

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: AMETRIX

Report Number: P189149

Luminaire Tested: A12-SI-A-1-LED-40K-D-120-S

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2019
Report Number: P189149
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (ITL87330-GONIOPHOTOMETRY)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: AMETRIX
Catalog Number: A12-SI-A-1-LED-40K-D-120-S
Description: ARROWLINEAR LED LUMINAIRE, EXTRA SMALL HOUSING
12-FOOT LONG EXTRUDED HOUSING WITH WHITE REFLECTOR AND FROSTED LENS
Light Source: (364) 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

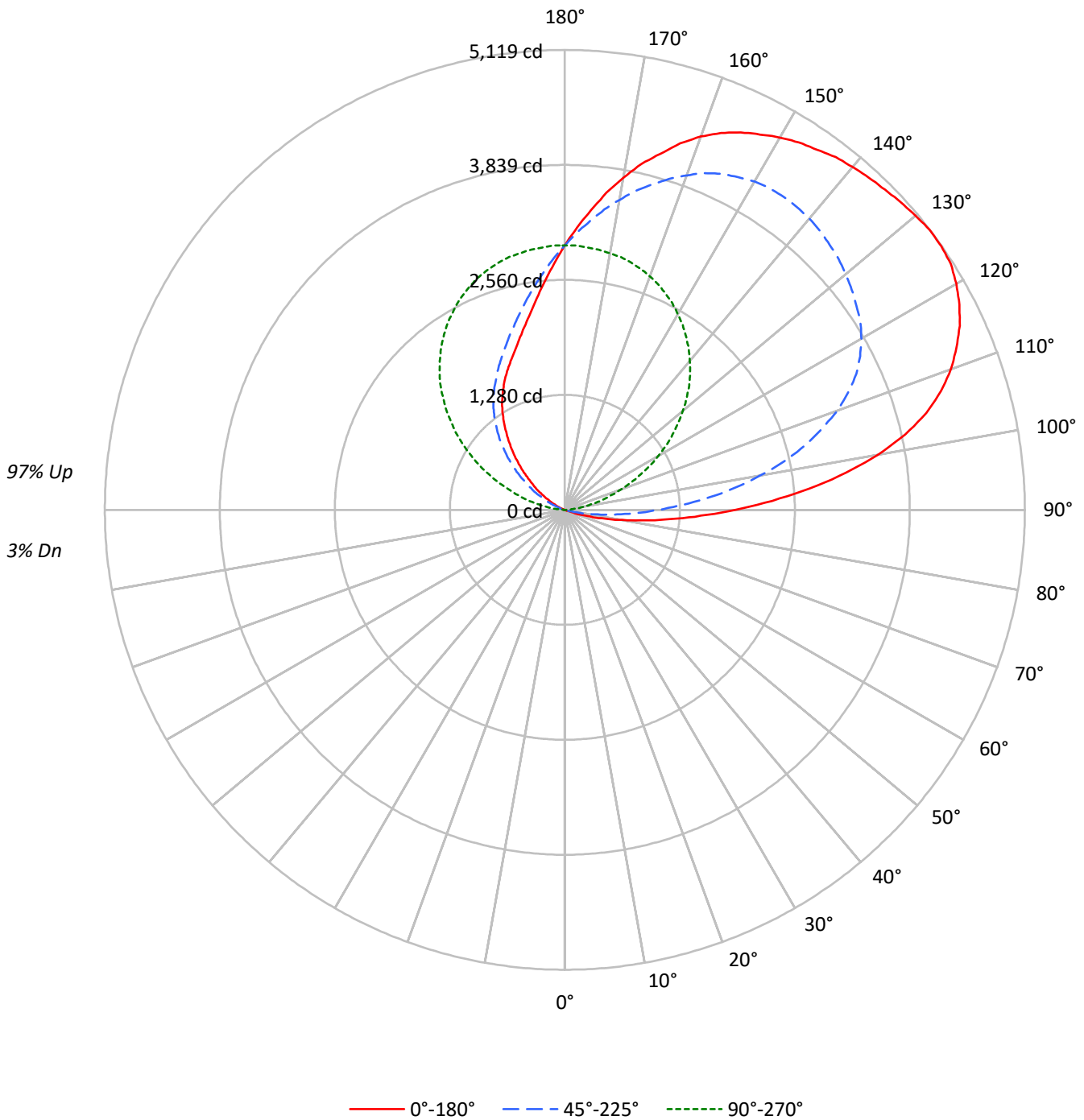
Lumens per Lamp: N/A
Luminaire Lumens: 12514.2 lumens
Efficiency: N/A
Efficacy: 103.3 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular w/ Sides (W: 12.5' x L: 0.29' x H: 0.11')
CIE Type: Indirect

Input Watts (W): 121.1
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: 24 FT



TEST NUMBER: P189149
CATALOG NUMBER: A12-SI-A-1-LED-40K-D-120-S

Luminous Intensity Polar Plot





TEST NUMBER: P189149

CATALOG NUMBER: A12-SI-A-1-LED-40K-D-120-S

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 | 96 | 96 | 96 | 96 | 82 | 82 | 82 | 82 | 57 | 57 | 57 | 34 | 34 | 34 | 13 | 13 | 13 | 3 |
| 1 | 86 | 82 | 78 | 74 | 74 | 70 | 67 | 64 | 48 | 46 | 45 | 28 | 27 | 26 | 10 | 9 | 9 | 1 |
| 2 | 78 | 71 | 65 | 60 | 67 | 61 | 56 | 52 | 42 | 39 | 36 | 25 | 23 | 21 | 8 | 8 | 7 | 0 |
| 3 | 71 | 62 | 55 | 50 | 61 | 54 | 48 | 43 | 37 | 33 | 30 | 22 | 20 | 18 | 7 | 7 | 6 | 0 |
| 4 | 65 | 55 | 47 | 42 | 55 | 47 | 41 | 36 | 33 | 29 | 26 | 19 | 17 | 15 | 7 | 6 | 5 | 0 |
| 5 | 59 | 49 | 41 | 35 | 51 | 42 | 36 | 31 | 29 | 25 | 22 | 17 | 15 | 13 | 6 | 5 | 4 | 0 |
| 6 | 55 | 43 | 36 | 30 | 46 | 37 | 31 | 26 | 26 | 22 | 19 | 15 | 13 | 11 | 5 | 4 | 4 | 0 |
| 7 | 50 | 39 | 31 | 26 | 43 | 33 | 27 | 23 | 23 | 19 | 16 | 14 | 11 | 10 | 5 | 4 | 3 | 0 |
| 8 | 46 | 35 | 28 | 23 | 40 | 30 | 24 | 20 | 21 | 17 | 14 | 12 | 10 | 8 | 4 | 3 | 3 | 0 |
| 9 | 43 | 32 | 25 | 20 | 37 | 27 | 21 | 17 | 19 | 15 | 12 | 11 | 9 | 7 | 4 | 3 | 2 | 0 |
| 10 | 40 | 29 | 22 | 17 | 34 | 25 | 19 | 15 | 17 | 13 | 11 | 10 | 8 | 7 | 4 | 3 | 2 | 0 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° | 135° | 180° |
|-----|------|------|-----|------|------|
| 0° | 0 | 0 | 0 | 0 | 0 |
| 5° | 0 | 0 | 0 | 0 | 0 |
| 10° | 0 | 0 | 0 | 0 | 0 |
| 15° | 0 | 0 | 0 | 0 | 0 |
| 20° | 0 | 0 | 0 | 0 | 0 |
| 25° | 0 | 0 | 0 | 0 | 0 |
| 30° | 0 | 0 | 0 | 0 | 0 |
| 35° | 0 | 0 | 0 | 0 | 0 |
| 40° | 0 | 0 | 0 | 0 | 0 |
| 45° | 0 | 0 | 0 | 0 | 0 |
| 50° | 0 | 0 | 0 | 0 | 0 |
| 55° | 0 | 0 | 0 | 0 | 0 |
| 60° | 0 | 0 | 0 | 0 | 0 |
| 65° | 0 | 0 | 0 | 0 | 0 |
| 70° | 270 | 0 | 0 | 0 | 0 |
| 75° | 1385 | 216 | 0 | 0 | 0 |
| 80° | 3577 | 1654 | 0 | 0 | 0 |
| 85° | 7601 | 4852 | 0 | 0 | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 14901 cd/sqm



TEST NUMBER: P189149

CATALOG NUMBER: A12-SI-A-1-LED-40K-D-120-S

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 0.0 | 0.0 |
| 10°-20° | 0.0 | 0.0 |
| 20°-30° | 0.0 | 0.0 |
| 30°-40° | 0.0 | 0.0 |
| 40°-50° | 0.0 | 0.0 |
| 50°-60° | 0.0 | 0.0 |
| 60°-70° | 1.0 | 0.0 |
| 70°-80° | 62.4 | 0.5 |
| 80°-90° | 324.7 | 2.6 |
| 90°-100° | 839.7 | 6.7 |
| 100°-110° | 1399.0 | 11.2 |
| 110°-120° | 1781.7 | 14.2 |
| 120°-130° | 1966.3 | 15.7 |
| 130°-140° | 1943.1 | 15.5 |
| 140°-150° | 1734.4 | 13.9 |
| 150°-160° | 1345.6 | 10.8 |
| 160°-170° | 835.3 | 6.7 |
| 170°-180° | 281.0 | 2.2 |
| 0°-30° | 0.0 | 0.0 |
| 0°-40° | 0.0 | 0.0 |
| 0°-60° | 0.0 | 0.0 |
| 0°-90° | 388.1 | 3.1 |
| 90°-120° | 4020.4 | 32.1 |
| 90°-150° | 9664.2 | 77.2 |
| 90°-180° | 12126.0 | 96.9 |
| 0°-180° | 12514.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|------|------|------|------|------|------|------|
| 0° | 0 | 0 | 0 | 0 | 0 | |
| 5° | 0 | 0 | 0 | 0 | 0 | 0 |
| 15° | 0 | 0 | 0 | 0 | 0 | 0 |
| 25° | 0 | 0 | 0 | 0 | 0 | 0 |
| 35° | 0 | 0 | 0 | 0 | 0 | 0 |
| 45° | 0 | 0 | 0 | 0 | 0 | 0 |
| 55° | 0 | 0 | 0 | 0 | 0 | 0 |
| 65° | 0 | 0 | 0 | 0 | 0 | 8 |
| 75° | 289 | 38 | 0 | 0 | 0 | 335 |
| 85° | 1182 | 585 | 0 | 0 | 0 | 861 |
| 90° | 1893 | 1044 | 0 | 0 | 0 | 1043 |
| 95° | 2736 | 1623 | 76 | 6 | 6 | 2400 |
| 105° | 4163 | 2767 | 440 | 19 | 25 | 4357 |
| 115° | 4849 | 3578 | 931 | 201 | 76 | 4791 |
| 125° | 5113 | 3962 | 1465 | 541 | 340 | 4573 |
| 135° | 5038 | 4170 | 1956 | 962 | 723 | 3904 |
| 145° | 4893 | 4251 | 2352 | 1384 | 1176 | 3077 |
| 155° | 4635 | 4126 | 2654 | 1748 | 1585 | 2144 |
| 165° | 4100 | 3748 | 2849 | 2144 | 1962 | 1172 |
| 175° | 3346 | 3226 | 2931 | 2660 | 2553 | 332 |
| 180° | 2943 | 2943 | 2943 | 2943 | 2943 | |



TEST NUMBER: P189149

CATALOG NUMBER: A12-SI-A-1-LED-40K-D-120-S

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|
| 0° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 7.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 10° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 12.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 15° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 17.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 20° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 22.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 25° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 27.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 32.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 35° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 37.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 40° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 42.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 45° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 47.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 50° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 52.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 57.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 62.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 65° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 62.9 | 69.2 | 50.3 | 18.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 157.2 | 157.2 | 132.1 | 88.0 | 31.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 289.3 | 289.3 | 257.8 | 201.2 | 119.5 | 37.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 452.8 | 446.5 | 408.8 | 339.6 | 239.0 | 125.8 | 18.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 654.1 | 647.8 | 603.7 | 515.7 | 396.2 | 245.3 | 94.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 893.0 | 886.7 | 830.1 | 729.5 | 584.9 | 402.5 | 201.2 | 44.0 | 0.0 | 0.0 | 0.0 |
| 85° | 1182.3 | 1176.0 | 1106.9 | 987.4 | 817.6 | 584.9 | 333.3 | 132.1 | 12.6 | 0.0 | 0.0 |
| 87.5° | 1515.6 | 1490.5 | 1427.6 | 1282.9 | 1062.8 | 798.7 | 496.8 | 239.0 | 56.6 | 0.0 | 0.0 |
| 90° | 1893.0 | 1867.8 | 1792.4 | 1622.6 | 1358.4 | 1044.0 | 691.8 | 371.0 | 132.1 | 12.6 | 0.0 |
| 92.5° | 2308.0 | 2301.8 | 2188.6 | 1987.3 | 1679.2 | 1314.4 | 918.2 | 528.3 | 232.7 | 62.9 | 25.2 |
| 95° | 2735.7 | 2729.4 | 2603.6 | 2370.9 | 2025.0 | 1622.6 | 1150.9 | 704.4 | 358.5 | 138.4 | 75.5 |
| 97.5° | 3157.1 | 3150.8 | 2993.5 | 2754.6 | 2370.9 | 1924.4 | 1402.4 | 899.3 | 496.8 | 232.7 | 150.9 |
| 100° | 3540.7 | 3528.1 | 3364.6 | 3113.0 | 2710.5 | 2213.7 | 1654.0 | 1094.3 | 641.5 | 333.3 | 232.7 |
| 102.5° | 3880.3 | 3855.1 | 3697.9 | 3433.8 | 3025.0 | 2503.0 | 1899.3 | 1295.5 | 805.0 | 452.8 | 333.3 |
| 105° | 4163.3 | 4131.8 | 3987.2 | 3716.8 | 3295.4 | 2767.1 | 2144.5 | 1503.1 | 968.5 | 578.6 | 440.2 |
| 107.5° | 4389.7 | 4364.5 | 4213.6 | 3955.8 | 3540.7 | 2999.8 | 2377.2 | 1704.3 | 1138.3 | 710.7 | 547.1 |
| 110° | 4572.1 | 4553.2 | 4414.9 | 4157.0 | 3748.2 | 3226.2 | 2591.1 | 1905.6 | 1314.4 | 855.3 | 672.9 |



TEST NUMBER: P189149

CATALOG NUMBER: A12-SI-A-1-LED-40K-D-120-S

CANDELA DISTRIBUTION (continued):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 112.5° | 4716.7 | 4704.1 | 4572.1 | 4314.2 | 3930.6 | 3414.9 | 2779.7 | 2094.2 | 1484.2 | 999.9 | 798.7 |
| 115° | 4848.8 | 4836.2 | 4710.4 | 4465.2 | 4081.5 | 3578.4 | 2955.8 | 2276.6 | 1660.3 | 1144.6 | 930.8 |
| 117.5° | 4949.4 | 4936.8 | 4811.1 | 4572.1 | 4201.0 | 3704.2 | 3100.5 | 2446.4 | 1842.7 | 1295.5 | 1069.1 |
| 120° | 5031.2 | 5012.3 | 4899.1 | 4666.4 | 4301.6 | 3811.1 | 3226.2 | 2609.9 | 2012.5 | 1446.5 | 1201.2 |
| 122.5° | 5094.1 | 5075.2 | 4968.3 | 4729.3 | 4377.1 | 3899.2 | 3345.7 | 2767.1 | 2176.0 | 1591.1 | 1339.5 |
| 125° | 5112.9 | 5100.3 | 4999.7 | 4760.7 | 4414.9 | 3962.0 | 3452.6 | 2905.5 | 2320.6 | 1735.8 | 1465.3 |
| 127.5° | 5119.2 | 5106.6 | 5006.0 | 4773.3 | 4446.3 | 4024.9 | 3547.0 | 3031.3 | 2459.0 | 1867.8 | 1591.1 |
| 130° | 5094.1 | 5094.1 | 4993.4 | 4773.3 | 4465.2 | 4081.5 | 3635.0 | 3150.8 | 2578.5 | 1993.6 | 1716.9 |
| 132.5° | 5068.9 | 5062.6 | 4974.6 | 4767.0 | 4484.0 | 4131.8 | 3716.8 | 3251.4 | 2691.7 | 2113.1 | 1836.4 |
| 135° | 5037.5 | 5037.5 | 4955.7 | 4767.0 | 4502.9 | 4169.6 | 3786.0 | 3339.4 | 2786.0 | 2220.0 | 1955.9 |
| 137.5° | 5012.3 | 5012.3 | 4936.8 | 4760.7 | 4515.5 | 4207.3 | 3848.8 | 3408.6 | 2880.3 | 2326.9 | 2062.8 |
| 140° | 4980.9 | 4980.9 | 4905.4 | 4748.2 | 4521.8 | 4232.5 | 3886.6 | 3465.2 | 2943.2 | 2421.2 | 2163.4 |
| 142.5° | 4949.4 | 4949.4 | 4873.9 | 4729.3 | 4521.8 | 4245.0 | 3924.3 | 3509.2 | 3012.4 | 2509.3 | 2264.0 |
| 145° | 4892.8 | 4899.1 | 4836.2 | 4697.9 | 4502.9 | 4251.3 | 3936.9 | 3534.4 | 3062.7 | 2591.1 | 2352.1 |
| 147.5° | 4848.8 | 4848.8 | 4792.2 | 4660.1 | 4477.7 | 4245.0 | 3936.9 | 3547.0 | 3106.7 | 2660.2 | 2440.1 |
| 150° | 4785.9 | 4785.9 | 4729.3 | 4622.4 | 4452.6 | 4219.9 | 3930.6 | 3553.3 | 3138.2 | 2723.1 | 2515.6 |
| 152.5° | 4710.4 | 4716.7 | 4660.1 | 4559.5 | 4396.0 | 4175.9 | 3892.9 | 3540.7 | 3157.1 | 2779.7 | 2591.1 |
| 155° | 4635.0 | 4641.3 | 4590.9 | 4490.3 | 4333.1 | 4125.6 | 3855.1 | 3528.1 | 3175.9 | 2830.0 | 2653.9 |
| 157.5° | 4540.6 | 4546.9 | 4496.6 | 4396.0 | 4251.3 | 4056.4 | 3792.2 | 3503.0 | 3188.5 | 2867.8 | 2716.8 |
| 160° | 4421.1 | 4427.4 | 4370.8 | 4282.8 | 4144.4 | 3962.0 | 3729.4 | 3465.2 | 3182.2 | 2905.5 | 2767.1 |
| 162.5° | 4276.5 | 4276.5 | 4232.5 | 4150.7 | 4018.6 | 3861.4 | 3653.9 | 3421.2 | 3175.9 | 2930.7 | 2811.2 |
| 165° | 4100.4 | 4113.0 | 4075.2 | 3999.8 | 3886.6 | 3748.2 | 3565.8 | 3364.6 | 3157.1 | 2949.5 | 2848.9 |
| 167.5° | 3943.2 | 3936.9 | 3905.4 | 3848.8 | 3748.2 | 3635.0 | 3477.8 | 3308.0 | 3138.2 | 2968.4 | 2880.3 |
| 170° | 3754.5 | 3748.2 | 3723.1 | 3672.8 | 3597.3 | 3503.0 | 3377.2 | 3245.1 | 3113.0 | 2968.4 | 2899.2 |
| 172.5° | 3559.6 | 3547.0 | 3528.1 | 3496.7 | 3440.1 | 3370.9 | 3276.5 | 3175.9 | 3075.3 | 2968.4 | 2918.1 |
| 175° | 3345.7 | 3345.7 | 3333.1 | 3308.0 | 3270.3 | 3226.2 | 3163.3 | 3094.2 | 3031.3 | 2962.1 | 2930.7 |
| 177.5° | 3144.5 | 3144.5 | 3138.2 | 3125.6 | 3106.7 | 3087.9 | 3056.4 | 3025.0 | 2993.5 | 2955.8 | 2943.2 |
| 180° | 2943.2 | 2943.2 | 2943.2 | 2943.2 | 2943.2 | 2943.2 | 2943.2 | 2943.2 | 2943.2 | 2943.2 | 2943.2 |



TEST NUMBER: P189149

CATALOG NUMBER: A12-SI-A-1-LED-40K-D-120-S

CANDELA DISTRIBUTION (continued):

| | 112.5° | 135° | 157.5° | 180° |
|--------|--------|------|--------|------|
| 0° | 0.0 | 0.0 | 0.0 | 0.0 |
| 2.5° | 0.0 | 0.0 | 0.0 | 0.0 |
| 5° | 0.0 | 0.0 | 0.0 | 0.0 |
| 7.5° | 0.0 | 0.0 | 0.0 | 0.0 |
| 10° | 0.0 | 0.0 | 0.0 | 0.0 |
| 12.5° | 0.0 | 0.0 | 0.0 | 0.0 |
| 15° | 0.0 | 0.0 | 0.0 | 0.0 |
| 17.5° | 0.0 | 0.0 | 0.0 | 0.0 |
| 20° | 0.0 | 0.0 | 0.0 | 0.0 |
| 22.5° | 0.0 | 0.0 | 0.0 | 0.0 |
| 25° | 0.0 | 0.0 | 0.0 | 0.0 |
| 27.5° | 0.0 | 0.0 | 0.0 | 0.0 |
| 30° | 0.0 | 0.0 | 0.0 | 0.0 |
| 32.5° | 0.0 | 0.0 | 0.0 | 0.0 |
| 35° | 0.0 | 0.0 | 0.0 | 0.0 |
| 37.5° | 0.0 | 0.0 | 0.0 | 0.0 |
| 40° | 0.0 | 0.0 | 0.0 | 0.0 |
| 42.5° | 0.0 | 0.0 | 0.0 | 0.0 |
| 45° | 0.0 | 0.0 | 0.0 | 0.0 |
| 47.5° | 0.0 | 0.0 | 0.0 | 0.0 |
| 50° | 0.0 | 0.0 | 0.0 | 0.0 |
| 52.5° | 0.0 | 0.0 | 0.0 | 0.0 |
| 55° | 0.0 | 0.0 | 0.0 | 0.0 |
| 57.5° | 0.0 | 0.0 | 0.0 | 0.0 |
| 60° | 0.0 | 0.0 | 0.0 | 0.0 |
| 62.5° | 0.0 | 0.0 | 0.0 | 0.0 |
| 65° | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 |
| 92.5° | 0.0 | 0.0 | 6.3 | 6.3 |
| 95° | 0.0 | 6.3 | 6.3 | 6.3 |
| 97.5° | 6.3 | 6.3 | 12.6 | 12.6 |
| 100° | 18.9 | 12.6 | 12.6 | 12.6 |
| 102.5° | 62.9 | 18.9 | 18.9 | 18.9 |
| 105° | 113.2 | 18.9 | 25.2 | 25.2 |
| 107.5° | 182.4 | 37.7 | 25.2 | 25.2 |
| 110° | 257.8 | 75.5 | 31.4 | 31.4 |

TEST NUMBER: P189149

CATALOG NUMBER: A12-SI-A-1-LED-40K-D-120-S

CANDELA DISTRIBUTION (continued):

| | 112.5° | 135° | 157.5° | 180° |
|--------|--------|--------|--------|--------|
| 112.5° | 339.6 | 132.1 | 56.6 | 44.0 |
| 115° | 427.6 | 201.2 | 100.6 | 75.5 |
| 117.5° | 522.0 | 270.4 | 163.5 | 125.8 |
| 120° | 622.6 | 352.2 | 226.4 | 188.7 |
| 122.5° | 729.5 | 446.5 | 308.2 | 257.8 |
| 125° | 830.1 | 540.9 | 389.9 | 339.6 |
| 127.5° | 937.1 | 641.5 | 478.0 | 427.6 |
| 130° | 1044.0 | 748.4 | 572.3 | 515.7 |
| 132.5° | 1150.9 | 855.3 | 679.2 | 616.3 |
| 135° | 1257.8 | 962.2 | 786.1 | 723.2 |
| 137.5° | 1358.4 | 1075.4 | 899.3 | 836.4 |
| 140° | 1459.0 | 1176.0 | 1012.5 | 949.6 |
| 142.5° | 1566.0 | 1282.9 | 1125.7 | 1062.8 |
| 145° | 1660.3 | 1383.6 | 1232.6 | 1176.0 |
| 147.5° | 1760.9 | 1477.9 | 1345.8 | 1289.2 |
| 150° | 1855.2 | 1566.0 | 1446.5 | 1396.1 |
| 152.5° | 1949.6 | 1654.0 | 1534.5 | 1490.5 |
| 155° | 2050.2 | 1748.3 | 1622.6 | 1584.8 |
| 157.5° | 2144.5 | 1836.4 | 1710.6 | 1672.9 |
| 160° | 2238.9 | 1930.7 | 1804.9 | 1760.9 |
| 162.5° | 2333.2 | 2037.6 | 1899.3 | 1855.2 |
| 165° | 2433.8 | 2144.5 | 2006.2 | 1962.2 |
| 167.5° | 2521.9 | 2264.0 | 2125.7 | 2081.6 |
| 170° | 2609.9 | 2389.8 | 2264.0 | 2220.0 |
| 172.5° | 2691.7 | 2521.9 | 2421.2 | 2377.2 |
| 175° | 2773.4 | 2660.2 | 2584.8 | 2553.3 |
| 177.5° | 2861.5 | 2804.9 | 2754.6 | 2742.0 |
| 180° | 2943.2 | 2943.2 | 2943.2 | 2943.2 |

(END OF REPORT)