



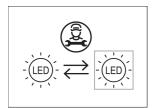


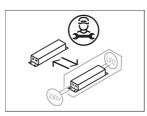






| Colours | Article no. | EAN |
|---------|-------------|---------------|
| silver | 660955 | 4043544697721 |





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
- securing with safety rope
- 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) included (external placement)

Standard options





Special options







Lighting data / Norms

LED Spot / CRI 80 / 3000 K

EPREL light sources 851239

L90 B50 50.000 h **Lifetime**L80 B50 100.000 h
L80 B20 50.000 h

System power 28.0 W
Luminaire luminous flux max. 2230 lm
System efficiency 73.21 lm/W
Module efficiency 158.91 lm/W

UGR class ≤19 Beam angle 50°

Supply voltage 220 - 240 V / 50 - 60 Hz

Protection class III

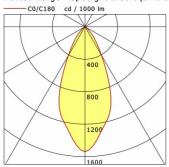
Type of protection IP20

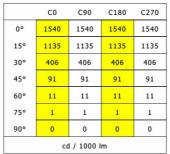
Dimensions / Weights

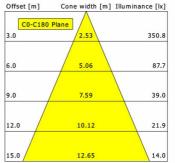
Outer diameter124 mmHeight149 mmRecessed depth200 mmDiameter of light head124 mmNet weight1.26 kgGross weight1.33 kg



Dallton Large - Spotlight Insert (DAL-L-RTR 23_SI-MATT, 1xLED 28W 830/3000K 2050lm 50 °)



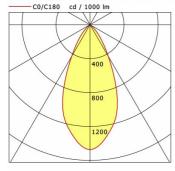


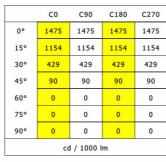


| η | LED |
|--------------------|-------------------|
| Efficiency | 73 lm/W |
| Direct/Indirect | ↓ 100% / ↑ 0% |
| System Power | 28 W |
| UGR | X=4H, Y=8H |
| Reflection factors | 70/50/20 |
| UGR C0/C180 | 16.5 |
| UGR C90/C270 | 16.5 |
| CIE Flux Codes | 92 99 100 100 100 |
| Ra/CRI | >80 |
| | |

LTS

Dallton Large - Spotlight Insert (DAL-L-RTR 23_SW-MATT, 1xLED 28W 830/3000K 1650lm 50 °)



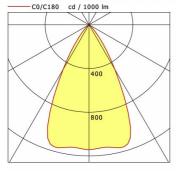




| η | LE | |
|--------------------|--------------------------|--|
| Efficiency | 59 lm/W ↓ 100% / ↑ 0% | |
| Direct/Indirect | | |
| System Power | | |
| UGR | X=4H, Y=8H | |
| Reflection factors | 70/50/20 | |
| UGR C0/C180 | 15.6 | |
| UGR C90/C270 | 15.6 | |
| CIE Flux Codes | 94 100 100 100 100 | |
| Ra/CRI | >80 | |

- EO 0)

Dallton Large - Spotlight Insert (DAL-L-RFR 23, 1xLED 28W 830/3000K 2160lm 50 °)



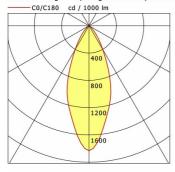
| | C0 | C90 | C180 | C270 | |
|-----------|------|------------|------|------|--|
| 0° | 1143 | 1143 | 1143 | 1143 | |
| 15° | 1162 | 1162 | 1162 | 1162 | |
| 30° | 471 | 471 | 471 | 471 | |
| 45° | 46 | 46 | 46 | 46 | |
| 60° | 0 | 0 | 0 | 0 | |
| 75° | 0 | 0 | 0 | 0 | |
| 90° 0 0 0 | | | | | |
| | co | i / 1000 I | m | | |

| Cone width [m] Ill | uminance [lx] |
|--------------------|----------------------|
| Plane | |
| 3.22 | 274.4 |
| | |
| 6.43 | 68.6 |
| 9.65 | 30.5 |
| 12.86 | 17.1 |
| 16.08 | 11.6 |
| | 3.22 6.43 9.65 |

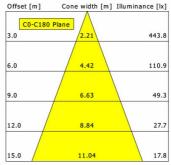
| η | LED | |
|--------------------|--------------------|--|
| Efficiency | 77 lm/W | |
| Direct/Indirect | ↓ 100% / ↑ 0% | |
| System Power | 28 W | |
| UGR | X=4H, Y=8H | |
| Reflection factors | 70/50/20 | |
| UGR C0/C180 | 15.3 | |
| UGR C90/C270 | 15.3 | |
| CIE Flux Codes | 97 100 100 100 100 | |
| Ra/CRI | >80 | |

LT:

Dallton Large - Spotlight Insert (DAL-L-RTR 23_CH-SW, 1xLED 28W 830/3000K 2180lm 50 °)



| | C0 | C90 | C180 | C270 |
|--------------|------|------|------|------|
| 0° | 1832 | 1832 | 1832 | 1832 |
| 15° | 1176 | 1176 | 1176 | 1176 |
| 30° | 404 | 404 | 404 | 404 |
| 45° | 82 | 82 | 82 | 82 |
| 60° | 0 | 0 | 0 | 0 |
| 75° | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 |
| cd / 1000 lm | | | | |

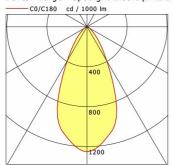


| η | LED | | |
|--------------------|--------------------|--|--|
| Efficiency | 78 lm/W | | |
| Direct/Indirect | ↓ 100% / ↑ 0% | | |
| System Power | 28 W | | |
| UGR | X=4H, Y=8H | | |
| Reflection factors | 70/50/20 | | |
| UGR C0/C180 | 16.1 | | |
| UGR C90/C270 | 16.1 | | |
| CIE Flux Codes | 94 100 100 100 100 | | |
| Ra/CRI | >80 | | |

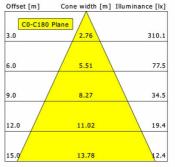
LTS



Dallton Large - Spotlight Insert (DAL-L-RTR 23_WS-MATT, 1xLED 28W 830/3000K 2230lm 50 °)



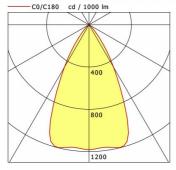
| | C0 | C90 | C180 | C270 |
|-----|------|----------|------|------|
| 0° | 1252 | 1252 | 1252 | 1252 |
| 15° | 1041 | 1041 | 1041 | 1041 |
| 30° | 394 | 394 | 394 | 394 |
| 45° | 111 | 111 | 111 | 111 |
| 60° | 32 | 32 | 32 | 32 |
| 75° | 6 | 6 | 6 | 6 |
| 90° | 0 | 0 | 0 | 0 |
| | cc | / 1000 I | m | |



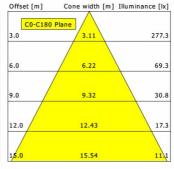
| η | LED |
|--------------------|-------------------|
| Efficiency | 80 lm/W |
| Direct/Indirect | ↓ 100% / ↑ 0% |
| System Power | 28 W |
| UGR | X=4H, Y=8H |
| Reflection factors | 70/50/20 |
| UGR C0/C180 | 19.3 |
| UGR C90/C270 | 19.3 |
| CIE Flux Codes | 86 97 100 100 100 |
| Ra/CRI | >80 |

LTS

Dallton Large - Spotlight Insert (DAL-L-RFQ 13, 1xLED 28W 830/3000K 2110lm 50 °)

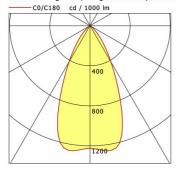


| | C0 | C90 | C180 | C270 |
|-----|------|----------|------|------|
| 0° | 1183 | 1183 | 1183 | 1183 |
| 15° | 1198 | 1198 | 1198 | 1198 |
| 30° | 464 | 464 | 464 | 464 |
| 45° | 47 | 47 | 47 | 47 |
| 60° | 2 | 2 | 2 | 2 |
| 75° | 1 | 1 | 1 | 1 |
| 90° | 0 | 0 | 0 | 0 |
| | co | 1 / 1000 | m | |

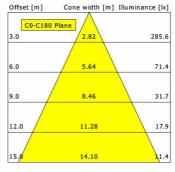


| η | LEC | |
|--------------------|--------------------|--|
| Efficiency | 75 lm/W | |
| Direct/Indirect | ↓ 100% / ↑ 0% | |
| System Power | 28 W | |
| UGR | X=4H, Y=8H | |
| Reflection factors | 70/50/20 14.1 | |
| UGR C0/C180 | | |
| UGR C90/C270 | 14.1 | |
| CIE Flux Codes | 96 100 100 100 100 | |
| Ra/CRI | >80 | |

Dallton Large - Spotlight Insert (DAL-L-RTQ 13_CH, 1xLED 28W 830/3000K 2100lm 50 °)

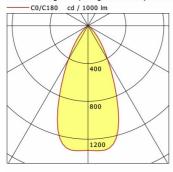


| C0 1224 1182 417 | C90 1224 1182 | C180 1224 1182 | C270 1224 1182 |
|---------------------------|---------------------|----------------------|----------------------|
| 1182 | 1182 | | |
| | | 1182 | 1182 |
| 417 | 447 | | |
| | 417 | 417 | 417 |
| 89 | 89 | 89 | 89 |
| 11 | 11 | 11 | 11 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| | 11 0 0 | 11 11 0 0 0 0 | 11 11 11 0 0 0 |



| η | LED 75 lm/W ↓ 100% / ↑ 0% | |
|--------------------|---------------------------------|--|
| Efficiency | | |
| Direct/Indirect | | |
| System Power | 28 W | |
| UGR | X=4H, Y=8H | |
| Reflection factors | 70/50/20 | |
| UGR C0/C180 | | |
| UGR C90/C270 | 15.4 | |
| CIE Flux Codes | 92 100 100 100 100 | |
| Ra/CRI | >80 | |

Dallton Large - Spotlight Insert (DAL-L-RTQ 13_CH-SW, 1xLED 28W 830/3000K 1860lm 50 °)



| | C0 | C90 | C180 | C270 |
|-----|------|------------|------|------|
| 0° | 1319 | 1319 | 1319 | 1319 |
| 15° | 1193 | 1193 | 1193 | 1193 |
| 30° | 417 | 417 | 417 | 417 |
| 45° | 85 | 85 | 85 | 85 |
| 60° | 8 | 8 | 8 | 8 |
| 75° | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 |
| | co | i / 1000 I | m | |

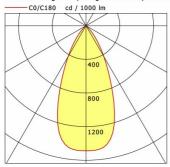
| Offset [m] | Cone width [m] Ill | uminance [lx] |
|------------|--------------------|---------------|
| C0-C180 F | 2.74 | 272.6 |
| 3.0 | 2.74 | 272.6 |
| 6.0 | 5.47 | 68.2 |
| | | |
| 9.0 | 8.21 | 30.3 |
| 12.0 | 10.95 | 17.0 |
| 15.0 | 13.68 | 40.9 |

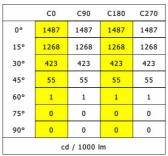
| η | LEC 66 lm/W | |
|------------------------------|--------------------|--|
| Efficiency | | |
| Direct/Indirect \ \ \ 100% / | | |
| System Power | 28 W | |
| UGR | X=4H, Y=8H | |
| Reflection factors | 70/50/2 | |
| UGR C0/C180 | 14.7 | |
| UGR C90/C270 | 14.7 | |
| CIE Flux Codes | 93 100 100 100 100 | |
| Ra/CRI | >80 | |

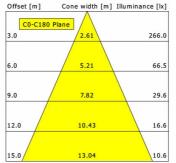
LTS



Dallton Large - Spotlight Insert (DAL-L-RTQ 13_SW-MATT, 1xLED 28W 830/3000K 1610lm 50 °)

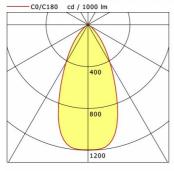


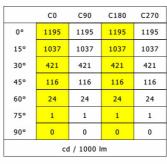


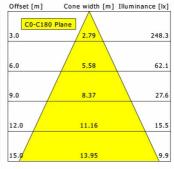


| η | LED |
|--------------------|--------------------|
| Efficiency | 58 lm/W |
| Direct/Indirect | ↓ 100% / ↑ 0% |
| System Power | 28 W |
| UGR | X=4H, Y=8H |
| Reflection factors | 70/50/20 |
| UGR C0/C180 | 13.2 |
| UGR C90/C270 | 13.2 |
| CIE Flux Codes | 96 100 100 100 100 |
| Ra/CRI | >80 |

Dallton Large - Spotlight Insert (DAL-L-RTQ 13_SI-MATT, 1xLED 28W 830/3000K 1870lm 50 °)

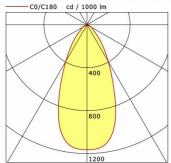




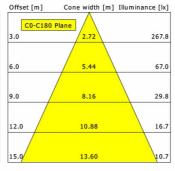


| η | LEC | |
|--------------------|--------------------------|--|
| Efficiency | 67 lm/W ↓ 100% / ↑ 0% | |
| Direct/Indirect | | |
| System Power | 28 W | |
| UGR | X=4H, Y=8H | |
| Reflection factors | 70/50/20 | |
| UGR C0/C180 | | |
| UGR C90/C270 | 16 | |
| CIE Flux Codes | 87 99 100 100 100 | |
| Ra/CRI | >80 | |

Dallton Large - Spotlight Insert (DAL-L-RTQ 13_WS-MATT, 1xLED 28W 830/3000K 2070lm 50 °)



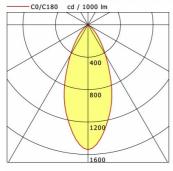
| | C0 | C90 | C180 | C270 |
|-----|------|----------|------|------|
| 0° | 1165 | 1165 | 1165 | 1165 |
| 15° | 982 | 982 | 982 | 982 |
| 30° | 394 | 394 | 394 | 394 |
| 45° | 120 | 120 | 120 | 120 |
| 60° | 47 | 47 | 47 | 47 |
| 75° | 7 | 7 | 7 | 7 |
| 90° | 0 | 0 | 0 | 0 |
| | cc | / 1000 I | m | |



| η | LEC | |
|-------------------------|-------------------|--|
| Efficiency | 74 lm/W | |
| Direct/Indirect | ↓ 100% / ↑ 0% | |
| System Power | 28 W | |
| UGR | X=4H, Y=8H | |
| Reflection factors 70/5 | | |
| UGR C0/C180 | 19 | |
| UGR C90/C270 | 19.3 | |
| CIE Flux Codes | 83 96 100 100 100 | |
| Ra/CRI | >80 | |

LT

Dallton Large - Spotlight Insert (DAL-L-RTR 23_CH, 1xLED 28W 830/3000K 2220lm 50 °)



| | C0 | C90 | C180 | C270 |
|-----|--------------|------|------|------|
| 0° | 1543 | 1543 | 1543 | 1543 |
| 15° | 1077 | 1077 | 1077 | 1077 |
| 30° | 431 | 431 | 431 | 431 |
| 45° | 114 | 114 | 114 | 114 |
| 60° | 0 | 0 | 0 | 0 |
| 75° | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 |
| | cd / 1000 lm | | | |

| Offset [m] | Cone width [m] Illu | minance [lx] |
|------------|---------------------|--------------|
| C0-C180 | Plane | |
| 3.0 | 2.39 | 380.5 |
| | | 8000000 |
| 6.0 | 4.78 | 95.1 |
| 9.0 | 7.17 | 42.3 |
| 12.0 | 9.56 | 23.8 |
| 15.0 | 11.95 | 15.2 |

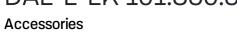
| η | LED | |
|--------------------|--------------------|--|
| Efficiency | 79 lm/W | |
| Direct/Indirect | ↓ 100% / ↑ 0% | |
| System Power | 28 W | |
| UGR | X=4H, Y=8H | |
| Reflection factors | 70/50/2 | |
| UGR C0/C180 | 17.6 | |
| UGR C90/C270 | 17.6 | |
| CIE Flux Codes | 92 100 100 100 100 | |
| Ra/CRI | >80 | |

LTS

Recessed Spotlights · Dallton Large System

DAL-L-LK 101.830.50

DAL-L-ZBW 13.23 honeycomb louvre







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