

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: P798136

Luminaire Tested: 14GRSCT3-A19 156-UNV-HIGH-3500K

Issue Date: 3/16/2024

Test Information

Test Method: LM-79-2019
Report Number: P798136
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P291376)
Test Lab: INNOVATION CENTER
Issue Date: 3/16/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 14GRSCT3-A19 156-UNV-HIGH-3500K
Description: GRLED Selectable
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

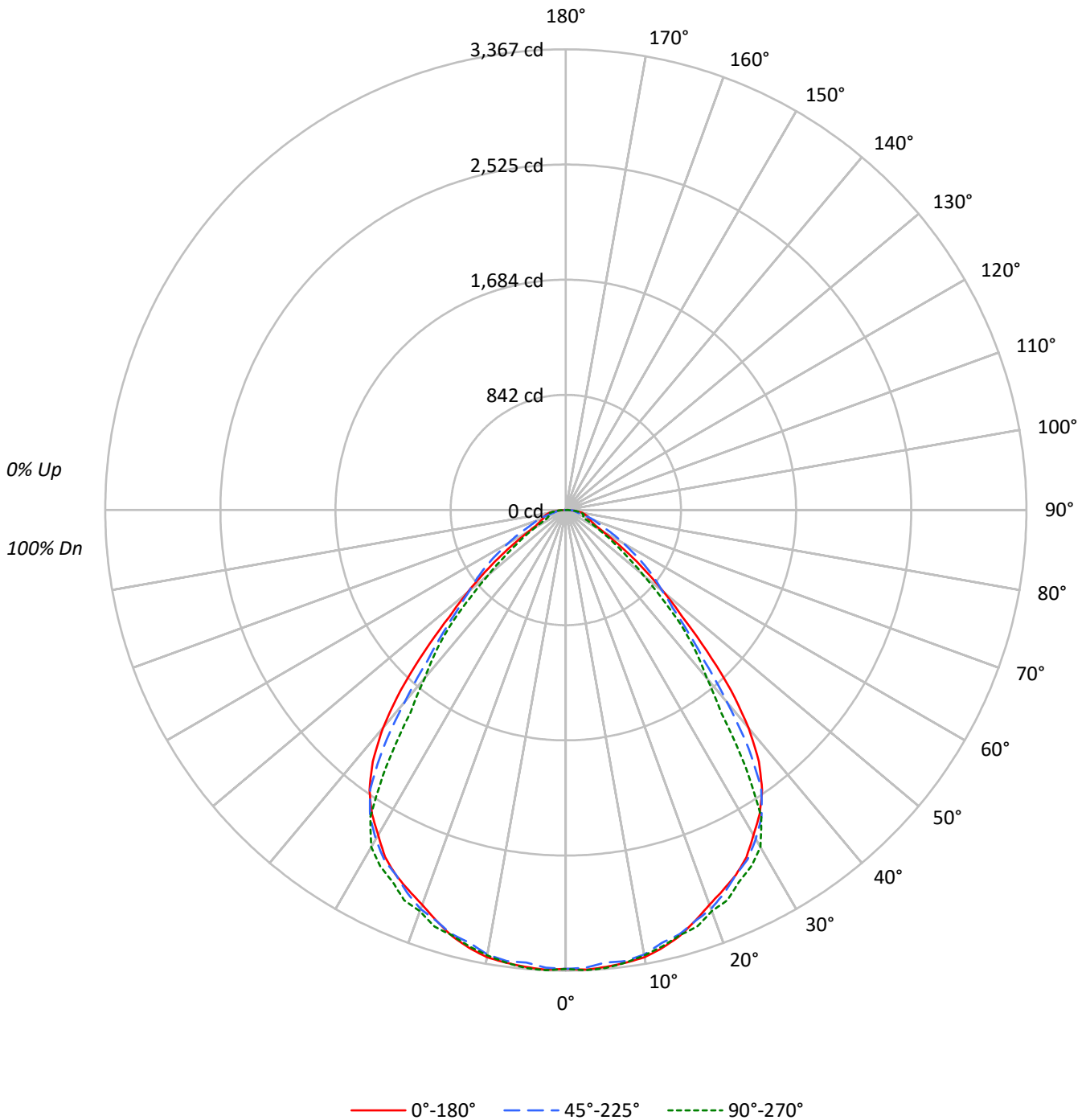
Lumens per Lamp: N/A
Luminaire Lumens: 6306.7 lumens
Efficiency: N/A
Efficacy: 126.1 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.23 / 1.18
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 50
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 | 104 | 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 | 87 | 83 | 88 | 84 | 81 | 85 | 82 | 79 | 79 | 79 | 79 | 77 |
| 3 | 95 | 87 | 80 | 74 | 93 | 85 | 79 | 74 | 82 | 77 | 73 | 80 | 75 | 71 | 77 | 73 | 70 | 70 | 70 | 70 | 68 |
| 4 | 89 | 79 | 71 | 65 | 87 | 77 | 70 | 65 | 75 | 69 | 64 | 73 | 68 | 63 | 71 | 66 | 63 | 63 | 63 | 63 | 61 |
| 5 | 83 | 71 | 64 | 58 | 81 | 70 | 63 | 58 | 68 | 62 | 57 | 67 | 61 | 57 | 65 | 60 | 56 | 56 | 56 | 56 | 54 |
| 6 | 77 | 65 | 58 | 52 | 75 | 64 | 57 | 52 | 63 | 56 | 51 | 61 | 55 | 51 | 60 | 55 | 51 | 51 | 51 | 51 | 49 |
| 7 | 72 | 60 | 52 | 47 | 70 | 59 | 52 | 47 | 58 | 51 | 46 | 56 | 51 | 46 | 55 | 50 | 46 | 46 | 46 | 46 | 44 |
| 8 | 67 | 55 | 48 | 43 | 66 | 55 | 47 | 42 | 53 | 47 | 42 | 52 | 46 | 42 | 51 | 46 | 42 | 42 | 42 | 42 | 40 |
| 9 | 63 | 51 | 44 | 39 | 62 | 51 | 44 | 39 | 50 | 43 | 39 | 49 | 43 | 38 | 48 | 42 | 38 | 38 | 38 | 38 | 37 |
| 10 | 60 | 48 | 40 | 36 | 58 | 47 | 40 | 36 | 46 | 40 | 35 | 45 | 39 | 35 | 44 | 39 | 35 | 35 | 35 | 35 | 34 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 9024 | 9024 | 9024 |
| 5° | 9055 | 8969 | 9075 |
| 10° | 9069 | 9014 | 9030 |
| 15° | 8977 | 8944 | 8964 |
| 20° | 8789 | 8885 | 8934 |
| 25° | 8735 | 8731 | 8898 |
| 30° | 8523 | 8626 | 8837 |
| 35° | 8218 | 8186 | 7522 |
| 40° | 7298 | 6440 | 5639 |
| 45° | 5538 | 4818 | 4560 |
| 50° | 3928 | 3856 | 3094 |
| 55° | 2688 | 3292 | 2127 |
| 60° | 1663 | 2626 | 1421 |
| 65° | 1369 | 2022 | 1028 |
| 70° | 1363 | 1762 | 1057 |
| 75° | 1637 | 1262 | 1412 |
| 80° | 1881 | 1164 | 1770 |
| 85° | 1778 | 2053 | 2001 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 5780 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 318.2 | 5.0 |
| 10°-20° | 908.2 | 14.4 |
| 20°-30° | 1365.8 | 21.7 |
| 30°-40° | 1488.9 | 23.6 |
| 40°-50° | 1042.6 | 16.5 |
| 50°-60° | 590.2 | 9.4 |
| 60°-70° | 322.9 | 5.1 |
| 70°-80° | 195.7 | 3.1 |
| 80°-90° | 74.2 | 1.2 |
| 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° | 2592.2 | 41.1 |
| 0°-40° | 4081.1 | 64.7 |
| 0°-60° | 5713.8 | 90.6 |
| 0°-90° | 6306.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 6306.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 3354 | 3354 | 3354 | 3354 | 3354 | |
| 5° | 3352 | 3346 | 3320 | 3359 | 3359 | 319 |
| 15° | 3222 | 3214 | 3211 | 3257 | 3218 | 906 |
| 25° | 2942 | 2948 | 2941 | 3009 | 2997 | 1351 |
| 35° | 2502 | 2490 | 2492 | 2364 | 2290 | 1542 |
| 45° | 1455 | 1519 | 1266 | 1250 | 1198 | 1130 |
| 55° | 573 | 686 | 702 | 696 | 453 | 524 |
| 65° | 215 | 354 | 318 | 401 | 162 | 221 |
| 75° | 157 | 227 | 121 | 238 | 136 | 163 |
| 85° | 58 | 94 | 66 | 81 | 65 | 64 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P798136

CATALOG NUMBER: 14GRSCT3-A19 156-UNV-HIGH-3500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 3353.6 | 3353.6 | 3353.6 | 3353.6 | 3353.6 |
| 2.5° | 3362.1 | 3358.0 | 3347.7 | 3368.0 | 3366.6 |
| 5° | 3352.2 | 3346.4 | 3320.3 | 3359.4 | 3359.4 |
| 7.5° | 3337.8 | 3323.4 | 3324.8 | 3346.4 | 3336.4 |
| 10° | 3318.9 | 3294.2 | 3298.7 | 3304.5 | 3304.5 |
| 12.5° | 3275.7 | 3252.4 | 3241.1 | 3259.6 | 3265.4 |
| 15° | 3222.2 | 3213.6 | 3210.6 | 3256.9 | 3217.8 |
| 17.5° | 3147.1 | 3166.0 | 3148.5 | 3186.2 | 3192.0 |
| 20° | 3069.3 | 3105.3 | 3102.5 | 3128.3 | 3119.7 |
| 22.5° | 3005.8 | 3028.8 | 3028.8 | 3060.7 | 3086.4 |
| 25° | 2942.0 | 2947.9 | 2940.7 | 3008.6 | 2996.9 |
| 27.5° | 2859.7 | 2855.6 | 2878.6 | 2913.2 | 2936.2 |
| 30° | 2742.8 | 2744.5 | 2776.1 | 2822.4 | 2844.0 |
| 32.5° | 2636.1 | 2623.1 | 2662.2 | 2682.4 | 2659.1 |
| 35° | 2501.7 | 2490.4 | 2491.8 | 2364.5 | 2289.8 |
| 37.5° | 2318.6 | 2328.5 | 2195.8 | 1963.3 | 1865.2 |
| 40° | 2077.5 | 2097.7 | 1833.3 | 1660.1 | 1605.3 |
| 42.5° | 1785.7 | 1791.5 | 1502.7 | 1446.5 | 1410.5 |
| 45° | 1455.1 | 1518.9 | 1266.1 | 1250.3 | 1198.2 |
| 47.5° | 1153.6 | 1271.9 | 1061.0 | 1071.3 | 947.2 |
| 50° | 938.3 | 1056.6 | 921.1 | 925.2 | 739.0 |
| 52.5° | 742.1 | 857.7 | 812.8 | 799.7 | 580.2 |
| 55° | 573.0 | 685.9 | 701.6 | 695.8 | 453.4 |
| 57.5° | 421.5 | 542.9 | 589.2 | 610.8 | 349.5 |
| 60° | 309.0 | 443.1 | 488.0 | 531.2 | 264.1 |
| 62.5° | 245.5 | 384.1 | 399.9 | 463.3 | 205.1 |
| 65° | 215.0 | 353.6 | 317.6 | 401.2 | 161.5 |
| 67.5° | 192.0 | 336.4 | 258.6 | 355.3 | 141.6 |
| 70° | 173.2 | 303.2 | 223.9 | 317.6 | 134.4 |
| 72.5° | 173.2 | 265.8 | 176.3 | 281.5 | 135.8 |
| 75° | 157.4 | 226.7 | 121.4 | 238.3 | 135.8 |
| 77.5° | 139.9 | 193.4 | 90.9 | 193.4 | 126.9 |
| 80° | 121.4 | 151.6 | 75.1 | 148.8 | 114.2 |
| 82.5° | 89.5 | 114.2 | 64.8 | 111.1 | 92.2 |
| 85° | 57.6 | 94.0 | 66.5 | 80.9 | 64.8 |
| 87.5° | 27.4 | 47.7 | 41.8 | 40.5 | 33.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)