

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: P545548

Luminaire Tested: **FMR-12-2-LD4-2HI-35-UNV-82-94-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: P545548
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-12-2-LD4-2HI-35-UNV-82-94-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

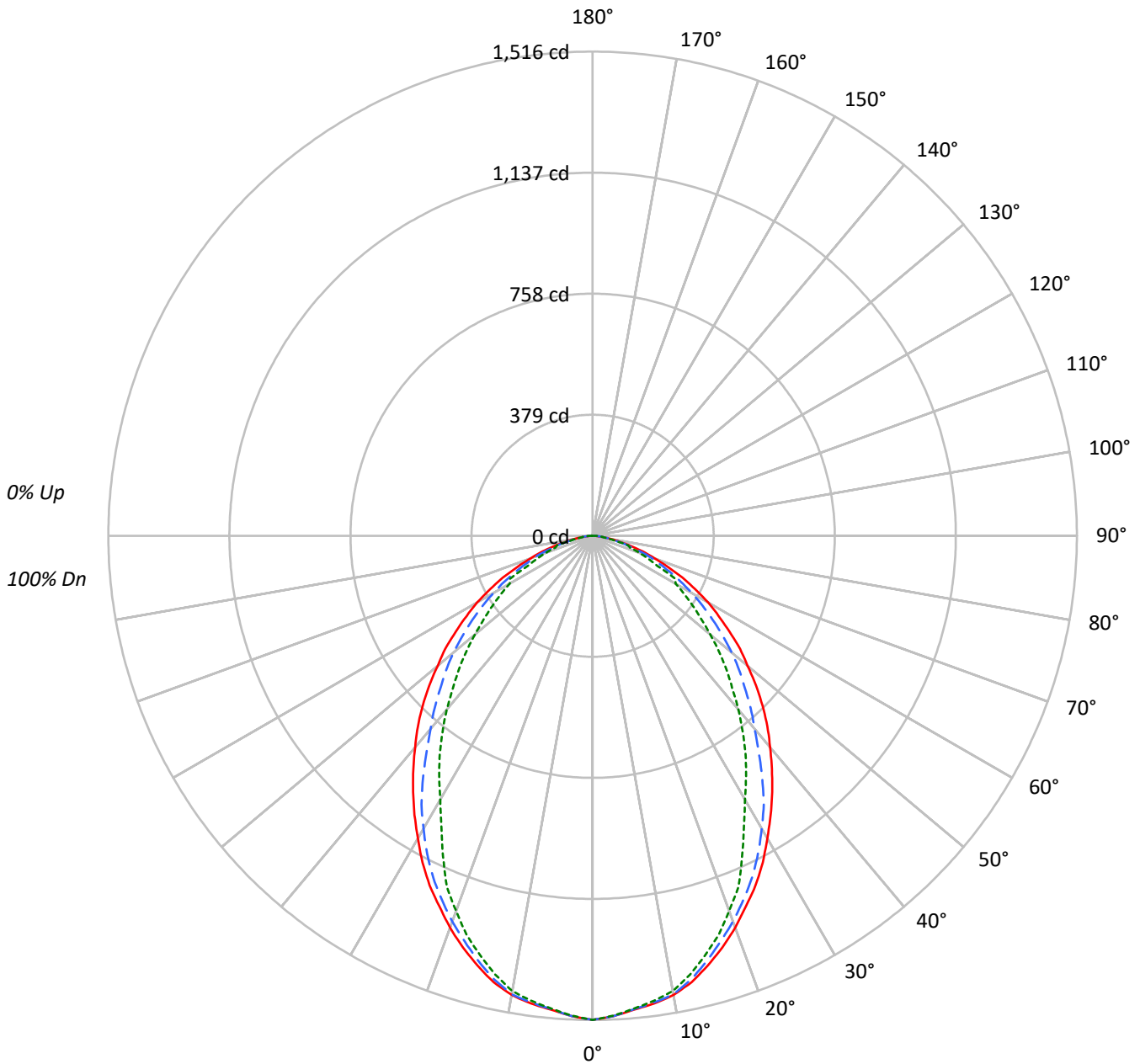
Lumens per Lamp: N/A
Luminaire Lumens: 2976.0 lumens
Efficiency: N/A
Efficacy: 68.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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°	8159	8159	8159
5°	8048	8038	8029
10°	7978	7968	7911
15°	7763	7685	7578
20°	7478	7357	7157
25°	7171	7014	6577
30°	6796	6578	5925
35°	6437	6079	5481
40°	6070	5540	4987
45°	5722	5122	4509
50°	5297	4754	4021
55°	4901	4309	3601
60°	4490	3848	3226
65°	3950	3370	2856
70°	3254	2950	2426
75°	2587	2260	2368
80°	1739	1630	1522
85°	1081	1297	1513



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.1	4.7
10°-20°	387.3	13.0
20°-30°	536.1	18.0
30°-40°	571.7	19.2
40°-50°	521.6	17.5
50°-60°	408.6	13.7
60°-70°	266.3	8.9
70°-80°	118.0	4.0
80°-90°	25.3	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°	1064.5	35.8
0°-40°	1636.2	55.0
0°-60°	2566.4	86.2
0°-90°	2976.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2976.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1516	1516	1516	1516	1516	
5°	1490	1488	1488	1486	1486	141
15°	1393	1393	1379	1365	1360	392
25°	1208	1200	1181	1139	1108	554
35°	980	973	925	855	834	612
45°	752	736	673	617	592	579
55°	522	506	459	405	384	468
65°	310	293	265	270	224	306
75°	124	116	109	103	114	133
85°	18	19	21	23	24	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1515.9	1515.9	1515.9	1515.9	1515.9
2.5°	1505.4	1505.4	1505.4	1503.7	1503.7
5°	1489.6	1487.9	1487.9	1486.1	1486.1
7.5°	1477.4	1475.6	1473.9	1472.1	1468.6
10°	1459.9	1459.9	1458.1	1449.3	1447.6
12.5°	1431.8	1430.1	1423.1	1410.8	1407.3
15°	1393.3	1393.3	1379.2	1365.2	1360.0
17.5°	1351.2	1349.4	1331.9	1317.9	1310.9
20°	1305.6	1302.1	1284.6	1261.8	1249.6
22.5°	1254.8	1254.8	1233.8	1204.0	1191.7
25°	1207.5	1200.5	1181.2	1139.1	1107.6
27.5°	1153.2	1142.6	1121.6	1062.0	1025.2
30°	1093.6	1088.3	1058.5	981.4	953.4
32.5°	1037.5	1028.7	997.2	916.6	893.8
35°	979.7	972.7	925.3	855.2	834.2
37.5°	921.8	913.1	853.5	797.4	771.1
40°	864.0	853.5	788.6	737.8	709.8
42.5°	809.7	795.6	732.6	678.2	646.7
45°	751.8	736.1	673.0	616.9	592.4
47.5°	694.0	680.0	622.1	564.3	536.3
50°	632.7	620.4	567.8	510.0	480.2
52.5°	581.8	562.6	511.7	453.9	429.4
55°	522.3	506.5	459.2	404.8	383.8
57.5°	467.9	452.2	408.3	357.5	340.0
60°	417.1	394.3	357.5	313.7	299.7
62.5°	361.0	343.5	311.9	275.1	292.7
65°	310.2	292.7	264.6	269.9	224.3
67.5°	254.1	245.4	220.8	196.3	189.3
70°	206.8	196.3	187.5	161.2	154.2
72.5°	164.7	154.2	142.0	127.9	122.7
75°	124.4	115.7	108.7	103.4	113.9
77.5°	85.9	82.4	77.1	71.9	70.1
80°	56.1	54.3	52.6	50.8	49.1
82.5°	33.3	33.3	33.3	33.3	33.3
85°	17.5	19.3	21.0	22.8	24.5
87.5°	10.5	10.5	12.3	14.0	15.8
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)