



Energy efficiency and long life

Ceramalux ALTO

These lamps pass the EPA's TCLP test for non-hazardous materials. Ideal for industrial applications, warehouses, post top applications and parking lots.

Benefits

- Low mercury - better for the environment.
- Long Life - 24,000 hours Rated Average Life.
- High efficacy up to 140 LPW.

Features

- Low total cost of ownership.
- Long life—up to 24,000 hours.
- High efficacy up to 140 LPW.
- ALTO® Lamp Technology - Sustainable solution.
- ED 18 Available in 200, 250 and 400 watt; ED-23 1/2 Available in 50, 70, 100, and 150 watt

Application

- Ideal for street and roadway lighting, parking lots and garages, warehouses and manufacturing facilities where lower maintenance costs are desired.

Ceramalux ALTO

Versions



E39, ED-23 1/2, Coated



E39, E-25, Clear

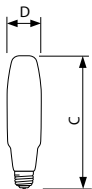
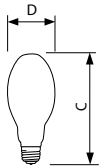


E39, ED-18, Clear



E39, ED-23 1/2, Clear

Dimensional drawing



Product

SON 100W E39 ED75 CL SLV/12

SON 150W E39 ED75 CL SL/12

C100S54/D ALTO PH 12PK

C70S62/D ALTO PH 12PK

C50S68/ALTO 12PK

SON 150W E39 ED75 CL SLV/12

C150S55 3PK

SON 70W E39 ED75 CL SLV/12

C70S62 3PK

C50S68/ALTO 12PK

SON 100W E39 ED75 CL SL/12

SON 70W E39 ED75 CL SL/12

C100S54 3PK

Product

C400S51 3PK

SON 400W E39 ED58 CL SLV/12

C200S66/ALTO 12PK

SON 250W E39 ED58 CL SLV/12

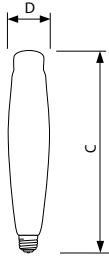
SON 400W E39 ED58 CL SL/12

C200S66/ALTO 12PK

SON 250W E39 ED58 CL SL/12

Ceramalux ALTO

Dimensional drawing



Product

C1000S52/ALTO

General Information

Cap-Base	E39
Main Application	General and Street Lighting
Operating Position	Universal

Luminaire Design Requirements

Bulb Temperature (Max)	400 °C
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Light Technical

Correlated Color Temperature (Nom)	2100 K
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Mechanical and Housing

Bulb Material	Hard Glass
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Approval and Application

Order Code	Full Product Name	Mercury (Hg) Content (Max)	Picogram Per Lumen Hour
332254	C70S62/D ALTO PH 12PK	17 mg	-
332270	C100S54/D ALTO PH 12PK	22.1 mg	-
368837	C1000S52/ALTO	18 mg	11.3 pg/lm.h
368811	C400S51/ALTO 12PK	23.5 mg	26.4 pg/lm.h
140987	C400S51 3PK	23.5 mg	26.4 pg/lm.h
467373	SON 400W E39 ED58 CL SL/12	23.5 mg	26.4 pg/lm.h
368795	C250S50/ALTO 12PK	23.5 mg	-
467217	SON 250W E39 ED58 CL SL/12	23.5 mg	-
368779	C200S66/ALTO 12PK	31 mg	-
467225	C200S66/ALTO 12PK	31 mg	-
368746	C150S55/ALTO 12PK	17 mg	-

Order Code	Full Product Name	Mercury (Hg) Content (Max)	Picogram Per Lumen Hour
140961	SON ALTO 150W LV E E39 CL SL/3	17 mg	-
467233	SON 150W E39 ED75 CL SLV/12	17 mg	-
368720	C100S54/ALTO 12PK	22.1 mg	-
140953	SON ALTO 100W LV E E39 CL SL/3	22.1 mg	-
467241	SON 100W E39 ED75 CL SLV/12	22.1 mg	-
368696	C70S62/ALTO 12PK	17 mg	-
140947	SON ALTO 70W LV E E39 CL SL/3	17 mg	-
467258	SON 70W E39 ED75 CL SLV/12	17 mg	-
368670	C50S68/ALTO 12PK	17.7 mg	-
467266	C50S68/ALTO 12PK	17.7 mg	-

Operating and Electrical

Order Code	Full Product Name	Lamp Current (Nom)	Voltage (Max)	Voltage (Min)	Voltage (Nom)	Re-ignition Time (Min) (Max)
332254	C70S62/D ALTO PH 12PK	1.6 A	60 V	44 V	52 V	2 min
332270	C100S54/D ALTO PH 12PK	2.1 A	62 V	45 V	55 V	2 min
368837	C1000S52/ALTO	4.7 A	275 V	210 V	250 V	3 min
368811	C400S51/ALTO 12PK	4.6 A	115 V	84 V	100 V	1 min

Ceramalux ALTO

Order Code	Full Product Name	Lamp Current (Nom)	Voltage (Max)	Voltage (Min)	Voltage (Nom)	Re-ignition Time (Min) (Max)
140987	C400S51 3PK	4.6 A	115 V	84 V	100 V	1 min
467373	SON 400W E39 ED58 CL SL/12	4.6 A	115 V	84 V	100 V	1 min
368795	C250S50/ALTO 12PK	3.0 A	110 V	79 V	95 V	2 min
467217	SON 250W E39 ED58 CL SL/12	3.0 A	110 V	79 V	95 V	2 min
368779	C200S66/ALTO 12PK	2.4 A	115 V	90 V	100 V	1 min
467225	C200S66/ALTO 12PK	2.4 A	115 V	90 V	100 V	1 min
368746	C150S55/ALTO 12PK	3.2 A	62 V	48 V	55 V	2 min
140961	SON ALTO 150W LV E E39 CL SL/3	3.2 A	62 V	48 V	55 V	2 min
467233	SON 150W E39 ED75 CL SLV/12	3.2 A	62 V	48 V	55 V	2 min
368720	C100S54/ALTO 12PK	2.1 A	62 V	45 V	55 V	2 min
140953	SON ALTO 100W LV E E39 CL SL/3	2.1 A	62 V	45 V	55 V	2 min
467241	SON 100W E39 ED75 CL SLV/12	2.1 A	62 V	45 V	55 V	2 min
368696	C70S62/ALTO 12PK	1.6 A	60 V	44 V	52 V	2 min
140947	SON ALTO 70W LV E E39 CL SL/3	1.6 A	60 V	44 V	52 V	2 min
467258	SON 70W E39 ED75 CL SLV/12	1.6 A	60 V	44 V	52 V	2 min
368670	C50S68/ALTO 12PK	1.18 A	62 V	46 V	52 V	2 min
467266	C50S68/ALTO 12PK	1.18 A	62 V	46 V	52 V	2 min

Light Technical (1/2)

Order Code	Full Product Name	Chromaticity	Chromaticity	Color		Design Mean Lumens	Luminous Flux (Rated) (Min)
		Coordinate X (Nom)	Coordinate Y (Nom)	Rendering Index (Nom)	Luminous Efficacy (rated) (Min)		
332254	C70S62/D ALTO PH 12PK	524	425	21	75.7 lm/W	5670 lm	5300 lm
332270	C100S54/D ALTO PH 12PK	523	417	21	83 lm/W	7750 lm	8300 lm
368837	C1000S52/ALTO	515	420	21	121.5 lm/W	126000 lm	121500 lm
368811	C400S51/ALTO 12PK	515	420	20	112.5 lm/W	45000 lm	45000 lm
140987	C400S51 3PK	515	420	20	112.5 lm/W	45000 lm	45000 lm
467373	SON 400W E39 ED58 CL SL/12	515	420	20	112.5 lm/W	45000 lm	45000 lm
368795	C250S50/ALTO 12PK	523	412	26	102 lm/W	24300 lm	25600 lm
467217	SON 250W E39 ED58 CL SL/12	523	412	26	102 lm/W	24300 lm	25600 lm
368779	C200S66/ALTO 12PK	521	420	21	104 lm/W	19260 lm	20700 lm
467225	C200S66/ALTO 12PK	521	420	16	104 lm/W	19260 lm	20700 lm
368746	C150S55/ALTO 12PK	514	424	17	96 lm/W	14220 lm	14400 lm
140961	SON ALTO 150W LV E E39 CL SL/3	514	424	17	96 lm/W	14220 lm	14400 lm
467233	SON 150W E39 ED75 CL SLV/12	514	424	17	96 lm/W	14220 lm	14400 lm
368720	C100S54/ALTO 12PK	520	420	18	90 lm/W	8460 lm	9000 lm
140953	SON ALTO 100W LV E E39 CL SL/3	520	420	18	90 lm/W	8460 lm	9000 lm
467241	SON 100W E39 ED75 CL SLV/12	520	420	18	90 lm/W	8460 lm	9000 lm
368696	C70S62/ALTO 12PK	522	425	13	87.4 lm/W	5670 lm	6100 lm
140947	SON ALTO 70W LV E E39 CL SL/3	522	425	13	87.4 lm/W	5670 lm	6100 lm
467258	SON 70W E39 ED75 CL SLV/12	522	425	13	87.4 lm/W	5670 lm	6100 lm
368670	C50S68/ALTO 12PK	529	420	21	77.4 lm/W	3600 lm	3870 lm
467266	C50S68/ALTO 12PK	529	420	16	77.4 lm/W	3600 lm	3870 lm

Light Technical (2/2)

Ceramalux ALTO

Order Code	Full Product Name	Luminous Flux (Rated) (Nom)	Photosynthetic Photon Flux (PPF)
332254	C70S62/D ALTO PH 12PK	6000 lm	-
332270	C100S54/D ALTO PH 12PK	9300 lm	-
368837	C1000S52/ALTO	135000 lm	1550 µmol/s
368811	C400S51/ALTO 12PK	50000 lm	595 µmol/s
140987	C400S51 3PK	50000 lm	595 µmol/s
467373	SON 400W E39 ED58 CL SL/12	50000 lm	595 µmol/s
368795	C250S50/ALTO 12PK	28500 lm	-
467217	SON 250W E39 ED58 CL SL/12	28500 lm	-
368779	C200S66/ALTO 12PK	23000 lm	-
467225	C200S66/ALTO 12PK	23000 lm	-
368746	C150S55/ALTO 12PK	16000 lm	-
140961	SON ALTO 150W LV E E39 CL SL/3	16000 lm	-

Order Code	Full Product Name	Luminous Flux (Rated) (Nom)	Photosynthetic Photon Flux (PPF)
467233	SON 150W E39 ED75 CL SLV/12	16000 lm	-
368720	C100S54/ALTO 12PK	10000 lm	-
140953	SON ALTO 100W LV E E39 CL SL/3	10000 lm	-
467241	SON 100W E39 ED75 CL SLV/12	10000 lm	-
368696	C70S62/ALTO 12PK	6800 lm	-
140947	SON ALTO 70W LV E E39 CL SL/3	6800 lm	-
467258	SON 70W E39 ED75 CL SLV/12	6800 lm	-
368670	C50S68/ALTO 12PK	4300 lm	-
467266	C50S68/ALTO 12PK	4300 lm	-

Mechanical and Housing

Order Code	Full Product Name	Bulb Finish	Bulb Shape
332254	C70S62/D ALTO PH 12PK	Coated	ED-23 1/2
332270	C100S54/D ALTO PH 12PK	Coated	ED-23 1/2
368837	C1000S52/ALTO	Clear (CL)	E25
368811	C400S51/ALTO 12PK	Clear (CL)	ED18
140987	C400S51 3PK	Clear (CL)	ED18
467373	SON 400W E39 ED58 CL SL/12	Clear (CL)	ED18
368795	C250S50/ALTO 12PK	Clear (CL)	ED18
467217	SON 250W E39 ED58 CL SL/12	Clear (CL)	ED18
368779	C200S66/ALTO 12PK	Clear (CL)	ED18
467225	C200S66/ALTO 12PK	Clear (CL)	ED18
368746	C150S55/ALTO 12PK	Clear (CL)	ED-23 1/2

Order Code	Full Product Name	Bulb Finish	Bulb Shape
140961	SON ALTO 150W LV E E39 CL SL/3	Clear (CL)	ED-23 1/2
467233	SON 150W E39 ED75 CL SLV/12	Clear (CL)	ED-23 1/2
368720	C100S54/ALTO 12PK	Clear (CL)	ED-23 1/2
140953	SON ALTO 100W LV E E39 CL SL/3	Clear (CL)	ED-23 1/2
467241	SON 100W E39 ED75 CL SLV/12	Clear (CL)	ED-23 1/2
368696	C70S62/ALTO 12PK	Clear (CL)	ED-23 1/2
140947	SON ALTO 70W LV E E39 CL SL/3	Clear (CL)	ED-23 1/2
467258	SON 70W E39 ED75 CL SLV/12	Clear (CL)	ED-23 1/2
368670	C50S68/ALTO 12PK	Clear (CL)	ED-23 1/2
467266	C50S68/ALTO 12PK	Clear (CL)	ED-23 1/2

