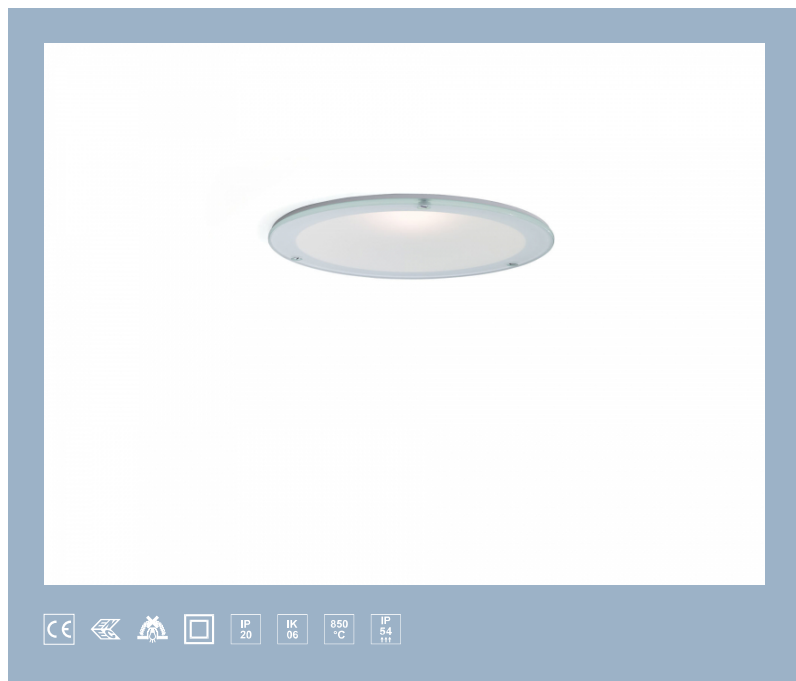


# D91/LEDN10DX1T1



## luminaria empotrada • redonda

aplicación : Oficinas, Sector de salud, Enseñanza, Hostelería, Comercio, Ocio

carcasa: policarbonato

fuenta luminosa : modulo LED • 4000 K

óptica : reflector y lente • Policarbonato (PC) con película de aluminio satinado • extensiva

clasificación UGR : <=19

flujo luminoso: 1200 lm

flujo luminoso específico : 117 lm/W

LLMF: 99% @ 50khrs (Tq=25°C)

## Product information

### Características mecánicas

dimensiones : 190 mm x 107 mm

medida empotrada : 175 mm x 107 mm

color: RAL9003 - blanco señales

aro: aro plano

tipo : luminaria individual

IP: IP20, IP54 en la parte inferior

IK: IK06

### Equipo eléctrico

controlador: DALI regulable

consumo de energía : 10.3 W

tensión : 220-240V

frecuencia : 50-60Hz AC/DC

seguridad fotobiológica : EN 62471: RISK GROUP 1 UNLIMITED

## Luminance

flujo luminoso : 1200 lm

flujo luminoso específico : 117 lm/W

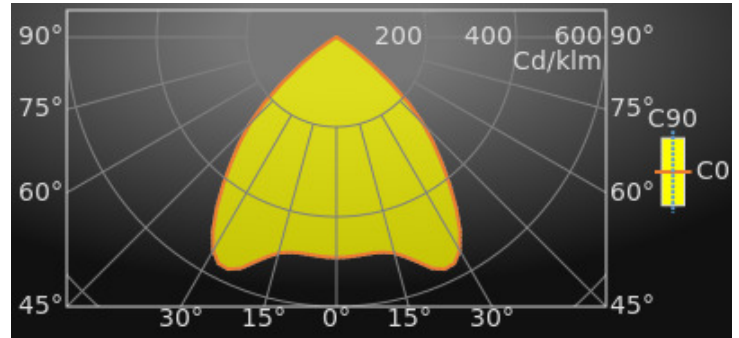
luminancia @ 65° 1000 cd/m<sup>2</sup>

classification UGR <=19

superficie luminoso : 0.02 m<sup>2</sup>

Average Luminances (Cd/m<sup>2</sup>) for 1200lm

| Gamma | C0    | C30   | C45   | C60   | C90   |
|-------|-------|-------|-------|-------|-------|
| 45°   | 24197 | 24197 | 24197 | 24197 | 24197 |
| 50°   | 15367 | 15367 | 15367 | 15367 | 15367 |
| 55°   | 5755  | 5755  | 5755  | 5755  | 5755  |
| 60°   | 805   | 805   | 805   | 805   | 805   |
| 65°   | 339   | 339   | 339   | 339   | 339   |
| 70°   | 229   | 229   | 229   | 229   | 229   |
| 75°   | 146   | 146   | 146   | 146   | 146   |
| 80°   | 92    | 92    | 92    | 92    | 92    |
| 85°   | 102   | 102   | 102   | 102   | 102   |



## Clasificaciones

CIE: 771 / 997 / 1000 / 1000 / 1000

CIE FLUXCODE : 0.77 / 1.00 / 1.00 / 1.00 / 1.00

BZ: BZ2/0.8/BZ1

CAE: Symmetrical

DIN: A60 (Nach Arbeitsblatt 7)

DIN\_U: Phi u = 1.00

DIN\_SU: Phi su = 0.74

UTE: 1.00 B + 0.00 T

Lifetime Data (Tq=25.0°C)

| Time(khrs) | LLMF(%) | Cx(%) |
|------------|---------|-------|
| 10         | 100     | 2     |
| 20         | 100     | 4     |
| 30         | 100     | 6     |
| 40         | 99      | 8     |
| 50         | 99      | 10    |
| 60         | 99      | 12    |

classification UGR

Corrected Glare Ratings for a Total Lamp Flux of 1200lm (S = 0.25H)

Intensidad luminosa en cd

Intensity for 1200lm

| Gamma | C0    | C45   | C90   |
|-------|-------|-------|-------|
| 0°    | 588.3 | 588.3 | 588.3 |
| 5°    | 586.3 | 586.3 | 586.3 |
| 10°   | 585.1 | 585.1 | 585.1 |
| 15°   | 596.9 | 596.9 | 596.9 |
| 20°   | 639.5 | 639.5 | 639.5 |
| 25°   | 683.5 | 683.5 | 683.5 |
| 30°   | 657.2 | 657.2 | 657.2 |
| 35°   | 557.6 | 557.6 | 557.6 |
| 40°   | 437.0 | 437.0 | 437.0 |
| 45°   | 327.0 | 327.0 | 327.0 |
| 50°   | 188.8 | 188.8 | 188.8 |
| 55°   | 63.1  | 63.1  | 63.1  |
| 60°   | 7.7   | 7.7   | 7.7   |
| 65°   | 2.7   | 2.7   | 2.7   |
| 70°   | 1.5   | 1.5   | 1.5   |
| 75°   | 0.7   | 0.7   | 0.7   |
| 80°   | 0.3   | 0.3   | 0.3   |
| 85°   | 0.2   | 0.2   | 0.2   |
| 90°   | 0.0   | 0.0   | 0.0   |

| Ceiling<br>Walls<br>Floor                                      | Room Reflection Factors (%) |      |      |      |      |                |      |      |      |      |
|--|-----------------------------|------|------|------|------|----------------|------|------|------|------|
|  | 70                          | 70   | 50   | 50   | 30   | 70             | 70   | 50   | 50   | 30   |
| Room Dimensions  | Viewed Crosswise            |      |      |      |      | Viewed Endwise |      |      |      |      |
| X = 2H Y = 2H  | 19.9                        | 21.5 | 20.2 | 21.7 | 22.0 | 19.9           | 21.5 | 20.2 | 21.7 | 22.0 |
| Y = 3H   | 19.7                        | 21.1 | 20.0 | 21.4 | 21.7 | 19.7           | 21.1 | 20.0 | 21.4 | 21.7 |
| Y = 4H   | 19.6                        | 20.9 | 20.0 | 21.2 | 21.5 | 19.6           | 20.9 | 20.0 | 21.2 | 21.5 |
| Y = 6H   | 19.5                        | 20.7 | 19.9 | 21.0 | 21.4 | 19.5           | 20.7 | 19.9 | 21.0 | 21.4 |
| Y = 8H   | 19.5                        | 20.6 | 19.9 | 21.0 | 21.3 | 19.5           | 20.6 | 19.9 | 21.0 | 21.3 |
| Y = 12H  | 19.5                        | 20.6 | 19.9 | 20.9 | 21.2 | 19.5           | 20.6 | 19.9 | 20.9 | 21.2 |
| X = 4H Y = 2H  | 19.7                        | 21.0 | 20.0 | 21.2 | 21.5 | 19.7           | 21.0 | 20.0 | 21.2 | 21.5 |
| Y = 3H   | 19.5                        | 20.6 | 19.9 | 20.9 | 21.3 | 19.5           | 20.6 | 19.9 | 20.9 | 21.3 |
| Y = 4H   | 19.4                        | 20.4 | 19.8 | 20.7 | 21.1 | 19.4           | 20.4 | 19.8 | 20.7 | 21.1 |
| Y = 6H   | 19.4                        | 20.2 | 19.8 | 20.6 | 21.0 | 19.4           | 20.2 | 19.8 | 20.6 | 21.0 |
| Y = 8H   | 19.3                        | 20.1 | 19.8 | 20.5 | 20.9 | 19.3           | 20.1 | 19.8 | 20.5 | 20.9 |
| Y = 12H  | 19.3                        | 20.0 | 19.8 | 20.4 | 20.9 | 19.3           | 20.0 | 19.8 | 20.4 | 20.9 |
| X = 8H Y = 4H  | 19.3                        | 20.1 | 19.8 | 20.5 | 20.9 | 19.3           | 20.1 | 19.8 | 20.5 | 20.9 |
| Y = 6H   | 19.3                        | 19.9 | 19.7 | 20.3 | 20.8 | 19.3           | 19.9 | 19.7 | 20.3 | 20.8 |
| Y = 8H   | 19.2                        | 19.8 | 19.7 | 20.2 | 20.7 | 19.2           | 19.8 | 19.7 | 20.2 | 20.7 |
| Y = 12H  | 19.2                        | 19.7 | 19.7 | 20.2 | 20.7 | 19.2           | 19.7 | 19.7 | 20.2 | 20.7 |
| X = 12H Y = 4H   | 19.3                        | 20.0 | 19.8 | 20.4 | 20.9 | 19.3           | 20.0 | 19.8 | 20.4 | 20.9 |
| Y = 6H   | 19.2                        | 19.8 | 19.7 | 20.2 | 20.7 | 19.2           | 19.8 | 19.7 | 20.2 | 20.7 |
| Y = 8H   | 19.2                        | 19.7 | 19.7 | 20.2 | 20.7 | 19.2           | 19.7 | 19.7 | 20.2 | 20.7 |
| UGR Variations with Observer Position for Luminaire Spacings S |                             |      |      |      |      |                |      |      |      |      |
| S = 1.0H   | +1.8                        |      | -7.0 |      | +1.8 |                | -7.0 |      |      |      |
| S = 1.5H   | +3.6                        |      | 21.5 |      | +3.6 |                | 21.5 |      |      |      |
| S = 2.0H   | +5.6                        |      | 23.3 |      | +5.6 |                | 23.3 |      |      |      |



## Colour properties

Correlated Colour Temperature : 4000

Ra: 80

## Rendimiento

Utilisation Factors according to IES (%)

|         | Room Reflection Factors (%) |     |     |     |     |     |    |    |    |    |
|---------|-----------------------------|-----|-----|-----|-----|-----|----|----|----|----|
|         | 80                          | 80  | 80  | 50  | 50  | 50  | 30 | 30 | 30 | 0  |
| Ceiling | 80                          | 80  | 80  | 50  | 50  | 50  | 30 | 30 | 30 | 0  |
| Walls   | 50                          | 30  | 10  | 50  | 30  | 10  | 50 | 30 | 10 | 0  |
| Floor   | 20                          | 20  | 20  | 20  | 20  | 20  | 20 | 20 | 20 | 0  |
| RCR = 1 | 109                         | 107 | 106 | 103 | 101 | 100 | 99 | 98 | 97 | 91 |
| 2       | 99                          | 96  | 93  | 94  | 91  | 89  | 91 | 89 | 87 | 82 |
| 3       | 90                          | 85  | 82  | 86  | 82  | 79  | 83 | 80 | 78 | 74 |
| 4       | 82                          | 77  | 73  | 79  | 74  | 71  | 77 | 73 | 70 | 66 |
| 5       | 75                          | 69  | 65  | 72  | 67  | 63  | 70 | 66 | 63 | 60 |
| 6       | 69                          | 62  | 58  | 66  | 61  | 57  | 65 | 60 | 56 | 54 |
| 7       | 63                          | 57  | 52  | 61  | 56  | 51  | 60 | 55 | 51 | 49 |
| 8       | 59                          | 52  | 47  | 57  | 51  | 47  | 55 | 50 | 46 | 44 |
| 9       | 54                          | 47  | 43  | 52  | 47  | 42  | 51 | 46 | 42 | 40 |
| 10      | 50                          | 44  | 39  | 49  | 43  | 39  | 48 | 42 | 39 | 37 |

Utilisation Factors according to LiTG (%)

|          | Room Reflection Factors (%) |     |     |     |     |     |     |    |    |    |
|----------|-----------------------------|-----|-----|-----|-----|-----|-----|----|----|----|
|          | 80                          | 80  | 80  | 50  | 50  | 50  | 50  | 50 | 30 | 0  |
| Ceiling  | 80                          | 80  | 80  | 50  | 50  | 50  | 50  | 50 | 30 | 0  |
| Walls    | 50                          | 30  | 50  | 30  | 50  | 30  | 50  | 30 | 30 | 0  |
| Floor    | 30                          | 30  | 10  | 10  | 30  | 30  | 10  | 10 | 10 | 0  |
| k = 0.60 | 61                          | 54  | 58  | 52  | 59  | 53  | 57  | 52 | 51 | 46 |
| 0.80     | 74                          | 67  | 70  | 64  | 71  | 65  | 68  | 63 | 63 | 57 |
| 1.00     | 83                          | 75  | 77  | 71  | 79  | 73  | 75  | 70 | 69 | 65 |
| 1.25     | 93                          | 85  | 85  | 80  | 88  | 82  | 83  | 79 | 78 | 74 |
| 1.50     | 98                          | 91  | 89  | 85  | 93  | 88  | 87  | 83 | 82 | 78 |
| 2.00     | 105                         | 99  | 94  | 90  | 98  | 94  | 91  | 88 | 87 | 83 |
| 2.50     | 110                         | 105 | 97  | 94  | 102 | 99  | 95  | 92 | 91 | 87 |
| 3.00     | 114                         | 110 | 100 | 98  | 106 | 103 | 97  | 95 | 94 | 91 |
| 4.00     | 117                         | 113 | 101 | 99  | 108 | 105 | 99  | 97 | 96 | 92 |
| 5.00     | 120                         | 117 | 103 | 101 | 110 | 108 | 100 | 99 | 97 | 94 |

# Esquema

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