

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: P544838

Luminaire Tested: **FMR-12-1-LD4-1LO-50-UNV-81-97-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: P544838
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-LD4-1LO-50-UNV-81-97-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

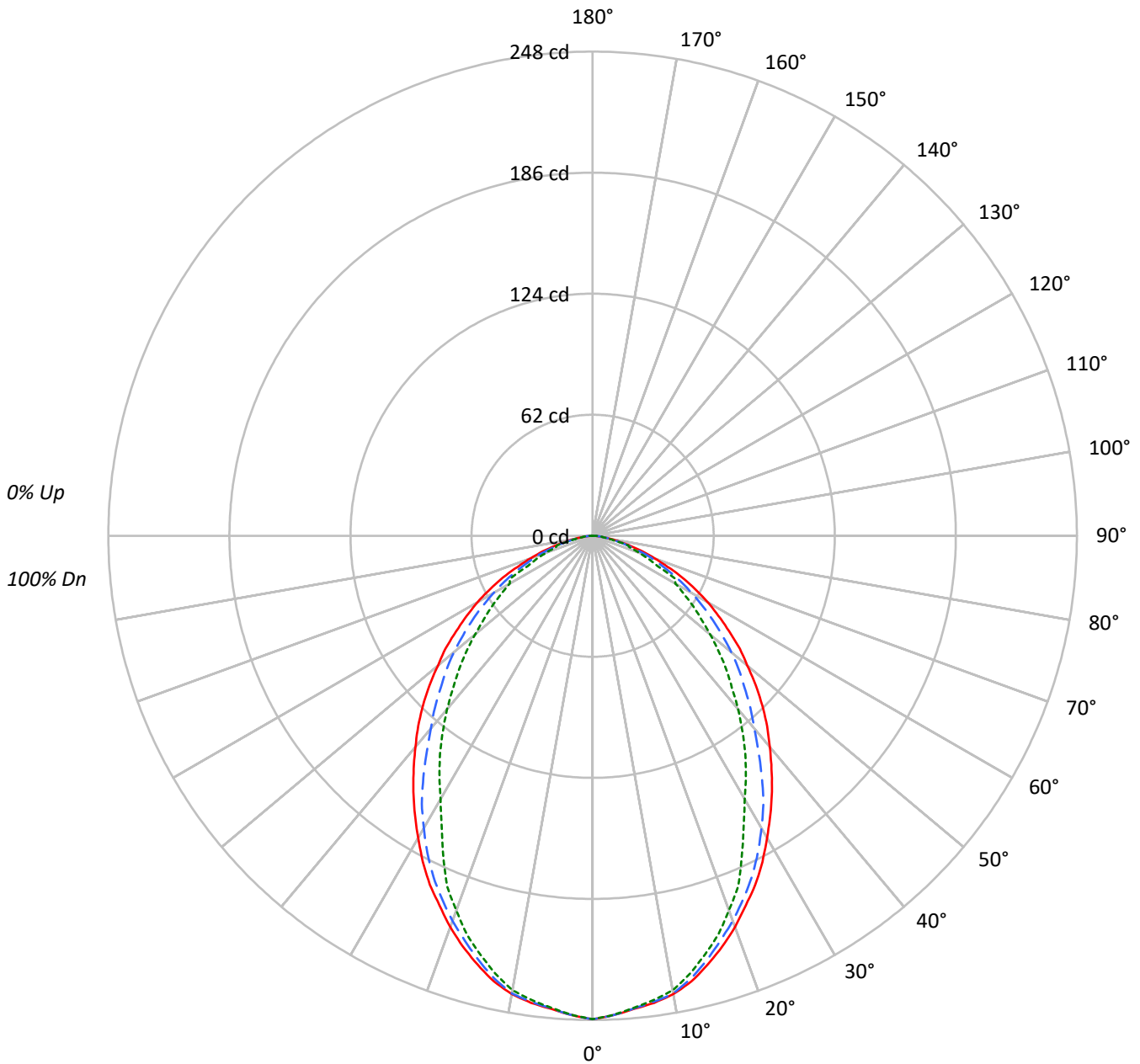
Lumens per Lamp: N/A
Luminaire Lumens: 486.0 lumens
Efficiency: N/A
Efficacy: 83.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 5.8
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	100	100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87	87	87	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75	75	75	75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65	65	65	65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56	56	56	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50	50	50	50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44	44	44	44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40	40	40	40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36	36	36	36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33	33	33	33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30	30	30	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2665	2665	2665
5°	2629	2626	2622
10°	2606	2602	2584
15°	2535	2510	2475
20°	2442	2403	2338
25°	2342	2291	2148
30°	2220	2149	1935
35°	2102	1986	1790
40°	1983	1810	1629
45°	1869	1673	1472
50°	1730	1552	1313
55°	1601	1407	1177
60°	1466	1257	1053
65°	1291	1100	932
70°	1064	963	793
75°	844	736	774
80°	570	533	496
85°	358	420	494



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.0	4.7
10°-20°	63.2	13.0
20°-30°	87.6	18.0
30°-40°	93.4	19.2
40°-50°	85.2	17.5
50°-60°	66.7	13.7
60°-70°	43.5	8.9
70°-80°	19.3	4.0
80°-90°	4.1	0.8
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°	173.8	35.8
0°-40°	267.2	55.0
0°-60°	419.1	86.2
0°-90°	486.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	486.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	248	248	248	248	248	
5°	243	243	243	243	243	23
15°	228	228	225	223	222	64
25°	197	196	193	186	181	91
35°	160	159	151	140	136	100
45°	123	120	110	101	97	95
55°	85	83	75	66	63	76
65°	51	48	43	44	37	50
75°	20	19	18	17	19	22
85°	3	3	3	4	4	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	247.6	247.6	247.6	247.6	247.6
2.5°	245.8	245.8	245.8	245.6	245.6
5°	243.3	243.0	243.0	242.7	242.7
7.5°	241.3	241.0	240.7	240.4	239.8
10°	238.4	238.4	238.1	236.7	236.4
12.5°	233.8	233.5	232.4	230.4	229.8
15°	227.5	227.5	225.2	222.9	222.1
17.5°	220.7	220.4	217.5	215.2	214.1
20°	213.2	212.6	209.8	206.1	204.1
22.5°	204.9	204.9	201.5	196.6	194.6
25°	197.2	196.0	192.9	186.0	180.9
27.5°	188.3	186.6	183.2	173.4	167.4
30°	178.6	177.7	172.9	160.3	155.7
32.5°	169.4	168.0	162.8	149.7	146.0
35°	160.0	158.8	151.1	139.7	136.2
37.5°	150.5	149.1	139.4	130.2	125.9
40°	141.1	139.4	128.8	120.5	115.9
42.5°	132.2	129.9	119.6	110.8	105.6
45°	122.8	120.2	109.9	100.7	96.7
47.5°	113.3	111.0	101.6	92.2	87.6
50°	103.3	101.3	92.7	83.3	78.4
52.5°	95.0	91.9	83.6	74.1	70.1
55°	85.3	82.7	75.0	66.1	62.7
57.5°	76.4	73.8	66.7	58.4	55.5
60°	68.1	64.4	58.4	51.2	48.9
62.5°	59.0	56.1	50.9	44.9	47.8
65°	50.7	47.8	43.2	44.1	36.6
67.5°	41.5	40.1	36.1	32.1	30.9
70°	33.8	32.1	30.6	26.3	25.2
72.5°	26.9	25.2	23.2	20.9	20.0
75°	20.3	18.9	17.7	16.9	18.6
77.5°	14.0	13.5	12.6	11.7	11.4
80°	9.2	8.9	8.6	8.3	8.0
82.5°	5.4	5.4	5.4	5.4	5.4
85°	2.9	3.1	3.4	3.7	4.0
87.5°	1.7	1.7	2.0	2.3	2.6
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)