

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: P545545

Luminaire Tested: **FMR-12-2-LD4-2HI-35-UNV-82-86-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: P545545
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-82-86-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

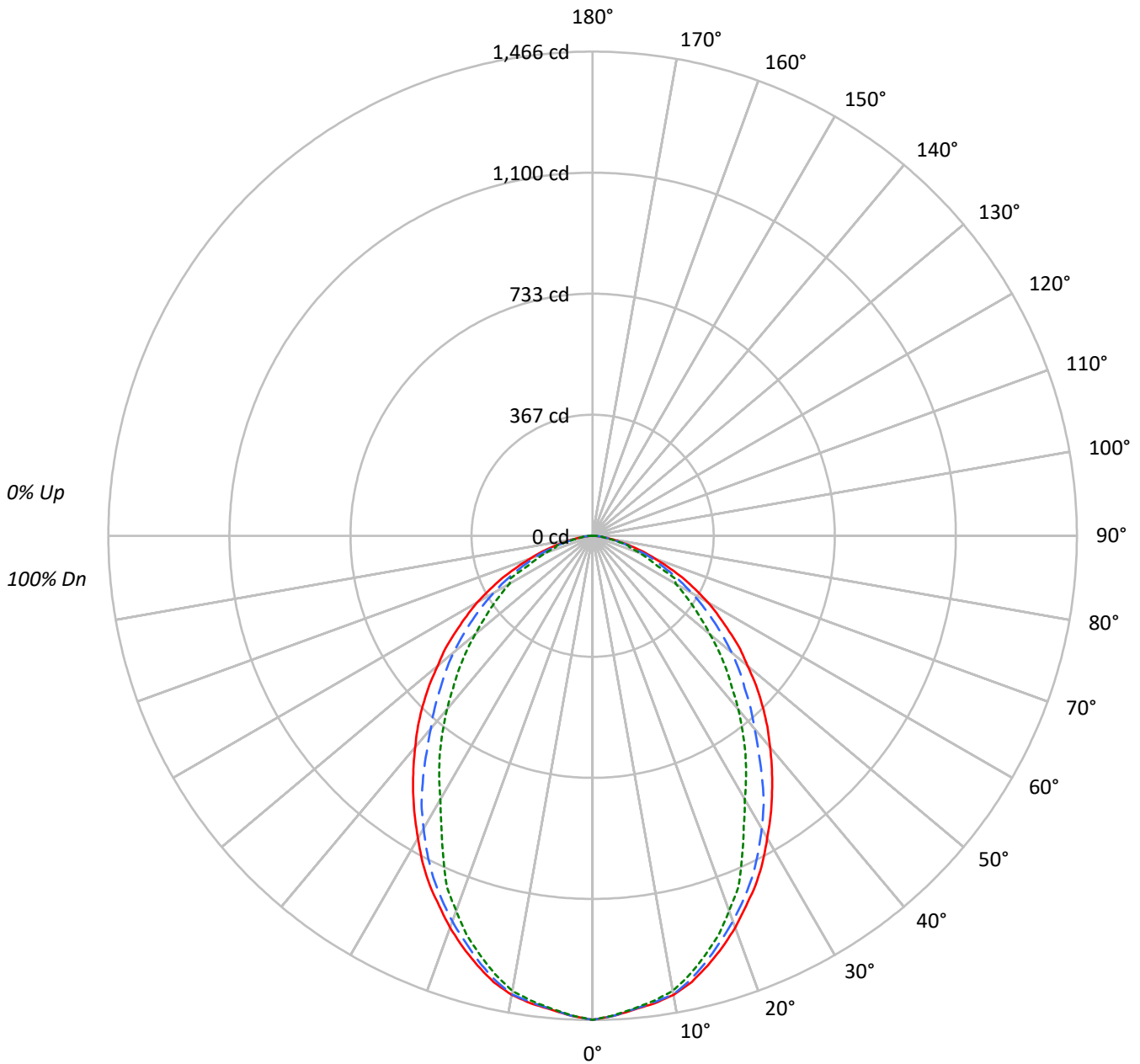
Lumens per Lamp: N/A
Luminaire Lumens: 2877.0 lumens
Efficiency: N/A
Efficacy: 66.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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				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			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°	7887	7887	7887
5°	7780	7771	7762
10°	7713	7703	7648
15°	7505	7429	7325
20°	7229	7113	6919
25°	6932	6781	6359
30°	6570	6359	5728
35°	6223	5878	5299
40°	5869	5356	4821
45°	5532	4952	4358
50°	5121	4596	3887
55°	4738	4165	3481
60°	4340	3720	3118
65°	3819	3258	2762
70°	3146	2853	2346
75°	2502	2183	2289
80°	1680	1574	1469
85°	1044	1254	1463



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.4	4.7
10°-20°	374.4	13.0
20°-30°	518.3	18.0
30°-40°	552.7	19.2
40°-50°	504.2	17.5
50°-60°	395.0	13.7
60°-70°	257.5	8.9
70°-80°	114.1	4.0
80°-90°	24.5	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°	1029.1	35.8
0°-40°	1581.8	55.0
0°-60°	2481.0	86.2
0°-90°	2877.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2877.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1466	1466	1466	1466	1466	
5°	1440	1438	1438	1437	1437	137
15°	1347	1347	1333	1320	1315	379
25°	1167	1160	1142	1101	1071	536
35°	947	940	895	827	806	592
45°	727	712	651	596	573	560
55°	505	490	444	391	371	453
65°	300	283	256	261	217	296
75°	120	112	105	100	110	129
85°	17	19	20	22	24	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1465.5	1465.5	1465.5	1465.5	1465.5
2.5°	1455.3	1455.3	1455.3	1453.6	1453.6
5°	1440.1	1438.4	1438.4	1436.7	1436.7
7.5°	1428.2	1426.5	1424.8	1423.1	1419.8
10°	1411.3	1411.3	1409.6	1401.1	1399.4
12.5°	1384.2	1382.5	1375.7	1363.9	1360.5
15°	1346.9	1346.9	1333.4	1319.8	1314.7
17.5°	1306.2	1304.6	1287.6	1274.1	1267.3
20°	1262.2	1258.8	1241.9	1219.8	1208.0
22.5°	1213.1	1213.1	1192.7	1163.9	1152.1
25°	1167.3	1160.5	1141.9	1101.2	1070.8
27.5°	1114.8	1104.6	1084.3	1026.7	991.1
30°	1057.2	1052.1	1023.3	948.8	921.7
32.5°	1003.0	994.5	964.0	886.1	864.1
35°	947.1	940.3	894.6	826.8	806.5
37.5°	891.2	882.7	825.1	770.9	745.5
40°	835.3	825.1	762.4	713.3	686.2
42.5°	782.7	769.2	708.2	655.7	625.2
45°	726.8	711.6	650.6	596.4	572.6
47.5°	670.9	657.4	601.5	545.5	518.4
50°	611.6	599.8	548.9	493.0	464.2
52.5°	562.5	543.8	494.7	438.8	415.1
55°	504.9	489.6	443.9	391.4	371.0
57.5°	452.4	437.1	394.8	345.6	328.7
60°	403.2	381.2	345.6	303.3	289.7
62.5°	349.0	332.1	301.6	266.0	282.9
65°	299.9	282.9	255.8	260.9	216.9
67.5°	245.7	237.2	213.5	189.8	183.0
70°	199.9	189.8	181.3	155.9	149.1
72.5°	159.3	149.1	137.2	123.7	118.6
75°	120.3	111.8	105.0	100.0	110.1
77.5°	83.0	79.6	74.5	69.5	67.8
80°	54.2	52.5	50.8	49.1	47.4
82.5°	32.2	32.2	32.2	32.2	32.2
85°	16.9	18.6	20.3	22.0	23.7
87.5°	10.2	10.2	11.9	13.6	15.2
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)