

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: P544866

Luminaire Tested: **FMR-12-1-LD4-1STD-35-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: P544866
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-LD4-1STD-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

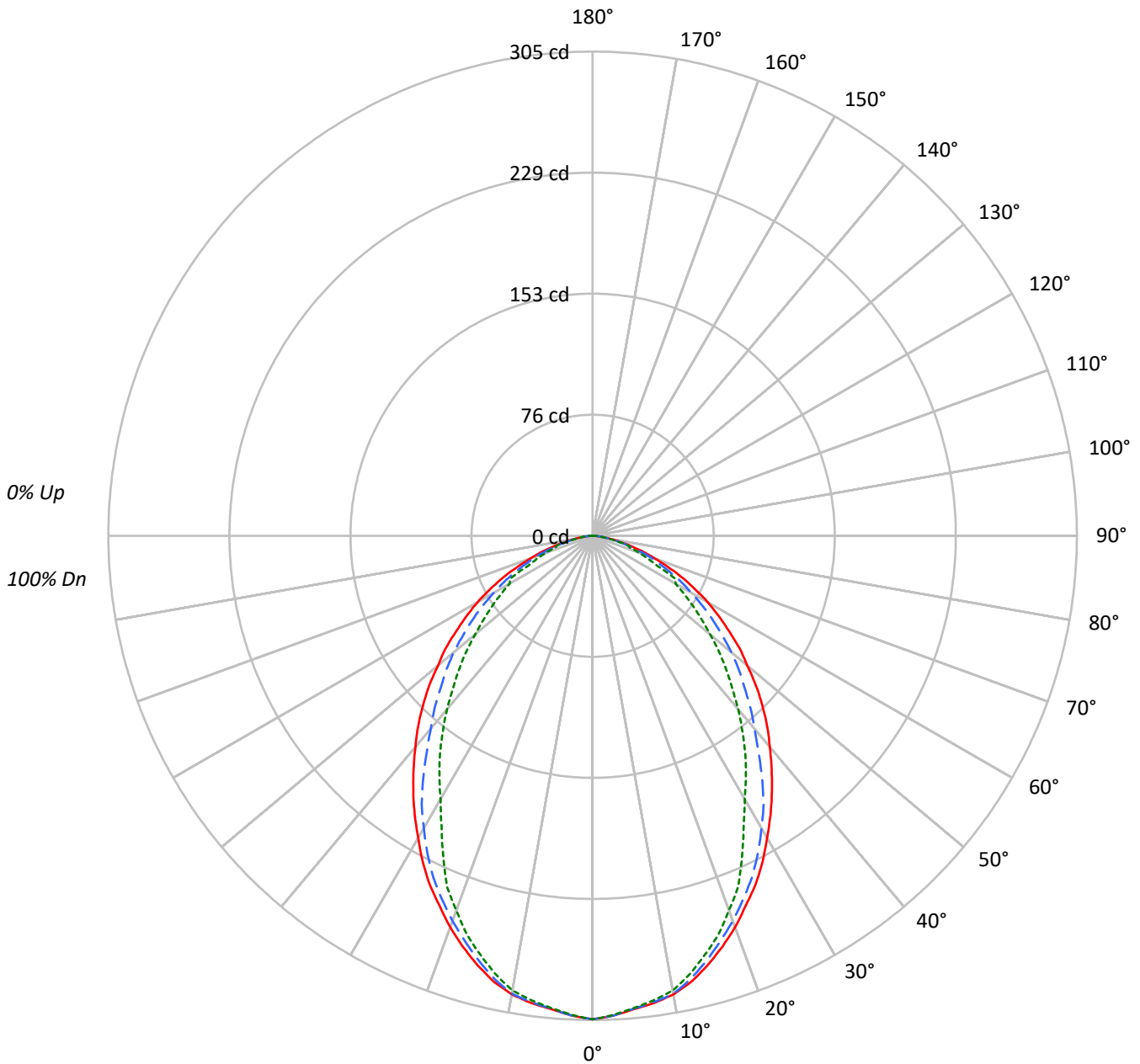
Lumens per Lamp: N/A
Luminaire Lumens: 598.0 lumens
Efficiency: N/A
Efficacy: 72.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 8.3
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°	3279	3279	3279
5°	3234	3231	3226
10°	3206	3202	3180
15°	3120	3088	3046
20°	3006	2956	2876
25°	2881	2820	2644
30°	2731	2644	2381
35°	2587	2443	2202
40°	2439	2227	2004
45°	2300	2058	1811
50°	2128	1911	1616
55°	1969	1732	1447
60°	1804	1546	1296
65°	1587	1355	1149
70°	1309	1186	976
75°	1040	907	952
80°	700	657	614
85°	432	519	605



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.4	4.7
10°-20°	77.8	13.0
20°-30°	107.7	18.0
30°-40°	114.9	19.2
40°-50°	104.8	17.5
50°-60°	82.1	13.7
60°-70°	53.5	8.9
70°-80°	23.7	4.0
80°-90°	5.1	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°	213.9	35.8
0°-40°	328.8	55.0
0°-60°	515.7	86.2
0°-90°	598.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	598.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	305	305	305	305	305	
5°	299	299	299	299	299	28
15°	280	280	277	274	273	79
25°	243	241	237	229	223	111
35°	197	195	186	172	168	123
45°	151	148	135	124	119	116
55°	105	102	92	81	77	94
65°	62	59	53	54	45	61
75°	25	23	22	21	23	27
85°	4	4	4	5	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	304.6	304.6	304.6	304.6	304.6
2.5°	302.5	302.5	302.5	302.1	302.1
5°	299.3	299.0	299.0	298.6	298.6
7.5°	296.9	296.5	296.2	295.8	295.1
10°	293.3	293.3	293.0	291.2	290.9
12.5°	287.7	287.4	285.9	283.5	282.8
15°	280.0	280.0	277.1	274.3	273.3
17.5°	271.5	271.2	267.6	264.8	263.4
20°	262.4	261.7	258.1	253.6	251.1
22.5°	252.1	252.1	247.9	241.9	239.5
25°	242.6	241.2	237.4	228.9	222.6
27.5°	231.7	229.6	225.4	213.4	206.0
30°	219.7	218.7	212.7	197.2	191.6
32.5°	208.5	206.7	200.4	184.2	179.6
35°	196.9	195.4	185.9	171.9	167.6
37.5°	185.2	183.5	171.5	160.2	154.9
40°	173.6	171.5	158.5	148.3	142.6
42.5°	162.7	159.9	147.2	136.3	129.9
45°	151.1	147.9	135.2	124.0	119.0
47.5°	139.5	136.6	125.0	113.4	107.8
50°	127.1	124.7	114.1	102.5	96.5
52.5°	116.9	113.0	102.8	91.2	86.3
55°	104.9	101.8	92.3	81.3	77.1
57.5°	94.0	90.9	82.1	71.8	68.3
60°	83.8	79.2	71.8	63.0	60.2
62.5°	72.5	69.0	62.7	55.3	58.8
65°	62.3	58.8	53.2	54.2	45.1
67.5°	51.1	49.3	44.4	39.4	38.0
70°	41.6	39.4	37.7	32.4	31.0
72.5°	33.1	31.0	28.5	25.7	24.7
75°	25.0	23.2	21.8	20.8	22.9
77.5°	17.3	16.6	15.5	14.4	14.1
80°	11.3	10.9	10.6	10.2	9.9
82.5°	6.7	6.7	6.7	6.7	6.7
85°	3.5	3.9	4.2	4.6	4.9
87.5°	2.1	2.1	2.5	2.8	3.2
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)