

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: P589203

Luminaire Tested: **FMR-24-2-LD4-2STD-35-UNV-93-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589203
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-93-96-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

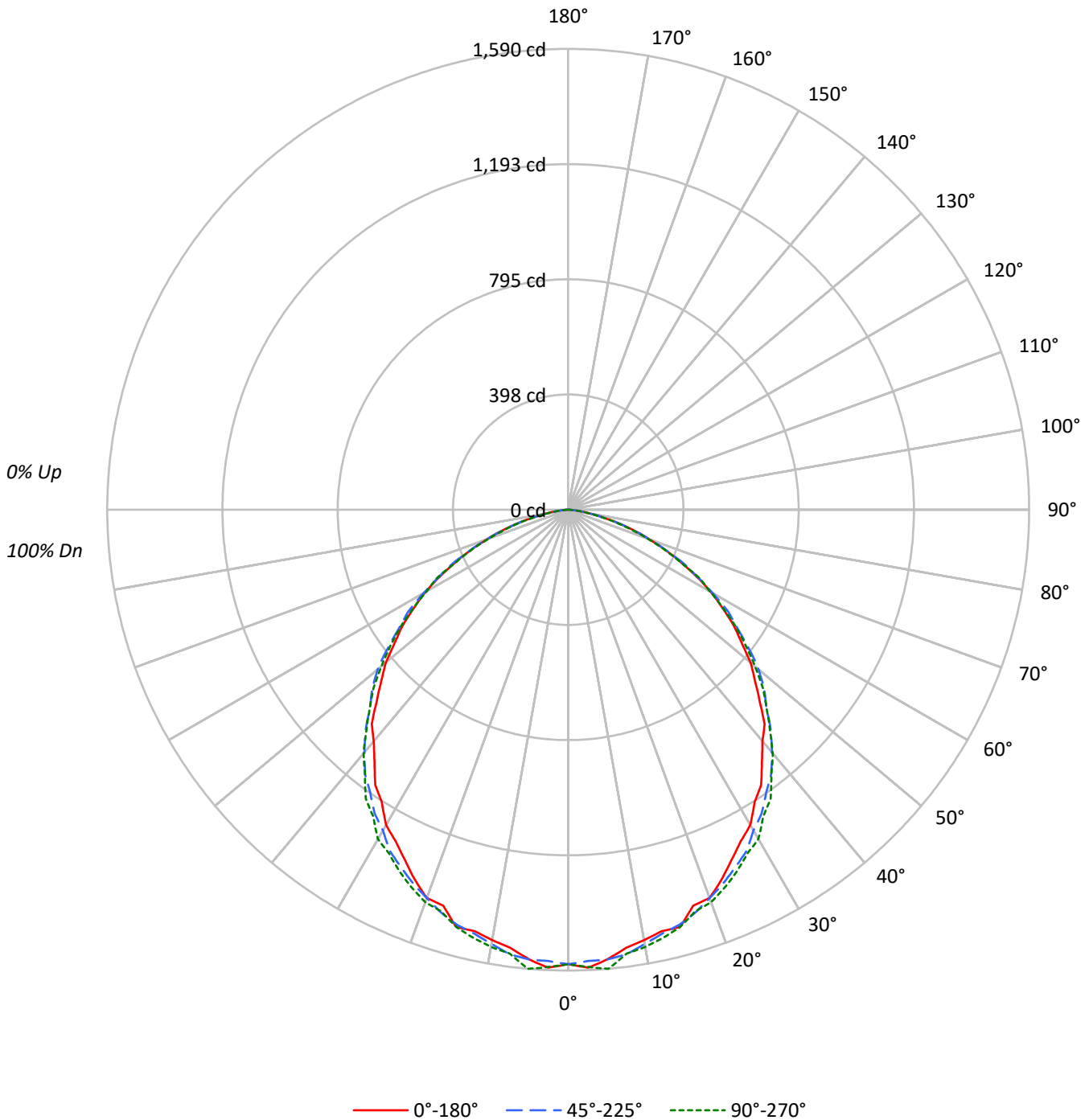
Lumens per Lamp: N/A
Luminaire Lumens: 3952.0 lumens
Efficiency: N/A
Efficacy: 118.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	4220	4220	4220
5°	4206	4207	4296
10°	4120	4156	4186
15°	4153	4130	4154
20°	4083	4083	4126
25°	3957	4044	4088
30°	3903	3971	4077
35°	3811	3911	3999
40°	3663	3839	3856
45°	3552	3678	3684
50°	3435	3590	3522
55°	3273	3337	3313
60°	3061	3091	3036
65°	2729	2798	2710
70°	2341	2349	2284
75°	1855	1851	1779
80°	1243	1207	1161
85°	676	670	624



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.5	3.7
10°-20°	418.0	10.6
20°-30°	626.3	15.8
30°-40°	742.3	18.8
40°-50°	743.7	18.8
50°-60°	631.2	16.0
60°-70°	425.6	10.8
70°-80°	187.0	4.7
80°-90°	30.4	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°	1191.8	30.2
0°-40°	1934.1	48.9
0°-60°	3309.0	83.7
0°-90°	3952.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3952.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1568	1568	1568	1568	1568	
5°	1557	1553	1558	1553	1590	147
15°	1491	1474	1483	1490	1491	415
25°	1333	1340	1362	1380	1377	616
35°	1160	1164	1190	1218	1217	720
45°	933	951	966	991	968	722
55°	698	693	711	706	706	621
65°	429	423	440	423	426	426
75°	178	175	178	165	171	191
85°	22	21	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°	1568.1	1568.1	1568.1	1568.1	1568.1
2.5°	1581.6	1569.7	1558.5	1571.5	1579.4
5°	1556.9	1553.3	1557.5	1552.9	1590.3
7.5°	1524.9	1538.9	1547.0	1541.9	1544.2
10°	1507.9	1503.1	1521.1	1533.6	1531.8
12.5°	1489.7	1497.0	1498.0	1511.6	1512.8
15°	1490.7	1473.5	1482.6	1490.3	1490.9
17.5°	1432.8	1451.4	1457.7	1475.3	1453.5
20°	1425.7	1412.2	1425.7	1443.7	1440.9
22.5°	1382.2	1367.0	1396.2	1412.2	1411.1
25°	1332.8	1340.1	1361.9	1379.8	1376.9
27.5°	1289.5	1298.0	1329.2	1353.6	1337.9
30°	1256.1	1251.8	1278.1	1300.0	1312.1
32.5°	1196.3	1211.7	1242.5	1264.2	1252.6
35°	1160.1	1163.5	1190.5	1218.0	1217.2
37.5°	1096.7	1112.7	1150.6	1158.3	1151.2
40°	1042.7	1058.7	1092.9	1101.2	1097.7
42.5°	1002.8	1005.6	1035.0	1044.5	1029.3
45°	933.3	950.8	966.5	991.4	968.0
47.5°	874.2	882.3	916.3	923.0	910.7
50°	820.6	823.4	857.6	849.3	841.2
52.5°	753.2	765.1	784.3	782.7	773.2
55°	697.7	693.0	711.2	706.4	706.2
57.5°	631.1	639.2	654.1	646.5	634.1
60°	568.7	568.9	574.4	565.7	564.1
62.5°	499.3	501.7	502.9	492.2	509.6
65°	428.6	422.9	439.5	422.7	425.6
67.5°	363.6	366.5	364.8	354.3	358.4
70°	297.6	301.3	298.6	286.7	290.3
72.5°	237.3	232.8	235.7	220.7	227.6
75°	178.4	174.7	178.0	165.4	171.1
77.5°	121.5	124.3	122.3	115.6	119.5
80°	80.2	77.9	77.9	74.1	74.9
82.5°	46.8	44.5	43.9	42.7	44.5
85°	21.9	21.3	21.7	21.1	20.2
87.5°	7.9	8.1	8.1	7.7	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)