

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: P545161

Luminaire Tested: **FMR-12-1-LD4-2STD-35-UNV-82-86-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: P545161
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-LD4-2STD-35-UNV-82-86-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

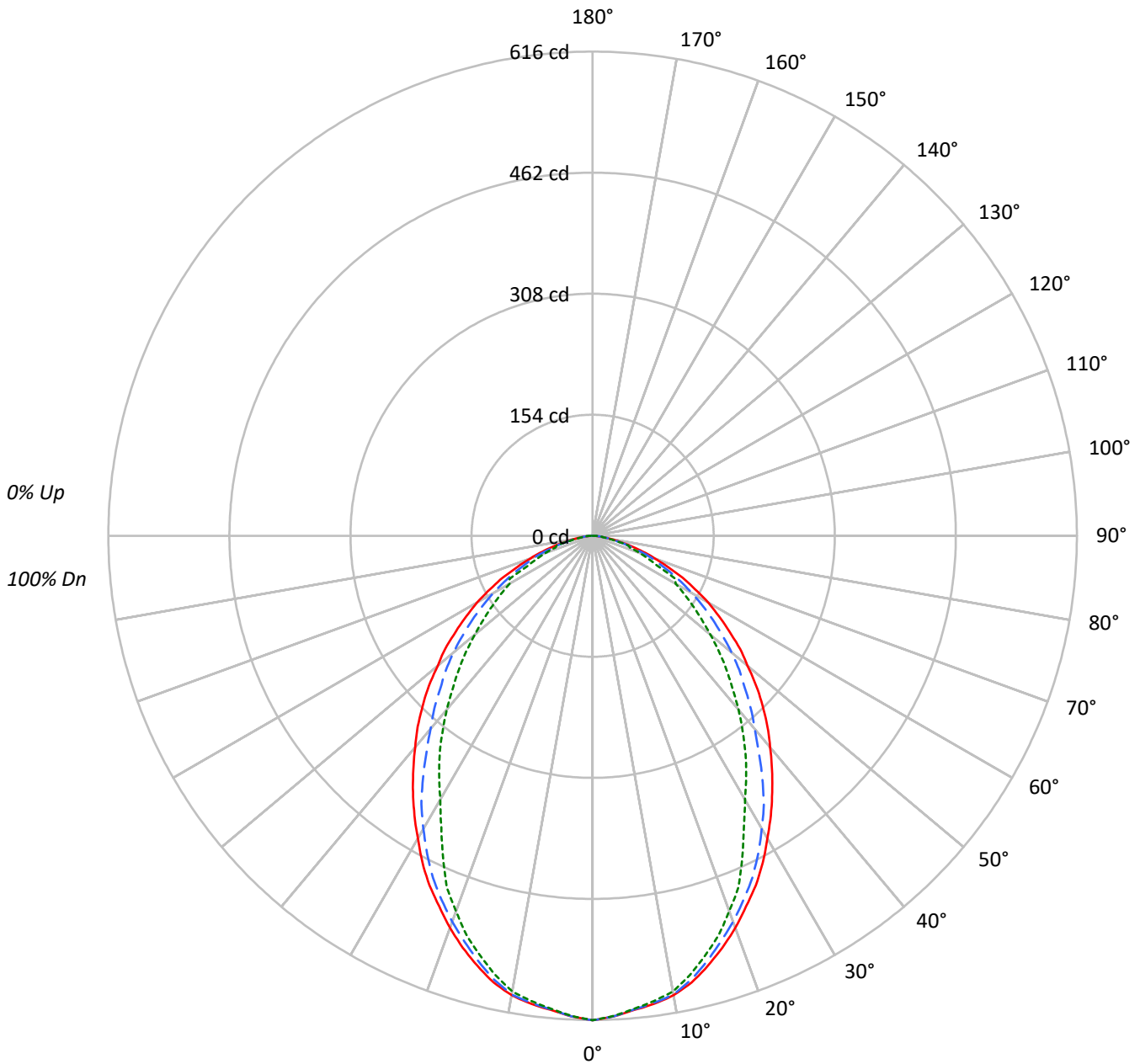
Lumens per Lamp: N/A
Luminaire Lumens: 1210.0 lumens
Efficiency: N/A
Efficacy: 72.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (A_{in}): 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°	6635	6635	6635
5°	6545	6537	6528
10°	6488	6479	6433
15°	6313	6249	6161
20°	6081	5983	5819
25°	5830	5704	5348
30°	5526	5349	4818
35°	5234	4943	4457
40°	4936	4505	4055
45°	4654	4165	3666
50°	4307	3867	3269
55°	3984	3504	2928
60°	3651	3130	2622
65°	3212	2741	2323
70°	2647	2398	1973
75°	2104	1838	1926
80°	1413	1327	1240
85°	877	1062	1235



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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)