

Photometric test report

Family
Silica® 21

Order number: 51MX36DA47WB
EAN: 4058352884775

LP number
59280_76

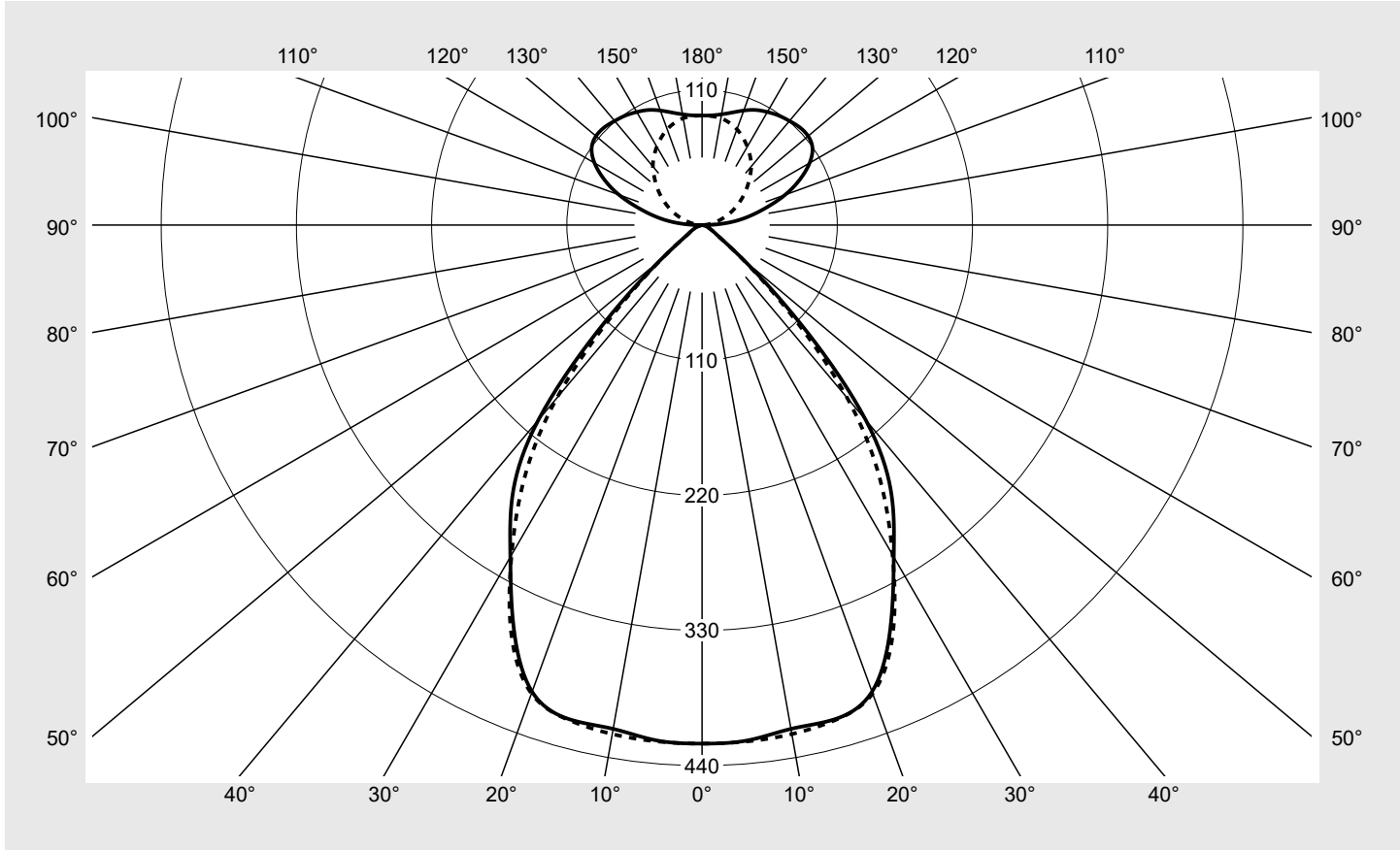


Version Suspended luminaire, reflector, white, direct-/indirect distribution, wide distribution, UGR≤16 (L65≤3000cd/m²)
Lamps LED 4000 K | CRI ≥ 80
Controlgear ECG-DALI
Rated values Net luminous flux = 7060 lm
 Power consumption = 40.3 W
 Luminous efficacy = 175.2 lm/W

serial documentation
02.08.2023



Luminous intensity in cd/klm C180-0 C270-90 **Imax: 422 cd/klm**



Classifications

| | |
|----------|------------------------------------|
| DIN 5040 | B 6 2 |
| CIE | N1=83 N2=98 N3=100 N4=61 N5=100 |

Luminaire light output ratios

| | |
|-------------|--------|
| η_{LB} | 100.0% |
| ϕ_u | 61.1% |
| ϕ_o | 38.9% |

Measurement conditions
DIN EN 13032 and DIN 5032

Photometric test report

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|--|--|------------------------------|
| Family Silica® 21 | Order number: 51MX36DA47WB EAN: 4058352884775 | LP number 59280_76 |
| Table of values for luminous intensities | | Maximum luminous intensity |
| | | siteco |

| C-planes γ | 0° 180° | 15° | 30° | 45° | 60° | 75° | 90° 270° | Phi-zone | Total Phi-zone |
|------------------------------|------------|----------------------|----------------------|----------------------|----------------------|----------------------|-------------|-------------------------|-------------------|
| | | 165° 195° 345° | 150° 210° 330° | 135° 225° 315° | 120° 240° 300° | 105° 255° 285° | | | |
| Luminous intensity in cd/klm | | | | | | | | Luminous flux in lm/klm | |
| 0° | 422.1 | 422.1 | 422.1 | 422.1 | 422.1 | 422.1 | 422.1 | 2.5 | 2.5 |
| 5° | 421.2 | 421.7 | 421.1 | 421.4 | 421.8 | 422.4 | 421.9 | 20.1 | 22.7 |
| 10° | 416.4 | 415.9 | 416.6 | 418.5 | 420.4 | 419.5 | 420.7 | 39.8 | 62.5 |
| 15° | 416.5 | 417.3 | 416.2 | 418.2 | 418.6 | 417.7 | 417.3 | 59.2 | 121.7 |
| 20° | 404.3 | 408.0 | 408.5 | 410.6 | 406.7 | 404.4 | 405.8 | 76.3 | 198.0 |
| 25° | 362.4 | 369.4 | 376.8 | 381.5 | 377.2 | 370.0 | 367.2 | 86.5 | 284.5 |
| 30° | 311.9 | 316.7 | 317.8 | 318.8 | 318.6 | 312.7 | 309.9 | 86.6 | 371.1 |
| 35° | 268.9 | 273.0 | 262.7 | 253.0 | 257.3 | 257.0 | 252.3 | 81.9 | 453.0 |
| 40° | 207.2 | 211.8 | 206.6 | 199.5 | 199.2 | 191.4 | 183.8 | 70.7 | 523.7 |
| 45° | 112.3 | 116.7 | 117.8 | 117.4 | 112.9 | 104.7 | 100.2 | 43.7 | 567.4 |
| 50° | 43.9 | 46.6 | 49.7 | 52.0 | 48.4 | 44.4 | 42.8 | 19.9 | 587.3 |
| 55° | 17.8 | 19.3 | 22.0 | 25.4 | 22.4 | 18.9 | 17.4 | 9.4 | 596.7 |
| 60° | 10.9 | 11.5 | 12.5 | 13.7 | 12.5 | 11.2 | 10.7 | 5.7 | 602.4 |
| 65° | 7.0 | 7.3 | 7.7 | 7.8 | 7.5 | 7.2 | 6.9 | 3.7 | 606.1 |
| 70° | 4.8 | 4.9 | 4.6 | 4.4 | 4.5 | 4.8 | 4.7 | 2.4 | 608.5 |
| 75° | 1.9 | 2.1 | 2.3 | 2.3 | 2.3 | 2.2 | 2.0 | 1.2 | 609.6 |
| 80° | 0.9 | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 0.5 | 610.2 |
| 85° | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 0.7 | 0.4 | 610.6 |
| 90° | 4.5 | 4.3 | 4.6 | 4.5 | 2.7 | 0.9 | 0.3 | 1.8 | 612.3 |
| 95° | 20.9 | 21.3 | 22.8 | 21.6 | 13.8 | 7.1 | 3.7 | 9.0 | 621.4 |
| 100° | 37.3 | 38.3 | 38.6 | 33.8 | 22.7 | 12.8 | 8.4 | 15.2 | 636.6 |
| 105° | 53.5 | 54.6 | 53.5 | 45.7 | 31.3 | 19.4 | 14.2 | 21.0 | 657.6 |
| 110° | 71.9 | 72.1 | 67.6 | 56.3 | 40.1 | 26.2 | 20.3 | 26.5 | 684.1 |
| 115° | 87.8 | 87.0 | 80.3 | 66.0 | 48.6 | 33.1 | 27.1 | 30.8 | 714.9 |
| 120° | 101.0 | 99.4 | 90.6 | 73.9 | 56.6 | 39.8 | 33.7 | 33.8 | 748.7 |
| 125° | 109.6 | 106.6 | 96.9 | 81.1 | 63.3 | 46.1 | 40.8 | 35.1 | 783.9 |
| 130° | 112.6 | 110.2 | 99.9 | 85.4 | 68.4 | 52.7 | 47.8 | 34.8 | 818.6 |
| 135° | 112.4 | 110.1 | 101.0 | 88.3 | 72.5 | 58.7 | 54.9 | 33.2 | 851.9 |
| 140° | 110.6 | 108.9 | 101.3 | 90.4 | 76.0 | 64.5 | 62.2 | 31.0 | 882.8 |
| 145° | 108.8 | 107.6 | 101.3 | 91.5 | 79.1 | 69.9 | 68.2 | 28.2 | 911.0 |
| 150° | 106.2 | 105.8 | 100.1 | 91.4 | 81.7 | 75.0 | 73.6 | 24.8 | 935.9 |
| 155° | 103.3 | 103.0 | 97.6 | 91.1 | 83.7 | 79.6 | 78.5 | 21.1 | 956.9 |
| 160° | 99.2 | 99.0 | 94.6 | 90.3 | 85.5 | 83.2 | 82.9 | 17.0 | 973.9 |
| 165° | 94.8 | 94.3 | 92.1 | 89.2 | 87.2 | 86.0 | 86.1 | 12.8 | 986.7 |
| 170° | 91.5 | 91.1 | 90.5 | 89.3 | 88.4 | 88.3 | 88.3 | 8.5 | 995.2 |
| 175° | 89.6 | 89.5 | 89.1 | 88.9 | 88.9 | 89.0 | 89.0 | 4.3 | 999.5 |
| 180° | 89.1 | 89.1 | 89.1 | 89.1 | 89.1 | 89.1 | 89.1 | 0.5 | 1000.0 |

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| UGR-Table | Standard room | siteco |
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| | | | | | | | | | | | |
|------------------------------|---------------------|------|------|------|------|--------------------|------|------|------|------|------|
| Reflection factor of ceiling | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | |
| Reflection factor of walls | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | |
| Reflection factor of floor | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | |
| Room dimensions | View crosswise (C0) | | | | | View endwise (C90) | | | | | |
| x | y | | | | | | | | | | |
| 2H | 2H | 16.6 | 17.5 | 17.4 | 18.3 | 19.3 | 16.2 | 17.1 | 17.0 | 17.9 | 18.9 |
| | 3H | 16.3 | 17.1 | 17.2 | 18.0 | 19.0 | 16.0 | 16.8 | 16.9 | 17.7 | 18.7 |
| | 4H | 16.2 | 16.9 | 17.1 | 17.8 | 18.9 | 15.9 | 16.6 | 16.8 | 17.5 | 18.6 |
| | 6H | 16.1 | 16.7 | 16.9 | 17.6 | 18.7 | 15.8 | 16.4 | 16.7 | 17.3 | 18.4 |
| | 8H | 16.0 | 16.6 | 16.9 | 17.4 | 18.6 | 15.6 | 16.2 | 16.5 | 17.1 | 18.2 |
| | 12H | 15.9 | 16.4 | 16.8 | 17.3 | 18.5 | 15.6 | 16.1 | 16.5 | 17.0 | 18.2 |
| 4H | 2H | 16.3 | 17.0 | 17.1 | 17.8 | 18.9 | 15.9 | 16.6 | 16.7 | 17.4 | 18.5 |
| | 3H | 16.1 | 16.7 | 17.0 | 17.5 | 18.7 | 15.7 | 16.3 | 16.6 | 17.2 | 18.3 |
| | 4H | 15.9 | 16.5 | 16.8 | 17.4 | 18.5 | 15.6 | 16.1 | 16.5 | 17.0 | 18.2 |
| | 6H | 15.8 | 16.2 | 16.7 | 17.1 | 18.3 | 15.5 | 15.9 | 16.4 | 16.8 | 18.0 |
| | 8H | 15.7 | 16.1 | 16.6 | 17.0 | 18.2 | 15.4 | 15.8 | 16.3 | 16.7 | 17.9 |
| | 12H | 15.6 | 15.9 | 16.6 | 16.9 | 18.1 | 15.3 | 15.6 | 16.3 | 16.6 | 17.8 |
| 8H | 4H | 15.7 | 16.1 | 16.7 | 17.0 | 18.2 | 15.4 | 15.8 | 16.3 | 16.7 | 17.9 |
| | 6H | 15.6 | 15.9 | 16.5 | 16.9 | 18.1 | 15.2 | 15.5 | 16.2 | 16.5 | 17.7 |
| | 8H | 15.5 | 15.8 | 16.5 | 16.8 | 18.0 | 15.2 | 15.5 | 16.1 | 16.4 | 17.6 |
| | 12H | 15.4 | 15.7 | 16.4 | 16.6 | 17.9 | 15.1 | 15.3 | 16.1 | 16.3 | 17.6 |
| 12H | 4H | 15.6 | 16.0 | 16.6 | 16.9 | 18.1 | 15.3 | 15.6 | 16.2 | 16.5 | 17.8 |
| | 6H | 15.5 | 15.8 | 16.5 | 16.7 | 17.9 | 15.1 | 15.4 | 16.1 | 16.4 | 17.6 |
| | 8H | 15.4 | 15.7 | 16.4 | 16.6 | 17.9 | 15.1 | 15.3 | 16.1 | 16.3 | 17.5 |

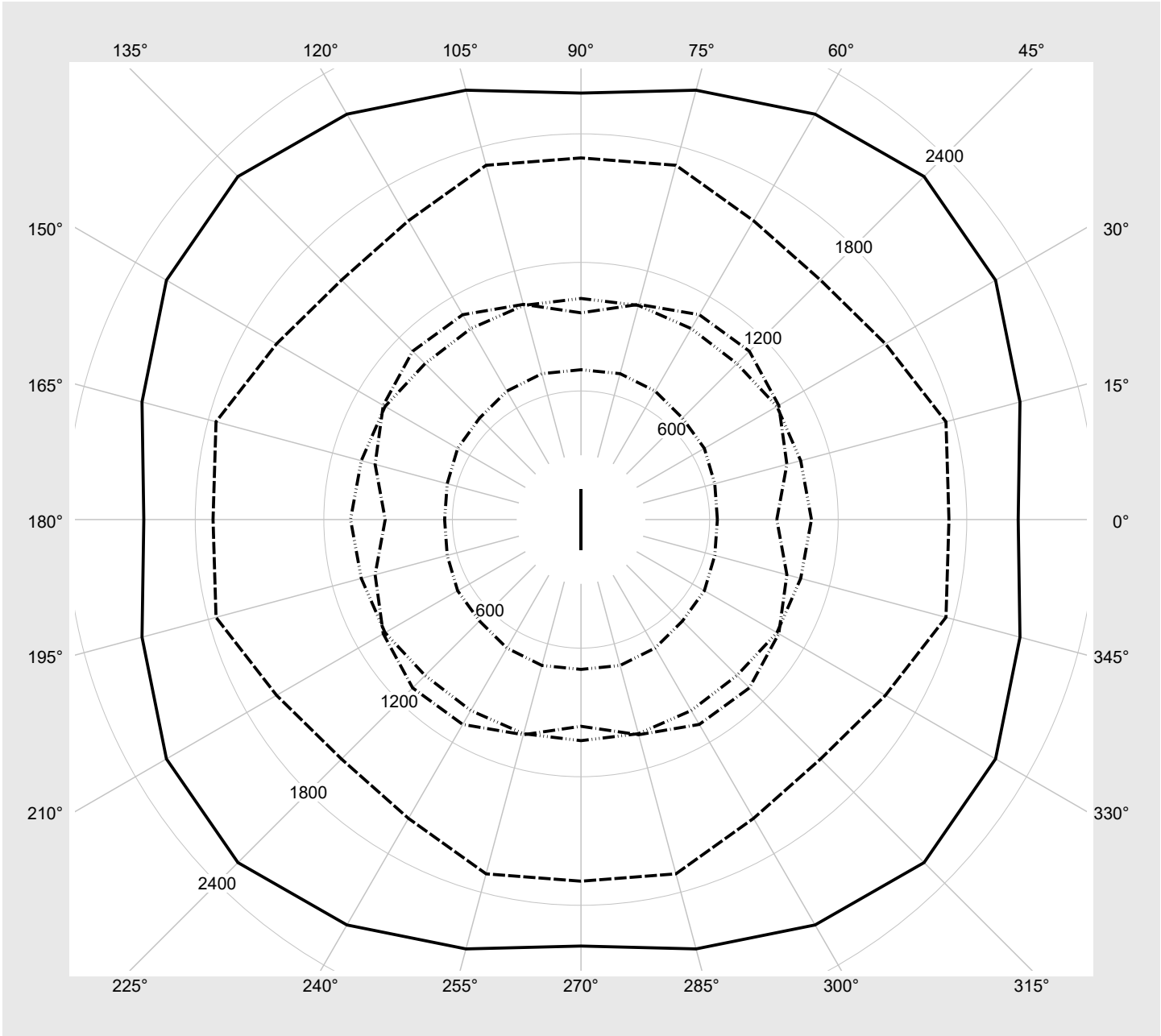
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|------------------------|---|--------------------------------------|----------------------------------|
| Luminance table | Max. for $\gamma \geq 65^\circ$ | Photometric dimensions in mm: | L = 1176 B = 49 |
|------------------------|---|--------------------------------------|----------------------------------|

| C-planes | γ | Luminance in cd/m ² | | | | | | | |
|----------|----------|--------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-------------|--|
| | | 0° 180° | 15° 165° 195° 345° | 30° 150° 210° 330° | 45° 135° 225° 315° | 60° 120° 240° 300° | 75° 105° 255° 285° | 90° 270° | |
| 45° | | 19465.0 | 20213.3 | 20416.2 | 20341.9 | 19553.2 | 18139.7 | 17366.9 | |
| 50° | | 8360.1 | 8877.6 | 9470.6 | 9909.7 | 9232.1 | 8456.0 | 8156.7 | |
| 55° | | 3794.3 | 4129.4 | 4699.9 | 5425.5 | 4787.3 | 4034.6 | 3711.6 | |
| 60° | | 2667.2 | 2806.2 | 3055.4 | 3355.0 | 3057.3 | 2748.6 | 2610.4 | |
| 65° | | 2040.0 | 2120.6 | 2233.7 | 2263.9 | 2184.4 | 2074.3 | 1990.2 | |
| 70° | | 1716.9 | 1763.2 | 1640.3 | 1580.5 | 1610.2 | 1711.6 | 1687.6 | |
| 75° | | 913.6 | 994.6 | 1065.6 | 1111.0 | 1103.9 | 1039.5 | 964.7 | |
| 80° | | 636.4 | 646.3 | 664.6 | 669.6 | 692.1 | 704.8 | 699.2 | |
| 85° | | 1075.4 | 1061.3 | 1055.7 | 1029.0 | 1029.0 | 1034.6 | 1031.8 | |

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Luminance values in cd/m² γ 65° γ 70° γ 75° γ 80° γ 85° **siteco**



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| Dimming levels table | environmental temperature: 25°C | sITeco |
|-----------------------------|---------------------------------|---------------|

| Luminous flux % | Dimming level linear | Dimming level logarithmic | Luminous flux [lm] | Power consumption [W] |
|-----------------|----------------------|---------------------------|--------------------|-----------------------|
| 100 | 254 | 254 | 7060 | 40.3 |
| 95 | 241 | 252 | 6716 | 38.4 |
| 90 | 227 | 250 | 6344 | 36.1 |
| 85 | 214 | 248 | 5994 | 34.1 |
| 80 | 201 | 245 | 5643 | 32.1 |
| 75 | 188 | 243 | 5291 | 30.1 |
| 70 | 175 | 240 | 4937 | 28.2 |
| 65 | 162 | 238 | 4580 | 26.1 |
| 60 | 150 | 235 | 4249 | 24.3 |
| 55 | 137 | 231 | 3889 | 22.4 |
| 50 | 124 | 228 | 3527 | 20.4 |
| 45 | 111 | 224 | 3163 | 18.4 |
| 40 | 99 | 219 | 2825 | 16.6 |
| 35 | 86 | 214 | 2458 | 14.7 |
| 30 | 74 | 209 | 2116 | 12.9 |
| 25 | 62 | 202 | 1773 | 11.0 |
| 20 | 49 | 194 | 1401 | 9.0 |
| 15 | 37 | 183 | 1056 | 7.2 |
| 10 | 25 | 169 | 709 | 5.5 |
| 5 | 13 | 145 | 362 | 3.9 |
| 2 | 6 | 117 | 158 | 3.4 |