

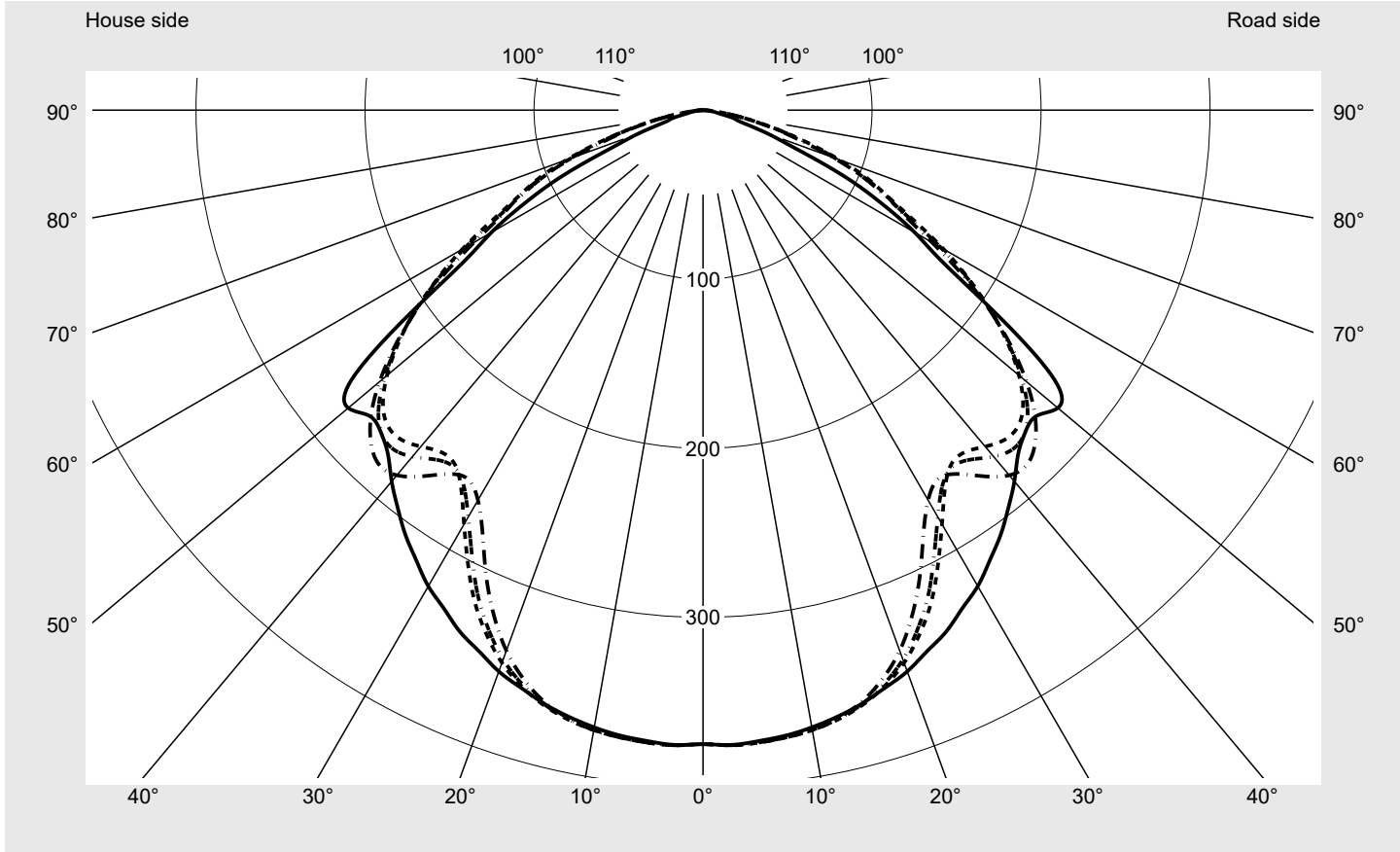


Photometric test report

| | | |
|--|---|---|
| Family Tunnellight TL-L | Order number: 5WD7A8D0B2B5 EAN: 4058352973493 | LP number 59482_21 |
|  | Version refurbishment insert for tunnel luminaire, luminaire insert Retrofit | serial documentation 24.11.2023 |
| | Optic symmetric extremely wide distribution | |
| | Cover enclosure of PMMA | |
| | Lamps LED 4000 K CRI ≥ 80 | |
| | Controlgear ECG-DALI | |
| Rated values | Net luminous flux = 4990 lm Power consumption = 30.0 W Luminous efficacy = 166.3 lm/W |  |

Luminous intensity in cd/klm
C180-0
C245-65
C250-70
C270-90
Imax: 376 cd/klm



| Luminaire output ratios | |
|-------------------------|--------|
| Eta | 100.0% |
| Eta 0° - 90° | 100.0% |
| Eta 90° - 180° | 0.0% |

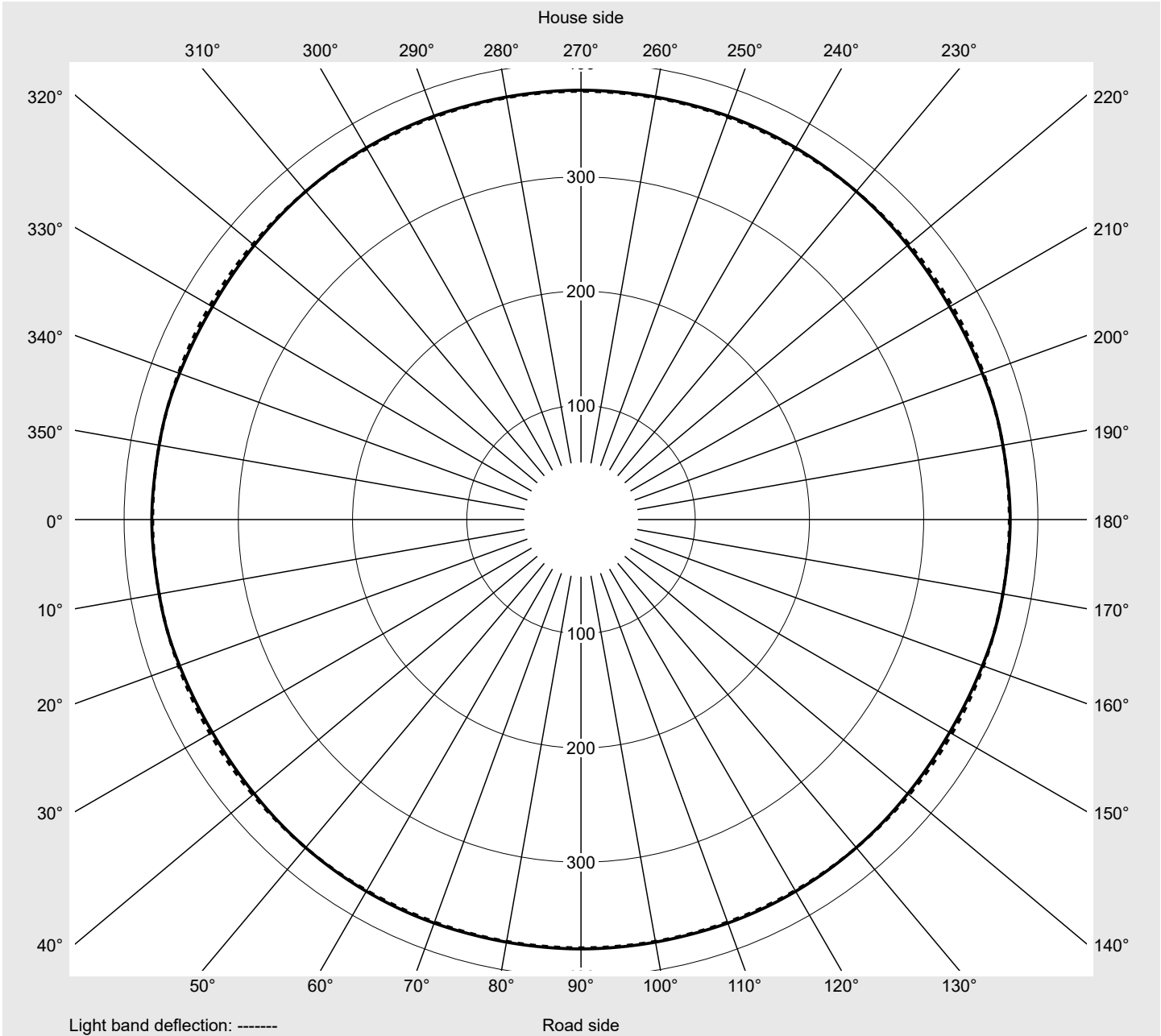
| Luminous intensity class acc. to EN13201-2 | |
|--|------|
| Class: | G6 |
| Imax 70° | 89.5 |
| Imax 80° | 20.7 |
| Imax 90° | 0.0 |
| Imax >90° | 0.0 |
| Imax >95° | 0.0 |

Measurement conditions
 DIN EN 13032 and DIN 5032

Photometric test report

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|-----------------------------------|--|------------------------------|
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Envelope curve in cd/klm KMK 2.5° KMK 0° siteco



Photometric test report

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|---|--|-----------------------------------|
| Family Tunnellight TL-L | Order number: 5WD7A8D0B2B5 EAN: 4058352973493 | LP number 59482_21 |
| Table of values for luminous intensities | | Maximum luminous intensity |
| | | |



| C-planes | 0° 180° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° |
|------------------------------|------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | | 175° 185° 355° | 170° 190° 350° | 165° 195° 345° | 160° 200° 340° | 155° 205° 335° | 150° 210° 330° | 145° 215° 325° | 140° 220° 320° | 135° 225° 315° |
| Luminous intensity in cd/klm | | | | | | | | | | |
| γ | | | | | | | | | | |
| 0,0° | 375.0 | 375.0 | 375.0 | 375.0 | 375.0 | 375.0 | 375.0 | 375.0 | 375.0 | 375.0 |
| 2,5° | 375.8 | 375.3 | 375.0 | 375.1 | 374.0 | 373.2 | 372.7 | 372.9 | 373.4 | 374.3 |
| 5,0° | 374.6 | 374.3 | 374.2 | 374.3 | 373.2 | 372.4 | 371.9 | 372.2 | 372.8 | 373.6 |
| 7,5° | 373.1 | 373.0 | 373.0 | 373.1 | 372.0 | 371.2 | 370.7 | 371.0 | 371.5 | 372.4 |
| 10,0° | 370.7 | 370.9 | 371.1 | 371.3 | 370.3 | 369.5 | 368.9 | 369.2 | 369.8 | 370.6 |
| 12,5° | 367.4 | 367.9 | 368.2 | 368.4 | 367.5 | 366.8 | 366.2 | 366.5 | 367.1 | 367.9 |
| 15,0° | 363.4 | 364.1 | 364.6 | 364.8 | 364.0 | 363.3 | 362.7 | 362.9 | 363.5 | 364.3 |
| 17,5° | 358.2 | 359.5 | 360.2 | 360.4 | 359.7 | 359.0 | 358.2 | 358.3 | 358.6 | 359.0 |
| 20,0° | 353.3 | 354.3 | 355.1 | 355.6 | 354.8 | 354.0 | 353.3 | 353.0 | 352.8 | 352.6 |
| 22,5° | 346.4 | 348.4 | 349.5 | 349.8 | 349.1 | 348.1 | 347.0 | 346.1 | 345.2 | 344.2 |
| 25,0° | 340.4 | 342.0 | 343.1 | 343.6 | 342.7 | 341.4 | 339.7 | 337.9 | 335.9 | 333.8 |
| 27,5° | 332.2 | 334.7 | 336.1 | 336.2 | 335.0 | 333.2 | 330.7 | 327.6 | 324.3 | 320.7 |
| 30,0° | 325.1 | 327.2 | 328.4 | 328.4 | 326.8 | 324.3 | 320.8 | 316.3 | 311.4 | 306.1 |
| 32,5° | 315.8 | 318.6 | 319.9 | 319.6 | 317.4 | 313.9 | 309.2 | 303.2 | 296.5 | 289.1 |
| 35,0° | 306.9 | 309.2 | 310.1 | 309.5 | 306.4 | 301.8 | 295.6 | 287.6 | 279.1 | 270.1 |
| 37,5° | 296.7 | 299.3 | 299.9 | 298.5 | 294.4 | 288.6 | 281.2 | 271.3 | 261.6 | 252.2 |
| 40,0° | 286.6 | 288.7 | 288.7 | 286.6 | 281.1 | 273.8 | 264.6 | 253.3 | 243.9 | 236.5 |
| 42,5° | 276.0 | 278.8 | 278.4 | 274.6 | 267.5 | 258.4 | 247.5 | 236.0 | 228.9 | 226.3 |
| 45,0° | 269.6 | 271.0 | 268.8 | 263.1 | 253.8 | 242.6 | 229.6 | 220.3 | 217.7 | 221.9 |
| 47,5° | 267.7 | 268.7 | 264.7 | 255.7 | 242.9 | 229.1 | 214.3 | 209.2 | 211.5 | 221.1 |
| 50,0° | 274.0 | 274.7 | 268.5 | 255.4 | 236.9 | 219.6 | 203.3 | 203.3 | 208.7 | 219.7 |
| 52,5° | 262.3 | 264.7 | 261.3 | 251.9 | 233.3 | 216.3 | 201.1 | 203.5 | 208.1 | 214.9 |
| 55,0° | 216.1 | 216.5 | 215.4 | 212.7 | 205.8 | 203.6 | 205.9 | 208.7 | 209.2 | 207.5 |
| 57,5° | 169.7 | 171.3 | 169.4 | 164.0 | 162.7 | 170.6 | 187.8 | 203.8 | 208.0 | 200.2 |
| 60,0° | 144.6 | 144.2 | 140.7 | 134.0 | 132.9 | 139.8 | 154.8 | 173.9 | 186.6 | 192.7 |
| 62,5° | 118.5 | 119.6 | 117.3 | 111.8 | 112.8 | 118.6 | 129.4 | 139.1 | 150.0 | 162.1 |
| 65,0° | 91.1 | 90.1 | 88.7 | 87.0 | 91.8 | 99.3 | 109.8 | 115.5 | 120.4 | 124.2 |
| 67,5° | 59.4 | 60.9 | 61.1 | 60.1 | 65.2 | 73.0 | 83.3 | 91.9 | 96.6 | 97.5 |
| 70,0° | 41.2 | 40.7 | 40.7 | 41.1 | 44.7 | 50.1 | 57.1 | 64.8 | 71.4 | 76.8 |
| 72,5° | 24.0 | 24.8 | 25.3 | 25.5 | 28.3 | 32.4 | 37.8 | 44.0 | 49.5 | 54.2 |
| 75,0° | 19.1 | 19.3 | 19.5 | 19.8 | 20.8 | 22.2 | 24.0 | 29.0 | 33.7 | 38.1 |
| 77,5° | 11.3 | 11.9 | 12.4 | 12.9 | 14.3 | 15.7 | 17.0 | 20.3 | 23.0 | 25.4 |
| 80,0° | 7.9 | 7.8 | 7.8 | 7.9 | 8.3 | 8.9 | 9.7 | 11.6 | 14.1 | 17.2 |
| 82,5° | 4.9 | 4.9 | 4.9 | 4.9 | 5.1 | 5.5 | 5.9 | 6.9 | 8.1 | 9.6 |
| 85,0° | 2.8 | 2.7 | 2.7 | 2.8 | 2.8 | 2.9 | 3.1 | 3.4 | 3.9 | 4.6 |
| 87,5° | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.1 | 1.1 | 1.2 | 1.4 | 1.6 |
| 90,0° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Photometric test report

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|---|--|-----------------------------------|
| Family Tunnellight TL-L | Order number: 5WD7A8D0B2B5 EAN: 4058352973493 | LP number 59482_21 |
| Table of values for luminous intensities | | Maximum luminous intensity |
| | | sITeco |

| C-planes | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | Phi-zone | Total Phi-zone |
|----------|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------------------------|----------------|
| | 130° | 125° | 120° | 115° | 110° | 105° | 100° | 95° | | | |
| | 230° | 235° | 240° | 245° | 250° | 255° | 260° | 265° | 270° | | |
| | 310° | 305° | 300° | 295° | 290° | 285° | 280° | 275° | | | |
| γ | Luminous intensity in cd/klm | | | | | | | | | Luminous flux in lm/klm | |
| 0,0° | 375.0 | 375.0 | 375.0 | 375.0 | 375.0 | 375.0 | 375.0 | 375.0 | 375.0 | 0.6 | 0.6 |
| 2,5° | 375.0 | 375.5 | 375.9 | 376.0 | 376.0 | 375.7 | 375.7 | 375.8 | 375.9 | 4.5 | 5.0 |
| 5,0° | 374.3 | 374.9 | 375.3 | 375.5 | 375.5 | 375.2 | 375.2 | 375.3 | 375.5 | 8.9 | 14.0 |
| 7,5° | 373.1 | 373.6 | 374.1 | 374.2 | 374.2 | 374.0 | 374.0 | 374.1 | 374.2 | 13.3 | 27.3 |
| 10,0° | 371.3 | 371.9 | 372.3 | 372.3 | 372.2 | 372.0 | 372.0 | 372.1 | 372.2 | 17.7 | 45.0 |
| 12,5° | 368.5 | 369.0 | 369.3 | 369.1 | 368.9 | 368.4 | 368.3 | 368.3 | 368.4 | 21.8 | 66.8 |
| 15,0° | 364.6 | 364.8 | 364.9 | 364.3 | 363.6 | 362.9 | 362.6 | 362.4 | 362.4 | 25.8 | 92.6 |
| 17,5° | 359.0 | 358.8 | 358.4 | 357.2 | 355.9 | 354.6 | 353.7 | 353.1 | 352.9 | 29.5 | 122.1 |
| 20,0° | 352.0 | 351.0 | 349.9 | 347.8 | 345.7 | 343.5 | 341.9 | 340.8 | 340.2 | 32.8 | 155.0 |
| 22,5° | 342.4 | 340.5 | 338.2 | 335.2 | 332.0 | 328.7 | 326.1 | 324.3 | 323.4 | 35.7 | 190.7 |
| 25,0° | 330.8 | 327.7 | 324.2 | 320.1 | 315.7 | 311.2 | 307.6 | 305.1 | 303.7 | 38.1 | 228.8 |
| 27,5° | 316.3 | 311.6 | 306.7 | 301.4 | 296.2 | 291.0 | 286.9 | 284.1 | 282.4 | 39.9 | 268.8 |
| 30,0° | 300.0 | 293.9 | 288.0 | 282.8 | 277.9 | 273.3 | 269.9 | 267.6 | 266.4 | 41.4 | 310.2 |
| 32,5° | 281.8 | 275.3 | 269.6 | 266.2 | 263.5 | 261.5 | 260.2 | 259.3 | 258.8 | 42.7 | 352.8 |
| 35,0° | 263.2 | 258.2 | 255.1 | 255.9 | 257.4 | 259.6 | 261.2 | 262.2 | 262.7 | 43.9 | 396.7 |
| 37,5° | 248.0 | 247.0 | 249.1 | 254.9 | 260.5 | 265.9 | 269.6 | 271.9 | 272.9 | 45.4 | 442.2 |
| 40,0° | 238.2 | 242.9 | 250.7 | 259.7 | 267.5 | 274.0 | 278.0 | 280.7 | 281.9 | 46.9 | 489.1 |
| 42,5° | 234.5 | 244.1 | 255.2 | 264.3 | 271.7 | 277.4 | 280.9 | 283.1 | 284.0 | 48.2 | 537.3 |
| 45,0° | 234.4 | 246.0 | 256.9 | 263.9 | 269.3 | 273.2 | 275.8 | 277.3 | 277.9 | 49.1 | 586.4 |
| 47,5° | 233.6 | 244.0 | 252.3 | 256.9 | 260.3 | 262.8 | 264.8 | 265.9 | 266.3 | 49.7 | 636.1 |
| 50,0° | 229.0 | 236.3 | 241.5 | 244.0 | 245.9 | 247.2 | 248.7 | 249.6 | 249.8 | 50.1 | 686.2 |
| 52,5° | 219.7 | 223.6 | 226.4 | 227.7 | 228.5 | 228.8 | 229.7 | 230.2 | 230.2 | 49.7 | 735.9 |
| 55,0° | 207.5 | 207.8 | 208.6 | 208.5 | 208.4 | 208.1 | 208.4 | 208.3 | 207.9 | 46.9 | 782.9 |
| 57,5° | 193.7 | 189.6 | 188.0 | 187.0 | 186.0 | 185.2 | 184.7 | 183.9 | 182.8 | 42.5 | 825.4 |
| 60,0° | 180.4 | 171.8 | 166.8 | 164.4 | 162.2 | 160.3 | 159.2 | 157.9 | 156.4 | 37.9 | 863.3 |
| 62,5° | 160.1 | 154.2 | 144.4 | 140.0 | 136.9 | 135.2 | 135.0 | 134.6 | 134.0 | 32.8 | 896.1 |
| 65,0° | 131.8 | 132.2 | 125.5 | 120.3 | 117.7 | 117.6 | 118.7 | 119.4 | 119.6 | 27.8 | 923.9 |
| 67,5° | 102.8 | 107.4 | 111.4 | 104.9 | 101.3 | 100.6 | 101.2 | 101.7 | 101.9 | 22.5 | 946.4 |
| 70,0° | 80.8 | 85.1 | 89.5 | 85.9 | 83.2 | 81.4 | 81.6 | 81.7 | 81.7 | 17.4 | 963.9 |
| 72,5° | 60.0 | 63.5 | 64.8 | 66.4 | 65.4 | 61.8 | 61.8 | 61.8 | 61.7 | 12.6 | 976.5 |
| 75,0° | 41.4 | 44.7 | 48.1 | 48.6 | 48.1 | 46.6 | 46.4 | 46.4 | 46.4 | 9.3 | 985.8 |
| 77,5° | 27.7 | 29.8 | 31.8 | 33.0 | 33.5 | 33.1 | 32.4 | 32.0 | 32.0 | 6.4 | 992.1 |
| 80,0° | 18.0 | 18.9 | 19.8 | 20.4 | 20.7 | 20.7 | 20.3 | 20.1 | 20.1 | 4.0 | 996.1 |
| 82,5° | 10.0 | 10.8 | 11.8 | 11.9 | 11.9 | 11.8 | 11.5 | 11.4 | 11.3 | 2.3 | 998.5 |
| 85,0° | 4.7 | 5.0 | 5.3 | 5.5 | 5.6 | 5.4 | 5.3 | 5.2 | 5.1 | 1.1 | 999.6 |
| 87,5° | 1.6 | 1.7 | 1.8 | 1.8 | 1.8 | 1.8 | 1.7 | 1.7 | 1.7 | 0.4 | 1000.0 |
| 90,0° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1000.0 |

Photometric test report

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| Family Tunnellight TL-L | Order number: 5WD7A8D0B2B5 EAN: 4058352973493 | LP number 59482_21 |
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Dimming levels table environmental temperature: 25°C

| Luminous flux % | Dimming level linear | Dimming level logarithmic | Luminous flux [lm] | Power consumption [W] |
|-----------------|----------------------|---------------------------|--------------------|-----------------------|
| 100 | 254 | 254 | 4990 | 30.0 |
| 95 | 241 | 252 | 4743 | 28.6 |
| 90 | 228 | 250 | 4495 | 27.3 |
| 85 | 215 | 248 | 4246 | 25.9 |
| 80 | 202 | 246 | 3996 | 24.5 |
| 75 | 189 | 243 | 3746 | 23.1 |
| 70 | 176 | 241 | 3493 | 21.7 |
| 65 | 163 | 238 | 3241 | 20.3 |
| 60 | 150 | 235 | 2988 | 18.7 |
| 55 | 138 | 232 | 2753 | 17.4 |
| 50 | 125 | 228 | 2498 | 15.8 |
| 45 | 112 | 224 | 2243 | 14.3 |
| 40 | 100 | 220 | 2005 | 12.9 |
| 35 | 87 | 215 | 1748 | 11.3 |
| 30 | 74 | 209 | 1490 | 9.8 |
| 25 | 62 | 202 | 1250 | 8.4 |
| 20 | 49 | 194 | 990 | 6.9 |
| 17 | 43 | 189 | 870 | 6.3 |

Dimming levels table environmental temperature: 10°C

| Luminous flux % | Dimming level linear | Dimming level logarithmic | Luminous flux [lm] | Power consumption [W] |
|-----------------|----------------------|---------------------------|--------------------|-----------------------|
| 100 | 254 | 254 | 5040 | 30.0 |
| 95 | 241 | 252 | 4791 | 28.6 |
| 90 | 228 | 250 | 4540 | 27.3 |
| 85 | 215 | 248 | 4288 | 25.9 |
| 80 | 202 | 246 | 4036 | 24.6 |
| 75 | 189 | 243 | 3782 | 23.1 |
| 70 | 176 | 241 | 3528 | 21.7 |
| 65 | 163 | 238 | 3273 | 20.3 |
| 60 | 150 | 235 | 3017 | 18.8 |
| 55 | 138 | 232 | 2780 | 17.4 |
| 50 | 125 | 228 | 2522 | 15.8 |
| 45 | 112 | 224 | 2263 | 14.3 |
| 40 | 100 | 220 | 2024 | 12.9 |
| 35 | 87 | 215 | 1764 | 11.3 |
| 30 | 74 | 209 | 1504 | 9.8 |
| 25 | 62 | 202 | 1262 | 8.5 |
| 20 | 49 | 194 | 999 | 6.9 |
| 17 | 43 | 189 | 878 | 6.3 |

Photometric test report

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| Luminousfluxs table | siteco |
|----------------------------|---------------|

| Temperature °C | Luminous flux lm | Power consumption W |
|-------------------|---------------------|------------------------|
| 25.0 | 4990.0 | 30.0 |
| 10.0 | 5040.0 | 30.0 |