

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: P544853

Luminaire Tested: **FMR-12-1-LD4-1LO-50-UNV-93-96-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: P544853
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-93-96-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

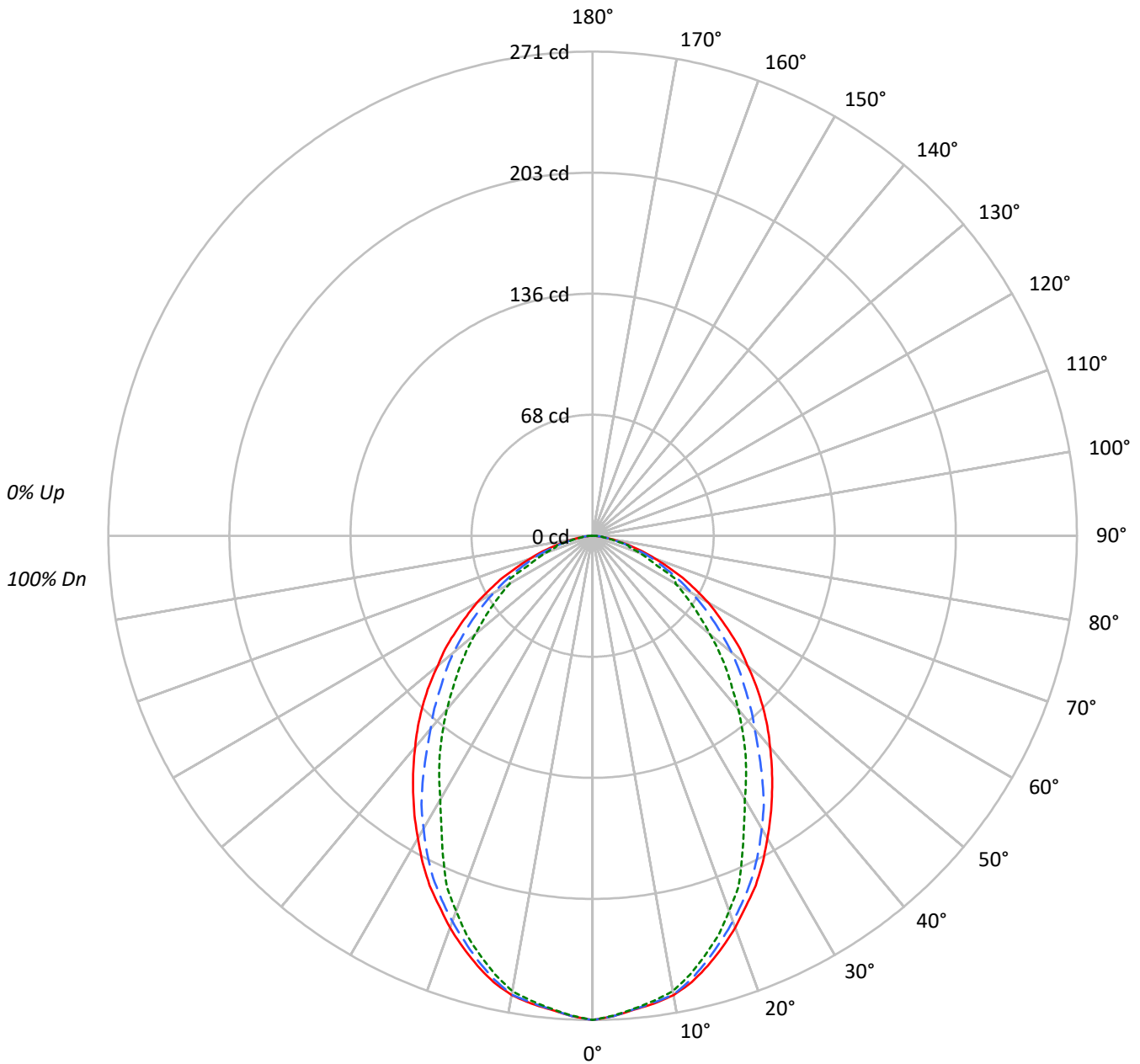
Lumens per Lamp: N/A
Luminaire Lumens: 532.0 lumens
Efficiency: N/A
Efficacy: 91.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 5.8
Input Voltage (V): NR
Input Current (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					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								
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	47	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°	2917	2917	2917
5°	2877	2874	2871
10°	2853	2849	2829
15°	2776	2748	2709
20°	2674	2630	2559
25°	2564	2508	2352
30°	2430	2352	2118
35°	2301	2173	1959
40°	2171	1981	1783
45°	2046	1831	1612
50°	1894	1700	1437
55°	1753	1541	1287
60°	1606	1376	1154
65°	1414	1205	1021
70°	1164	1054	869
75°	923	807	848
80°	620	583	545
85°	383	469	543



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.2	4.7
10°-20°	69.2	13.0
20°-30°	95.8	18.0
30°-40°	102.2	19.2
40°-50°	93.2	17.5
50°-60°	73.0	13.7
60°-70°	47.6	8.9
70°-80°	21.1	4.0
80°-90°	4.5	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°	190.3	35.8
0°-40°	292.5	55.0
0°-60°	458.8	86.2
0°-90°	532.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	532.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	271	271	271	271	271	
5°	266	266	266	266	266	25
15°	249	249	247	244	243	70
25°	216	215	211	204	198	99
35°	175	174	165	153	149	109
45°	134	132	120	110	106	104
55°	93	90	82	72	69	84
65°	56	52	47	48	40	55
75°	22	21	19	18	20	24
85°	3	3	4	4	4	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	271.0	271.0	271.0	271.0	271.0
2.5°	269.1	269.1	269.1	268.8	268.8
5°	266.3	266.0	266.0	265.7	265.7
7.5°	264.1	263.8	263.5	263.2	262.5
10°	261.0	261.0	260.7	259.1	258.8
12.5°	256.0	255.6	254.4	252.2	251.6
15°	249.1	249.1	246.6	244.1	243.1
17.5°	241.5	241.2	238.1	235.6	234.3
20°	233.4	232.8	229.6	225.6	223.4
22.5°	224.3	224.3	220.6	215.2	213.0
25°	215.9	214.6	211.2	203.6	198.0
27.5°	206.1	204.3	200.5	189.9	183.3
30°	195.5	194.6	189.2	175.4	170.4
32.5°	185.5	183.9	178.3	163.8	159.8
35°	175.1	173.9	165.4	152.9	149.1
37.5°	164.8	163.2	152.6	142.5	137.8
40°	154.5	152.6	141.0	131.9	126.9
42.5°	144.7	142.2	131.0	121.2	115.6
45°	134.4	131.6	120.3	110.3	105.9
47.5°	124.1	121.6	111.2	100.9	95.9
50°	113.1	110.9	101.5	91.2	85.8
52.5°	104.0	100.6	91.5	81.1	76.8
55°	93.4	90.5	82.1	72.4	68.6
57.5°	83.6	80.8	73.0	63.9	60.8
60°	74.6	70.5	63.9	56.1	53.6
62.5°	64.5	61.4	55.8	49.2	52.3
65°	55.5	52.3	47.3	48.2	40.1
67.5°	45.4	43.9	39.5	35.1	33.8
70°	37.0	35.1	33.5	28.8	27.6
72.5°	29.4	27.6	25.4	22.9	21.9
75°	22.2	20.7	19.4	18.5	20.4
77.5°	15.4	14.7	13.8	12.8	12.5
80°	10.0	9.7	9.4	9.1	8.8
82.5°	6.0	6.0	6.0	6.0	6.0
85°	3.1	3.4	3.8	4.1	4.4
87.5°	1.9	1.9	2.2	2.5	2.8
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)