

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: P544803

Luminaire Tested: **FMR-12-1-LD4-1LO-40-UNV-81-88-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: P544803
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-40-UNV-81-88-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

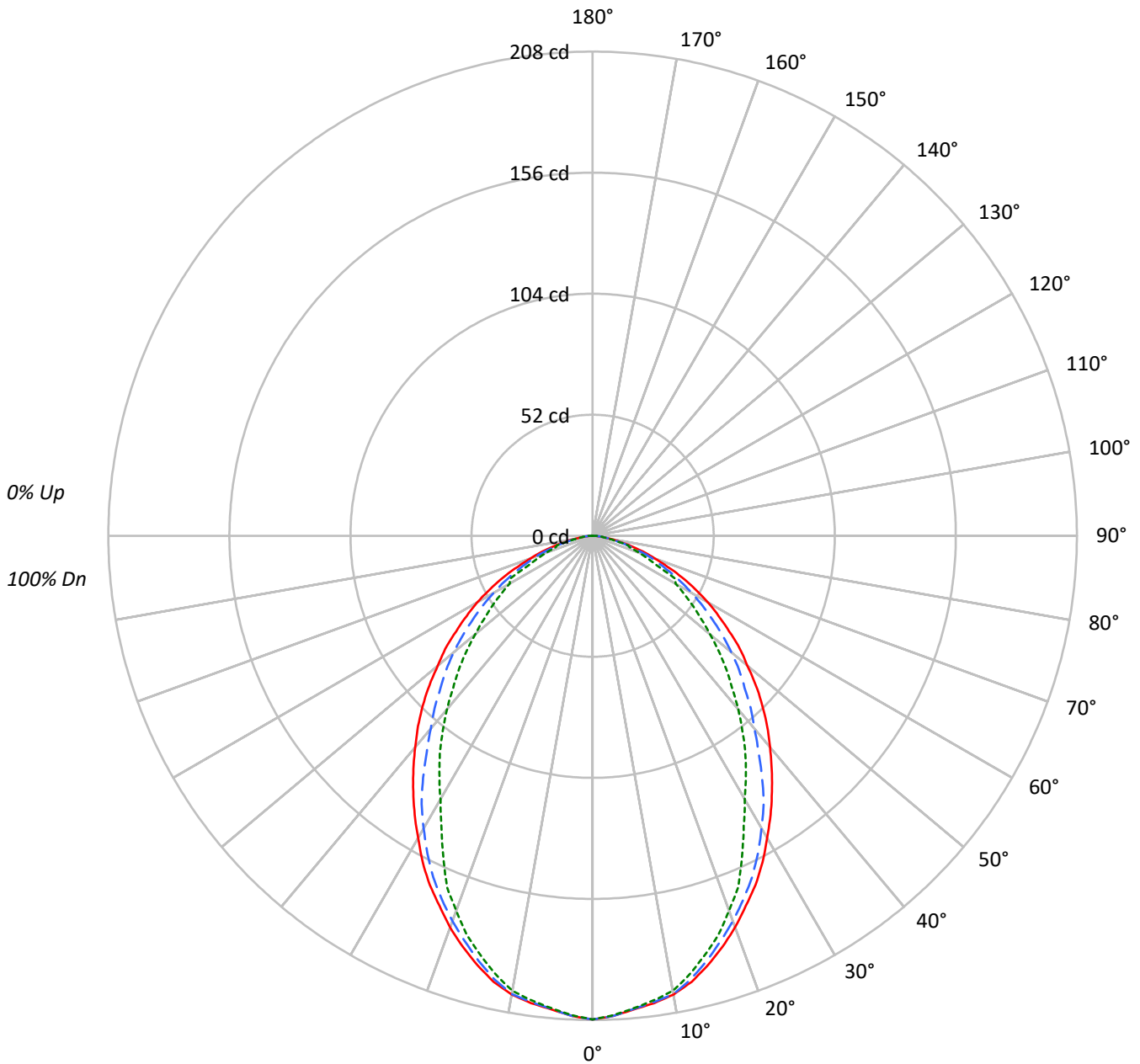
Lumens per Lamp: N/A
Luminaire Lumens: 408.0 lumens
Efficiency: N/A
Efficacy: 70.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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									
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°	2237	2237	2237
5°	2206	2204	2201
10°	2187	2185	2170
15°	2128	2107	2077
20°	2050	2017	1962
25°	1966	1923	1803
30°	1863	1803	1624
35°	1765	1668	1503
40°	1665	1519	1367
45°	1569	1405	1236
50°	1452	1303	1102
55°	1344	1180	987
60°	1231	1055	885
65°	1082	925	784
70°	894	809	664
75°	711	620	649
80°	477	446	415
85°	296	358	420



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.3	4.7
10°-20°	53.1	13.0
20°-30°	73.5	18.0
30°-40°	78.4	19.2
40°-50°	71.5	17.5
50°-60°	56.0	13.7
60°-70°	36.5	8.9
70°-80°	16.2	4.0
80°-90°	3.5	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°	145.9	35.8
0°-40°	224.3	55.0
0°-60°	351.8	86.2
0°-90°	408.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	408.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	208	208	208	208	208	
5°	204	204	204	204	204	19
15°	191	191	189	187	186	54
25°	166	165	162	156	152	76
35°	134	133	127	117	114	84
45°	103	101	92	85	81	79
55°	72	69	63	56	53	64
65°	42	40	36	37	31	42
75°	17	16	15	14	16	18
85°	2	3	3	3	3	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	207.8	207.8	207.8	207.8	207.8
2.5°	206.4	206.4	206.4	206.1	206.1
5°	204.2	204.0	204.0	203.7	203.7
7.5°	202.5	202.3	202.1	201.8	201.3
10°	200.1	200.1	199.9	198.7	198.5
12.5°	196.3	196.1	195.1	193.4	192.9
15°	191.0	191.0	189.1	187.2	186.4
17.5°	185.2	185.0	182.6	180.7	179.7
20°	179.0	178.5	176.1	173.0	171.3
22.5°	172.0	172.0	169.1	165.1	163.4
25°	165.5	164.6	161.9	156.2	151.8
27.5°	158.1	156.7	153.8	145.6	140.6
30°	149.9	149.2	145.1	134.5	130.7
32.5°	142.2	141.0	136.7	125.7	122.5
35°	134.3	133.3	126.9	117.2	114.4
37.5°	126.4	125.2	117.0	109.3	105.7
40°	118.5	117.0	108.1	101.2	97.3
42.5°	111.0	109.1	100.4	93.0	88.7
45°	103.1	100.9	92.3	84.6	81.2
47.5°	95.1	93.2	85.3	77.4	73.5
50°	86.7	85.1	77.8	69.9	65.8
52.5°	79.8	77.1	70.2	62.2	58.9
55°	71.6	69.4	62.9	55.5	52.6
57.5°	64.2	62.0	56.0	49.0	46.6
60°	57.2	54.1	49.0	43.0	41.1
62.5°	49.5	47.1	42.8	37.7	40.1
65°	42.5	40.1	36.3	37.0	30.8
67.5°	34.8	33.6	30.3	26.9	25.9
70°	28.4	26.9	25.7	22.1	21.1
72.5°	22.6	21.1	19.5	17.5	16.8
75°	17.1	15.9	14.9	14.2	15.6
77.5°	11.8	11.3	10.6	9.9	9.6
80°	7.7	7.4	7.2	7.0	6.7
82.5°	4.6	4.6	4.6	4.6	4.6
85°	2.4	2.6	2.9	3.1	3.4
87.5°	1.4	1.4	1.7	1.9	2.2
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)