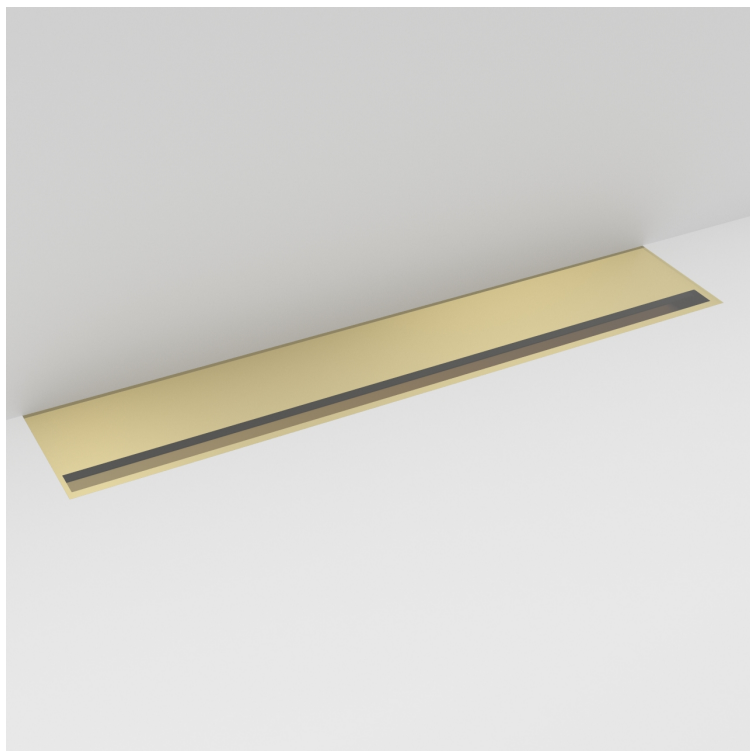
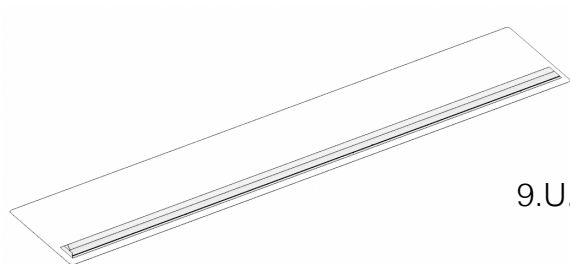
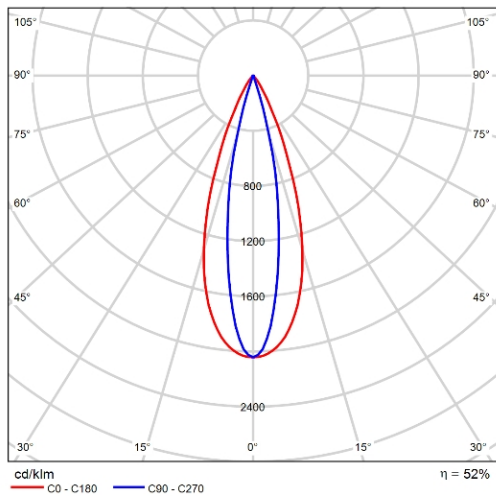


9.U.4031

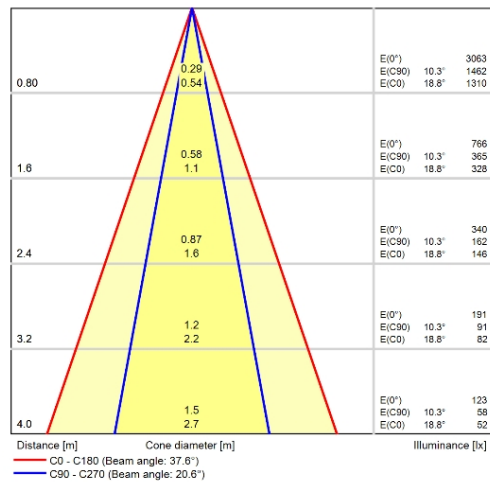


9.U.4061

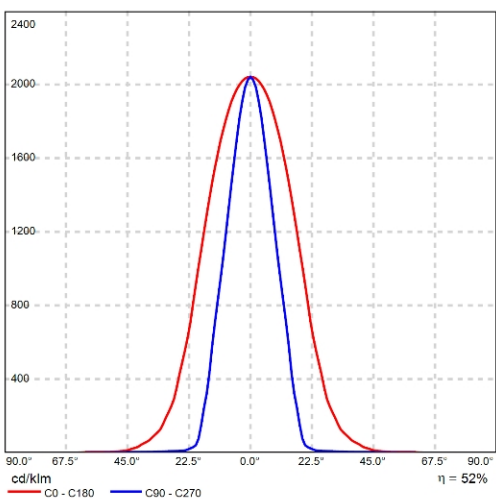
## POLAR LDC



## CONE DIAGRAM



## LINEAR LDC



## DESCRIPTION

UP-SET LINES N recessed strip with 60cm and 30cm options.

## FIXTURE

housing finish  
vG glass grey metallic  
vN glass nickel metallic  
vB glass brass metallic  
vT glass terra cotta metallic

IP rating  
IP67 (only indoor application)

## ELECTRICAL FEATURES

9.U.4031 9.U.4061

Power  
E dimmable (driver excluded)

Current  
V2 constant voltage 24v V2 constant voltage 24v

## LIGHT SOURCE (data at 3000°K)

LED Quantity 1 (30 cm) 1 (60 cm)

Power (700 mA) 7,69 W 15,39 W

Power (1000 mA) 11,17 W 22,35 W

Source Flux (700 mA) 786 lm 1572 lm

Source Flux (1000 mA) 1080 lm 2100 lm

Luminaire Flux (700 mA) 465,09 lm 928,47 lm

Luminaire Flux (1000 mA) 643,81 lm 1285,24 lm

Source Efficacy (700 mA) 102,15 lm/W 102,15 lm/W

Source Efficacy (1000 mA) 96,66 lm/W 93,98 lm/W

Luminaire Efficacy (700 mA) 60,44 lm/W 60,33 lm/W

Luminaire Efficacy (1000 mA) 57,62 lm/W 57,52 lm/W

Optical Efficiency (700 mA) %59,17 %59,06

Optical Efficiency (1000 mA) %59,61 %61,20

LED Temperature 7A 2700°K

3A 3000°K

8A 4000°K

CRI 97

R09 94

UGR < 13

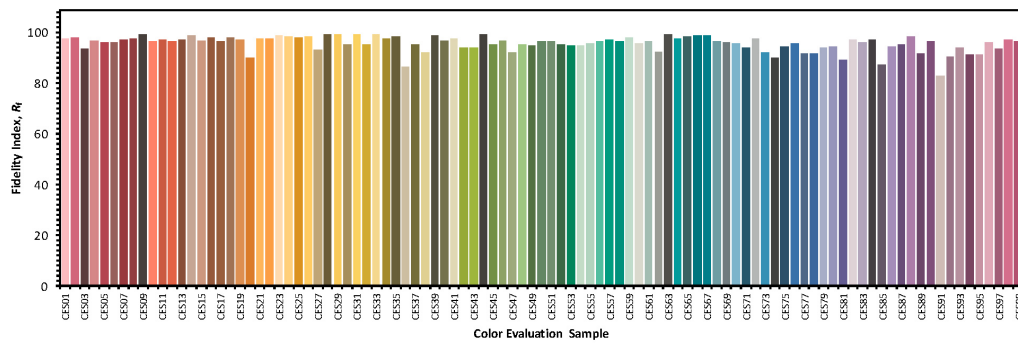
## OPTICS

Beam Angle 1 15 degree

## UGR VALUES

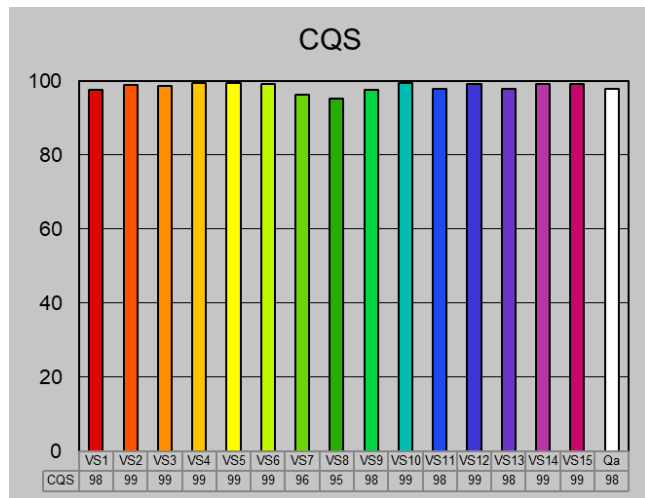
| Glare evaluation according to UGR                                |     |                                                   |      |      |      |      |                                            |      |      |      |      |
|------------------------------------------------------------------|-----|---------------------------------------------------|------|------|------|------|--------------------------------------------|------|------|------|------|
| $\rho$ Ceiling                                                   |     | 70                                                | 70   | 50   | 50   | 30   | 70                                         | 70   | 50   | 50   | 30   |
| $\rho$ Walls                                                     |     | 50                                                | 30   | 50   | 30   | 30   | 50                                         | 30   | 50   | 30   | 30   |
| $\rho$ 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  | 10.9                                              | 11.6 | 11.1 | 11.8 | 12.0 | -1.9                                       | -1.1 | -1.6 | -0.9 | -0.7 |
|                                                                  | 3H  | 10.7                                              | 11.4 | 11.0 | 11.6 | 11.9 | -2.0                                       | -1.3 | -1.7 | -1.1 | -0.9 |
|                                                                  | 4H  | 10.7                                              | 11.3 | 11.0 | 11.6 | 11.8 | -2.1                                       | -1.4 | -1.8 | -1.2 | -0.9 |
|                                                                  | 6H  | 10.6                                              | 11.2 | 10.9 | 11.5 | 11.7 | -2.2                                       | -1.6 | -1.8 | -1.3 | -1.0 |
|                                                                  | 8H  | 10.5                                              | 11.1 | 10.9 | 11.4 | 11.7 | -2.2                                       | -1.6 | -1.9 | -1.3 | -1.0 |
|                                                                  | 12H | 10.5                                              | 11.1 | 10.8 | 11.4 | 11.7 | -2.2                                       | -1.7 | -1.9 | -1.4 | -1.1 |
| 4H                                                               | 2H  | 10.7                                              | 11.3 | 11.0 | 11.6 | 11.8 | -2.1                                       | -1.4 | -1.8 | -1.2 | -0.9 |
|                                                                  | 3H  | 10.5                                              | 11.1 | 10.8 | 11.4 | 11.7 | -2.2                                       | -1.7 | -1.9 | -1.4 | -1.1 |
|                                                                  | 4H  | 10.4                                              | 10.9 | 10.8 | 11.2 | 11.6 | -2.3                                       | -1.8 | -1.9 | -1.5 | -1.1 |
|                                                                  | 6H  | 10.3                                              | 10.8 | 10.7 | 11.1 | 11.5 | -2.4                                       | -2.0 | -2.0 | -1.6 | -1.2 |
|                                                                  | 8H  | 10.3                                              | 10.7 | 10.7 | 11.1 | 11.5 | -2.5                                       | -2.1 | -2.0 | -1.7 | -1.3 |
|                                                                  | 12H | 10.2                                              | 10.6 | 10.7 | 11.0 | 11.4 | -2.5                                       | -2.1 | -2.1 | -1.7 | -1.3 |
| 8H                                                               | 4H  | 10.3                                              | 10.7 | 10.7 | 11.1 | 11.5 | -2.5                                       | -2.1 | -2.0 | -1.7 | -1.3 |
|                                                                  | 6H  | 10.2                                              | 10.5 | 10.7 | 10.9 | 11.4 | -2.5                                       | -2.2 | -2.1 | -1.8 | -1.4 |
|                                                                  | 8H  | 10.2                                              | 10.4 | 10.6 | 10.9 | 11.3 | -2.6                                       | -2.3 | -2.1 | -1.9 | -1.4 |
|                                                                  | 12H | 10.1                                              | 10.3 | 10.6 | 10.8 | 11.3 | -2.6                                       | -2.4 | -2.1 | -1.9 | -1.4 |
| 12H                                                              | 4H  | 10.2                                              | 10.6 | 10.7 | 11.0 | 11.4 | -2.5                                       | -2.1 | -2.1 | -1.7 | -1.3 |
|                                                                  | 6H  | 10.2                                              | 10.4 | 10.6 | 10.9 | 11.3 | -2.6                                       | -2.3 | -2.1 | -1.9 | -1.4 |
|                                                                  | 8H  | 10.1                                              | 10.3 | 10.6 | 10.8 | 11.3 | -2.6                                       | -2.4 | -2.1 | -1.9 | -1.4 |
| Variation of the observer position for the luminaire distances S |     |                                                   |      |      |      |      |                                            |      |      |      |      |
| S = 1.0H                                                         |     | +6.6 / -16.2                                      |      |      |      |      | +3.2 / -5.1                                |      |      |      |      |
| S = 1.5H                                                         |     | +9.4 / -91.0                                      |      |      |      |      | +5.9 / -78.2                               |      |      |      |      |
| S = 2.0H                                                         |     | +11.4 / -89.0                                     |      |      |      |      | +7.9 / -76.2                               |      |      |      |      |
| Standard table                                                   |     | BK00                                              |      |      |      |      | BK00                                       |      |      |      |      |
| Correction summand                                               |     | -9.2                                              |      |      |      |      | -22.0                                      |      |      |      |      |
| Corrected glare indices referring to 1344lm Total luminous flux  |     |                                                   |      |      |      |      |                                            |      |      |      |      |

## COLOR FIDELITY BY SAMPLE



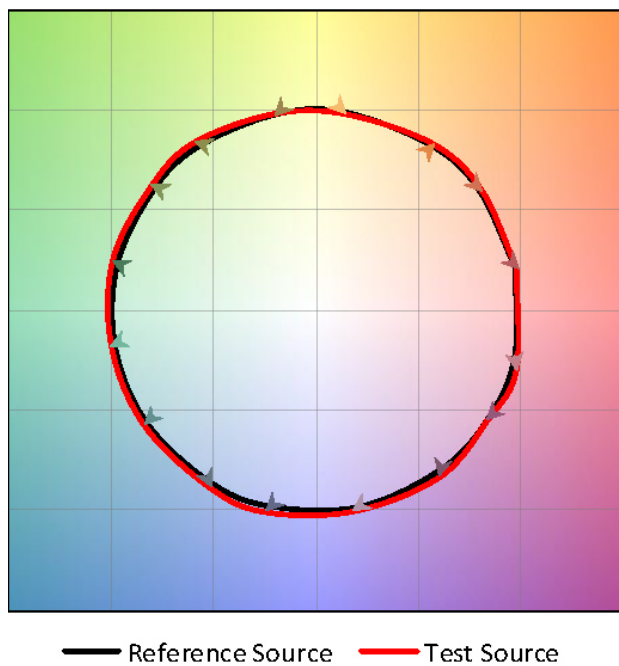
|             |         |
|-------------|---------|
| $u'$        | 0,2646  |
| $v'$        | 0,5261  |
| $x$         | 0,4606  |
| $y$         | 0,4070  |
| $\Delta uv$ | -0,0014 |
| <b>R9</b>   | 94      |

## CQS

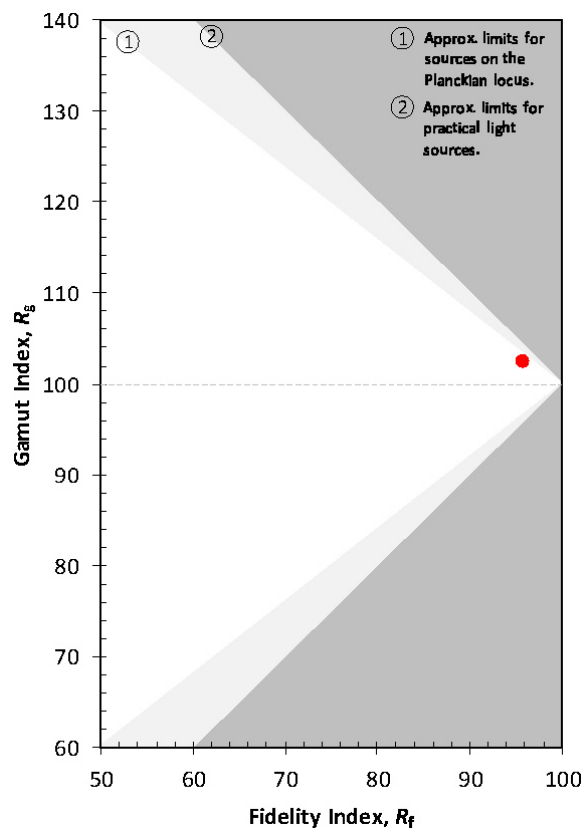


|                 |     |
|-----------------|-----|
| <b>Rg@2700K</b> | 103 |
| <b>Rf@2700K</b> | 96  |

## COLOR VECTOR GRAPHIC



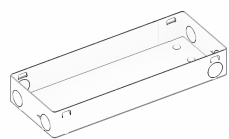
## FIDELITY INDEX



## PRODUCT CODES FOR ORDER INFORMATION

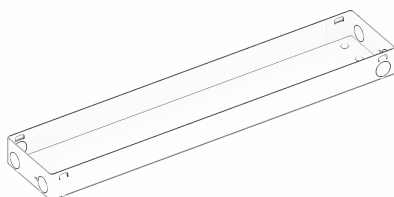
|   |   |   | model                                                                                                  | beam angle        | housing finish | visor/base finish                                                                                                                         | LED temperature                                          | power                               | current                        |
|---|---|---|--------------------------------------------------------------------------------------------------------|-------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------|--------------------------------|
|   |   |   | <b>403</b> UP-SET LINES N<br>Recessed Strip 30 cm<br><b>406</b> UP-SET LINES N<br>Recessed Strip 60 cm | <b>1</b> 15° beam | -              | <b>VG</b> grey metallic glass<br><b>VN</b> nickel metallic glass<br><b>VB brass</b> metallic glass<br><b>VT</b> terracotta metallic glass | <b>7A</b> 2700°K<br><b>3A</b> 3000°K<br><b>8A</b> 4000°K | <b>E</b> dimmable (driver excluded) | <b>V2</b> constant voltage 24v |
| 9 | . | U | .                                                                                                      |                   | .              |                                                                                                                                           |                                                          |                                     |                                |

\*Black54 reserves the right of discontinuing or replacing products inside this database



**7.U.402**

installation housing 300 x 120 x 47 mm



**7.U.403**

installation housing 600 x 120 x 47 mm