

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: P566814

Luminaire Tested: **4SNX-81HL-LC-UNV-L830-CD**

Issue Date: 9/15/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P566814  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2205-663-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/15/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4SNX-81HL-LC-UNV-L830-CD  
Description: 4FT 8100 LUMEN, SNX FIXTURE WITH 3000K, 80CRI LEDS AND LC LENS  
Light Source: -  
Ballast/Driver: -

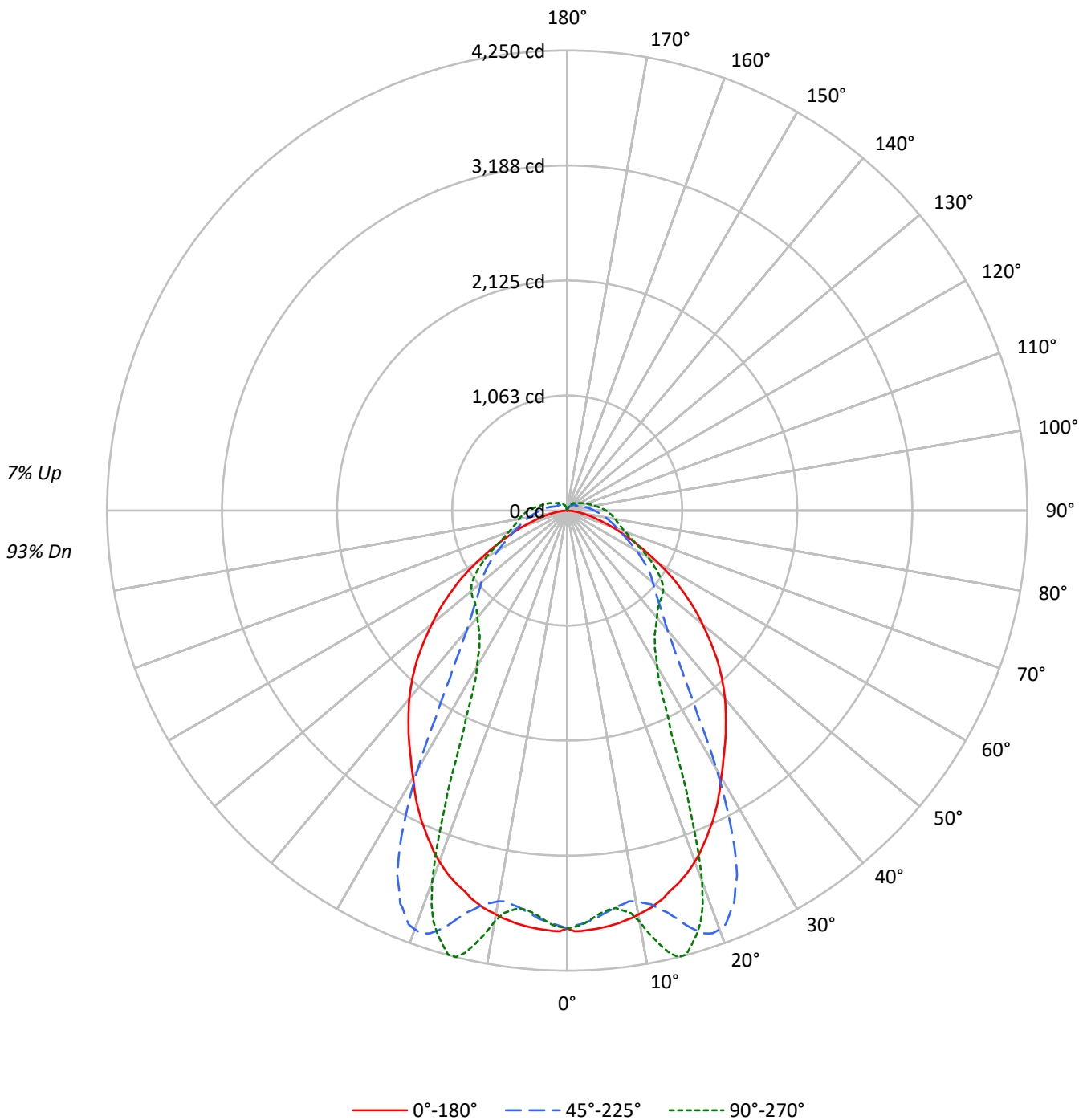
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8578.0 lumens  
Efficiency: N/A  
Efficacy: 155.7 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 0.89 / 1.01  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.17')  
CIE Type: Direct

Input Watts (W): 55.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: P566814  
CATALOG NUMBER: 4SNX-81HL-LC-UNV-L830-CD

### Luminous Intensity Polar Plot





TEST NUMBER: P566814

CATALOG NUMBER: 4SNX-81HL-LC-UNV-L830-CD

**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   | 117 | 117 | 117 | 117 | 114 | 114 | 114 | 114 | 107 | 107 | 107 | 101 | 101 | 101 | 96 | 96 | 96 | 93 |    |    |    |   |
| 1   | 107 | 103 | 99  | 95  | 104 | 100 | 96  | 93  | 94  | 91  | 89  | 89  | 87  | 85  | 85 | 83 | 81 | 78 |    |    |    |   |
| 2   | 99  | 91  | 84  | 79  | 95  | 88  | 83  | 78  | 84  | 79  | 75  | 80  | 76  | 72  | 76 | 72 | 69 | 67 |    |    |    |   |
| 3   | 91  | 81  | 73  | 67  | 88  | 79  | 72  | 66  | 75  | 69  | 64  | 71  | 66  | 62  | 68 | 64 | 60 | 58 |    |    |    |   |
| 4   | 84  | 73  | 64  | 58  | 81  | 71  | 63  | 57  | 68  | 61  | 56  | 64  | 59  | 54  | 62 | 57 | 53 | 51 |    |    |    |   |
| 5   | 78  | 66  | 57  | 51  | 75  | 64  | 56  | 51  | 61  | 55  | 49  | 59  | 53  | 48  | 56 | 51 | 47 | 45 |    |    |    |   |
| 6   | 72  | 60  | 51  | 45  | 70  | 58  | 51  | 45  | 56  | 49  | 44  | 54  | 48  | 43  | 52 | 46 | 42 | 40 |    |    |    |   |
| 7   | 67  | 55  | 46  | 41  | 65  | 54  | 46  | 40  | 51  | 45  | 40  | 49  | 43  | 39  | 48 | 42 | 38 | 36 |    |    |    |   |
| 8   | 63  | 50  | 42  | 37  | 61  | 49  | 42  | 36  | 47  | 41  | 36  | 46  | 40  | 35  | 44 | 39 | 35 | 33 |    |    |    |   |
| 9   | 59  | 46  | 39  | 34  | 57  | 46  | 38  | 33  | 44  | 37  | 33  | 42  | 36  | 32  | 41 | 36 | 32 | 30 |    |    |    |   |
| 10  | 56  | 43  | 36  | 31  | 54  | 42  | 35  | 30  | 41  | 34  | 30  | 40  | 34  | 30  | 38 | 33 | 29 | 27 |    |    |    |   |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 41545 | 41545 | 41545 |
| 5°  | 41595 | 38773 | 38028 |
| 10° | 41096 | 36816 | 37710 |
| 15° | 40140 | 38295 | 40145 |
| 20° | 38925 | 39882 | 33599 |
| 25° | 36971 | 35749 | 20659 |
| 30° | 34542 | 26605 | 14951 |
| 35° | 32558 | 18348 | 12613 |
| 40° | 30780 | 14227 | 11625 |
| 45° | 28708 | 12101 | 10993 |
| 50° | 26014 | 10850 | 10792 |
| 55° | 23175 | 9800  | 9984  |
| 60° | 19539 | 8469  | 8636  |
| 65° | 15770 | 7365  | 7208  |
| 70° | 12242 | 6609  | 6346  |
| 75° | 9333  | 6131  | 5919  |
| 80° | 6368  | 5793  | 5858  |
| 85° | 3288  | 5508  | 5817  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 359.1  | 4.2       |
| 10°-20°   | 1097.4 | 12.8      |
| 20°-30°   | 1477.7 | 17.2      |
| 30°-40°   | 1398.5 | 16.3      |
| 40°-50°   | 1234.4 | 14.4      |
| 50°-60°   | 1002.6 | 11.7      |
| 60°-70°   | 681.9  | 7.9       |
| 70°-80°   | 438.7  | 5.1       |
| 80°-90°   | 291.7  | 3.4       |
| 90°-100°  | 200.5  | 2.3       |
| 100°-110° | 134.6  | 1.6       |
| 110°-120° | 94.9   | 1.1       |
| 120°-130° | 67.8   | 0.8       |
| 130°-140° | 47.8   | 0.6       |
| 140°-150° | 29.7   | 0.3       |
| 150°-160° | 14.5   | 0.2       |
| 160°-170° | 5.1    | 0.1       |
| 170°-180° | 0.9    | 0.0       |
| 0°-30°    | 2934.3 | 34.2      |
| 0°-40°    | 4332.8 | 50.5      |
| 0°-60°    | 6569.8 | 76.6      |
| 0°-90°    | 7982.2 | 93.1      |
| 90°-120°  | 430.0  | 5.0       |
| 90°-150°  | 575.4  | 6.7       |
| 90°-180°  | 596.0  | 6.9       |
| 0°-180°   | 8578.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 3860 | 3860  | 3860 | 3860  | 3860 |      |
| 5°   | 3864 | 3828  | 3746 | 3743  | 3725 | 366  |
| 15°  | 3642 | 3619  | 3898 | 4242  | 4246 | 1027 |
| 25°  | 3173 | 3763  | 3713 | 2697  | 2280 | 1456 |
| 35°  | 2550 | 3578  | 1886 | 1452  | 1408 | 1596 |
| 45°  | 1964 | 2407  | 1193 | 1179  | 1204 | 1508 |
| 55°  | 1308 | 1424  | 896  | 1001  | 1039 | 1169 |
| 65°  | 674  | 768   | 600  | 667   | 688  | 677  |
| 75°  | 259  | 363   | 423  | 474   | 496  | 282  |
| 85°  | 39   | 154   | 300  | 380   | 406  | 51   |
| 90°  | 1    | 107   | 250  | 337   | 359  | 2    |
| 95°  | 1    | 82    | 211  | 286   | 305  | 1    |
| 105° | 3    | 58    | 139  | 195   | 219  | 3    |
| 115° | 3    | 50    | 102  | 145   | 164  | 3    |
| 125° | 4    | 42    | 88   | 110   | 118  | 4    |
| 135° | 5    | 33    | 72   | 92    | 97   | 4    |
| 145° | 5    | 24    | 51   | 71    | 77   | 4    |
| 155° | 6    | 14    | 31   | 47    | 54   | 3    |
| 165° | 6    | 9     | 17   | 24    | 29   | 2    |
| 175° | 8    | 8     | 8    | 8     | 6    | 1    |
| 180° | 6    | 6     | 6    | 6     | 6    |      |



TEST NUMBER: P566814

CATALOG NUMBER: 4SNX-81HL-LC-UNV-L830-CD

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 3859.7 | 3859.7 | 3859.7 | 3859.7 | 3859.7 |
| 1°    | 3885.9 | 3874.1 | 3834.8 | 3855.7 | 3845.3 |
| 2°    | 3884.6 | 3864.9 | 3820.4 | 3844.0 | 3830.9 |
| 3°    | 3878.0 | 3857.1 | 3799.4 | 3813.8 | 3794.2 |
| 4°    | 3871.5 | 3846.6 | 3777.2 | 3777.2 | 3754.9 |
| 5°    | 3863.6 | 3828.2 | 3745.7 | 3743.1 | 3724.8 |
| 6°    | 3854.4 | 3813.8 | 3718.2 | 3715.6 | 3705.1 |
| 7°    | 3841.3 | 3789.0 | 3688.1 | 3706.4 | 3698.6 |
| 8°    | 3825.6 | 3765.4 | 3672.4 | 3718.2 | 3730.0 |
| 9°    | 3811.2 | 3736.6 | 3654.1 | 3754.9 | 3764.1 |
| 10°   | 3787.6 | 3710.4 | 3665.8 | 3828.2 | 3855.7 |
| 11°   | 3768.0 | 3688.1 | 3692.0 | 3900.3 | 3982.8 |
| 12°   | 3748.4 | 3664.5 | 3716.9 | 3990.6 | 4091.5 |
| 13°   | 3715.6 | 3646.2 | 3771.9 | 4088.9 | 4192.3 |
| 14°   | 3686.8 | 3631.8 | 3825.6 | 4188.4 | 4250.0 |
| 15°   | 3642.3 | 3618.7 | 3897.7 | 4242.1 | 4246.0 |
| 16°   | 3612.1 | 3609.5 | 3981.5 | 4246.0 | 4172.7 |
| 17°   | 3578.1 | 3605.6 | 4049.6 | 4177.9 | 4091.5 |
| 18°   | 3540.1 | 3613.5 | 4105.9 | 4092.8 | 3993.3 |
| 19°   | 3496.9 | 3621.3 | 4129.5 | 3974.9 | 3846.6 |
| 20°   | 3449.7 | 3633.1 | 4116.4 | 3851.8 | 3644.9 |
| 21°   | 3402.6 | 3648.8 | 4091.5 | 3722.2 | 3380.3 |
| 22.5° | 3314.8 | 3686.8 | 3973.6 | 3358.1 | 2942.9 |
| 23°   | 3290.0 | 3694.7 | 3946.1 | 3244.1 | 2828.9 |
| 24°   | 3228.4 | 3727.4 | 3820.4 | 2978.3 | 2527.7 |
| 25°   | 3173.4 | 3762.8 | 3713.0 | 2696.7 | 2280.2 |
| 26°   | 3111.8 | 3789.0 | 3550.6 | 2437.3 | 2128.3 |
| 27°   | 3051.6 | 3804.7 | 3365.9 | 2235.7 | 1958.0 |
| 28°   | 2982.2 | 3821.7 | 3165.5 | 2061.5 | 1829.6 |
| 29°   | 2916.7 | 3824.3 | 2967.8 | 1922.6 | 1728.8 |
| 30°   | 2846.0 | 3811.2 | 2759.5 | 1811.3 | 1665.9 |
| 32.5° | 2691.4 | 3739.2 | 2250.1 | 1599.1 | 1508.8 |
| 35°   | 2550.0 | 3578.1 | 1886.0 | 1452.5 | 1407.9 |
| 37.5° | 2407.2 | 3324.0 | 1630.6 | 1360.8 | 1346.4 |
| 40°   | 2267.1 | 3022.8 | 1438.0 | 1287.4 | 1290.1 |
| 42.5° | 2119.1 | 2712.4 | 1305.8 | 1227.2 | 1239.0 |
| 45°   | 1964.5 | 2407.2 | 1193.1 | 1178.7 | 1203.6 |
| 47.5° | 1793.0 | 2128.3 | 1104.1 | 1147.3 | 1185.3 |
| 50°   | 1630.6 | 1851.9 | 1034.7 | 1117.2 | 1156.5 |
| 52.5° | 1476.0 | 1625.3 | 971.8  | 1066.1 | 1111.9 |
| 55°   | 1308.4 | 1423.6 | 895.8  | 1000.6 | 1038.6 |
| 57.5° | 1148.6 | 1241.6 | 815.9  | 919.4  | 953.5  |
| 60°   | 973.1  | 1062.2 | 734.7  | 831.7  | 864.4  |
| 62.5° | 814.6  | 908.9  | 665.3  | 743.9  | 770.1  |
| 65°   | 674.5  | 767.5  | 599.8  | 666.6  | 687.6  |



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CATALOG NUMBER: 4SNX-81HL-LC-UNV-L830-CD

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 67.5°  | 550.1 | 649.6 | 546.1 | 602.5 | 622.1 |
| 70°    | 433.5 | 538.3 | 499.0 | 550.1 | 571.0 |
| 72.5°  | 339.2 | 445.3 | 459.7 | 506.9 | 527.8 |
| 75°    | 259.3 | 362.8 | 423.0 | 474.1 | 496.4 |
| 77.5°  | 192.5 | 296.0 | 389.0 | 447.9 | 471.5 |
| 80°    | 127.0 | 235.7 | 358.9 | 424.3 | 451.8 |
| 82.5°  | 79.9  | 189.9 | 328.7 | 400.8 | 429.6 |
| 85°    | 39.3  | 154.5 | 299.9 | 379.8 | 406.0 |
| 87.5°  | 13.1  | 128.4 | 273.7 | 358.9 | 381.1 |
| 90°    | 1.3   | 107.4 | 250.2 | 336.6 | 358.9 |
| 92.5°  | 1.3   | 93.0  | 230.5 | 310.4 | 332.7 |
| 95°    | 1.3   | 82.5  | 210.9 | 285.5 | 305.2 |
| 97.5°  | 1.3   | 74.7  | 192.5 | 259.3 | 280.3 |
| 100°   | 1.3   | 66.8  | 172.9 | 234.4 | 256.7 |
| 102.5° | 2.6   | 61.6  | 155.9 | 213.5 | 237.1 |
| 105°   | 2.6   | 57.6  | 138.8 | 195.1 | 218.7 |
| 107.5° | 2.6   | 55.0  | 124.4 | 180.7 | 203.0 |
| 110°   | 2.6   | 52.4  | 113.9 | 167.6 | 191.2 |
| 112.5° | 2.6   | 51.1  | 107.4 | 155.9 | 178.1 |
| 115°   | 2.6   | 49.8  | 102.2 | 145.4 | 163.7 |
| 117.5° | 3.9   | 48.5  | 98.2  | 134.9 | 149.3 |
| 120°   | 3.9   | 45.8  | 95.6  | 125.7 | 137.5 |
| 122.5° | 3.9   | 43.2  | 91.7  | 117.9 | 127.0 |
| 125°   | 3.9   | 41.9  | 87.7  | 110.0 | 117.9 |
| 127.5° | 3.9   | 39.3  | 83.8  | 103.5 | 111.3 |
| 130°   | 5.2   | 36.7  | 79.9  | 98.2  | 104.8 |
| 132.5° | 5.2   | 34.1  | 76.0  | 95.6  | 100.8 |
| 135°   | 5.2   | 32.7  | 72.0  | 91.7  | 96.9  |
| 137.5° | 5.2   | 30.1  | 68.1  | 87.7  | 93.0  |
| 140°   | 5.2   | 27.5  | 62.9  | 82.5  | 87.7  |
| 142.5° | 5.2   | 26.2  | 57.6  | 77.3  | 82.5  |
| 145°   | 5.2   | 23.6  | 51.1  | 70.7  | 77.3  |
| 147.5° | 6.5   | 22.3  | 45.8  | 65.5  | 70.7  |
| 150°   | 6.5   | 19.6  | 40.6  | 60.2  | 65.5  |
| 152.5° | 6.5   | 17.0  | 35.4  | 53.7  | 58.9  |
| 155°   | 6.5   | 14.4  | 31.4  | 47.1  | 53.7  |
| 157.5° | 6.5   | 13.1  | 27.5  | 39.3  | 47.1  |
| 160°   | 6.5   | 11.8  | 23.6  | 34.1  | 40.6  |
| 162.5° | 6.5   | 10.5  | 21.0  | 28.8  | 35.4  |
| 165°   | 6.5   | 9.2   | 17.0  | 23.6  | 28.8  |
| 167.5° | 7.9   | 9.2   | 14.4  | 18.3  | 23.6  |
| 170°   | 7.9   | 9.2   | 11.8  | 14.4  | 18.3  |
| 172.5° | 7.9   | 7.9   | 9.2   | 10.5  | 11.8  |
| 175°   | 7.9   | 7.9   | 7.9   | 7.9   | 6.5   |
| 177.5° | 7.9   | 7.9   | 7.9   | 6.5   | 6.5   |



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CATALOG NUMBER: 4SNX-81HL-LC-UNV-L830-CD

**CANDELA DISTRIBUTION (continued):**

|      |     |       |     |       |     |
|------|-----|-------|-----|-------|-----|
|      | 0°  | 22.5° | 45° | 67.5° | 90° |
| 180° | 6.5 | 6.5   | 6.5 | 6.5   | 6.5 |

(END OF REPORT)