

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: P545447

Luminaire Tested: **FMR-12-2-LD4-1STD-35-UNV-82-84-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: P545447
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-LD4-1STD-35-UNV-82-84-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC 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

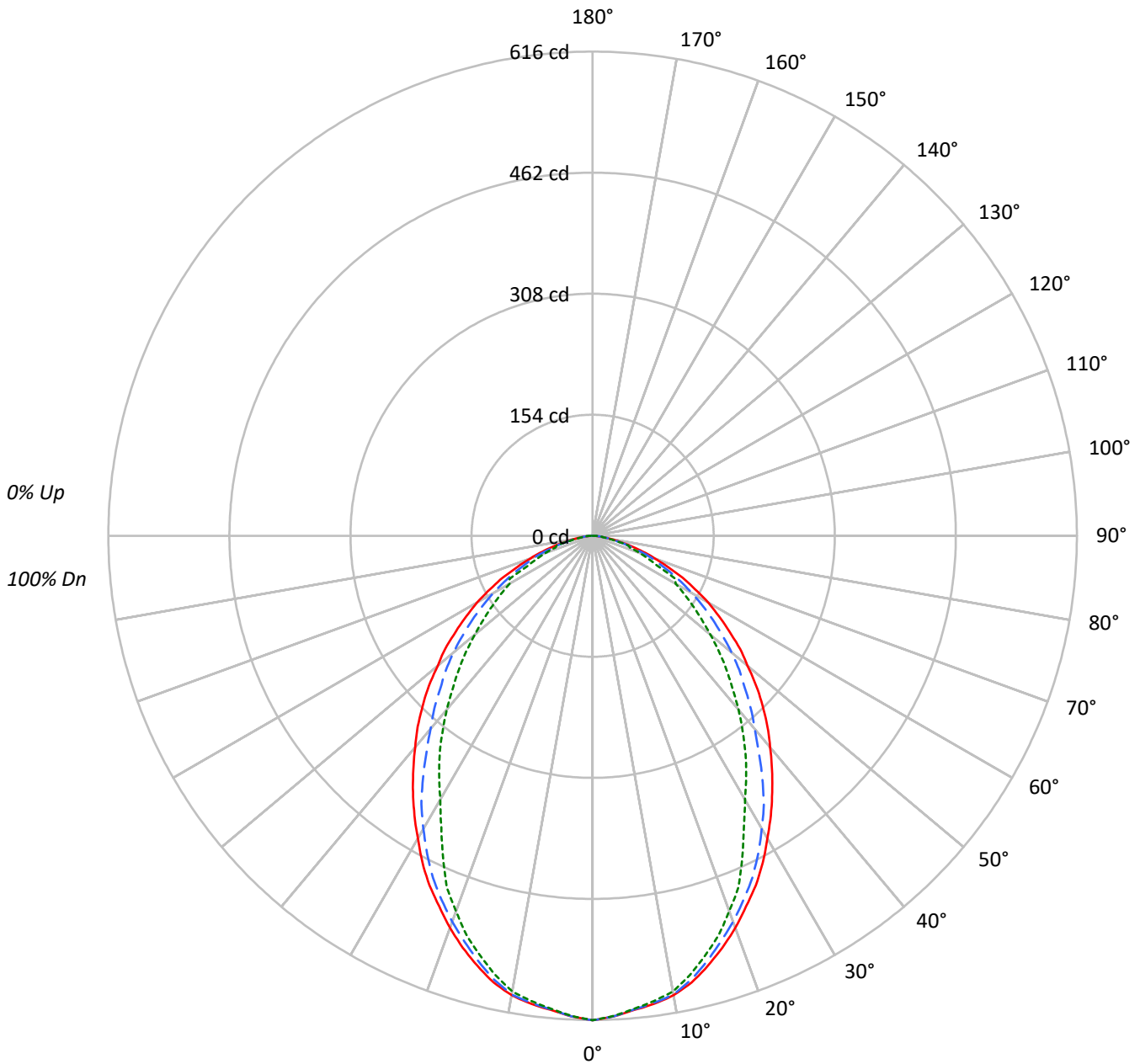
Lumens per Lamp: N/A
Luminaire Lumens: 1210.0 lumens
Efficiency: N/A
Efficacy: 72.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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°	3317	3317	3317
5°	3272	3269	3264
10°	3244	3240	3217
15°	3156	3125	3081
20°	3041	2991	2909
25°	2915	2852	2674
30°	2763	2675	2409
35°	2617	2472	2229
40°	2468	2252	2028
45°	2327	2082	1833
50°	2153	1933	1634
55°	1992	1752	1464
60°	1826	1565	1311
65°	1606	1370	1161
70°	1323	1199	987
75°	1052	919	963
80°	707	663	620
85°	438	531	618



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.4	4.7
10°-20°	157.5	13.0
20°-30°	218.0	18.0
30°-40°	232.4	19.2
40°-50°	212.1	17.5
50°-60°	166.1	13.7
60°-70°	108.3	8.9
70°-80°	48.0	4.0
80°-90°	10.3	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°	432.8	35.8
0°-40°	665.3	55.0
0°-60°	1043.4	86.2
0°-90°	1210.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1210.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	616	616	616	616	616	
5°	606	605	605	604	604	57
15°	566	566	561	555	553	159
25°	491	488	480	463	450	225
35°	398	396	376	348	339	249
45°	306	299	274	251	241	235
55°	212	206	187	165	156	190
65°	126	119	108	110	91	124
75°	51	47	44	42	46	54
85°	7	8	9	9	10	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	616.4	616.4	616.4	616.4	616.4
2.5°	612.1	612.1	612.1	611.4	611.4
5°	605.7	605.0	605.0	604.2	604.2
7.5°	600.7	600.0	599.3	598.5	597.1
10°	593.6	593.6	592.8	589.3	588.6
12.5°	582.2	581.4	578.6	573.6	572.2
15°	566.5	566.5	560.8	555.1	552.9
17.5°	549.4	548.7	541.5	535.8	533.0
20°	530.9	529.4	522.3	513.0	508.0
22.5°	510.2	510.2	501.6	489.5	484.5
25°	490.9	488.1	480.3	463.2	450.3
27.5°	468.9	464.6	456.0	431.8	416.8
30°	444.6	442.5	430.4	399.0	387.6
32.5°	421.8	418.3	405.4	372.7	363.4
35°	398.3	395.5	376.2	347.7	339.2
37.5°	374.8	371.2	347.0	324.2	313.5
40°	351.3	347.0	320.6	300.0	288.6
42.5°	329.2	323.5	297.8	275.8	262.9
45°	305.7	299.3	273.6	250.8	240.8
47.5°	282.2	276.5	253.0	229.4	218.0
50°	257.2	252.2	230.9	207.4	195.2
52.5°	236.6	228.7	208.1	184.6	174.6
55°	212.3	205.9	186.7	164.6	156.0
57.5°	190.3	183.8	166.0	145.4	138.2
60°	169.6	160.3	145.4	127.5	121.8
62.5°	146.8	139.7	126.8	111.9	119.0
65°	126.1	119.0	107.6	109.7	91.2
67.5°	103.3	99.8	89.8	79.8	77.0
70°	84.1	79.8	76.2	65.6	62.7
72.5°	67.0	62.7	57.7	52.0	49.9
75°	50.6	47.0	44.2	42.0	46.3
77.5°	34.9	33.5	31.4	29.2	28.5
80°	22.8	22.1	21.4	20.7	20.0
82.5°	13.5	13.5	13.5	13.5	13.5
85°	7.1	7.8	8.6	9.3	10.0
87.5°	4.3	4.3	5.0	5.7	6.4
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)