

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: METALUX

Report Number: P798246

Luminaire Tested: 24GRSCT3-A19 156-UNV-LOW-3000K

Issue Date: 3/16/2024

Test Information

Test Method: LM-79-2019
Report Number: P798246
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P293962)
Test Lab: INNOVATION CENTER
Issue Date: 3/16/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 24GRSCT3-A19 156-UNV-LOW-3000K
Description: GRLED Selectable
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

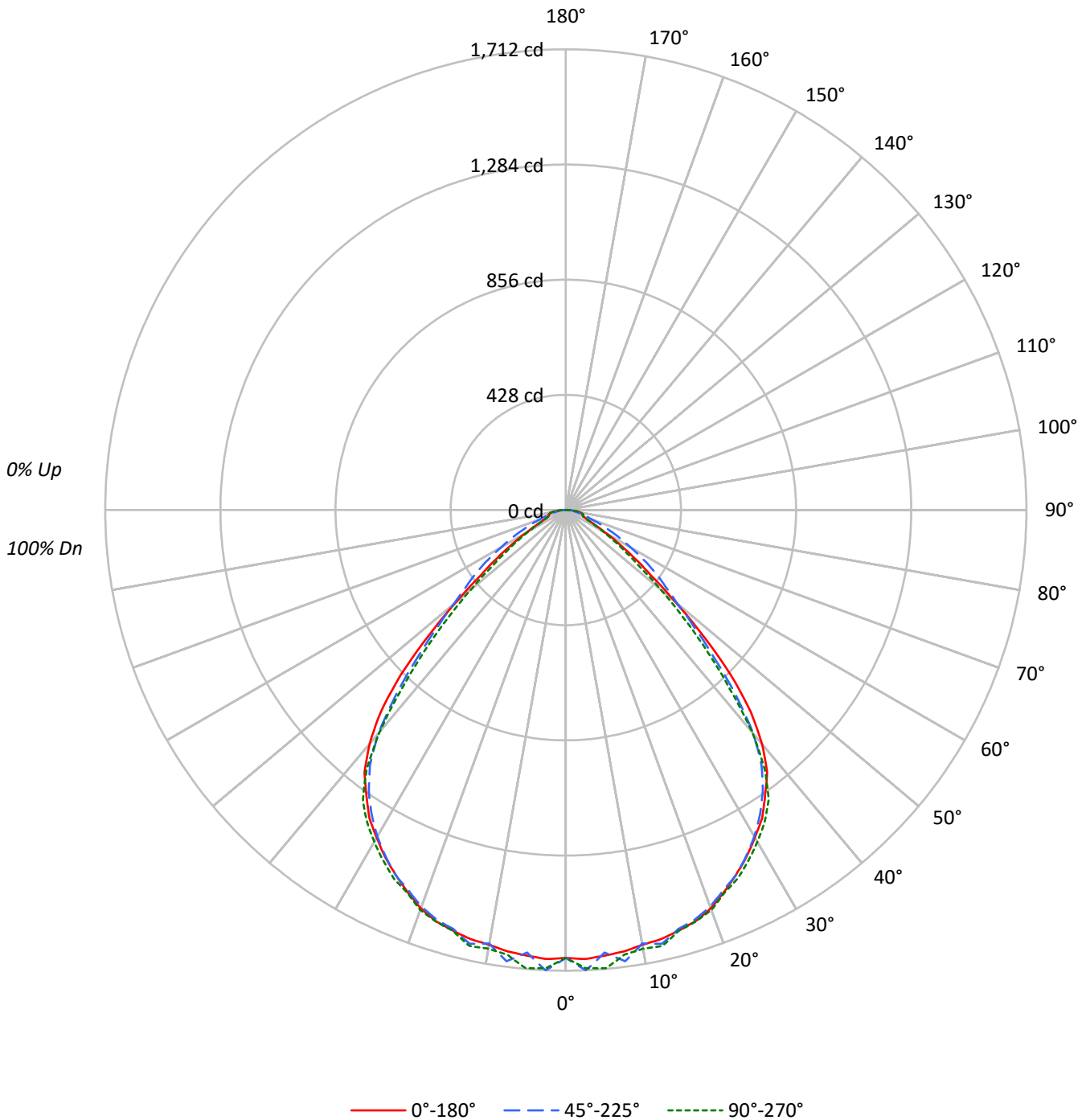
Lumens per Lamp: N/A
Luminaire Lumens: 3366.4 lumens
Efficiency: N/A
Efficacy: 138.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.25
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 24.3
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: 24 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 | 50 | 30 | 10 | 0 |
| RCR | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 102 | 102 | 102 | 100 |
| 1 | 111 | 107 | 103 | 100 | 108 | 105 | 102 | 99 | 101 | 98 | 96 | 97 | 95 | 93 | 93 | 92 | 90 | 90 | 90 | 90 | 88 |
| 2 | 103 | 96 | 90 | 86 | 100 | 94 | 89 | 85 | 91 | 86 | 83 | 88 | 84 | 81 | 85 | 82 | 79 | 79 | 79 | 79 | 77 |
| 3 | 95 | 86 | 79 | 74 | 93 | 85 | 78 | 73 | 82 | 77 | 72 | 79 | 75 | 71 | 77 | 73 | 70 | 70 | 70 | 70 | 68 |
| 4 | 88 | 78 | 71 | 65 | 86 | 77 | 70 | 64 | 74 | 68 | 64 | 72 | 67 | 63 | 70 | 66 | 62 | 62 | 62 | 62 | 60 |
| 5 | 82 | 71 | 63 | 57 | 80 | 70 | 62 | 57 | 68 | 61 | 56 | 66 | 60 | 56 | 64 | 59 | 55 | 55 | 55 | 55 | 53 |
| 6 | 76 | 65 | 57 | 51 | 75 | 64 | 56 | 51 | 62 | 55 | 50 | 60 | 55 | 50 | 59 | 54 | 50 | 50 | 50 | 50 | 48 |
| 7 | 71 | 59 | 51 | 46 | 70 | 58 | 51 | 46 | 57 | 50 | 45 | 56 | 50 | 45 | 54 | 49 | 45 | 45 | 45 | 45 | 43 |
| 8 | 67 | 55 | 47 | 42 | 65 | 54 | 47 | 41 | 53 | 46 | 41 | 51 | 45 | 41 | 50 | 45 | 41 | 41 | 41 | 41 | 39 |
| 9 | 63 | 50 | 43 | 38 | 61 | 50 | 43 | 38 | 49 | 42 | 38 | 48 | 42 | 37 | 47 | 41 | 37 | 37 | 37 | 37 | 36 |
| 10 | 59 | 47 | 39 | 35 | 58 | 46 | 39 | 35 | 45 | 39 | 34 | 44 | 38 | 34 | 44 | 38 | 34 | 34 | 34 | 34 | 33 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2240 | 2240 | 2240 |
| 5° | 2245 | 2230 | 2309 |
| 10° | 2241 | 2234 | 2262 |
| 15° | 2254 | 2246 | 2255 |
| 20° | 2256 | 2246 | 2265 |
| 25° | 2221 | 2222 | 2244 |
| 30° | 2184 | 2177 | 2212 |
| 35° | 2122 | 2097 | 2160 |
| 40° | 1993 | 1904 | 1894 |
| 45° | 1652 | 1495 | 1418 |
| 50° | 1111 | 1134 | 969 |
| 55° | 733 | 951 | 635 |
| 60° | 470 | 751 | 435 |
| 65° | 303 | 573 | 294 |
| 70° | 268 | 411 | 268 |
| 75° | 346 | 326 | 348 |
| 80° | 424 | 280 | 444 |
| 85° | 492 | 418 | 517 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 1653 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 159.4 | 4.7 |
| 10°-20° | 457.6 | 13.6 |
| 20°-30° | 689.0 | 20.5 |
| 30°-40° | 798.6 | 23.7 |
| 40°-50° | 623.8 | 18.5 |
| 50°-60° | 333.1 | 9.9 |
| 60°-70° | 171.3 | 5.1 |
| 70°-80° | 96.9 | 2.9 |
| 80°-90° | 36.8 | 1.1 |
| 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° | 1306.0 | 38.8 |
| 0°-40° | 2104.5 | 62.5 |
| 0°-60° | 3061.4 | 90.9 |
| 0°-90° | 3366.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3366.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1665 | 1665 | 1665 | 1665 | 1665 | |
| 5° | 1662 | 1708 | 1651 | 1696 | 1709 | 158 |
| 15° | 1618 | 1628 | 1613 | 1623 | 1619 | 457 |
| 25° | 1496 | 1491 | 1497 | 1495 | 1512 | 689 |
| 35° | 1292 | 1286 | 1276 | 1302 | 1315 | 806 |
| 45° | 868 | 869 | 786 | 778 | 745 | 654 |
| 55° | 312 | 395 | 406 | 366 | 271 | 288 |
| 65° | 95 | 198 | 180 | 198 | 92 | 105 |
| 75° | 66 | 125 | 63 | 117 | 67 | 67 |
| 85° | 32 | 42 | 27 | 42 | 34 | 33 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P798246

CATALOG NUMBER: 24GRSCT3-A19 156-UNV-LOW-3000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1664.6 | 1664.6 | 1664.6 | 1664.6 | 1664.6 |
| 2.5° | 1670.0 | 1700.3 | 1712.1 | 1697.5 | 1704.1 |
| 5° | 1661.9 | 1708.4 | 1651.0 | 1696.4 | 1709.4 |
| 7.5° | 1654.3 | 1649.4 | 1691.1 | 1647.8 | 1666.3 |
| 10° | 1640.3 | 1643.5 | 1635.3 | 1666.3 | 1655.4 |
| 12.5° | 1633.7 | 1652.7 | 1651.0 | 1635.3 | 1659.2 |
| 15° | 1618.1 | 1628.4 | 1612.7 | 1623.0 | 1619.1 |
| 17.5° | 1602.4 | 1597.5 | 1595.9 | 1600.2 | 1604.0 |
| 20° | 1575.4 | 1559.2 | 1568.9 | 1570.0 | 1581.9 |
| 22.5° | 1536.4 | 1526.8 | 1528.9 | 1538.6 | 1539.7 |
| 25° | 1496.0 | 1491.0 | 1496.9 | 1494.8 | 1511.5 |
| 27.5° | 1453.8 | 1447.2 | 1451.1 | 1459.1 | 1469.4 |
| 30° | 1405.7 | 1403.9 | 1401.3 | 1408.3 | 1424.0 |
| 32.5° | 1358.1 | 1345.1 | 1343.0 | 1357.6 | 1375.4 |
| 35° | 1292.1 | 1286.2 | 1276.4 | 1301.8 | 1314.8 |
| 37.5° | 1229.4 | 1211.0 | 1195.3 | 1210.5 | 1215.8 |
| 40° | 1134.8 | 1120.7 | 1084.0 | 1085.6 | 1078.1 |
| 42.5° | 1018.6 | 1008.3 | 937.9 | 925.6 | 904.4 |
| 45° | 868.2 | 868.8 | 785.6 | 778.5 | 745.0 |
| 47.5° | 693.6 | 724.5 | 652.0 | 643.8 | 594.1 |
| 50° | 530.9 | 586.6 | 541.7 | 528.7 | 462.8 |
| 52.5° | 398.5 | 480.1 | 466.0 | 437.9 | 347.0 |
| 55° | 312.5 | 395.1 | 405.5 | 365.5 | 270.8 |
| 57.5° | 235.2 | 325.5 | 342.2 | 309.2 | 209.3 |
| 60° | 174.6 | 274.1 | 279.0 | 266.0 | 161.6 |
| 62.5° | 129.7 | 233.0 | 226.6 | 228.2 | 120.0 |
| 65° | 95.1 | 198.4 | 180.1 | 197.9 | 92.5 |
| 67.5° | 77.8 | 171.9 | 140.0 | 171.4 | 75.2 |
| 70° | 68.1 | 152.5 | 104.4 | 150.9 | 68.1 |
| 72.5° | 65.9 | 140.0 | 82.7 | 134.1 | 66.5 |
| 75° | 66.5 | 124.9 | 62.7 | 116.7 | 67.0 |
| 77.5° | 61.1 | 102.8 | 47.6 | 99.4 | 63.8 |
| 80° | 54.7 | 77.8 | 36.2 | 78.9 | 57.3 |
| 82.5° | 46.5 | 56.8 | 29.2 | 58.4 | 48.1 |
| 85° | 31.9 | 41.7 | 27.1 | 41.7 | 33.5 |
| 87.5° | 15.1 | 24.9 | 16.8 | 23.7 | 17.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)