

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: P545623

Luminaire Tested: **FMR-12-2-LD4-2LO-35-UNV-80-84-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: P545623
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-LD4-2LO-35-UNV-80-84-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC 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

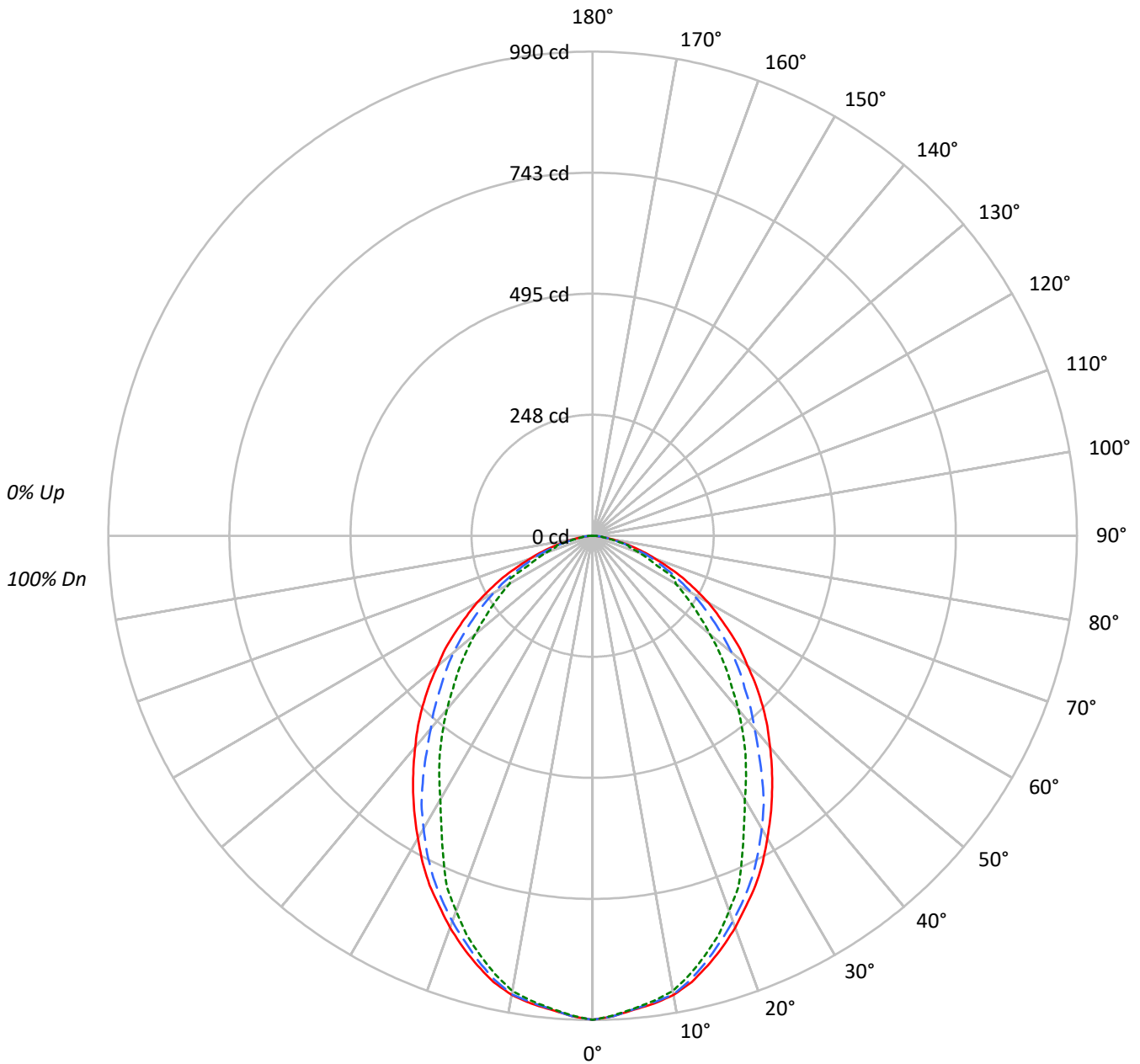
Lumens per Lamp: N/A
Luminaire Lumens: 1943.0 lumens
Efficiency: N/A
Efficacy: 83.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	5327	5327	5327
5°	5254	5248	5242
10°	5209	5203	5165
15°	5068	5017	4947
20°	4882	4804	4672
25°	4682	4580	4294
30°	4437	4295	3868
35°	4202	3969	3578
40°	3963	3618	3256
45°	3736	3344	2943
50°	3459	3104	2625
55°	3200	2813	2351
60°	2931	2512	2106
65°	2579	2201	1866
70°	2124	1926	1585
75°	1688	1474	1547
80°	1134	1063	992
85°	704	846	988



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.1	4.7
10°-20°	252.8	13.0
20°-30°	350.1	18.0
30°-40°	373.2	19.2
40°-50°	340.5	17.5
50°-60°	266.8	13.7
60°-70°	173.9	8.9
70°-80°	77.0	4.0
80°-90°	16.5	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°	695.0	35.8
0°-40°	1068.3	55.0
0°-60°	1675.6	86.2
0°-90°	1943.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1943.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	990	990	990	990	990	
5°	973	971	971	970	970	92
15°	910	910	900	891	888	256
25°	788	784	771	744	723	362
35°	640	635	604	558	545	400
45°	491	481	439	403	387	378
55°	341	331	300	264	251	306
65°	202	191	173	176	146	200
75°	81	76	71	68	74	87
85°	11	13	14	15	16	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	989.7	989.7	989.7	989.7	989.7
2.5°	982.9	982.9	982.9	981.7	981.7
5°	972.6	971.4	971.4	970.3	970.3
7.5°	964.6	963.4	962.3	961.1	958.8
10°	953.1	953.1	952.0	946.3	945.1
12.5°	934.8	933.7	929.1	921.1	918.8
15°	909.6	909.6	900.5	891.3	887.9
17.5°	882.2	881.0	869.6	860.4	855.9
20°	852.4	850.1	838.7	823.8	815.8
22.5°	819.3	819.3	805.5	786.1	778.1
25°	788.4	783.8	771.2	743.7	723.1
27.5°	752.9	746.0	732.3	693.4	669.4
30°	714.0	710.6	691.1	640.8	622.4
32.5°	677.4	671.6	651.1	598.4	583.5
35°	639.6	635.0	604.1	558.4	544.6
37.5°	601.9	596.1	557.2	520.6	503.5
40°	564.1	557.2	514.9	481.7	463.4
42.5°	528.6	519.5	478.3	442.8	422.2
45°	490.9	480.6	439.4	402.8	386.7
47.5°	453.1	444.0	406.2	368.4	350.1
50°	413.1	405.0	370.7	333.0	313.5
52.5°	379.9	367.3	334.1	296.3	280.3
55°	341.0	330.7	299.8	264.3	250.6
57.5°	305.5	295.2	266.6	233.4	222.0
60°	272.3	257.4	233.4	204.8	195.7
62.5°	235.7	224.3	203.7	179.6	191.1
65°	202.5	191.1	172.8	176.2	146.5
67.5°	165.9	160.2	144.2	128.2	123.6
70°	135.0	128.2	122.4	105.3	100.7
72.5°	107.6	100.7	92.7	83.5	80.1
75°	81.2	75.5	70.9	67.5	74.4
77.5°	56.1	53.8	50.3	46.9	45.8
80°	36.6	35.5	34.3	33.2	32.0
82.5°	21.7	21.7	21.7	21.7	21.7
85°	11.4	12.6	13.7	14.9	16.0
87.5°	6.9	6.9	8.0	9.2	10.3
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)