

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: P544874

Luminaire Tested: **FMR-12-1-LD4-1STD-35-UNV-82-87-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: P544874
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-82-87-EDD
Description: 1X1 FMR TROFFER WITH .187 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

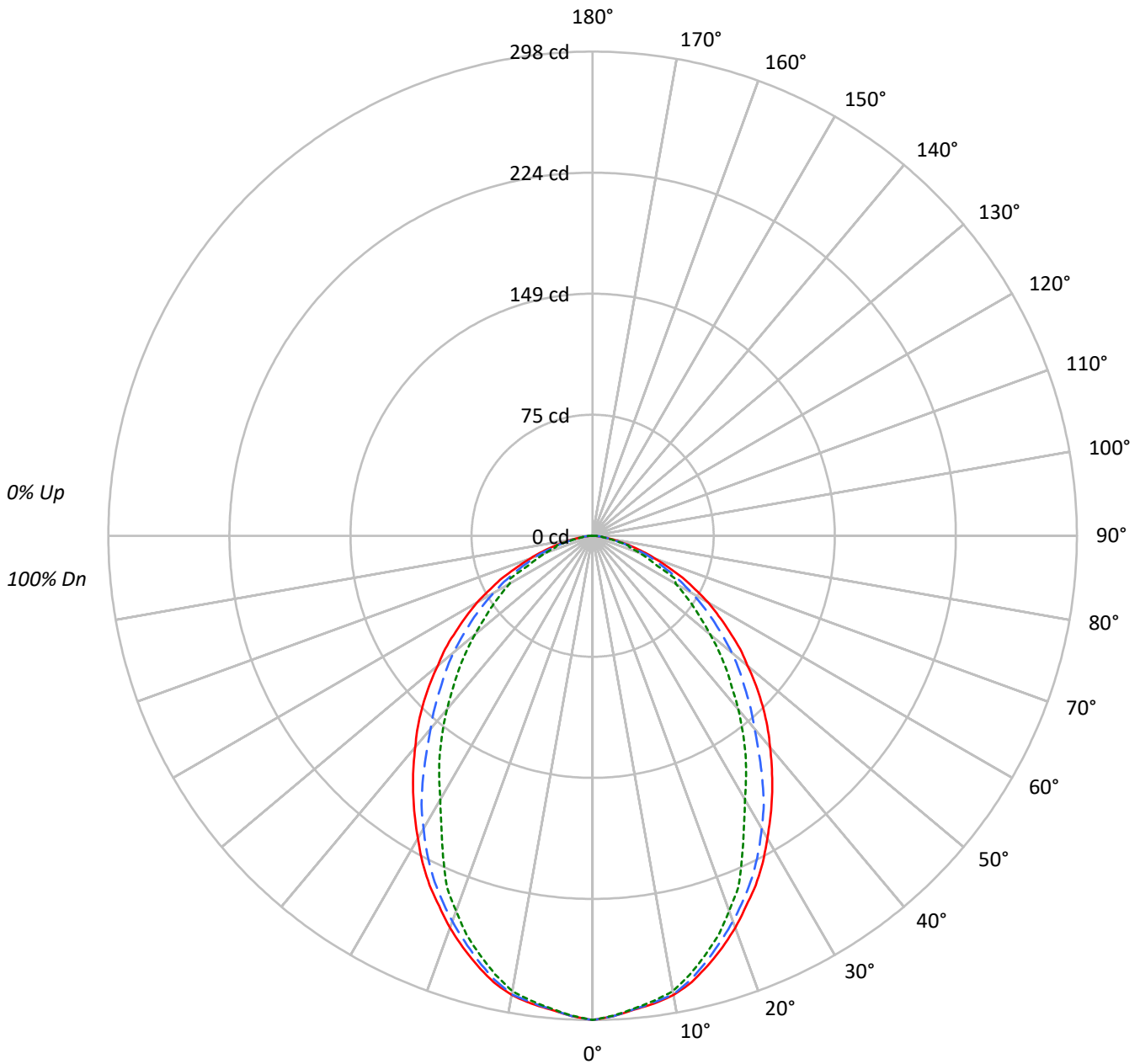
Lumens per Lamp: N/A
Luminaire Lumens: 585.0 lumens
Efficiency: N/A
Efficacy: 70.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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			100																
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87			87																
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75			75																
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65			65																
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56			56																
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50			50																
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44			44																
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40			40																
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36			36																
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33			33																
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30			30																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3208	3208	3208
5°	3164	3160	3156
10°	3137	3133	3111
15°	3052	3021	2979
20°	2940	2892	2813
25°	2820	2758	2586
30°	2672	2586	2329
35°	2531	2390	2155
40°	2386	2178	1960
45°	2250	2014	1772
50°	2083	1869	1581
55°	1927	1695	1415
60°	1765	1513	1268
65°	1554	1324	1123
70°	1281	1161	954
75°	1019	890	932
80°	682	638	595
85°	420	506	593



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.7	4.7
10°-20°	76.1	13.0
20°-30°	105.4	18.0
30°-40°	112.4	19.2
40°-50°	102.5	17.5
50°-60°	80.3	13.7
60°-70°	52.4	8.9
70°-80°	23.2	4.0
80°-90°	5.0	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°	209.3	35.8
0°-40°	321.6	55.0
0°-60°	504.5	86.2
0°-90°	585.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	585.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	298	298	298	298	298	
5°	293	292	292	292	292	28
15°	274	274	271	268	267	77
25°	237	236	232	224	218	109
35°	193	191	182	168	164	120
45°	148	145	132	121	116	114
55°	103	100	90	80	75	92
65°	61	58	52	53	44	60
75°	24	23	21	20	22	26
85°	3	4	4	4	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	298.0	298.0	298.0	298.0	298.0
2.5°	295.9	295.9	295.9	295.6	295.6
5°	292.8	292.5	292.5	292.1	292.1
7.5°	290.4	290.1	289.7	289.4	288.7
10°	287.0	287.0	286.6	284.9	284.6
12.5°	281.5	281.1	279.7	277.3	276.6
15°	273.9	273.9	271.1	268.4	267.3
17.5°	265.6	265.3	261.8	259.1	257.7
20°	256.7	256.0	252.5	248.0	245.6
22.5°	246.7	246.7	242.5	236.7	234.3
25°	237.4	236.0	232.2	223.9	217.7
27.5°	226.7	224.6	220.5	208.8	201.5
30°	215.0	213.9	208.1	192.9	187.4
32.5°	203.9	202.2	196.0	180.2	175.7
35°	192.6	191.2	181.9	168.1	164.0
37.5°	181.2	179.5	167.8	156.7	151.6
40°	169.8	167.8	155.0	145.0	139.5
42.5°	159.2	156.4	144.0	133.3	127.1
45°	147.8	144.7	132.3	121.3	116.4
47.5°	136.4	133.7	122.3	110.9	105.4
50°	124.4	122.0	111.6	100.2	94.4
52.5°	114.4	110.6	100.6	89.2	84.4
55°	102.7	99.6	90.3	79.6	75.4
57.5°	92.0	88.9	80.3	70.3	66.8
60°	82.0	77.5	70.3	61.7	58.9
62.5°	71.0	67.5	61.3	54.1	57.5
65°	61.0	57.5	52.0	53.1	44.1
67.5°	50.0	48.2	43.4	38.6	37.2
70°	40.7	38.6	36.9	31.7	30.3
72.5°	32.4	30.3	27.9	25.1	24.1
75°	24.5	22.7	21.4	20.3	22.4
77.5°	16.9	16.2	15.2	14.1	13.8
80°	11.0	10.7	10.3	10.0	9.6
82.5°	6.5	6.5	6.5	6.5	6.5
85°	3.4	3.8	4.1	4.5	4.8
87.5°	2.1	2.1	2.4	2.8	3.1
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)