CLUSTERLITE
Series

CLUSTERLITE

MEGAMAN® installation: Gatwick North Terminal

Product Information

- 15,000 hours lamp lifetime.

- 40w - 320w available.

- 75% maintenance of lumen output throughout operating life.

- Up to 67% energy-savings.

- High colour rendering index up to Ra 82.

- Instant restrike capability.

- Excellent colour uniformity with minimal colour shift of only +/- 100k.

- Suitable for both enclosed and open luminaires.

APPLICATIONS

Street lighting, warehouses, floodlighting, retail sheds and car parks.

The **Sustainable** building services Awards **08**

WINNER

GREEN PRODUCT OF THE YEAR

Integral Ballast

HC01040i

*Saving(£/Year) **£12.78**
Reduced CO$_2$ (kg/Year) **55**

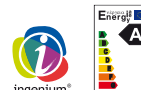| Order Code	Lamp Base	Diameter (mm)	Length (mm)	Weight (g)
821040(ww)	E27	63	166	257
807143(cw)	E27	63	166	257

40 watt | **15,000** hours | Standard Pack **12 (1)** | **2680** lm | WARM or COOL WHITE Colour Temp

Integral version (electronic ballast in base)

ingenium | Energy Efficiency **A**

HC01060i

*Saving(£/Year) **£14.60**
Reduced CO$_2$ (kg/Year) **63**

Order Code	Lamp Base	Diameter (mm)	Length (mm)	Weight (g)
821060(ww)	E27	63	188	315
808140(cw)	E27	63	188	315

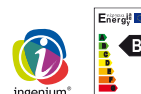**60** watt | **15,000** hours | Standard Pack **12 (1)** | **4000** lm | WARM or COOL WHITE Colour Temp

Integral version (electronic ballast in base)

ingenium | Energy Efficiency **B**

HC01080i

*Saving(£/Year) **£14.60**
Reduced CO$_2$ (kg/Year) **63**

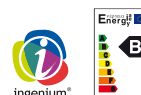| Order Code	Lamp Base	Diameter (mm)	Length (mm)	Weight (g)
872378(ww)	E40	80	256	563
871691(cw)	E40	80	256	563

80 watt | **15,000** hours | Standard Pack **12 (1)** | **5400** lm | WARM or COOL WHITE Colour Temp

Integral version (electronic ballast in base)

ingenium | Energy Efficiency **B**

HC01100i

*Saving(£/Year) **£18.25**
Reduced CO$_2$ (kg/Year) **78**

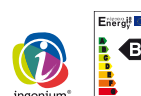| Order Code	Lamp Base	Diameter (mm)	Length (mm)	Weight (g)
874611(ww)	E40	80	279	588
879981(cw)	E40	80	279	588

100 watt | **15,000** hours | Standard Pack **12 (1)** | **6700** lm | WARM or COOL WHITE Colour Temp

Integral version (electronic ballast in base)

ingenium | Energy Efficiency **B**

Comparison of equivalent luminous flux

80w 100w 200w 320w → 120w 150w 250w 400w

CLUSTERLITE® with Power Supply | Metal Halide Lamp

40w 60w → 120w 180w

CLUSTERLITE® with Power Supply | Mercury Tungsten blended lamp

Lumen Maintenance Curve Comparison:
CLUSTERLITE® Vs. Metal Halide Lamp

Lumen Maintenance Curve

Mean Lumen 80%
Mean Lumen 68%

Relative Lumen Output (%) — Hours (hrs)
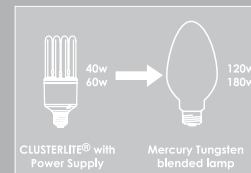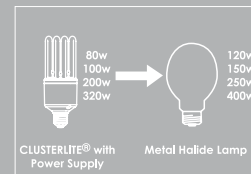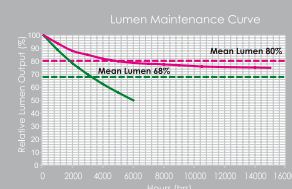
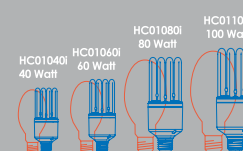**60W CLUSTERLITE®**
with integrated ballast
— Lumen
--- Mean Lumen Over Life

Size comparison
CLUSTERLITE® Vs.
Metal Halide Lamp

HC01040i 40 Watt | HC01060i 60 Watt | HC01080i 80 Watt | HC01100i 100 Watt

Key: **(WW)** warm white 3000k
(CW) cool white 4000k

* For all savings calculations the MEGAMAN® CLUSTERLITE has been compared to Metal Halide lamps.

ingenium
• 15,000 hrs lifetime
• 600,000 switching cycles
• shorter preheating time

External Power Supply

LIQUID MERCURY FREE

EU Green Policy Compliant RoHS

HC01200x

*Saving(£/Year) **£18.25**
Reduced CO$_2$ (kg/Year) **78**

Order Code	Lamp Base	Diameter (mm)	Length (mm)	Weight (g)
821230 (ww)	E40	90	268	676
821200 (cw)	E40	90	268	676

200w | **15,000** hours | Standard Pack **6 (1)** | **14400** lm | WARM or COOL WHITE Colour Temp

ingenium®

HC01320x

*Saving(£/Year) **£29.20**
Reduced CO$_2$ (kg/Year) **126**

Order Code	Lamp Base	Diameter (mm)	Length (mm)	Weight (g)
821330(ww)	E40	110	288	1000
821320(cw)	E40	110	288	1000
821340(dl)	E40	110	288	1000

320w | **15,000** hours | Standard Pack **6 (1)** | **21850** lm | WARM WHITE, COOL WHITE & DAYLIGHT Colour Temp

ingenium®

GHC01050i

*Saving(£/Year) **£36.50**
Reduced CO$_2$ (kg/Year) **157**

Order Code	Lamp Base	Diameter (mm)	Length (mm)	Weight (g)
897979	E27	120	202	410

50watt | **15,000** hours | Standard Pack **12 (1)** | **2700** lm | COOL WHITE 4000k Colour Temp

ingenium®

Energy B

Comparison of equivalent luminous flux

HC01200x
HC01320x   Metal Halide Lamp

L

D

200W
320W → 200W
400W

Lumen Maintenance Curve Comparison:
CLUSTERLITE® Vs. Metal Halide Lamp

Lumen Maintenance Curve

Relative Lumen Output (%)

0 2000 4000 6000 8000 10000 12000 14000 16000 18000 20000
Hours (hrs)
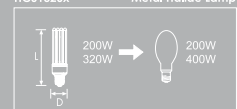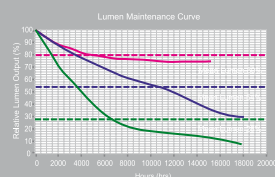
GHC01050i   Incandescent G120

L

D

50W → 150W
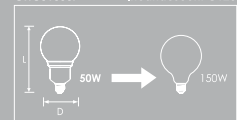
Key: **(WW)** warm white 3000k
(CW) cool white 4000k
(DL) day light 6000k

**MEGAMAN® installation:
Gatwick North Terminal**

CLUSTERLITE

lm = Lumen output

ingenium
• 15,000 hrs lifetime
• 600,000 switching cycles
• shorter preheating time

CLUSTERLITE Series | ENERGY SAVING LAMPS

RoHS EU Green Policy Compliant

CLUSTERLITE® POWER SUPPLY

Product Features

- Tailor-made for the MEGAMAN® CLUSTERLITE® series.
- Offers 50,000 hours service life.
- Wide voltage range from 180v to 260v.
- Flicker-free operation with stable light output over fluctuation of voltage supply.
- Automatic restart capability when short-circuit or overload is absent.
- Equipped with main harmonics reduced by an active harmonics filter.
- Meets international standards for electromagnetic interference, which prevents disturbance towards radio and medical equipment.
- Facilitates easier installation without need for starter and capacitor.

	A	B	C
CP010120	140mm	79mm	57mm
CP010200	175mm	103mm	59mm
CP010320	175mm	103mm	59mm

Industry Standards	Europe
Safety	EN61347-2-3
Radio Interference	EN55015
Line Current Harmonics	EN61000-3-2
Performance	EN60969/
	EN60929
Immunity	EN61547
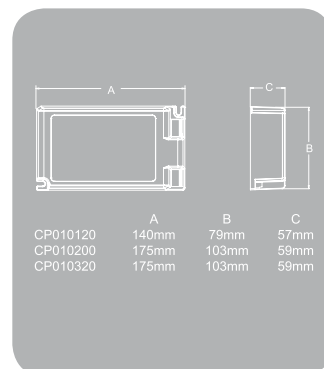
Order Code	Lamp Type
841120	HC01120x (120w)
841200	HC01200x (200w)
841320	HC01320x (320w)

CE (S) * For CP010056
CP010080
CP010120

Model No.	CP010120	CP010200	CP010320
Mains Voltage (V)	220 ~ 240	220 ~ 240	220 ~ 240
Voltage Range (V)	180 ~ 260	180 ~ 260	180 ~ 260
Mains Frequency (Hz)	50/60	50/60	50/60
Nominal Wattage Output (W)	120	200	320
System Wattage Output (W)	142	220	350
Max. Working Voltage (U-out) [V]	300	400	300
Output Frequency (kHz)	40 ~ 42	40 ~ 42	40 ~ 42
Current Rated (mA)	650	1020	1560
Power Factor (λ)	0.98	0.98	0.98
Ta (°C)	-40°C to +60°C	-40°C to +60°C	-40°C to +60°C
Tc (°C)	85	85	85
IP Protection	20	20	20
Push-in Terminals	$1.0mm^2 \sim 1.5mm^2$	$1.0mm^2 \sim 2.0mm^2$	$1.0mm^2 \sim 2.0mm^2$
Energy Efficiency Index	A2	A2	A2
Protection Class	II	II	II
Life Hour with Max. Failure of 50% (at Ta Max.)(hrs)	50,000	50,000	50,000
Extension Wire (m)	18AWGX2C	18AWGX2C	18AWGX2C
Fixing Bracket for Screws	M4	M4	M4
Weight (g)	530	720	720
Dimensions (L x W x H) (mm)	140 x 79 x 57	175 x 103 x 59	175 x 103 x 59
Housing Material	Polycarbonate	Polycarbonate	Polycarbonate

MEGAMAN® Energy Saving Lamps

E: sales@megamanuk.com

CLUSTERLITE

The change from the existing HID lamps to MEGAMAN®'s 200W CLUSTERLITE's at Gatwick Airport's North Terminal, has helped to significantly reduce energy consumption and maintenance costs. Gatwick is the busiest single-runway airport in the world, the second largest airport in the UK and the tenth busiest international airport in the world. Its development strategy for the future focuses on the airport's expansion as a single-runway, two-terminal airport, as it aims to handle around 40 million passengers a year by 2010/2011.

With over 70,000 light fittings installed in the North Terminal, Megaman worked closely with BAA's energy consultant Adrian Laycock to carry out a thorough energy survey of lighting throughout the building. Following the results, Megaman suggested using CLUSTERLITE, an innovative, high wattage lighting solution which provides a real alternative to HID lamps. Offering up to 33% savings in energy consumption, the CLUSTERLITE combines all the virtues of compact fluorescent technology with excellent lumen maintenance after 15,000 hours of operation, superb colour rendering and uniformity plus outstanding lumen output.

Phase I of the project at Gatwick involved replacing over 500 of the original lamps within the International departure lounges. Further replacements are due to take place in Phase II, which will include more sections of the North Terminal, South Terminal plus Heathrow and Southampton airports.

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