

# R31111/LEDW445DX1



## luminaire suspendu • linéaire

Application : Espaces de travail, Salles de classe

caisson: tôle d'acier laquée

source lumineuse : LED • 3000 K

optique : Shielded lens • Polycarbonate (PC) avec un fin film d'aluminium • moyennement extensive

classification UGR : <=16

flux lumineux: 4200 lm

flux lumineux spécifique : 145 lm/W

LLMF: 98% @ 50khrs (Tq=25°C)

## Product information

### Caractéristiques mécaniques

dimensions : 1380 mm x 260 mm x 35 mm

couleur: RAL9003 - blanc de sécurité (texturé)

type : luminaire individuel

IP: IP20

### Equipement électrique

driver: DALI gradable

puissance : 29 W

tension : 220-240V

fréquence : 50-60Hz AC

sécurité photobiologique : EN 62471: RISK GROUP 1 UNLIMITED

## Luminance

flux lumineux : 4200 lm

flux lumineux spécifique : 145 lm/W

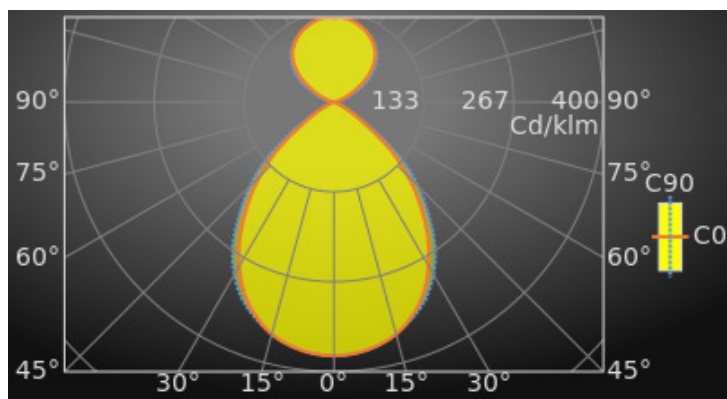
luminance @ 65° = : 3000 cd/m²

classification UGR =: <=16

surface lumineuse : 0.12 m²

Average Luminances (Cd/m²) for 4200lm

| Gamma | C0   | C30  | C45  | C60  | C90  |
|-------|------|------|------|------|------|
| 45°   | 7810 | 8902 | 9386 | 9068 | 8772 |
| 50°   | 6016 | 7505 | 8089 | 7832 | 7136 |
| 55°   | 3381 | 5384 | 6689 | 6308 | 4389 |
| 60°   | 2099 | 3272 | 4592 | 3457 | 2074 |
| 65°   | 619  | 1264 | 2032 | 1623 | 1431 |
| 70°   | 363  | 449  | 653  | 1003 | 920  |
| 75°   | 257  | 296  | 360  | 556  | 752  |
| 80°   | 58   | 137  | 195  | 283  | 576  |
| 85°   | 0    | 0    | 0    | 30   | 361  |



## Classifications

CIE: 459 / 648 / 671 / 672 / 1000

CIE FLUXCODE : 0.68 / 0.96 / 1.00 / 0.67 / 1.00

BZ: BZ2

CAE: Symmetrical

DIN: B52 (Nach Arbeitsblatt 7 und 8)

DIN\_U: Phi u = 0.67

DIN\_SU: Phi su = 0.70

UTE: 0.67 C + 0.33 T

Lifetime Data (Tq=25.0°C)

| Time(khrs) | LLMF(%) | Cx(%) |
|------------|---------|-------|
| 10         | 99      | 1     |
| 20         | 99      | 2     |
| 30         | 99      | 3     |
| 40         | 98      | 4     |
| 50         | 98      | 5     |
| 60         | 98      | 6     |

## Intensités lumineuses en cd

Intensity for 4200lm

| Gamma | C0     | C45    | C90    | Gamma | C0    | C45   | C90   |
|-------|--------|--------|--------|-------|-------|-------|-------|
| 0°    | 1580.2 | 1580.2 | 1580.2 | 90°   | 0.2   | 0.3   | 1.3   |
| 5°    | 1571.9 | 1567.8 | 1566.6 | 95°   | 3.4   | 4.7   | 8.2   |
| 10°   | 1543.8 | 1542.0 | 1542.3 | 100°  | 12.8  | 17.9  | 25.4  |
| 15°   | 1498.1 | 1495.7 | 1493.6 | 105°  | 30.2  | 39.7  | 53.5  |
| 20°   | 1420.9 | 1429.6 | 1430.9 | 110°  | 59.0  | 75.0  | 95.6  |
| 25°   | 1320.9 | 1347.4 | 1353.4 | 115°  | 104.5 | 127.0 | 149.9 |
| 30°   | 1180.1 | 1231.9 | 1239.9 | 120°  | 167.5 | 191.8 | 215.5 |
| 35°   | 1021.1 | 1104.2 | 1096.7 | 125°  | 237.5 | 259.3 | 280.9 |
| 40°   | 839.2  | 945.2  | 914.1  | 130°  | 304.1 | 315.5 | 333.3 |
| 45°   | 656.0  | 788.4  | 736.9  | 135°  | 358.2 | 360.8 | 376.4 |
| 50°   | 459.4  | 617.7  | 545.0  | 140°  | 402.4 | 399.0 | 410.5 |
| 55°   | 230.4  | 455.8  | 299.1  | 145°  | 433.9 | 433.6 | 439.3 |
| 60°   | 124.7  | 272.7  | 123.2  | 150°  | 459.4 | 457.4 | 463.2 |
| 65°   | 31.1   | 102.0  | 71.8   | 155°  | 481.9 | 480.6 | 482.8 |
| 70°   | 14.7   | 26.5   | 37.4   | 160°  | 498.5 | 498.1 | 498.4 |
| 75°   | 7.9    | 11.1   | 23.1   | 165°  | 513.2 | 517.3 | 516.3 |
| 80°   | 1.2    | 4.0    | 11.9   | 170°  | 525.3 | 521.9 | 524.7 |
| 85°   | 0.0    | 0.0    | 3.7    | 175°  | 530.7 | 531.6 | 531.2 |
| 90°   | 0.2    | 0.3    | 1.3    | 180°  | 524.8 | 524.8 | 524.8 |

## classification UGR =

Corrected Glare Ratings for a Total Lamp Flux of 4200lm (S = 0.25H)

|                 | Room Reflection Factors (%)                                    |      |       |      |      |                |      |      |      |      |
|-----------------|----------------------------------------------------------------|------|-------|------|------|----------------|------|------|------|------|
| Ceiling         | 70                                                             | 70   | 50    | 50   | 30   | 70             | 70   | 50   | 50   | 30   |
| Walls           | 50                                                             | 30   | 50    | 30   | 30   | 50             | 30   | 50   | 30   | 30   |
| Floor           | 20                                                             | 20   | 20    | 20   | 20   | 20             | 20   | 20   | 20   | 20   |
| Room Dimensions | Viewed Crosswise                                               |      |       |      |      | Viewed Endwise |      |      |      |      |
| X = 2H Y = 2H   | 15.0                                                           | 16.1 | 15.7  | 16.9 | 17.5 | 15.5           | 16.6 | 16.2 | 17.3 | 18.0 |
| Y = 3H          | 14.8                                                           | 15.8 | 15.5  | 16.5 | 17.2 | 15.3           | 16.3 | 16.1 | 17.0 | 17.7 |
| Y = 4H          | 14.7                                                           | 15.6 | 15.4  | 16.3 | 17.0 | 15.2           | 16.1 | 16.0 | 16.9 | 17.6 |
| Y = 6H          | 14.5                                                           | 15.4 | 15.3  | 16.1 | 16.9 | 15.1           | 15.9 | 15.9 | 16.7 | 17.4 |
| Y = 8H          | 14.5                                                           | 15.3 | 15.3  | 16.1 | 16.8 | 15.1           | 15.9 | 15.9 | 16.6 | 17.4 |
| Y = 12H         | 14.4                                                           | 15.2 | 15.2  | 16.0 | 16.7 | 15.0           | 15.8 | 15.8 | 16.6 | 17.3 |
| X = 4H Y = 2H   | 15.1                                                           | 15.9 | 15.8  | 16.7 | 17.4 | 15.4           | 16.3 | 16.2 | 17.1 | 17.8 |
| Y = 3H          | 14.8                                                           | 15.6 | 15.6  | 16.4 | 17.1 | 15.3           | 16.1 | 16.1 | 16.9 | 17.6 |
| Y = 4H          | 14.7                                                           | 15.3 | 15.5  | 16.2 | 16.9 | 15.2           | 15.9 | 16.0 | 16.7 | 17.4 |
| Y = 6H          | 14.6                                                           | 15.1 | 15.4  | 16.0 | 16.8 | 15.1           | 15.7 | 16.0 | 16.5 | 17.3 |
| Y = 8H          | 14.5                                                           | 15.0 | 15.4  | 15.9 | 16.7 | 15.1           | 15.6 | 15.9 | 16.4 | 17.2 |
| Y = 12H         | 14.5                                                           | 14.9 | 15.3  | 15.8 | 16.6 | 15.0           | 15.5 | 15.9 | 16.3 | 17.2 |
| X = 8H Y = 4H   | 14.5                                                           | 15.0 | 15.4  | 15.9 | 16.7 | 15.0           | 15.6 | 15.9 | 16.4 | 17.2 |
| Y = 6H          | 14.4                                                           | 14.8 | 15.3  | 15.7 | 16.5 | 15.0           | 15.4 | 15.8 | 16.2 | 17.1 |
| Y = 8H          | 14.3                                                           | 14.7 | 15.2  | 15.6 | 16.4 | 14.9           | 15.3 | 15.8 | 16.1 | 17.0 |
| Y = 12H         | 14.3                                                           | 14.6 | 15.2  | 15.5 | 16.4 | 14.8           | 15.1 | 15.7 | 16.0 | 16.9 |
| X = 12H Y = 4H  | 14.5                                                           | 14.9 | 15.3  | 15.8 | 16.6 | 15.0           | 15.4 | 15.8 | 16.3 | 17.1 |
| Y = 6H          | 14.3                                                           | 14.7 | 15.2  | 15.6 | 16.4 | 14.9           | 15.2 | 15.8 | 16.1 | 17.0 |
| Y = 8H          | 14.3                                                           | 14.6 | 15.2  | 15.5 | 16.4 | 14.8           | 15.1 | 15.7 | 16.0 | 16.9 |
|                 | UGR Variations with Observer Position for Luminaire Spacings S |      |       |      |      |                |      |      |      |      |
| S = 1.0H        | +1.1                                                           |      | -2.3  |      |      | +0.7           |      | -1.5 |      |      |
| S = 1.5H        | +2.3                                                           |      | -7.5  |      |      | +2.1           |      | -6.6 |      |      |
| S = 2.0H        | +3.6                                                           |      | -14.7 |      |      | +3.3           |      | -8.3 |      |      |

## Colour properties

Correlated Colour Temperature : 3000

Ra: CRI (Ra) 80

## Rendement

| Utilisation Factors according to IES (%) |                             |    |    |    |    |    |    |    |    |    |
|------------------------------------------|-----------------------------|----|----|----|----|----|----|----|----|----|
|                                          | Room Reflection Factors (%) |    |    |    |    |    |    |    |    |    |
| 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                                  | 101                         | 99 | 97 | 85 | 83 | 82 | 75 | 74 | 73 | 61 |
| 2                                        | 91                          | 87 | 84 | 76 | 74 | 72 | 68 | 66 | 65 | 54 |
| 3                                        | 81                          | 76 | 73 | 69 | 66 | 63 | 62 | 59 | 57 | 48 |
| 4                                        | 73                          | 67 | 63 | 63 | 58 | 55 | 56 | 53 | 50 | 42 |
| 5                                        | 66                          | 60 | 55 | 57 | 52 | 49 | 51 | 48 | 45 | 38 |
| 6                                        | 60                          | 53 | 49 | 52 | 47 | 43 | 47 | 43 | 40 | 34 |
| 7                                        | 55                          | 48 | 43 | 48 | 42 | 39 | 43 | 39 | 36 | 31 |
| 8                                        | 50                          | 43 | 39 | 44 | 39 | 35 | 40 | 36 | 32 | 28 |
| 9                                        | 46                          | 39 | 35 | 40 | 35 | 32 | 37 | 33 | 30 | 25 |
| 10                                       | 43                          | 36 | 31 | 37 | 32 | 29 | 34 | 30 | 27 | 23 |

| Utilisation Factors according to LiTG (%) |                             |     |    |    |    |    |    |    |    |    |
|-------------------------------------------|-----------------------------|-----|----|----|----|----|----|----|----|----|
|                                           | Room Reflection Factors (%) |     |    |    |    |    |    |    |    |    |
| 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                                  | 51                          | 43  | 49 | 42 | 45 | 39 | 43 | 38 | 36 | 29 |
| 0.80                                      | 62                          | 54  | 58 | 52 | 54 | 48 | 52 | 47 | 44 | 36 |
| 1.00                                      | 70                          | 62  | 65 | 59 | 61 | 55 | 58 | 53 | 49 | 41 |
| 1.25                                      | 79                          | 72  | 73 | 67 | 68 | 63 | 64 | 60 | 56 | 47 |
| 1.50                                      | 85                          | 78  | 77 | 72 | 73 | 68 | 68 | 64 | 60 | 50 |
| 2.00                                      | 92                          | 86  | 83 | 78 | 78 | 74 | 72 | 69 | 64 | 54 |
| 2.50                                      | 98                          | 92  | 86 | 83 | 82 | 78 | 76 | 73 | 67 | 57 |
| 3.00                                      | 102                         | 97  | 89 | 86 | 85 | 82 | 78 | 76 | 70 | 59 |
| 4.00                                      | 106                         | 102 | 92 | 89 | 88 | 85 | 80 | 78 | 72 | 61 |
| 5.00                                      | 109                         | 105 | 94 | 92 | 90 | 88 | 82 | 80 | 73 | 62 |

## Accessoires

ACC-HI00-X00 Rosace de plafond pour luminaires suspendus (R7/R3/Ley) - bornier 5 pôles - RAL9005 Jet black

ACC-HI00-X01 Rosace de plafond pour luminaires suspendus (R7/R3/Ley) - bornier 5 pôles - RAL9003 Blanc signalisation

ACC-HI00-X02 Rosace de plafond pour luminaires suspendus (R7/R3/Ley) - bornier à 5 pôles - RAL9006 Blanc aluminium

ACC-HI01-3P-1500 Jeu de câbles de suspension pour R7/R3 - à combiner avec la rosace de plafond - câble d'alimentation à 3 pôles - 2 câbles en acier - 1 piton de suspension - max. 1,5m

ACC-HI01-5P-1500 Jeu de câbles de suspension pour R7/R3 - à combiner avec la rosace de plafond - câble d'alimentation à 5 pôles - 2 câbles en acier - 1 piton de suspension - max. 1,5m

ACC-HI02-3P-1500 Jeu de câbles de suspension pour R7/R3 - minimaliste : pas de rosace de plafond - câble d'alimentation à 3 pôles - 2 câbles en acier - 2 pitons de suspension - max. 1,5m

ACC-HI02-5P-1500 Jeu de câbles de suspension pour R7/R3 - minimaliste : pas de rosace de plafond - 5 pôles câble d'alimentation - 2 câbles en acier - 2 pitons de suspension - max. 1,5m

## Esquisse

