

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: P225895

Luminaire Tested: **14GR-LD5-32-F1-UNV-L940-CD1-U**

Issue Date: 3/12/2020

Test Information

Test Method: LM-79-08
Report Number: P225895
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35602)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/12/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-32-F1-UNV-L940-CD1-U
Description: METALUX GR 1X4 LED TROFFER WITH F1 LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2848.3 lumens
Efficiency: N/A
Efficacy: 95.3 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.15 / 1.23
Luminous Opening: Rectangular (W 0.83' x L: 3.83' x H: 0')
CIE Type: Direct

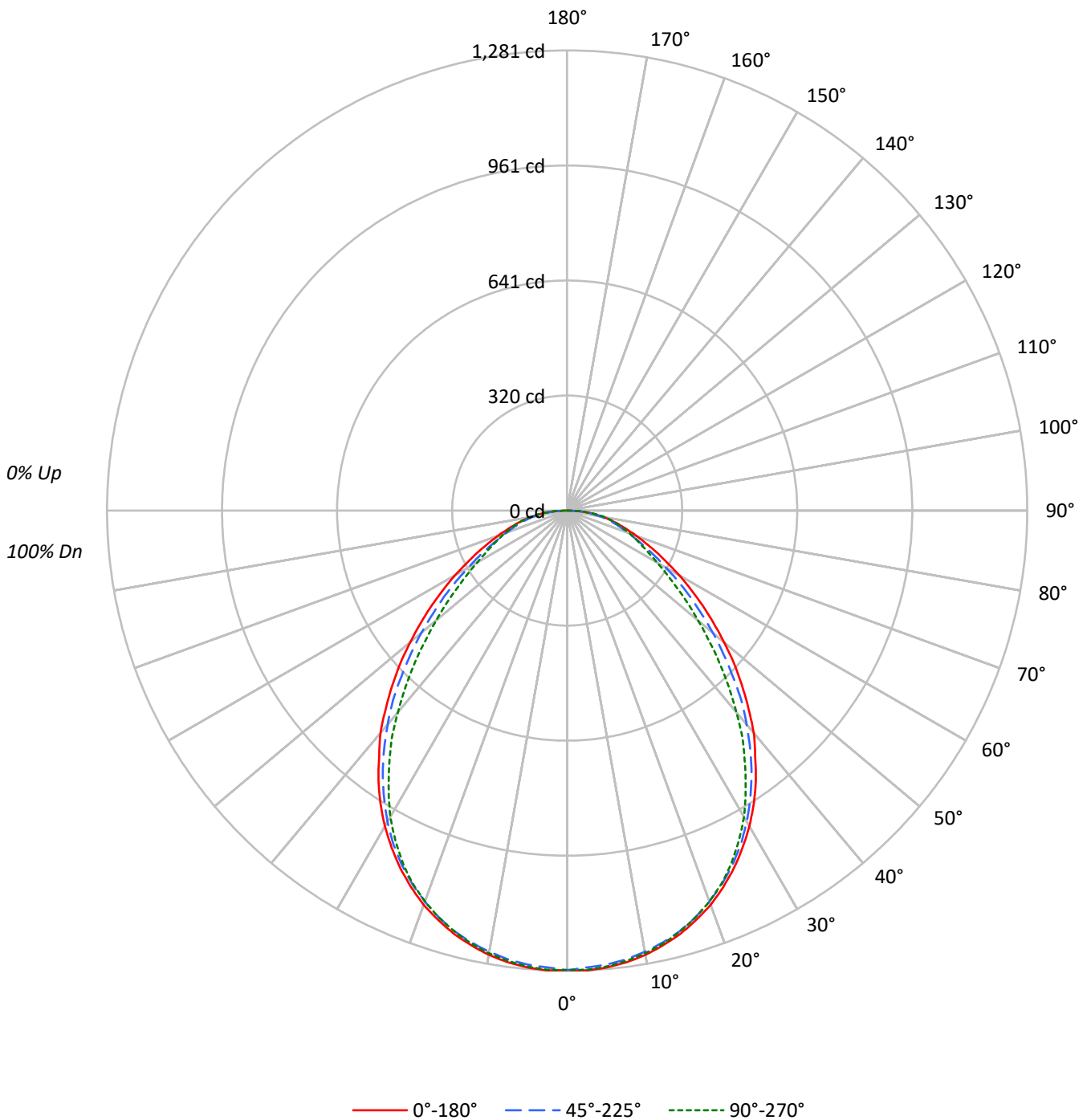
Input Watts (W): 29.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P225895

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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 | 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 | | | | | 100 | | | |
| 1 | 110 | 105 | 101 | 98 | 107 | 103 | 99 | 96 | 99 | 96 | 93 | 95 | 92 | 90 | 91 | 89 | 87 | | | | | 85 | | | | |
| 2 | 101 | 93 | 87 | 81 | 98 | 91 | 85 | 80 | 88 | 83 | 78 | 84 | 80 | 77 | 81 | 78 | 75 | | | | | 73 | | | | |
| 3 | 92 | 83 | 75 | 69 | 90 | 81 | 74 | 68 | 78 | 72 | 67 | 75 | 70 | 66 | 73 | 69 | 65 | | | | | 63 | | | | |
| 4 | 85 | 74 | 66 | 59 | 83 | 73 | 65 | 59 | 70 | 64 | 58 | 68 | 62 | 58 | 66 | 61 | 57 | | | | | 55 | | | | |
| 5 | 79 | 67 | 58 | 52 | 77 | 66 | 58 | 52 | 64 | 57 | 51 | 62 | 55 | 51 | 60 | 54 | 50 | | | | | 48 | | | | |
| 6 | 73 | 61 | 52 | 46 | 71 | 60 | 52 | 46 | 58 | 51 | 45 | 56 | 50 | 45 | 55 | 49 | 45 | | | | | 43 | | | | |
| 7 | 68 | 55 | 47 | 41 | 66 | 54 | 47 | 41 | 53 | 46 | 41 | 52 | 45 | 40 | 50 | 45 | 40 | | | | | 38 | | | | |
| 8 | 64 | 51 | 43 | 37 | 62 | 50 | 42 | 37 | 49 | 42 | 37 | 48 | 41 | 37 | 46 | 41 | 36 | | | | | 34 | | | | |
| 9 | 60 | 47 | 39 | 34 | 58 | 46 | 39 | 34 | 45 | 38 | 33 | 44 | 38 | 33 | 43 | 37 | 33 | | | | | 31 | | | | |
| 10 | 56 | 43 | 36 | 31 | 55 | 43 | 36 | 31 | 42 | 35 | 30 | 41 | 35 | 30 | 40 | 34 | 30 | | | | | 29 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 4310 | 4310 | 4310 |
| 5° | 4318 | 4291 | 4309 |
| 10° | 4297 | 4268 | 4281 |
| 15° | 4254 | 4228 | 4231 |
| 20° | 4189 | 4153 | 4151 |
| 25° | 4084 | 4047 | 4025 |
| 30° | 3948 | 3891 | 3831 |
| 35° | 3766 | 3681 | 3550 |
| 40° | 3556 | 3419 | 3223 |
| 45° | 3279 | 3108 | 2858 |
| 50° | 2987 | 2778 | 2496 |
| 55° | 2699 | 2457 | 2175 |
| 60° | 2428 | 2138 | 1944 |
| 65° | 2179 | 1908 | 1824 |
| 70° | 2012 | 1775 | 1808 |
| 75° | 1940 | 1756 | 1905 |
| 80° | 1948 | 1832 | 2065 |
| 85° | 2080 | 1902 | 2157 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 120.9 | 4.2 |
| 10°-20° | 342.3 | 12.0 |
| 20°-30° | 501.0 | 17.6 |
| 30°-40° | 556.8 | 19.5 |
| 40°-50° | 500.6 | 17.6 |
| 50°-60° | 374.3 | 13.1 |
| 60°-70° | 246.5 | 8.7 |
| 70°-80° | 149.9 | 5.3 |
| 80°-90° | 56.1 | 2.0 |
| 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° | 964.2 | 33.9 |
| 0°-40° | 1521.0 | 53.4 |
| 0°-60° | 2395.9 | 84.1 |
| 0°-90° | 2848.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2848.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1279 | 1279 | 1279 | 1279 | 1279 | |
| 5° | 1277 | 1274 | 1269 | 1275 | 1274 | 121 |
| 15° | 1219 | 1217 | 1212 | 1216 | 1213 | 343 |
| 25° | 1098 | 1096 | 1088 | 1086 | 1082 | 505 |
| 35° | 916 | 911 | 895 | 876 | 863 | 571 |
| 45° | 688 | 681 | 652 | 617 | 600 | 531 |
| 55° | 459 | 449 | 418 | 384 | 370 | 412 |
| 65° | 273 | 263 | 239 | 229 | 229 | 273 |
| 75° | 149 | 142 | 135 | 142 | 146 | 158 |
| 85° | 54 | 50 | 49 | 57 | 56 | 57 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P225895

CATALOG NUMBER: 14GR-LD5-32-F1-UNV-L940-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1279.2 | 1279.2 | 1279.2 | 1279.2 | 1279.2 |
| 2.5° | 1281.2 | 1278.6 | 1272.6 | 1279.9 | 1279.2 |
| 5° | 1276.6 | 1273.9 | 1268.7 | 1275.3 | 1273.9 |
| 7.5° | 1268.0 | 1264.6 | 1260.0 | 1266.6 | 1264.6 |
| 10° | 1256.0 | 1252.7 | 1247.3 | 1254.7 | 1251.3 |
| 12.5° | 1238.7 | 1236.7 | 1231.4 | 1236.7 | 1234.7 |
| 15° | 1219.4 | 1216.7 | 1212.1 | 1216.1 | 1212.8 |
| 17.5° | 1194.8 | 1192.1 | 1186.9 | 1192.1 | 1188.2 |
| 20° | 1168.2 | 1164.9 | 1158.2 | 1162.2 | 1157.6 |
| 22.5° | 1134.9 | 1131.7 | 1125.7 | 1127.6 | 1123.7 |
| 25° | 1098.4 | 1096.4 | 1088.4 | 1086.4 | 1082.5 |
| 27.5° | 1057.9 | 1054.5 | 1047.2 | 1043.3 | 1035.3 |
| 30° | 1014.6 | 1011.3 | 1000.0 | 993.4 | 984.7 |
| 32.5° | 967.4 | 962.1 | 948.8 | 937.5 | 924.8 |
| 35° | 915.6 | 910.9 | 894.9 | 875.7 | 863.0 |
| 37.5° | 859.7 | 857.1 | 837.1 | 813.1 | 803.2 |
| 40° | 808.5 | 798.5 | 777.3 | 748.0 | 732.7 |
| 42.5° | 747.3 | 740.7 | 718.1 | 685.5 | 666.2 |
| 45° | 688.2 | 680.9 | 652.3 | 617.0 | 599.8 |
| 47.5° | 630.3 | 622.4 | 589.8 | 555.2 | 535.3 |
| 50° | 569.8 | 563.1 | 529.9 | 491.4 | 476.1 |
| 52.5° | 513.3 | 504.6 | 470.1 | 435.5 | 422.2 |
| 55° | 459.4 | 449.4 | 418.2 | 383.6 | 370.3 |
| 57.5° | 408.2 | 396.3 | 366.4 | 336.4 | 327.8 |
| 60° | 360.3 | 347.1 | 317.2 | 295.2 | 288.5 |
| 62.5° | 313.8 | 303.8 | 277.3 | 260.7 | 256.6 |
| 65° | 273.3 | 263.3 | 239.3 | 229.4 | 228.8 |
| 67.5° | 236.1 | 226.1 | 207.4 | 204.8 | 206.1 |
| 70° | 204.2 | 195.5 | 180.2 | 181.5 | 183.5 |
| 72.5° | 174.2 | 166.2 | 157.0 | 160.2 | 164.3 |
| 75° | 149.0 | 142.3 | 134.9 | 141.6 | 146.3 |
| 77.5° | 125.0 | 118.3 | 114.4 | 121.0 | 126.3 |
| 80° | 100.4 | 95.7 | 94.4 | 101.7 | 106.4 |
| 82.5° | 77.8 | 73.8 | 71.8 | 81.1 | 83.1 |
| 85° | 53.8 | 49.9 | 49.2 | 57.2 | 55.8 |
| 87.5° | 28.6 | 25.3 | 25.3 | 29.9 | 26.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)