

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: P544671

Luminaire Tested: **FMR-12-1-LD4-1HI-35-UNV-81-84-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: P544671
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-LD4-1HI-35-UNV-81-84-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

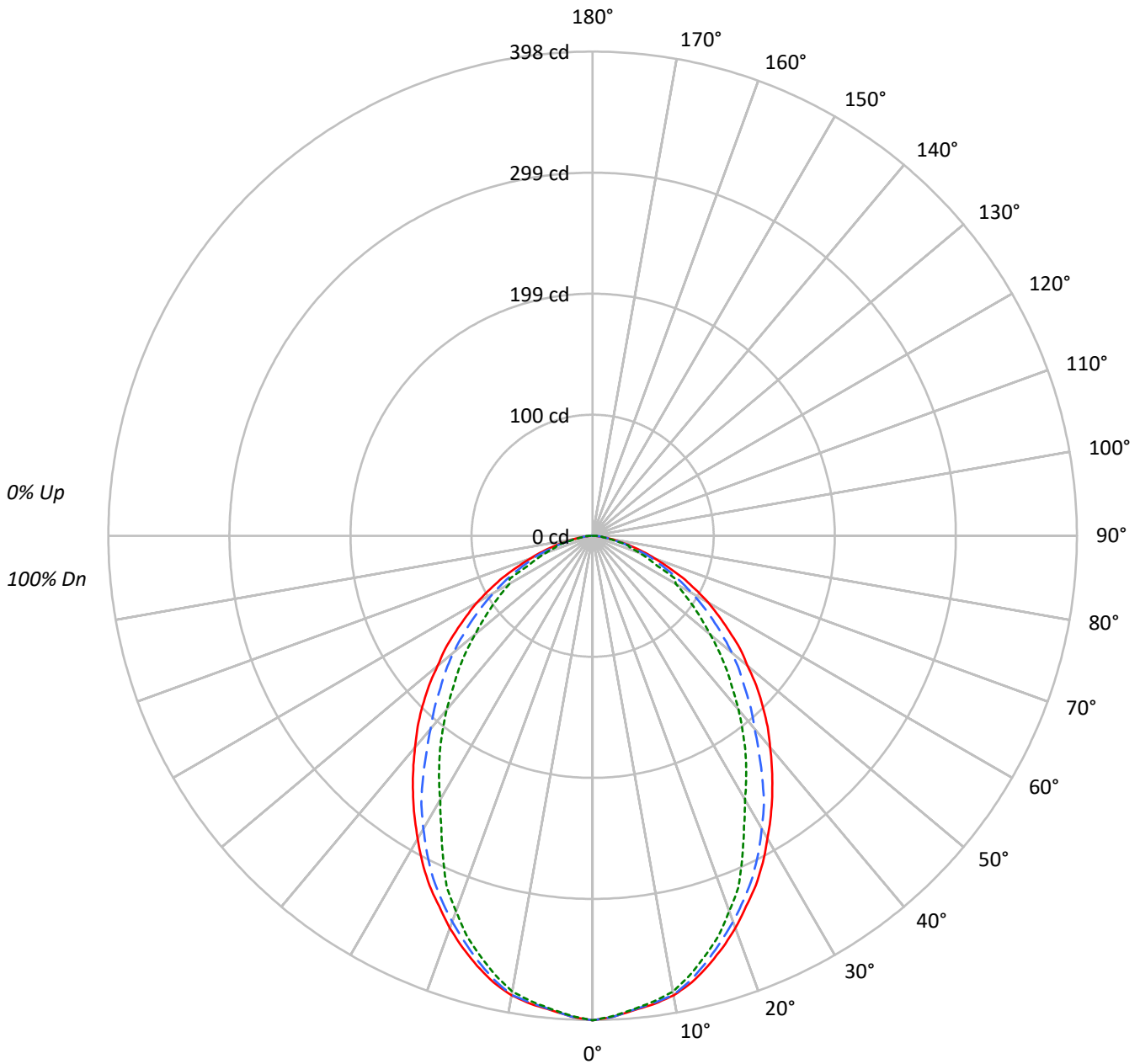
Lumens per Lamp: N/A
Luminaire Lumens: 782.0 lumens
Efficiency: N/A
Efficacy: 72.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 10.8
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	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°	4287	4287	4287
5°	4229	4225	4219
10°	4193	4187	4158
15°	4080	4038	3983
20°	3930	3867	3761
25°	3768	3687	3456
30°	3572	3457	3113
35°	3382	3194	2880
40°	3190	2911	2621
45°	3008	2691	2370
50°	2783	2498	2113
55°	2575	2265	1894
60°	2359	2021	1694
65°	2076	1770	1500
70°	1709	1552	1275
75°	1360	1189	1243
80°	911	855	800
85°	568	679	790



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.1	4.7
10°-20°	101.8	13.0
20°-30°	140.9	18.0
30°-40°	150.2	19.2
40°-50°	137.1	17.5
50°-60°	107.4	13.7
60°-70°	70.0	8.9
70°-80°	31.0	4.0
80°-90°	6.6	0.8
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°	279.7	35.8
0°-40°	429.9	55.0
0°-60°	674.4	86.2
0°-90°	782.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	782.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	398	398	398	398	398	
5°	391	391	391	390	390	37
15°	366	366	362	359	357	103
25°	317	315	310	299	291	146
35°	257	256	243	225	219	161
45°	198	193	177	162	156	152
55°	137	133	121	106	101	123
65°	82	77	70	71	59	80
75°	33	30	29	27	30	35
85°	5	5	6	6	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	398.3	398.3	398.3	398.3	398.3
2.5°	395.6	395.6	395.6	395.1	395.1
5°	391.4	391.0	391.0	390.5	390.5
7.5°	388.2	387.7	387.3	386.8	385.9
10°	383.6	383.6	383.1	380.8	380.4
12.5°	376.2	375.8	373.9	370.7	369.8
15°	366.1	366.1	362.4	358.7	357.4
17.5°	355.1	354.6	350.0	346.3	344.5
20°	343.1	342.2	337.6	331.6	328.3
22.5°	329.7	329.7	324.2	316.4	313.1
25°	317.3	315.4	310.4	299.3	291.0
27.5°	303.0	300.3	294.7	279.1	269.4
30°	287.4	286.0	278.1	257.9	250.5
32.5°	272.6	270.3	262.0	240.8	234.9
35°	257.4	255.6	243.1	224.7	219.2
37.5°	242.2	239.9	224.3	209.5	202.6
40°	227.0	224.3	207.2	193.9	186.5
42.5°	212.8	209.1	192.5	178.2	169.9
45°	197.6	193.4	176.8	162.1	155.7
47.5°	182.4	178.7	163.5	148.3	140.9
50°	166.2	163.0	149.2	134.0	126.2
52.5°	152.9	147.8	134.5	119.3	112.8
55°	137.2	133.1	120.7	106.4	100.9
57.5°	123.0	118.8	107.3	93.9	89.3
60°	109.6	103.6	93.9	82.4	78.7
62.5°	94.9	90.3	82.0	72.3	76.9
65°	81.5	76.9	69.5	70.9	58.9
67.5°	66.8	64.5	58.0	51.6	49.7
70°	54.3	51.6	49.3	42.4	40.5
72.5°	43.3	40.5	37.3	33.6	32.2
75°	32.7	30.4	28.6	27.2	29.9
77.5°	22.6	21.6	20.3	18.9	18.4
80°	14.7	14.3	13.8	13.4	12.9
82.5°	8.7	8.7	8.7	8.7	8.7
85°	4.6	5.1	5.5	6.0	6.4
87.5°	2.8	2.8	3.2	3.7	4.1
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)