# Photometric test report

**Family**
## Lunis R LED



## Order number: 51DC112DD4400A
## EAN: 4069025358981

| | |
|---|---|
| **Version** | Downlight for ceiling surface mounting or suspended mounting |
| **Lamps** | LED 4000 K \| CRI ≥ 80 |
| **Controlgear** | ECG-DALI |
| **Rated values** | Net luminous flux = 4800 lm<br>Power consumption = 29.6 W<br>Luminous efficacy = 162.2 lm/W |

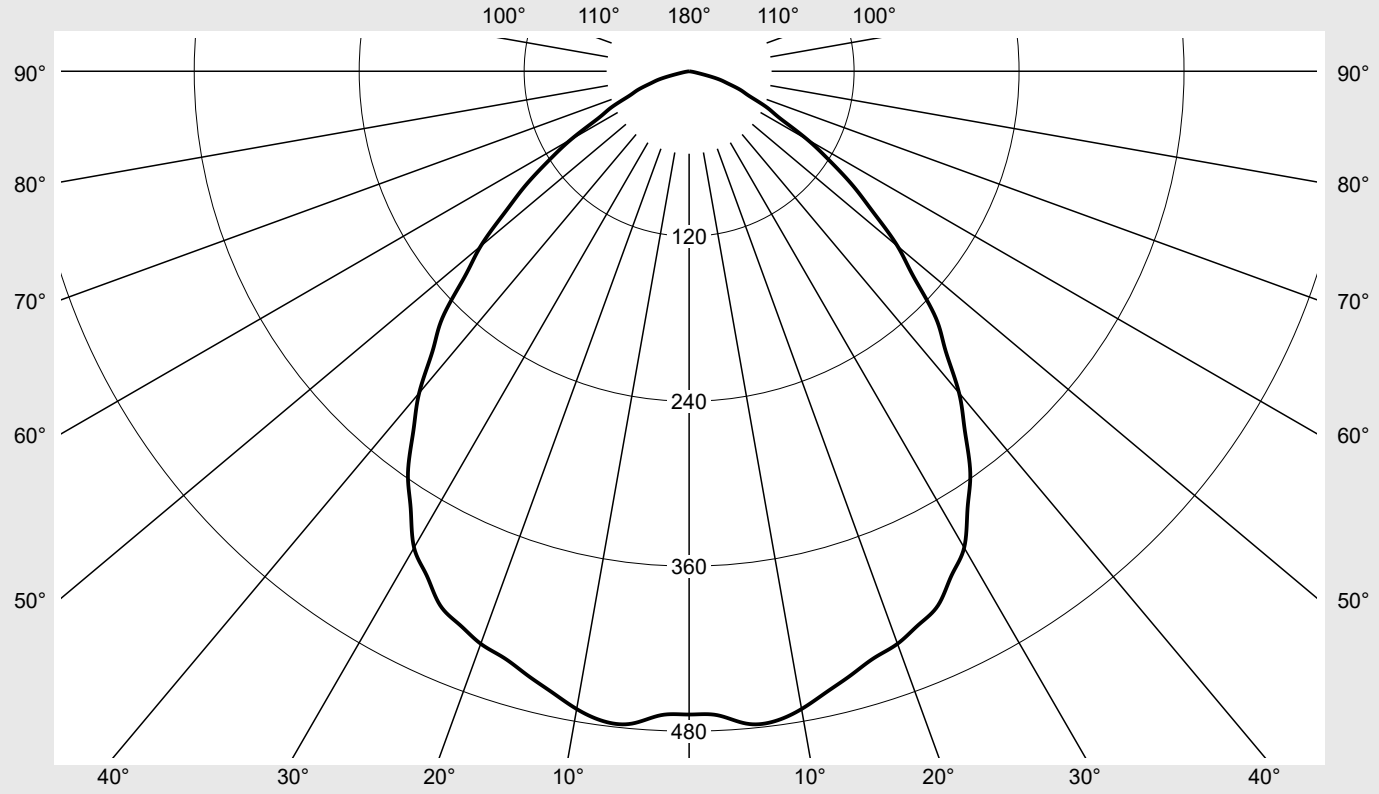
**LP number**
**59721_12**

**serial documentation**
**05.05.2025**

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## Luminous intensity in cd/klm C180-0

**Imax: 477 cd/klm**




### Classifications

| | |
|---|---|
| DIN 5040 | A 5 0 |
| CIE | N1=62 N2=91 N3=99 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

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### Table of values for luminous intensities

**Maximum luminous intensity**

| C-planes | 0° | Phi-zone | Total Phi-zone |
|---|---|---|---|
| γ | Luminous intensity in cd/klm | Luminous flux in lm/klm | |
| **0,0°** | 467.9 | **0.7** | **0.7** |
| **2,5°** | 468.8 | **5.6** | **6.3** |
| **5,0°** | 476.3 | **11.4** | **17.7** |
| **7,5°** | 476.9 | **17.1** | **34.7** |
| **10,0°** | 471.1 | **22.4** | **57.2** |
| **12,5°** | 462.5 | **27.4** | **84.6** |
| **15,0°** | 454.8 | **32.3** | **116.9** |
| **17,5°** | 447.5 | **36.9** | **153.8** |
| **20,0°** | 443.2 | **41.6** | **195.3** |
| **22,5°** | 435.9 | **45.7** | **241.1** |
| **25,0°** | 428.6 | **49.7** | **290.7** |
| **27,5°** | 413.5 | **52.3** | **343.0** |
| **30,0°** | 400.2 | **54.8** | **397.9** |
| **32,5°** | 377.0 | **55.5** | **453.4** |
| **35,0°** | 356.6 | **56.1** | **509.5** |
| **37,5°** | 329.5 | **55.0** | **564.5** |
| **40,0°** | 305.5 | **53.8** | **618.3** |
| **42,5°** | 276.3 | **51.2** | **669.5** |
| **45,0°** | 253.9 | **49.2** | **718.7** |
| **47,5°** | 221.7 | **44.8** | **763.5** |
| **50,0°** | 197.9 | **41.6** | **805.1** |
| **52,5°** | 169.3 | **36.8** | **841.9** |
| **55,0°** | 145.9 | **32.8** | **874.6** |
| **57,5°** | 121.3 | **28.1** | **902.7** |
| **60,0°** | 99.1 | **23.5** | **926.2** |
| **62,5°** | 75.2 | **18.3** | **944.5** |
| **65,0°** | 62.7 | **15.6** | **960.1** |
| **67,5°** | 47.9 | **12.1** | **972.2** |
| **70,0°** | 39.8 | **10.2** | **982.5** |
| **72,5°** | 29.5 | **7.7** | **990.2** |
| **75,0°** | 21.8 | **5.8** | **996.0** |
| **77,5°** | 9.4 | **2.5** | **998.5** |
| **80,0°** | 3.7 | **1.0** | **999.5** |
| **82,5°** | 0.8 | **0.2** | **999.7** |
| **85,0°** | 0.7 | **0.2** | **999.9** |
| **87,5°** | 0.4 | **0.1** | **1000.0** |
| **90,0°** | 0.0 | **0.0** | **1000.0** |

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### UGR-Table

Standard room

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 21.6 | 23.2 | 22.0 | 23.5 | 23.8 | 21.6 | 23.2 | 22.0 | 23.5 | 23.8 |
| | 3H | 22.1 | 23.5 | 22.5 | 23.8 | 24.2 | 22.1 | 23.5 | 22.5 | 23.8 | 24.2 |
| | 4H | 22.3 | 23.5 | 22.7 | 23.9 | 24.2 | 22.3 | 23.5 | 22.7 | 23.9 | 24.2 |
| | 6H | 22.2 | 23.4 | 22.7 | 23.8 | 24.2 | 22.2 | 23.4 | 22.7 | 23.8 | 24.2 |
| | 8H | 22.3 | 23.3 | 22.7 | 23.7 | 24.1 | 22.3 | 23.3 | 22.7 | 23.7 | 24.1 |
| | 12H | 22.2 | 23.2 | 22.7 | 23.6 | 24.0 | 22.2 | 23.2 | 22.7 | 23.6 | 24.0 |
| 4H | 2H | 22.0 | 23.2 | 22.3 | 23.6 | 23.9 | 22.0 | 23.2 | 22.3 | 23.6 | 23.9 |
| | 3H | 22.6 | 23.6 | 23.0 | 24.0 | 24.4 | 22.6 | 23.6 | 23.0 | 24.0 | 24.4 |
| | 4H | 22.7 | 23.7 | 23.2 | 24.1 | 24.5 | 22.7 | 23.7 | 23.2 | 24.1 | 24.5 |
| | 6H | 22.7 | 23.5 | 23.2 | 23.9 | 24.4 | 22.7 | 23.5 | 23.2 | 23.9 | 24.4 |
| | 8H | 22.7 | 23.4 | 23.2 | 23.9 | 24.3 | 22.7 | 23.4 | 23.2 | 23.9 | 24.3 |
| | 12H | 22.7 | 23.3 | 23.2 | 23.8 | 24.3 | 22.7 | 23.3 | 23.2 | 23.8 | 24.3 |
| 8H | 4H | 22.7 | 23.5 | 23.2 | 23.9 | 24.4 | 22.7 | 23.5 | 23.2 | 23.9 | 24.4 |
| | 6H | 22.7 | 23.3 | 23.2 | 23.8 | 24.3 | 22.7 | 23.3 | 23.2 | 23.8 | 24.3 |
| | 8H | 22.7 | 23.2 | 23.2 | 23.7 | 24.2 | 22.7 | 23.2 | 23.2 | 23.7 | 24.2 |
| | 12H | 22.7 | 23.1 | 23.2 | 23.6 | 24.1 | 22.7 | 23.1 | 23.2 | 23.6 | 24.1 |
| 12H | 4H | 22.7 | 23.4 | 23.2 | 23.8 | 24.3 | 22.7 | 23.4 | 23.2 | 23.8 | 24.3 |
| | 6H | 22.7 | 23.2 | 23.2 | 23.7 | 24.2 | 22.7 | 23.2 | 23.2 | 23.7 | 24.2 |
| | 8H | 22.7 | 23.1 | 23.2 | 23.6 | 24.1 | 22.7 | 23.1 | 23.2 | 23.6 | 24.1 |

### Luminance table

Max. for $\gamma >= 65°$

Photometric dimensions in mm: D = 308

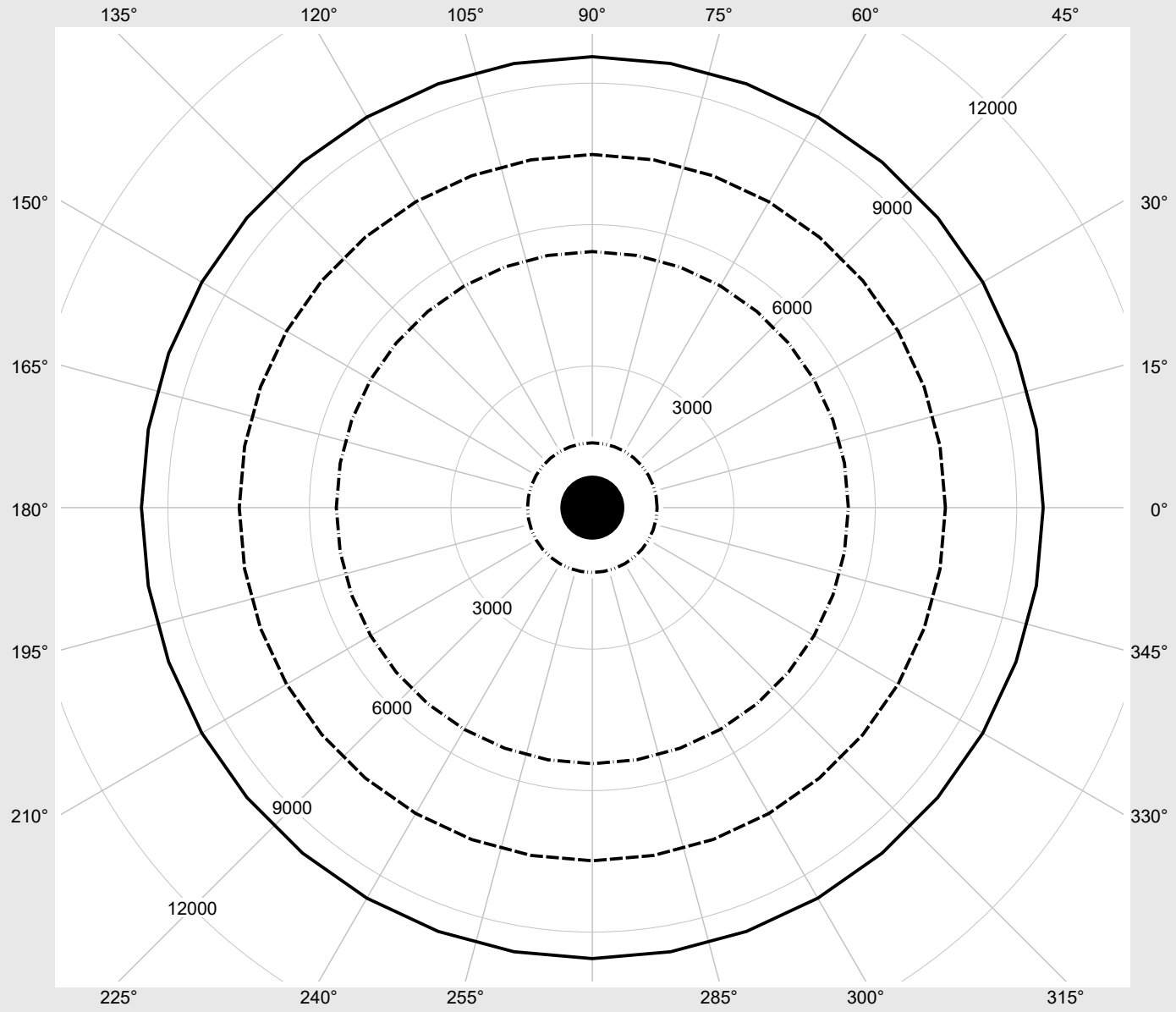
| C-planes | 0° |
|---|---|
| $\gamma$ | Luminance in cd/m² |
| 45,0° | 23130.0 |
| 50,0° | 19838.0 |
| 55,0° | 16390.2 |
| 60,0° | 12773.3 |
| 65,0° | 9562.3 |
| 70,0° | 7488.4 |
| 75,0° | 5429.9 |
| 80,0° | 1374.2 |
| 85,0° | 497.5 |

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

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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 | 4800 | 29.6 |
| 95 | 241 | 252 | 4567 | 28.1 |
| 90 | 227 | 250 | 4316 | 26.4 |
| 85 | 214 | 248 | 4080 | 24.9 |
| 80 | 201 | 245 | 3843 | 23.6 |
| 75 | 188 | 243 | 3605 | 22.1 |
| 70 | 175 | 240 | 3366 | 20.5 |
| 65 | 162 | 238 | 3125 | 19.2 |
| 60 | 149 | 234 | 2883 | 17.7 |
| 55 | 136 | 231 | 2639 | 16.2 |
| 50 | 123 | 227 | 2393 | 14.8 |
| 45 | 111 | 224 | 2164 | 13.5 |
| 40 | 98 | 219 | 1916 | 12.1 |
| 35 | 86 | 214 | 1685 | 10.7 |
| 30 | 73 | 208 | 1433 | 9.4 |
| 25 | 61 | 202 | 1198 | 8.1 |
| 20 | 49 | 194 | 962 | 6.8 |
| 15 | 37 | 183 | 724 | 5.5 |
| 10 | 25 | 169 | 485 | 4.2 |
| 5 | 13 | 145 | 243 | 2.9 |
| 1 | 4 | 102 | 61 | 1.6 |