

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: P589460

Luminaire Tested: **FMR-24-2-LD4-3LO-50-UNV-93-97-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589460
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-50-UNV-93-97-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

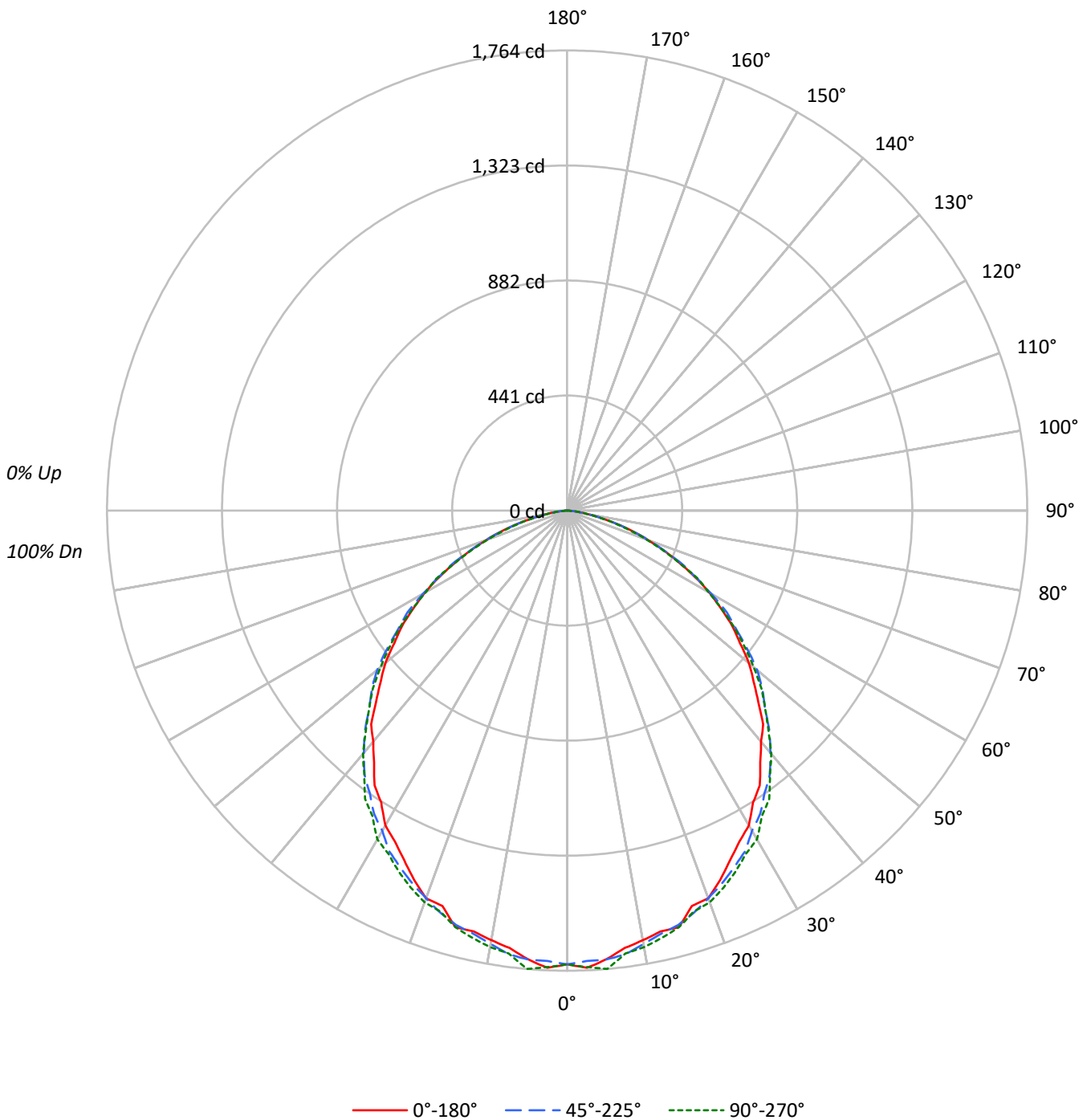
Lumens per Lamp: N/A
Luminaire Lumens: 4383.0 lumens
Efficiency: N/A
Efficacy: 124.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

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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°	4680	4680	4680
5°	4664	4666	4764
10°	4570	4610	4642
15°	4606	4581	4606
20°	4528	4528	4576
25°	4389	4485	4534
30°	4328	4405	4522
35°	4227	4337	4435
40°	4062	4258	4277
45°	3939	4080	4085
50°	3810	3982	3906
55°	3630	3701	3674
60°	3394	3428	3367
65°	3027	3104	3005
70°	2597	2606	2533
75°	2057	2052	1972
80°	1378	1339	1288
85°	750	741	695



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.6	3.7
10°-20°	463.6	10.6
20°-30°	694.6	15.8
30°-40°	823.2	18.8
40°-50°	824.8	18.8
50°-60°	700.1	16.0
60°-70°	472.0	10.8
70°-80°	207.4	4.7
80°-90°	33.7	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°	1321.8	30.2
0°-40°	2145.0	48.9
0°-60°	3669.9	83.7
0°-90°	4383.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4383.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1739	1739	1739	1739	1739	
5°	1727	1723	1727	1722	1764	163
15°	1653	1634	1644	1653	1654	461
25°	1478	1486	1510	1530	1527	683
35°	1287	1290	1320	1351	1350	799
45°	1035	1054	1072	1100	1074	801
55°	774	769	789	783	783	688
65°	475	469	488	469	472	473
75°	198	194	197	183	190	212
85°	24	24	24	23	22	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1739.1	1739.1	1739.1	1739.1	1739.1
2.5°	1754.1	1740.9	1728.5	1742.9	1751.6
5°	1726.7	1722.7	1727.4	1722.2	1763.8
7.5°	1691.2	1706.7	1715.7	1710.1	1712.6
10°	1672.4	1667.0	1687.0	1700.9	1698.9
12.5°	1652.2	1660.3	1661.4	1676.4	1677.8
15°	1653.3	1634.2	1644.3	1652.8	1653.5
17.5°	1589.1	1609.7	1616.7	1636.2	1612.0
20°	1581.2	1566.2	1581.2	1601.2	1598.1
22.5°	1532.9	1516.1	1548.4	1566.2	1565.0
25°	1478.1	1486.2	1510.5	1530.2	1527.1
27.5°	1430.1	1439.5	1474.1	1501.3	1483.8
30°	1393.0	1388.3	1417.5	1441.8	1455.2
32.5°	1326.8	1343.9	1378.0	1402.0	1389.2
35°	1286.6	1290.4	1320.3	1350.8	1349.9
37.5°	1216.3	1234.1	1276.1	1284.6	1276.7
40°	1156.4	1174.1	1212.1	1221.3	1217.5
42.5°	1112.1	1115.3	1147.8	1158.4	1141.6
45°	1035.1	1054.4	1072.0	1099.6	1073.5
47.5°	969.6	978.5	1016.3	1023.7	1010.0
50°	910.1	913.2	951.2	941.9	933.0
52.5°	835.3	848.5	869.9	868.1	857.5
55°	773.8	768.6	788.8	783.4	783.2
57.5°	699.9	708.9	725.5	717.0	703.3
60°	630.7	631.0	637.0	627.4	625.6
62.5°	553.7	556.4	557.8	545.9	565.2
65°	475.4	469.1	487.5	468.8	472.0
67.5°	403.3	406.4	404.6	392.9	397.4
70°	330.1	334.1	331.2	317.9	322.0
72.5°	263.2	258.2	261.4	244.7	252.4
75°	197.8	193.8	197.4	183.4	189.7
77.5°	134.7	137.9	135.6	128.2	132.5
80°	88.9	86.4	86.4	82.2	83.1
82.5°	51.9	49.4	48.7	47.4	49.4
85°	24.3	23.6	24.0	23.4	22.5
87.5°	8.8	9.0	9.0	8.5	8.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)