

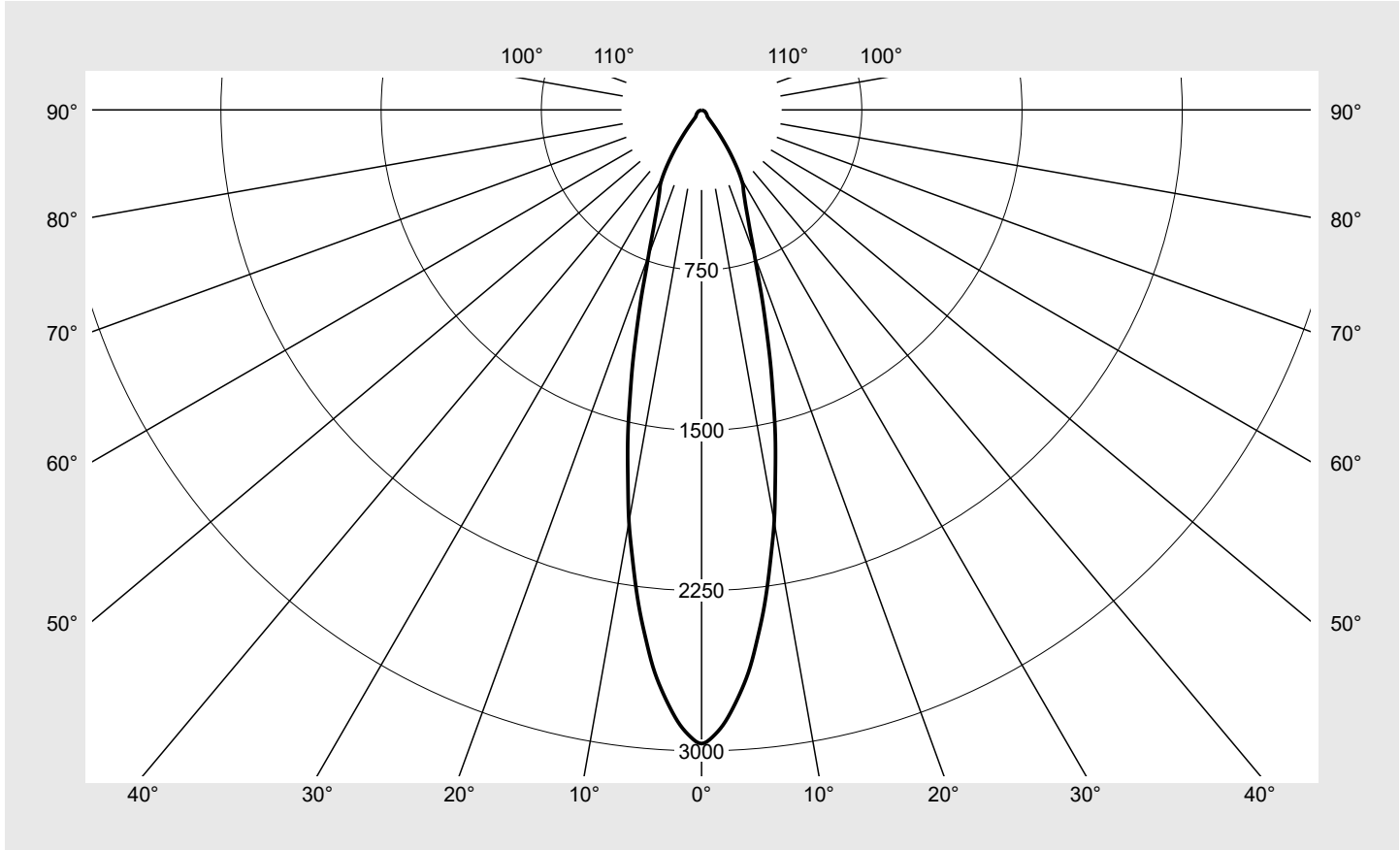


# Photometric test report

|   |   |   |
|---|---|---|
| <b>Family</b><br><b>Spot 31</b>   | <b>Order number: 51SF13MAD4B</b><br><b>EAN: 4058352721094</b>   | <b>LP number</b><br><b>59382_2</b>  |
|  | <b>Version</b> reflector, cover, polycarbonate, medium distribution<br><b>Lamps</b> LED 4000 K   CRI ≥ 90<br><b>Controlgear</b> ECG Multilumen<br><b>Setting</b> factory setting: DIP-Step=14 | <b>serial documentation</b><br><b>20.01.2023</b>                                    |
|   | <b>Rated values</b><br>Net luminous flux = 4980 lm<br>Power consumption = 39.4 W<br>Luminous efficacy = 126.4 lm/W  |  |

**Luminous intensity in cd/klm** C180-0 **Imax: 2966 cd/klm**



| Classifications |                                    |
|-----------------|------------------------------------|
| DIN 5040        | A 7 0                              |
| CIE             | N1=92 N2=97 N3=99<br>N4=100 N5=100 |

| Luminaire light output ratios |        |
|-------------------------------|--------|
| $\eta_{LB}$                   | 100.0% |
| $\phi_u$                      | 100.0% |
| $\phi_o$                      | 0.0%   |

**Measurement conditions**  
 DIN EN 13032 and DIN 5032

## Photometric test report

|   |   |                                    |
|---|---|------------------------------------|
| <b>Family</b><br><b>Spot 31</b>                 | <b>Order number: 51SF13MAD4B</b><br><b>EAN: 4058352721094</b> | <b>LP number</b><br><b>59382_2</b> |
| <b>Table of values for luminous intensities</b> |   | <b>Maximum luminous intensity</b>  |
|   |   | <b>siteco</b>                      |

| C-planes | 0°                           | Phi-zone | Total Phi-zone          |
|----------|------------------------------|----------|-------------------------|
| γ        | Luminous intensity in cd/klm |          | Luminous flux in lm/klm |
| 0°       | 2966.0                       | 0.7      | 0.7                     |
| 1°       | 2935.3                       | 5.6      | 6.3                     |
| 2°       | 2880.8                       | 11.0     | 17.4                    |
| 3°       | 2803.7                       | 16.1     | 33.4                    |
| 4°       | 2715.9                       | 20.8     | 54.2                    |
| 5°       | 2615.6                       | 25.0     | 79.2                    |
| 6°       | 2492.2                       | 28.6     | 107.8                   |
| 7°       | 2367.9                       | 31.6     | 139.4                   |
| 8°       | 2231.3                       | 34.1     | 173.5                   |
| 9°       | 2091.5                       | 35.9     | 209.4                   |
| 10°      | 1957.8                       | 37.3     | 246.6                   |
| 11°      | 1804.9                       | 37.8     | 284.4                   |
| 12°      | 1664.3                       | 37.9     | 322.4                   |
| 13°      | 1528.2                       | 37.7     | 360.1                   |
| 14°      | 1383.5                       | 36.7     | 396.8                   |
| 15°      | 1255.3                       | 35.6     | 432.4                   |
| 16°      | 1127.0                       | 34.1     | 466.5                   |
| 17°      | 1009.5                       | 32.4     | 498.8                   |
| 18°      | 903.9                        | 30.6     | 529.4                   |
| 19°      | 802.9                        | 28.7     | 558.1                   |
| 20°      | 726.0                        | 27.2     | 585.3                   |
| 21°      | 660.5                        | 26.0     | 611.3                   |
| 22°      | 603.1                        | 24.8     | 636.1                   |
| 23°      | 558.2                        | 23.9     | 660.0                   |
| 24°      | 518.6                        | 23.1     | 683.1                   |
| 25°      | 485.6                        | 22.5     | 705.6                   |
| 26°      | 458.6                        | 22.0     | 727.7                   |
| 27°      | 434.7                        | 21.6     | 749.3                   |
| 28°      | 416.1                        | 21.4     | 770.7                   |
| 29°      | 397.5                        | 21.1     | 791.9                   |
| 30°      | 368.6                        | 20.2     | 812.1                   |
| 31°      | 335.4                        | 18.9     | 831.0                   |
| 32°      | 298.6                        | 17.4     | 848.4                   |
| 33°      | 261.5                        | 15.6     | 864.0                   |
| 34°      | 225.0                        | 13.8     | 877.8                   |
| 35°      | 185.8                        | 11.7     | 889.5                   |
| 36°      | 149.8                        | 9.7      | 899.1                   |
| 37°      | 117.2                        | 7.7      | 906.9                   |
| 38°      | 85.2                         | 5.8      | 912.6                   |
| 39°      | 61.6                         | 4.2      | 916.9                   |
| 40°      | 45.9                         | 3.2      | 920.1                   |
| 41°      | 41.9                         | 3.0      | 923.1                   |
| 42°      | 40.0                         | 2.9      | 926.1                   |
| 43°      | 37.9                         | 2.8      | 928.9                   |
| 44°      | 37.0                         | 2.8      | 931.7                   |
| 45°      | 36.2                         | 2.8      | 934.5                   |
| 46°      | 35.1                         | 2.8      | 937.3                   |

| C-planes | 0°                           | Phi-zone | Total Phi-zone          |
|----------|------------------------------|----------|-------------------------|
| γ        | Luminous intensity in cd/klm |          | Luminous flux in lm/klm |
| 47°      | 33.8                         | 2.7      | 940.0                   |
| 48°      | 32.6                         | 2.7      | 942.7                   |
| 49°      | 31.6                         | 2.6      | 945.3                   |
| 50°      | 30.5                         | 2.6      | 947.8                   |
| 51°      | 29.3                         | 2.5      | 950.3                   |
| 52°      | 28.6                         | 2.5      | 952.8                   |
| 53°      | 27.2                         | 2.4      | 955.2                   |
| 54°      | 26.0                         | 2.3      | 957.5                   |
| 55°      | 25.2                         | 2.3      | 959.7                   |
| 56°      | 24.0                         | 2.2      | 961.9                   |
| 57°      | 22.7                         | 2.1      | 964.0                   |
| 58°      | 22.0                         | 2.0      | 966.1                   |
| 59°      | 20.9                         | 2.0      | 968.0                   |
| 60°      | 20.3                         | 1.9      | 970.0                   |
| 61°      | 19.0                         | 1.8      | 971.8                   |
| 62°      | 18.6                         | 1.8      | 973.6                   |
| 63°      | 17.5                         | 1.7      | 975.3                   |
| 64°      | 16.9                         | 1.7      | 977.0                   |
| 65°      | 16.1                         | 1.6      | 978.6                   |
| 66°      | 15.7                         | 1.6      | 980.1                   |
| 67°      | 14.9                         | 1.5      | 981.6                   |
| 68°      | 14.5                         | 1.5      | 983.1                   |
| 69°      | 13.8                         | 1.4      | 984.5                   |
| 70°      | 13.7                         | 1.4      | 985.9                   |
| 71°      | 12.9                         | 1.3      | 987.3                   |
| 72°      | 12.3                         | 1.3      | 988.6                   |
| 73°      | 11.8                         | 1.2      | 989.8                   |
| 74°      | 11.2                         | 1.2      | 991.0                   |
| 75°      | 10.5                         | 1.1      | 992.1                   |
| 76°      | 9.7                          | 1.0      | 993.1                   |
| 77°      | 8.3                          | 0.9      | 994.0                   |
| 78°      | 7.2                          | 0.8      | 994.8                   |
| 79°      | 6.7                          | 0.7      | 995.5                   |
| 80°      | 6.4                          | 0.7      | 996.2                   |
| 81°      | 5.7                          | 0.6      | 996.8                   |
| 82°      | 5.0                          | 0.5      | 997.3                   |
| 83°      | 4.7                          | 0.5      | 997.9                   |
| 84°      | 4.0                          | 0.4      | 998.3                   |
| 85°      | 3.5                          | 0.4      | 998.7                   |
| 86°      | 3.2                          | 0.4      | 999.0                   |
| 87°      | 2.7                          | 0.3      | 999.3                   |
| 88°      | 2.6                          | 0.3      | 999.6                   |
| 89°      | 2.4                          | 0.3      | 999.9                   |
| 90°      | 2.4                          | 0.3      | 1000.1                  |

## Photometric test report

|                   |   |                      |
|-------------------|---|----------------------|
| Family<br>Spot 31 | Order number: 51SF13MAD4B<br>EAN: 4058352721094 | LP number<br>59382_2 |
|-------------------|---|----------------------|

|           |               |        |
|-----------|---------------|--------|
| 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                  | 22.2 | 23.3 | 22.5 | 23.6 | 23.9               | 22.2 | 23.3 | 22.5 | 23.6 | 23.9 |
|                              | 3H                  | 22.9 | 23.8 | 23.3 | 24.2 | 24.5               | 22.9 | 23.8 | 23.3 | 24.2 | 24.5 |
|                              | 4H                  | 23.3 | 24.2 | 23.7 | 24.5 | 24.9               | 23.3 | 24.2 | 23.7 | 24.5 | 24.9 |
|                              | 6H                  | 23.7 | 24.4 | 24.1 | 24.8 | 25.2               | 23.7 | 24.4 | 24.1 | 24.8 | 25.2 |
|                              | 8H                  | 23.9 | 24.5 | 24.3 | 24.9 | 25.3               | 23.9 | 24.5 | 24.3 | 24.9 | 25.3 |
|                              | 12H                 | 24.0 | 24.6 | 24.4 | 25.0 | 25.4               | 24.0 | 24.6 | 24.4 | 25.0 | 25.4 |
| 4H                           | 2H                  | 22.3 | 23.2 | 22.7 | 23.6 | 23.9               | 22.3 | 23.2 | 22.7 | 23.6 | 23.9 |
|                              | 3H                  | 23.3 | 24.0 | 23.7 | 24.4 | 24.8               | 23.3 | 24.0 | 23.7 | 24.4 | 24.8 |
|                              | 4H                  | 23.9 | 24.5 | 24.3 | 24.9 | 25.4               | 23.9 | 24.5 | 24.3 | 24.9 | 25.4 |
|                              | 6H                  | 24.3 | 24.8 | 24.8 | 25.3 | 25.8               | 24.3 | 24.8 | 24.8 | 25.3 | 25.8 |
|                              | 8H                  | 24.5 | 25.0 | 25.0 | 25.4 | 25.9               | 24.5 | 25.0 | 25.0 | 25.4 | 25.9 |
|                              | 12H                 | 24.7 | 25.1 | 25.2 | 25.6 | 26.1               | 24.7 | 25.1 | 25.2 | 25.6 | 26.1 |
| 8H                           | 4H                  | 24.1 | 24.5 | 24.5 | 25.0 | 25.5               | 24.1 | 24.5 | 24.5 | 25.0 | 25.5 |
|                              | 6H                  | 24.6 | 25.0 | 25.1 | 25.5 | 26.0               | 24.6 | 25.0 | 25.1 | 25.5 | 26.0 |
|                              | 8H                  | 24.9 | 25.2 | 25.4 | 25.7 | 26.2               | 24.9 | 25.2 | 25.4 | 25.7 | 26.2 |
|                              | 12H                 | 25.2 | 25.4 | 25.7 | 25.9 | 26.5               | 25.2 | 25.4 | 25.7 | 25.9 | 26.5 |
| 12H                          | 4H                  | 24.1 | 24.5 | 24.6 | 24.9 | 25.4               | 24.1 | 24.5 | 24.6 | 24.9 | 25.4 |
|                              | 6H                  | 24.7 | 25.0 | 25.2 | 25.5 | 26.0               | 24.7 | 25.0 | 25.2 | 25.5 | 26.0 |
|                              | 8H                  | 25.0 | 25.2 | 25.5 | 25.8 | 26.3               | 25.0 | 25.2 | 25.5 | 25.8 | 26.3 |

|                 |                                 |                                      |
|-----------------|---------------------------------|--------------------------------------|
| Luminance table | Max. for $\gamma \geq 65^\circ$ | Photometric dimensions in mm: D = 79 |
|-----------------|---------------------------------|--------------------------------------|

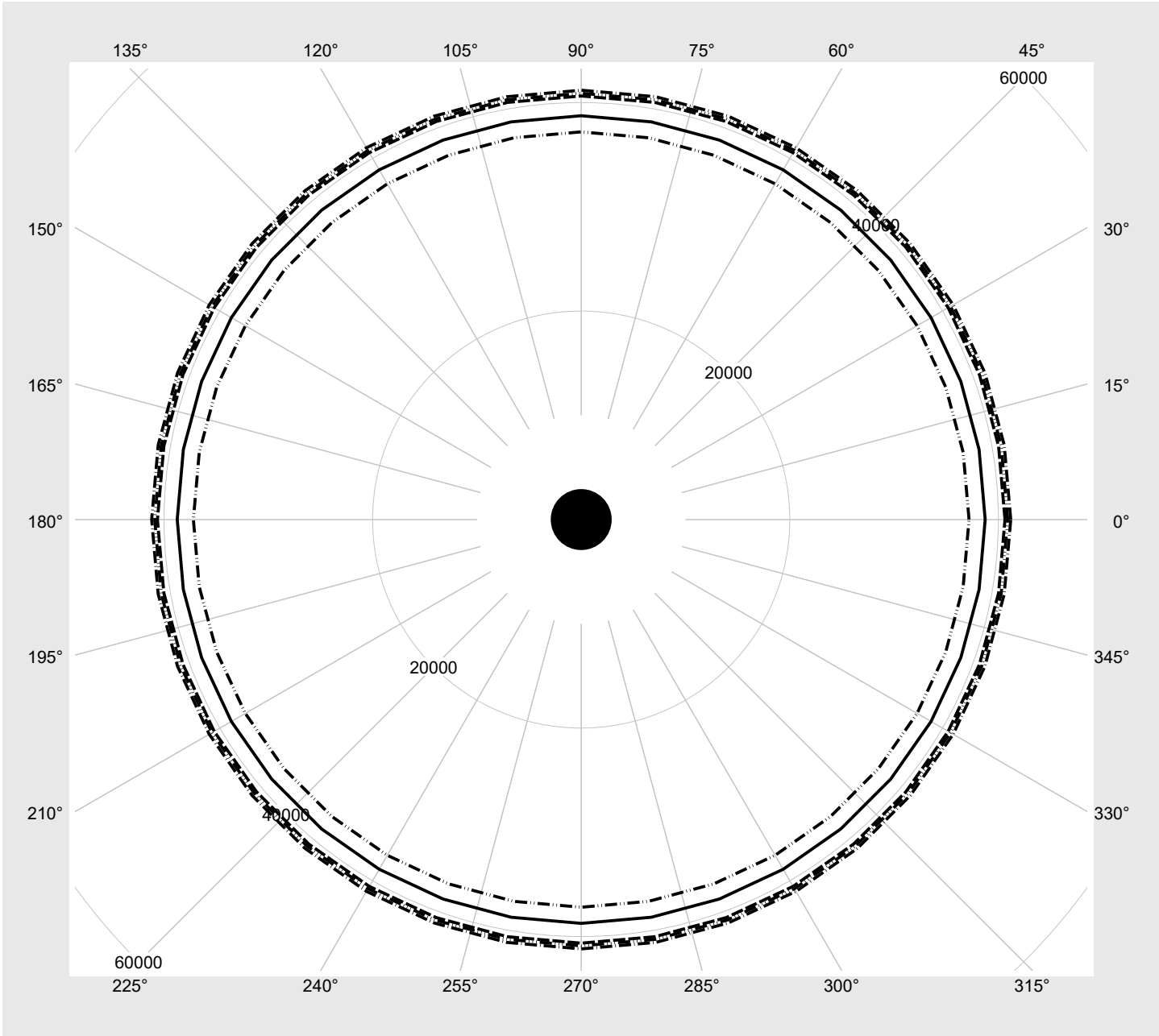
|          |                                |
|----------|--------------------------------|
| C-planes | 0°                             |
| $\gamma$ | Luminance in cd/m <sup>2</sup> |
| 45°      | 51989.6                        |
| 50°      | 48141.4                        |
| 55°      | 44596.2                        |
| 60°      | 41259.0                        |
| 65°      | 38735.9                        |
| 70°      | 40633.8                        |
| 75°      | 41185.8                        |
| 80°      | 37187.7                        |
| 85°      | 40893.0                        |

**Photometric test report**

|                                 |   |                                    |
|---------------------------------|---|------------------------------------|
| <b>Family</b><br><b>Spot 31</b> | <b>Order number: 51SF13MAD4B</b><br><b>EAN: 4058352721094</b> | <b>LP number</b><br><b>59382_2</b> |
|---------------------------------|---|------------------------------------|

**Luminance values in cd/m<sup>2</sup>**

γ 65°
γ 70°
γ 75°
γ 80°
γ 85°



## Photometric test report

|                          |   |                             |
|--------------------------|---|-----------------------------|
| Family<br><b>Spot 31</b> | Order number: <b>51SF13MAD4B</b><br>EAN: <b>4058352721094</b> | LP number<br><b>59382_2</b> |
|--------------------------|---|-----------------------------|

|                         |                                 |               |
|-------------------------|---------------------------------|---------------|
| <b>Multilumen Table</b> | environmental temperature: 25°C | <b>sITeco</b> |
|-------------------------|---------------------------------|---------------|

| DIP-Step | Switch Setting |     |     |     | Luminous flux<br>[lm] | Power consumption<br>[W] |
|----------|----------------|-----|-----|-----|-----------------------|--------------------------|
|          | 1              | 2   | 3   | 4   |                       |                          |
| 15       | ON             | ON  | ON  | ON  | 5190                  | 41.5                     |
| 14       | ON             | ON  | ON  | OFF | 4980                  | 39.4                     |
| 13       | ON             | ON  | OFF | ON  | 4780                  | 37.4                     |
| 12       | ON             | ON  | OFF | OFF | 4540                  | 35.3                     |
| 11       | ON             | OFF | ON  | ON  | 4360                  | 33.4                     |
| 10       | ON             | OFF | ON  | OFF | 4130                  | 31.4                     |
| 9        | ON             | OFF | OFF | ON  | 3880                  | 29.4                     |
| 8        | ON             | OFF | OFF | OFF | 3680                  | 27.3                     |
| 7        | OFF            | ON  | ON  | ON  | 3470                  | 25.8                     |
| 6        | OFF            | ON  | ON  | OFF | 3220                  | 23.9                     |
| 5        | OFF            | ON  | OFF | ON  | 2990                  | 21.8                     |
| 4        | OFF            | ON  | OFF | OFF | 2740                  | 19.9                     |
| 3        | OFF            | OFF | ON  | ON  | 2470                  | 17.7                     |
| 2        | OFF            | OFF | ON  | OFF | 2210                  | 15.9                     |
| 1        | OFF            | OFF | OFF | ON  | 1860                  | 13.8                     |
| 0        | OFF            | OFF | OFF | OFF | 1600                  | 11.9                     |