



## Al Alwan Villa

Out MAJLIS

## Table of Contents

|                         |   |
|-------------------------|---|
| Cover .....             | 1 |
| Table of Contents ..... | 2 |
| Images .....            | 3 |

## Product data sheets

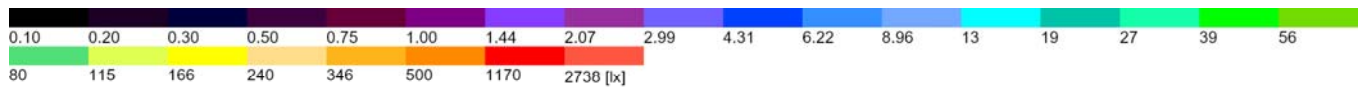
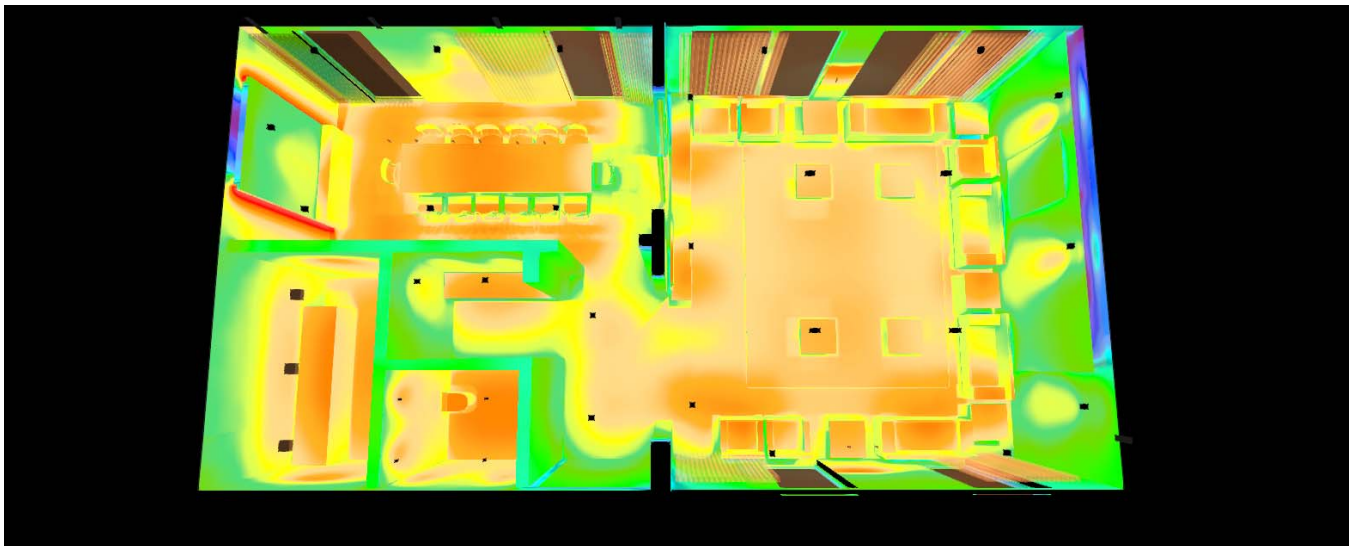
|  |    |
|--|----|
| NEKO - LED-Downlight (1x TAKEO TS150 28W-3000K/70°Ra90) .....                              | 8  |
| NEKO - LED-Lamps (1x LED CLLE 8W-3000K/120°) .....   | 9  |
| NEKO - LED-Lamps (1x SL2835A/IP65 6W 500mm 3000K) .....                                    | 10 |
| NEKO - LED-Multiple DownLight (1x TSA1D 15W BB 3000K 60°, 1x TSA1D 15W BB 3000K 60°) ..... | 11 |
| NEKO - LED-SpotLight (1x CLUB TSA3 M3 13W 35°3000K BBM) .....                              | 12 |
| NEKO - LED-SpotLight (1x CLUB TSA3 M4 15W 35°3000K BBM) .....                              | 13 |
| NEKO - LED-SpotLight (1x MINUX 44 WC 11W 40°3000K) .....                                   | 14 |

Jellyfish Al Alwan Villa - Building 1 - GROUND FLOOR

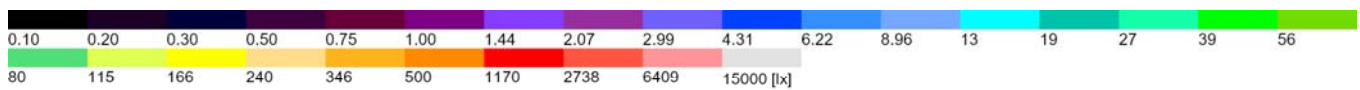
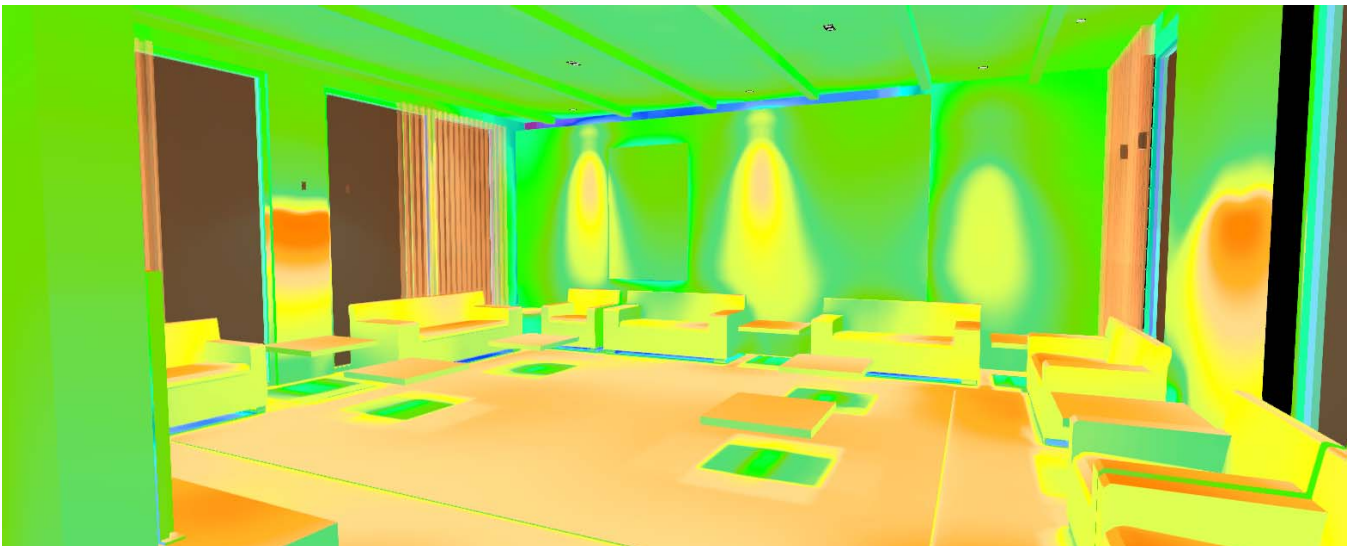
## MAJLIS

|   |    |
|---|----|
| Summary / Light scene 1 .....                             | 15 |
| Calculation objects / Light scene 1 .....                 | 18 |
| DINING / Light scene 1 / Perpendicular illuminance .....  | 20 |
| MAJLIS / Light scene 1 / Perpendicular illuminance .....  | 21 |
| KITCHEN / Light scene 1 / Perpendicular illuminance ..... | 22 |

## Images

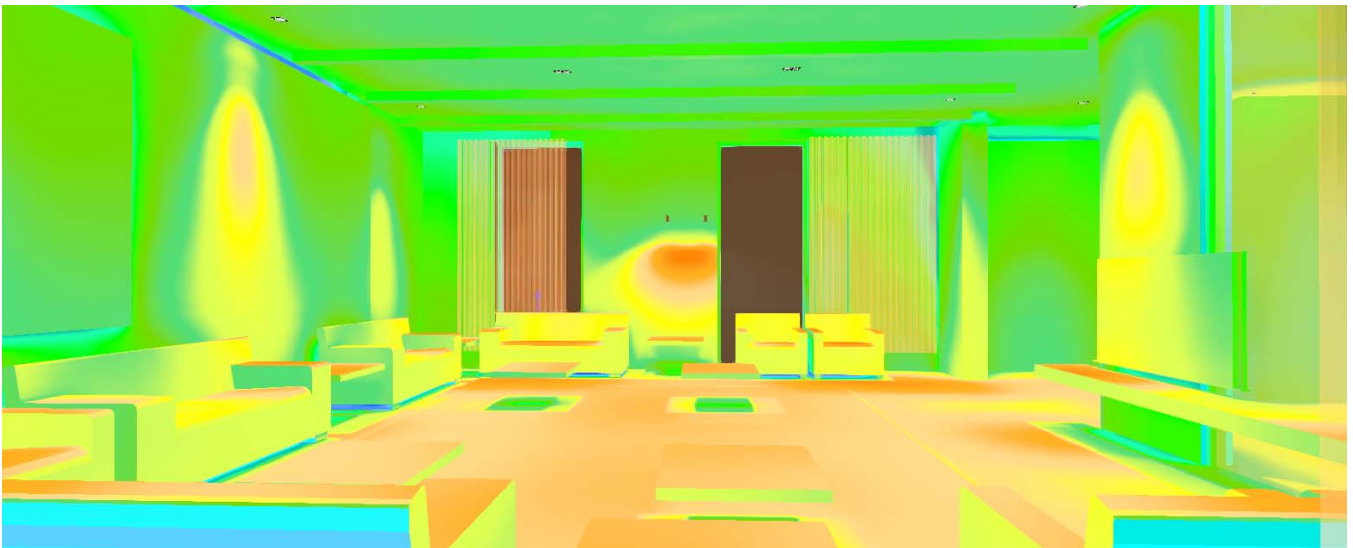


## Images

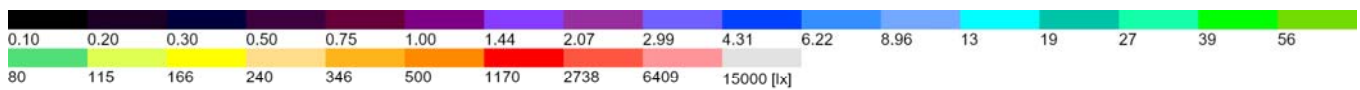
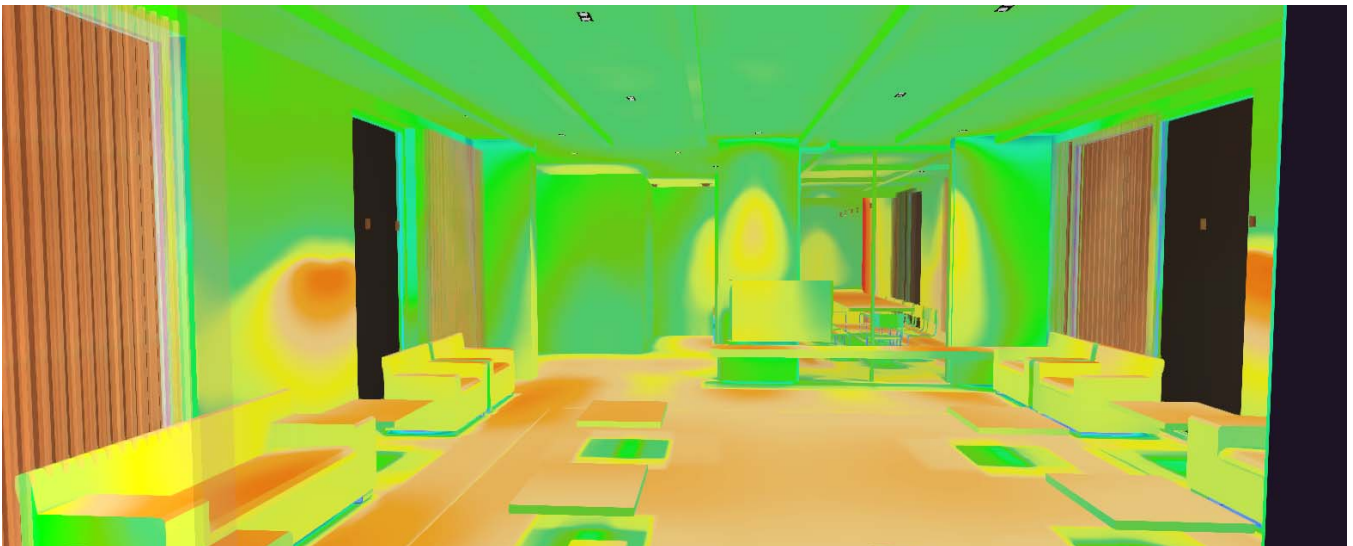




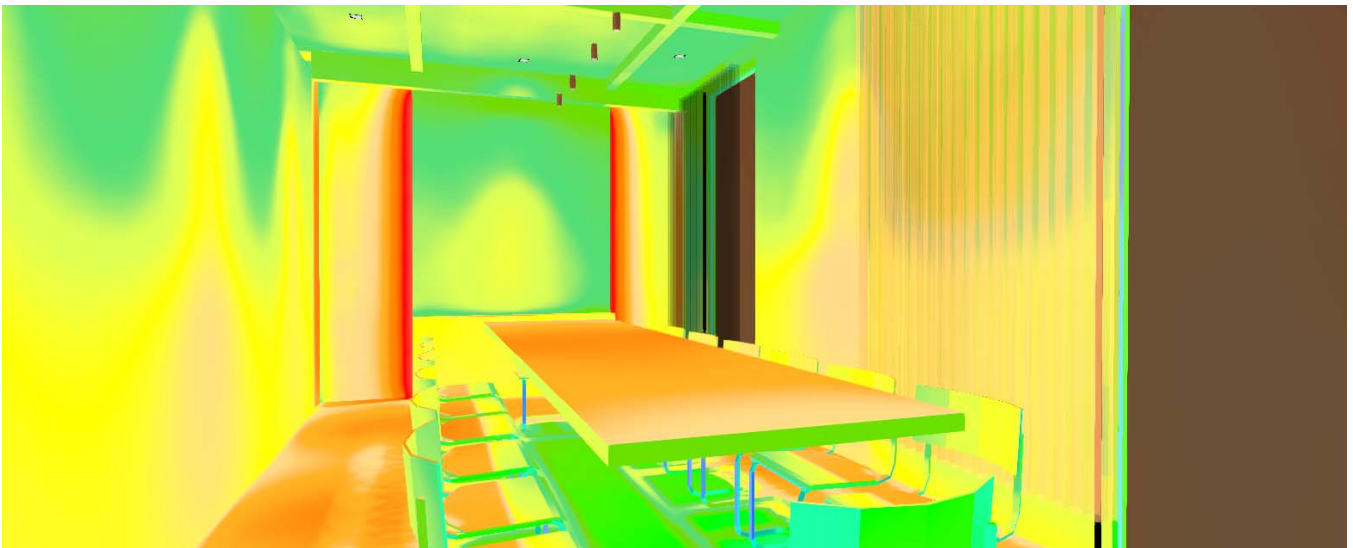
## Images



## Images



## Images

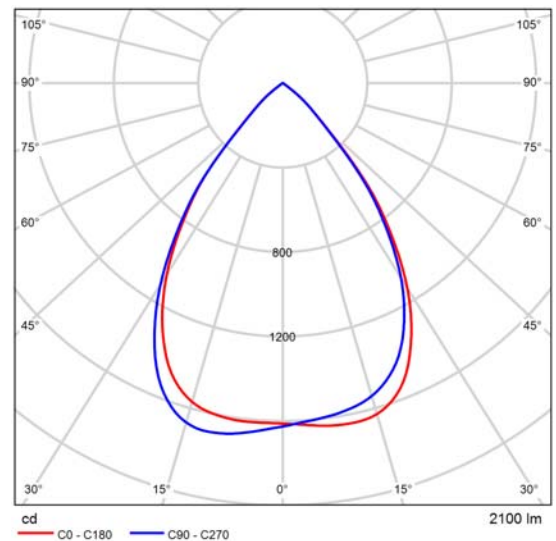


## Product data sheet

### NEKO - LED-Downlight



|                           |                                  |
|---------------------------|----------------------------------|
| Article No.               | TAKEO TS150<br>28W-3000K/70°Ra90 |
| P                         | 28.0 W                           |
| $\Phi_{\text{Luminaire}}$ | 2100 lm                          |
| Luminous efficacy         | 75.0 lm/W                        |
| CCT                       | 3000 K                           |
| CRI                       | 90                               |



Polar LDC

### Specification

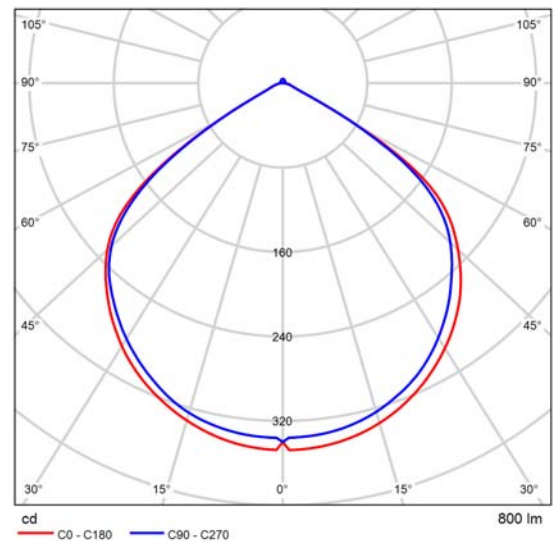


## Product data sheet

### NEKO - LED-Lamps



|                           |                           |
|---------------------------|---------------------------|
| Article No.               | LED CLLE<br>8W-3000K/120° |
| P                         | 8.0 W                     |
| $\Phi_{\text{Luminaire}}$ | 800 lm                    |
| Luminous efficacy         | 100.0 lm/W                |
| CCT                       | 3000 K                    |
| CRI                       | 90                        |



Polar LDC

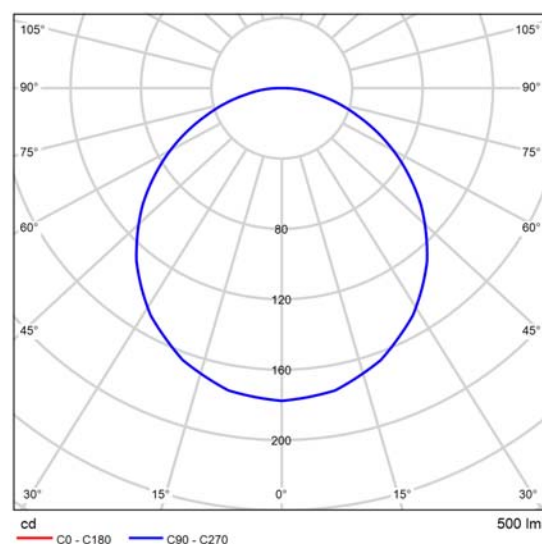
### Description

## Product data sheet

### NEKO - LED-Lamps



|                           |                                |
|---------------------------|--------------------------------|
| Article No.               | SL2835A/IP65 6W<br>500mm 3000K |
| P                         | 6.0 W                          |
| $\Phi_{\text{Luminaire}}$ | 500 lm                         |
| Luminous efficacy         | 83.4 lm/W                      |
| CCT                       | 3000 K                         |
| CRI                       | 90                             |



Polar LDC

### Specification

| Glare evaluation according to UGR                                |     |   |      |      |      |      |  |      |      |      |      |  |
|--|-----|---|------|------|------|------|--|------|------|------|------|--|
| $\mu$ Ceiling  |     | 70  | 70   | 50   | 50   | 30   | 70   | 70   | 50   | 50   | 30   |  |
| $\mu$ Walls  |     | 50  | 30   | 50   | 30   | 30   | 50   | 30   | 50   | 30   | 30   |  |
| $\mu$ Floor  |     | 20  | 20   | 20   | 20   | 20   | 20   | 20   | 20   | 20   | 20   |  |
| Room size<br>X Y   |     | Viewing direction at right angles<br>to lamp axis |      |      |      |      | Viewing direction parallel<br>to lamp axis |      |      |      |      |  |
| 2H   | 2H  | 22.9  | 24.2 | 23.2 | 24.5 | 24.7 | 23.5                                       | 24.8 | 23.8 | 25.1 | 25.3 |  |
|  | 3H  | 24.1  | 25.4 | 24.5 | 25.6 | 25.9 | 25.0                                       | 26.2 | 25.3 | 26.5 | 26.8 |  |
|  | 4H  | 24.6  | 25.8 | 25.0 | 26.1 | 26.4 | 25.6                                       | 26.8 | 25.9 | 27.1 | 27.4 |  |
|  | 6H  | 24.9  | 26.0 | 25.3 | 26.3 | 26.6 | 26.1                                       | 27.2 | 26.4 | 27.5 | 27.8 |  |
|  | 8H  | 25.0  | 26.1 | 25.4 | 26.4 | 26.7 | 26.3                                       | 27.3 | 26.6 | 27.6 | 28.0 |  |
|  | 12H | 25.1  | 26.1 | 25.4 | 26.4 | 26.7 | 26.4                                       | 27.4 | 26.8 | 27.8 | 28.1 |  |
| 4H   | 2H  | 23.5  | 24.7 | 23.8 | 25.0 | 25.3 | 24.0                                       | 25.2 | 24.3 | 25.5 | 25.8 |  |
|  | 3H  | 25.0  | 26.0 | 25.3 | 26.3 | 26.6 | 25.7                                       | 26.7 | 26.1 | 27.0 | 27.3 |  |
|  | 4H  | 25.6  | 26.5 | 26.0 | 26.8 | 27.2 | 26.4                                       | 27.3 | 26.8 | 27.7 | 28.0 |  |
|  | 6H  | 26.0  | 26.8 | 26.4 | 27.1 | 27.5 | 27.0                                       | 27.8 | 27.4 | 28.2 | 28.6 |  |
|  | 8H  | 26.1  | 26.8 | 26.5 | 27.2 | 27.7 | 27.2                                       | 28.0 | 27.7 | 28.4 | 28.8 |  |
|  | 12H | 26.2  | 26.9 | 26.6 | 27.3 | 27.7 | 27.4                                       | 28.1 | 27.9 | 28.5 | 29.0 |  |
| 8H   | 4H  | 25.8  | 26.6 | 26.3 | 27.0 | 27.4 | 26.6                                       | 27.3 | 27.0 | 27.7 | 28.2 |  |
|  | 6H  | 26.4  | 27.0 | 26.8 | 27.4 | 27.9 | 27.3                                       | 27.9 | 27.8 | 28.3 | 28.8 |  |
|  | 8H  | 26.6  | 27.1 | 27.1 | 27.6 | 28.0 | 27.6                                       | 28.2 | 28.1 | 28.6 | 29.1 |  |
|  | 12H | 26.7  | 27.2 | 27.2 | 27.7 | 28.2 | 27.9                                       | 28.4 | 28.4 | 28.9 | 29.4 |  |
| 12H  | 4H  | 25.8  | 26.5 | 26.3 | 26.9 | 27.4 | 26.6                                       | 27.3 | 27.0 | 27.7 | 28.1 |  |
|  | 6H  | 26.4  | 27.0 | 26.9 | 27.4 | 27.9 | 27.3                                       | 27.9 | 27.8 | 28.3 | 28.8 |  |
|  | 8H  | 26.7  | 27.1 | 27.2 | 27.6 | 28.1 | 27.7                                       | 28.2 | 28.2 | 28.6 | 29.1 |  |
| Variation of the observer position for the luminaire distances S |     |   |      |      |      |      |  |      |      |      |      |  |
| S = 1.0H   |     | +0.1 / -0.2                                       |      |      |      |      | +0.1 / -0.1                                |      |      |      |      |  |
| S = 1.5H   |     | +0.3 / -0.5                                       |      |      |      |      | +0.2 / -0.3                                |      |      |      |      |  |
| S = 2.0H   |     | +0.5 / -0.9                                       |      |      |      |      | +0.5 / -0.6                                |      |      |      |      |  |
| Standard table   |     | BK05  |      |      |      |      | BK06                                       |      |      |      |      |  |
| Correction summand   |     | 9.2   |      |      |      |      | 10.7                                       |      |      |      |      |  |
| Corrected glare indices referring to 500lm Total luminous flux   |     |   |      |      |      |      |  |      |      |      |      |  |

UGR diagram (SHR: 0.25)

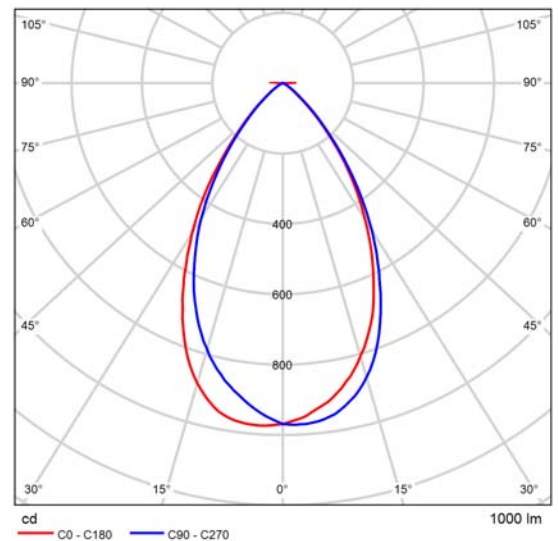
## Product data sheet

### NEKO - LED-Multiple DownLight



|                           |                             |
|---------------------------|-----------------------------|
| Article No.               | TSA1D 2×15W BB<br>3000K 60° |
| P                         | 30.0 W                      |
| $\Phi_{\text{Luminaire}}$ | 2000 lm                     |
| Luminous efficacy         | 66.7 lm/W                   |
| CCT                       | 3000 K                      |
| CRI                       | 90                          |

### Specification



Polar LDC for Light emission 1 and 2

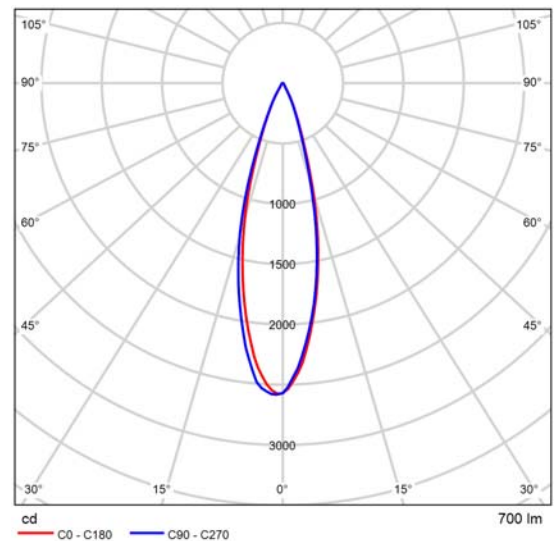
## Product data sheet

### NEKO - LED-SpotLight



|                           |                                  |
|---------------------------|----------------------------------|
| Article No.               | CLUB TSA3 M3 13W<br>35°3000K BBM |
| P                         | 13.0 W                           |
| $\Phi_{\text{Luminaire}}$ | 700 lm                           |
| Luminous efficacy         | 53.8 lm/W                        |
| CCT                       | 3000 K                           |
| CRI                       | 90                               |

#### Description



Polar LDC



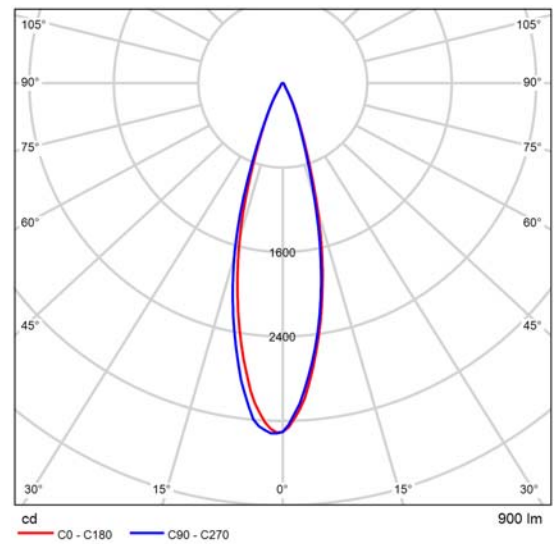
## Product data sheet

### NEKO - LED-SpotLight



|                           |                                  |
|---------------------------|----------------------------------|
| Article No.               | CLUB TSA3 M4 15W<br>35°3000K BBM |
| P                         | 15.0 W                           |
| $\Phi_{\text{Luminaire}}$ | 900 lm                           |
| Luminous efficacy         | 60.0 lm/W                        |
| CCT                       | 3000 K                           |
| CRI                       | 90                               |

#### Description



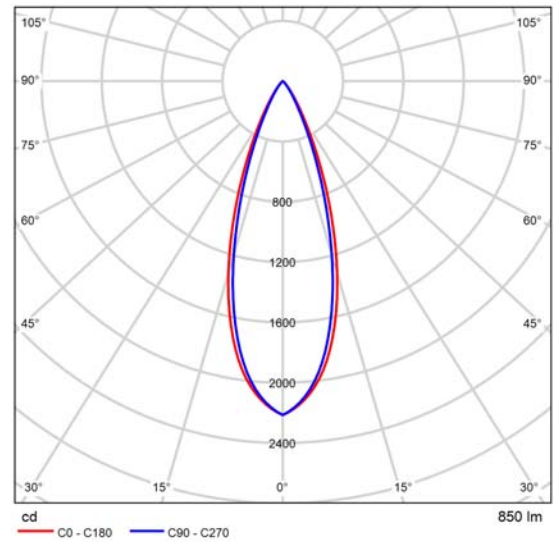
Polar LDC

Product data sheet

NEKO - LED-SpotLight

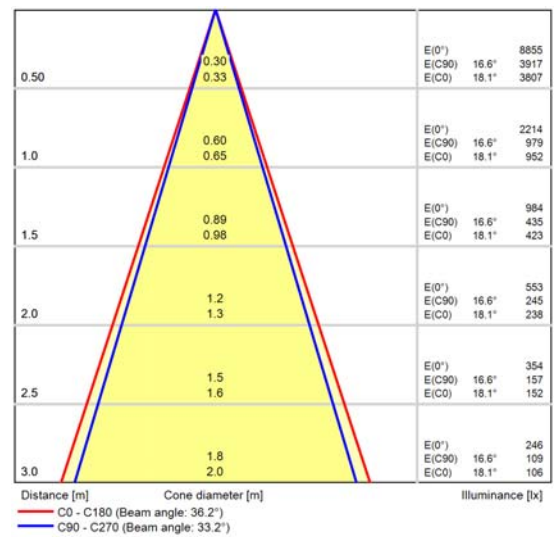


|                        |                             |
|------------------------|-----------------------------|
| Article No.            | MINUX 44 WC 11W<br>40°3000K |
| P                      | 11.0 W                      |
| Φ <sub>Luminaire</sub> | 850 lm                      |
| Luminous efficacy      | 77.3 lm/W                   |
| CCT                    | 3000 K                      |
| CRI                    | 90                          |



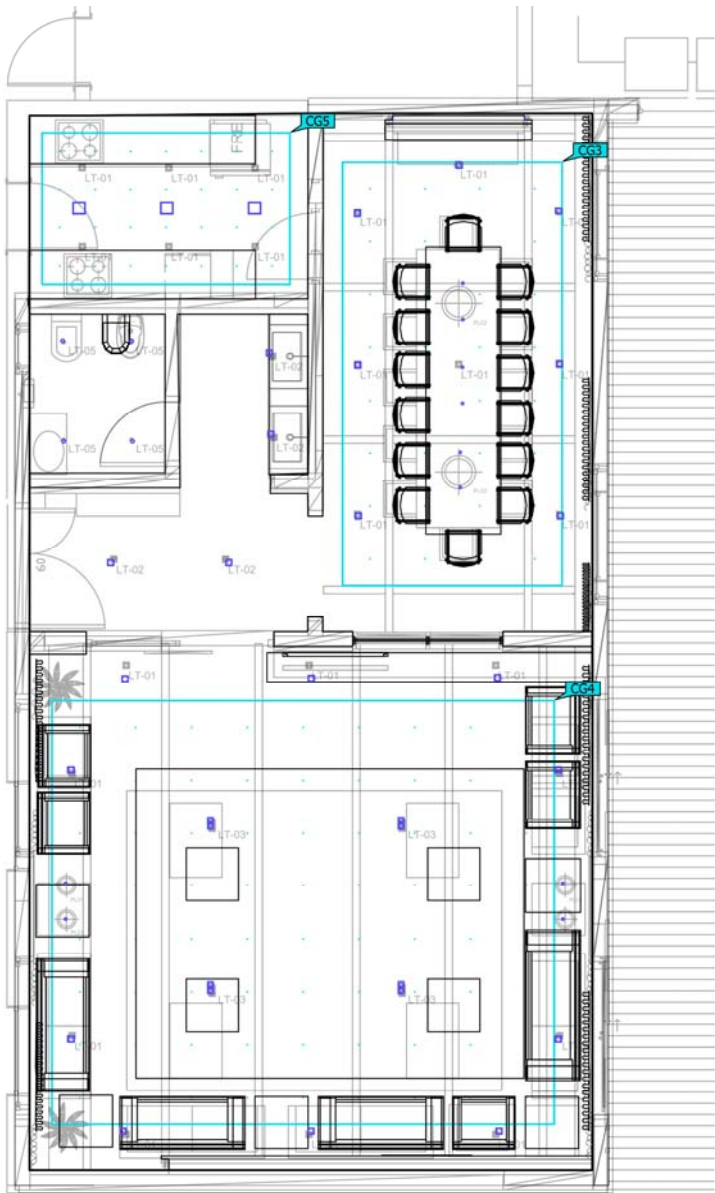
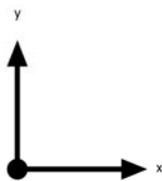
Polar LDC

Description



Cone diagram

Building 1 (Light scene 1)  
**Summary**



|                    |   |
|--------------------|---|
| Ground area        | 105.92 m <sup>2</sup>                               |
| Reflection factors | Ceiling: 48.0 %,<br>Walls: 47.5 %,<br>Floor: 48.0 % |
| Maintenance factor | 0.80 (fixed)  |

|                  |                   |
|------------------|-------------------|
| Clearance height | 3.100 m – 3.200 m |
| Mounting height  | 0.251 m – 3.294 m |

## Building 1 (Light scene 1)

## Summary

## Results

|                                  | Symbol                 | Calculated                | Target          | Check | Index |
|----------------------------------|------------------------|---------------------------|-----------------|-------|-------|
| Glare valuation <sup>(1)</sup>   | $R_{UG, max}$          | 19                        | $\leq 19$       | ✓     |       |
| Energy estimation <sup>(2)</sup> | Consumption            | [1137.37 - 1749.83] kWh/a | max. 3750 kWh/a | ✓     |       |
| Room                             | Lighting power density | 6.67 W/m <sup>2</sup>     | –               |       |       |

(1) Based on a rectangular space of 7.501 m x 14.130 m and SHR of 0.25.

(2) Calculated using DIN:18599-4.

Utilisation profile: DIALux presetting (34.2 Standard (office))

## Luminaire list

| pcs. | Manufacturer | Article No.                   | Article name  | $R_{UG}$ | P      | $\Phi$ | Luminous efficacy |
|------|--------------|-------------------------------|---------------|----------|--------|--------|-------------------|
| 4    | NEKO         | CLUB TSA3 M3 13W 35°3000K BBM | LED-SpotLight | –        | 13.0 W | 700 lm | 53.8 lm/W         |
| 17   | NEKO         | CLUB TSA3 M4 15W 35°3000K BBM | LED-SpotLight | –        | 15.0 W | 900 lm | 60.0 lm/W         |
| 10   | NEKO         | LED CLLE 8W-3000K/ 120°       | LED-Lamps     | –        | 8.0 W  | 800 lm | 100.0 lm/W        |
| 4    | NEKO         | MINUX 44 WC 11W 40°3000K      | LED-SpotLight | 17       | 11.0 W | 850 lm | 77.3 lm/W         |
| 12   | NEKO         | SL2835A/ IP65 6W 500mm 3000K  | LED-Lamps     | 19       | 6.0 W  | 500 lm | 83.4 lm/W         |



Building 1 (Light scene 1)

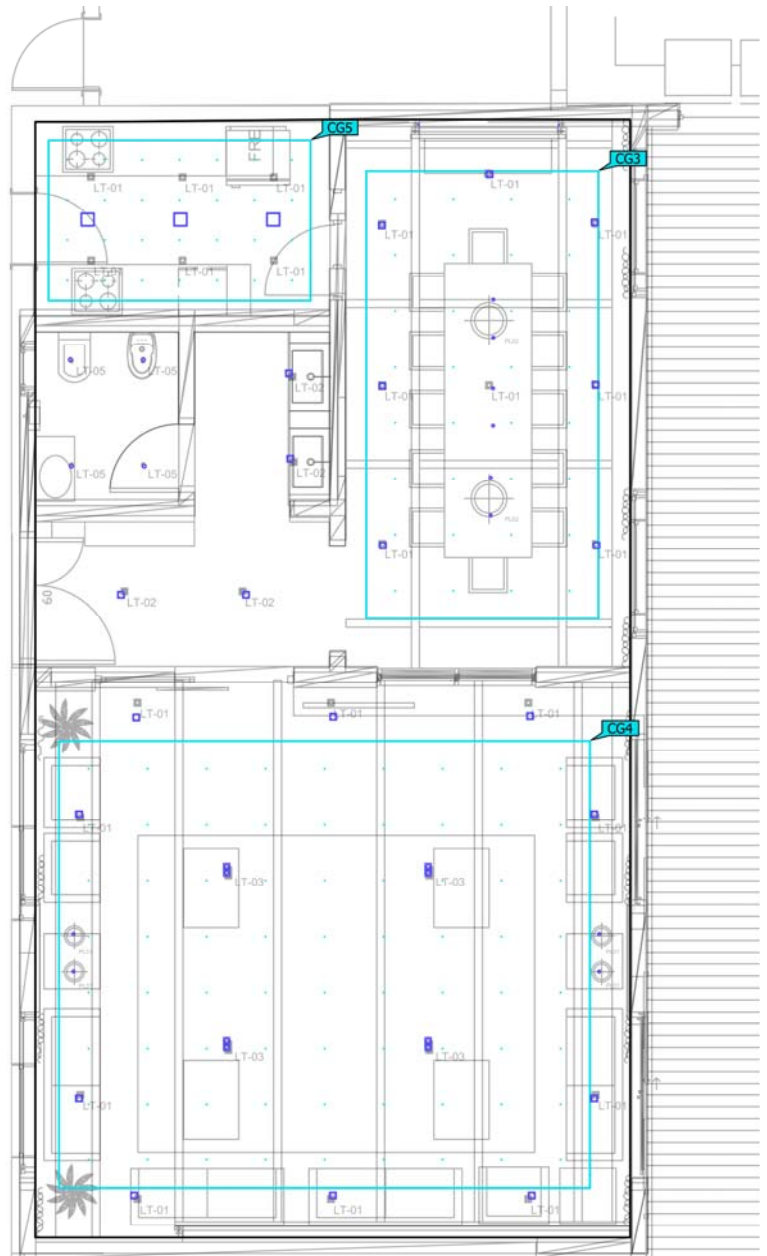
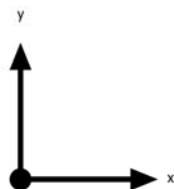
## Summary

Luminaire list

| pcs. | Manufacturer | Article No.                             | Article name           | R <sub>UG</sub> | P      | Φ       | Luminous efficacy |
|------|--------------|---|------------------------|-----------------|--------|---------|-------------------|
| 3    | NEKO         | TAKEO<br>TS150<br>28W-3000<br>K/70°Ra90 | LED-Downlight          | –               | 28.0 W | 2100 lm | 75.0 lm/W         |
| 4    | NEKO         | TSA1D<br>2×15W BB<br>3000K 60°          | LED-Multiple DownLight | –               | 30.0 W | 2000 lm | 66.7 lm/W         |

Building 1 (Light scene 1)

## Calculation objects



Building 1 (Light scene 1)

**Calculation objects**

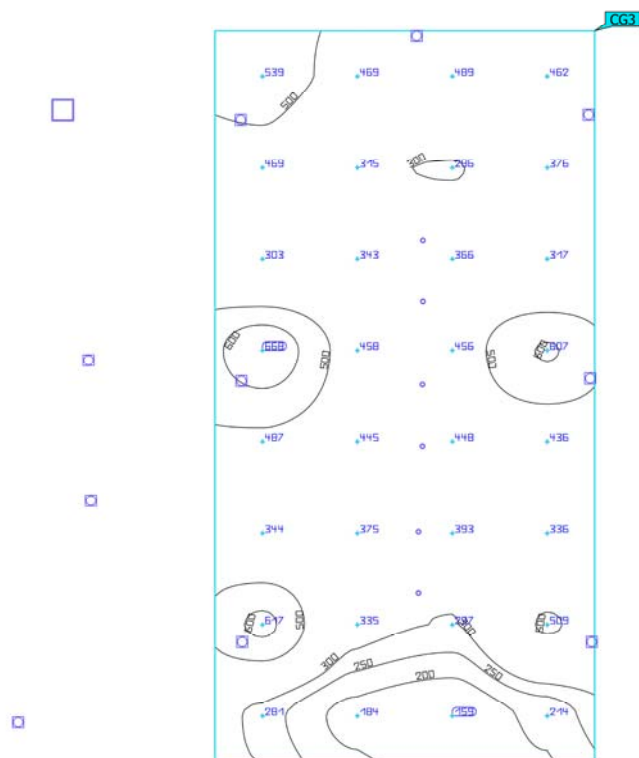
Calculation surfaces

| Properties  | $\bar{E}$ | $E_{min}$ | $E_{max}$ | $U_o (g_1)$ | $g_2$ | Index |
|---|-----------|-----------|-----------|-------------|-------|-------|
| DINING<br>Perpendicular illuminance<br>Height: 0.850 m  | 400 lx    | 159 lx    | 668 lx    | 0.40        | 0.24  | CG3   |
| MAJLIS<br>Perpendicular illuminance<br>Height: 0.850 m  | 300 lx    | 144 lx    | 545 lx    | 0.48        | 0.26  | CG4   |
| KITCHEN<br>Perpendicular illuminance<br>Height: 0.850 m | 496 lx    | 366 lx    | 616 lx    | 0.74        | 0.59  | CG5   |

Utilisation profile: DIALux presetting (34.2 Standard (office))

Building 1 (Light scene 1)

## DINING



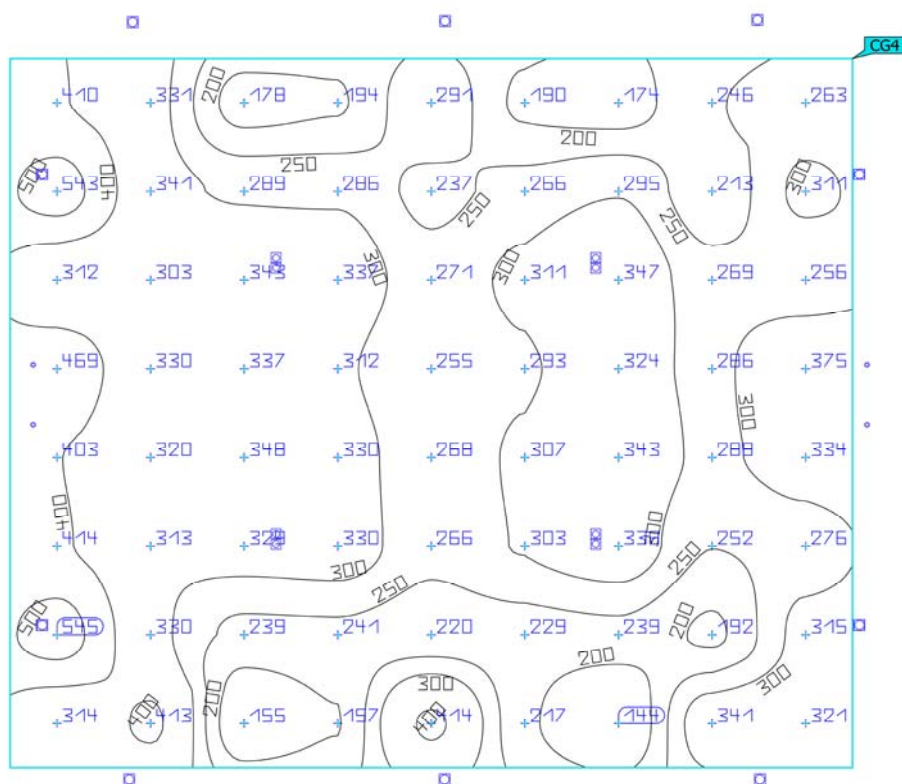
| Properties   | $\bar{E}$ | $E_{min}$ | $E_{max}$ | $U_o (g_1)$ | $g_2$ | Index |
|--|-----------|-----------|-----------|-------------|-------|-------|
| DINING<br>Perpendicular illuminance<br>Height: 0.850 m | 400 lx    | 159 lx    | 668 lx    | 0.40        | 0.24  | CG3   |

Utilisation profile: DIALux presetting (34.2 Standard (office))



Building 1 (Light scene 1)

## MAJLIS

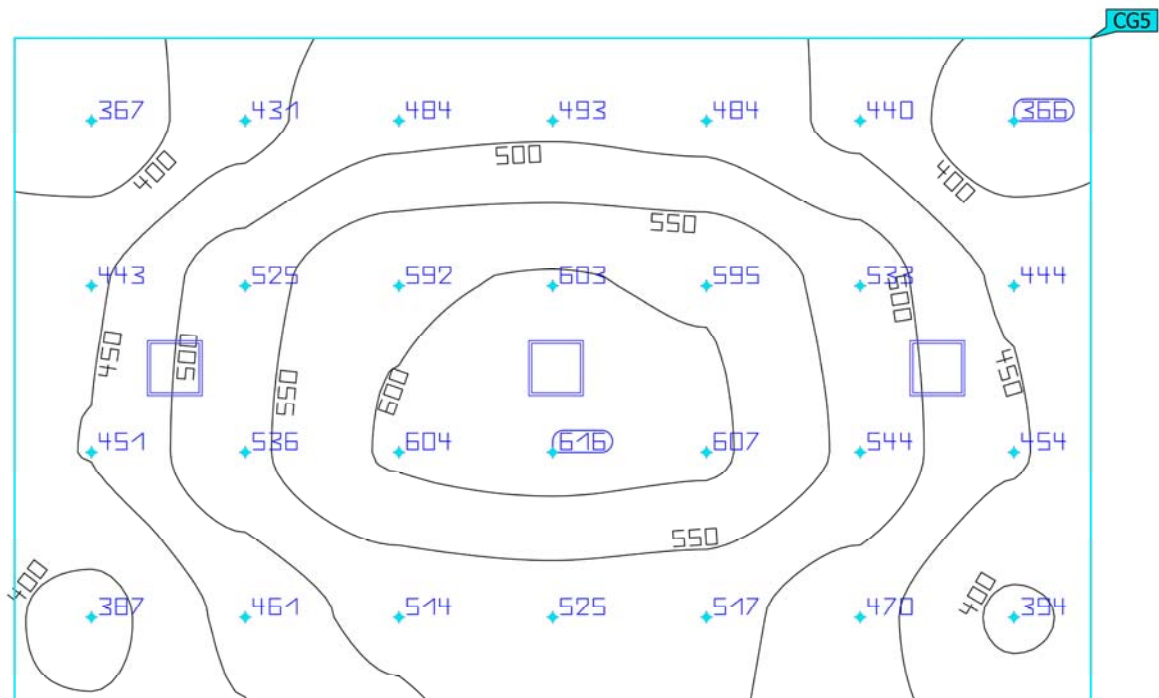


| Properties   | $\bar{E}$ | $E_{min}$ | $E_{max}$ | $U_o (g_1)$ | $g_2$ | Index |
|--|-----------|-----------|-----------|-------------|-------|-------|
| MAJLIS<br>Perpendicular illuminance<br>Height: 0.850 m | 300 lx    | 144 lx    | 545 lx    | 0.48        | 0.26  | CG4   |

Utilisation profile: DIALux presetting (34.2 Standard (office))

Building 1 (Light scene 1)

KITCHEN



| Properties  | $\bar{E}$ | $E_{min}$ | $E_{max}$ | $U_o (g_1)$ | $g_2$ | Index |
|---|-----------|-----------|-----------|-------------|-------|-------|
| KITCHEN<br>Perpendicular illuminance<br>Height: 0.850 m | 496 lx    | 366 lx    | 616 lx    | 0.74        | 0.59  | CG5   |

Utilisation profile: DIALux presetting (34.2 Standard (office))