

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: P288453

Luminaire Tested: **4WNLED-LD4-32SL-F-UNV-L830-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P288453
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1902-121-2)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4WNLED-LD4-32SL-F-UNV-L830-CD1-U
Description: 4FT WNLED WRAPAROUND
Light Source: (112) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

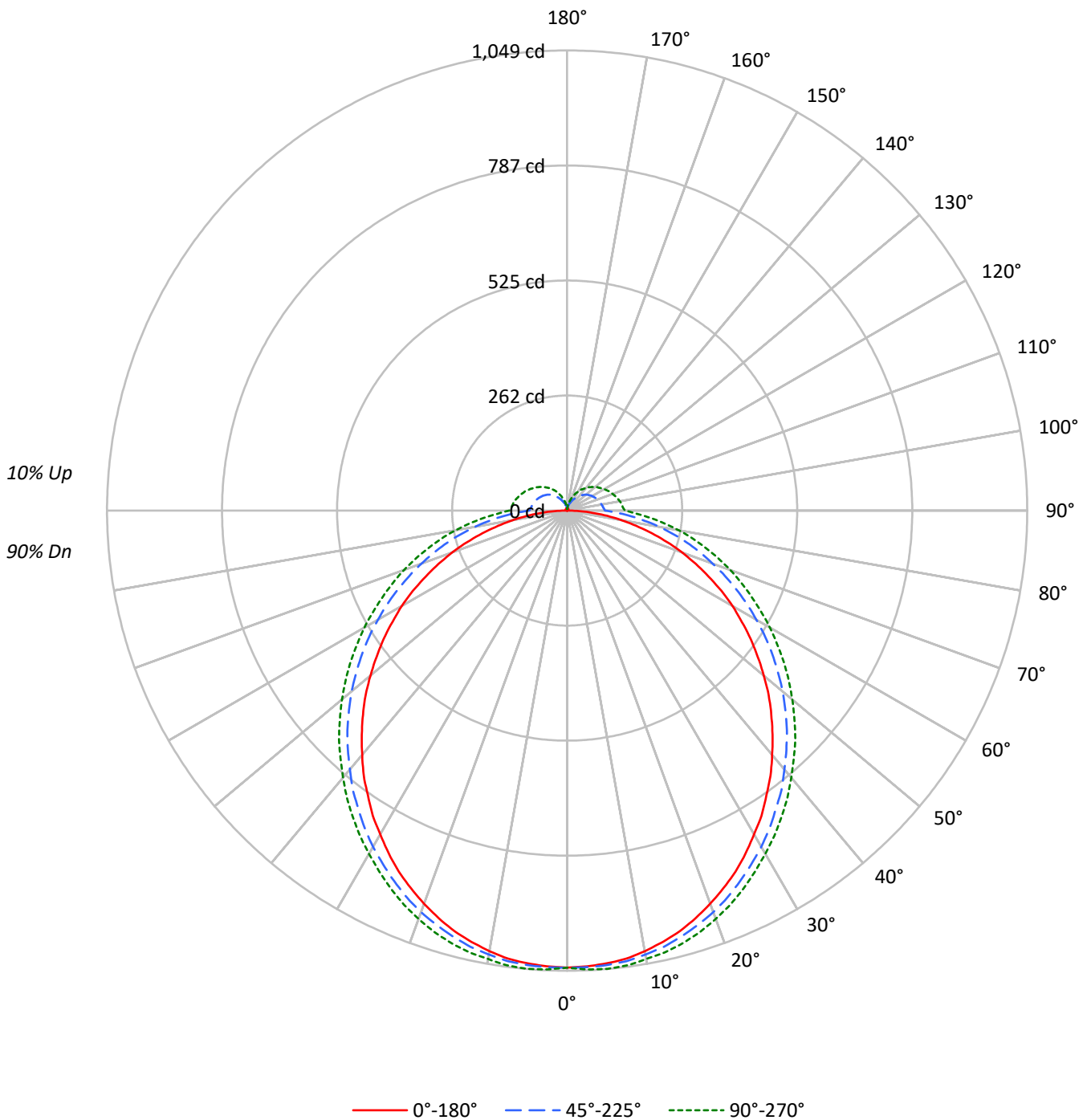
Lumens per Lamp: N/A
Luminaire Lumens: 3569.0 lumens
Efficiency: N/A
Efficacy: 123.9 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 28.8
Input Voltage (V): 120
Input Current (A_{in}): 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

TEST NUMBER: P288453

CATALOG NUMBER: 4WNLED-LD4-32SL-F-UNV-L830-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P288453

CATALOG NUMBER: 4WNLED-LD4-32SL-F-UNV-L830-CD1-U

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 | 117 | 117 | 117 | 117 | 113 | 113 | 113 | 113 | 106 | 106 | 106 | 99 | 99 | 99 | 93 | 93 | 93 | 90 |
| 1 | 105 | 100 | 95 | 91 | 101 | 97 | 92 | 89 | 91 | 87 | 84 | 85 | 82 | 80 | 80 | 78 | 76 | 73 |
| 2 | 95 | 86 | 79 | 73 | 92 | 84 | 77 | 71 | 78 | 73 | 68 | 74 | 69 | 65 | 69 | 66 | 62 | 60 |
| 3 | 86 | 75 | 67 | 60 | 83 | 73 | 65 | 59 | 69 | 62 | 57 | 65 | 59 | 54 | 61 | 56 | 52 | 50 |
| 4 | 79 | 67 | 58 | 51 | 76 | 65 | 56 | 50 | 61 | 54 | 48 | 57 | 51 | 46 | 54 | 49 | 45 | 42 |
| 5 | 73 | 59 | 50 | 43 | 70 | 58 | 49 | 43 | 54 | 47 | 41 | 51 | 45 | 40 | 49 | 43 | 39 | 36 |
| 6 | 67 | 53 | 44 | 38 | 64 | 52 | 43 | 37 | 49 | 42 | 36 | 46 | 40 | 35 | 44 | 38 | 34 | 32 |
| 7 | 62 | 48 | 39 | 33 | 60 | 47 | 39 | 33 | 45 | 37 | 32 | 42 | 36 | 31 | 40 | 34 | 30 | 28 |
| 8 | 58 | 44 | 35 | 29 | 55 | 43 | 35 | 29 | 41 | 33 | 28 | 39 | 32 | 28 | 37 | 31 | 27 | 25 |
| 9 | 54 | 40 | 32 | 26 | 52 | 39 | 31 | 26 | 37 | 30 | 25 | 36 | 29 | 25 | 34 | 28 | 24 | 22 |
| 10 | 50 | 37 | 29 | 24 | 49 | 36 | 29 | 24 | 35 | 28 | 23 | 33 | 27 | 22 | 32 | 26 | 22 | 20 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2804 | 2804 | 2804 |
| 5° | 2791 | 2783 | 2802 |
| 10° | 2771 | 2754 | 2775 |
| 15° | 2742 | 2720 | 2751 |
| 20° | 2701 | 2682 | 2713 |
| 25° | 2658 | 2633 | 2668 |
| 30° | 2600 | 2585 | 2618 |
| 35° | 2546 | 2530 | 2574 |
| 40° | 2489 | 2477 | 2527 |
| 45° | 2429 | 2428 | 2489 |
| 50° | 2363 | 2374 | 2441 |
| 55° | 2294 | 2313 | 2400 |
| 60° | 2222 | 2251 | 2363 |
| 65° | 2123 | 2190 | 2326 |
| 70° | 2016 | 2129 | 2316 |
| 75° | 1859 | 2083 | 2309 |
| 80° | 1672 | 2031 | 2338 |
| 85° | 1324 | 1998 | 2415 |



TEST NUMBER: P288453

CATALOG NUMBER: 4WNLED-LD4-32SL-F-UNV-L830-CD1-U

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 98.8 | 2.8 |
| 10°-20° | 283.3 | 7.9 |
| 20°-30° | 428.0 | 12.0 |
| 30°-40° | 515.9 | 14.5 |
| 40°-50° | 541.0 | 15.2 |
| 50°-60° | 504.2 | 14.1 |
| 60°-70° | 415.0 | 11.6 |
| 70°-80° | 290.0 | 8.1 |
| 80°-90° | 150.8 | 4.2 |
| 90°-100° | 82.0 | 2.3 |
| 100°-110° | 73.7 | 2.1 |
| 110°-120° | 62.7 | 1.8 |
| 120°-130° | 49.7 | 1.4 |
| 130°-140° | 35.7 | 1.0 |
| 140°-150° | 22.2 | 0.6 |
| 150°-160° | 11.3 | 0.3 |
| 160°-170° | 4.1 | 0.1 |
| 170°-180° | 0.7 | 0.0 |
| 0°-30° | 810.1 | 22.7 |
| 0°-40° | 1326.0 | 37.2 |
| 0°-60° | 2371.2 | 66.4 |
| 0°-90° | 3226.9 | 90.4 |
| 90°-120° | 218.4 | 6.1 |
| 90°-150° | 326.0 | 9.1 |
| 90°-180° | 342.0 | 9.6 |
| 0°-180° | 3569.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1042 | 1042 | 1042 | 1042 | 1042 | |
| 5° | 1036 | 1028 | 1040 | 1038 | 1049 | 98 |
| 15° | 993 | 987 | 1005 | 1008 | 1021 | 280 |
| 25° | 908 | 908 | 932 | 937 | 951 | 418 |
| 35° | 792 | 800 | 830 | 840 | 852 | 496 |
| 45° | 658 | 675 | 709 | 724 | 736 | 508 |
| 55° | 511 | 533 | 571 | 592 | 603 | 456 |
| 65° | 356 | 384 | 426 | 454 | 463 | 353 |
| 75° | 200 | 238 | 283 | 314 | 326 | 212 |
| 85° | 58 | 99 | 146 | 178 | 190 | 62 |
| 90° | 1 | 40 | 86 | 120 | 132 | 4 |
| 95° | 1 | 38 | 82 | 115 | 126 | 1 |
| 105° | 1 | 35 | 77 | 107 | 116 | 1 |
| 115° | 2 | 33 | 70 | 96 | 105 | 2 |
| 125° | 3 | 29 | 61 | 84 | 90 | 3 |
| 135° | 3 | 23 | 50 | 71 | 76 | 2 |
| 145° | 4 | 17 | 37 | 54 | 59 | 3 |
| 155° | 5 | 13 | 24 | 36 | 41 | 2 |
| 165° | 5 | 9 | 14 | 18 | 22 | 1 |
| 175° | 5 | 6 | 7 | 6 | 7 | 0 |
| 180° | 5 | 5 | 5 | 5 | 5 | |



TEST NUMBER: P288453

CATALOG NUMBER: 4WNLED-LD4-32SL-F-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 22.5° | 25° | 30° | 35° | 40° | 45° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1042.0 | 1042.0 | 1042.0 | 1042.0 | 1042.0 | 1042.0 | 1042.0 | 1042.0 | 1042.0 | 1042.0 | 1042.0 |
| 2.5° | 1040.1 | 1044.9 | 1039.1 | 1041.0 | 1035.2 | 1031.3 | 1047.8 | 1037.2 | 1038.1 | 1047.8 | 1042.0 |
| 5° | 1036.2 | 1041.0 | 1035.2 | 1037.2 | 1032.3 | 1027.5 | 1044.9 | 1035.2 | 1036.2 | 1044.9 | 1040.1 |
| 7.5° | 1030.4 | 1034.3 | 1028.4 | 1030.4 | 1026.5 | 1021.7 | 1038.1 | 1030.4 | 1031.3 | 1039.1 | 1036.2 |
| 10° | 1019.7 | 1023.6 | 1020.7 | 1021.7 | 1017.8 | 1012.9 | 1030.4 | 1020.7 | 1022.6 | 1031.3 | 1027.5 |
| 12.5° | 1007.1 | 1012.0 | 1007.1 | 1009.1 | 1006.1 | 1001.3 | 1017.8 | 1010.0 | 1012.0 | 1020.7 | 1018.7 |
| 15° | 992.6 | 995.5 | 992.6 | 994.5 | 991.6 | 986.8 | 1003.2 | 997.4 | 999.4 | 1008.1 | 1005.2 |
| 17.5° | 974.2 | 978.0 | 975.1 | 978.0 | 975.1 | 970.3 | 986.8 | 980.9 | 982.9 | 992.6 | 990.6 |
| 20° | 953.8 | 958.6 | 954.8 | 958.6 | 955.7 | 951.9 | 968.3 | 963.5 | 965.4 | 975.1 | 974.2 |
| 22.5° | 931.5 | 936.4 | 932.5 | 935.4 | 935.4 | 931.5 | 947.0 | 944.1 | 946.0 | 954.8 | 954.8 |
| 25° | 908.2 | 911.2 | 909.2 | 912.1 | 911.2 | 908.2 | 923.8 | 921.8 | 922.8 | 930.5 | 932.5 |
| 27.5° | 881.1 | 886.0 | 883.0 | 886.9 | 886.0 | 884.0 | 898.6 | 896.6 | 899.5 | 908.2 | 909.2 |
| 30° | 852.0 | 856.9 | 854.9 | 859.8 | 858.8 | 856.9 | 872.4 | 871.4 | 873.3 | 881.1 | 885.0 |
| 32.5° | 824.9 | 826.8 | 826.8 | 830.7 | 831.7 | 829.7 | 844.3 | 844.3 | 847.2 | 854.0 | 858.8 |
| 35° | 791.9 | 796.8 | 794.8 | 802.6 | 801.6 | 799.7 | 814.2 | 815.2 | 818.1 | 825.9 | 829.7 |
| 37.5° | 761.9 | 763.8 | 763.8 | 770.6 | 772.5 | 769.6 | 782.2 | 786.1 | 789.0 | 795.8 | 802.6 |
| 40° | 727.0 | 730.9 | 730.9 | 738.6 | 740.6 | 738.6 | 752.2 | 756.1 | 759.0 | 766.7 | 770.6 |
| 42.5° | 693.1 | 696.0 | 697.9 | 704.7 | 708.6 | 706.6 | 719.2 | 724.1 | 727.0 | 735.7 | 739.6 |
| 45° | 658.2 | 661.1 | 662.0 | 670.8 | 674.6 | 674.6 | 685.3 | 692.1 | 696.0 | 702.8 | 708.6 |
| 47.5° | 623.3 | 624.2 | 627.1 | 634.9 | 640.7 | 640.7 | 651.4 | 657.2 | 662.0 | 668.8 | 674.6 |
| 50° | 585.5 | 587.4 | 591.3 | 600.0 | 604.9 | 604.9 | 615.5 | 623.3 | 628.1 | 634.9 | 641.7 |
| 52.5° | 547.7 | 550.6 | 554.4 | 563.2 | 569.0 | 570.0 | 578.7 | 588.4 | 591.3 | 599.0 | 605.8 |
| 55° | 510.8 | 512.8 | 517.6 | 527.3 | 533.1 | 533.1 | 543.8 | 552.5 | 557.4 | 564.1 | 570.9 |
| 57.5° | 472.1 | 475.0 | 479.8 | 489.5 | 495.3 | 496.3 | 506.0 | 514.7 | 520.5 | 527.3 | 535.1 |
| 60° | 435.2 | 435.2 | 441.0 | 452.7 | 458.5 | 460.4 | 468.2 | 477.9 | 483.7 | 490.5 | 498.2 |
| 62.5° | 396.4 | 396.4 | 403.2 | 412.9 | 419.7 | 421.7 | 432.3 | 441.0 | 446.9 | 453.6 | 462.4 |
| 65° | 355.7 | 358.6 | 364.5 | 375.1 | 382.9 | 383.8 | 391.6 | 402.3 | 410.0 | 416.8 | 425.5 |
| 67.5° | 317.0 | 320.8 | 324.7 | 335.4 | 344.1 | 346.0 | 354.8 | 365.4 | 372.2 | 379.0 | 389.7 |
| 70° | 278.2 | 282.1 | 286.9 | 297.6 | 305.3 | 310.2 | 317.0 | 327.6 | 335.4 | 343.1 | 352.8 |
| 72.5° | 239.4 | 243.3 | 248.1 | 259.8 | 268.5 | 273.3 | 280.1 | 292.7 | 299.5 | 307.3 | 317.9 |
| 75° | 199.7 | 202.6 | 210.3 | 222.0 | 231.7 | 237.5 | 243.3 | 254.9 | 263.7 | 271.4 | 283.0 |
| 77.5° | 160.9 | 165.8 | 172.5 | 184.2 | 193.9 | 198.7 | 205.5 | 220.0 | 227.8 | 237.5 | 248.1 |
| 80° | 127.0 | 129.9 | 136.7 | 148.3 | 158.0 | 164.8 | 170.6 | 184.2 | 191.9 | 201.6 | 213.2 |
| 82.5° | 92.1 | 96.0 | 102.7 | 114.4 | 126.0 | 131.8 | 136.7 | 150.2 | 159.0 | 168.7 | 178.4 |
| 85° | 58.2 | 63.0 | 69.8 | 81.4 | 93.1 | 98.9 | 104.7 | 116.3 | 127.0 | 135.7 | 146.4 |
| 87.5° | 27.1 | 32.0 | 39.7 | 50.4 | 61.1 | 67.9 | 72.7 | 85.3 | 95.0 | 104.7 | 114.4 |
| 90° | 1.0 | 4.8 | 12.6 | 23.3 | 34.9 | 39.7 | 45.6 | 57.2 | 66.9 | 76.6 | 86.3 |
| 92.5° | 0.0 | 3.9 | 11.6 | 22.3 | 33.0 | 38.8 | 43.6 | 55.3 | 64.9 | 74.6 | 84.3 |
| 95° | 1.0 | 3.9 | 11.6 | 21.3 | 32.0 | 37.8 | 42.6 | 54.3 | 64.0 | 73.7 | 82.4 |
| 97.5° | 1.0 | 3.9 | 11.6 | 21.3 | 32.0 | 36.8 | 42.6 | 53.3 | 63.0 | 72.7 | 81.4 |
| 100° | 1.0 | 3.9 | 11.6 | 21.3 | 31.0 | 36.8 | 41.7 | 52.3 | 62.0 | 70.8 | 79.5 |
| 102.5° | 1.0 | 3.9 | 11.6 | 20.4 | 31.0 | 35.9 | 40.7 | 51.4 | 61.1 | 69.8 | 78.5 |
| 105° | 1.0 | 4.8 | 11.6 | 20.4 | 30.0 | 34.9 | 40.7 | 50.4 | 59.1 | 67.9 | 76.6 |
| 107.5° | 1.9 | 4.8 | 11.6 | 20.4 | 30.0 | 34.9 | 39.7 | 49.4 | 58.2 | 66.9 | 74.6 |
| 110° | 1.9 | 4.8 | 11.6 | 19.4 | 29.1 | 33.9 | 38.8 | 48.5 | 57.2 | 64.9 | 73.7 |



TEST NUMBER: P288453

CATALOG NUMBER: 4WNLED-LD4-32SL-F-UNV-L830-CD1-U

CANDELA DISTRIBUTION (continued):

| | 0° | 5° | 10° | 15° | 20° | 22.5° | 25° | 30° | 35° | 40° | 45° |
|--------|-----|-----|------|------|------|-------|------|------|------|------|------|
| 112.5° | 1.9 | 4.8 | 11.6 | 19.4 | 29.1 | 33.9 | 37.8 | 47.5 | 56.2 | 64.0 | 71.7 |
| 115° | 1.9 | 4.8 | 10.7 | 19.4 | 28.1 | 33.0 | 36.8 | 46.5 | 54.3 | 62.0 | 69.8 |
| 117.5° | 1.9 | 4.8 | 10.7 | 18.4 | 27.1 | 32.0 | 35.9 | 45.6 | 53.3 | 60.1 | 67.9 |
| 120° | 2.9 | 4.8 | 10.7 | 18.4 | 26.2 | 31.0 | 34.9 | 43.6 | 51.4 | 59.1 | 65.9 |
| 122.5° | 2.9 | 5.8 | 10.7 | 17.4 | 26.2 | 30.0 | 33.9 | 42.6 | 49.4 | 57.2 | 64.0 |
| 125° | 2.9 | 5.8 | 10.7 | 17.4 | 25.2 | 29.1 | 33.0 | 40.7 | 48.5 | 55.3 | 61.1 |
| 127.5° | 2.9 | 5.8 | 10.7 | 16.5 | 24.2 | 27.1 | 31.0 | 38.8 | 46.5 | 52.3 | 59.1 |
| 130° | 2.9 | 5.8 | 9.7 | 15.5 | 22.3 | 26.2 | 29.1 | 36.8 | 43.6 | 50.4 | 56.2 |
| 132.5° | 2.9 | 5.8 | 9.7 | 15.5 | 21.3 | 24.2 | 28.1 | 34.9 | 41.7 | 47.5 | 53.3 |
| 135° | 2.9 | 4.8 | 8.7 | 14.5 | 20.4 | 23.3 | 26.2 | 33.0 | 38.8 | 44.6 | 50.4 |
| 137.5° | 2.9 | 4.8 | 8.7 | 13.6 | 18.4 | 21.3 | 24.2 | 30.0 | 35.9 | 41.7 | 46.5 |
| 140° | 3.9 | 4.8 | 8.7 | 12.6 | 17.4 | 20.4 | 22.3 | 28.1 | 33.0 | 37.8 | 43.6 |
| 142.5° | 3.9 | 4.8 | 7.8 | 11.6 | 16.5 | 18.4 | 20.4 | 26.2 | 31.0 | 34.9 | 39.7 |
| 145° | 3.9 | 4.8 | 7.8 | 11.6 | 15.5 | 17.4 | 19.4 | 24.2 | 28.1 | 32.0 | 36.8 |
| 147.5° | 3.9 | 4.8 | 7.8 | 10.7 | 14.5 | 16.5 | 17.4 | 22.3 | 26.2 | 29.1 | 33.0 |
| 150° | 4.8 | 5.8 | 7.8 | 10.7 | 13.6 | 14.5 | 16.5 | 20.4 | 23.3 | 27.1 | 30.0 |
| 152.5° | 4.8 | 5.8 | 7.8 | 9.7 | 12.6 | 13.6 | 15.5 | 18.4 | 21.3 | 24.2 | 27.1 |
| 155° | 4.8 | 5.8 | 6.8 | 8.7 | 11.6 | 12.6 | 14.5 | 16.5 | 19.4 | 21.3 | 24.2 |
| 157.5° | 4.8 | 5.8 | 6.8 | 8.7 | 10.7 | 11.6 | 12.6 | 15.5 | 17.4 | 19.4 | 21.3 |
| 160° | 4.8 | 5.8 | 6.8 | 7.8 | 9.7 | 10.7 | 11.6 | 13.6 | 15.5 | 17.4 | 18.4 |
| 162.5° | 4.8 | 5.8 | 6.8 | 7.8 | 8.7 | 9.7 | 10.7 | 11.6 | 13.6 | 14.5 | 16.5 |
| 165° | 4.8 | 5.8 | 5.8 | 6.8 | 8.7 | 8.7 | 9.7 | 10.7 | 11.6 | 12.6 | 13.6 |
| 167.5° | 4.8 | 4.8 | 5.8 | 6.8 | 7.8 | 7.8 | 8.7 | 9.7 | 10.7 | 10.7 | 11.6 |
| 170° | 4.8 | 4.8 | 5.8 | 5.8 | 6.8 | 6.8 | 7.8 | 7.8 | 8.7 | 9.7 | 9.7 |
| 172.5° | 4.8 | 4.8 | 5.8 | 5.8 | 5.8 | 6.8 | 6.8 | 6.8 | 7.8 | 7.8 | 7.8 |
| 175° | 4.8 | 4.8 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 6.8 |
| 177.5° | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 |
| 180° | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 |



TEST NUMBER: P288453

CATALOG NUMBER: 4WNLED-LD4-32SL-F-UNV-L830-CD1-U

CANDELA DISTRIBUTION (continued):

| | 50° | 55° | 60° | 65° | 67.5° | 70° | 75° | 80° | 85° | 90° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1042.0 | 1042.0 | 1042.0 | 1042.0 | 1042.0 | 1042.0 | 1042.0 | 1042.0 | 1042.0 | 1042.0 |
| 2.5° | 1043.0 | 1044.9 | 1045.9 | 1043.0 | 1039.1 | 1042.0 | 1046.9 | 1041.0 | 1036.2 | 1046.9 |
| 5° | 1041.0 | 1043.0 | 1043.0 | 1041.0 | 1038.1 | 1041.0 | 1045.9 | 1041.0 | 1036.2 | 1048.8 |
| 7.5° | 1037.2 | 1038.1 | 1038.1 | 1036.2 | 1034.3 | 1038.1 | 1043.0 | 1038.1 | 1033.3 | 1045.9 |
| 10° | 1030.4 | 1031.3 | 1031.3 | 1030.4 | 1027.5 | 1030.4 | 1035.2 | 1031.3 | 1026.5 | 1038.1 |
| 12.5° | 1020.7 | 1021.7 | 1022.6 | 1020.7 | 1018.7 | 1023.6 | 1027.5 | 1022.6 | 1017.8 | 1031.3 |
| 15° | 1008.1 | 1010.0 | 1010.0 | 1011.0 | 1008.1 | 1012.9 | 1016.8 | 1012.9 | 1008.1 | 1020.7 |
| 17.5° | 993.5 | 995.5 | 996.5 | 996.5 | 994.5 | 998.4 | 1002.3 | 998.4 | 994.5 | 1007.1 |
| 20° | 976.1 | 976.1 | 979.0 | 979.0 | 978.0 | 982.9 | 986.8 | 981.9 | 978.0 | 990.6 |
| 22.5° | 957.7 | 957.7 | 958.6 | 958.6 | 958.6 | 963.5 | 968.3 | 963.5 | 959.6 | 972.2 |
| 25° | 934.4 | 935.4 | 936.4 | 939.3 | 937.3 | 942.2 | 947.0 | 942.2 | 937.3 | 950.9 |
| 27.5° | 912.1 | 912.1 | 913.1 | 916.0 | 915.0 | 919.9 | 923.8 | 918.9 | 916.0 | 927.6 |
| 30° | 887.9 | 887.9 | 888.9 | 891.8 | 891.8 | 896.6 | 899.5 | 894.7 | 892.7 | 903.4 |
| 32.5° | 861.7 | 861.7 | 862.7 | 866.6 | 866.6 | 870.4 | 874.3 | 870.4 | 868.5 | 879.2 |
| 35° | 832.6 | 833.6 | 835.5 | 839.4 | 840.4 | 844.3 | 848.1 | 844.3 | 841.4 | 852.0 |
| 37.5° | 804.5 | 804.5 | 805.5 | 811.3 | 812.3 | 817.1 | 821.0 | 817.1 | 814.2 | 824.9 |
| 40° | 774.5 | 774.5 | 776.4 | 782.2 | 784.2 | 787.1 | 791.9 | 788.0 | 785.1 | 794.8 |
| 42.5° | 743.5 | 744.4 | 747.3 | 752.2 | 754.1 | 758.0 | 761.9 | 759.0 | 755.1 | 764.8 |
| 45° | 711.5 | 713.4 | 715.4 | 722.1 | 724.1 | 727.0 | 731.8 | 728.0 | 726.0 | 735.7 |
| 47.5° | 679.5 | 679.5 | 682.4 | 690.1 | 692.1 | 694.0 | 698.9 | 696.9 | 694.0 | 702.8 |
| 50° | 645.6 | 646.5 | 649.4 | 656.2 | 659.1 | 661.1 | 666.9 | 664.9 | 662.0 | 669.8 |
| 52.5° | 610.7 | 611.6 | 616.5 | 623.3 | 626.2 | 629.1 | 633.9 | 633.0 | 629.1 | 636.8 |
| 55° | 575.8 | 577.7 | 583.5 | 590.3 | 592.2 | 595.2 | 601.0 | 598.1 | 598.1 | 602.9 |
| 57.5° | 539.9 | 542.8 | 548.6 | 555.4 | 557.4 | 560.3 | 566.1 | 564.1 | 563.2 | 568.0 |
| 60° | 504.0 | 507.9 | 513.7 | 520.5 | 524.4 | 525.4 | 532.2 | 531.2 | 529.2 | 534.1 |
| 62.5° | 469.1 | 473.0 | 478.8 | 486.6 | 488.5 | 491.4 | 498.2 | 496.3 | 495.3 | 498.2 |
| 65° | 432.3 | 436.2 | 443.9 | 451.7 | 453.6 | 456.5 | 463.3 | 461.4 | 459.5 | 463.3 |
| 67.5° | 396.4 | 402.3 | 408.1 | 415.8 | 418.7 | 420.7 | 428.4 | 427.5 | 425.5 | 429.4 |
| 70° | 360.6 | 366.4 | 373.2 | 380.9 | 383.8 | 386.8 | 393.5 | 392.6 | 392.6 | 395.5 |
| 72.5° | 325.7 | 331.5 | 339.3 | 347.0 | 350.9 | 351.9 | 357.7 | 357.7 | 358.6 | 360.6 |
| 75° | 290.8 | 296.6 | 304.4 | 312.1 | 314.1 | 317.9 | 323.7 | 322.8 | 323.7 | 325.7 |
| 77.5° | 255.9 | 262.7 | 270.4 | 278.2 | 281.1 | 282.1 | 288.9 | 288.9 | 289.8 | 292.7 |
| 80° | 222.0 | 228.8 | 236.5 | 244.3 | 247.2 | 247.2 | 254.0 | 254.9 | 255.9 | 257.8 |
| 82.5° | 187.1 | 193.9 | 201.6 | 209.4 | 213.2 | 215.2 | 221.0 | 221.0 | 222.0 | 223.9 |
| 85° | 154.1 | 159.9 | 168.7 | 175.4 | 178.4 | 180.3 | 186.1 | 187.1 | 188.0 | 190.0 |
| 87.5° | 122.1 | 129.9 | 136.7 | 144.4 | 147.3 | 149.3 | 154.1 | 155.1 | 157.0 | 158.0 |
| 90° | 95.0 | 102.7 | 110.5 | 117.3 | 120.2 | 122.1 | 127.9 | 129.9 | 130.9 | 131.8 |
| 92.5° | 93.1 | 100.8 | 107.6 | 114.4 | 117.3 | 119.2 | 124.1 | 126.0 | 127.9 | 127.9 |
| 95° | 92.1 | 98.9 | 105.7 | 113.4 | 115.3 | 117.3 | 122.1 | 124.1 | 126.0 | 126.0 |
| 97.5° | 90.1 | 96.9 | 104.7 | 111.5 | 113.4 | 116.3 | 120.2 | 122.1 | 124.1 | 124.1 |
| 100° | 88.2 | 96.0 | 102.7 | 109.5 | 111.5 | 113.4 | 118.3 | 120.2 | 122.1 | 122.1 |
| 102.5° | 86.3 | 94.0 | 100.8 | 106.6 | 109.5 | 111.5 | 115.3 | 117.3 | 119.2 | 119.2 |
| 105° | 85.3 | 92.1 | 98.9 | 104.7 | 106.6 | 108.6 | 113.4 | 115.3 | 117.3 | 116.3 |
| 107.5° | 83.4 | 89.2 | 96.0 | 102.7 | 104.7 | 106.6 | 110.5 | 112.4 | 114.4 | 113.4 |
| 110° | 81.4 | 87.2 | 94.0 | 99.8 | 101.8 | 103.7 | 107.6 | 109.5 | 111.5 | 110.5 |



TEST NUMBER: P288453

CATALOG NUMBER: 4WNLED-LD4-32SL-F-UNV-L830-CD1-U

CANDELA DISTRIBUTION (continued):

| | 50° | 55° | 60° | 65° | 67.5° | 70° | 75° | 80° | 85° | 90° |
|--------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| 112.5° | 79.5 | 85.3 | 91.1 | 96.9 | 98.9 | 100.8 | 104.7 | 106.6 | 108.6 | 107.6 |
| 115° | 76.6 | 82.4 | 89.2 | 94.0 | 96.0 | 97.9 | 101.8 | 103.7 | 104.7 | 104.7 |
| 117.5° | 74.6 | 80.5 | 86.3 | 92.1 | 93.1 | 95.0 | 97.9 | 99.8 | 101.8 | 100.8 |
| 120° | 72.7 | 77.5 | 83.4 | 88.2 | 90.1 | 92.1 | 95.0 | 96.9 | 97.9 | 97.9 |
| 122.5° | 69.8 | 75.6 | 80.5 | 85.3 | 87.2 | 88.2 | 92.1 | 93.1 | 95.0 | 94.0 |
| 125° | 67.9 | 72.7 | 77.5 | 82.4 | 84.3 | 85.3 | 88.2 | 90.1 | 91.1 | 90.1 |
| 127.5° | 64.9 | 69.8 | 74.6 | 79.5 | 80.5 | 82.4 | 84.3 | 86.3 | 87.2 | 87.2 |
| 130° | 62.0 | 66.9 | 71.7 | 76.6 | 77.5 | 78.5 | 81.4 | 82.4 | 83.4 | 83.4 |
| 132.5° | 59.1 | 64.0 | 68.8 | 72.7 | 73.7 | 75.6 | 77.5 | 79.5 | 80.5 | 79.5 |
| 135° | 56.2 | 60.1 | 64.9 | 68.8 | 70.8 | 71.7 | 73.7 | 74.6 | 76.6 | 75.6 |
| 137.5° | 52.3 | 57.2 | 61.1 | 64.9 | 66.9 | 67.9 | 69.8 | 70.8 | 71.7 | 71.7 |
| 140° | 49.4 | 53.3 | 58.2 | 62.0 | 63.0 | 64.0 | 65.9 | 66.9 | 67.9 | 67.9 |
| 142.5° | 45.6 | 49.4 | 53.3 | 57.2 | 59.1 | 60.1 | 62.0 | 63.0 | 64.0 | 63.0 |
| 145° | 41.7 | 44.6 | 49.4 | 53.3 | 54.3 | 55.3 | 58.2 | 59.1 | 59.1 | 59.1 |
| 147.5° | 37.8 | 40.7 | 44.6 | 48.5 | 50.4 | 51.4 | 53.3 | 54.3 | 55.3 | 55.3 |
| 150° | 33.9 | 36.8 | 40.7 | 43.6 | 45.6 | 46.5 | 49.4 | 49.4 | 50.4 | 50.4 |
| 152.5° | 30.0 | 33.0 | 35.9 | 39.7 | 40.7 | 42.6 | 44.6 | 45.6 | 45.6 | 45.6 |
| 155° | 27.1 | 29.1 | 32.0 | 34.9 | 35.9 | 36.8 | 39.7 | 40.7 | 41.7 | 40.7 |
| 157.5° | 23.3 | 26.2 | 28.1 | 30.0 | 31.0 | 32.0 | 34.9 | 35.9 | 36.8 | 36.8 |
| 160° | 20.4 | 22.3 | 24.2 | 26.2 | 26.2 | 28.1 | 30.0 | 31.0 | 32.0 | 31.0 |
| 162.5° | 17.4 | 18.4 | 20.4 | 21.3 | 22.3 | 23.3 | 25.2 | 26.2 | 27.1 | 27.1 |
| 165° | 15.5 | 15.5 | 16.5 | 17.4 | 18.4 | 19.4 | 20.4 | 21.3 | 22.3 | 22.3 |
| 167.5° | 12.6 | 13.6 | 13.6 | 14.5 | 14.5 | 15.5 | 15.5 | 17.4 | 18.4 | 18.4 |
| 170° | 10.7 | 10.7 | 10.7 | 11.6 | 11.6 | 11.6 | 11.6 | 12.6 | 14.5 | 14.5 |
| 172.5° | 8.7 | 8.7 | 8.7 | 8.7 | 8.7 | 8.7 | 8.7 | 9.7 | 9.7 | 10.7 |
| 175° | 6.8 | 6.8 | 6.8 | 6.8 | 5.8 | 6.8 | 5.8 | 5.8 | 6.8 | 6.8 |
| 177.5° | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 3.9 | 3.9 | 3.9 | 3.9 |
| 180° | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 |

(END OF REPORT)