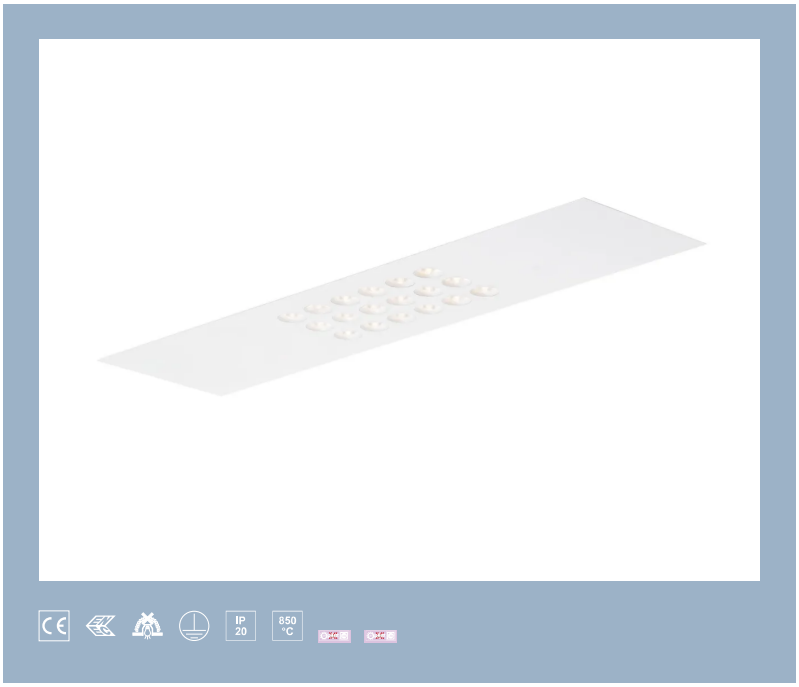
# U7C-M118-25-840-035S



**recessed luminaire • linear**

Application : Education ? Classrooms, Offices ? Desk

housing: lacquered sheet steel

light source : LED • 4000 K

optics : LED+LENS™ • polycarbonate (PC) lens and cup • wide-angle

UGR classification : <=19

luminous flux: 3500 lm

luminous efficacy : 156 lm/W

LLMF: 95% @ 50khrs (Tq=25°C)

## Product information

### Mechanical properties

dimensions : 1196 mm x 296 mm x 50 mm

cut-out size : 1196 mm x 296 mm x 50 mm

shape : module 300

colour: RAL9003 - white

type : individual luminaire

IP: IP20

### Electrical properties

driver: not dimmable

power : 22.5 W

voltage : 220-240V

frequency : 50/60Hz AC

photobiological safety : EN 62471: RISK GROUP 1 UNLIMITED

## Luminance

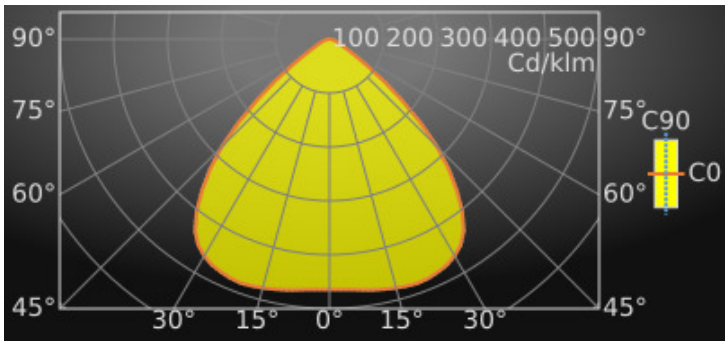
luminous flux : 3500 lm

luminous efficacy : 156 lm/W

luminance @ 65° = : 3000 cd/m²

UGR classification =: <=19

luminous area : 0.09 m²




Average Luminances (Cd/m²) for 3500lm

| Gamma | C0 | C30 | C45 | C60 | C90 |
|---|---|---|---|---|---|
| 45° | 15825 | 15825 | 15825 | 15825 | 15825 |
| 50° | 10711 | 10711 | 10711 | 10711 | 10711 |
| 55° | 5831 | 5831 | 5831 | 5831 | 5831 |
| 60° | 3101 | 3101 | 3101 | 3101 | 3101 |
| 65° | 2210 | 2210 | 2210 | 2210 | 2210 |
| 70° | 1759 | 1759 | 1759 | 1759 | 1759 |
| 75° | 1458 | 1458 | 1458 | 1458 | 1458 |
| 80° | 1169 | 1169 | 1169 | 1169 | 1169 |
| 85° | 645 | 645 | 645 | 645 | 645 |

## Classifications

CIE: 699 / 962 / 994 / 1000 / 1000

CIE FLUXCODE : 0.70 / 0.96 / 0.99 / 1.00 / 1.00

BZ: BZ2

CAE: Symmetrical

DIN: A50 (Nach Arbeitsblatt 7)

DIN_U: Phi u = 1.00

DIN_SU: Phi su = 0.70

UTE: 1.00 C + 0.00 T

Lifetime Data (Tq=25.0°C)

| Time(hrs) | LLMF(%) | Cx(%) |
|---|---|---|
| 10000 | 99 | 1 |
| 20000 | 98 | 2 |
| 30000 | 97 | 3 |
| 40000 | 96 | 4 |
| 50000 | 95 | 5 |
| 60000 | 95 | 6 |
| 70000 | 94* | 7 |
| 80000 | 93* | 8 |
| 90000 | 92* | 9 |
| 100000 | 92* | 9 |

## Luminous intensities in cd

Intensity for 3500lm

| Gamma | C0 | C45 | C90 |
|---|---|---|---|
| 0° | 1625.5 | 1625.5 | 1625.5 |
| 5° | 1631.7 | 1631.7 | 1631.7 |
| 10° | 1652.4 | 1652.4 | 1652.4 |
| 15° | 1671.6 | 1671.6 | 1671.6 |
| 20° | 1684.2 | 1684.2 | 1684.2 |
| 25° | 1667.0 | 1667.0 | 1667.0 |
| 30° | 1625.0 | 1625.0 | 1625.0 |
| 35° | 1519.4 | 1519.4 | 1519.4 |
| 40° | 1287.0 | 1287.0 | 1287.0 |
| 45° | 987.0 | 987.0 | 987.0 |
| 50° | 607.2 | 607.2 | 607.2 |
| 55° | 295.0 | 295.0 | 295.0 |
| 60° | 136.7 | 136.7 | 136.7 |
| 65° | 82.4 | 82.4 | 82.4 |
| 70° | 53.1 | 53.1 | 53.1 |
| 75° | 33.3 | 33.3 | 33.3 |
| 80° | 17.9 | 17.9 | 17.9 |
| 85° | 5.0 | 5.0 | 5.0 |
| 90° | 0.0 | 0.0 | 0.0 |

## UGR classification =

Corrected Glare Ratings for a Total Lamp Flux of 3500lm (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 | 18.8 | 20.4 | 19.1 | 20.7 | 20.9 | 18.8 | 20.4 | 19.1 | 20.7 | 20.9 |
| Y = 3H | 18.8 | 20.2 | 19.1 | 20.5 | 20.8 | 18.8 | 20.2 | 19.1 | 20.5 | 20.8 |
| Y = 4H | 18.7 | 20.1 | 19.1 | 20.4 | 20.7 | 18.7 | 20.1 | 19.1 | 20.4 | 20.7 |
| Y = 6H | 18.7 | 19.9 | 19.0 | 20.2 | 20.6 | 18.7 | 19.9 | 19.0 | 20.2 | 20.6 |
| Y = 8H | 18.7 | 19.8 | 19.0 | 20.2 | 20.5 | 18.7 | 19.8 | 19.0 | 20.2 | 20.5 |
| Y = 12H | 18.6 | 19.8 | 19.0 | 20.1 | 20.4 | 18.6 | 19.8 | 19.0 | 20.1 | 20.4 |
| X = 4H Y = 2H | 18.7 | 20.0 | 19.0 | 20.3 | 20.6 | 18.7 | 20.0 | 19.0 | 20.3 | 20.6 |
| Y = 3H | 18.7 | 19.8 | 19.1 | 20.2 | 20.5 | 18.7 | 19.8 | 19.1 | 20.2 | 20.5 |
| Y = 4H | 18.7 | 19.7 | 19.1 | 20.1 | 20.4 | 18.7 | 19.7 | 19.1 | 20.1 | 20.4 |
| Y = 6H | 18.7 | 19.6 | 19.1 | 20.0 | 20.4 | 18.7 | 19.6 | 19.1 | 20.0 | 20.4 |
| Y = 8H | 18.7 | 19.5 | 19.1 | 19.9 | 20.3 | 18.7 | 19.5 | 19.1 | 19.9 | 20.3 |
| Y = 12H | 18.7 | 19.4 | 19.1 | 19.8 | 20.3 | 18.7 | 19.4 | 19.1 | 19.8 | 20.3 |
| X = 8H Y = 4H | 18.7 | 19.5 | 19.1 | 19.9 | 20.3 | 18.7 | 19.5 | 19.1 | 19.9 | 20.3 |
| Y = 6H | 18.7 | 19.3 | 19.1 | 19.8 | 20.2 | 18.7 | 19.3 | 19.1 | 19.8 | 20.2 |
| Y = 8H | 18.7 | 19.3 | 19.1 | 19.7 | 20.2 | 18.7 | 19.3 | 19.1 | 19.7 | 20.2 |
| Y = 12H | 18.7 | 19.2 | 19.1 | 19.6 | 20.2 | 18.7 | 19.2 | 19.1 | 19.6 | 20.2 |
| X = 12H Y = 4H | 18.6 | 19.4 | 19.1 | 19.8 | 20.2 | 18.6 | 19.4 | 19.1 | 19.8 | 20.2 |
| Y = 6H | 18.7 | 19.2 | 19.1 | 19.7 | 20.2 | 18.7 | 19.2 | 19.1 | 19.7 | 20.2 |
| Y = 8H | 18.7 | 19.2 | 19.1 | 19.6 | 20.2 | 18.7 | 19.2 | 19.1 | 19.6 | 20.2 |
| | **UGR Variations with Observer Position for Luminaire Spacings S** | | | | | | | | | |
| S = 1.0H | +1.5 | -3.0 | | | | +1.5 | -3.0 | | | |
| S = 1.5H | +3.0 | -5.7 | | | | +3.0 | -5.7 | | | |
| S = 2.0H | +4.8 | -6.5 | | | | +4.8 | -6.5 | | | |

## Colour properties

Correlated Colour Temperature : 4000

Ra: CRI (Ra) 80

## Efficiency

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 | 108 | 106 | 104 | 102 | 100 | 99 | 98 | 96 | 95 | 90 |
| 2 | 97 | 93 | 90 | 92 | 89 | 87 | 89 | 86 | 84 | 80 |
| 3 | 88 | 83 | 79 | 83 | 79 | 76 | 81 | 77 | 75 | 71 |
| 4 | 80 | 73 | 69 | 76 | 71 | 67 | 74 | 70 | 66 | 63 |
| 5 | 72 | 66 | 61 | 69 | 64 | 60 | 67 | 63 | 59 | 56 |
| 6 | 66 | 59 | 54 | 63 | 58 | 53 | 62 | 57 | 53 | 50 |
| 7 | 61 | 54 | 49 | 58 | 52 | 48 | 57 | 52 | 48 | 45 |
| 8 | 56 | 49 | 44 | 54 | 48 | 43 | 53 | 47 | 43 | 41 |
| 9 | 52 | 44 | 40 | 50 | 44 | 39 | 49 | 43 | 39 | 37 |
| 10 | 48 | 41 | 36 | 46 | 40 | 36 | 45 | 40 | 36 | 34 |

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 | 58 | 50 | 55 | 49 | 56 | 49 | 54 | 48 | 48 | 42 |
| 0.80 | 71 | 63 | 67 | 60 | 68 | 61 | 65 | 59 | 59 | 53 |
| 1.00 | 79 | 71 | 74 | 68 | 76 | 69 | 72 | 67 | 66 | 61 |
| 1.25 | 89 | 82 | 82 | 77 | 84 | 79 | 80 | 75 | 74 | 70 |
| 1.50 | 95 | 88 | 86 | 82 | 90 | 84 | 84 | 80 | 79 | 75 |
| 2.00 | 102 | 96 | 92 | 87 | 96 | 91 | 89 | 86 | 84 | 80 |
| 2.50 | 108 | 102 | 95 | 92 | 100 | 96 | 93 | 90 | 89 | 85 |
| 3.00 | 112 | 107 | 98 | 96 | 104 | 100 | 96 | 93 | 92 | 88 |
| 4.00 | 116 | 112 | 100 | 98 | 106 | 103 | 97 | 95 | 94 | 90 |
| 5.00 | 119 | 115 | 102 | 100 | 109 | 106 | 99 | 98 | 96 | 92 |

## Available accessories

ACC-HI10-M300 *Mounting frame for plaster-board and wooden ceilings M300*

## Dimensional drawing