

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: P589202

Luminaire Tested: **FMR-24-2-LD4-2STD-35-UNV-93-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589202
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMR-24-2-LD4-2STD-35-UNV-93-94-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

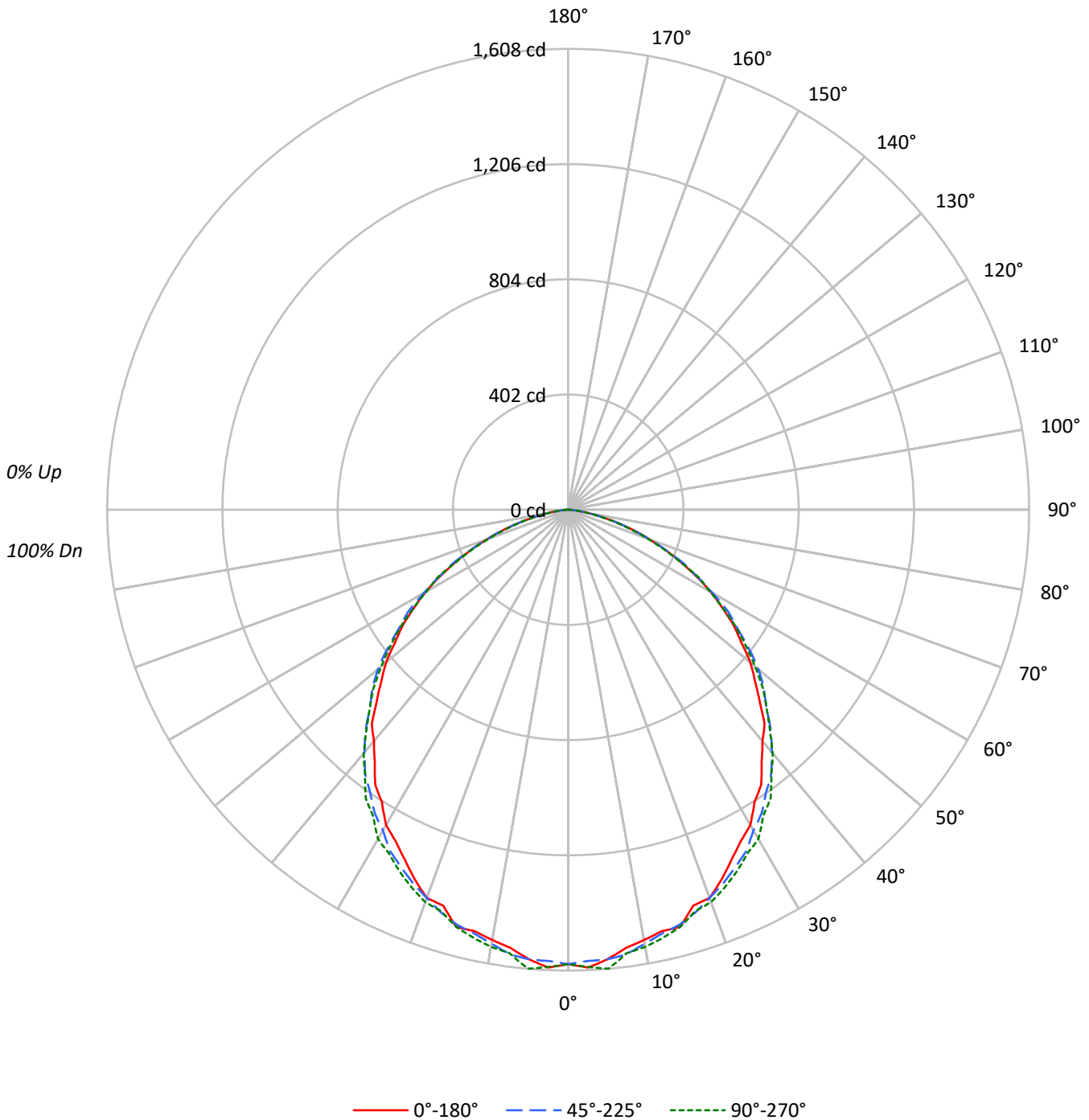
Lumens per Lamp: N/A
Luminaire Lumens: 3996.0 lumens
Efficiency: N/A
Efficacy: 120.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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				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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4267	4267	4267
5°	4253	4254	4344
10°	4166	4203	4232
15°	4199	4176	4200
20°	4128	4128	4172
25°	4001	4089	4134
30°	3946	4016	4123
35°	3853	3954	4043
40°	3704	3882	3899
45°	3591	3719	3725
50°	3473	3630	3561
55°	3309	3374	3350
60°	3095	3126	3069
65°	2760	2830	2740
70°	2367	2376	2310
75°	1876	1870	1799
80°	1257	1221	1173
85°	682	676	633



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.1	3.7
10°-20°	422.7	10.6
20°-30°	633.3	15.8
30°-40°	750.6	18.8
40°-50°	751.9	18.8
50°-60°	638.3	16.0
60°-70°	430.3	10.8
70°-80°	189.1	4.7
80°-90°	30.7	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°	1205.1	30.2
0°-40°	1955.6	48.9
0°-60°	3345.9	83.7
0°-90°	3996.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3996.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1586	1586	1586	1586	1586	
5°	1574	1571	1575	1570	1608	148
15°	1507	1490	1499	1507	1508	420
25°	1348	1355	1377	1395	1392	623
35°	1173	1176	1204	1232	1231	728
45°	944	961	977	1002	979	730
55°	705	701	719	714	714	628
65°	433	428	444	427	430	431
75°	180	177	180	167	173	193
85°	22	22	22	21	20	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1585.5	1585.5	1585.5	1585.5	1585.5
2.5°	1599.2	1587.1	1575.9	1589.0	1597.0
5°	1574.3	1570.6	1574.9	1570.2	1608.0
7.5°	1541.9	1556.0	1564.2	1559.1	1561.4
10°	1524.7	1519.8	1538.0	1550.7	1548.9
12.5°	1506.3	1513.7	1514.7	1528.4	1529.6
15°	1507.3	1489.9	1499.1	1506.9	1507.5
17.5°	1448.8	1467.6	1473.9	1491.8	1469.6
20°	1441.6	1427.9	1441.6	1459.8	1457.0
22.5°	1397.6	1382.2	1411.7	1427.9	1426.9
25°	1347.6	1355.0	1377.1	1395.1	1392.3
27.5°	1303.8	1312.4	1343.9	1368.7	1352.8
30°	1270.0	1265.7	1292.4	1314.5	1326.8
32.5°	1209.7	1225.2	1256.3	1278.2	1266.6
35°	1173.0	1176.5	1203.7	1231.6	1230.7
37.5°	1108.9	1125.1	1163.4	1171.2	1164.0
40°	1054.3	1070.5	1105.0	1113.4	1110.0
42.5°	1013.9	1016.8	1046.5	1056.1	1040.8
45°	943.7	961.3	977.3	1002.5	978.7
47.5°	884.0	892.1	926.5	933.3	920.8
50°	829.7	832.6	867.2	858.8	850.6
52.5°	761.5	773.6	793.1	791.4	781.8
55°	705.4	700.7	719.2	714.2	714.0
57.5°	638.1	646.3	661.4	653.7	641.2
60°	575.0	575.2	580.8	572.0	570.3
62.5°	504.8	507.3	508.5	497.7	515.3
65°	433.4	427.6	444.4	427.4	430.3
67.5°	367.7	370.5	368.9	358.2	362.3
70°	300.9	304.6	302.0	289.9	293.6
72.5°	239.9	235.4	238.3	223.1	230.1
75°	180.4	176.7	179.9	167.3	173.0
77.5°	122.8	125.7	123.6	116.9	120.8
80°	81.1	78.8	78.8	74.9	75.7
82.5°	47.3	45.0	44.4	43.2	45.0
85°	22.1	21.5	21.9	21.3	20.5
87.5°	8.0	8.2	8.2	7.8	7.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)