

filename : MT50-LED-T7-CL-HE.LDT  
 meas. number : 2716  
 luminaire number : MT50 LED T7 CL HE  
 date / operator : 03-10-2018

**default lamp type(s)**

| no of lamps | lamp type  | luminaire lumens | input wattage |
|-------------|------------|------------------|---------------|
| 1           | LED MODULE | 4700 lm          | 30.1 W        |

**dimensions**

| luminaire |           | luminous area |           |
|-----------|-----------|---------------|-----------|
| length    | : 2100 mm | length        | : 2040 mm |
| width     | : 50 mm   | width         | : 50 mm   |
| height    | : 50 mm   | height        | : 25 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 ° |

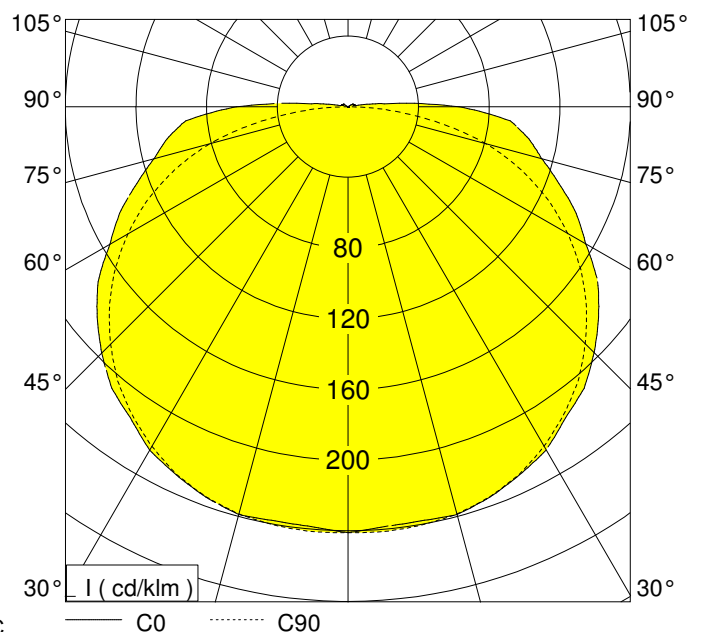
symmetrics : symmetry to C0 / C90

**performance**

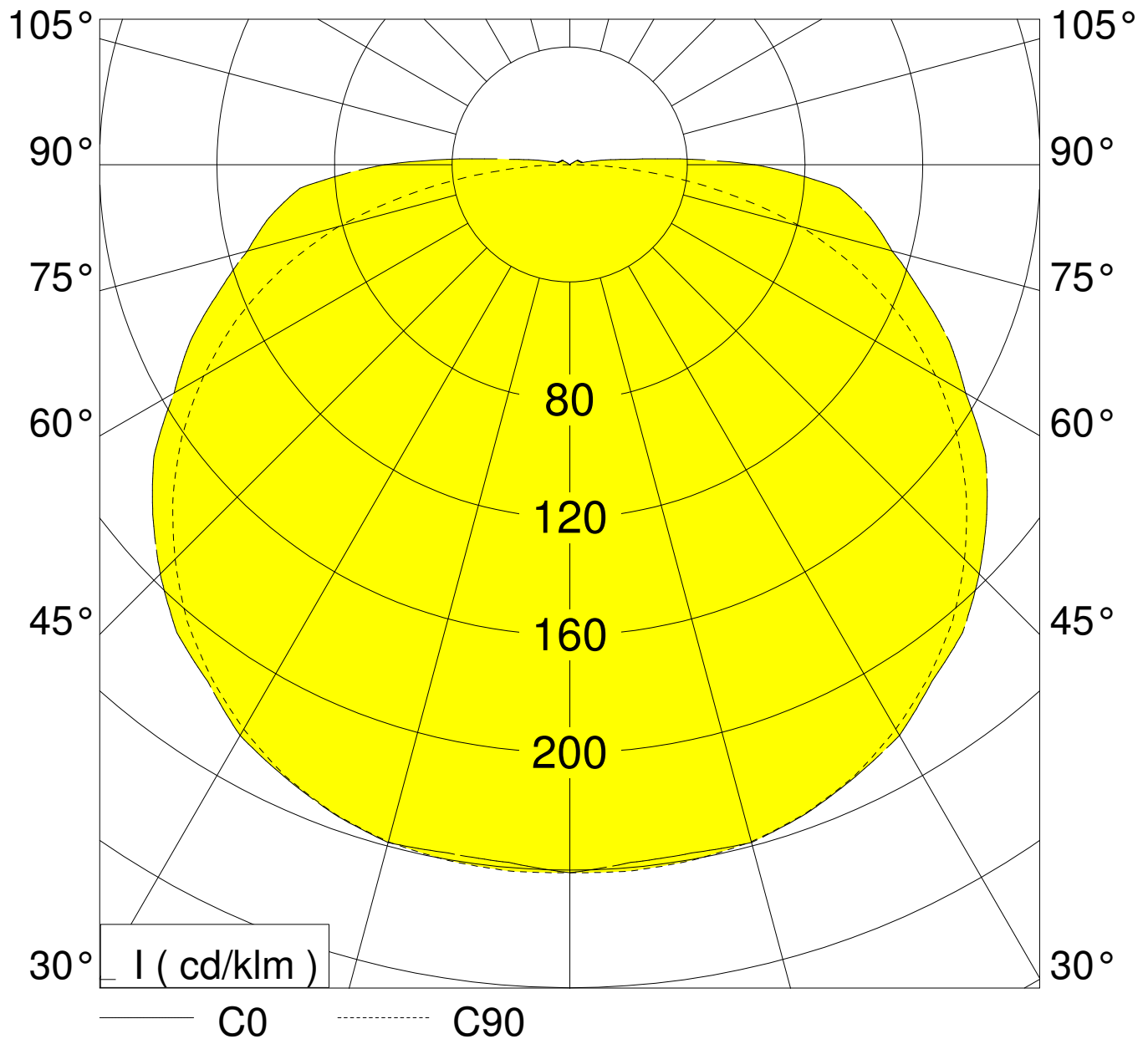
light output ratio : 100.0 %  
 DFF : 97.4 %  
 UFF : 2.6 %

**classification**

LITG / DIN : A31  
 UTE : 0.97G+0.03T 0.97H+0.03T  
 CIE : 36 66 87 97 100  
 BZ : 1 6 6 6 6 6 6 6 6  
 Ambient Temperature : 25 degC  
 Input Voltage : 240 V  
 Circuit Watts : 30.1W  
 Amps (running) : 0.133A  
 V.A. : 32.02VA  
 Power Factor : 0.94  
 CCT : 4163K (measured): 4200K (declared)  
 CRI (Ra) : 91  
 S/P Ratio : 1.8  
 Luminaire Lumens : 4700LLm  
 Output Current DC : 170mA  
 Output Voltage DC : 158.5V  
 Output Power : 26.95W  
 Luminaire Lm/circ.Watt : 156 LLm/circ.Watt  
 Driver Efficiency : 89.5%  
 Driver Details : TRIDONIC LC75W 100-400mA FLEX C1p EXC 28000713



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°   | 240.70   | 240.70 | 240.70 | 240.70 | 240.70 | 240.70 | 240.70 |
| 5.0°   | 238.10   | 238.80 | 239.50 | 239.90 | 240.20 | 240.60 | 241.00 |
| 10.0°  | 237.60   | 238.20 | 238.90 | 238.70 | 238.50 | 239.30 | 240.10 |
| 15.0°  | 238.60   | 239.10 | 239.60 | 238.50 | 237.50 | 237.90 | 238.30 |
| 20.0°  | 234.80   | 236.50 | 238.00 | 236.80 | 235.50 | 235.10 | 234.60 |
| 25.0°  | 229.60   | 230.80 | 232.00 | 232.60 | 233.30 | 231.20 | 229.20 |
| 30.0°  | 224.10   | 225.90 | 227.60 | 227.50 | 227.40 | 224.50 | 221.60 |
| 35.0°  | 214.50   | 216.80 | 219.00 | 218.60 | 218.30 | 215.50 | 212.60 |
| 40.0°  | 207.70   | 209.10 | 210.60 | 209.30 | 208.10 | 205.30 | 202.40 |
| 45.0°  | 196.80   | 199.50 | 202.20 | 199.80 | 197.40 | 193.60 | 189.70 |
| 50.0°  | 185.00   | 187.60 | 190.30 | 186.60 | 182.80 | 179.30 | 176.00 |
| 55.0°  | 172.50   | 174.70 | 176.80 | 174.00 | 171.20 | 166.10 | 160.80 |
| 60.0°  | 155.30   | 158.90 | 162.70 | 159.30 | 156.10 | 149.80 | 143.60 |
| 65.0°  | 142.40   | 143.80 | 145.10 | 143.30 | 141.40 | 133.20 | 125.10 |
| 70.0°  | 127.00   | 130.40 | 133.80 | 129.60 | 125.40 | 114.80 | 104.20 |
| 75.0°  | 113.40   | 116.40 | 119.50 | 113.20 | 106.70 | 94.00  | 81.30  |
| 80.0°  | 103.80   | 104.80 | 105.80 | 99.90  | 94.10  | 73.40  | 52.60  |
| 85.0°  | 92.10    | 95.40  | 98.60  | 91.60  | 84.70  | 54.40  | 24.10  |
| 90.0°  | 62.90    | 65.40  | 67.80  | 57.90  | 48.00  | 24.00  | 0.00   |
| 95.0°  | 20.60    | 18.80  | 17.00  | 11.10  | 5.20   | 2.60   | 0.00   |
| 100.0° | 4.30     | 4.40   | 4.40   | 4.20   | 4.00   | 2.00   | 0.00   |
| 105.0° | 3.70     | 3.70   | 3.70   | 3.40   | 3.20   | 1.60   | 0.00   |
| 110.0° | 3.40     | 3.40   | 3.40   | 3.20   | 2.90   | 1.50   | 0.00   |
| 115.0° | 3.10     | 3.10   | 3.10   | 1.50   | 0.00   | 0.00   | 0.00   |
| 120.0° | 3.00     | 3.00   | 2.90   | 1.50   | 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<br>X                      Y      |      | viewed crosswise                |      |      |      |                                 | viewed endwise |      |      |      |      |
| 2H   | 2H   | 20.1                            | 21.8 | 20.4 | 22.0 | 22.3                            | 20.9           | 22.6 | 21.2 | 22.8 | 23.1 |
|  | 3H   | 21.6                            | 22.9 | 21.9 | 23.2 | 23.4                            | 22.5           | 23.9 | 22.8 | 24.1 | 24.3 |
|  | 4H   | 22.6                            | 23.9 | 22.9 | 24.1 | 24.4                            | 23.5           | 24.8 | 23.8 | 25.1 | 25.3 |
|  | 6H   | 23.5                            | 24.7 | 23.9 | 25.1 | 25.3                            | 24.3           | 25.5 | 24.6 | 25.8 | 26.1 |
|  | 8H   | 24.0                            | 25.3 | 24.4 | 25.6 | 25.9                            | 24.6           | 25.8 | 25.0 | 26.2 | 26.5 |
|  | 12H  | 24.5                            | 25.7 | 24.9 | 26.1 | 26.4                            | 24.9           | 26.1 | 25.3 | 26.4 | 26.7 |
| 4H   | 2H   | 20.6                            | 21.9 | 20.9 | 22.2 | 22.4                            | 21.2           | 22.5 | 21.5 | 22.7 | 23.0 |
|  | 3H   | 22.9                            | 24.1 | 23.2 | 24.4 | 24.7                            | 23.6           | 24.8 | 23.9 | 25.1 | 25.4 |
|  | 4H   | 24.1                            | 25.3 | 24.5 | 25.6 | 26.0                            | 24.8           | 26.0 | 25.2 | 26.3 | 26.7 |
|  | 6H   | 25.0                            | 26.0 | 25.4 | 26.3 | 26.7                            | 25.6           | 26.5 | 26.0 | 26.9 | 27.3 |
|  | 8H   | 25.5                            | 26.5 | 26.0 | 26.9 | 27.3                            | 26.0           | 26.9 | 26.4 | 27.3 | 27.7 |
|  | 12H  | 26.2                            | 27.1 | 26.7 | 27.6 | 28.1                            | 26.4           | 27.3 | 26.9 | 27.8 | 28.3 |
| 8H   | 4H   | 24.4                            | 25.4 | 24.9 | 25.8 | 26.2                            | 25.0           | 26.0 | 25.5 | 26.4 | 26.8 |
|  | 6H   | 26.0                            | 26.9 | 26.5 | 27.4 | 27.9                            | 26.5           | 27.4 | 27.0 | 27.9 | 28.4 |
|  | 8H   | 26.9                            | 27.7 | 27.4 | 28.2 | 28.8                            | 27.2           | 28.1 | 27.7 | 28.6 | 29.1 |
|  | 12H  | 27.5                            | 28.2 | 28.0 | 28.7 | 29.2                            | 27.6           | 28.3 | 28.1 | 28.8 | 29.4 |
| 12H  | 4H   | 24.7                            | 25.6 | 25.2 | 26.0 | 26.5                            | 25.3           | 26.2 | 25.7 | 26.6 | 27.1 |
|  | 6H   | 26.4                            | 27.2 | 26.9 | 27.7 | 28.3                            | 26.8           | 27.7 | 27.3 | 28.2 | 28.7 |
|  | 8H   | 27.0                            | 27.8 | 27.6 | 28.3 | 28.8                            | 27.4           | 28.1 | 27.9 | 28.6 | 29.2 |
| variation of observer position                   |      |                                 |      |      |      |                                 |                |      |      |      |      |
| S =  | 1.0H | +0.1/                      -0.1 |      |      |      | +0.1/                      -0.1 |                |      |      |      |      |
|  | 1.5H | +0.2/                      -0.2 |      |      |      | +0.1/                      -0.2 |                |      |      |      |      |
|  | 2.0H | +0.2/                      -0.4 |      |      |      | +0.2/                      -0.3 |                |      |      |      |      |
| standard-table                                   |      | BK09                            |      |      |      |                                 | BK08           |      |      |      |      |
| correction for luminaire                         |      | 10.2                            |      |      |      |                                 | 10.1           |      |      |      |      |
| correct glare indices for a total flux of 4700lm |      |                                 |      |      |      |                                 |                |      |      |      |      |

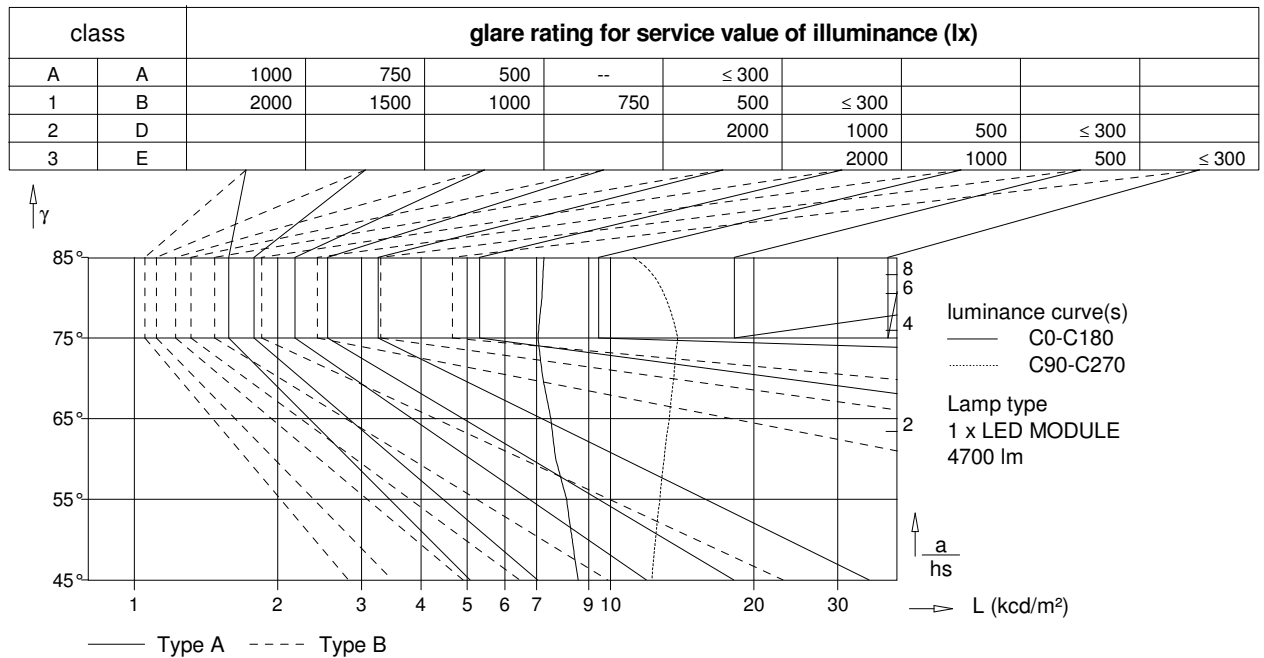


Table of intensities

| gamma | C 0    | C 90    | C 180  | C 270   |
|-------|--------|---------|--------|---------|
| 45°   | 8549.6 | 12212.1 | 8549.6 | 12212.1 |
| 50°   | 8310.0 | 12435.0 | 8310.0 | 12435.0 |
| 55°   | 8084.7 | 12695.7 | 8084.7 | 12695.7 |
| 60°   | 7669.8 | 12958.7 | 7669.8 | 12958.7 |
| 65°   | 7492.3 | 13290.5 | 7492.3 | 13290.5 |
| 70°   | 7208.0 | 13581.0 | 7208.0 | 13581.0 |
| 75°   | 7044.2 | 13841.1 | 7044.2 | 13841.1 |
| 80°   | 7181.0 | 13050.6 | 7181.0 | 13050.6 |
| 85°   | 7251.3 | 11176.0 | 7251.3 | 11176.0 |

all values in cd/m²

| <b>utilization factors / TM5</b> |    |    |            |     |      |                |     |     |     |     |     |
|----------------------------------|----|----|------------|-----|------|----------------|-----|-----|-----|-----|-----|
| 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 | N/A        | 61  | 68   | 73             | 81  | 86  | 89  | 94  | 98  |
| 70                               | 30 | 20 | N/A        | 53  | 60   | 65             | 73  | 79  | 83  | 89  | 93  |
| 70                               | 10 | 20 | N/A        | 47  | 53   | 59             | 67  | 73  | 78  | 84  | 89  |
| 50                               | 50 | 20 | N/A        | 59  | 65   | 70             | 77  | 82  | 85  | 90  | 93  |
| 50                               | 30 | 20 | N/A        | 51  | 58   | 63             | 71  | 76  | 80  | 85  | 89  |
| 50                               | 10 | 20 | N/A        | 46  | 52   | 58             | 65  | 71  | 75  | 81  | 85  |
| 30                               | 50 | 20 | N/A        | 57  | 63   | 67             | 74  | 78  | 81  | 85  | 88  |
| 30                               | 30 | 20 | N/A        | 50  | 56   | 61             | 68  | 73  | 77  | 82  | 85  |
| 30                               | 10 | 20 | N/A        | 45  | 51   | 56             | 64  | 69  | 73  | 78  | 82  |
| 0                                | 0  | 0  | N/A        | 42  | 48   | 53             | 60  | 65  | 68  | 73  | 77  |
| BZ-class                         |    |    | 1          | 6   | 6    | 6              | 6   | 6   | 6   | 6   | 6   |
| SHRnom : 1.75                    |    |    |            |     |      | SHRmax : 1.752 |     |     |     |     |     |

