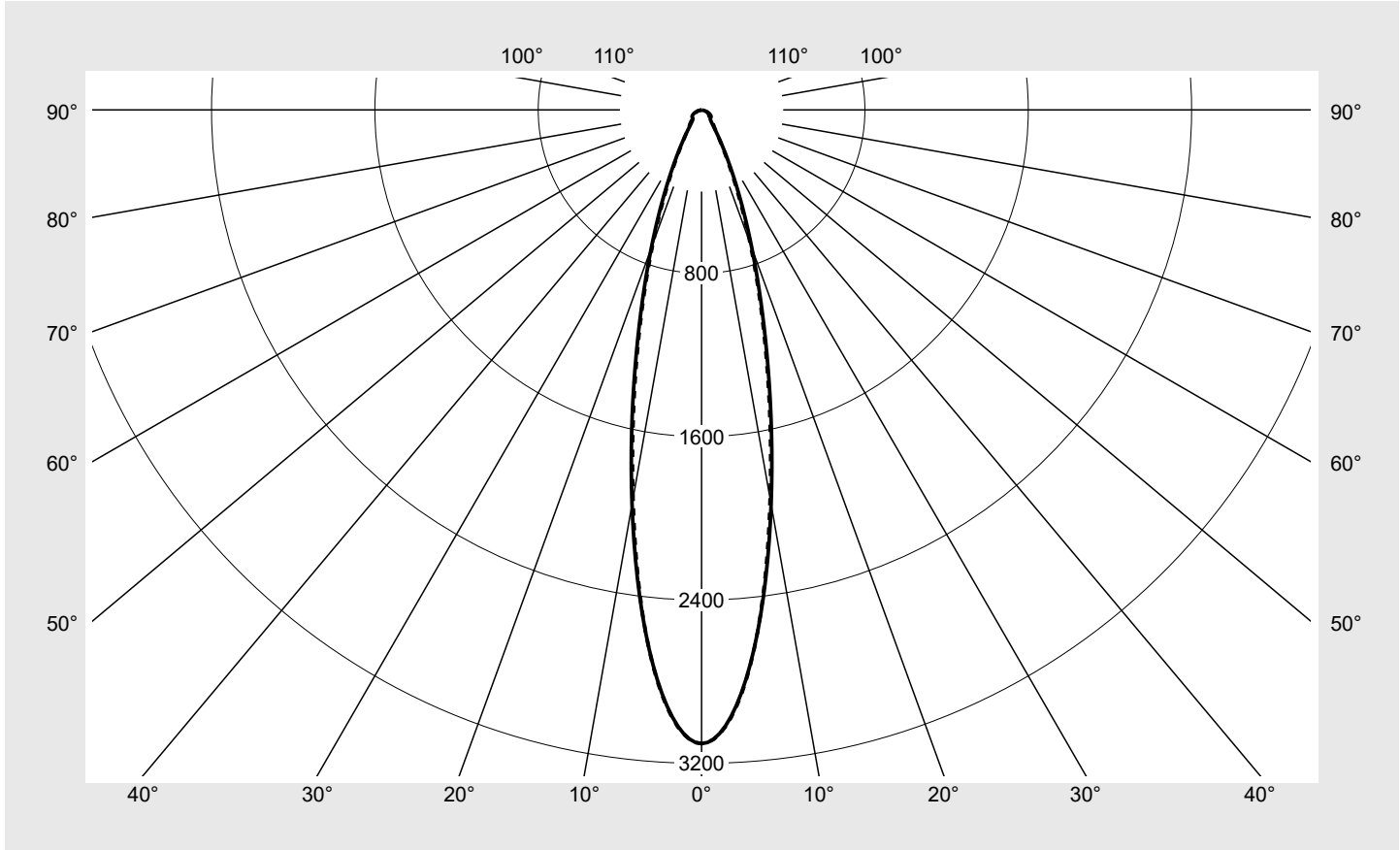


Photometric test report

| | | |
|-----------------------------|---|---|
| Family Highbay 11 | Order number: 51HLA1D24NCA + 59HL91002 EAN: 4058352322932 + 4058352341650 | LP number 58920_14 |
| Version | narrow distribution, UGR≤22, cover panel, PC | serial documentation 13.06.2019 |
| Lamps | LED 4000 K CRI ≥ 80 | |
| Controlgear | ECG-DALI | |
| Rated values | Net luminous flux = 29470 lm Power consumption = 189.6 W Luminous efficacy = 155.4 lm/W | |



Luminous intensity in cd/klm C180-0 C270-90 Imax: 3103 cd/klm



| Classifications | |
|-----------------|------------------------------------|
| DIN 5040 | A 7 0 |
| CIE | N1=85 N2=94 N3=99 N4=100 N5=100 |

| Luminaire light output ratios | |
|-------------------------------|--------|
| η_{LB} | 100.0% |
| ϕ_u | 100.0% |
| ϕ_o | 0.0% |

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

Photometric test report

| | | |
|----------------------|--|-----------------------|
| Family Highbay 11 | Order number: 51HLA1D24NCA + 59HL91002 EAN: 4058352322932 + 4058352341650 | LP number 58920_14 |
|----------------------|--|-----------------------|



Table of values for luminous intensities Maximum luminous intensity

| 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° | 3103.3 | 3103.3 | 3103.3 | 3103.3 | 3103.3 | 3103.3 | 3103.3 | 18.6 | 18.6 |
| 5° | 2728.1 | 2725.7 | 2734.5 | 2735.8 | 2731.2 | 2739.6 | 2732.7 | 130.6 | 149.1 |
| 10° | 1961.3 | 1955.1 | 1962.7 | 1959.8 | 1944.6 | 1940.4 | 1933.3 | 185.8 | 334.9 |
| 15° | 1234.5 | 1231.5 | 1237.4 | 1233.6 | 1223.5 | 1217.2 | 1209.8 | 174.2 | 509.0 |
| 20° | 720.2 | 721.2 | 730.7 | 731.8 | 720.5 | 706.3 | 696.1 | 134.9 | 644.0 |
| 25° | 391.5 | 395.5 | 407.7 | 412.0 | 396.6 | 377.5 | 368.6 | 91.5 | 735.4 |
| 30° | 203.6 | 206.8 | 216.0 | 219.0 | 212.4 | 200.7 | 194.3 | 57.3 | 792.7 |
| 35° | 109.3 | 109.5 | 113.4 | 118.8 | 120.5 | 117.6 | 115.6 | 36.3 | 829.0 |
| 40° | 71.8 | 72.6 | 76.4 | 83.5 | 87.0 | 87.1 | 87.3 | 28.5 | 857.5 |
| 45° | 59.8 | 60.1 | 64.9 | 71.1 | 68.6 | 64.2 | 62.9 | 25.2 | 882.8 |
| 50° | 58.8 | 60.0 | 64.4 | 66.4 | 57.1 | 49.4 | 48.5 | 24.6 | 907.3 |
| 55° | 56.5 | 57.6 | 60.7 | 58.9 | 51.3 | 43.9 | 43.6 | 24.1 | 931.5 |
| 60° | 50.4 | 50.7 | 52.1 | 52.2 | 45.2 | 38.5 | 38.0 | 22.4 | 953.8 |
| 65° | 40.7 | 40.4 | 41.4 | 42.5 | 37.1 | 32.0 | 31.7 | 19.0 | 972.8 |
| 70° | 28.4 | 28.2 | 29.2 | 30.2 | 27.5 | 24.4 | 24.3 | 14.2 | 987.1 |
| 75° | 15.1 | 15.6 | 16.5 | 18.0 | 16.8 | 16.4 | 16.8 | 8.8 | 995.8 |
| 80° | 5.3 | 5.6 | 6.2 | 6.9 | 7.4 | 7.5 | 9.1 | 3.7 | 999.5 |
| 85° | 0.5 | 0.5 | 0.6 | 0.8 | 1.1 | 1.3 | 1.8 | 0.5 | 1000.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1000.0 |
| 95° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1000.0 |
| 100° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1000.0 |
| 105° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1000.0 |
| 110° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1000.0 |
| 115° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1000.0 |
| 120° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1000.0 |
| 125° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1000.0 |
| 130° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1000.0 |
| 135° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1000.0 |
| 140° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1000.0 |
| 145° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1000.0 |
| 150° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1000.0 |
| 155° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1000.0 |
| 160° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1000.0 |
| 165° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1000.0 |
| 170° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1000.0 |
| 175° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1000.0 |
| 180° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1000.0 |

Photometric test report

| | | |
|----------------------|--|-----------------------|
| Family Highbay 11 | Order number: 51HLA1D24NCA + 59HL91002 EAN: 4058352322932 + 4058352341650 | LP number 58920_14 |
|----------------------|--|-----------------------|

| | | | | | | | | | | |
|-----------|---------------|--------|--|--|--|--|--|--|--|--|
| 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 | 18.8 | 20.0 | 19.2 | 20.3 | 20.6 | 17.8 | 18.9 | 18.1 | 19.2 | 19.6 |
| | 3H | 20.3 | 21.3 | 20.7 | 21.6 | 22.0 | 19.1 | 20.2 | 19.5 | 20.5 | 20.9 |
| | 4H | 20.6 | 21.6 | 21.0 | 21.9 | 22.3 | 19.7 | 20.6 | 20.1 | 21.0 | 21.4 |
| | 6H | 20.7 | 21.6 | 21.2 | 22.0 | 22.3 | 20.0 | 20.9 | 20.4 | 21.2 | 21.6 |
| | 8H | 20.8 | 21.5 | 21.2 | 21.9 | 22.3 | 20.2 | 20.9 | 20.6 | 21.3 | 21.7 |
| | 12H | 20.8 | 21.4 | 21.2 | 21.8 | 22.2 | 20.2 | 20.8 | 20.6 | 21.2 | 21.6 |
| 4H | 2H | 19.5 | 20.5 | 19.9 | 20.8 | 21.2 | 18.8 | 19.7 | 19.2 | 20.1 | 20.5 |
| | 3H | 21.1 | 21.9 | 21.5 | 22.3 | 22.7 | 20.2 | 21.0 | 20.7 | 21.4 | 21.8 |
| | 4H | 21.5 | 22.2 | 21.9 | 22.6 | 23.1 | 20.8 | 21.5 | 21.3 | 21.9 | 22.4 |
| | 6H | 21.6 | 22.2 | 22.1 | 22.7 | 23.1 | 21.1 | 21.7 | 21.6 | 22.2 | 22.7 |
| | 8H | 21.6 | 22.1 | 22.1 | 22.6 | 23.1 | 21.2 | 21.8 | 21.7 | 22.2 | 22.7 |
| | 12H | 21.6 | 22.0 | 22.1 | 22.5 | 23.0 | 21.2 | 21.7 | 21.7 | 22.1 | 22.6 |
| 8H | 4H | 21.7 | 22.2 | 22.1 | 22.6 | 23.1 | 21.1 | 21.6 | 21.5 | 22.0 | 22.5 |
| | 6H | 21.8 | 22.2 | 22.3 | 22.7 | 23.2 | 21.4 | 21.9 | 21.9 | 22.3 | 22.8 |
| | 8H | 21.8 | 22.2 | 22.3 | 22.7 | 23.2 | 21.5 | 21.9 | 22.0 | 22.4 | 22.9 |
| | 12H | 21.7 | 22.1 | 22.3 | 22.6 | 23.1 | 21.5 | 21.8 | 22.0 | 22.3 | 22.9 |
| 12H | 4H | 21.7 | 22.1 | 22.1 | 22.6 | 23.1 | 21.0 | 21.5 | 21.5 | 21.9 | 22.4 |
| | 6H | 21.8 | 22.2 | 22.3 | 22.6 | 23.2 | 21.4 | 21.8 | 21.9 | 22.3 | 22.8 |
| | 8H | 21.8 | 22.1 | 22.3 | 22.6 | 23.1 | 21.5 | 21.8 | 22.0 | 22.3 | 22.8 |

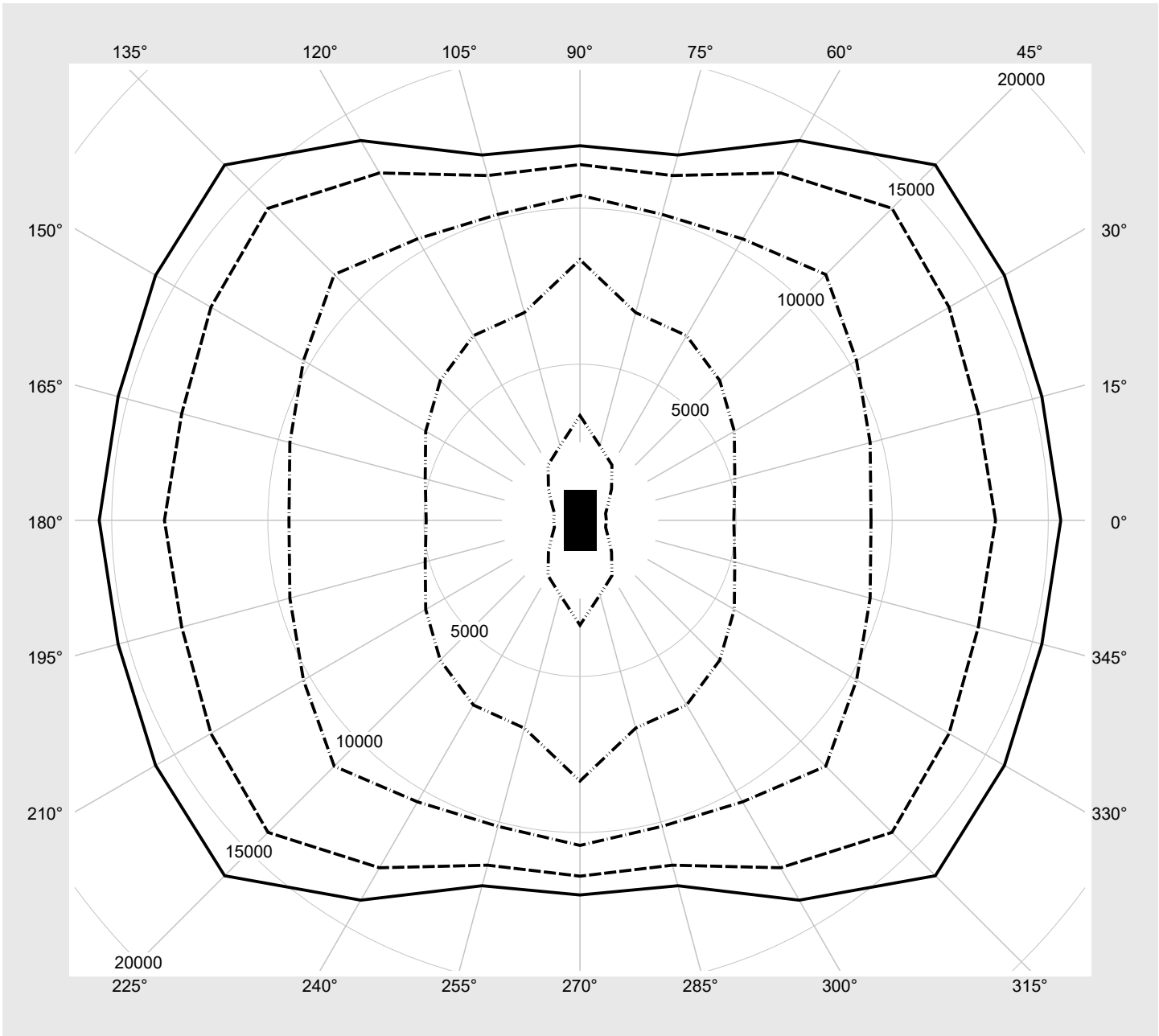
| | | | |
|-----------------|---------------------------------|-------------------------------|---------|
| Luminance table | Max. for $\gamma \geq 65^\circ$ | Photometric dimensions in mm: | L = 590 |
| | | | B = 312 |

| 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° | | 13538.9 | 13617.4 | 14690.6 | 16094.1 | 15528.5 | 14544.1 | 14233.9 | |
| 50° | | 14638.8 | 14938.7 | 16029.3 | 16542.6 | 14230.4 | 12315.3 | 12075.5 | |
| 55° | | 15766.9 | 16065.0 | 16951.2 | 16447.4 | 14305.2 | 12254.5 | 12176.6 | |
| 60° | | 16121.4 | 16246.6 | 16694.5 | 16704.1 | 14478.9 | 12322.7 | 12163.6 | |
| 65° | | 15401.0 | 15317.3 | 15698.4 | 16098.8 | 14047.5 | 12116.0 | 11998.9 | |
| 70° | | 13312.2 | 13209.3 | 13652.5 | 14134.2 | 12848.8 | 11434.3 | 11396.4 | |
| 75° | | 9322.8 | 9622.2 | 10230.3 | 11135.2 | 10411.5 | 10147.4 | 10411.5 | |
| 80° | | 4927.8 | 5133.4 | 5707.7 | 6331.9 | 6829.7 | 6889.7 | 8349.1 | |
| 85° | | 845.0 | 848.6 | 1039.7 | 1429.1 | 2046.3 | 2468.7 | 3356.0 | |

Photometric test report

| | | |
|-----------------------------|--|------------------------------|
| Family Highbay 11 | Order number: 51HLA1D24NCA + 59HL91002 EAN: 4058352322932 + 4058352341650 | LP number 58920_14 |
|-----------------------------|--|------------------------------|

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



Photometric test report

| | | |
|----------------------|--|-----------------------|
| Family Highbay 11 | Order number: 51HLA1D24NCA + 59HL91002 EAN: 4058352322932 + 4058352341650 | LP number 58920_14 |
|----------------------|--|-----------------------|

| | | |
|----------------------|---------------------------------|--------|
| 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 | 29470 | 189.6 |
| 95 | 240 | 252 | 27997 | 179.4 |
| 90 | 227 | 250 | 26523 | 169.2 |
| 85 | 213 | 248 | 25050 | 158.9 |
| 80 | 200 | 245 | 23576 | 148.9 |
| 75 | 187 | 243 | 22103 | 139.4 |
| 70 | 174 | 240 | 20629 | 129.6 |
| 65 | 161 | 237 | 19156 | 120.1 |
| 60 | 148 | 234 | 17682 | 110.8 |
| 55 | 135 | 231 | 16209 | 101.4 |
| 50 | 123 | 228 | 14735 | 92.3 |
| 45 | 110 | 224 | 13262 | 83.2 |
| 40 | 98 | 220 | 11788 | 74.4 |
| 35 | 85 | 215 | 10315 | 65.5 |
| 30 | 73 | 210 | 8841 | 56.9 |
| 25 | 61 | 204 | 7368 | 48.4 |
| 20 | 49 | 197 | 5894 | 39.9 |
| 15 | 37 | 188 | 4421 | 31.4 |
| 10 | 25 | 177 | 2946 | 23.0 |