

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: P545564

Luminaire Tested: **FMR-12-2-LD4-2HI-40-UNV-80-94-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: P545564
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-40-UNV-80-94-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

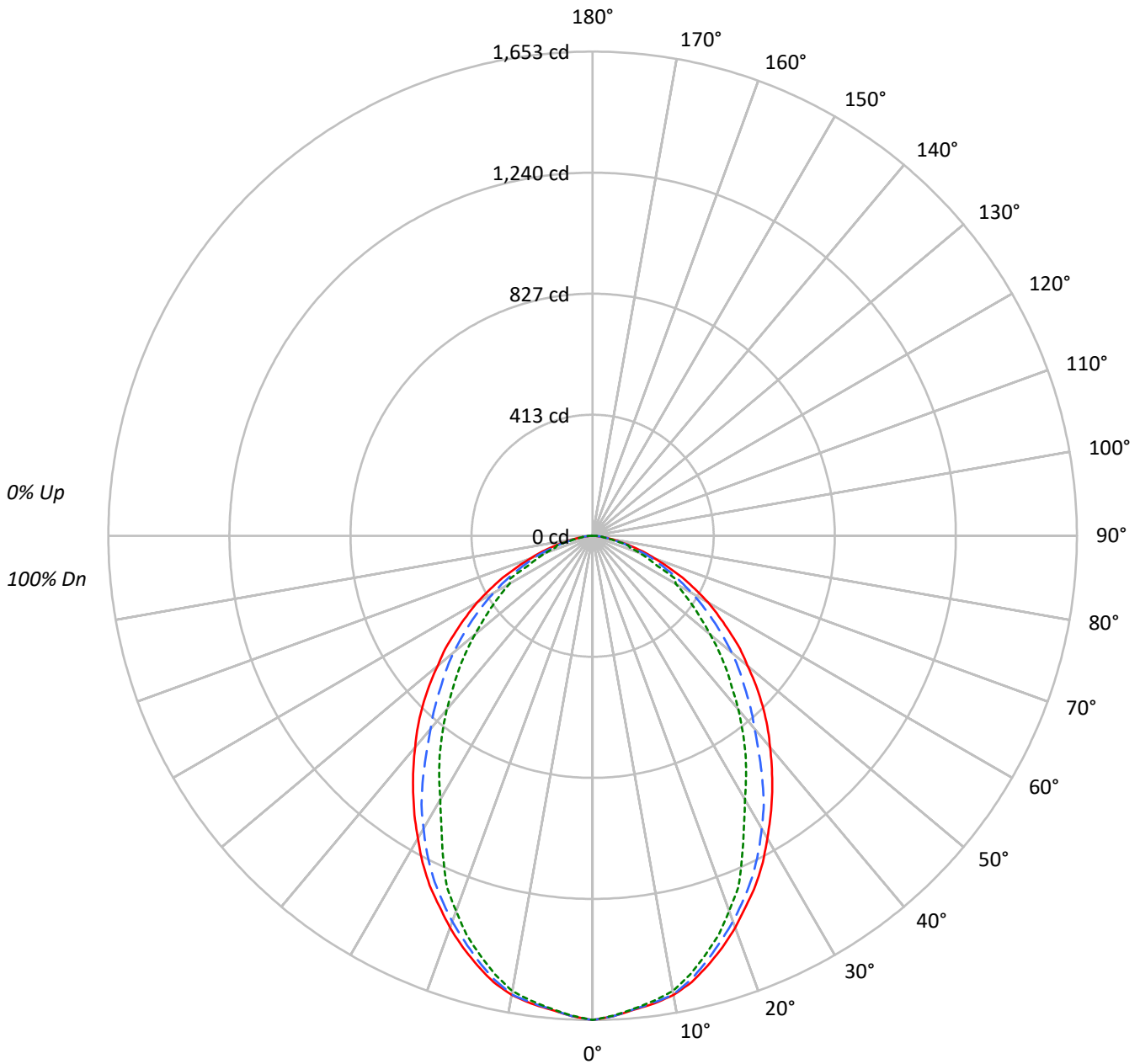
Lumens per Lamp: N/A
Luminaire Lumens: 3245.0 lumens
Efficiency: N/A
Efficacy: 75.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (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°	8896	8896	8896
5°	8775	8765	8755
10°	8699	8689	8626
15°	8465	8379	8262
20°	8153	8022	7804
25°	7818	7649	7172
30°	7410	7173	6460
35°	7018	6629	5976
40°	6619	6041	5437
45°	6240	5585	4916
50°	5776	5184	4384
55°	5344	4698	3927
60°	4895	4196	3518
65°	4307	3675	3115
70°	3548	3218	2647
75°	2822	2464	2583
80°	1894	1776	1658
85°	1179	1414	1655



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.9	4.7
10°-20°	422.3	13.0
20°-30°	584.6	18.0
30°-40°	623.4	19.2
40°-50°	568.7	17.5
50°-60°	445.5	13.7
60°-70°	290.4	8.9
70°-80°	128.6	4.0
80°-90°	27.6	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°	1160.8	35.8
0°-40°	1784.1	55.0
0°-60°	2798.3	86.2
0°-90°	3245.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3245.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1653	1653	1653	1653	1653	
5°	1624	1622	1622	1620	1620	154
15°	1519	1519	1504	1489	1483	427
25°	1317	1309	1288	1242	1208	604
35°	1068	1061	1009	932	910	668
45°	820	803	734	673	646	631
55°	570	552	501	441	418	511
65°	338	319	289	294	245	333
75°	136	126	118	113	124	145
85°	19	21	23	25	27	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1653.0	1653.0	1653.0	1653.0	1653.0
2.5°	1641.5	1641.5	1641.5	1639.6	1639.6
5°	1624.3	1622.4	1622.4	1620.5	1620.5
7.5°	1610.9	1609.0	1607.1	1605.2	1601.4
10°	1591.8	1591.8	1589.9	1580.3	1578.4
12.5°	1561.2	1559.3	1551.7	1538.3	1534.5
15°	1519.2	1519.2	1503.9	1488.6	1482.9
17.5°	1473.3	1471.4	1452.3	1437.0	1429.4
20°	1423.6	1419.8	1400.7	1375.9	1362.5
22.5°	1368.2	1368.2	1345.3	1312.8	1299.4
25°	1316.6	1309.0	1288.0	1242.1	1207.7
27.5°	1257.4	1245.9	1223.0	1158.0	1117.9
30°	1192.4	1186.7	1154.2	1070.1	1039.5
32.5°	1131.3	1121.7	1087.3	999.4	974.6
35°	1068.2	1060.6	1009.0	932.5	909.6
37.5°	1005.2	995.6	930.6	869.5	840.8
40°	942.1	930.6	859.9	804.5	773.9
42.5°	882.9	867.6	798.8	739.5	705.1
45°	819.8	802.6	733.8	672.6	645.9
47.5°	756.7	741.4	678.4	615.3	584.7
50°	689.8	676.5	619.1	556.1	523.6
52.5°	634.4	613.4	558.0	494.9	468.2
55°	569.5	552.3	500.7	441.4	418.5
57.5°	510.2	493.0	445.2	389.8	370.7
60°	454.8	430.0	389.8	342.1	326.8
62.5°	393.7	374.5	340.1	300.0	319.1
65°	338.2	319.1	288.6	294.3	244.6
67.5°	277.1	267.5	240.8	214.0	206.4
70°	225.5	214.0	204.5	175.8	168.2
72.5°	179.6	168.2	154.8	139.5	133.8
75°	135.7	126.1	118.5	112.7	124.2
77.5°	93.6	89.8	84.1	78.3	76.4
80°	61.1	59.2	57.3	55.4	53.5
82.5°	36.3	36.3	36.3	36.3	36.3
85°	19.1	21.0	22.9	24.8	26.8
87.5°	11.5	11.5	13.4	15.3	17.2
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)