

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: P544875

Luminaire Tested: **FMR-12-1-LD4-1STD-35-UNV-82-88-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: P544875
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-82-88-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

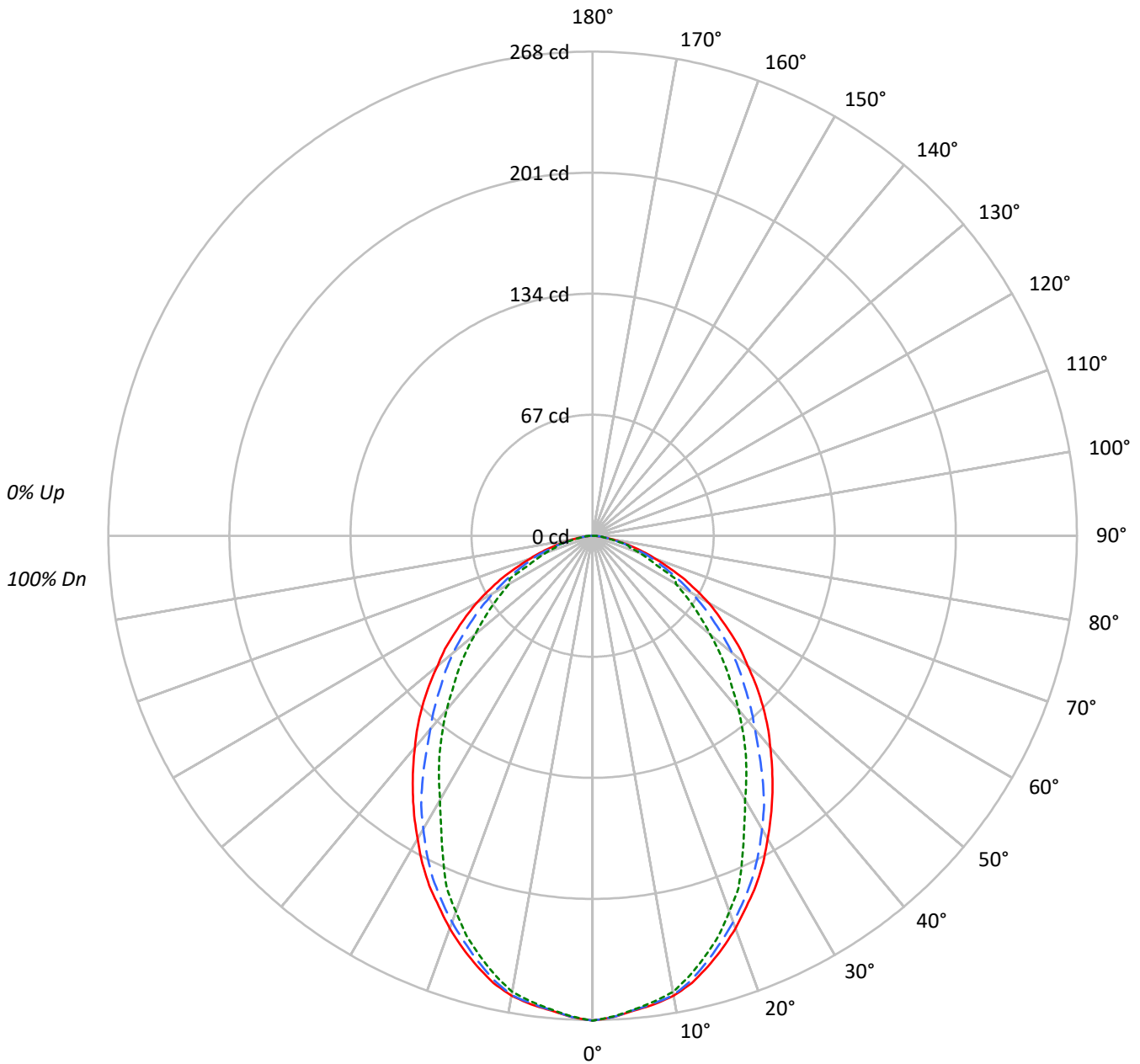
Lumens per Lamp: N/A
Luminaire Lumens: 527.0 lumens
Efficiency: N/A
Efficacy: 63.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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°	2889	2889	2889
5°	2850	2847	2844
10°	2825	2822	2801
15°	2749	2721	2683
20°	2648	2606	2535
25°	2539	2485	2329
30°	2408	2329	2098
35°	2280	2154	1941
40°	2150	1963	1766
45°	2026	1815	1597
50°	1876	1685	1423
55°	1736	1526	1276
60°	1591	1363	1143
65°	1398	1195	1011
70°	1152	1045	859
75°	915	799	840
80°	614	576	539
85°	383	457	531



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.0	4.7
10°-20°	68.6	13.0
20°-30°	94.9	18.0
30°-40°	101.2	19.2
40°-50°	92.4	17.5
50°-60°	72.4	13.7
60°-70°	47.2	8.9
70°-80°	20.9	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°	188.5	35.8
0°-40°	289.7	55.0
0°-60°	454.5	86.2
0°-90°	527.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	527.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	268	268	268	268	268	
5°	264	264	264	263	263	25
15°	247	247	244	242	241	69
25°	214	213	209	202	196	98
35°	174	172	164	151	148	108
45°	133	130	119	109	105	103
55°	92	90	81	72	68	83
65°	55	52	47	48	40	54
75°	22	20	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°	268.4	268.4	268.4	268.4	268.4
2.5°	266.6	266.6	266.6	266.3	266.3
5°	263.8	263.5	263.5	263.2	263.2
7.5°	261.6	261.3	261.0	260.7	260.1
10°	258.5	258.5	258.2	256.7	256.3
12.5°	253.6	253.2	252.0	249.8	249.2
15°	246.7	246.7	244.2	241.8	240.8
17.5°	239.3	239.0	235.9	233.4	232.1
20°	231.2	230.6	227.5	223.4	221.3
22.5°	222.2	222.2	218.5	213.2	211.0
25°	213.8	212.6	209.2	201.7	196.1
27.5°	204.2	202.3	198.6	188.1	181.6
30°	193.7	192.7	187.4	173.8	168.8
32.5°	183.7	182.2	176.6	162.3	158.3
35°	173.5	172.2	163.9	151.4	147.7
37.5°	163.2	161.7	151.1	141.2	136.6
40°	153.0	151.1	139.7	130.7	125.7
42.5°	143.4	140.9	129.7	120.1	114.5
45°	133.1	130.3	119.2	109.2	104.9
47.5°	122.9	120.4	110.2	99.9	95.0
50°	112.0	109.9	100.6	90.3	85.0
52.5°	103.0	99.6	90.6	80.4	76.0
55°	92.5	89.7	81.3	71.7	68.0
57.5°	82.9	80.1	72.3	63.3	60.2
60°	73.9	69.8	63.3	55.6	53.1
62.5°	63.9	60.8	55.2	48.7	51.8
65°	54.9	51.8	46.9	47.8	39.7
67.5°	45.0	43.4	39.1	34.8	33.5
70°	36.6	34.8	33.2	28.6	27.3
72.5°	29.2	27.3	25.1	22.7	21.7
75°	22.0	20.5	19.2	18.3	20.2
77.5°	15.2	14.6	13.7	12.7	12.4
80°	9.9	9.6	9.3	9.0	8.7
82.5°	5.9	5.9	5.9	5.9	5.9
85°	3.1	3.4	3.7	4.0	4.3
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)