

filename : MT IK-10-LED-T4-EM-HE-CL-4000K-CLEAR.LDT
 meas. number : 2042
 luminaire number : MT IK 10 LED T4 EM HE CL 4000K CLEAR
 date / operator : 14-09-2016

**default lamp type(s)**

| no of lamps | lamp type | luminaire lumens | input wattage |
|-------------|------------|------------------|---------------|
| 1 | LED MODULE | 2600 lm | 23 W |

dimensions

| luminaire | | luminous area | |
|-----------|-----------|---------------|-----------|
| length | : 1265 mm | length | : 1255 mm |
| width | : 60 mm | width | : 55 mm |
| height | : 60 mm | height | : 55 mm |

coordinate system

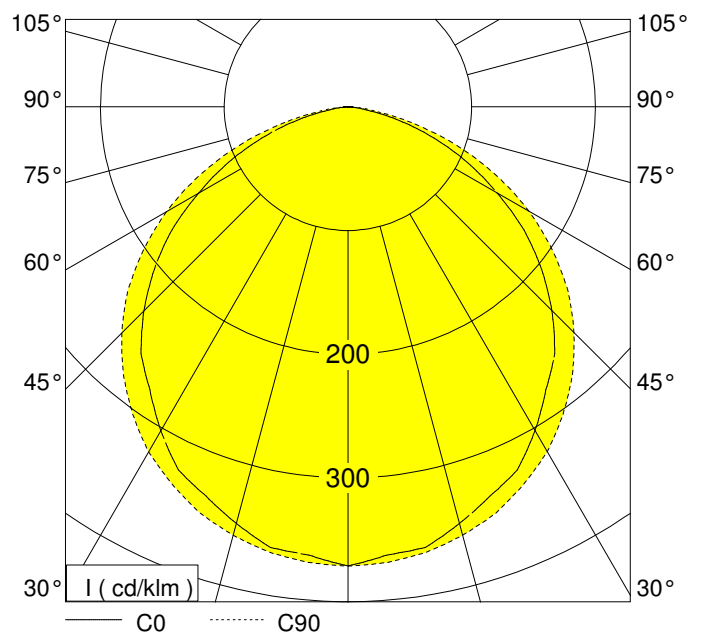
| | | | |
|-----------------------------------|----------|-------------------|-----------|
| no of planes | : 7 | samples / plane | : 37 |
| first c-plane | : 0.0 ° | first gamma-angle | : 0.0 ° |
| step angle | : 15.0 ° | step angle | : 5.0 ° |
| last c-plane | : 90.0 ° | last gamma-angle | : 180.0 ° |
| symmetrics : symmetry to C0 / C90 | | | |

performance

| | |
|--------------------|-----------|
| light output ratio | : 100.0 % |
| DFF | : 99.9 % |
| UFF | : 0.1 % |

classification

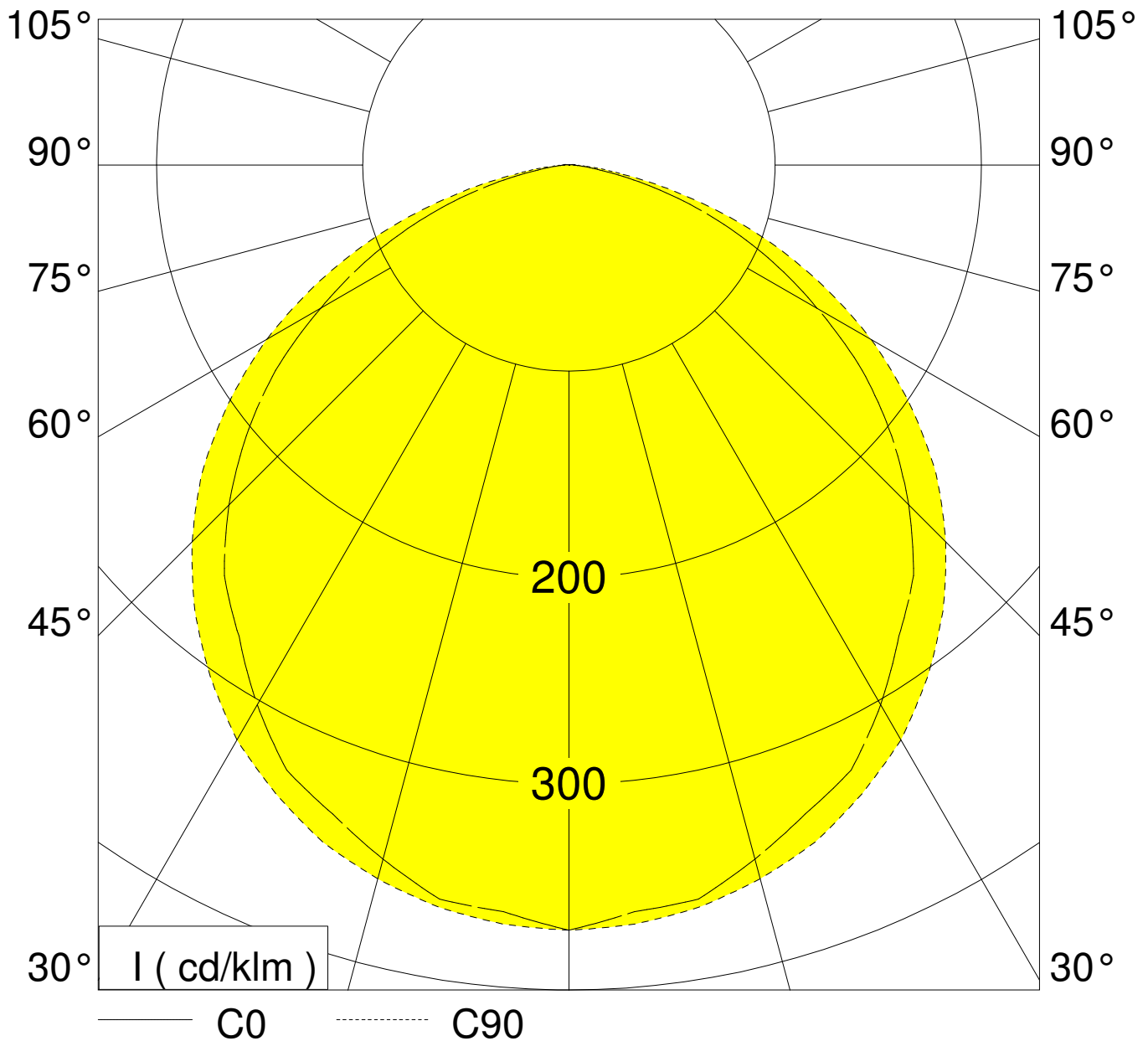
| | |
|------------------------|--------------------------------------|
| LiTG / DIN | : A40 |
| UTE | : 1.00D+0.00T 1.00E+0.00T |
| CIE | : 49 82 97 100 100 |
| BZ | : 3 4 4 4 4 4 4 4 4 |
| Ambient Temperature | : 25 degC |
| Input Voltage | : 240 V |
| Circuit Watts | : 23.7W |
| Amps (running) | : 0.115A |
| V.A. | : 27.56VA |
| Power Factor | : 0.86 |
| CCT | : 3991K (measured): 4000K (declared) |
| CRI (Ra) | : 84 |
| Luminaire Lumens | : 2600 LLm |
| Output Current DC | : 250mA |
| Output Voltage DC | : 70.8V |
| Output Power | : 17.7W |
| Luminaire Lm/circ.Watt | : 109.70 Lm/circ.Watt |
| Driver Efficiency | : 75% |
| Driver Details | : TRIDONIC LC1 35W 28000198 |



Measurements made are in absolute units. The luminaire is treated as if it was a lamp as it is not possible to measure each LED separately - hence an LOR of 100%

The Light output ratio in real terms would be less than 100%. If it was possible to compare real LED lumens with the total output from the luminaire we could obtain an actual LOR

This also means that the total lumens emitted from the LED's would be greater than the Luminaire Lumens measured. In reality the LED lumens would approximate to this value divided by the actual Light Output.



| | C 0.0 | C 15.0 | C 30.0 | C 45.0 | C 60.0 | C 75.0 | C 90.0 |
|--------|----------|--------|--------|--------|--------|--------|--------|
| 0.0° | 370.90 | 370.90 | 370.90 | 370.90 | 370.90 | 370.90 | 370.90 |
| 5.0° | 363.30 | 363.30 | 363.30 | 364.30 | 365.20 | 367.20 | 369.30 |
| 10.0° | 361.30 | 361.30 | 361.30 | 362.10 | 362.90 | 364.10 | 365.20 |
| 15.0° | 348.30 | 349.20 | 350.20 | 353.40 | 356.70 | 357.50 | 358.20 |
| 20.0° | 334.80 | 336.10 | 337.40 | 341.30 | 345.20 | 347.20 | 349.20 |
| 25.0° | 323.70 | 323.50 | 323.40 | 326.60 | 329.70 | 333.00 | 336.20 |
| 30.0° | 302.20 | 303.60 | 305.00 | 309.10 | 313.10 | 317.40 | 321.80 |
| 35.0° | 278.90 | 281.20 | 283.40 | 288.90 | 294.40 | 298.70 | 303.00 |
| 40.0° | 259.90 | 260.60 | 261.30 | 268.70 | 276.00 | 279.10 | 282.10 |
| 45.0° | 233.00 | 234.20 | 235.40 | 241.30 | 247.30 | 252.80 | 258.30 |
| 50.0° | 204.20 | 206.50 | 208.80 | 213.20 | 217.60 | 224.90 | 232.20 |
| 55.0° | 173.60 | 175.70 | 177.70 | 184.80 | 192.00 | 196.70 | 201.50 |
| 60.0° | 139.00 | 141.70 | 144.40 | 151.10 | 157.80 | 163.50 | 169.20 |
| 65.0° | 106.50 | 108.70 | 110.90 | 116.90 | 122.80 | 128.10 | 133.40 |
| 70.0° | 74.10 | 75.20 | 76.20 | 81.90 | 87.60 | 92.30 | 97.00 |
| 75.0° | 42.90 | 44.40 | 46.00 | 49.40 | 52.90 | 56.10 | 59.30 |
| 80.0° | 16.50 | 17.40 | 18.30 | 22.60 | 26.80 | 26.80 | 26.70 |
| 85.0° | 4.30 | 4.40 | 4.40 | 5.70 | 7.00 | 7.80 | 8.60 |
| 90.0° | 2.70 | 2.70 | 2.70 | 2.60 | 2.50 | 1.20 | 0.00 |
| 95.0° | 2.10 | 2.10 | 2.10 | 1.00 | 0.00 | 0.00 | 0.00 |
| 100.0° | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 105.0° | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 110.0° | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 115.0° | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120.0° | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 125.0° | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 130.0° | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 135.0° | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 140.0° | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 145.0° | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 150.0° | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 155.0° | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 160.0° | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 165.0° | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 170.0° | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 175.0° | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 180.0° | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | cd / klm | | | | | | |

| glare rating according to UGR | | | | | | | | | | | |
|--|------|---------------------------------|------|------|------|---------------------------------|----------------|------|------|------|------|
| ρ-ceiling | | 70 | 70 | 50 | 50 | 30 | 70 | 70 | 50 | 50 | 30 |
| ρ-walls | | 50 | 30 | 50 | 30 | 30 | 50 | 30 | 50 | 30 | 30 |
| ρ-workplane | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| room dimensions X Y | | viewed crosswise | | | | | viewed endwise | | | | |
| 2H | 2H | 18.3 | 19.8 | 18.6 | 20.0 | 20.2 | 20.6 | 22.1 | 20.9 | 22.3 | 22.5 |
| | 3H | 18.4 | 19.5 | 18.7 | 19.7 | 19.9 | 21.3 | 22.4 | 21.6 | 22.6 | 22.8 |
| | 4H | 18.7 | 19.7 | 18.9 | 19.9 | 20.1 | 21.8 | 22.9 | 22.1 | 23.1 | 23.3 |
| | 6H | 18.7 | 19.7 | 19.0 | 20.0 | 20.2 | 22.0 | 23.0 | 22.3 | 23.3 | 23.5 |
| | 8H | 18.8 | 19.8 | 19.1 | 20.0 | 20.2 | 22.1 | 23.1 | 22.4 | 23.4 | 23.6 |
| | 12H | 18.8 | 19.8 | 19.1 | 20.0 | 20.3 | 22.2 | 23.2 | 22.5 | 23.4 | 23.7 |
| 4H | 2H | 18.4 | 19.4 | 18.6 | 19.6 | 19.8 | 20.3 | 21.3 | 20.5 | 21.5 | 21.7 |
| | 3H | 19.4 | 20.4 | 19.7 | 20.6 | 20.9 | 21.9 | 22.9 | 22.2 | 23.1 | 23.4 |
| | 4H | 19.8 | 20.7 | 20.1 | 21.0 | 21.3 | 22.5 | 23.5 | 22.8 | 23.7 | 24.0 |
| | 6H | 19.6 | 20.4 | 20.0 | 20.7 | 21.0 | 22.6 | 23.4 | 22.9 | 23.7 | 24.0 |
| | 8H | 19.7 | 20.4 | 20.1 | 20.7 | 21.1 | 22.7 | 23.4 | 23.1 | 23.7 | 24.1 |
| | 12H | 19.8 | 20.6 | 20.3 | 20.9 | 21.3 | 22.9 | 23.6 | 23.3 | 24.0 | 24.4 |
| 8H | 4H | 19.8 | 20.5 | 20.2 | 20.9 | 21.2 | 22.4 | 23.1 | 22.7 | 23.4 | 23.8 |
| | 6H | 20.2 | 20.9 | 20.6 | 21.3 | 21.7 | 23.0 | 23.7 | 23.4 | 24.1 | 24.5 |
| | 8H | 20.3 | 21.0 | 20.8 | 21.4 | 21.9 | 23.2 | 23.8 | 23.6 | 24.3 | 24.7 |
| | 12H | 20.2 | 20.7 | 20.7 | 21.2 | 21.7 | 23.1 | 23.7 | 23.6 | 24.1 | 24.6 |
| 12H | 4H | 20.0 | 20.7 | 20.4 | 21.1 | 21.5 | 22.5 | 23.2 | 22.9 | 23.6 | 24.0 |
| | 6H | 20.3 | 21.0 | 20.8 | 21.4 | 21.9 | 23.1 | 23.7 | 23.5 | 24.2 | 24.6 |
| | 8H | 20.2 | 20.8 | 20.7 | 21.2 | 21.7 | 23.1 | 23.6 | 23.6 | 24.1 | 24.6 |
| variation of observer position | | | | | | | | | | | |
| S = | 1.0H | +0.2/ -0.4 | | | | +0.1/ -0.1 | | | | | |
| | 1.5H | +0.5/ -1.0 | | | | +0.5/ -0.6 | | | | | |
| | 2.0H | +1.0/ -1.9 | | | | +1.3/ -1.4 | | | | | |
| standard-table | | BK03 | | | | | BK04 | | | | |
| correction for luminaire | | 2.5 | | | | | 5.7 | | | | |
| correct glare indices for a total flux of 2600lm | | | | | | | | | | | |

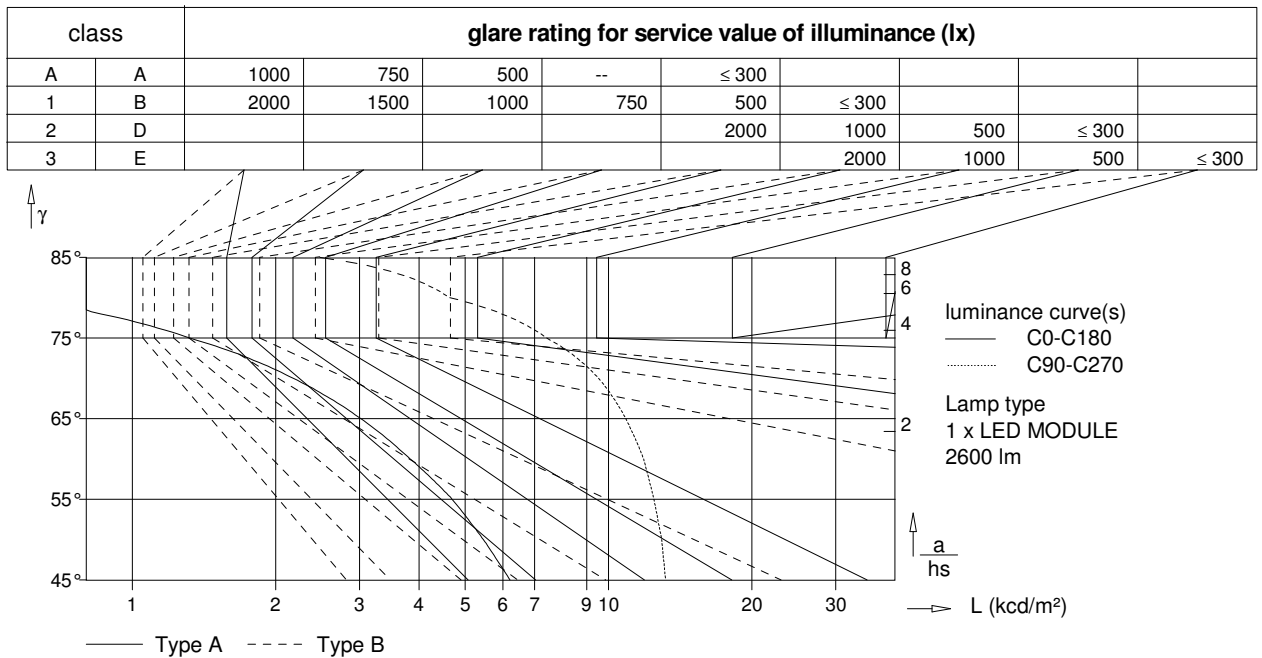


Tabelle der berechneten Leuchtdichten

| gamma | C 0 | C 90 | C 180 | C 270 |
|-------|--------|---------|--------|---------|
| 45° | 6205.9 | 13181.9 | 6205.9 | 13181.9 |
| 50° | 5459.6 | 12931.6 | 5459.6 | 12931.6 |
| 55° | 4695.2 | 12453.3 | 4695.2 | 12453.3 |
| 60° | 3832.9 | 11847.4 | 3832.9 | 11847.4 |
| 65° | 3018.7 | 10868.4 | 3018.7 | 10868.4 |
| 70° | 2177.7 | 9534.8 | 2177.7 | 9534.8 |
| 75° | 1319.4 | 7417.2 | 1319.4 | 7417.2 |
| 80° | 536.5 | 4638.8 | 536.5 | 4638.8 |
| 85° | 149.5 | 2476.4 | 149.5 | 2476.4 |

alle Werte in cd/m²

| utilization factors / TM5 | | | | | | | | | | | |
|----------------------------------|----|----|------------|-----|------|----------------|-----|-----|-----|-----|-----|
| reflection | | | room index | | | | | | | | |
| C | W | F | 0.75 | 1.0 | 1.25 | 1.5 | 2.0 | 2.5 | 3.0 | 4.0 | 5.0 |
| 70 | 50 | 20 | 62 | 70 | 78 | 83 | 90 | 94 | 98 | 102 | 105 |
| 70 | 30 | 20 | 54 | 63 | 71 | 76 | 84 | 89 | 93 | 98 | 101 |
| 70 | 10 | 20 | 49 | 57 | 65 | 71 | 79 | 85 | 89 | 95 | 98 |
| 50 | 50 | 20 | 60 | 68 | 75 | 80 | 87 | 91 | 94 | 98 | 100 |
| 50 | 30 | 20 | 54 | 62 | 69 | 75 | 82 | 87 | 90 | 95 | 98 |
| 50 | 10 | 20 | 49 | 57 | 65 | 70 | 78 | 83 | 87 | 92 | 95 |
| 30 | 50 | 20 | 59 | 66 | 73 | 78 | 84 | 88 | 91 | 94 | 97 |
| 30 | 30 | 20 | 53 | 61 | 68 | 73 | 80 | 84 | 87 | 92 | 94 |
| 30 | 10 | 20 | 48 | 56 | 64 | 69 | 76 | 81 | 85 | 89 | 92 |
| 0 | 0 | 0 | 46 | 54 | 61 | 66 | 73 | 77 | 81 | 85 | 88 |
| BZ-class | | | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| SHRnom : 1.50 | | | | | | SHRmax : 1.561 | | | | | |

