

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: P545218

Luminaire Tested: **FMR-12-1-LD4-2STD-50-UNV-81-87-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: P545218
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-50-UNV-81-87-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR PC 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

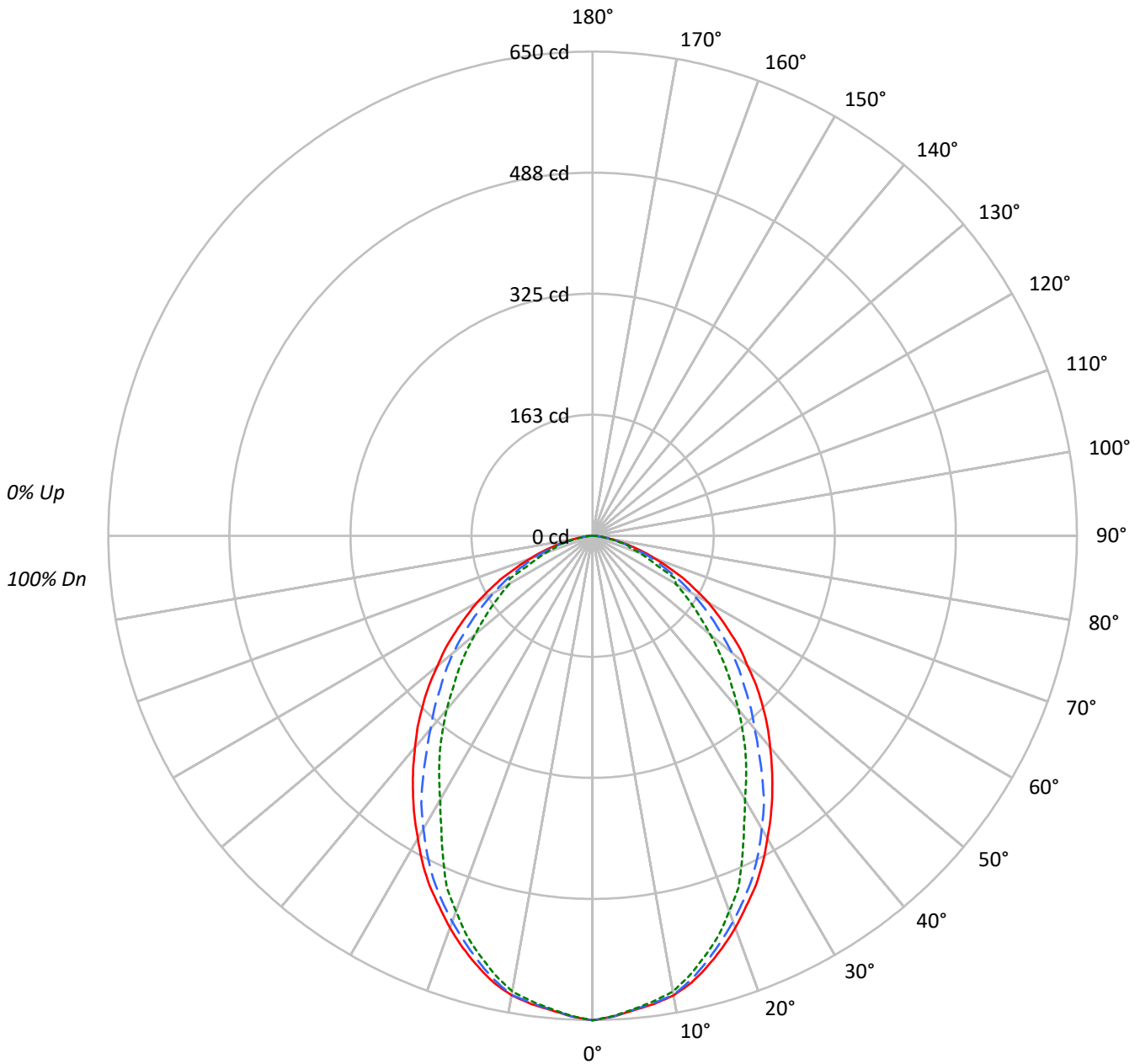
Lumens per Lamp: N/A
Luminaire Lumens: 1277.0 lumens
Efficiency: N/A
Efficacy: 76.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (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°	7002	7002	7002
5°	6907	6899	6890
10°	6847	6839	6790
15°	6662	6595	6503
20°	6417	6314	6142
25°	6153	6020	5645
30°	5833	5645	5085
35°	5524	5218	4704
40°	5209	4755	4280
45°	4911	4396	3870
50°	4546	4081	3451
55°	4206	3697	3091
60°	3853	3302	2768
65°	3390	2893	2453
70°	2792	2533	2083
75°	2221	1938	2034
80°	1494	1401	1308
85°	926	1112	1297



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.6	4.7
10°-20°	166.2	13.0
20°-30°	230.1	18.0
30°-40°	245.3	19.2
40°-50°	223.8	17.5
50°-60°	175.3	13.7
60°-70°	114.3	8.9
70°-80°	50.6	4.0
80°-90°	10.9	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°	456.8	35.8
0°-40°	702.1	55.0
0°-60°	1101.2	86.2
0°-90°	1277.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1277.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	650	650	650	650	650	
5°	639	638	638	638	638	61
15°	598	598	592	586	584	168
25°	518	515	507	489	475	238
35°	420	417	397	367	358	263
45°	323	316	289	265	254	248
55°	224	217	197	174	165	201
65°	133	126	114	116	96	131
75°	53	50	47	44	49	57
85°	8	8	9	10	10	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	650.5	650.5	650.5	650.5	650.5
2.5°	646.0	646.0	646.0	645.2	645.2
5°	639.2	638.5	638.5	637.7	637.7
7.5°	633.9	633.2	632.4	631.7	630.2
10°	626.4	626.4	625.7	621.9	621.2
12.5°	614.4	613.6	610.6	605.4	603.9
15°	597.8	597.8	591.8	585.8	583.6
17.5°	579.8	579.0	571.5	565.5	562.5
20°	560.2	558.7	551.2	541.4	536.2
22.5°	538.4	538.4	529.4	516.6	511.4
25°	518.1	515.1	506.9	488.8	475.3
27.5°	494.8	490.3	481.3	455.7	439.9
30°	469.3	467.0	454.2	421.1	409.1
32.5°	445.2	441.4	427.9	393.3	383.5
35°	420.4	417.4	397.1	367.0	358.0
37.5°	395.6	391.8	366.2	342.2	330.9
40°	370.7	366.2	338.4	316.6	304.6
42.5°	347.4	341.4	314.3	291.0	277.5
45°	322.6	315.8	288.8	264.7	254.2
47.5°	297.8	291.8	267.0	242.1	230.1
50°	271.5	266.2	243.7	218.8	206.1
52.5°	249.7	241.4	219.6	194.8	184.2
55°	224.1	217.3	197.0	173.7	164.7
57.5°	200.8	194.0	175.2	153.4	145.9
60°	179.0	169.2	153.4	134.6	128.6
62.5°	154.9	147.4	133.9	118.1	125.6
65°	133.1	125.6	113.6	115.8	96.3
67.5°	109.0	105.3	94.8	84.2	81.2
70°	88.7	84.2	80.5	69.2	66.2
72.5°	70.7	66.2	60.9	54.9	52.6
75°	53.4	49.6	46.6	44.4	48.9
77.5°	36.8	35.3	33.1	30.8	30.1
80°	24.1	23.3	22.6	21.8	21.1
82.5°	14.3	14.3	14.3	14.3	14.3
85°	7.5	8.3	9.0	9.8	10.5
87.5°	4.5	4.5	5.3	6.0	6.8
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)