
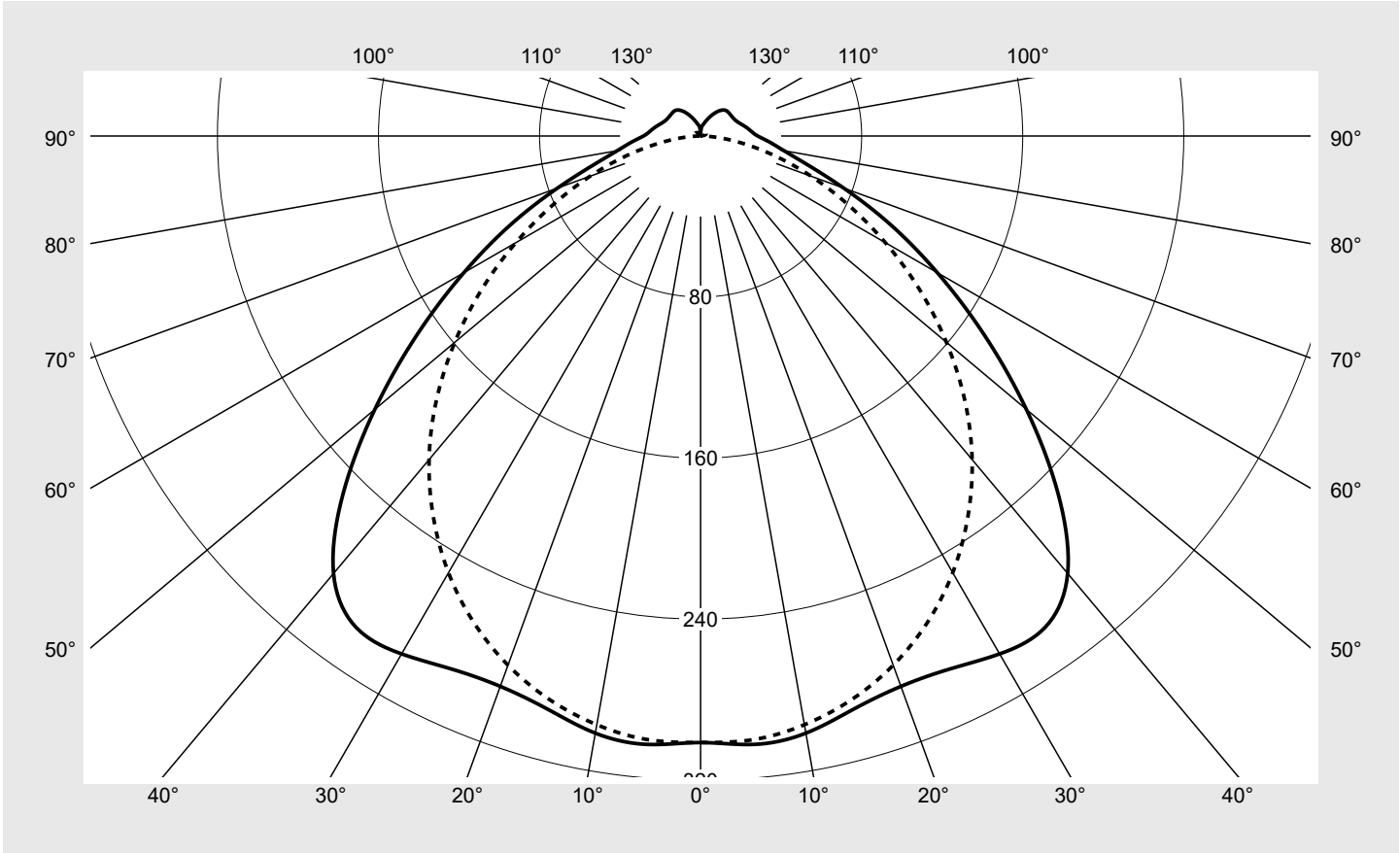


Photometric test report

| | | |
|--|---|--|
| Family Modario® 31  | Order number: 53BM812D2V4085 EAN: 4058352421826 | LP number 59062_19 |
| | Version diffuser optic, frosted, wide distribution Lamps LED 4000 K CRI ≥ 80 Controlgear ECG-DALI Rated values Net luminous flux = 8930 lm Power consumption = 61.8 W Luminous efficacy = 144.5 lm/W | serial documentation 26.11.2021 |

Luminous intensity in cd/klm **C180-0** **C270-90** **Imax: 303 cd/klm**



| Classifications | |
|-----------------|-----------------------------------|
| DIN 5040 | A 4 1 |
| CIE | N1=47 N2=80 N3=95 N4=92 N5=100 |

| Luminaire light output ratios | |
|-------------------------------|--------|
| η_{LB} | 100.0% |
| ϕ_u | 92.2% |
| ϕ_o | 7.8% |

| Measurement conditions |
|---------------------------|
| DIN EN 13032 and DIN 5032 |

Photometric test report

| | | |
|---|--|-------------------------------------|
| Family Modario® 31 | Order number: 53BM812D2V4085 EAN: 4058352421826 | LP number 59062_19 |
| 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° | 301.3 | 301.3 | 301.3 | 301.3 | 301.3 | 301.3 | 301.3 | 1.8 | 1.8 |
| 5° | 303.4 | 302.1 | 299.8 | 300.7 | 301.4 | 300.9 | 301.0 | 14.4 | 16.2 |
| 10° | 301.2 | 300.2 | 298.0 | 298.8 | 298.8 | 297.4 | 296.9 | 28.4 | 44.6 |
| 15° | 294.6 | 294.0 | 291.7 | 292.8 | 293.3 | 291.0 | 289.8 | 41.5 | 86.1 |
| 20° | 290.9 | 289.9 | 285.2 | 284.3 | 284.4 | 281.8 | 279.7 | 53.5 | 139.6 |
| 25° | 292.2 | 290.5 | 282.4 | 276.3 | 273.3 | 269.6 | 266.6 | 64.5 | 204.1 |
| 30° | 297.0 | 294.4 | 282.2 | 270.2 | 261.0 | 254.7 | 250.5 | 74.7 | 278.9 |
| 35° | 298.1 | 296.1 | 282.7 | 264.8 | 248.2 | 237.3 | 231.4 | 83.5 | 362.4 |
| 40° | 283.7 | 283.9 | 275.8 | 257.5 | 234.7 | 217.8 | 209.8 | 89.0 | 451.4 |
| 45° | 251.1 | 253.7 | 254.1 | 243.4 | 219.0 | 195.8 | 185.6 | 89.4 | 540.8 |
| 50° | 211.2 | 214.3 | 220.3 | 219.1 | 199.3 | 172.1 | 159.4 | 84.7 | 625.6 |
| 55° | 171.8 | 174.4 | 181.0 | 185.6 | 174.0 | 146.8 | 132.6 | 75.9 | 701.4 |
| 60° | 135.8 | 137.5 | 141.9 | 147.8 | 143.1 | 120.2 | 106.0 | 64.2 | 765.6 |
| 65° | 104.0 | 105.0 | 107.3 | 111.5 | 110.8 | 93.7 | 80.9 | 51.4 | 817.0 |
| 70° | 75.7 | 76.6 | 78.0 | 80.9 | 80.7 | 68.8 | 58.4 | 38.8 | 855.8 |
| 75° | 54.8 | 55.1 | 55.5 | 57.1 | 55.6 | 46.5 | 38.4 | 27.9 | 883.8 |
| 80° | 42.1 | 41.7 | 40.7 | 39.3 | 35.7 | 27.8 | 21.5 | 19.5 | 903.3 |
| 85° | 34.4 | 33.7 | 31.6 | 27.6 | 21.5 | 14.0 | 8.7 | 13.6 | 916.9 |
| 90° | 28.4 | 27.8 | 25.3 | 20.0 | 13.0 | 5.8 | 0.9 | 9.7 | 926.7 |
| 95° | 25.4 | 25.0 | 23.0 | 18.3 | 11.9 | 5.4 | 1.0 | 8.8 | 935.5 |
| 100° | 23.4 | 22.9 | 21.1 | 17.1 | 11.7 | 5.5 | 1.6 | 8.2 | 943.6 |
| 105° | 21.5 | 21.0 | 19.3 | 16.3 | 11.6 | 5.9 | 2.4 | 7.6 | 951.2 |
| 110° | 19.9 | 19.3 | 18.1 | 15.8 | 11.8 | 6.2 | 2.9 | 7.1 | 958.3 |
| 115° | 18.9 | 18.3 | 17.5 | 15.6 | 12.1 | 6.6 | 3.0 | 6.7 | 965.0 |
| 120° | 18.4 | 17.9 | 17.3 | 15.6 | 12.2 | 6.6 | 2.9 | 6.4 | 971.4 |
| 125° | 18.2 | 17.7 | 17.1 | 15.5 | 11.8 | 6.5 | 2.7 | 5.9 | 977.3 |
| 130° | 18.1 | 17.6 | 16.9 | 14.9 | 10.9 | 6.2 | 2.5 | 5.4 | 982.7 |
| 135° | 17.9 | 17.2 | 16.1 | 13.6 | 9.8 | 5.6 | 2.4 | 4.7 | 987.4 |
| 140° | 16.8 | 15.9 | 14.5 | 11.9 | 8.4 | 5.0 | 2.1 | 3.8 | 991.2 |
| 145° | 14.9 | 14.0 | 12.6 | 10.1 | 6.8 | 4.5 | 2.0 | 3.0 | 994.1 |
| 150° | 12.5 | 11.8 | 10.5 | 7.9 | 5.6 | 4.1 | 1.8 | 2.2 | 996.3 |
| 155° | 10.2 | 9.6 | 8.3 | 6.3 | 5.0 | 3.7 | 1.7 | 1.5 | 997.8 |
| 160° | 8.1 | 7.6 | 6.2 | 5.1 | 4.6 | 3.6 | 1.5 | 1.0 | 998.8 |
| 165° | 6.4 | 6.1 | 4.7 | 4.5 | 4.0 | 4.8 | 1.5 | 0.7 | 999.5 |
| 170° | 5.3 | 4.3 | 3.8 | 4.0 | 3.9 | 3.9 | 1.5 | 0.4 | 999.8 |
| 175° | 3.8 | 3.2 | 4.6 | 4.9 | 4.0 | 2.2 | 1.5 | 0.2 | 1000.0 |
| 180° | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 0.0 | 1000.0 |

Photometric test report

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| | | |
|------------------|----------------------|---------------|
| UGR-Table | Standard room | siteco |
|------------------|----------------------|---------------|

| | | | | | | | | | | | |
|------------------------------|---------------------|------|------|------|------|--------------------|------|------|------|------|------|
| 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 | 22.4 | 24.1 | 22.8 | 24.4 | 24.7 | 22.2 | 23.9 | 22.6 | 24.2 | 24.5 |
| | 3H | 23.4 | 24.9 | 23.8 | 25.2 | 25.6 | 23.4 | 24.9 | 23.7 | 25.2 | 25.6 |
| | 4H | 23.7 | 25.2 | 24.1 | 25.5 | 25.9 | 23.8 | 25.2 | 24.2 | 25.6 | 25.9 |
| | 6H | 24.1 | 25.4 | 24.5 | 25.8 | 26.1 | 24.0 | 25.4 | 24.5 | 25.8 | 26.1 |
| | 8H | 24.3 | 25.5 | 24.7 | 25.9 | 26.3 | 24.2 | 25.4 | 24.6 | 25.8 | 26.2 |
| | 12H | 24.4 | 25.6 | 24.9 | 26.0 | 26.4 | 24.2 | 25.4 | 24.6 | 25.8 | 26.2 |
| 4H | 2H | 23.0 | 24.5 | 23.4 | 24.8 | 25.2 | 22.9 | 24.4 | 23.3 | 24.7 | 25.1 |
| | 3H | 24.2 | 25.4 | 24.6 | 25.8 | 26.2 | 24.3 | 25.5 | 24.7 | 25.9 | 26.3 |
| | 4H | 24.6 | 25.7 | 25.1 | 26.2 | 26.6 | 24.8 | 25.9 | 25.3 | 26.3 | 26.8 |
| | 6H | 25.1 | 26.0 | 25.5 | 26.5 | 26.9 | 25.2 | 26.2 | 25.6 | 26.6 | 27.0 |
| | 8H | 25.3 | 26.2 | 25.8 | 26.6 | 27.1 | 25.3 | 26.2 | 25.8 | 26.7 | 27.1 |
| | 12H | 25.6 | 26.3 | 26.0 | 26.8 | 27.3 | 25.4 | 26.2 | 25.9 | 26.7 | 27.1 |
| 8H | 4H | 24.9 | 25.8 | 25.4 | 26.2 | 26.7 | 25.1 | 26.0 | 25.6 | 26.4 | 26.9 |
| | 6H | 25.5 | 26.2 | 26.0 | 26.7 | 27.2 | 25.6 | 26.3 | 26.1 | 26.8 | 27.3 |
| | 8H | 25.8 | 26.4 | 26.3 | 26.9 | 27.4 | 25.8 | 26.4 | 26.3 | 26.9 | 27.4 |
| | 12H | 26.1 | 26.7 | 26.6 | 27.2 | 27.7 | 25.9 | 26.5 | 26.4 | 27.0 | 27.5 |
| 12H | 4H | 24.9 | 25.8 | 25.4 | 26.2 | 26.7 | 25.1 | 25.9 | 25.6 | 26.4 | 26.9 |
| | 6H | 25.6 | 26.2 | 26.1 | 26.7 | 27.2 | 25.7 | 26.3 | 26.2 | 26.8 | 27.3 |
| | 8H | 25.9 | 26.5 | 26.4 | 27.0 | 27.5 | 25.9 | 26.5 | 26.4 | 26.9 | 27.5 |

| | | | | | |
|------------------------|---|--------------------------------------|-----------------|-------------------|---------------------|
| Luminance table | Max. for $\gamma \geq 65^\circ$ | Photometric dimensions in mm: | L = 1476 | H(C0) = 25 | H(C180) = 25 |
| | | | B = 75 | H(C90) = 0 | H(C270) = 0 |

| 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° | | 21485.3 | 21891.4 | 22496.1 | 22467.2 | 21413.7 | 20561.7 | 21170.3 | |
| 50° | | 18972.7 | 19440.5 | 20568.9 | 21465.7 | 20865.4 | 19580.5 | 20002.6 | |
| 55° | | 16372.3 | 16801.6 | 18023.1 | 19534.2 | 19761.6 | 18379.7 | 18653.5 | |
| 60° | | 13889.6 | 14236.8 | 15266.7 | 16935.6 | 17916.2 | 16869.9 | 17098.7 | |
| 65° | | 11577.4 | 11861.3 | 12647.3 | 14137.5 | 15580.9 | 15091.7 | 15449.3 | |
| 70° | | 9313.8 | 9586.4 | 10260.1 | 11582.0 | 13063.3 | 13116.6 | 13784.8 | |
| 75° | | 7609.1 | 7798.7 | 8333.3 | 9459.9 | 10691.0 | 10956.8 | 11983.1 | |
| 80° | | 6761.7 | 6852.3 | 7178.2 | 7803.6 | 8536.1 | 8672.9 | 10008.3 | |
| 85° | | 6609.8 | 6664.6 | 6799.1 | 6902.7 | 6847.6 | 6535.0 | 8067.2 | |

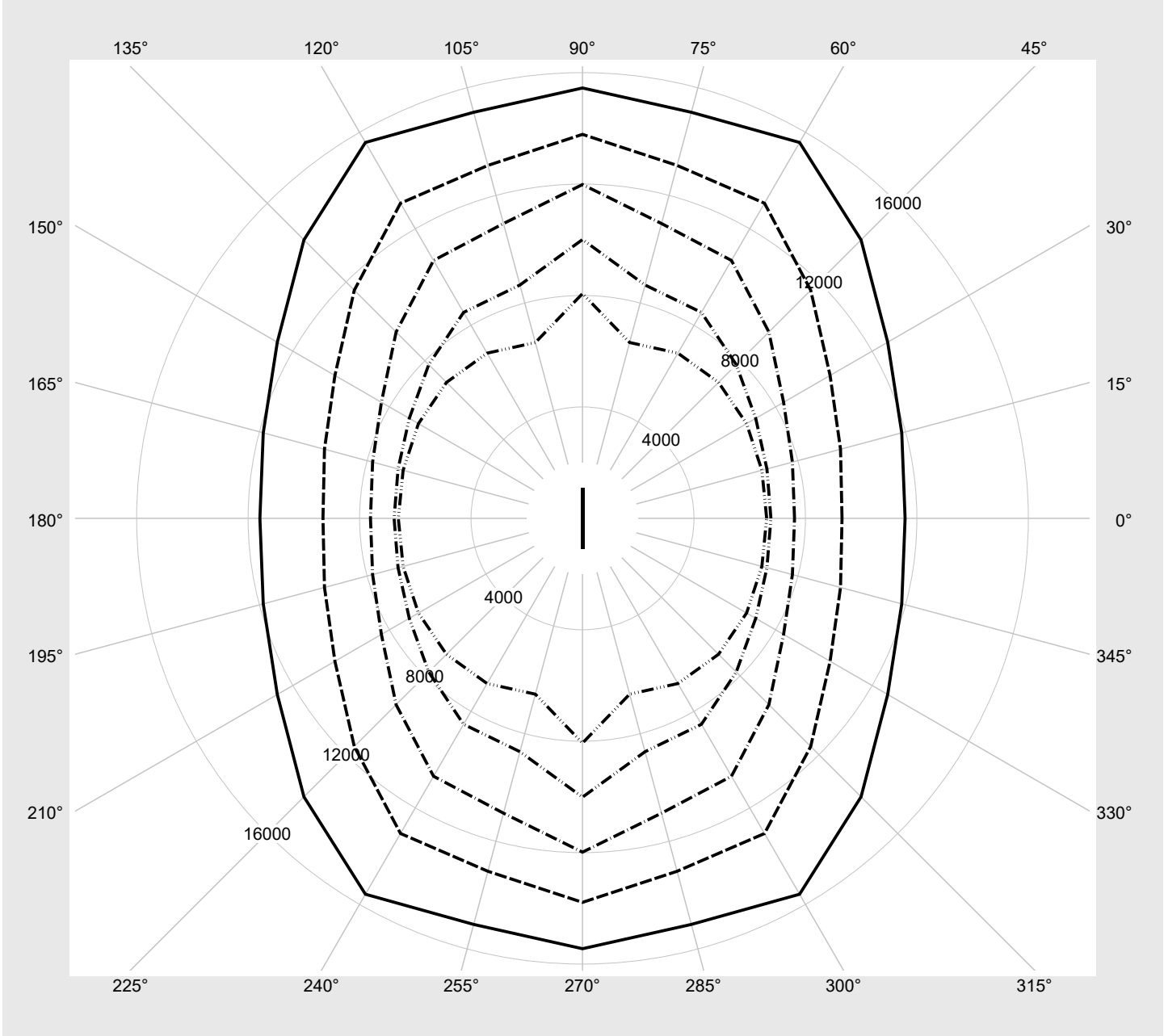
Photometric test report

| | | |
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Luminance values in cd/m²

γ 65°
 γ 70°
 γ 75°
 γ 80°
 γ 85°



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|-------------------------------------|--|-------------------------------------|
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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 | 8930 | 61.8 |
| 95 | 239 | 252 | 8478 | 58.0 |
| 90 | 225 | 250 | 8046 | 54.4 |
| 85 | 211 | 247 | 7607 | 50.9 |
| 80 | 197 | 245 | 7153 | 47.4 |
| 75 | 183 | 242 | 6693 | 43.9 |
| 70 | 170 | 239 | 6258 | 40.8 |
| 65 | 157 | 236 | 5815 | 37.6 |
| 60 | 144 | 233 | 5367 | 34.4 |
| 55 | 131 | 230 | 4913 | 31.4 |
| 50 | 118 | 226 | 4451 | 28.3 |
| 45 | 106 | 222 | 4019 | 25.6 |
| 40 | 94 | 218 | 3584 | 22.8 |
| 35 | 82 | 213 | 3140 | 20.1 |
| 30 | 70 | 207 | 2693 | 17.4 |
| 25 | 58 | 200 | 2242 | 14.8 |
| 20 | 46 | 191 | 1787 | 12.0 |
| 15 | 34 | 180 | 1326 | 9.4 |
| 10 | 23 | 166 | 900 | 7.0 |
| 5 | 11 | 139 | 433 | 4.6 |
| 2 | 4 | 102 | 157 | 2.9 |