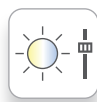




## PI-LED® HORIZON



**Tunable white**  
1,800K - 16,000K



**Brightness dimmable**  
1% - 100%



**RGB/CIE-xy adjustable**  
Colour points and  
sequences



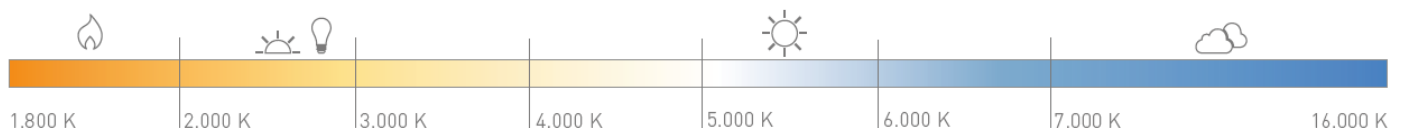
**Biorhythmic lighting**  
Vitalisation and recreation



**2 Control modes**  
DALI DT8,  
NeoLink/ZigBee 3.0



**Excellent CRI**  
CRI > 90



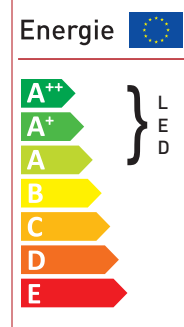


### HIGHLIGHTS

- This architectural highlight was designed according to the golden ratio and can be flexibly adapted and integrated
- Illuminated corner pieces with side length 600 mm available on request
- High colour rendition CRI > 90
- Low tolerance for colour temperature
- 2 control modes: DALI DT8, NeoLink/ZigBee 3.0
- Adjustable colour temperature 1.800K - 16.000K
- Adjustable CIE-xy colour points and RGB colours
- Dimming: 1%-100%

### TECHNICAL DATA

|                              |                                                                                                                                              |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Luminous source              | SMD PI-LED modules                                                                                                                           |
| Supply voltage               | 230VAC                                                                                                                                       |
| Power (1,140 mm)             | Recessed 36W<br>Surface-mounted/pendant direct 48W<br>Pendant DI/ID total 80W                                                                |
| LED luminous flux (1,140 mm) | Recessed microprismatic 3150lm<br>Recessed opal 3500lm<br>Surface-mounted/Pendant:<br>direct MP 4010lm / direct OP 4480lm<br>indirect 3150lm |
| Control modes                | DALI DT8, NeoLink/ZigBee 3.0                                                                                                                 |
| Dimmable                     | 1%-100%                                                                                                                                      |
| Protection rating            | IP20                                                                                                                                         |
| Protection class             | I                                                                                                                                            |



### ORDERING DATA AND TECHNICAL DATA - HORIZON

| Type | Recessed luminaire                                                                    | Typ | Surfac-mounted luminaire                                                                     |
|------|---------------------------------------------------------------------------------------|-----|----------------------------------------------------------------------------------------------|
| tbd  | Horizon PI-LED 1140mm Recessed / 36W / 3150lm / ZigBee 3.0 / MP-DI / natural anodised | tbd | Horizon PI-LED 1140mm Surface-mounted / 48W / 4010lm / ZigBee 3.0 / MP-DI / natural anodised |
| tbd  | Horizon PI-LED 1140mm Recessed / 36W / 3500lm / ZigBee 3.0 / OP-DI / natural anodised | tbd | Horizon PI-LED 1140mm Surface-mounted / 48W / 4480lm / ZigBee 3.0 / OP-DI / natur eloxier    |
| tbd  | Horizon PI-LED 1140mm Recessed / 36W / 3150lm / DALI DT8 / MP-DI / natural anodised   | tbd | Horizon PI-LED 1140mm Surface-mounted / 48W / 4010lm / DALI DT8 / MP-DI / natural anodised   |
| tbd  | Horizon PI-LED 1140mm Recessed / 36W / 3500lm / DALI DT8 / OP-DI / natural anodised   | tbd | Horizon PI-LED 1140mm Surface-mounted / 48W / 4480lm / DALI DT8 / OP-DI / natural anodised   |
| tbd  | Horizon PI-LED 1140mm Recessed / 36W / 3150lm / ZigBee 3.0 / MP-DI / black            | tbd | Horizon PI-LED 1140mm Surface-mounted / 48W / 4010lm / ZigBee 3.0 / MP-DI / black            |
| tbd  | Horizon PI-LED 1140mm Recessed / 36W / 3500lm / ZigBee 3.0 / OP-DI / black            | tbd | Horizon PI-LED 1140mm Surface-mounted / 48W / 4480lm / ZigBee 3.0 / OP-DI / black            |
| tbd  | Horizon PI-LED 1140mm Recessed / 36W / 3150lm / DALI DT8 / MP-DI / black              | tbd | Horizon PI-LED 1140mm Surface-mounted / 48W / 4010lm / DALI DT8 / MP-DI / black              |
| tbd  | Horizon PI-LED 1140mm Recessed / 36W / 3500lm / DALI DT8 / OP-DI / black              | tbd | Horizon PI-LED 1140mm Surface-mounted / 48W / 4480lm / DALI DT8 / OP-DI / black              |

#### Notes:

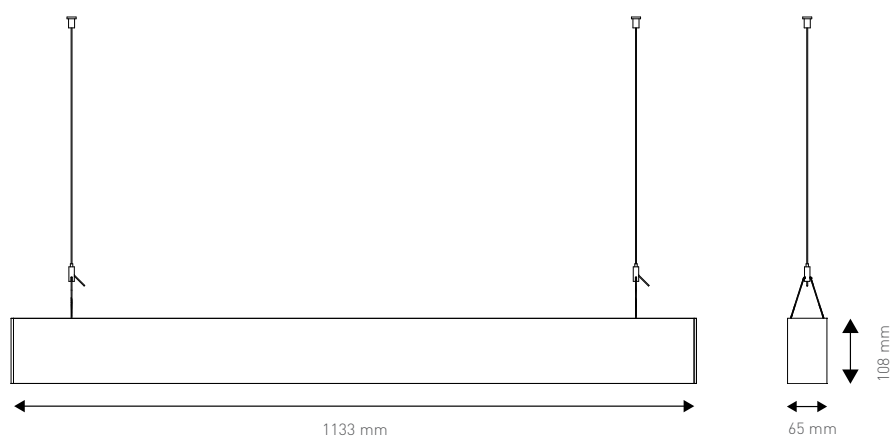
- All values apply at ta=25°C, 3000K
- Tolerance ranges: illumination data +/-10% | electrical data +/-15% | supply voltage 48V DC +/- 5%
- Illumination specifications in accordance with CIE1931
- According to colour temperature and temperature of the PI-LED system, the Mac Adam tolerance takes on values < 4

### III ORDERING DATA AND TECHNICAL DATA - HORIZON

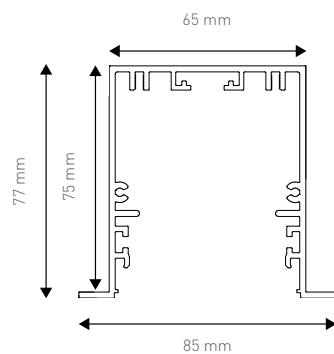
| Type | Pendant luminaire DIRECT                                                             | Type | Pendant luminaire DIRECT/INDIRECT                                                                                                                                           |
|------|--------------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| tbd  | Horizon PI-LED 1140mm Pendant / 48W / 4010lm / ZigBee 3.0 / MP-DI / natural anodised | tbd  | Horizon PI-LED 1140mm Pendant / 80W / 7160lm / ZigBee 3.0 / MP-DI-ID / natural anodised  |
| tbd  | Horizon PI-LED 1140mm Pendant / 48W / 4480lm / ZigBee 3.0 / OP-DI / natural anodised | tbd  | Horizon PI-LED 1140mm Pendant / 80W / 7630lm / ZigBee 3.0 / OP-DI-ID / natur e.                                                                                             |
| tbd  | Horizon PI-LED 1140mm Pendant / 48W / 4010lm / DALI DT8 / MP-DI / natural anodised   | tbd  | Horizon PI-LED 1140mm Pendant / 80W / 7160lm / DALI DT8 / MP-DI-ID / natural anodised    |
| tbd  | Horizon PI-LED 1140mm Pendant / 48W / 4480lm / DALI DT8 / OP-DI / natural anodised   | tbd  | Horizon PI-LED 1140mm Pendant / 80W / 7630lm / DALI DT8 / OP-DI-ID / natural anodised                                                                                       |
| tbd  | Horizon PI-LED 1140mm Pendant / 48W / 4010lm / ZigBee 3.0 / MP-DI / black            | tbd  | Horizon PI-LED 1140mm Pendant / 80W / 7160lm / ZigBee 3.0 / MP-DI-ID / black             |
| tbd  | Horizon PI-LED 1140mm Pendant / 48W / 4480lm / ZigBee 3.0 / OP-DI / black            | tbd  | Horizon PI-LED 1140mm Pendant / 80W / 7630lm / ZigBee 3.0 / OP-DI-ID / black                                                                                                |
| tbd  | Horizon PI-LED 1140mm Pendant / 48W / 4010lm / DALI DT8 / MP-DI / black              | tbd  | Horizon PI-LED 1140mm Pendant / 80W / 7160lm / DALI DT8 / MP-DI-ID / black               |
| tbd  | Horizon PI-LED 1140mm Pendant / 48W / 4480lm / DALI DT8 / OP-DI / black              | tbd  | Horizon PI-LED 1140mm Pendant / 80W / 7630lm / DALI DT8 / OP-DI-ID / black                                                                                                  |

## III TECHNICAL DRAWINGS AND DATA

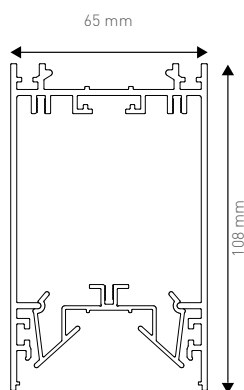
### HORIZON PENDANT LUMINAIRE



### HORIZON RECESSED LUMINAIRE



### HORIZON SURFACE-MOUNTED LUMINAIRE



### MELANOPIC EFFECT FACTOR

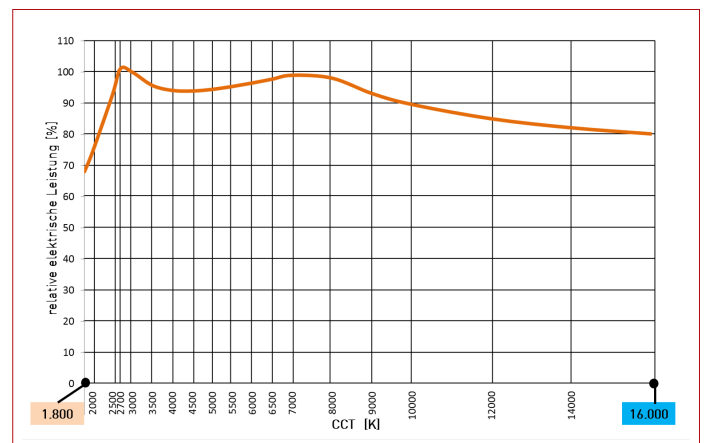
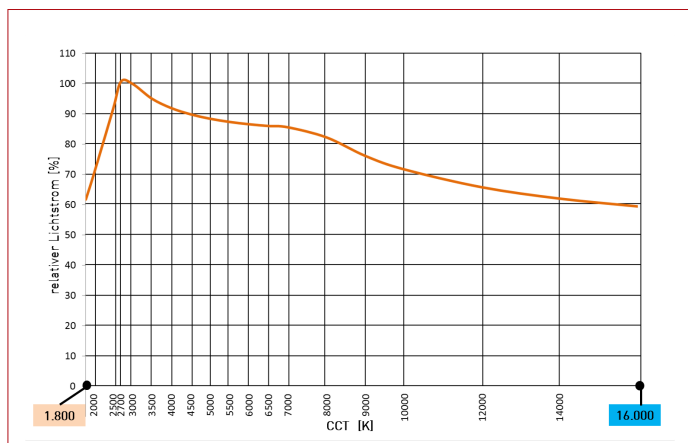
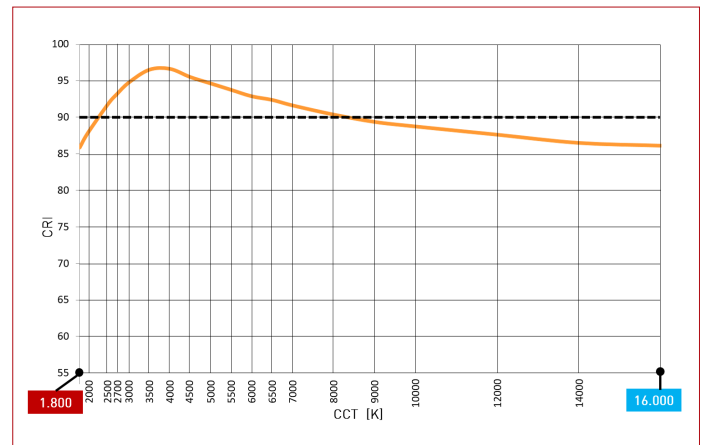
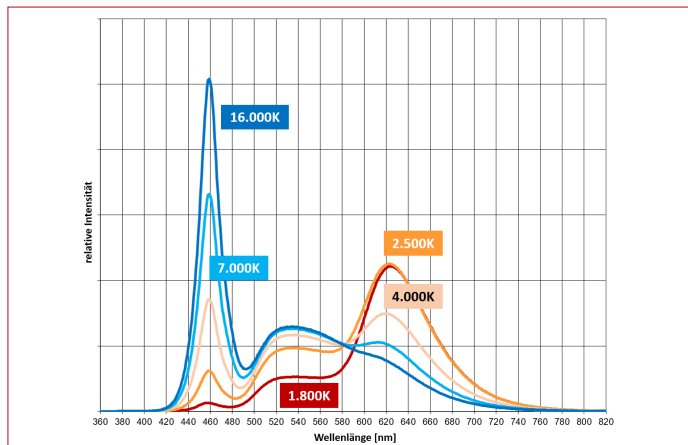
| CCT<br>[K] | VISUELL         |             |        | BIOLOGISCH  |
|------------|-----------------|-------------|--------|-------------|
|            | Lichtstrom [lm] |             |        | alpha[smel] |
|            | dir. opal       | dir. Prisma | indir. |             |
| 1.800      | 2507            | 2236        | 1744   | 0,255       |
| 2.000      | 2826            | 2520        | 1966   | 0,300       |
| 2.500      | 3657            | 3262        | 2546   | 0,404       |
| 2.700      | 3996            | 3565        | 2785   | 0,442       |
| 3.000      | 4480            | 4010        | 3150   | 0,498       |
| 3.500      | 4255            | 3809        | 3143   | 0,584       |
| 4.000      | 4119            | 3687        | 3037   | 0,661       |
| 4.500      | 4033            | 3610        | 2969   | 0,730       |
| 5.000      | 3976            | 3559        | 2922   | 0,792       |
| 5.500      | 3938            | 3525        | 2890   | 0,848       |
| 6.000      | 3912            | 3502        | 2868   | 0,897       |
| 6.500      | 3895            | 3487        | 2852   | 0,942       |
| 7.000      | 3883            | 3477        | 2840   | 0,982       |
| 8.000      | 3870            | 3465        | 2826   | 1,050       |
| 9.000      | 3865            | 3460        | 2818   | 1,105       |
| 10.000     | 3865            | 3460        | 2814   | 1,151       |
| 12.000     | 3870            | 3465        | 2813   | 1,221       |
| 14.000     | 3877            | 3471        | 2813   | 1,273       |
| 16.000     | 3728            | 3356        | 2816   | 1,311       |

Besides the visual and emotional characteristics of PI-LED HCL lighting, it is above all its biological effect which - following the example of natural daylight - creates healthy light.

The factor alpha(smel) describes the melanopic effectiveness of the light source on humans and their circadian rhythms. In order to support natural human biorhythms in the best possible way, higher alpha(smel) values can minimise melatonin release during the day, while lower values can promote it in the evening. Lighting that is not only visually but also melanopically effective is made possible by PI-LED. LUMITECH recommends following DIN SPEC 5031-100 as a basis for standardised lighting design.

Further information and numeric examples can be found in the [guide for melanopic lighting design and more](#).

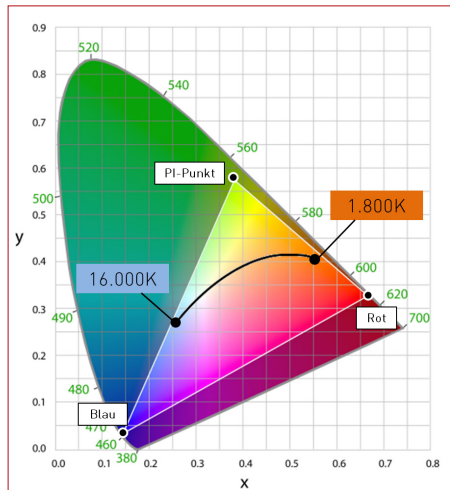
### TYPICAL GENERAL OPTICAL PROPERTIES OF PI-LED



#### Notes:

- The actual drop in the luminous flux can vary across the delivered LED modules.
- The diagrams show typical curves and not the exact behaviour of the LED module or the PI-LED system.

## COORDINATES AND TOLERANCES ACCORDING TO CIE 1931

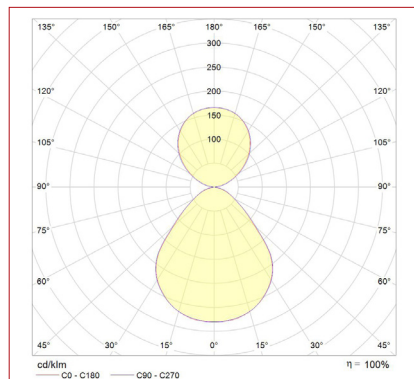


Representable PI-LED colour space in the CIE 1931 system

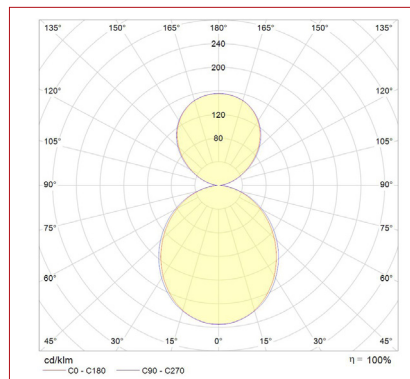
If a colour point outside of the triangle (PI-LED colour space) is set, the closest colour point within the triangle is referenced.

## LIGHT DISTRIBUTION

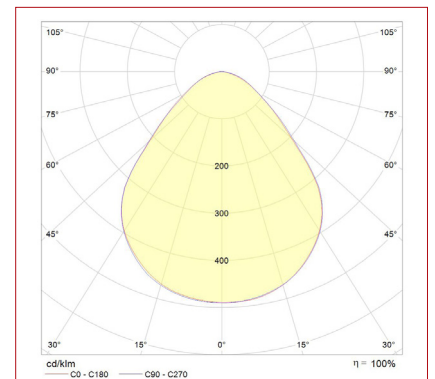
### DIRECT INDIRECT MICROPRISMATIC



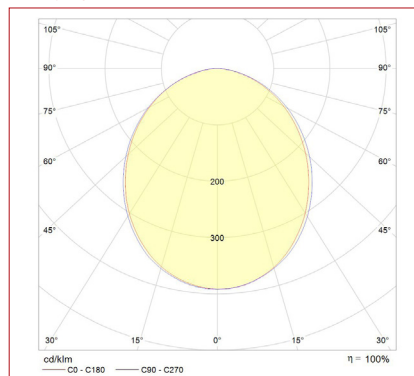
### DIRECT INDIRECT OPAL



### DIRECT MICROPRISMATIC



### DIRECT OPAL



## LIFETIME

L70B10 [h]

50.000

### Notes:

- Value L is a statistical value, the actual drop in the luminous flux can vary across the delivered LED modules.



## REFERENCES

