

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: METALUX

Report Number: P219028

Luminaire Tested: **24GR-LD5-48-F1-UNV-L930-CD1-U**

Issue Date: 3/12/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P219028  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35585)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/12/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-48-F1-UNV-L930-CD1-U  
Description: METALUX GR 2X4 LED TROFFER WITH F1 LENS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3886.2 lumens  
Efficiency: N/A  
Efficacy: 103.7 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.18 / 1.26  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

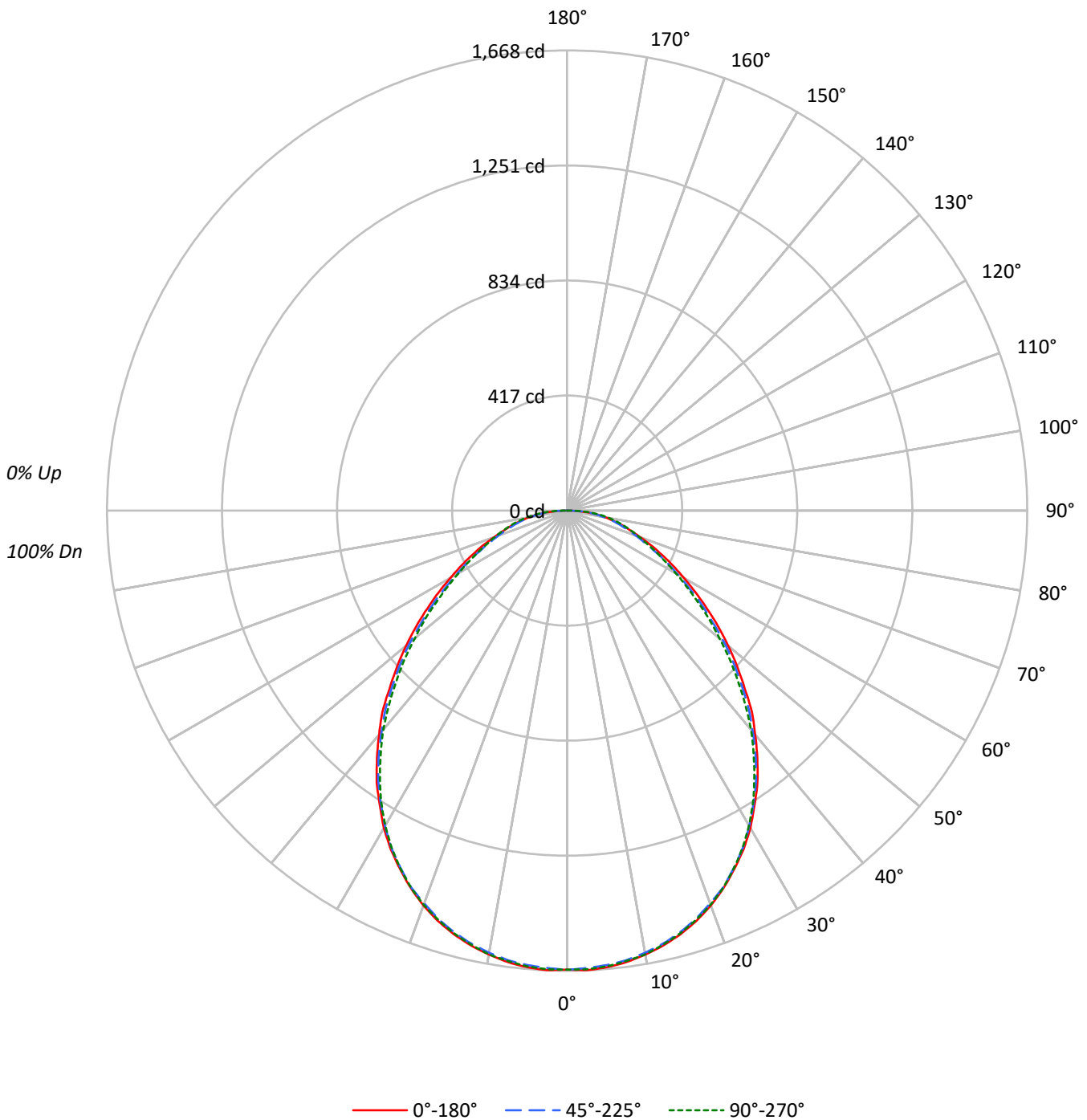
Input Watts (W): 37.486  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	105	101	97	107	103	99	96	98	95	93	94	92	90	91	89	87	85
2	100	92	86	80	98	90	85	80	87	82	78	84	80	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	85	73	65	58	82	72	64	58	69	63	57	67	61	57	65	60	56	54
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47
6	72	60	51	45	71	59	51	45	57	50	44	55	49	44	54	48	44	42
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39	37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	33
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2548	2548	2548
5°	2555	2543	2550
10°	2542	2531	2540
15°	2521	2509	2515
20°	2484	2469	2479
25°	2423	2415	2417
30°	2349	2336	2331
35°	2250	2232	2212
40°	2120	2093	2073
45°	1970	1935	1899
50°	1816	1769	1716
55°	1651	1594	1544
60°	1496	1417	1391
65°	1368	1277	1285
70°	1258	1186	1242
75°	1223	1159	1266
80°	1226	1194	1348
85°	1348	1274	1485



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	157.2	4.0
10°-20°	446.2	11.5
20°-30°	657.4	16.9
30°-40°	743.5	19.1
40°-50°	689.6	17.7
50°-60°	535.8	13.8
60°-70°	359.3	9.2
70°-80°	215.3	5.5
80°-90°	81.9	2.1
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°	1260.8	32.4
0°-40°	2004.3	51.6
0°-60°	3229.7	83.1
0°-90°	3886.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3886.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1664	1664	1664	1664	1664	
5°	1662	1657	1654	1652	1658	158
15°	1590	1583	1582	1579	1586	448
25°	1434	1432	1429	1427	1430	660
35°	1203	1198	1194	1186	1183	750
45°	910	906	893	880	877	703
55°	618	611	597	582	578	555
65°	377	366	352	351	355	377
75°	207	200	196	206	214	218
85°	77	72	72	85	84	80
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1663.9	1663.9	1663.9	1663.9	1663.9
2.5°	1667.5	1662.1	1659.7	1658.5	1663.9
5°	1661.5	1656.7	1653.7	1652.5	1658.5
7.5°	1650.7	1645.3	1643.5	1641.1	1647.1
10°	1634.5	1629.8	1627.4	1625.6	1633.4
12.5°	1614.2	1610.0	1607.6	1606.4	1611.1
15°	1589.6	1583.0	1582.4	1579.4	1586.0
17.5°	1559.1	1553.1	1551.8	1550.6	1554.9
20°	1523.7	1517.7	1514.7	1514.1	1520.7
22.5°	1481.2	1477.0	1478.1	1474.5	1479.4
25°	1433.9	1432.0	1429.0	1426.6	1430.2
27.5°	1384.7	1378.7	1378.7	1373.9	1377.5
30°	1328.4	1324.1	1320.6	1315.8	1318.1
32.5°	1264.8	1263.0	1257.6	1252.9	1254.1
35°	1203.1	1198.3	1193.6	1186.4	1182.8
37.5°	1132.4	1127.7	1121.7	1111.4	1110.3
40°	1060.5	1056.3	1046.7	1036.0	1036.6
42.5°	992.2	985.6	973.7	959.2	956.3
45°	909.5	905.9	893.4	879.6	876.6
47.5°	835.8	833.4	817.9	803.5	799.9
50°	762.1	755.5	742.3	728.0	720.2
52.5°	689.6	681.3	664.4	654.9	651.3
55°	618.4	611.1	596.8	581.8	578.2
57.5°	551.9	544.1	526.7	515.9	514.1
60°	488.3	481.2	462.6	454.8	454.2
62.5°	432.0	420.0	407.5	402.0	402.6
65°	377.4	365.5	352.4	351.1	354.7
67.5°	329.6	316.9	303.8	308.6	312.2
70°	281.0	272.0	264.9	272.6	277.4
72.5°	239.7	234.3	227.7	238.5	244.4
75°	206.7	199.5	195.9	205.5	213.9
77.5°	171.4	165.4	165.4	175.6	184.6
80°	139.0	134.8	135.4	147.4	152.8
82.5°	109.1	103.1	103.6	118.7	122.3
85°	76.7	71.9	72.5	85.1	84.5
87.5°	40.2	38.4	40.2	49.1	46.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)