

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: P589394

Luminaire Tested: **FMR-24-2-LD4-3LO-35-UNV-93-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589394
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-LD4-3LO-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

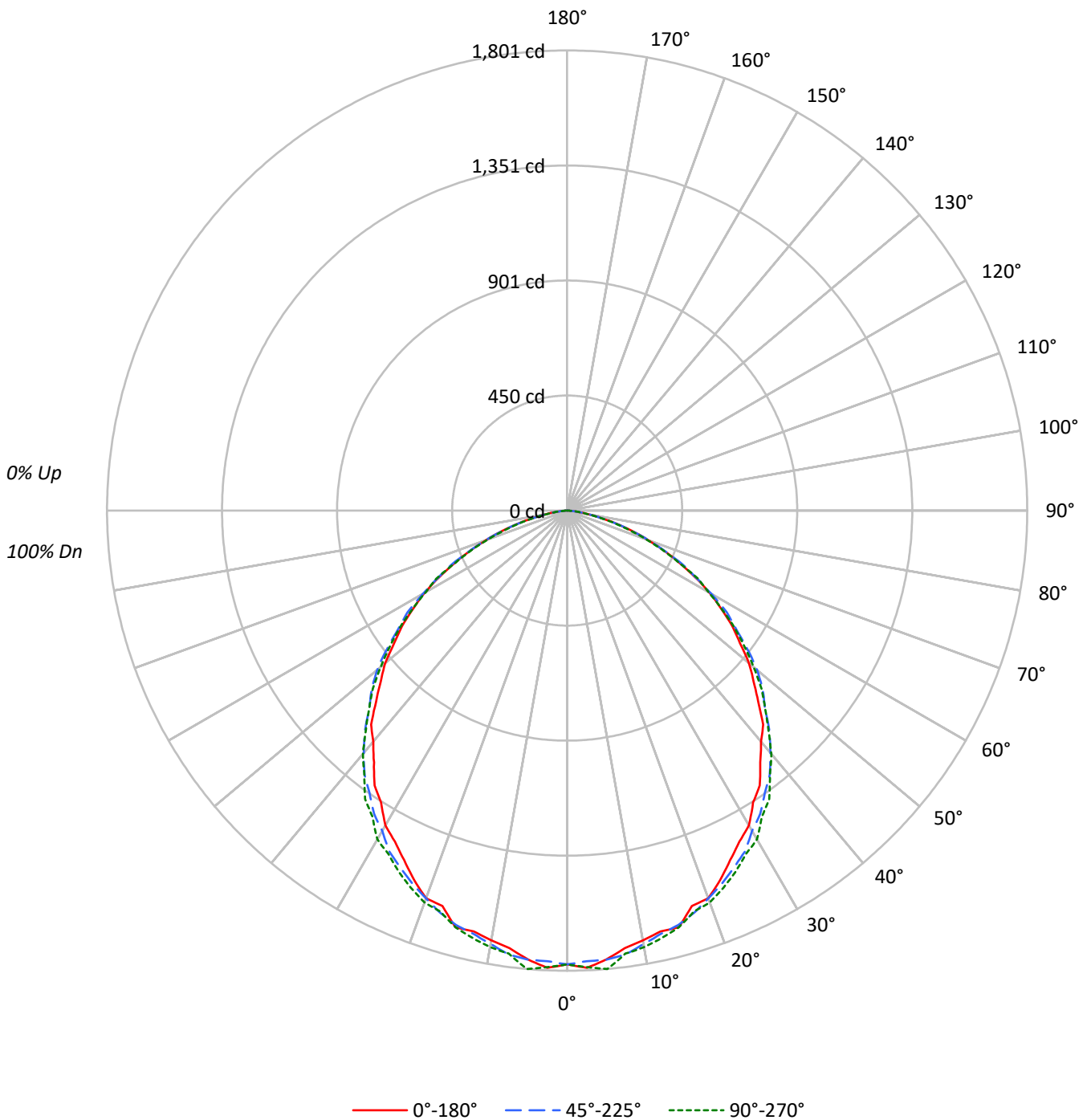
Lumens per Lamp: N/A
Luminaire Lumens: 4476.0 lumens
Efficiency: N/A
Efficacy: 127.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35.1
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

TEST NUMBER: P589394

CATALOG NUMBER: FMR-24-2-LD4-3LO-35-UNV-93-94-EDD

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°	4779	4779	4779
5°	4763	4765	4866
10°	4667	4708	4741
15°	4704	4678	4704
20°	4624	4624	4674
25°	4482	4580	4630
30°	4420	4498	4618
35°	4316	4429	4529
40°	4148	4348	4367
45°	4023	4166	4172
50°	3891	4066	3989
55°	3707	3779	3752
60°	3467	3501	3438
65°	3091	3170	3069
70°	2652	2661	2587
75°	2100	2096	2015
80°	1407	1368	1314
85°	766	756	707



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.1	3.7
10°-20°	473.5	10.6
20°-30°	709.3	15.8
30°-40°	840.7	18.8
40°-50°	842.3	18.8
50°-60°	714.9	16.0
60°-70°	482.0	10.8
70°-80°	211.8	4.7
80°-90°	34.4	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°	1349.9	30.2
0°-40°	2190.6	48.9
0°-60°	3747.8	83.7
0°-90°	4476.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4476.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1776	1776	1776	1776	1776	
5°	1763	1759	1764	1759	1801	166
15°	1688	1669	1679	1688	1689	470
25°	1510	1518	1542	1563	1560	698
35°	1314	1318	1348	1380	1379	816
45°	1057	1077	1095	1123	1096	818
55°	790	785	806	800	800	703
65°	485	479	498	479	482	483
75°	202	198	202	187	194	216
85°	25	24	24	24	23	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1776.0	1776.0	1776.0	1776.0	1776.0
2.5°	1791.3	1777.8	1765.2	1779.9	1788.8
5°	1763.4	1759.2	1764.0	1758.8	1801.2
7.5°	1727.1	1742.9	1752.1	1746.4	1748.9
10°	1707.9	1702.4	1722.8	1737.0	1734.9
12.5°	1687.2	1695.5	1696.6	1712.0	1713.4
15°	1688.4	1668.9	1679.2	1687.9	1688.6
17.5°	1622.8	1643.9	1651.0	1670.9	1646.2
20°	1614.8	1599.4	1614.8	1635.2	1632.0
22.5°	1565.5	1548.3	1581.3	1599.4	1598.3
25°	1509.5	1517.8	1542.5	1562.7	1559.5
27.5°	1460.4	1470.1	1505.4	1533.1	1515.2
30°	1422.6	1417.8	1447.6	1472.4	1486.1
32.5°	1355.0	1372.4	1407.2	1431.8	1418.7
35°	1313.9	1317.8	1348.3	1379.5	1378.6
37.5°	1242.1	1260.3	1303.1	1311.9	1303.8
40°	1180.9	1199.0	1237.8	1247.2	1243.3
42.5°	1135.7	1139.0	1172.2	1183.0	1165.8
45°	1057.1	1076.8	1094.7	1122.9	1096.3
47.5°	990.1	999.3	1037.8	1045.4	1031.4
50°	929.4	932.6	971.3	961.9	952.8
52.5°	853.0	866.5	888.3	886.5	875.7
55°	790.2	784.9	805.5	800.0	799.8
57.5°	714.7	723.9	740.9	732.2	718.2
60°	644.1	644.3	650.5	640.7	638.8
62.5°	565.5	568.2	569.6	557.4	577.2
65°	485.4	479.0	497.8	478.8	482.0
67.5°	411.8	415.0	413.2	401.3	405.9
70°	337.1	341.2	338.2	324.7	328.8
72.5°	268.7	263.7	266.9	249.9	257.7
75°	202.0	197.9	201.6	187.3	193.8
77.5°	137.6	140.8	138.5	130.9	135.3
80°	90.8	88.3	88.3	83.9	84.8
82.5°	53.0	50.4	49.8	48.4	50.4
85°	24.8	24.1	24.5	23.8	22.9
87.5°	8.9	9.2	9.2	8.7	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)