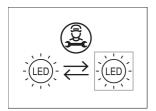
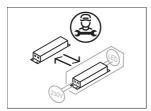


Colours	Article no.	EAN
silver	660959	4043544697769















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

Lamps 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. 2320 lm
System efficiency 74.64 lm/W
Module efficiency 162.17 lm/W

UGR class ≤16 Beam angle 35°

Supply voltage 220 - 240 V / 50 - 60 Hz

Protection class III

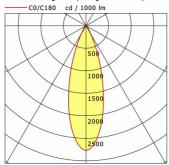
Type of protection IP20

Dimensions / Weights

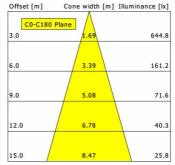
Outer diameter124 mmHeight149 mmRecessed depth200 mmDiameter of light head124 mmNet weight1.26 kgGross weight1.33 kg



Dallton Large - Spotlight Insert (DAL-L-RTR 23_SI-MATT, 1xLED 28W 840/4000K 2090lm 35 °)

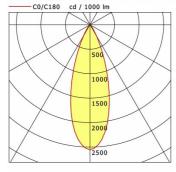


	C0	C90	C180	C270
0°	2777	2777	2777	2777
15°	1479	1479	1479	1479
30°	214	214	214	214
45°	54	54	54	54
60°	12	12	12	12
75°	1	1	1	1
90°	0	0	0	0
	co	1 / 1000 I	m	

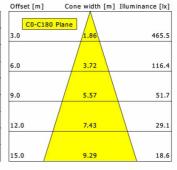


η Efficiency Direct/Indirect System Power	LED 75 lm/W ↓ 100% / ↑ 0% 28 W
UGR	X=4H, Y=8H
Reflection factors	70/50/20
UGR C0/C180	13.3
UGR C90/C270	13.3
CIE Flux Codes Ra/CRI	94 99 100 100 100 >80

Dallton Large - Spotlight Insert (DAL-L-RTR 23_SW-MATT, 1xLED 28W 840/4000K 1640lm 35 °)

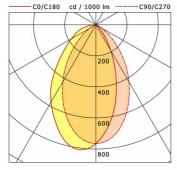


	C0	C90	C180	C270
0°	2555	2555	2555	2555
15°	1520	1520	1520	1520
30°	265	265	265	265
45°	30	30	30	30
60°	0	0	0	0
75°	0	0	0	0
90°	0	0	0	0
	co	1 / 1000	m	



η	LED
Efficiency	59 lm/W
Direct/Indirect \ \ \ 100% /	
System Power	28 W
UGR	X=4H, Y=8H
Reflection factors	70/50/20
UGR C0/C180	10.1
UGR C90/C270	10.1
CIE Flux Codes	98 100 100 100 100
Ra/CRI	>80

Dallton Large - Spotlight Insert (DAL-L-RWR 23, 1xLED 28W 840/4000K 1230lm 35 °)

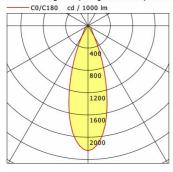


	C0	C90	C180	C270
0°	766	766	766	766
15°	494	659	773	659
30°	189	425	576	425
45°	37	189	341	189
60°	5	42	182	42
75°	1	4	91	4
90°	0	0	0	0
	cd / 1000 lm			

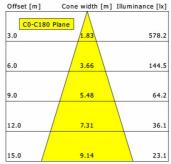
LDC unsuitable for cone representation.
Asymetric LDC.

η	LED
Efficiency	44 lm/W
Direct/Indirect	↓ 100% / ↑ 0%
System Power	28 W
UGR	X=4H, Y=8H
Reflection factors	70/50/20
UGR C0/C180	10.5
UGR C90/C270	21.8
CIE Flux Codes	70 91 98 100 100
Ra/CRI	>80

Dallton Large - Spotlight Insert (DAL-L-RTR 23_WS-MATT, 1xLED 28W 840/4000K 2320lm 35 °)



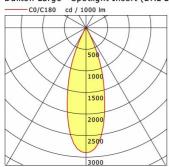
	C0	C90	C180	C270
0°	2243	2243	2243	2243
15°	1316	1316	1316	1316
30°	223	223	223	223
45°	86	86	86	86
60°	38	38	38	38
75°	7	7	7	7
90°	0	0	0	0
cd / 1000 lm				



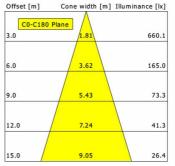
η	LEC
Efficiency	83 lm/W
Direct/Indirect	↓ 100% / ↑ 0%
System Power	28 W
UGR	X=4H, Y=8H
Reflection factors	70/50/20
UGR C0/C180	19.1
UGR C90/C270	19.1
CIE Flux Codes	86 97 100 100 100
Ra/CRI	>80



Dallton Large - Spotlight Insert (DAL-L-RFR 23, 1xLED 28W 840/4000K 2050lm 35 °)

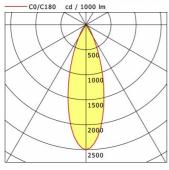


	C0	C90	C180	C270
0°	2898	2898	2898	2898
15°	1667	1667	1667	1667
30°	140	140	140	140
45°	21	21	21	21
60°	0	0	0	0
75°	0	0	0	0
90°	0	0	0	0
	co	1 / 1000 I	m	

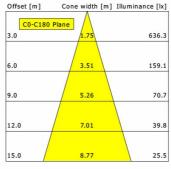


η	LED
Efficiency	73 lm/W
Direct/Indirect	↓ 100% / ↑ 0%
System Power	28 W
UGR	X=4H, Y=8H
Reflection factors	70/50/20
UGR C0/C180	<10.0
UGR C90/C270	<10.0
CIE Flux Codes	98 100 100 100 100
Ra/CRI	>80

Dallton Large - Spotlight Insert (DAL-L-RTR 23_CH, 1xLED 28W 840/4000K 2290lm 35 °)

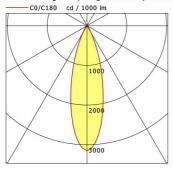


	C0	C90	C180	C270
0°	2501	2501	2501	2501
15°	1380	1380	1380	1380
30°	284	284	284	284
45°	65	65	65	65
60°	0	0	0	0
75°	0	0	0	0
90°	0	0	0	0

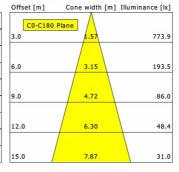


η	LEC	
Efficiency	82 lm/W	
Direct/Indirect	↓ 100% / ↑ 0%	
System Power		
UGR	X=4H, Y=8H	
Reflection factors	70/50/20	
UGR C0/C180	14.1	
UGR C90/C270	14.1	
CIE Flux Codes	95 100 100 100 100	
Ra/CRI	>80	

Dallton Large - Spotlight Insert (DAL-L-RTR 23_CH-SW, 1xLED 28W 840/4000K 2210lm 35 °)

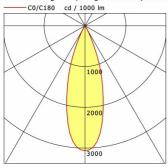


	C0	C90	C180	C270
0°	3152	3152	3152	3152
15°	1534	1534	1534	1534
30°	202	202	202	202
45°	41	41	41	41
60°	0	0	0	0
75°	0	0	0	0
90°	0	0	0	0
	cc	1 / 1000	m	



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	10.9
UGR C90/C270	10.9
CIE Flux Codes	97 100 100 100 100
Ra/CRI	>80

Dallton Large - Spotlight Insert (DAL-L-RFQ 13, 1xLED 28W 840/4000K 1950lm $\,$ 35 °)



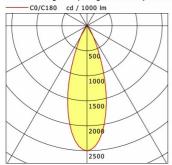
	C0	C90	C180	C270
0°	3066	3066	3066	3066
15°	1704	1704	1704	1704
30°	123	123	123	123
45°	23	23	23	23
60°	2	2	2	2
75°	0	0	0	0
90°	0	0	0	0
	cd / 1000 lm			

Offset [m]	Cone width [m] Illu	uminance [lx]
C0-C180	Plane	
3.0	1.75	664.2
6.0	3.51	166.0
9.0	5.26	73.8
12.0	7.01	41.5
12.0	7.01	71.3
/		\
15.0	8.77	26.6

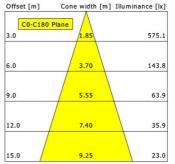
η	LED	
Efficiency	70 lm/W	
Direct/Indirect	↓ 100% / ↑ 0%	
System Power	28 W	
UGR	X=4H, Y=8H	
Reflection factors	rs 70/50/2	
UGR C0/C180	<10.0	
UGR C90/C270	<10.0	
CIE Flux Codes	98 100 100 100 100	
Ra/CRI	>80	



Dallton Large - Spotlight Insert (DAL-L-RTQ 13_CH, 1xLED 28W 840/4000K 2070lm 35 °)

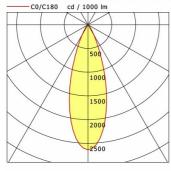


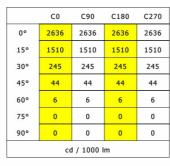
	C0	C90	C180	C270
0°	2500	2500	2500	2500
15°	1489	1489	1489	1489
30°	247	247	247	247
45°	51	51	51	51
60°	10	10	10	10
75°	0	0	0	0
90°	0	0	0	0
	cc	1 / 1000 I	m	

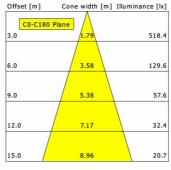


1800	
η	LED
Efficiency	74 lm/W
Direct/Indirect	↓ 100% / ↑ 0%
System Power	28 W
UGR	X=4H, Y=8H
Reflection factors	70/50/20
UGR C0/C180	11.8
UGR C90/C270	11.8
CIE Flux Codes	94 100 100 100 100
Ra/CRI	>80

Dallton Large - Spotlight Insert (DAL-L-RTQ 13_CH-SW, 1xLED 28W 840/4000K 1770lm 35 °)

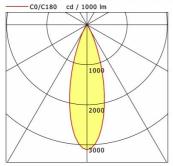






η	LE	
Efficiency	63 lm/W	
Direct/Indirect	↓ 100% / ↑ 0%	
System Power	28 V	
UGR	X=4H, Y=8H	
Reflection factors	70/50/20	
UGR C0/C180	10.3	
UGR C90/C270	10.3	
CIE Flux Codes	96 100 100 100 100	
Ra/CRI	>80	

Dallton Large - Spotlight Insert (DAL-L-RTQ 13_SW-MATT, 1xLED 28W 840/4000K 1450lm 35 °)

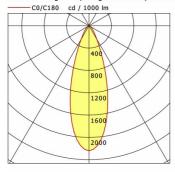


	C0	C90	C180	C270
0°	3123	3123	3123	3123
15°	1646	1646	1646	1646
30°	195	195	195	195
45°	22	22	22	22
60°	0	0	0	0
75°	0	0	0	0
90°	0	0	0	0
	co	1 / 1000	m	

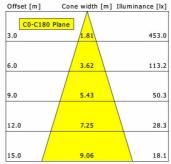
Offset [m]	Cone width [m] Ill	uminance [lx]
C0-C180	Plane 1.67	503.1
6.0	3.35	125.8
9.0	5.02	55.9
12.0	6.69	31.4
15.0	8.36	20.1

η	LED
Efficiency	52 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_SI-MATT, 1xLED 28W 840/4000K 1820lm 35 °)



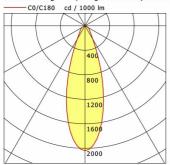
	C0	C90	C180	C270
0°	2240	2240	2240	2240
15°	1295	1295	1295	1295
30°	281	281	281	281
45°	86	86	86	86
60°	23	23	23	23
75°	1	1	1	1
90°	0	0	0	0



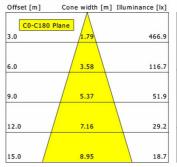
η	LEC
Efficiency	65 lm/W
Direct/Indirect	↓ 100% / ↑ 0%
System Power	28 W
UGR	X=4H, Y=8H
Reflection factors	70/50/20
UGR C0/C180	14.9
UGR C90/C270	14.9
CIE Flux Codes	89 99 100 100 100
Ra/CRI	>80



Dallton Large - Spotlight Insert (DAL-L-RTQ 13_WS-MATT, 1xLED 28W 840/4000K 2060lm 35 °)



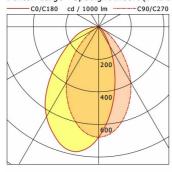
	C0	C90	C180	C270
0°	2040	2040	2040	2040
15°	1162	1162	1162	1162
30°	252	252	252	252
45°	109	109	109	109
60°	57	57	57	57
75°	8	8	8	8
90°	0	0	0	0
	co	/ 1000 I	m	



η	LED
Efficiency	74 lm/W
Direct/Indirect	↓ 100% / ↑ 0%
System Power	28 W
UGR	X=4H, Y=8H
Reflection factors	70/50/20
UGR C0/C180	19.6
UGR C90/C270	19.6
CIE Flux Codes	81 95 100 100 100
Ra/CRI	>80

LTS

Dallton Large - Spotlight Insert (DAL-L-RWQ 13, 1xLED 28W 840/4000K 1110lm $\,$ 35 °)



	C0	C90	C180	C270
0°	679	679	679	679
15°	385	586	776	586
30°	135	393	637	393
45°	35	170	404	170
60°	5	28	210	28
75°	1	3	101	3
90°	0	0	0	0
	cd / 1000 lm			

LDC unsuitable for cone representation.
Asymetric LDC.

η	LEC
Efficiency	40 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	21.0
CIE Flux Codes	66 89 98 100 100
Ra/CRI	>80

Recessed Spotlights · Dallton Large System

DAL-L-LK 101.840.35

Accessories



DAL-L-ZBW 13.23 honeycomb louvre

