

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: P545714

Luminaire Tested: **FMR-12-2-LD4-2LO-50-UNV-93-87-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: P545714
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-50-UNV-93-87-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

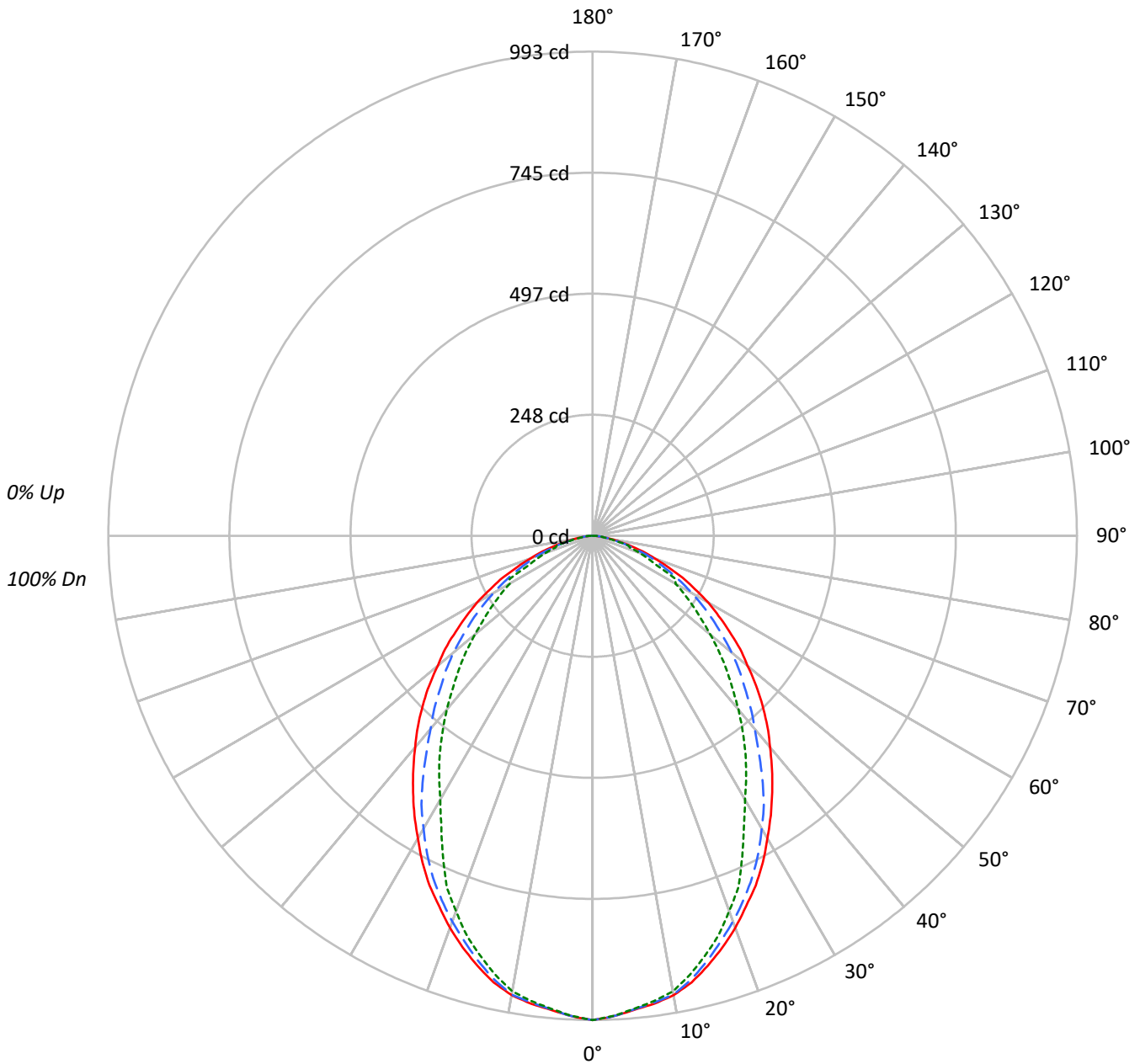
Lumens per Lamp: N/A
Luminaire Lumens: 1950.0 lumens
Efficiency: N/A
Efficacy: 83.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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					20					
RC	80					70					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				100				
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87				87				
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75				75				
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65				65				
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56				56				
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50				50				
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44				44				
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40				40				
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36				36				
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33				33				
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30				30				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5346	5346	5346
5°	5273	5267	5261
10°	5228	5221	5184
15°	5087	5035	4965
20°	4900	4821	4690
25°	4698	4596	4309
30°	4453	4310	3882
35°	4217	3983	3591
40°	3977	3630	3268
45°	3749	3357	2954
50°	3471	3116	2634
55°	3211	2823	2360
60°	2942	2522	2114
65°	2589	2208	1872
70°	2132	1934	1591
75°	1695	1481	1551
80°	1137	1066	998
85°	710	852	994



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.5	4.7
10°-20°	253.8	13.0
20°-30°	351.3	18.0
30°-40°	374.6	19.2
40°-50°	341.7	17.5
50°-60°	267.7	13.7
60°-70°	174.5	8.9
70°-80°	77.3	4.0
80°-90°	16.6	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°	697.5	35.8
0°-40°	1072.1	55.0
0°-60°	1681.6	86.2
0°-90°	1950.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1950.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	993	993	993	993	993	
5°	976	975	975	974	974	93
15°	913	913	904	894	891	257
25°	791	787	774	746	726	363
35°	642	637	606	560	547	401
45°	493	482	441	404	388	379
55°	342	332	301	265	252	307
65°	203	192	173	177	147	200
75°	82	76	71	68	75	87
85°	12	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°	993.3	993.3	993.3	993.3	993.3
2.5°	986.4	986.4	986.4	985.3	985.3
5°	976.1	974.9	974.9	973.8	973.8
7.5°	968.0	966.9	965.7	964.6	962.3
10°	956.6	956.6	955.4	949.7	948.5
12.5°	938.2	937.0	932.4	924.4	922.1
15°	912.9	912.9	903.7	894.5	891.1
17.5°	885.4	884.2	872.7	863.5	858.9
20°	855.5	853.2	841.7	826.8	818.8
22.5°	822.2	822.2	808.4	788.9	780.9
25°	791.2	786.6	774.0	746.4	725.7
27.5°	755.6	748.7	734.9	695.9	671.8
30°	716.6	713.1	693.6	643.1	624.7
32.5°	679.8	674.1	653.4	600.6	585.6
35°	641.9	637.3	606.3	560.4	546.6
37.5°	604.0	598.3	559.2	522.5	505.3
40°	566.1	559.2	516.7	483.4	465.1
42.5°	530.5	521.3	480.0	444.4	423.7
45°	492.6	482.3	441.0	404.2	388.1
47.5°	454.7	445.6	407.7	369.8	351.4
50°	414.5	406.5	372.1	334.2	314.6
52.5°	381.2	368.6	335.3	297.4	281.3
55°	342.2	331.9	300.9	265.3	251.5
57.5°	306.6	296.3	267.6	234.3	222.8
60°	273.3	258.4	234.3	205.6	196.4
62.5°	236.6	225.1	204.4	180.3	191.8
65°	203.3	191.8	173.4	176.8	147.0
67.5°	166.5	160.8	144.7	128.6	124.0
70°	135.5	128.6	122.9	105.6	101.1
72.5°	107.9	101.1	93.0	83.8	80.4
75°	81.5	75.8	71.2	67.8	74.6
77.5°	56.3	54.0	50.5	47.1	45.9
80°	36.7	35.6	34.4	33.3	32.2
82.5°	21.8	21.8	21.8	21.8	21.8
85°	11.5	12.6	13.8	14.9	16.1
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)