

**PHILIPS**

HID Lighting



# Lighting your way

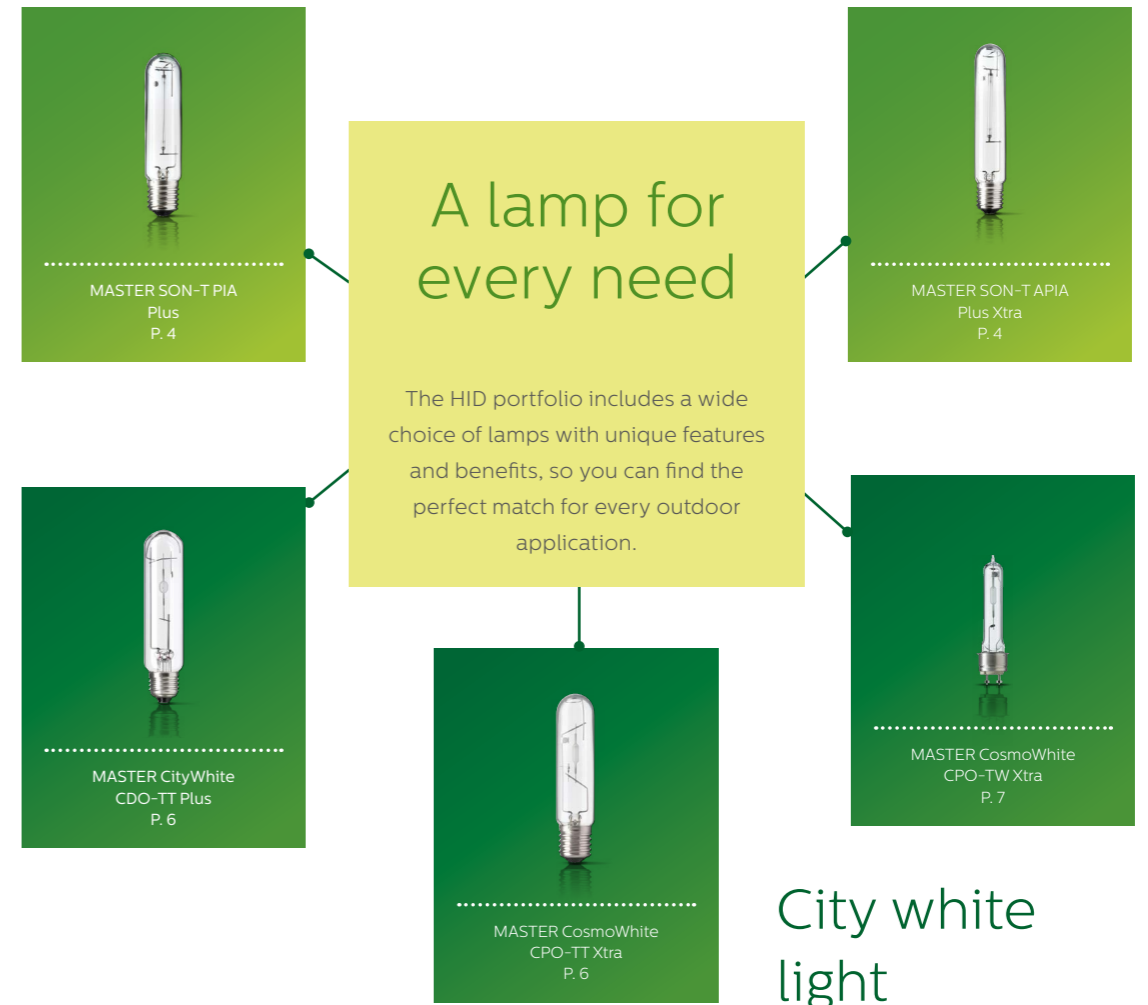
A comprehensive portfolio of HID lamps and drivers for outdoor applications



# Upgrade to the perfect night light

Today's outdoor lighting is far more than functional; it can also enhance urban spaces, create inviting ambiances and make our streets a safer place to be after dark. Philips is at the forefront of outdoor lighting innovation with more than a hundred years of lighting experience. We believe in creating innovative solutions that beautify and inspire but are also energy efficient, sustainable and have low maintenance. Our solutions are at the leading edge of outdoor lighting and prepared for the future such as adjustable light levels and remote monitoring and control.

## Functional road lighting



## Isn't it time to upgrade?

Philips has a lamp for every need. No matter which solution is needed, we offer both functional road light as well as outdoor white light. What each solution has in common is that it provides the best performance in their category. Whether you are looking for longer lifetime, better energy efficiency, lower total cost of ownership or enhanced quality of light: there is always a lamp to meet your need.

# The most efficient functional road lighting solution



## MASTER SON-T PIA Plus



### A solid and reliable solution in functional road lighting

- Superior technology results in a long and reliable lifetime, high lumen maintenance and a reliable ignition over lifetime
- Life (B50): 36,000h
- 4 year service life
- High quality ceramic discharge tube with unique Philips Integrated Antenna (PIA)

## MASTER SON-T APIA Plus Xtra



### The longest life and most reliable solution in road lighting

- Most cost effective solution in this category
- Life (B50): 45,000h
- 6 years service life
- Highest lumen output, maintained over life

Power range (W)	50/70/100/150/250/400	50/70/100/150/250/400
Energy efficacy (lm/W)	137 max	141,5 max
Lifetime @ 5% survivals (hours)	20,500 max	28,000 max
Life to 50% failures (hours)	36,000 max	45,000 max
Energy class	A+/A++	A+/A++
Special features	Proven PIA technology Dimmable down to 35% power	APIA long life technology Dimmable down to 35% power



# Let white light make your street and community safe and beautiful



## MASTER CityWhite CDO-TT Plus



### The easiest switch from SON to beautiful white light

- Direct retrofit on SON installations for upgrade from yellow to white light
- High quality energy efficient white light solution available in both tubular as well as Ovoide shape
- Cosy white light (Ra >80)
- Dimmable

## MASTER CosmoWhite CPO-TT Xtra



### The easy-fit white light solution with very low total cost of ownership

- White light solution retrofit into SON luminaires
- High quality CosmoWhite technology available in traditional Tubular shape design with Edison fitting
- Warm white light
- Dimmable

## MASTER CosmoWhite CPO-TW Xtra



### The most energy-efficient and reliable white light solution for Outdoor

- Compact size, high efficient white light solution suitable for new installations
- Highest system efficiency due to combination of efficient Cosmo lamp concept and optimal luminair design
- Warm white light
- Dimmable

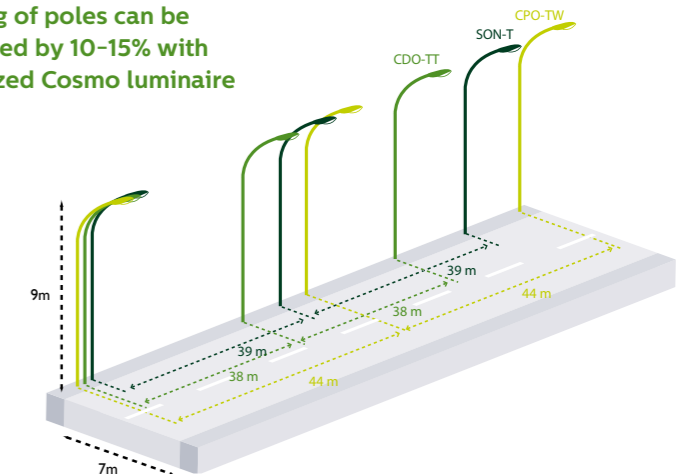
Power range (W)	50/70/100/150/250	45/60*/90/140
Energy efficacy (lm/W)	113 max	120 max
Lifetime @ 5% survivals (hours)	15,000 max	21,500 max
Life to 50% failures (hours)	27,000 max	32,000 max
Energy class	A+	A+
Special features	Dimmable down to 60% power	Dimmable down to 60% power

\*Also available in E40 lamp cap

Power range (W)	45/60/90/140/210/315
Energy efficacy (lm/W)	120 max
Lifetime @ 5% survivals (hours)	21,500 max
Life to 50% failures (hours)	32,000 max
Energy class	A+
Special features	Dimmable down to 60% power



Spacing of poles can be increased by 10-15% with optimized Cosmo luminaire



# Optimise performance by using the optimised system

For more than 30 years, Philips has been offering specialists worldwide highly reliable lamp drivers. We are the only manufacturer that covers all geographies around the world, making our products the world's most-sold drivers. In the Philips driver range, you will find unmatched compatibility with all standards-compliant lamps, and state-of-the-art service and warranty in every category.

Across all of the world's continents, lighting specialists prefer Philips' drivers as the dependable foundation for their successful lighting solutions. Philips electronic drivers are your best choice when searching for long-term performance and reliable specifications.

Looking for the best driver to fit your lamp?  
Visit [www.philips.com/gearselectiontool](http://www.philips.com/gearselectiontool), use our selection tool and discover which gear fits which lamp.

## PrimaVision Xtreme

- Benefits**
- cost efficient
  - energy-saving
  - longer lifetime
  - thermal guard
  - extended lightning protection

- Together with the CDO/ CPO/SON lamps, the driver creates efficient white-light with best initial cost
- Up to 10% energy saving due to the high driver efficiency (92%) and better wattage control at overvoltage (compared with magnetic ballasts)
- Minimizes maintenance cost due to the Xtreme lifetime of 80,000 hours and integrated lightning protection
- Xtreme design enables proper system operation within ambient temperature range from -30°C to +55°C



PrimaVision Xtreme



DynaVision Programmable Xtreme

## DynaVision Programmable Xtreme

- Benefits**
- energy-saving
  - longer lifetime
  - thermal guard
  - dimmable
  - programmable
  - extended lightning protection

- Enables 2-way communication with the lighting network (via DALI)
- Up to 40% energy saving due to the integrated dimming options and very high driver efficiency
- Minimizes maintenance cost due to the Xtreme lifetime of 80,000 hours and integrated lightning protection
- Xtreme design enables proper system operation within ambient temperature range from -30°C to +55°C



# Bring city lighting to life

Philips CityTouch gives you the power to make the lighting in your city dynamic, intelligent and totally flexible. The only non-stop lighting management solution for an entire city, CityTouch makes planning, controlling and managing lighting infrastructures simplicity itself. An energy-efficient solution bringing every part of the city to life.

CityTouch offers you the ultimate flexibility. The standard, integrated service is designed to work with lamps, luminaires and controls from multiple brands and suppliers, not just Philips. What's more, because it includes asset management and workflow support, CityTouch takes lighting automation to an unprecedented new level. An end-to-end secure service that provides best-in-class payback times for your investment enabled by maintenance and energy savings.



For more information visit [www.philips.com/citytouch](http://www.philips.com/citytouch) or contact us at [citytouch@philips.com](mailto:citytouch@philips.com).

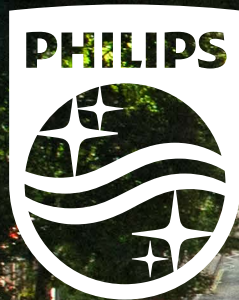
# Lamp overview

Full product name	Colour code	Wla (W)	Lumens	Efficacy (lm/W)	Life expectancy (LSF)				Lumen maint (LLMF)			EEL (Energy Eff. Class.)	Energy consumption (kWh/1000h)	Hg content	12NC	EAN
					5%	10%	20%	50%	8000h	16000h	24000h					
MASTER SON-T APIA PLUS XTRA 50W E27 ISL/12	220	50	4,700	87	21,000	25,000	29,500	38,000	0.99	0.98	0.94	A+	59	12	928150019227	8727900933581
MASTER SON-T APIA PLUS XTRA 70W E27 ISL/12	220	70	7,300	97	24,000	28,000	32,000	40,000	0.99	0.99	0.95	A+	83	12	928150119227	8727900922905
MASTER SON-T APIA PLUS XTRA 100W E40 ISL/12	220	100	10,700	107	24,000	28,000	32,000	40,000	0.99	0.99	0.95	A+	110	14	928150219230	8727900923230
MASTER SON-T APIA PLUS XTRA 150W E40 ISL/12	220	150	18,000	117	28,000	32,000	36,500	45,000	0.99	0.99	0.98	A+	169	15	928150319230	8727900927337
MASTER SON-T APIA PLUS XTRA 250W E40 ISL/12	220	250	33,300	130	28,000	32,000	36,500	45,000	0.99	0.99	0.98	A+	275	15	928150419230	8727900927375
MASTER SON-T APIA PLUS XTRA 400W E40 ISL/12	220	400	56,000	142	28,000	32,000	36,500	45,000	0.99	0.99	0.98	A++	440	20	928150519227	8727900927412
MASTER SON APIA PLUS XTRA 50W E27 ISL/24	220	50	3,900	76	21,000	25,000	29,500	38,000	0.99	0.98	0.94	A+	55	12	928150619835	8727900928136
MASTER SON APIA PLUS XTRA 70W E27 ISL/24	220	70	6,210	90	24,000	28,000	32,000	40,000	0.99	0.99	0.95	A+	84	12	928150719835	8727900928174
MASTER SON APIA PLUS XTRA 100W E40 ISL/12	220	100	10,000	100	24,000	28,000	32,000	40,000	0.99	0.99	0.95	A+	110	16	928150819827	8727900927436
MASTER SON APIA PLUS XTRA 150W E40 ISL/12	220	150	17,500	114	28,000	32,000	36,500	45,000	0.99	0.99	0.98	A+	169	15	928150919827	8727900927450
MASTER SON APIA PLUS XTRA 250W E40 ISL/12	220	250	31,300	120	28,000	32,000	36,500	45,000	0.99	0.99	0.98	A+	286	15	928151019830	8727900927733
MASTER SON APIA PLUS XTRA 400W E40 ISL/12	220	400	55,400	137	28,000	32,000	36,500	45,000	0.99	0.99	0.98	A++	445	20	928151119830	8727900927672
MASTER SON-T PIA PLUS 50W/220 E27 ISL/12	220	50	4,400	84	14,000	17,000	22,000	30,000	0.85	0.86	-	A+	58	12	928151900028	8711500192653
MASTER SON-T PIA PLUS 70W/220 E27 ISL/12	220	70	6,600	91	17,000	20,000	23,500	30,000	0.85	0.82	-	A+	80	12	928152700028	8711500192660
MASTER SON-T PIA PLUS 100W/220 E40 ISL/12	220	100	10,700	106	17,000	21,000	26,000	36,000	0.94	0.90	-	A+	110	16	928151709230	8711500192301
MASTER SON-T PIA PLUS 150W/220 E40 - ISL/12	220	150	17,700	116	20,500	24,000	28,000	36,000	0.96	0.95	-	A+	169	16	928150909230	8711500192295
MASTER SON-T PIA PLUS 250W/220 E40 ISL/12	220	250	33,000	127	20,500	24,000	28,000	36,000	0.96	0.95	-	A+	275	15	928144709203	8711500179876
MASTER SON-T PIA PLUS 400W E40 ISL/12	220	400	55,800	137	20,500	24,000	28,000	36,000	0.94	0.90	-	A++	440	20	928144809227	8711500179883
MASTER SON PIA PLUS 50W/220 E27 ISL/12	220	50	3,900	76	14,000	17,000	22,000	30,000	0.88	0.86	-	A+	56	12	928158508835	8711500201447
MASTER SON PIA PLUS 70W/220 E27 ISL/12	220	70	5,900	83	17,000	20,000	23,500	30,000	0.85	0.82	-	A+	78	12	928150008835	8711500204264
MASTER SON PIA PLUS 70W/220 E27 ISL/12	220	70	5,900	82	14,000	17,000	22,000	30,000	0.88	0.86	-	A+	78	16	928150008835	8711500204264
MASTER SON PIA PLUS 100W/220 E40 ISL/12	220	100	10,000	98	17,000	21,000	26,000	36,000	0.94	0.90	-	A+	110	16	928151608827	8711500182258
MASTER SON PIA PLUS 150W/220 E40 - ISL/12	220	150	16,100	108	20,500	24,000	28,000	36,000	0.96	0.95	-	A+	169	15	928150909230	8711500192295
MASTER SON PIA PLUS 250W/220 E40 ISL/12	220	250	30,900	120	20,500	24,000	28,000	36,000	0.96	0.95	-	A+	286	15	928153309830	8711500193445
MASTER SON PIA PLUS 400W E40 ISL/12	220	400	55,400	137	20,500	24,000	28,000	36,000	0.94	0.90	-	A++	445	20	928153409830	8711500193452

Full product name	Colour code	Wla (W)	Lumens	Efficacy (lm/W)	Life expectancy (LSF)				Lumen maint (LLMF)			EEL (Energy Eff. Class.)	Energy consumption (kWh/1000h)	Hg content	12NC	EAN
					5%	10%	20%	50%	8000h	16000h	24000h					
MASTER CosmoWhite CPO-TW XTRA 45W/628 PGZ12	628	45	4,950	110	21,500	24,000	27,000	32,000	0.90	0.87	0.84	A+	49	2.0	928083805127	8718291150015
MASTER CosmoWhite CPO-TW XTRA 60W/728 PGZ12	728	60	7,200	120	21,500	24,000	27,000	32,000	0.90	0.87	0.84	A+	66	2.0	928088505127	8711500208514
MASTER CosmoWhite CPO-TW XTRA 90W/728 PGZ12	728	90	10,800	120	17,000	20,000	23,500	30,000	0.93	0.91	-	A+	99	3.0	928093505127	8711500211217
MASTER CosmoWhite CPO-TW 140W/728 PGZ12 ICT/12	728	140	16,500	118	13,500	20,000	18,500	24,000	0.93	0.85	0.78	A+	154	2.8	928088805127	8711500208538
MASTER CosmoWhite CPO-TT XTRA 45W/628 E27	628	45	4,650	105	21,500	24,000	27,000	32,000	0.90	0.87	0.84	A+	49	2.0	928060809227	8718291691716
MASTER CosmoWhite CPO-TT XTRA 60W/628 E27	628	60	7,090	120	21,500	24,000	27,000	32,000	0.86	0.83	0.80	A+	66	2.0	928060109227	8718291690344
MASTER CosmoWhite CPO-TT XTRA 90W/628 E40	628	90	10,140	114	17,000	20,000	23,500	30,000	0.88	0.86	0.84	A+	99	3.0	928060209227	8718291681151
MASTER CosmoWhite CPO-TT XTRA 140W/628 E40	628	140	16,000	114	13,500	16,000	18,500	24,000	0.93	0.85	0.78	A+	154	2.8	928060309227	8718291690320
MASTER CosmoWhite CPO-TT XTRA 210W/942 E40	942	210	22,000	106	12,000	15,800	-	29,600	0.89	0.81	0.75	A+	231	24.0	928060409227	8718291691051
MASTER CosmoWhite CPO-TT XTRA 315W/942 E40	942	315	34,750	111	12,000	15,900	-	29,800	0.89	0.81	0.74	A+	346	23.0	928060509227	8718291691075
MASTER CityWhite CDO-TT PLUS 50W/828 E27	828	50	5,500	104	8,500	10,000	12,000	16,000	0.96	0.50	-	A+	58	5.1	928082419235	8718291185611
MASTER CityWhite CDO-TT PLUS 70W/828 E27	828	70	7,500	103	9,500	12,000	14,500	20,000	0.98	0.74	-	A+	80	6.8	928082019235	8718291120308
MASTER CityWhite CDO-TT PLUS 100W/828 E40	828	100	10,700	109	15,000	18,000	21,000	27,000	0.99	0.94	-	A+	107	11	928082119231	8718291120322
MASTER CityWhite CDO-TT PLUS 150W/828 E40	828	150	16,500	110	15,000	18,000	21,000	27,000	0.99	0.94	-	A+	162	15.8	928082219231	8718291120346
MASTER CityWhite CDO-TT PLUS 250W/830 E40	830	250	28,200	113	14,000	16,000	18,500	23,000	0.99	0.90	-	A+	275	25.3	928082319230	8718291121978
MASTER CityWhite CDO-ET PLUS 50W/828 E27	828	50	5,150	102	8,500	10,000	12,000	16,000	0.88	0.74	0.69	A+	56	5.1	928155008835	8718291185635
MASTER CityWhite CDO-ET PLUS 70W/828 E27	828	70	7,230	101	9,500	12,000	14,500	20,000	0.83	0.74	0.69	A+	79	6.8	928154708835	8718291158752
MASTER CityWhite CDO-ET PLUS 100W/828 E40	828	100	9,400	100	15,000	18,000	21,000	27,000	0.88	0.82	0.77	A+	103	11	928154808835	8718291158776
MASTER CityWhite CDO-ET PLUS 150W/828 E40	828	150	15,100	106	15,000	18,000	21,000	27,000	0.88	0.82	0.77	A+	157	15.8	928154908835	8718291158813

# Driver overview

Product Category	Product Family	Lamp Type	Housing	Product Description	LifeTime (hours)	Integrated DynaDimmer	Line Switch	AmpDim		LumiStep	Thermal Guard	Xtreme	DALI	ALO	CLO	12NC	EOC			
Xtreme	PrimaVision Xtreme	CPO	Q can	45	PrimaVision Q Xt CPO45	80,000					yes	yes				913700690366	871829166896100			
				60	PrimaVision Q Xt CPO60	80,000					yes	yes						913700685466	871829124143000	
				90	PrimaVision Q Xt CPO90	80,000					yes	yes						913700685566	871829124145400	
				140	PrimaVision Q Xt CPO140	80,000					yes	yes						913700685666	871829124147800	
				50	PrimaVision Q Xt SON50	80,000					yes	yes						913700690466	871829169879100	
		SON	Q can	70	PrimaVision Q Xt SON70	80,000				yes	yes						913700690566	871829169881400		
				100	PrimaVision Q Xt SON100	80,000				yes	yes						913700690666	871829169881400		
				150	PrimaVision Q Xt SON150	80,000				yes	yes						913700690766	871829169883800		
				50	PrimaVision Q Xt CDO50	80,000				yes	yes						913700690866	871829169885200		
				70	PrimaVision Q Xt CDO70	80,000				yes	yes						913700690966	871829169887600		
		CDO	Q can	100	PrimaVision Q Xt CDO100	80,000				yes	yes						913700691066	871829169889000		
				150	PrimaVision Q Xt CDO150	80,000				yes	yes						913700691166	871829169891300		
				210	PrimaVision Xt CDM210	80,000					yes	yes						913700672766	871829121993400	
				CDM	T can	45	DynaVision LS8 Q Xt CPO45	80,000					yes	yes	yes				913700691266	871829166898500
						60	DynaVision LS8 Q Xt CPO60	80,000					yes	yes	yes				913700691366	871829166900500
	DynaVision LumiStep Xtreme	8 hours	CPO	Q can	90	DynaVision LS8 Q Xt CPO90	80,000				yes	yes	yes				913700691466	871829166902900		
					140	DynaVision LS8 Q Xt CPO140	80,000				yes	yes	yes				913700691566	871829166904300		
					45	DynaVision LS6 Q Xt CPO45	80,000					yes	yes	yes				913700691666	871829166906700	
					60	DynaVision LS6 Q Xt CPO60	80,000					yes	yes	yes				913700691766	871829166908100	
			6 hours	CPO	Q can	90	DynaVision LS6 Q Xt CPO90	80,000				yes	yes	yes				913700691866	871829166910400	
						140	DynaVision LS6 Q Xt CPO140	80,000				yes	yes	yes				913700691966	871829166912800	
		DynaVision Prog Xtreme	CPO	C can	45	DynaVision Prog CI Xt CPO45	80,000	yes	yes	yes			yes	yes	yes	yes	yes	913700674966	8718291210200	
					60	DynaVision Prog CI Xt CPO60	80,000	yes	yes	yes			yes	yes	yes	yes	yes	913700675066	871829120453400	
					90	DynaVision Prog CI Xt CPO90	80,000	yes	yes	yes			yes	yes	yes	yes	yes	913700675166	871829120455800	
					140	DynaVision Prog CI Xt CPO140	80,000	yes	yes	yes			yes	yes	yes	yes	yes	913700675266	871829120457200	
					45	DynaVision Prog Q Xt CPO45	80,000	yes	yes	yes			yes	yes	yes	yes	yes	yes	913700692866	871829166914200
					60	DynaVision Prog Q Xt CPO60	80,000	yes	yes	yes			yes	yes	yes	yes	yes	yes	913700685766	871829124149200
	Q can			90	DynaVision Prog Q Xt CPO90	80,000	yes	yes	yes			yes	yes	yes	yes	yes	yes	913700685866	871829124151500	
				140	DynaVision Prog Q Xt CPO140	80,000	yes	yes	yes			yes	yes	yes	yes	yes	yes	913700685966		
				50	DynaVision Prog CI Xt CDO50	80,000	yes	yes	yes			yes	yes	yes	yes	yes	yes	913700677766	871829121212600	
				70	DynaVision Prog CI Xt CDO70	80,000	yes	yes	yes			yes	yes	yes	yes	yes	yes	913700677866	871829121214000	
				100	DynaVision Prog CI Xt CDO100	80,000	yes	yes	yes			yes	yes	yes	yes	yes	yes	913700677966	871829121216400	
				150	DynaVision Prog CI Xt CDO150	80,000	yes	yes	yes			yes	yes	yes	yes	yes	yes	913700678066	871829121218800	
	CDO		C can	50	DynaVision Prog Q Xt CDO50	80,000	yes	yes	yes			yes	yes	yes	yes	yes	yes	913700692966	871829166916600	
				70	DynaVision Prog Q Xt CDO70	80,000	yes	yes	yes			yes	yes	yes	yes	yes	yes	913700693066	871829166918000	
				100	DynaVision Prog Q Xt CDO100	80,000	yes	yes	yes			yes	yes	yes	yes	yes	yes	913700693166	871829166920300	
				150	DynaVision Prog Q Xt CDO150	80,000	yes	yes	yes			yes	yes	yes	yes	yes	yes	913700693266	871829166922700	
				250	DynaVision Prog Xt CDO250	80,000	yes	yes	yes			yes	yes	yes	yes	yes	yes	913700679666	871829122261300	
				Q can	50	DynaVision Prog CI Xt SON50	80,000	yes	yes	yes			yes	yes	yes	yes	yes	yes	913700678566	871829121220100
			70		DynaVision Prog CI Xt SON70	80,000	yes	yes	yes			yes	yes	yes	yes	yes	yes	913700678666	871829121222500	
			100		DynaVision Prog CI Xt SON100	80,000	yes	yes	yes			yes	yes	yes	yes	yes	yes	913700678766	871829121224900	
			150		DynaVision Prog CI Xt SON150	80,000	yes	yes	yes			yes	yes	yes	yes	yes	yes	913700678866	871829121226300	
50			DynaVision Prog Q Xt SON50		80,000	yes	yes	yes			yes	yes	yes	yes	yes	yes	913700693366	871829166924100		
70			DynaVision Prog Q Xt SON70		80,000	yes	yes	yes			yes	yes	yes	yes	yes	yes	913700693466	871829166926500		
SON			Q can	100	DynaVision Prog Q Xt SON100	80,000	yes	yes	yes			yes	yes	yes	yes	yes	yes	913700693566	871829166928900	
	150	DynaVision Prog Q Xt SON150		80,000	yes	yes	yes			yes	yes	yes	yes	yes	yes	913700693666	871829166930200			
	250	DynaVision Prog Xt SON250		80,000	yes	yes	yes			yes	yes	yes	yes	yes	yes	913700676766	871829121991000			
	CDM	T can	210	DynaVision Prog Xt 210 CDM	80,000	yes	yes	yes			yes	yes	yes	yes	yes	yes	913700676966	87182912269900		



©2014 Koninklijke Philips N.V. (Royal Philips)  
All rights reserved.

Date of release: December 2014