

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: P197449

Luminaire Tested: **8WSL-LD2-150-UPL8-UNV-L830-CD2-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P197449  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P28106)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 8WSL-LD2-150-UPL8-UNV-L830-CD2-U  
Description: 8FT. Linear Wavestream System, 8% Uplight, L830  
Light Source: (476) 3000K CCT, 80 CRI LEDS  
EL236N0119D830  
Ballast/Driver: OSRAM  
OT85W1202772A0DIML

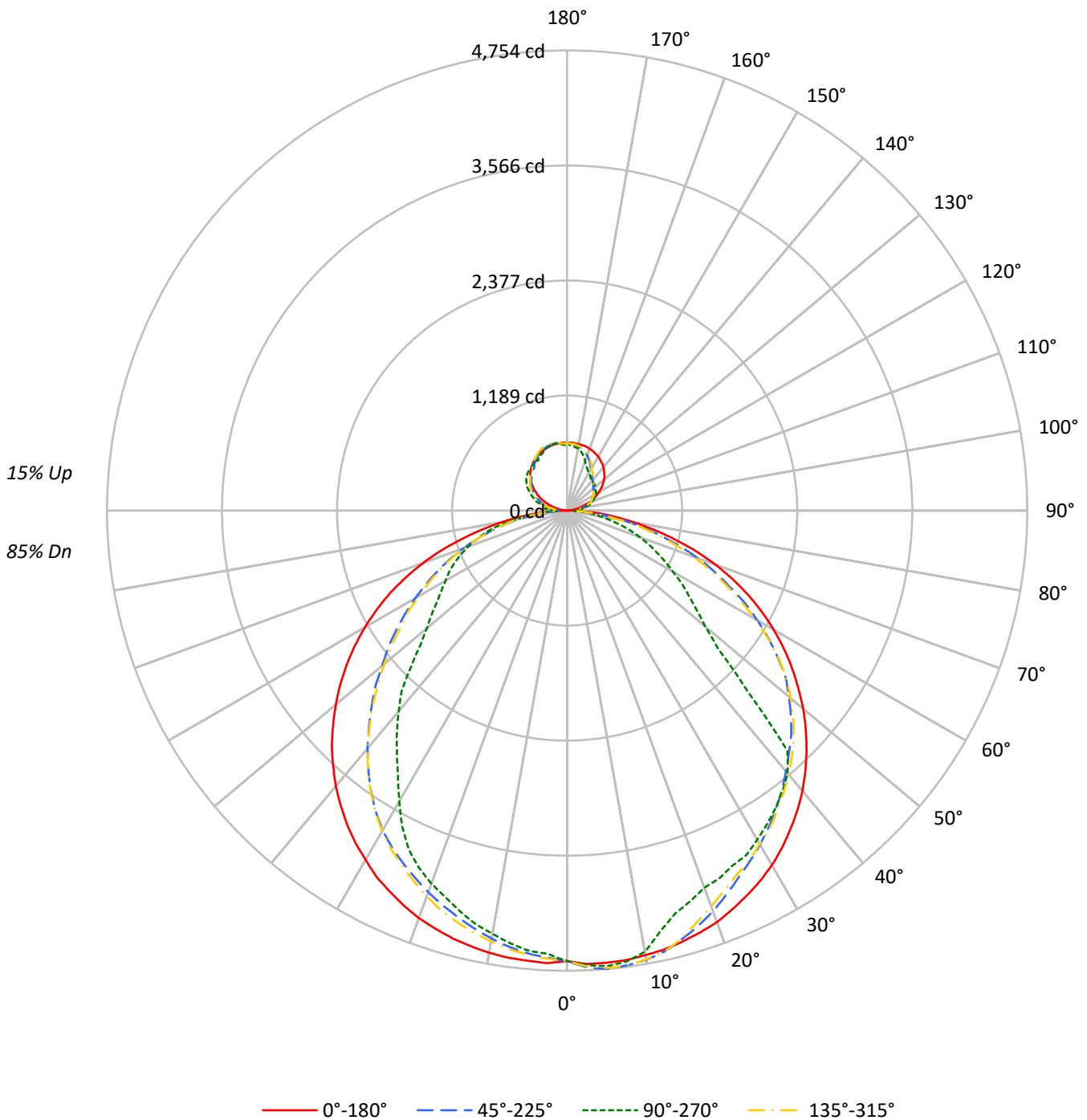
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15436.8 lumens  
Efficiency: N/A  
Efficacy: 103.8 lumens/watt  
Spacing Criteria (0/90/45): 1.34 / 1.19 / 1.36  
Luminous Opening: Rectangular (W 0.5' x L: 7.6' x H: 0')  
CIE Type: Semi-Direct  
  
Input Watts (W): 148.7  
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: 25 FT

TEST NUMBER: P197449

CATALOG NUMBER: 8WSL-LD2-150-UPL8-UNV-L830-CD2-U

### Luminous Intensity Polar Plot





TEST NUMBER: P197449

CATALOG NUMBER: 8WSL-LD2-150-UPL8-UNV-L830-CD2-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   | 115 | 115 | 115 | 115 | 111 | 111 | 111 | 111 | 103 | 103 | 103 | 95 | 95 | 95 | 88 | 88 | 88 | 85 |
| 1   | 105 | 101 | 96  | 92  | 101 | 97  | 93  | 90  | 90  | 87  | 84  | 83 | 81 | 79 | 78 | 76 | 74 | 71 |
| 2   | 96  | 88  | 81  | 75  | 92  | 84  | 78  | 73  | 78  | 73  | 69  | 73 | 69 | 65 | 68 | 65 | 62 | 59 |
| 3   | 87  | 77  | 69  | 62  | 83  | 74  | 67  | 61  | 69  | 63  | 58  | 64 | 59 | 55 | 60 | 56 | 52 | 50 |
| 4   | 80  | 68  | 59  | 53  | 76  | 66  | 58  | 52  | 61  | 55  | 49  | 57 | 52 | 47 | 53 | 49 | 45 | 42 |
| 5   | 73  | 61  | 52  | 45  | 70  | 59  | 51  | 44  | 55  | 48  | 43  | 51 | 45 | 41 | 48 | 43 | 39 | 37 |
| 6   | 68  | 55  | 46  | 40  | 65  | 53  | 45  | 39  | 50  | 43  | 37  | 47 | 40 | 36 | 44 | 38 | 34 | 32 |
| 7   | 63  | 49  | 41  | 35  | 60  | 48  | 40  | 34  | 45  | 38  | 33  | 42 | 36 | 32 | 40 | 35 | 31 | 28 |
| 8   | 58  | 45  | 37  | 31  | 56  | 44  | 36  | 30  | 41  | 34  | 29  | 39 | 33 | 28 | 37 | 31 | 27 | 25 |
| 9   | 54  | 41  | 33  | 28  | 52  | 40  | 33  | 27  | 38  | 31  | 26  | 36 | 30 | 26 | 34 | 29 | 25 | 23 |
| 10  | 51  | 38  | 30  | 25  | 49  | 37  | 30  | 25  | 35  | 28  | 24  | 33 | 27 | 23 | 31 | 26 | 22 | 21 |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°    | 90°   | 180°  | 270°  |
|-----|-------|-------|-------|-------|
| 0°  | 13183 | 13183 | 13183 | 13183 |
| 5°  | 13333 | 13432 | 13276 | 12978 |
| 10° | 13415 | 13315 | 13343 | 12770 |
| 15° | 13516 | 12640 | 13414 | 12567 |
| 20° | 13638 | 12497 | 13503 | 12362 |
| 25° | 13720 | 12646 | 13565 | 12085 |
| 30° | 13837 | 12843 | 13625 | 11344 |
| 35° | 13905 | 12975 | 13698 | 10597 |
| 40° | 13985 | 13100 | 13745 | 10005 |
| 45° | 14013 | 10539 | 13773 | 9142  |
| 50° | 14031 | 8190  | 13746 | 8344  |
| 55° | 14002 | 7579  | 13731 | 8096  |
| 60° | 13973 | 7142  | 13663 | 8215  |
| 65° | 13827 | 6847  | 13526 | 8617  |
| 70° | 13453 | 6603  | 13123 | 8997  |
| 75° | 12597 | 6216  | 12216 | 9489  |
| 80° | 11461 | 5690  | 10973 | 9022  |
| 85° | 11174 | 6152  | 10039 | 8096  |



TEST NUMBER: P197449

CATALOG NUMBER: 8WSL-LD2-150-UPL8-UNV-L830-CD2-U

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 442.4   | 2.9       |
| 10°-20°   | 1256.3  | 8.1       |
| 20°-30°   | 1901.9  | 12.3      |
| 30°-40°   | 2296.5  | 14.9      |
| 40°-50°   | 2344.6  | 15.2      |
| 50°-60°   | 2049.9  | 13.3      |
| 60°-70°   | 1588.8  | 10.3      |
| 70°-80°   | 955.2   | 6.2       |
| 80°-90°   | 294.9   | 1.9       |
| 90°-100°  | 124.3   | 0.8       |
| 100°-110° | 237.7   | 1.5       |
| 110°-120° | 322.9   | 2.1       |
| 120°-130° | 367.1   | 2.4       |
| 130°-140° | 372.4   | 2.4       |
| 140°-150° | 342.7   | 2.2       |
| 150°-160° | 282.8   | 1.8       |
| 160°-170° | 190.1   | 1.2       |
| 170°-180° | 66.1    | 0.4       |
| 0°-30°    | 3600.6  | 23.3      |
| 0°-40°    | 5897.2  | 38.2      |
| 0°-60°    | 10291.7 | 66.7      |
| 0°-90°    | 13130.6 | 85.1      |
| 90°-120°  | 685.0   | 4.4       |
| 90°-150°  | 1767.2  | 11.4      |
| 90°-180°  | 2306.0  | 14.9      |
| 0°-180°   | 15436.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 90°  | 180° | 270° | 360° | Flux |
|------|------|------|------|------|------|------|
| 0°   | 4654 | 4654 | 4654 | 4654 | 4654 |      |
| 5°   | 4689 | 4724 | 4669 | 4564 | 4689 | 447  |
| 15°  | 4609 | 4310 | 4574 | 4285 | 4609 | 1303 |
| 25°  | 4390 | 4046 | 4340 | 3867 | 4390 | 2026 |
| 35°  | 4021 | 3752 | 3961 | 3064 | 4021 | 2517 |
| 45°  | 3498 | 2631 | 3438 | 2282 | 3498 | 2698 |
| 55°  | 2835 | 1535 | 2780 | 1639 | 2835 | 2534 |
| 65°  | 2063 | 1022 | 2018 | 1286 | 2063 | 2036 |
| 75°  | 1151 | 568  | 1116 | 867  | 1151 | 1221 |
| 85°  | 344  | 189  | 309  | 249  | 344  | 347  |
| 90°  | 5    | 105  | 5    | 120  | 5    | 23   |
| 95°  | 30   | 144  | 30   | 229  | 30   | 38   |
| 105° | 160  | 244  | 154  | 309  | 160  | 171  |
| 115° | 309  | 314  | 304  | 419  | 309  | 306  |
| 125° | 444  | 359  | 434  | 513  | 444  | 394  |
| 135° | 543  | 394  | 538  | 568  | 543  | 419  |
| 145° | 613  | 419  | 608  | 603  | 613  | 385  |
| 155° | 663  | 488  | 658  | 638  | 663  | 306  |
| 165° | 693  | 608  | 688  | 693  | 693  | 195  |
| 175° | 703  | 668  | 703  | 688  | 703  | 67   |
| 180° | 693  | 693  | 693  | 693  | 693  |      |



TEST NUMBER: P197449

CATALOG NUMBER: 8WSL-LD2-150-UPL8-UNV-L830-CD2-U

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    | 112.5° | 135°   | 157.5° | 180°   | 202.5° | 225°   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 4654.0 | 4654.0 | 4654.0 | 4654.0 | 4654.0 | 4654.0 | 4654.0 | 4654.0 | 4654.0 | 4654.0 | 4654.0 |
| 2.5°   | 4688.9 | 4664.0 | 4723.7 | 4733.7 | 4698.8 | 4708.8 | 4713.8 | 4659.0 | 4678.9 | 4604.2 | 4624.1 |
| 5°     | 4688.9 | 4683.9 | 4753.6 | 4743.7 | 4723.7 | 4728.7 | 4743.7 | 4678.9 | 4668.9 | 4579.2 | 4594.2 |
| 7.5°   | 4683.9 | 4693.8 | 4738.7 | 4728.7 | 4698.8 | 4713.8 | 4738.7 | 4688.9 | 4659.0 | 4554.3 | 4549.3 |
| 10°    | 4664.0 | 4678.9 | 4713.8 | 4683.9 | 4629.1 | 4654.0 | 4708.8 | 4678.9 | 4639.0 | 4514.5 | 4489.6 |
| 12.5°  | 4644.0 | 4654.0 | 4664.0 | 4539.4 | 4449.7 | 4509.5 | 4664.0 | 4654.0 | 4609.1 | 4469.6 | 4424.8 |
| 15°    | 4609.1 | 4624.1 | 4584.2 | 4404.8 | 4310.2 | 4370.0 | 4574.3 | 4614.1 | 4574.3 | 4404.8 | 4350.0 |
| 17.5°  | 4569.3 | 4584.2 | 4499.5 | 4300.2 | 4230.4 | 4260.3 | 4459.7 | 4564.3 | 4529.4 | 4345.0 | 4275.3 |
| 20°    | 4524.4 | 4539.4 | 4404.8 | 4190.6 | 4145.7 | 4170.6 | 4350.0 | 4509.5 | 4479.6 | 4275.3 | 4195.6 |
| 22.5°  | 4459.7 | 4484.6 | 4295.2 | 4115.8 | 4110.9 | 4110.9 | 4245.4 | 4444.7 | 4414.8 | 4190.6 | 4105.9 |
| 25°    | 4389.9 | 4414.8 | 4185.6 | 4046.1 | 4046.1 | 4046.1 | 4150.7 | 4360.0 | 4340.1 | 4100.9 | 4016.2 |
| 27.5°  | 4315.2 | 4340.1 | 4085.9 | 3996.2 | 4011.2 | 3986.3 | 4071.0 | 4265.3 | 4265.3 | 4011.2 | 3921.5 |
| 30°    | 4230.4 | 4255.4 | 3986.3 | 3916.5 | 3926.5 | 3916.5 | 3981.3 | 4165.7 | 4165.7 | 3906.6 | 3811.9 |
| 32.5°  | 4130.8 | 4155.7 | 3876.7 | 3821.8 | 3841.8 | 3831.8 | 3896.6 | 4066.0 | 4071.0 | 3796.9 | 3682.3 |
| 35°    | 4021.2 | 4051.1 | 3762.1 | 3732.2 | 3752.1 | 3737.1 | 3782.0 | 3961.4 | 3961.4 | 3677.3 | 3532.8 |
| 37.5°  | 3906.6 | 3936.5 | 3642.5 | 3632.5 | 3652.4 | 3637.5 | 3672.4 | 3851.7 | 3841.8 | 3552.8 | 3373.4 |
| 40°    | 3782.0 | 3816.9 | 3517.9 | 3517.9 | 3542.8 | 3532.8 | 3562.7 | 3737.1 | 3717.2 | 3428.2 | 3209.0 |
| 42.5°  | 3642.5 | 3687.3 | 3393.3 | 3398.3 | 3368.4 | 3408.3 | 3438.2 | 3617.6 | 3577.7 | 3288.7 | 3029.6 |
| 45°    | 3498.0 | 3552.8 | 3273.7 | 3184.0 | 2630.9 | 3149.2 | 3308.6 | 3498.0 | 3438.2 | 3149.2 | 2855.2 |
| 47.5°  | 3343.5 | 3413.3 | 3134.2 | 2805.3 | 2117.7 | 2760.5 | 3169.1 | 3348.5 | 3278.7 | 2999.7 | 2685.8 |
| 50°    | 3184.0 | 3263.8 | 2989.7 | 2481.5 | 1858.6 | 2431.6 | 3014.6 | 3199.0 | 3119.3 | 2845.2 | 2491.4 |
| 52.5°  | 3009.6 | 3099.3 | 2850.2 | 2197.4 | 1684.2 | 2152.6 | 2855.2 | 3054.5 | 2954.8 | 2680.8 | 2332.0 |
| 55°    | 2835.2 | 2929.9 | 2660.8 | 1953.3 | 1534.7 | 1913.4 | 2670.8 | 2870.1 | 2780.4 | 2511.4 | 2157.6 |
| 57.5°  | 2655.9 | 2750.5 | 2471.5 | 1739.0 | 1405.2 | 1699.2 | 2461.5 | 2700.7 | 2601.0 | 2337.0 | 1983.2 |
| 60°    | 2466.5 | 2561.2 | 2267.2 | 1544.7 | 1260.7 | 1514.8 | 2247.3 | 2511.4 | 2411.7 | 2157.6 | 1813.8 |
| 62.5°  | 2267.2 | 2361.9 | 2072.9 | 1365.3 | 1141.1 | 1340.4 | 2013.1 | 2327.0 | 2217.4 | 1968.2 | 1639.4 |
| 65°    | 2062.9 | 2132.7 | 1843.7 | 1195.9 | 1021.5 | 1176.0 | 1803.8 | 2097.8 | 2018.1 | 1768.9 | 1474.9 |
| 67.5°  | 1848.6 | 1918.4 | 1644.3 | 1046.4 | 906.9  | 1026.5 | 1599.5 | 1893.5 | 1803.8 | 1574.6 | 1310.5 |
| 70°    | 1624.4 | 1684.2 | 1435.1 | 901.9  | 797.3  | 886.9  | 1385.2 | 1664.3 | 1584.5 | 1370.3 | 1136.1 |
| 72.5°  | 1395.2 | 1450.0 | 1210.8 | 767.4  | 682.7  | 757.4  | 1161.0 | 1435.1 | 1355.3 | 1156.0 | 976.6  |
| 75°    | 1151.0 | 1205.9 | 1001.6 | 632.8  | 568.0  | 622.9  | 956.7  | 1190.9 | 1116.2 | 951.7  | 812.2  |
| 77.5°  | 921.8  | 986.6  | 792.3  | 498.3  | 453.4  | 488.3  | 752.4  | 961.7  | 886.9  | 762.4  | 652.8  |
| 80°    | 702.6  | 757.4  | 588.0  | 378.7  | 348.8  | 373.7  | 548.1  | 732.5  | 672.7  | 588.0  | 508.3  |
| 82.5°  | 508.3  | 538.1  | 403.6  | 279.0  | 264.1  | 274.1  | 373.7  | 518.2  | 488.3  | 423.5  | 373.7  |
| 85°    | 343.8  | 338.8  | 249.1  | 194.3  | 189.3  | 194.3  | 224.2  | 313.9  | 308.9  | 284.0  | 239.2  |
| 87.5°  | 144.5  | 134.5  | 114.6  | 79.7   | 69.8   | 74.7   | 89.7   | 119.6  | 114.6  | 119.6  | 114.6  |
| 90°    | 5.0    | 49.8   | 79.7   | 99.7   | 104.6  | 99.7   | 79.7   | 49.8   | 5.0    | 54.8   | 89.7   |
| 92.5°  | 10.0   | 64.8   | 94.7   | 109.6  | 119.6  | 109.6  | 89.7   | 64.8   | 10.0   | 84.7   | 89.7   |
| 95°    | 29.9   | 89.7   | 109.6  | 134.5  | 144.5  | 134.5  | 109.6  | 84.7   | 29.9   | 74.7   | 134.5  |
| 97.5°  | 59.8   | 114.6  | 129.6  | 149.5  | 154.5  | 144.5  | 124.6  | 114.6  | 54.8   | 134.5  | 139.5  |
| 100°   | 89.7   | 144.5  | 169.4  | 169.4  | 174.4  | 169.4  | 164.4  | 139.5  | 84.7   | 149.5  | 169.4  |
| 102.5° | 124.6  | 164.4  | 194.3  | 209.3  | 209.3  | 209.3  | 194.3  | 164.4  | 114.6  | 184.4  | 234.2  |
| 105°   | 159.5  | 179.4  | 214.3  | 234.2  | 244.2  | 234.2  | 214.3  | 184.4  | 154.5  | 214.3  | 249.1  |
| 107.5° | 199.3  | 194.3  | 234.2  | 254.1  | 264.1  | 254.1  | 234.2  | 199.3  | 189.3  | 239.2  | 279.0  |
| 110°   | 239.2  | 214.3  | 254.1  | 274.1  | 279.0  | 274.1  | 254.1  | 214.3  | 229.2  | 269.1  | 308.9  |



TEST NUMBER: P197449

CATALOG NUMBER: 8WSL-LD2-150-UPL8-UNV-L830-CD2-U

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   | 112.5° | 135°  | 157.5° | 180°  | 202.5° | 225°  |
|--------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 112.5° | 274.1 | 229.2 | 274.1 | 294.0 | 299.0 | 294.0  | 274.1 | 234.2  | 264.1 | 289.0  | 338.8 |
| 115°   | 308.9 | 244.2 | 284.0 | 308.9 | 313.9 | 308.9  | 284.0 | 249.1  | 304.0 | 313.9  | 363.7 |
| 117.5° | 343.8 | 264.1 | 294.0 | 323.9 | 328.9 | 323.9  | 299.0 | 269.1  | 338.8 | 343.8  | 388.7 |
| 120°   | 378.7 | 289.0 | 308.9 | 333.9 | 343.8 | 338.8  | 308.9 | 294.0  | 368.7 | 368.7  | 408.6 |
| 122.5° | 408.6 | 308.9 | 323.9 | 343.8 | 353.8 | 343.8  | 323.9 | 318.9  | 403.6 | 393.6  | 433.5 |
| 125°   | 443.5 | 328.9 | 333.9 | 353.8 | 358.8 | 353.8  | 338.8 | 333.9  | 433.5 | 413.6  | 448.5 |
| 127.5° | 468.4 | 353.8 | 343.8 | 363.7 | 368.7 | 363.7  | 348.8 | 358.8  | 463.4 | 453.4  | 463.4 |
| 130°   | 498.3 | 378.7 | 353.8 | 373.7 | 378.7 | 378.7  | 353.8 | 388.7  | 488.3 | 483.3  | 483.3 |
| 132.5° | 523.2 | 403.6 | 363.7 | 383.7 | 388.7 | 388.7  | 368.7 | 408.6  | 513.2 | 508.3  | 498.3 |
| 135°   | 543.1 | 438.5 | 383.7 | 383.7 | 393.6 | 393.6  | 388.7 | 443.5  | 538.1 | 533.2  | 523.2 |
| 137.5° | 563.1 | 468.4 | 398.6 | 388.7 | 393.6 | 393.6  | 408.6 | 473.4  | 558.1 | 558.1  | 538.1 |
| 140°   | 583.0 | 498.3 | 408.6 | 398.6 | 398.6 | 408.6  | 423.5 | 503.3  | 578.0 | 578.0  | 543.1 |
| 142.5° | 602.9 | 523.2 | 423.5 | 413.6 | 403.6 | 423.5  | 438.5 | 533.2  | 593.0 | 597.9  | 558.1 |
| 145°   | 612.9 | 548.1 | 443.5 | 428.5 | 418.6 | 443.5  | 463.4 | 558.1  | 607.9 | 617.9  | 588.0 |
| 147.5° | 627.8 | 573.0 | 468.4 | 438.5 | 438.5 | 453.4  | 483.3 | 578.0  | 622.9 | 632.8  | 602.9 |
| 150°   | 642.8 | 593.0 | 488.3 | 453.4 | 443.5 | 468.4  | 503.3 | 597.9  | 637.8 | 647.8  | 622.9 |
| 152.5° | 652.8 | 612.9 | 518.2 | 473.4 | 463.4 | 493.3  | 538.1 | 612.9  | 647.8 | 657.7  | 642.8 |
| 155°   | 662.7 | 627.8 | 553.1 | 493.3 | 488.3 | 513.2  | 568.0 | 627.8  | 657.7 | 667.7  | 657.7 |
| 157.5° | 672.7 | 642.8 | 578.0 | 523.2 | 503.3 | 543.1  | 593.0 | 647.8  | 667.7 | 677.7  | 672.7 |
| 160°   | 677.7 | 652.8 | 607.9 | 553.1 | 543.1 | 578.0  | 617.9 | 652.8  | 672.7 | 687.6  | 682.7 |
| 162.5° | 687.6 | 662.7 | 627.8 | 588.0 | 578.0 | 607.9  | 637.8 | 667.7  | 682.7 | 692.6  | 692.6 |
| 165°   | 692.6 | 672.7 | 647.8 | 617.9 | 607.9 | 637.8  | 652.8 | 677.7  | 687.6 | 692.6  | 697.6 |
| 167.5° | 692.6 | 682.7 | 662.7 | 637.8 | 632.8 | 657.7  | 672.7 | 687.6  | 692.6 | 692.6  | 702.6 |
| 170°   | 697.6 | 687.6 | 672.7 | 657.7 | 652.8 | 672.7  | 677.7 | 692.6  | 697.6 | 692.6  | 707.6 |
| 172.5° | 697.6 | 692.6 | 682.7 | 667.7 | 657.7 | 682.7  | 687.6 | 692.6  | 697.6 | 692.6  | 702.6 |
| 175°   | 702.6 | 692.6 | 692.6 | 682.7 | 667.7 | 692.6  | 692.6 | 692.6  | 702.6 | 692.6  | 697.6 |
| 177.5° | 702.6 | 692.6 | 692.6 | 687.6 | 677.7 | 692.6  | 692.6 | 692.6  | 702.6 | 692.6  | 697.6 |
| 180°   | 692.6 | 692.6 | 692.6 | 692.6 | 692.6 | 692.6  | 692.6 | 692.6  | 692.6 | 692.6  | 692.6 |



TEST NUMBER: P197449

CATALOG NUMBER: 8WSL-LD2-150-UPL8-UNV-L830-CD2-U

**CANDELA DISTRIBUTION (continued):**

|        | 247.5° | 270°   | 292.5° | 315°   | 337.5° | 360°   |
|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 4654.0 | 4654.0 | 4654.0 | 4654.0 | 4654.0 | 4654.0 |
| 2.5°   | 4619.1 | 4584.2 | 4594.2 | 4634.1 | 4619.1 | 4688.9 |
| 5°     | 4584.2 | 4564.3 | 4564.3 | 4609.1 | 4604.2 | 4688.9 |
| 7.5°   | 4529.4 | 4509.5 | 4519.4 | 4569.3 | 4579.2 | 4683.9 |
| 10°    | 4464.6 | 4439.7 | 4449.7 | 4519.4 | 4544.4 | 4664.0 |
| 12.5°  | 4394.9 | 4374.9 | 4384.9 | 4464.6 | 4499.5 | 4644.0 |
| 15°    | 4315.2 | 4285.3 | 4315.2 | 4399.9 | 4444.7 | 4609.1 |
| 17.5°  | 4225.5 | 4185.6 | 4220.5 | 4330.1 | 4384.9 | 4569.3 |
| 20°    | 4135.8 | 4100.9 | 4120.8 | 4240.4 | 4320.1 | 4524.4 |
| 22.5°  | 4046.1 | 3996.2 | 4016.2 | 4140.8 | 4240.4 | 4459.7 |
| 25°    | 3941.4 | 3866.7 | 3906.6 | 4041.1 | 4155.7 | 4389.9 |
| 27.5°  | 3801.9 | 3687.3 | 3772.0 | 3941.4 | 4056.0 | 4315.2 |
| 30°    | 3617.6 | 3468.1 | 3592.6 | 3821.8 | 3951.4 | 4230.4 |
| 32.5°  | 3413.3 | 3253.8 | 3393.3 | 3687.3 | 3841.8 | 4130.8 |
| 35°    | 3209.0 | 3064.5 | 3189.0 | 3537.8 | 3727.2 | 4021.2 |
| 37.5°  | 3014.6 | 2890.1 | 3004.7 | 3378.4 | 3607.6 | 3906.6 |
| 40°    | 2830.3 | 2705.7 | 2825.3 | 3204.0 | 3478.0 | 3782.0 |
| 42.5°  | 2645.9 | 2531.3 | 2645.9 | 3019.6 | 3343.5 | 3642.5 |
| 45°    | 2461.5 | 2282.1 | 2451.6 | 2840.2 | 3199.0 | 3498.0 |
| 47.5°  | 2262.2 | 2052.9 | 2247.3 | 2645.9 | 3044.5 | 3343.5 |
| 50°    | 2072.9 | 1893.5 | 2062.9 | 2466.5 | 2885.1 | 3184.0 |
| 52.5°  | 1908.4 | 1763.9 | 1898.5 | 2282.1 | 2720.6 | 3009.6 |
| 55°    | 1754.0 | 1639.4 | 1754.0 | 2102.8 | 2546.2 | 2835.2 |
| 57.5°  | 1614.4 | 1539.7 | 1619.4 | 1948.3 | 2366.9 | 2655.9 |
| 60°    | 1494.9 | 1450.0 | 1499.8 | 1758.9 | 2187.5 | 2466.5 |
| 62.5°  | 1380.3 | 1375.3 | 1385.2 | 1609.5 | 1998.1 | 2267.2 |
| 65°    | 1260.7 | 1285.6 | 1260.7 | 1450.0 | 1808.8 | 2062.9 |
| 67.5°  | 1141.1 | 1190.9 | 1151.0 | 1290.6 | 1604.5 | 1848.6 |
| 70°    | 1031.5 | 1086.3 | 1031.5 | 1126.1 | 1400.2 | 1624.4 |
| 72.5°  | 906.9  | 976.6  | 906.9  | 971.7  | 1185.9 | 1395.2 |
| 75°    | 787.3  | 867.0  | 792.3  | 812.2  | 981.6  | 1151.0 |
| 77.5°  | 657.7  | 732.5  | 672.7  | 657.7  | 792.3  | 921.8  |
| 80°    | 523.2  | 553.1  | 523.2  | 518.2  | 612.9  | 702.6  |
| 82.5°  | 363.7  | 388.7  | 363.7  | 378.7  | 448.5  | 508.3  |
| 85°    | 239.2  | 249.1  | 239.2  | 244.2  | 299.0  | 343.8  |
| 87.5°  | 99.7   | 99.7   | 99.7   | 124.6  | 134.5  | 144.5  |
| 90°    | 109.6  | 119.6  | 109.6  | 89.7   | 54.8   | 5.0    |
| 92.5°  | 114.6  | 124.6  | 114.6  | 99.7   | 64.8   | 10.0   |
| 95°    | 204.3  | 229.2  | 194.3  | 124.6  | 104.6  | 29.9   |
| 97.5°  | 164.4  | 179.4  | 169.4  | 144.5  | 129.6  | 59.8   |
| 100°   | 194.3  | 209.3  | 194.3  | 204.3  | 159.5  | 89.7   |
| 102.5° | 229.2  | 239.2  | 234.2  | 239.2  | 194.3  | 124.6  |
| 105°   | 299.0  | 308.9  | 299.0  | 259.1  | 224.2  | 159.5  |
| 107.5° | 318.9  | 343.8  | 323.9  | 289.0  | 254.1  | 199.3  |
| 110°   | 343.8  | 363.7  | 348.8  | 318.9  | 279.0  | 239.2  |





TEST NUMBER: P197449

CATALOG NUMBER: 8WSL-LD2-150-UPL8-UNV-L830-CD2-U

**CANDELA DISTRIBUTION (continued):**

|        | 247.5° | 270°  | 292.5° | 315°  | 337.5° | 360°  |
|--------|--------|-------|--------|-------|--------|-------|
| 112.5° | 368.7  | 393.6 | 378.7  | 353.8 | 299.0  | 274.1 |
| 115°   | 398.6  | 418.6 | 408.6  | 378.7 | 328.9  | 308.9 |
| 117.5° | 428.5  | 443.5 | 433.5  | 398.6 | 358.8  | 343.8 |
| 120°   | 453.4  | 473.4 | 463.4  | 423.5 | 383.7  | 378.7 |
| 122.5° | 473.4  | 493.3 | 483.3  | 448.5 | 408.6  | 408.6 |
| 125°   | 493.3  | 513.2 | 503.3  | 468.4 | 428.5  | 443.5 |
| 127.5° | 508.3  | 533.2 | 523.2  | 483.3 | 473.4  | 468.4 |
| 130°   | 528.2  | 543.1 | 538.1  | 498.3 | 498.3  | 498.3 |
| 132.5° | 538.1  | 558.1 | 548.1  | 518.2 | 528.2  | 523.2 |
| 135°   | 543.1  | 568.0 | 558.1  | 543.1 | 553.1  | 543.1 |
| 137.5° | 553.1  | 573.0 | 568.0  | 558.1 | 578.0  | 563.1 |
| 140°   | 568.0  | 578.0 | 583.0  | 568.0 | 597.9  | 583.0 |
| 142.5° | 583.0  | 588.0 | 597.9  | 583.0 | 617.9  | 602.9 |
| 145°   | 593.0  | 602.9 | 612.9  | 612.9 | 632.8  | 612.9 |
| 147.5° | 593.0  | 607.9 | 607.9  | 622.9 | 652.8  | 627.8 |
| 150°   | 607.9  | 597.9 | 627.8  | 642.8 | 662.7  | 642.8 |
| 152.5° | 627.8  | 622.9 | 647.8  | 662.7 | 672.7  | 652.8 |
| 155°   | 632.8  | 637.8 | 652.8  | 677.7 | 682.7  | 662.7 |
| 157.5° | 652.8  | 647.8 | 672.7  | 692.6 | 692.6  | 672.7 |
| 160°   | 667.7  | 667.7 | 692.6  | 702.6 | 697.6  | 677.7 |
| 162.5° | 682.7  | 682.7 | 707.6  | 707.6 | 702.6  | 687.6 |
| 165°   | 692.6  | 692.6 | 717.5  | 712.5 | 702.6  | 692.6 |
| 167.5° | 697.6  | 702.6 | 722.5  | 717.5 | 702.6  | 692.6 |
| 170°   | 702.6  | 702.6 | 722.5  | 712.5 | 702.6  | 697.6 |
| 172.5° | 702.6  | 697.6 | 717.5  | 707.6 | 697.6  | 697.6 |
| 175°   | 697.6  | 687.6 | 707.6  | 697.6 | 697.6  | 702.6 |
| 177.5° | 692.6  | 677.7 | 692.6  | 692.6 | 697.6  | 702.6 |
| 180°   | 692.6  | 692.6 | 692.6  | 692.6 | 692.6  | 692.6 |

(END OF REPORT)