

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: P545528

Luminaire Tested: **FMR-12-2-LD4-2HI-35-UNV-80-85-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: P545528
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-80-85-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

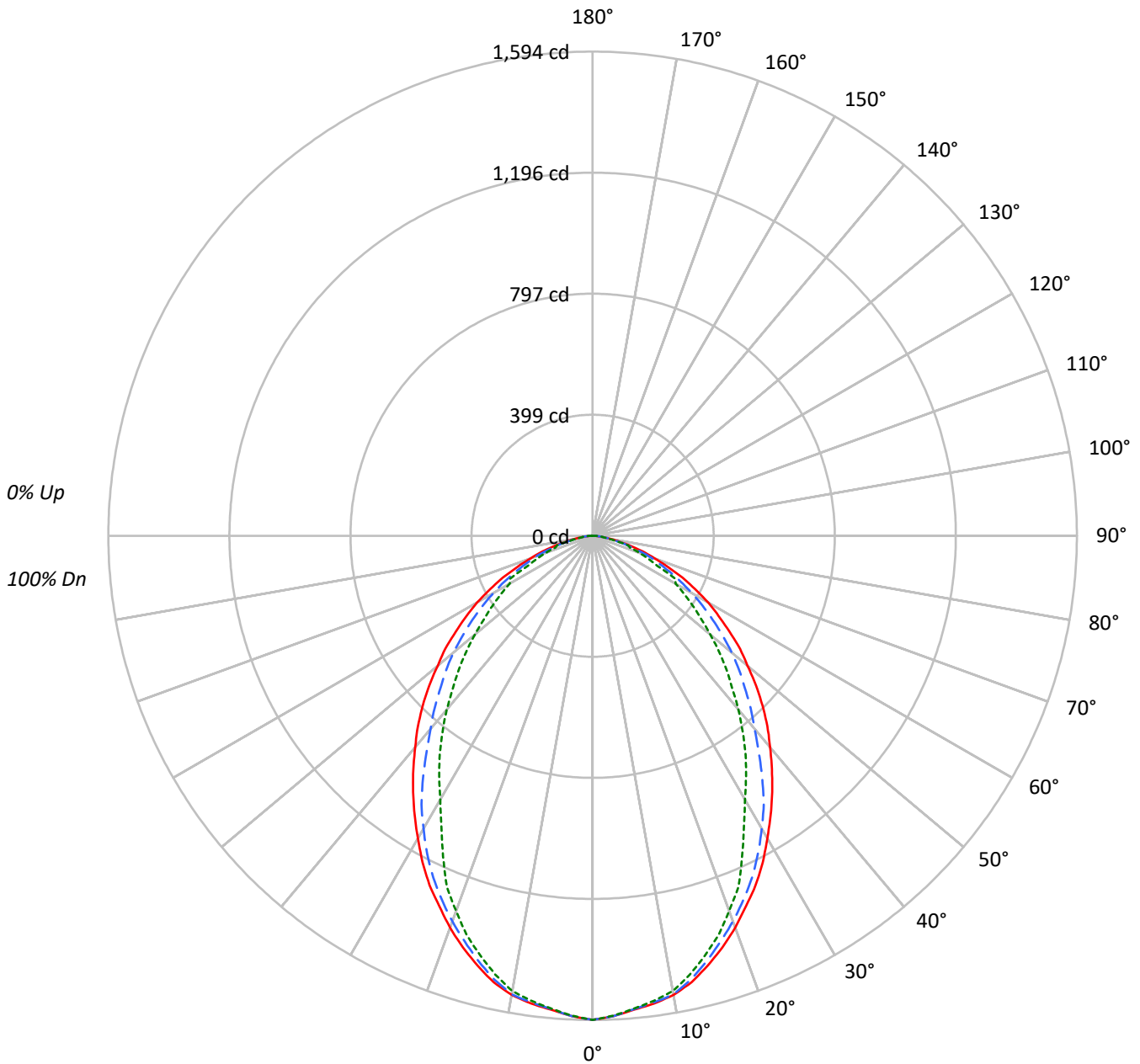
Lumens per Lamp: N/A
Luminaire Lumens: 3129.0 lumens
Efficiency: N/A
Efficacy: 72.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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				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°	8578	8578	8578
5°	8461	8452	8441
10°	8388	8378	8318
15°	8162	8080	7967
20°	7863	7735	7525
25°	7539	7375	6915
30°	7145	6916	6229
35°	6767	6392	5763
40°	6382	5826	5243
45°	6017	5386	4740
50°	5570	4999	4227
55°	5152	4530	3786
60°	4720	4046	3392
65°	4153	3543	3004
70°	3421	3103	2552
75°	2720	2375	2491
80°	1829	1714	1599
85°	1136	1365	1593



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.4	4.7
10°-20°	407.2	13.0
20°-30°	563.7	18.0
30°-40°	601.1	19.2
40°-50°	548.4	17.5
50°-60°	429.6	13.7
60°-70°	280.0	8.9
70°-80°	124.0	4.0
80°-90°	26.6	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°	1119.3	35.8
0°-40°	1720.4	55.0
0°-60°	2698.3	86.2
0°-90°	3129.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3129.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1594	1594	1594	1594	1594	
5°	1566	1564	1564	1562	1562	149
15°	1465	1465	1450	1435	1430	412
25°	1270	1262	1242	1198	1164	583
35°	1030	1023	973	899	877	644
45°	790	774	708	649	623	609
55°	549	532	483	426	404	493
65°	326	308	278	284	236	321
75°	131	122	114	109	120	140
85°	18	20	22	24	26	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1593.9	1593.9	1593.9	1593.9	1593.9
2.5°	1582.8	1582.8	1582.8	1581.0	1581.0
5°	1566.2	1564.4	1564.4	1562.5	1562.5
7.5°	1553.3	1551.5	1549.6	1547.8	1544.1
10°	1534.9	1534.9	1533.1	1523.9	1522.0
12.5°	1505.4	1503.6	1496.2	1483.3	1479.6
15°	1464.9	1464.9	1450.1	1435.4	1429.9
17.5°	1420.7	1418.8	1400.4	1385.7	1378.3
20°	1372.8	1369.1	1350.6	1326.7	1313.8
22.5°	1319.3	1319.3	1297.2	1265.9	1253.0
25°	1269.6	1262.2	1241.9	1197.7	1164.5
27.5°	1212.4	1201.4	1179.3	1116.6	1077.9
30°	1149.8	1144.3	1112.9	1031.9	1002.4
32.5°	1090.8	1081.6	1048.5	963.7	939.7
35°	1030.0	1022.7	972.9	899.2	877.1
37.5°	969.2	960.0	897.4	838.4	810.8
40°	908.4	897.4	829.2	775.7	746.3
42.5°	851.3	836.6	770.2	713.1	679.9
45°	790.5	773.9	707.6	648.6	622.8
47.5°	729.7	714.9	654.1	593.3	563.8
50°	665.2	652.3	597.0	536.2	504.9
52.5°	611.8	591.5	538.0	477.2	451.4
55°	549.1	532.5	482.8	425.6	403.5
57.5°	492.0	475.4	429.3	375.9	357.5
60°	438.5	414.6	375.9	329.8	315.1
62.5°	379.6	361.2	328.0	289.3	307.7
65°	326.1	307.7	278.2	283.8	235.9
67.5°	267.2	258.0	232.2	206.4	199.0
70°	217.4	206.4	197.2	169.5	162.2
72.5°	173.2	162.2	149.3	134.5	129.0
75°	130.8	121.6	114.2	108.7	119.8
77.5°	90.3	86.6	81.1	75.5	73.7
80°	59.0	57.1	55.3	53.4	51.6
82.5°	35.0	35.0	35.0	35.0	35.0
85°	18.4	20.3	22.1	24.0	25.8
87.5°	11.1	11.1	12.9	14.7	16.6
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)