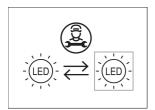
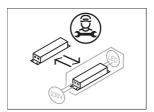


Colours	Article no.	EAN
silver	660957	4043544697745















## 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 / 4000 K

EPREL light sources 851282

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. 2460 lm
System efficiency 62.14 lm/W
Module efficiency 162.17 lm/W

UGR class ≤16 Beam angle 20°

Supply voltage 220 - 240 V / 50 - 60 Hz

Protection class III

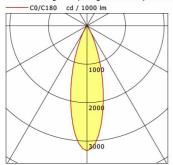
Type of protection IP20

## Dimensions / Weights

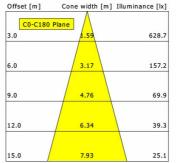
Outer diameter124 mmHeight149 mmRecessed depth200 mmDiameter of light head124 mmNet weight1.26 kgGross weight1.33 kg



## Dallton Large - Spotlight Insert (DAL-L-RTR 23\_SW-MATT, 1xLED 28W 840/4000K 1740lm 20 °)

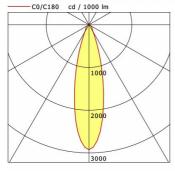


	C0	C90	C180	C270
0°	3252	3252	3252	3252
15°	1598	1598	1598	1598
30°	202	202	202	202
45°	24	24	24	24
60°	0	0	0	0
75°	0	0	0	0
90°	0	0	0	0
	co	i / 1000 I	m	

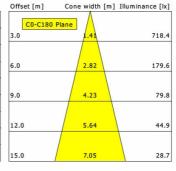


η	LED
Efficiency	62 lm/W
Direct/Indirect	↓ 100% / ↑ 0%
System Power	28 W
UGR	X=4H, Y=8H
Reflection factors	70/50/20
UGR C0/C180	<10.0
UGR C90/C270	<10.0
CIE Flux Codes	98 100 100 100 100
Ra/CRI	>80

## Dallton Large - Spotlight Insert (DAL-L-RTQ 13\_WS-MATT, 1xLED 28W 840/4000K 2210lm 20 °)

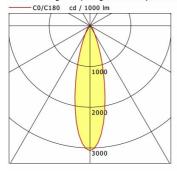


	C0	C90	C180	C270
0°	2926	2926	2926	2926
15°	1214	1214	1214	1214
30°	194	194	194	194
45°	99	99	99	99
60°	53	53	53	53
75°	8	8	8	8
90°	0	0	0	0
	co	1 / 1000 I	m	



η	LED
Efficiency	79 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	83 96 100 100 100
Ra/CRI	>80

#### Dallton Large - Spotlight Insert (DAL-L-RTQ 13\_SI-MATT, 1xLED 28W 840/4000K 1960lm 20 °)

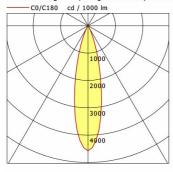


	C0	C90	C180	C270
0°	3069	3069	3069	3069
15°	1329	1329	1329	1329
30°	226	226	226	226
45°	79	79	79	79
60°	20	20	20	20
75°	1	1	1	1
90°	0	0	0	0
	co	i / 1000 I	m	

Offset [m]	Cone width [m] Illu	ıminance [lx]
C0-C180		
3.0	1.45	668.3
6.0	2.90	167.1
9.0	4.36	74.3
12.0	5.81	41.8
15.0	7.26	26.7

η	LED
Efficiency	70 lm/W
Direct/Indirect	↓ 100% / ↑ 0%
System Power	28 W
UGR	X=4H, Y=8H
Reflection factors	70/50/20
UGR C0/C180	14.4
UGR C90/C270	14.4
CIE Flux Codes	90 99 100 100 100
Ra/CRI	>80

#### Dallton Large - Spotlight Insert (DAL-L-RTQ 13\_SW-MATT, 1xLED 28W 840/4000K 1610lm 20 °)



	C0	C90	C180	C270
0°	4571	4571	4571	4571
15°	1630	1630	1630	1630
30°	118	118	118	118
45°	17	17	17	17
60°	1	1	1	1
75°	0	0	0	0
90°	0	0	0	0
	co	/ 1000 I	m	

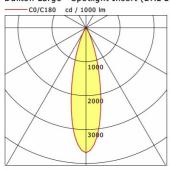
Offset [m]	Cone width [m]	Illuminance [lx]
C0-C180	Plane 1.29	817.8
3.0	1.29	617.6
6.0	2.59	204.4
9.0	3.88	90.9
12.0	5.18	51.1
15.0	6.47	32.7

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	<10.0
UGR C90/C270	<10.0
CIE Flux Codes	99 100 100 100 100
Ra/CRI	>80

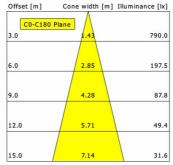
LTS



Dallton Large - Spotlight Insert (DAL-L-RTQ 13\_CH-SW, 1xLED 28W 840/4000K 1930lm 20 °)

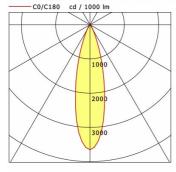


	C0	C90	C180	C270
0°	3684	3684	3684	3684
15°	1548	1548	1548	1548
30°	175	175	175	175
45°	36	36	36	36
60°	5	5	5	5
75°	0	0	0	0
90°	0	0	0	0
	co	1 / 1000	m	

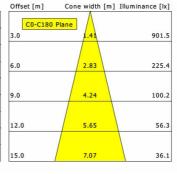


η Efficiency Direct/Indirect System Power	LED 69 lm/W ↓ 100% / † 0% 28 W
UGR	X=4H, Y=8H
Reflection factors	70/50/20
UGR C0/C180	<10.0
UGR C90/C270	<10.0
CIE Flux Codes Ra/CRI	96 100 100 100 100 >80

Dallton Large - Spotlight Insert (DAL-L-RTQ 13\_CH, 1xLED 28W 840/4000K 2220lm 20 °)

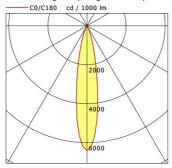


C0 3655 1517	C90 3655	C180	C270 3655
	3655	3655	3655
1517			0000
1317	1517	1517	1517
177	177	177	177
42	42	42	42
8	8	8	8
0	0	0	0
0	0	0	0
	42 8 0	42 42 8 8 0 0	42     42     42       8     8     8       0     0     0



η	LEI		
Efficiency	79 lm/W		
Direct/Indirect	↓ 100% / ↑ 0%		
System Power	28 W		
UGR	X=4H, Y=8H		
Reflection factors	70/50/20		
UGR C0/C180	10.3		
UGR C90/C270	10.3		
CIE Flux Codes	95 100 100 100 100		
Ra/CRI	>80		

Dallton Large - Spotlight Insert (DAL-L-RFQ 13, 1xLED 28W 840/4000K 2140lm 20 °)

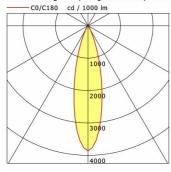


	C0	C90	C180	C270
0°	6417	6417	6417	6417
15°	1440	1440	1440	1440
30°	57	57	57	57
45°	19	19	19	19
60°	2	2	2	2
75°	0	0	0	0
90°	0	0	0	0
cd / 1000 lm				

Offset [m]	Cone width [m	] Illuminance [lx]
C0-C180	Plane 1.02	1525.9
6.0	2.04	381.5
9.0	3.06	169.5
12.0	4.08	95.4
15.0	5.11	61.0

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	<10.0
UGR C90/C270	<10.0
CIE Flux Codes	98 100 100 100 100
Ra/CRI	>80

Dallton Large - Spotlight Insert (DAL-L-RTR 23\_SI-MATT, 1xLED 28W 840/4000K 2260lm 20 °)



	C0	C90	C180	C270
0°	3859	3859	3859	3859
15°	1533	1533	1533	1533
30°	148	148	148	148
45°	44	44	44	44
60°	10	10	10	10
75°	1	1	1	1
90°	0	0	0	0

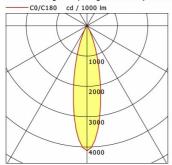
Offset [m]	Cone width [m] Ill	uminance [lx]
C0-C180		
3.0	1.36	968.9
6.0	2.72	242.2
9.0	4.08	107.7
12.0	5.45	60.6
15.0	6.81	38.8

η	LED
Efficiency	81 lm/W
Direct/Indirect ↓ 100% / ↑	
System Power	28 W
UGR	X=4H, Y=8H
Reflection factors	70/50/20
UGR C0/C180	11.9
UGR C90/C270	11.9
CIE Flux Codes	95 99 100 100 100
Ra/CRI	>80

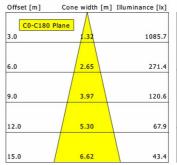
LTS



## Dallton Large - Spotlight Insert (DAL-L-RTR 23\_CH-SW, 1xLED 28W 840/4000K 2370lm 20 °)

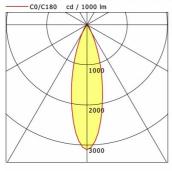


	C0	C90	C180	C270	
0°	4123	4123	4123	4123	
15°	1576	1576	1576	1576	
30°	142	142	142	142	
45°	34	34	34	34	
60°	0	0	0	0	
75°	0	0	0	0	
90°	0	0	0	0	
	cd / 1000 lm				

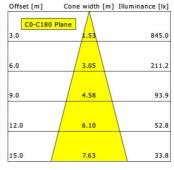


<b>n</b>	LED
Efficiency	85 lm/W
Direct/Indirect	↓ 100% / ↑ 0%
System Power	28 W
UGR	X=4H, Y=8H
Reflection factors	70/50/20
UGR C0/C180	<10.0
UGR C90/C270	<10.0
CIE Flux Codes	97 100 100 100 100
Ra/CRI	>80

Dallton Large - Spotlight Insert (DAL-L-RTR 23\_CH, 1xLED 28W 840/4000K 2440lm 20 °)

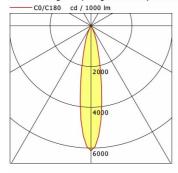


	C0	C90	C180	C270	
0°	3117	3117	3117	3117	
15°	1459	1459	1459	1459	
30°	229	229	229	229	
45°	56	56	56	56	
60°	0	0	0	0	
75°	0	0	0	0	
90°	0	0	0	0	
	co	cd / 1000 lm			



η	LED 87 lm/W ↓ 100% / ↑ 0%	
Efficiency		
Direct/Indirect		
System Power	28 W	
UGR	X=4H, Y=8H	
Reflection factors	70/50/20	
UGR C0/C180	13.0	
UGR C90/C270	13.0	
CIE Flux Codes	95 100 100 100 100	
Ra/CRI	>80	

Dallton Large - Spotlight Insert (DAL-L-RFR 23, 1xLED 28W 840/4000K 2250lm 20 °)

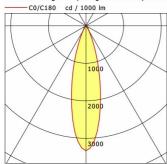


	C0	C90	C180	C270
0°	6132	6132	6132	6132
15°	1430	1430	1430	1430
30°	69	69	69	69
45°	16	16	16	16
60°	1	1	1	1
75°	0	0	0	0
90°	0	0	0	0
	cd / 1000 lm			

Offset [m]	Cone width [m	] Illuminance [lx]
C0-C180	Plane 1.03	1533.0
6.0	2.05	383.3
6.0	2.05	383.3
9.0	3.08	170.3
12.0	4.10	95.8
15.0	5.13	61.3

η	LEC	
Efficiency	81 lm/W ↓ 100% / ↑ 0% 28 W	
Direct/Indirect		
System Power		
UGR	X=4H, Y=8H	
Reflection factors	70/50/20	
UGR C0/C180	<10.0	
UGR C90/C270	<10.0	
CIE Flux Codes	99 100 100 100 100	
Ra/CRI	>80	

Dallton Large - Spotlight Insert (DAL-L-RTR 23\_WS-MATT, 1xLED 28W 840/4000K 2460lm 20 °)



	C0	C90	C180	C270
0°	3333	3333	3333	3333
15°	1388	1388	1388	1388
30°	160	160	160	160
45°	72	72	72	72
60°	33	33	33	33
75°	6	6	6	6
90°	0	0	0	0
	co	1 / 1000 I	m	

Offset [m]	Cone width [m] Illi	uminance [lx]
C0-C180	Plane	
3.0	<mark>(.41</mark> )	910.9
6.0	2.82	227.7
9.0	4.23	101.2
12.0	5.63	56.9
15.0	7.04	36.4

η	LEC
Efficiency	88 lm/W
Direct/Indirect	↓ 100% / ↑ 0%
System Power	28 W
UGR	X=4H, Y=8H
Reflection factors	70/50/20
UGR C0/C180	18.2
UGR C90/C270	18.2
CIE Flux Codes	88 97 100 100 100
Ra/CRI	>80

LTS

## Recessed Spotlights · Dallton Large System

# DAL-L-LK 101.840.20

## Accessories



DAL-L-ZBW 13.23 honeycomb louvre

