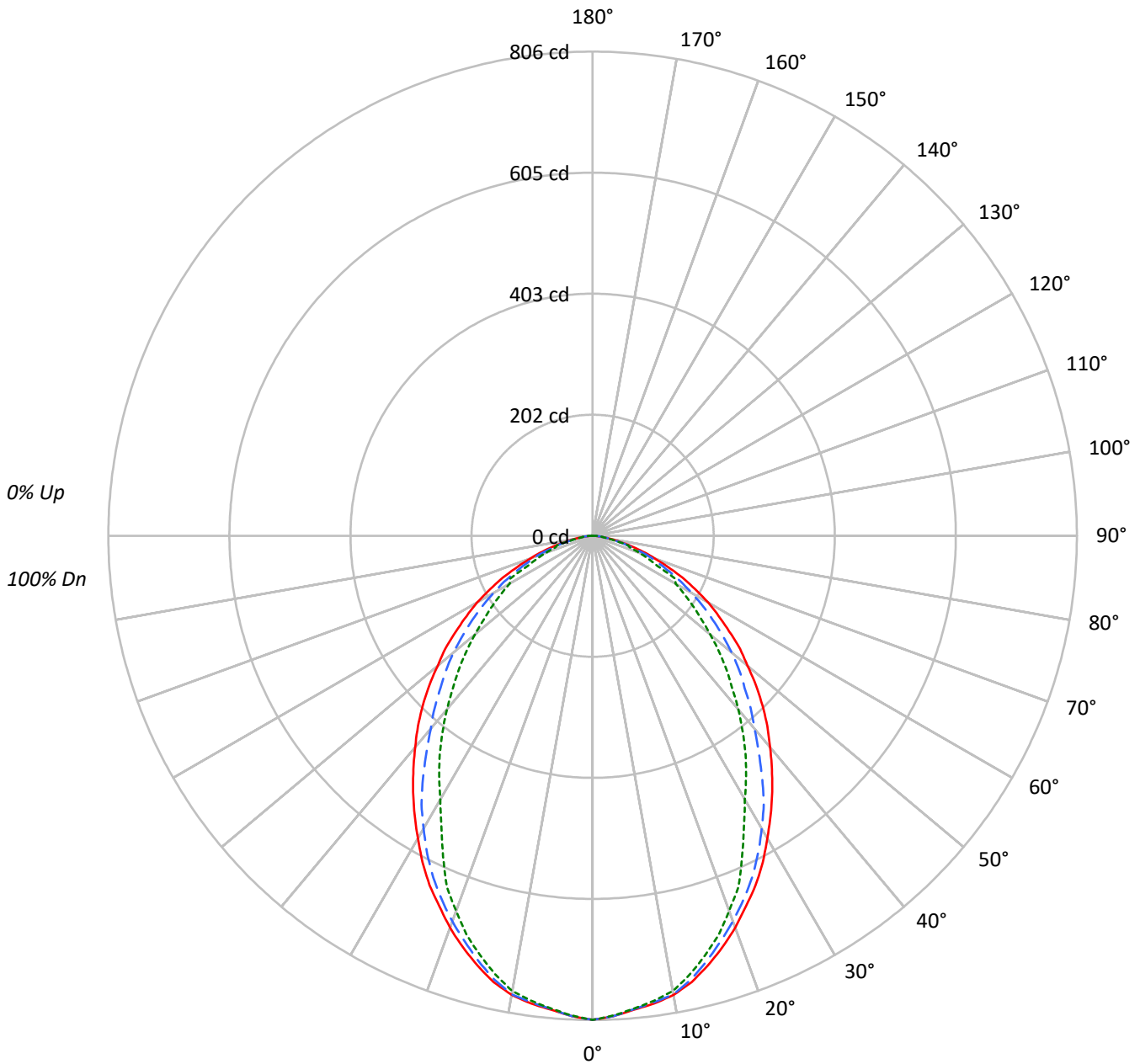
Lumens per Lamp: N/A
Luminaire Lumens: 1582.0 lumens
Efficiency: N/A
Efficacy: 73.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	4337	4337	4337
5°	4278	4273	4268
10°	4241	4236	4205
15°	4126	4085	4028
20°	3975	3911	3804
25°	3812	3729	3496
30°	3613	3497	3150
35°	3422	3232	2914
40°	3227	2945	2651
45°	3042	2723	2397
50°	2816	2527	2138
55°	2605	2290	1914
60°	2386	2046	1715
65°	2100	1792	1518
70°	1729	1569	1290
75°	1375	1202	1260
80°	924	865	809
85°	574	692	803



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.0	4.7
10°-20°	205.9	13.0
20°-30°	285.0	18.0
30°-40°	303.9	19.2
40°-50°	277.2	17.5
50°-60°	217.2	13.7
60°-70°	141.6	8.9
70°-80°	62.7	4.0
80°-90°	13.5	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°	565.9	35.8
0°-40°	869.8	55.0
0°-60°	1364.2	86.2
0°-90°	1582.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1582.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	806	806	806	806	806	
5°	792	791	791	790	790	75
15°	741	741	733	726	723	208
25°	642	638	628	606	589	295
35°	521	517	492	455	444	326
45°	400	391	358	328	315	308
55°	278	269	244	215	204	249
65°	165	156	141	144	119	163
75°	66	62	58	55	61	71
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°	805.8	805.8	805.8	805.8	805.8
2.5°	800.3	800.3	800.3	799.3	799.3
5°	791.9	790.9	790.9	790.0	790.0
7.5°	785.4	784.4	783.5	782.6	780.7
10°	776.0	776.0	775.1	770.4	769.5
12.5°	761.1	760.2	756.5	750.0	748.1
15°	740.6	740.6	733.2	725.7	722.9
17.5°	718.3	717.3	708.0	700.6	696.9
20°	694.1	692.2	682.9	670.8	664.2
22.5°	667.0	667.0	655.9	640.0	633.5
25°	641.9	638.2	627.9	605.6	588.8
27.5°	613.0	607.4	596.2	564.6	545.0
30°	581.3	578.5	562.7	521.7	506.8
32.5°	551.5	546.9	530.1	487.2	475.1
35°	520.8	517.0	491.9	454.6	443.5
37.5°	490.0	485.4	453.7	423.9	409.9
40°	459.3	453.7	419.2	392.2	377.3
42.5°	430.4	423.0	389.4	360.5	343.8
45°	399.7	391.3	357.7	327.9	314.9
47.5°	368.9	361.5	330.7	300.0	285.1
50°	336.3	329.8	301.8	271.1	255.3
52.5°	309.3	299.0	272.0	241.3	228.2
55°	277.6	269.2	244.1	215.2	204.0
57.5°	248.7	240.4	217.1	190.1	180.7
60°	221.7	209.6	190.1	166.8	159.3
62.5°	191.9	182.6	165.8	146.3	155.6
65°	164.9	155.6	140.7	143.5	119.2
67.5°	135.1	130.4	117.4	104.3	100.6
70°	109.9	104.3	99.7	85.7	82.0
72.5°	87.6	82.0	75.5	68.0	65.2
75°	66.1	61.5	57.8	55.0	60.6
77.5°	45.6	43.8	41.0	38.2	37.3
80°	29.8	28.9	27.9	27.0	26.1
82.5°	17.7	17.7	17.7	17.7	17.7
85°	9.3	10.2	11.2	12.1	13.0
87.5°	5.6	5.6	6.5	7.5	8.4
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)