

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: P545032

Luminaire Tested: **FMR-12-1-LD4-2HI-50-UNV-82-85-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: P545032
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-LD4-2HI-50-UNV-82-85-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

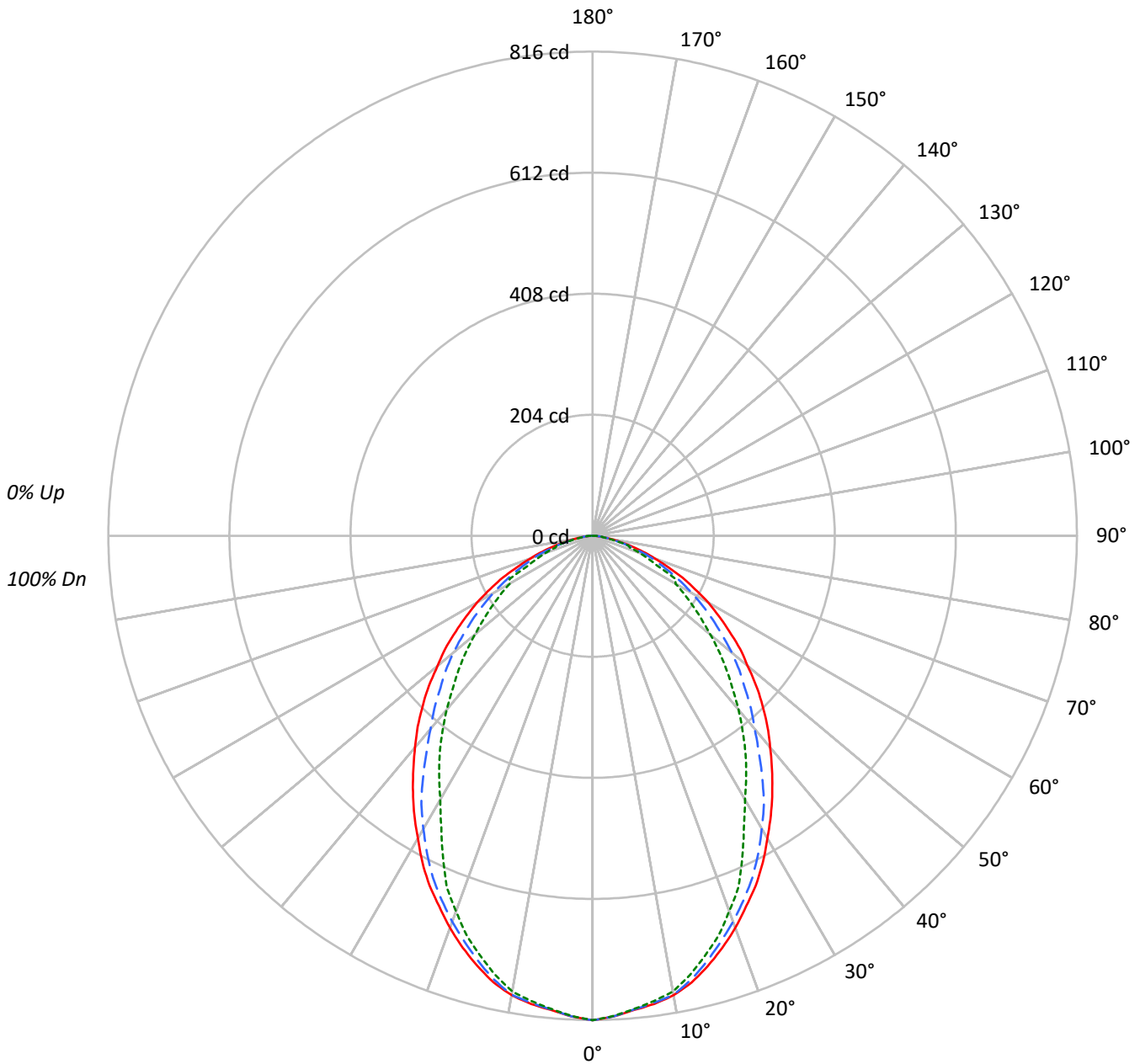
Lumens per Lamp: N/A
Luminaire Lumens: 1603.0 lumens
Efficiency: N/A
Efficacy: 74.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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°	8789	8789	8789
5°	8670	8659	8649
10°	8594	8584	8522
15°	8363	8279	8163
20°	8056	7926	7710
25°	7725	7556	7086
30°	7321	7087	6382
35°	6934	6549	5904
40°	6539	5969	5372
45°	6165	5518	4857
50°	5707	5123	4332
55°	5279	4641	3879
60°	4837	4146	3475
65°	4256	3629	3077
70°	3506	3179	2615
75°	2786	2433	2554
80°	1872	1754	1636
85°	1161	1396	1630



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.0	4.7
10°-20°	208.6	13.0
20°-30°	288.8	18.0
30°-40°	307.9	19.2
40°-50°	280.9	17.5
50°-60°	220.1	13.7
60°-70°	143.4	8.9
70°-80°	63.6	4.0
80°-90°	13.6	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°	573.4	35.8
0°-40°	881.3	55.0
0°-60°	1382.4	86.2
0°-90°	1603.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1603.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	816	816	816	816	816	
5°	802	801	801	800	800	76
15°	750	750	743	735	732	211
25°	650	647	636	614	597	299
35°	528	524	498	461	449	330
45°	405	396	362	332	319	312
55°	281	273	247	218	207	252
65°	167	158	142	145	121	165
75°	67	62	58	56	61	72
85°	9	10	11	12	13	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	816.5	816.5	816.5	816.5	816.5
2.5°	810.9	810.9	810.9	809.9	809.9
5°	802.4	801.4	801.4	800.5	800.5
7.5°	795.8	794.8	793.9	792.9	791.1
10°	786.3	786.3	785.4	780.7	779.7
12.5°	771.2	770.3	766.5	759.9	758.0
15°	750.5	750.5	742.9	735.4	732.5
17.5°	727.8	726.9	717.4	709.9	706.1
20°	703.3	701.4	691.9	679.7	673.1
22.5°	675.9	675.9	664.6	648.5	641.9
25°	650.4	646.6	636.2	613.6	596.6
27.5°	621.1	615.5	604.2	572.1	552.2
30°	589.0	586.2	570.2	528.6	513.5
32.5°	558.8	554.1	537.1	493.7	481.4
35°	527.7	523.9	498.4	460.7	449.3
37.5°	496.5	491.8	459.7	429.5	415.4
40°	465.4	459.7	424.8	397.4	382.3
42.5°	436.1	428.6	394.6	365.3	348.3
45°	405.0	396.5	362.5	332.3	319.1
47.5°	373.8	366.3	335.1	304.0	288.9
50°	340.8	334.2	305.9	274.7	258.7
52.5°	313.4	303.0	275.6	244.5	231.3
55°	281.3	272.8	247.3	218.1	206.7
57.5°	252.0	243.5	219.9	192.6	183.1
60°	224.7	212.4	192.6	169.0	161.4
62.5°	194.5	185.0	168.0	148.2	157.6
65°	167.1	157.6	142.5	145.4	120.8
67.5°	136.9	132.2	118.9	105.7	102.0
70°	111.4	105.7	101.0	86.8	83.1
72.5°	88.7	83.1	76.5	68.9	66.1
75°	67.0	62.3	58.5	55.7	61.4
77.5°	46.3	44.4	41.5	38.7	37.8
80°	30.2	29.3	28.3	27.4	26.4
82.5°	17.9	17.9	17.9	17.9	17.9
85°	9.4	10.4	11.3	12.3	13.2
87.5°	5.7	5.7	6.6	7.6	8.5
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)