

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: P589041

Luminaire Tested: **FMR-24-2-LD4-2HI-40-UNV-93-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589041
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-LD4-2HI-40-UNV-93-88-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

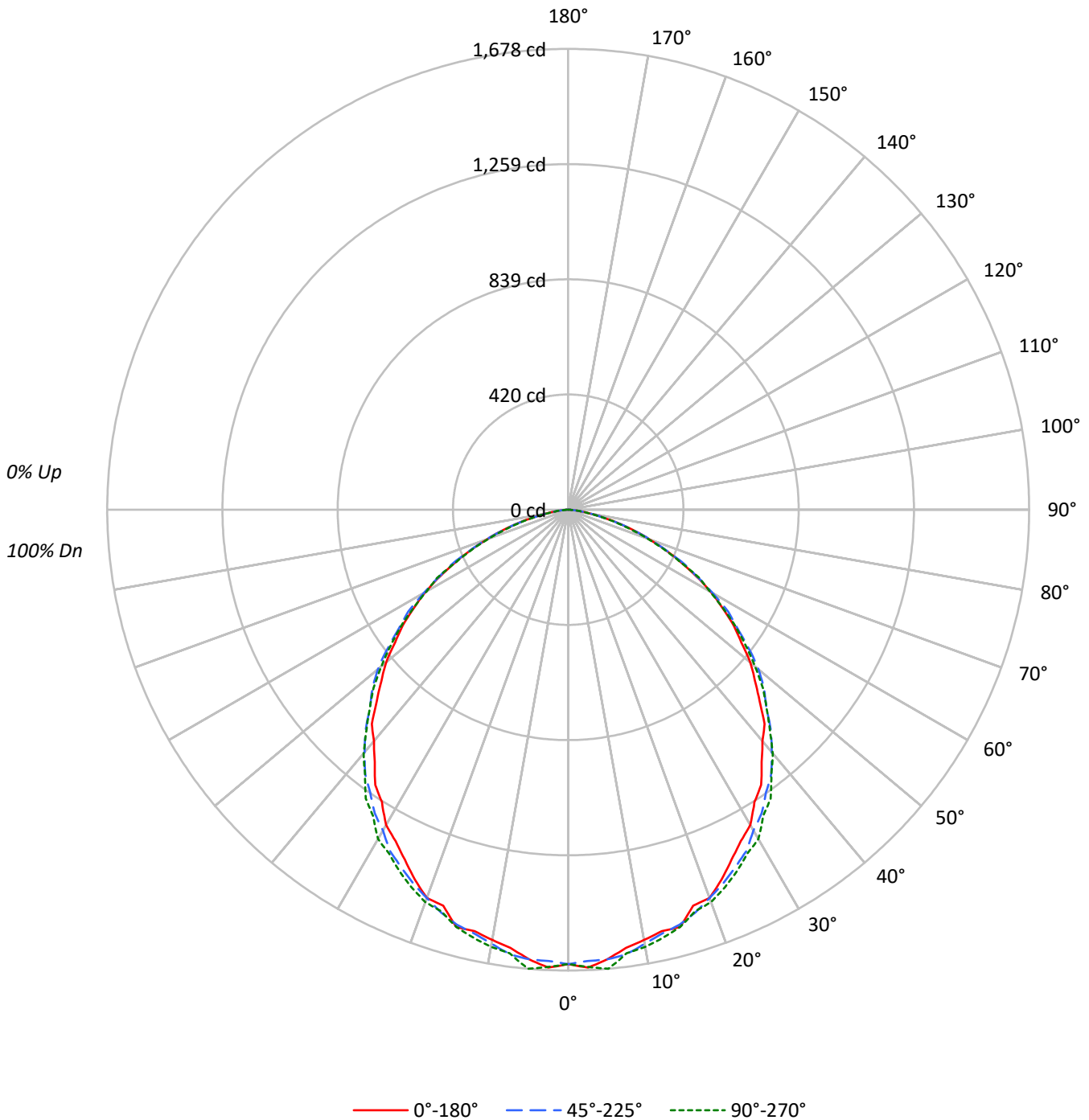
Lumens per Lamp: N/A
Luminaire Lumens: 4170.0 lumens
Efficiency: N/A
Efficacy: 96.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (Ain): 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°	4452	4452	4452
5°	4438	4439	4533
10°	4348	4386	4417
15°	4382	4358	4383
20°	4308	4308	4354
25°	4176	4267	4314
30°	4118	4190	4302
35°	4021	4126	4219
40°	3865	4051	4069
45°	3748	3881	3887
50°	3625	3788	3716
55°	3454	3521	3496
60°	3230	3262	3203
65°	2880	2953	2859
70°	2471	2479	2410
75°	1957	1953	1877
80°	1311	1274	1224
85°	713	707	661



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.6	3.7
10°-20°	441.1	10.6
20°-30°	660.9	15.8
30°-40°	783.2	18.8
40°-50°	784.7	18.8
50°-60°	666.1	16.0
60°-70°	449.1	10.8
70°-80°	197.3	4.7
80°-90°	32.1	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°	1257.6	30.2
0°-40°	2040.8	48.9
0°-60°	3491.5	83.7
0°-90°	4170.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4170.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1655	1655	1655	1655	1655	
5°	1643	1639	1643	1638	1678	155
15°	1573	1555	1564	1572	1573	438
25°	1406	1414	1437	1456	1453	650
35°	1224	1228	1256	1285	1284	760
45°	985	1003	1020	1046	1021	762
55°	736	731	750	745	745	655
65°	452	446	464	446	449	450
75°	188	184	188	174	180	202
85°	23	22	23	22	21	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1654.6	1654.6	1654.6	1654.6	1654.6
2.5°	1668.9	1656.3	1644.5	1658.2	1666.5
5°	1642.8	1639.0	1643.4	1638.5	1678.0
7.5°	1609.0	1623.8	1632.3	1627.0	1629.3
10°	1591.1	1586.0	1605.0	1618.2	1616.3
12.5°	1571.9	1579.6	1580.6	1594.9	1596.2
15°	1572.9	1554.8	1564.4	1572.5	1573.2
17.5°	1511.8	1531.5	1538.1	1556.7	1533.6
20°	1504.4	1490.1	1504.4	1523.4	1520.4
22.5°	1458.4	1442.4	1473.2	1490.1	1489.0
25°	1406.3	1414.0	1437.1	1455.9	1452.9
27.5°	1360.6	1369.6	1402.5	1428.3	1411.7
30°	1325.3	1320.9	1348.6	1371.7	1384.5
32.5°	1262.3	1278.6	1311.0	1333.9	1321.7
35°	1224.1	1227.7	1256.1	1285.2	1284.3
37.5°	1157.2	1174.1	1214.0	1222.2	1214.7
40°	1100.2	1117.1	1153.2	1161.9	1158.3
42.5°	1058.1	1061.1	1092.1	1102.1	1086.1
45°	984.8	1003.2	1019.9	1046.1	1021.4
47.5°	922.4	931.0	966.9	973.9	960.9
50°	865.8	868.8	904.9	896.2	887.6
52.5°	794.7	807.3	827.6	825.9	815.8
55°	736.2	731.2	750.5	745.3	745.1
57.5°	665.9	674.4	690.2	682.1	669.1
60°	600.1	600.3	606.1	596.9	595.2
62.5°	526.8	529.4	530.7	519.3	537.7
65°	452.3	446.3	463.8	446.1	449.0
67.5°	383.7	386.7	385.0	373.8	378.1
70°	314.0	317.9	315.1	302.5	306.3
72.5°	250.4	245.7	248.7	232.9	240.1
75°	188.2	184.4	187.8	174.5	180.5
77.5°	128.2	131.2	129.0	122.0	126.0
80°	84.6	82.2	82.2	78.2	79.0
82.5°	49.3	47.0	46.4	45.1	47.0
85°	23.1	22.4	22.9	22.2	21.4
87.5°	8.3	8.5	8.5	8.1	7.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)