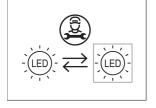
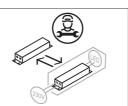


| Colours Article no. EAN |            |
|-------------------------|------------|
| silver 661052 404       | 3544698698 |







### Description

- light-head rotates through 355° and swivels through 30° by adjusting screw
- individual optics by standard recessed frame or trimless recessed frame and various front reflectors
- outstanding ease of maintenance
- no UV and thermal emissions
- thermal management with passive cooling
- light-head and heat sink made from die-cast
- main reflector made from plastic
- black anti-glare ring made from polycarbonate for accommodating honeycomb louvre
- diffuser glass pane
- light-head snaps into mounting frame without tools
- connection to ballast via luminaire cable with Mini-Clamp connector
- ballast (LED converter DALI, dimmable) included (external placement)

### Standard options

3000 K

### Special options



### Lighting data / Norms

Lamps

Lifetime

System power Luminaire luminous flux System efficiency Module efficiency UGR class Beam angle Supply voltage Protection class Type of protection LED Spot / CRI 80 / 4000 K L90 B50 50.000 h L80 B50 100.000 h 22.0 W max. 1420 lm 60.90 lm/W 160.65 lm/W ≤22 50° 220 - 240 V / 50 - 60 Hz III IP20

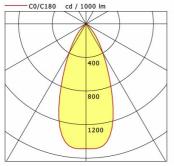
### Dimensions / Weights

Outer diameter82 mmHeight103 mmRecessed depth135 mmDiameter of light head82 mmNet weight0.72 kgGross weight0.75 kg

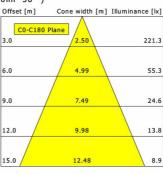
© LTS Licht & Leuchten GmbH · Its-light.com · Technical data are subject to change. · Version: 19.05.2024



Dallton Small - Spotlight Insert (DAL-S-RTQ 11\_CH, 1xLED 22W 840/4000K 1340Im 50 °)



|              | C0   | C90  | C180 | C270 |
|--------------|------|------|------|------|
| 0°           | 1486 | 1486 | 1486 | 1486 |
| 15°          | 1225 | 1225 | 1225 | 1225 |
| 30°          | 400  | 400  | 400  | 400  |
| 45°          | 75   | 75   | 75   | 75   |
| 60°          | 7    | 7    | 7    | 7    |
| 75°          | 0    | 0    | 0    | 0    |
| 90°          | 0    | 0    | 0    | 0    |
| cd / 1000 lm |      |      |      |      |
|              |      |      |      |      |



3.0

6.0

9.0

3.0

6.0

9.0

12.0

15.0

Offset [m]

3.0

6.0

9.0

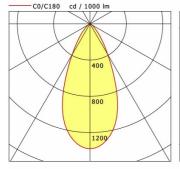
12.0

15.0

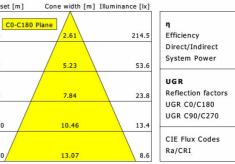
C0-C1

| η                  | LED                |
|--------------------|--------------------|
| Efficiency         | 61 lm/W            |
| Direct/Indirect    | ↓ 100% / ↑ 0%      |
| System Power       | 22 W               |
| UGR                | X=4H, Y=8H         |
| Reflection factors | 70/50/20           |
| UGR C0/C180        | 16.1               |
| UGR C90/C270       | 16.1               |
| CIE Flux Codes     | 93 100 100 100 100 |
| Ra/CRI             | >80                |

#### Dallton Small - Spotlight Insert (DAL-S-RTR 21\_WS-MATT, 1xLED 22W 840/4000K 1400Im 50 °) Offset [m]

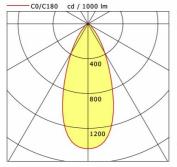


|              | C0   | C90  | C180 | C270 |
|--------------|------|------|------|------|
| 0°           | 1379 | 1379 | 1379 | 1379 |
| 15°          | 1109 | 1109 | 1109 | 1109 |
| 30°          | 392  | 392  | 392  | 392  |
| 45°          | 95   | 95   | 95   | 95   |
| 60°          | 25   | 25   | 25   | 25   |
| 75°          | 5    | 5    | 5    | 5    |
| 90°          | 0    | 0    | 0    | 0    |
| cd / 1000 lm |      |      |      |      |



| η                  | LED               |  |  |
|--------------------|-------------------|--|--|
| Efficiency         | 64 lm/W           |  |  |
| Direct/Indirect    | ↓ 100% / ↑ 0%     |  |  |
| System Power       | 22 W              |  |  |
| UGR                | X=4H, Y=8H        |  |  |
| Reflection factors | 70/50/20          |  |  |
| UGR C0/C180        | 19.5              |  |  |
| UGR C90/C270       | 19.5              |  |  |
| CIE Flux Codes     | 88 98 100 100 100 |  |  |
| Ra/CRI             | >80               |  |  |

Dallton Small - Spotlight Insert (DAL-S-RTQ 11\_WS-MATT, 1xLED 22W 840/4000K 1320Im 50 °) Offset [m]

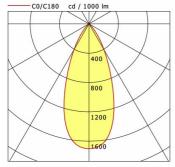


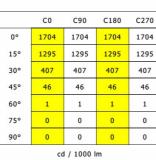
|              | C0   | C90  | C180 | C270 |  |
|--------------|------|------|------|------|--|
| 0°           | 1435 | 1435 | 1435 | 1435 |  |
| 15°          | 1106 | 1106 | 1106 | 1106 |  |
| 30°          | 383  | 383  | 383  | 383  |  |
| 45°          | 88   | 88   | 88   | 88   |  |
| 60°          | 36   | 36   | 36   | 36   |  |
| 75°          | 6    | 6    | 6    | 6    |  |
| 90°          | 0    | 0    | 0    | 0    |  |
| cd / 1000 lm |      |      |      |      |  |
|              |      |      |      |      |  |

| Offset [m] | Cone width [m] Illu | uminance [lx] |
|------------|---------------------|---------------|
| C0-C180    | Plane 2.43          | 210.5         |
| 6.0        | 4.86                | 52.6          |
| 9.0        | 7.29                | 23.4          |
| 12.0       | 9.71                | 13.2          |
| 15.0       | 12.14               | 8.4           |

| η                  | LED               |
|--------------------|-------------------|
| Efficiency         | 60 lm/W           |
| Direct/Indirect    | ↓ 100% / ↑ 0%     |
| System Power       | 22 W              |
| UGR                | X=4H, Y=8H        |
| Reflection factors | 70/50/20          |
| UGR C0/C180        | 19.0              |
| UGR C90/C270       | 19.0              |
| CIE Flux Codes     | 87 97 100 100 100 |
| Ra/CRI             | > 80              |

Dallton Small - Spotlight Insert (DAL-S-RTQ 11\_SW-MATT, 1xLED 22W 840/4000K 1040Im 50 °)

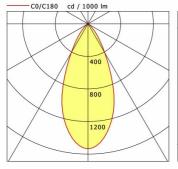




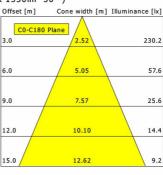
| Co        | one width [m | ] Illuminance [lx] |                        |                    |
|-----------|--------------|--------------------|------------------------|--------------------|
| .80 Plane | 2.37         | 196.9              | <b>n</b><br>Efficiency | LED<br>47 lm/W     |
|           |              |                    | Direct/Indirect        | ↓ 100% / ↑ 0%      |
|           | 4.74         | 49.2               | System Power           | 22 W               |
|           |              |                    | UGR                    | X=4H, Y=8H         |
|           | 7.11         | 21.9               | Reflection factors     | 70/50/20           |
|           |              |                    | UGR C0/C180            | 14.0               |
|           | 9.47         | 12.3               | UGR C90/C270           | 14.0               |
|           |              |                    | CIE Flux Codes         | 97 100 100 100 100 |
|           | 11.84        | 7.9                | Ra/CRI                 | >80                |
|           |              |                    |                        |                    |



Dallton Small - Spotlight Insert (DAL-S-RTR 21\_SI-MATT, 1xLED 22W 840/4000K 1350lm 50 °)

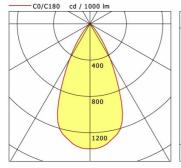


|              | C0   | C90  | C180 | C270 |
|--------------|------|------|------|------|
| 0°           | 1535 | 1535 | 1535 | 1535 |
| 15°          | 1169 | 1169 | 1169 | 1169 |
| 30°          | 407  | 407  | 407  | 407  |
| 45°          | 83   | 83   | 83   | 83   |
| 60°          | 6    | 6    | 6    | 6    |
| 75°          | 0    | 0    | 0    | 0    |
| 90°          | 0    | 0    | 0    | 0    |
| cd / 1000 lm |      |      |      |      |
|              |      |      |      |      |

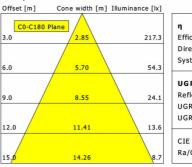


| n                  | LED                |  |
|--------------------|--------------------|--|
| Efficiency         | 61 lm/W            |  |
| Direct/Indirect    | ↓ 100% / ↑ 0%      |  |
| System Power       | 22 V               |  |
| UGR                | X=4H, Y=8H         |  |
| Reflection factors | 70/50/20           |  |
| UGR C0/C180        | 17.6               |  |
| UGR C90/C270       | 17.                |  |
| CIE Flux Codes     | 93 100 100 100 100 |  |
| Ra/CRI             | > 80               |  |

Dallton Small - Spotlight Insert (DAL-S-RFQ 11, 1xLED 22W 840/4000K 1420Im 50 °)

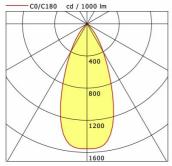


|              | C0   | C90  | C180 | C270 |
|--------------|------|------|------|------|
| 0°           | 1378 | 1378 | 1378 | 1378 |
| 15°          | 1230 | 1230 | 1230 | 1230 |
| 30°          | 443  | 443  | 443  | 443  |
| 45°          | 46   | 46   | 46   | 46   |
| 60°          | 2    | 2    | 2    | 2    |
| 75°          | 0    | 0    | 0    | 0    |
| 90°          | 0    | 0    | 0    | 0    |
| cd / 1000 lm |      |      |      |      |

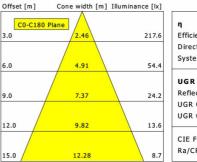


| η                  | LEI                |  |
|--------------------|--------------------|--|
| Efficiency         | 65 lm/W            |  |
| Direct/Indirect    | ↓ 100% / ↑ 0%      |  |
| System Power       | 22 W               |  |
| UGR                | X=4H, Y=8H         |  |
| Reflection factors | 70/50/20           |  |
| UGR C0/C180        | 15.3               |  |
| UGR C90/C270       | 15.3               |  |
| CIE Flux Codes     | 97 100 100 100 100 |  |
| Ra/CRI             | > 80               |  |

Dallton Small - Spotlight Insert (DAL-S-RTQ 11\_CH-SW, 1xLED 22W 840/4000K 1260Im 50 °)

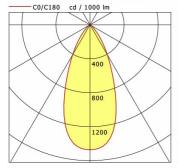


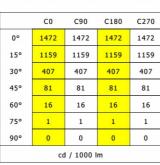
|     | C0   | C90    | C180 | C270 |
|-----|------|--------|------|------|
| 0°  | 1554 | 1554   | 1554 | 1554 |
| 15° | 1256 | 1256   | 1256 | 1256 |
| 30° | 402  | 402    | 402  | 402  |
| 45° | 63   | 63     | 63   | 63   |
| 60° | 5    | 5      | 5    | 5    |
| 75° | 0    | 0      | 0    | 0    |
| 90° | 0    | 0      | 0    | 0    |
|     | cd   | / 1000 | m    |      |
|     |      |        |      |      |



| η                  | LE                 |  |
|--------------------|--------------------|--|
| Efficiency         | 57 lm/W            |  |
| Direct/Indirect    | ↓ 100% / ↑ 0%      |  |
| System Power       | 22 W               |  |
| UGR                | X=4H, Y=8H         |  |
| Reflection factors | 70/50/20           |  |
| UGR C0/C180        | 15.4               |  |
| UGR C90/C270       | 15.4               |  |
| CIE Flux Codes     | 95 100 100 100 100 |  |
| Ra/CRI             | > 80               |  |

Dallton Small - Spotlight Insert (DAL-S-RTQ 11\_SI-MATT, 1xLED 22W 840/4000K 1300Im 50 °)



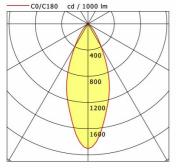


| (15001111 5 |                  |                 |                    |                   |
|-------------|------------------|-----------------|--------------------|-------------------|
| Offset [m]  | Cone width [m] I | lluminance [lx] |                    |                   |
| C0-C180 F   | Plane            |                 | η                  | LED               |
| 3.0         | 2.48             | 212.7           | Efficiency         | 59 lm/W           |
|             |                  |                 | Direct/Indirect    | ↓ 100% / ↑ 0%     |
|             |                  |                 | System Power       | 22 W              |
| 6.0         | 4.96             | 53.2            |                    |                   |
|             |                  |                 | UGR                | X=4H, Y=8H        |
| 9.0         | 7.44             | 23.6            | Reflection factors | 70/50/20          |
|             |                  |                 | UGR C0/C180        | 16.8              |
|             |                  |                 | UGR C90/C270       | 16.8              |
| 12.0        | 9.91             | 13.3            |                    | -02000            |
|             |                  |                 | CIE Flux Codes     | 91 99 100 100 100 |
| 15.0        | 12.39            | 8.5             | Ra/CRI             | >80               |
|             |                  |                 |                    | 17                |

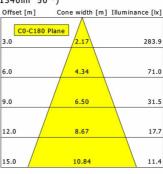
LTS



Dallton Small - Spotlight Insert (DAL-S-RTR 21\_CH-SW, 1xLED 22W 840/4000K 1340Im 50 °)

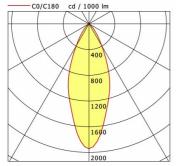


|     | C0   | C90        | C180 | C270 |  |  |
|-----|------|------------|------|------|--|--|
| 0°  | 1907 | 1907       | 1907 | 1907 |  |  |
| 15° | 1203 | 1203       | 1203 | 1203 |  |  |
| 30° | 397  | 397        | 397  | 397  |  |  |
| 45° | 68   | 68         | 68   | 68   |  |  |
| 60° | 0    | 0          | 0    | 0    |  |  |
| 75° | 0    | 0          | 0    | 0    |  |  |
| 90° | 0    | 0          | 0    | 0    |  |  |
|     | co   | i / 1000 I | m    |      |  |  |
|     |      |            |      |      |  |  |



| η                  | LED                |  |
|--------------------|--------------------|--|
| Efficiency         | 61 lm/W            |  |
| Direct/Indirect    | ↓ 100% / ↑ 0%      |  |
| System Power       | 22 W               |  |
| UGR                | X=4H, Y=8H         |  |
| Reflection factors | 70/50/20           |  |
| UGR C0/C180        | 16.7               |  |
| UGR C90/C270       | 16.7               |  |
| CIE Flux Codes     | 95 100 100 100 100 |  |
| Ra/CRI             | >80                |  |

#### Dallton Small - Spotlight Insert (DAL-S-RTR 21\_CH, 1xLED 22W 840/4000K 1380lm 50 °) Offset [m]



| C0 C90 C180 C270 |      |      |      |      |
|------------------|------|------|------|------|
| 0°               | 1944 | 1944 | 1944 | 1944 |
| 15°              | 1187 | 1187 | 1187 | 1187 |
| 30°              | 397  | 397  | 397  | 397  |
| 45°              | 71   | 71   | 71   | 71   |
| 60°              | 0    | 0    | 0    | 0    |
| 75°              | 0    | 0    | 0    | 0    |
| 90°              | 0    | 0    | 0    | 0    |
| cd / 1000 lm     |      |      |      |      |

3.0

6.0

9.0

12.0

15.0

3.0

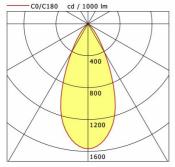
6.0

9.0

| fset [m]  | Cone width [m] | [lluminance [lx] |                                 |   |
|-----------|----------------|------------------|---------------------------------|---|
| C0-C180 F | Plane 2.10     | 298.0            | <b>n</b><br>Efficiency          |   |
| )         | 4.20           | 74.5             | Direct/Indirect<br>System Power |   |
| ,         |                | /1.5             | UGR                             |   |
| )         | 6.31           | 33.1             | Reflection factors              |   |
| .0        | 8,41           | 18.6             | UGR C0/C180<br>UGR C90/C270     |   |
| .0        | 0.41           | 10.0             | CIE Flux Codes                  | 9 |
| .0        | 10.51          | 11.9             | Ra/CRI                          |   |
|           |                |                  |                                 |   |

| η                  | LED                |
|--------------------|--------------------|
| Efficiency         | 63 lm/W            |
| Direct/Indirect    | ↓ 100% / ↑ 0%      |
| System Power       | 22 W               |
| UGR                | X=4H, Y=8H         |
| Reflection factors | 70/50/20           |
| UGR C0/C180        | 16.9               |
| UGR C90/C270       | 16.9               |
| CIE Flux Codes     | 95 100 100 100 100 |
| Ra/CRI             | > 80               |

#### Dallton Small - Spotlight Insert (DAL-S-RTR 21\_SW-MATT, 1xLED 22W 840/4000K 1170Im 50 °) Offset [m]

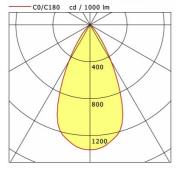


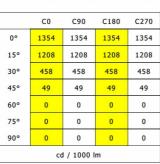
|     | C0   | C90        | C180 | C270 |
|-----|------|------------|------|------|
| 0°  | 1567 | 1567       | 1567 | 1567 |
| 15° | 1250 | 1250       | 1250 | 1250 |
| 30° | 410  | 410        | 410  | 410  |
| 45° | 63   | 63         | 63   | 63   |
| 60° | 0    | 0          | 0    | 0    |
| 75° | 0    | 0          | 0    | 0    |
| 90° | 0    | 0          | 0    | 0    |
|     | co   | i / 1000 I | m    |      |
|     |      |            |      |      |

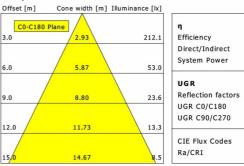
| Offset [m] | Cone width [m] Illu | uminance [lx] |
|------------|---------------------|---------------|
| C0-C18     | 0 Plane 2.57        | 203.7         |
| 6.0        | 5.14                | 50.9          |
| 9.0        | 7.71                | 22.6          |
| 12.0       | 10.27               | 12.7          |
| 15.0       | 12.84               | 8.1           |

| η                  | LEC                |  |
|--------------------|--------------------|--|
| Efficiency         | 53 lm/W            |  |
| Direct/Indirect    | ↓ 100% / ↑ 0%      |  |
| System Power       | 22 W               |  |
| UGR                | X=4H, Y=8H         |  |
| Reflection factors | 70/50/20           |  |
| UGR C0/C180        | 16.1               |  |
| UGR C90/C270       | 16.1               |  |
| CIE Flux Codes     | 96 100 100 100 100 |  |
| Ra/CRI             | > 80               |  |

Dallton Small - Spotlight Insert (DAL-S-RFR 21, 1xLED 22W 840/4000K 1410lm 50 °)







| <b>n</b><br>Efficiency<br>Direct/Indirect<br>System Power | LED<br>64 Im/W<br>↓ 100% / † 0%<br>22 W |                    |            |
|-----------------------------------------------------------|-----------------------------------------|--------------------|------------|
|                                                           |                                         | UGR                | X=4H, Y=8H |
|                                                           |                                         | Reflection factors | 70/50/20   |
|                                                           |                                         | UGR C0/C180        | 16.7       |
| UGR C90/C270                                              | 16.7                                    |                    |            |
| CIE Flux Codes                                            | 97 100 100 100 100                      |                    |            |
| Ra/CRI                                                    | >80                                     |                    |            |

Recessed Spotlights · Dallton Small System

# DAL-S-LK 101.840.50/DALI

Accessories



DAL-S-ZBW 11.21 honeycomb louvre



**ZB-OR DONGLE** Organic Response IR dongle kit



**ZB-OR GATEWAY** Organic Response IoT Gateway Cascade Series



**ZB-OR-R SENSOR** Organic Response sensor for recessed mounting

S

LOVE TO SHINE

