

LIGHTING COLUMN TECHNICAL FORUM

CE MARKING OF LIGHTING COLUMNS TO BS EN 40

1 INTRODUCTION

All the major manufacturers¹ of lighting columns have come together to review the relevant legislation and standards and have published this guidance, for the UK Lighting Industry, on the administration and practical implementation of CE marking lighting columns.

This document is the conclusion of 12 months of research and discussion within the lighting industry. It summarises the general requirements for CE marking from the European legislation and UK law, as communicated through the British and European Standards. It outlines the responsibilities of manufacturers and suppliers and sets out the lighting industry's agreed best practice for meeting these requirements for lighting columns manufactured from concrete, steel, aluminium and fibre reinforced polymer composite (FRPC).

2 LEGISLATION

[Council Directive 89/106/EEC](#)², hereafter referred to as the Construction Products Directive or CPD, was published in the European Union in 1989. The CPD was transferred into English Law as the [Construction Products Regulations \(1991\)](#)³.

CE marking, according to the provisions of the CPD, also takes account of Council Directive 93/68/EEC (the "CE Marking Directive") amending the CPD in respect of CE marking, and of [Council Decision 93/465/EEC](#)⁴ on the rules for the affixing and use of the CE conformity marking.

A presumption of compliance with the Construction Products Regulations (1991) can be achieved through compliance with the harmonized standard for lighting columns, the British and European Standard BS EN 40.

¹ This paper was prepared by the Lighting Column Technical Forum comprising CU Phosco Lighting, Fabrikat, Post and Column Company, Aluminium Lighting Company, Mallatite, Abacus Lighting, Thorn Lighting, Woodhouse, Joseph Ash and Valmont along with the assistance of Corus and Stainton Metal Company.

² <http://europa.eu.int/comm/enterprise/construction/internal/cpd/cpd.htm>

³ http://www.opsi.gov.uk/si/si1991/Uksi_19911620_en_1.htm

⁴ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31993D0465:EN:HTML>

3 CE MARKING UNDER THE CONSTRUCTION PRODUCTS DIRECTIVE

CE marking, under the Construction Products Directive, signifies that a construction product has been assessed (through initial type testing) for characteristics which have an influence on the satisfaction of the 'essential requirements' of the works. The performance of the product under each requirement is declared in the information accompanying the CE mark. The 'essential requirements' of the CPD are presented in [Annex A](#)⁵ of the Directive.

This states:

"The products must be suitable for construction works which (as a whole and in their separate parts) are fit for their intended use, account being taken of economy, and in this connection satisfy the following essential requirements where the works are subject to regulations containing such requirements. Such requirements must, subject to normal maintenance, be satisfied for an economically reasonable working life. The requirements generally concern actions which are foreseeable."

The essential requirements are then detailed under the headings:

1. Mechanical resistance and stability.
2. Safety in case of fire.
3. Hygiene, health and the environment.
4. Safety in use.
5. Protection against noise.
6. Energy economy and heat retention.

4 CE MARKING TO BRITISH AND EUROPEAN STANDARD BS EN 40

Standards such as BS EN 40 are voluntary unless made a requirement under national law of a country. A European Member State's regulations define how the standard is used. Compliance with a particular standard may be one of many ways, be the preferred way or may be the only way to meet a Member State's requirement.

However, CE marking is not required by the standard. Even if the main body of a standard was made compulsory, the harmonised part, Annex ZA, would remain a voluntary annex informing manufacturers (or other relevant parties - see Section 6.3) how to CE mark their product. Only when a Member State's own Regulations require products placed on their market to be CE marked does a manufacturer/supplier have to CE mark.

⁵ http://www.opsi.gov.uk/si/si1991/Uksi_19911620_en_8.htm

The CE mark symbolises that these specific harmonised performance criteria (threshold values) in Annex ZA are fulfilled, and that all tasks linked to attestation of conformity (see Section 5) have been completed. It does not require compliance with the remaining parts which may be 'voluntary' (i.e. where it says "should" or the annex is stated to be informative) or normative (i.e. where it says "shall" or the annex is stated to be normative).

In the UK, the Construction Products Regulations (1991) reference the European harmonised standards, but do not require manufacturers to CE mark their products. Should the UK change its legislation and make CE marking a requirement, manufacturers would then have to comply and CE mark according to Annex ZA.

Most other European MS's have already legislated to require CE marking, and therefore importing lighting columns into those countries already requires that the essential requirements are met and that CE marking is completed.

The essential requirements for lighting columns are specified in Annex ZA of BS EN 40 as:

- resistance to horizontal loads (clauses 6 and 8);
- durability (clause 11); and
- performance under vehicle impact or passive safety (clause 16).

There are versions of Annex ZA for each construction material (concrete, steel, aluminium and Fibre Reinforced Polymer Composite or FRPC) set out in parts 4, 5, 6 and 7 of BS EN 40, respectively. References to Annex ZA in this document infer reference to any or all of these four parts. References to clauses are for BS EN 40-5, but similar or equivalent clauses exist in BS EN 40 parts 4, 6 and 7.

5 ATTESTATION OF CONFORMITY PROCEDURE

The procedure for proving conformity with the CPD which allows manufacturers to CE mark their products is known as Attestation of Conformity. This process is described in Annex ZA of BS EN 40. Once this procedure has been completed products may be CE marked; which under system 1 requires the manufacturer to:

- satisfy a notified product certification body and be issued with an EU Certificate of Conformity which entitles the manufacturer to affix a CE mark; and
- draw up a Declaration of Conformity.

The attestation of conformity procedure under system 1 places responsibilities on both the manufacturer and on the certifying body (also known as the Notified Body) as set out in Table ZA.3 of Annex ZA.

Manufacturers are responsible for Factory Production Control (FPC) and for further sample testing.

The certifying body is responsible for Initial Type Testing (ITT), initial inspection of the factory and FPC, and for an annual assessment and approval of the FPC.

5.1 Factory Production Control – Manufacturer

5.1.1 Production Control System

As part of the FPC, manufacturers must have a production system in place that controls:

- Specification and verification of raw materials.
- Checking of new or modified designs (see section 5.1.2 below).
- Testing by manufacturer and testing frequency.
- Identification of non-conformities.
- Correction of non-conformities.

The production system must also record specific details about, and the results of, the testing carried out as part of the FPC.

In addition, the following three mandated performance characteristics must be met.

5.1.2 Resistance to horizontal loads

Clause 6 of BS EN 40-5 requires a design and design verification, where design verification is another term for a design calculation check. This ensures the column is satisfactory for the applied loads, being vertical and horizontal forces resulting from self-weight, wind load and other imposed loads. Clause 8 requires that joints (e.g. flange to base, base to shaft, shaft to bracket) be strong enough to withstand the applied forces. Clause 7, in essence, requires that the welds be strong enough to withstand the applied forces.

5.1.3 Performance under Vehicle Impact

BS EN 40-5 clause 16 requires that where passive safety performance is claimed, columns be designed to provide that passive safety performance. For the majority of columns for which no passive safety performance is claimed, columns are defined as Class 0. Where passive performance is provided, conformance to EN 12767 is required. Changes to the column design or manufacture which may affect the passive performance of that column require Initial Type Testing to be repeated.

5.1.4 Durability

For mild steel columns, BS EN 40-5 clause 9 requires a mechanical impact test to prove durability of the columns. In addition, clause 11 provides informative recommendations for corrosion protection. There are, at the time of writing, no normative corrosion protection requirements, although it is expected that this will be addressed by the Standards Committee in future. However, this does not remove the need to consider durability when CE marking. It is recommended that three surface corrosion protection classes are defined and specified for each of the three column surfaces identified in BS EN 40, as follows:

Surface Protection Classes

- SP0 : Surface protection not provided.
SP1 : Surface protection coatings provided.
SP2 : Inherent corrosion protection provided.

Column Surface Protection Areas⁶

- Area A : The exterior surface of the column from the top to a minimum of 0,2⁷ m above ground level, or the whole exterior for a column with flange plate.
Area B : The exterior surface of the ground section including a minimum length of 0,25 m above ground level.
Area C : The interior surface of the column.

A sample label for a mild steel galvanized column with painted root should then state the following under durability:

Durability

Resistant to impact

Resistance to corrosion – HDG steel, painted root; A-SP1, B-SP1 C-SP1.

A stainless steel column painted above ground should state as follows, as it is assumed that the inherent corrosion resistance of the column will make the paint coating redundant.

Durability

Resistant to impact

Resistance to corrosion – Stainless Steel Painted; A-SP2, B-SP2 C-SP2.

⁶ The minimum values in A and B can be increased in countries where snow can cause corrosion problems.

⁷ The minimum of 0,2 m allows a protection overlap.

For an aluminium column with painted root, under BS EN 40-6, where there are recognized problems with corrosion of the aluminium root section if protection is not provided, a label should state:

Durability

Resistant to impact

Resistance to corrosion – Aluminium, Painted Root; A-SP2, B-SP1 C-SP2.

For FRPC columns, under BS EN 40-7, polyurethane coatings may be applied to provide protection above ground against UV radiation, or acrylic coatings may be provided to protect against chemical attack below ground. These can be treated similarly:

Durability

Resistant to impact

Resistance to corrosion – FRPC, Acrylic Root; A-SP2, B-SP1 C-SP2.

5.2 Initial Type Testing (ITT) and Initial Type Calculation (ITC) – Certifying Body

Initial Type Testing or Initial Type Calculation is a complete set of tests or other procedures described in the harmonized standard, determining the performance of samples of products representative of the product family (see Section 5.7). It verifies that a product complies with the harmonized standard.

Annex ZA of BS EN 40 sets out the tasks of the Notified Body (NB) for ITT and ITC which calls up all characteristics listed in Table ZA.1 and the evaluation clauses to apply. [Construction Products Regulations Guidance Paper K](#)⁸ provides general guidance on how NBs and manufacturers should interpret and make practical their responsibilities for various systems of attestation, including how NBs validate and verify calculations for ITC purposes for the various systems of attestation. Guidance Paper K Annex 3 clause (13) in Section 3.1.2 states that the NB is: "*responsible for checking and validating the calculation (tools and results) used by the manufacturer to design the product, by any appropriate means... judging and, if deemed appropriate, performing independent calculations for validation.*"

Within the UK lighting industry, column calculations are undertaken by manufacturers using a standard calculation program for all columns produced. It is current best practice procedure for these calculation programs to be formally verified and validated independently, by a third party. The resulting calculation validation certificates are available to the NBs to confirm that the calculations are in compliance with the harmonized Standard, BS EN 40. It is therefore considered unnecessary for NBs to undertake further validation calculations, particularly where these calculations would have to be undertaken by a third

⁸ <http://ec.europa.eu/enterprise/construction/internal/guidpap/k.htm>

party engineering consultant. The role of the NB in validating the calculations is therefore to review the typical input data used in the calculation, to review the third party validation certificate and, where considered appropriate, to confirm the technical competence and impartiality of the third party. This may be achieved by confirming the third party is a Chartered Civil Engineer or Chartered Structural Engineer.

BS EN 40 Annex D.1 requires that on first certification, each product family (see Section 5.7) must undergo ITT. Thereafter, newly developed products which fall outside the limits of the product families already tested, would need to undergo ITT as a new product family. The exceptions to this are for small series production and single item production when *the ITC should be limited to the demonstration of the manufacturer's technical ability to perform the calculations specified in the harmonized standard and his ability to take into account parameters that may change in new (small) series* (Guidance Paper K Annex 3 clause 5).

ITT requires that each product family be proved, by either calculation or physical testing, against the parameters outlined in BS EN 40-5 Annex D.2, being:

- a) dimensions, straightness, materials, welding, protection against mechanical impact; and
- b) design, corrosion protection, and performance under vehicle impact (passive safety).

The test requirements to comply with the list in Annex D.2 are relatively straightforward. The tests are chosen by the manufacturer to be consistent with the intended use and the declared characteristics, while the NB undertakes all physical testing relevant to ITT. For example, a straightness test would only be relevant to a straight column and curved columns would not need to comply. Likewise, a column claiming Class 0 for passive safety performance would not need to undergo or pass the 'performance under vehicle impact' test.

5.3 Initial Inspection of the Factory and Factory Production Control

The certifying body is required to confirm that the procedures required under FPC are being carried out.

[European Guidance Paper B](#)⁹ on FPC under the Construction Products Directive states:

"Manufacturers having an FPC system which complies with EN ISO 9001/2 and which addresses the requirements of the appropriate harmonized standard are recognized as satisfying the FPC requirements of the Directive".

⁹ <http://ec.europa.eu/enterprise/construction/internal/guidpap/b.htm>

It is expected that when CE marking becomes mandatory, the FPC requirements will be included in the manufacturer's ISO 9001 quality procedures. Then manufacturers who are certified to EN ISO 9001 will not require any additional inspections of the Factory and FPC, beyond those existing requirements for EN ISO 9001.

For a NB to make use of the work undertaken for certification to EN ISO 9001 in the FPC, thus gaining a reduction in joint costs of certification, the certification may need to be undertaken by a single NB acting in both capacities.

5.4 Continuous Surveillance, Assessment and Approval of FPC

Continuing surveillance, assessment and approval of the FPC is required to maintain the validity of the NB certificate – typically this involves an annual visit. As with 5.3 'Initial Inspection of the Factory and FPC', cost savings are possible if the NB completes the continuing FPC surveillance during the same visits as for EN ISO 9001, and makes use of sample testing etc. for both processes.

5.5 Evaluation and Acceptance Criteria for ITT

The evaluation criteria for ITT are set out in BS EN 40 clauses 13.3 (dimensions), 13.4 (straightness), 13.5 (materials), and 13.6 (welding).

Protection against mechanical impact requirements are set out in BS EN 40 clause 8 of part 4, clause 9 of parts 5 and 6, and clause 10 of part 7.

The acceptance criteria against which the certifying body will certify the ITT are set out in clause 14 of BS EN 40.

5.6 Sample Testing outside of CE marking

Sample testing is only required where specified by the customer. Where sampling is required, the tests carried out should be chosen to match the requirements set out in the customer's specification.

5.7 Product Family Definition

A product family is generally a group of products with similar characteristics with respect to the essential safety requirements. A product family may cover several versions of the product, provided that the differences between the versions do not affect the level of safety and the other requirements concerning the performance of the product.

Product families are defined by the manufacturer to suit the range of products being produced. The manufacturer's selection of product families would then be agreed by the NB. Significant and justifiable reasons would need to be provided by the NB to require these product families to be modified.

The definition of a product family for the purposes of ITT and FPC has been subject to some debate. Clarification was provided by the CEN CE marking expert, Steven Rein, to the CEN/TC 50 committee (which authored EN 40) at the meeting in Berlin on 5th October 2004. Resolutions were passed at the meeting to help clarify areas of confusion and misinterpretation:

Resolution No. 1 – this defined what a Product Family consisted of, for the purposes of ITT and FPC.

Resolution No. 2 – this clarified the use of computer design software for the purposes of design verification for ITT and FPC. CEN/TC 50 document N556 relates to this.

The text of these Resolutions is presented below.

Resolution No. 1 – *This allows the manufacturer to demonstrate that the results of a particular characteristic from any one product in a family are representative for all the lighting columns within that same family. Within the task requirements of the certifying body, for example Table ZA.3 of EN40-5:2002, there is a requirement characteristic of 'Resistance to Horizontal Loads' (see clauses 6 and 8) to be fulfilled. As most lighting columns are designed using computer software, they can be deemed to form part of the same product family for the purpose of the characteristic of Resistance to Horizontal Loads.*

A product may be in different families for different characteristics.

Resolution No. 2 – *This concurs with the above statement, and representative calculations will be provided to show to the Notified Body that they can be deemed to apply to all lighting columns within the same product family.*

This resolution adds another paragraph to D1 in Annex D of BS EN 40-5 (or Annex C of 40-6 and Annex C of 40-7) which states:

"where verification of design is by calculation, using computer software, design verification for the purposes of ITT and FPC shall be deemed to apply to all

lighting columns within the product family designed by the same software, provided that the representative calculation(s) have been verified”.

In other words, the product family is a group of columns, defined by the working limits of the design calculation software used by each manufacturer. Where the appropriate variables are included in the calculation program, columns in a product family may have different:

- ❑ material types and grades (these are represented by a yield strength which varies based on material).
- ❑ section shapes (equations for octagonal and circular profiles are included in BS EN 40 and the correct equation can be selected and used in the calculation).
- ❑ column dimensions (the height, diameter, tube thickness, bracket length, etc. can be included as variables).
- ❑ appendages (lantern, signs or other appendages can be included in terms of their weight, wind area and centres of mass and area within the calculation sheet).

Where such a fully flexible calculation program is provided, only one product family may be required for all the columns manufactured by a company, and only one design verification is required.

It is highlighted that the clarification text from Resolution 2 has already been included in the recently published EN 40-4 as clause C3 in Annex C. It is intended that this will be undertaken in the next revision¹⁰ of EN 40 parts 5, 6 and 7¹¹.

5.8 Changes to Product Families

BS EN 40-5 Annex D1 deems that significant changes to the raw materials or production processes would constitute a new product family, and therefore require ITT. It is anticipated that the changes to raw materials (e.g. steel or aluminium strip or tube) would not be significant, except where the parameters of the new material are outside the capability of the design calculation program as described in clause 5.7. Where new raw materials are incorporated, the design program will then either accept or reject the design as part of the design process.

¹⁰ Work on the revisions to EN 40 by CE-TC/50 has been stalled as BSI has withdrawn from its position as the Secretariat. LCTF and the B509/50 British Standard committee for BS EN 40 have been actively working to reinstate a Secretariat to allow this urgent outstanding work on EN 40 to be completed. Italy have agreed to take on the Secretariat responsibilities and this work is now restarting. However, until the revisions have been completed the UK lighting industry are adopting the Resolutions of the CEN-TC/50 committee as current best practice.

¹¹ In principle manufacturers have the option to share the validation costs of software used for ITC if SG04 agree to this, i.e. a certification body would accept the validation of the same software validated by another notified body of another manufacturer according to GP M.

Changes to minor constituent materials supplied in conformance with the relevant British Standard, such as welding consumables, would not be considered significant where the new material is of equivalent or better quality, standard or performance than that specified. This decision should be recorded for approval by the NB during continuing FPC.

The additional text proposed in Resolution 2 requires that a computer program or modifications to a computer program be validated to confirm correct performance as declared on the basis of ITC. Simpler and cheaper validation methods than those involved for ITC may be acceptable for FPC (see Guidance Paper M clause 5.2).

6 CE MARKING AND LABELLING

6.1 Existing Product Labelling for Identification

For the purposes of product identification, columns are currently being labelled in accordance with BS EN 40 (e.g. steel columns - see BS EN 40-5 clause 12). This requires that the following information be provided on a label:

- | | | |
|--------------------------|------------------------------------|---------------------------|
| <input type="checkbox"/> | Name or symbol of the manufacturer | (i.e. CU Phosco Lighting) |
| <input type="checkbox"/> | Year of manufacture | (e.g. 2005) |
| <input type="checkbox"/> | Reference to the standard | (i.e. BS EN 40) |
| <input type="checkbox"/> | A unique product code | (e.g. FR2605A01) |

CE Marking requirements call for additional information to be displayed on the product through one of the methods outlined below.

6.2 CE Marking Labelling Methods

Three full labelling methods and a simplified labelling method are set out in the European Directive. Examples of these labelling methods are provided in Appendix A. The labelling method adopted should be appropriate for the contract supply chain and specification under which the column is sold.

For example:

- Where a manufacturer's standard columns are selected and purchased for appropriate use from the product catalogue or other product documentation, use labelling method 1.
- Where manufacturers are selling columns to meet contract specifications (e.g. based on wind speed and location information), use labelling method 2.
- Where a customer has a full detailed design and specifies the critical dimensions of the column (and, where appropriate, the bracket), use method 3.

Annex ZA in BS EN 40-4 provides all three labelling methods above. However, BS EN 40 parts 5, 6 and 7 currently only provide for labelling method 2. A proposal has been submitted to the CEN-TC/50 committee to have all three methods included in each part, but note comments in footnote in Section 5.7.

In addition to fixing the CE mark, producers are required to provide data about the product characteristics. The required data varies depending on the labelling method employed.

For Method 2 (clause ZA.3.4 in Annex ZA), the CE mark labelling consists of a box showing the official CE mark, along with the accompanying product characteristics:

- ❑ Identification number of the certification body (e.g. BSI)
- ❑ Name or symbol of the producer (e.g. CU Phosco Lighting)
- ❑ Registered address of the producer (e.g. Charles House, Great Amwell, Ware, SG12 9TA, UK)
- ❑ Last two digits of the year the CE mark was affixed (e.g. 05)
- ❑ Number of the EC certificate of conformity
- ❑ Reference to the European Standard (i.e. BS EN 40)
- ❑ Description of the product and its intended use
- ❑ Characteristics values of the product as defined in BS EN 40 clause ZA.1, to include:
 - Resistance to horizontal loads (type of verification, i.e. testing (T) or calculation (C); reference wind velocity; wind area; weight at top; deflection class; terrain category if different to II)
 - Performance under vehicle impact (performance type; backfill; type of testing if not standard)

At the CEN-TC/50 meeting in Berlin, Resolution 6 was agreed which requires that values for Partial Load Factor Class and Wind Velocity, V_{ref} , be included with the CE mark under 'resistance to horizontal loads'.

The resistance to horizontal loads information can be nominal minimum values at which the column is proved to be safe for use, even though this information is misleading to customers. The product characteristic data required with the CE mark are commonly presented on lighting column data sheets (see [Manual of Contract Documents for Highway Works Volume 2 Notes for Guidance on the Specification of Highway Works, Series 1300](#)¹², Appendix 13/2). These data sheets include allowable values of maximum luminaire weight and windage that can be applied to a column, with or without bracket, for various wind load conditions.

To provide useful information to the customer and to avoid confusion by providing loading data which does not relate to the ability of a column to resist

¹² http://www.standardsforhighways.co.uk/mchw/vol2/pdfs/series_ng_1300.pdf

the applied loads, the lighting column industry recommend that the CE Marking information is published in accompaniment to the column data sheet information. This is publicly available information currently published in product catalogues, product data sheets, and on company websites. This data will allow end users to select a column of appropriate maximum luminaire weight and windage for the location and site wind conditions. These values would then represent the safe loads information to be published with the CE mark.

This best practice approach would be consistent with labelling method 2. For full clarity, the lighting column industry recommend that in addition to the data sheet CE mark and information, the simplified label should be provided on the column with an accurate reference to the document containing the full CE mark information.

6.3 Who is responsible for CE marking lighting columns?

The commercial supply of lighting columns will involve a number of different parties. Depending on their individual responsibility in the supply chain, a role may be classified as one of the following.

Supply Chain Responsibility	CE Marking Role
Architects and Specifiers	Producer
Column Designers	Producer / Manufacturer
Column and Bracket Manufacturers	Producer / Manufacturer
Independent Bracket Manufacturers	Producer / Manufacturer
Commercial Agents	Authorised Rep. / Importer / Distributor
Wholesalers	Authorised Rep. / Producer / Importer / Distributor
Contractors	Importer / Distributor / Assembler / Installer
End Users (local authorities/developers)	User

The roles are categorised in Section 3 of [Guide to the implementation of directives based on the New Approach and the Global Approach](#)¹³ published by the European Commission, as follows:

Manufacturer

The definition of manufacturer for the purposes of the CPD is somewhat different from the common usage. A manufacturer is the person (natural or legal) who is responsible for designing and/or manufacturing a product with a view to placing it on the Community market on his own behalf. The manufacturer has an obligation to ensure that a product intended to be placed on the Community market is designed and manufactured, and its conformity assessed, to the essential requirements in accordance with the provisions of the CPD. The manufacturer may use finished products, ready-made parts or components, or may subcontract these tasks. However, he must always retain the overall control

¹³ http://ec.europa.eu/enterprise/newapproach/legislation/guide/document/1999_1282_en.pdf

and have the necessary competence to take responsibility for the product. The manufacturer does not need to be based inside the Community or Member State.

Authorised Representative

The manufacturer may appoint a person to act on his behalf as an authorized representative. For the purposes of the CPD, the authorized representative must be established inside the community. The authorized representative is explicitly designated by the manufacturer (in writing) and he may be addressed by the authorities of the Member States, instead of the manufacturer, with regard to the latter's obligations under the CPD. The manufacturer remains generally responsible for actions carried out by an authorized representative on his behalf. The authorized representative cannot modify a product on his own initiative in order to bring it into line with the CPD. The authorized representative can, at the same time, act as a subcontractor to the manufacturer on the condition that the manufacturer retains responsibility for the design, manufacture and compliance with the CPD. The authorized representative can at the same time act as an importer if his responsibilities are extended accordingly.

Importer (a person responsible for placing on the market)

In the meaning of the CPD, an importer is any person established in the Community who places a product from a third country on the Community market. The importer must ensure that he is able to provide the market surveillance authority with the necessary information regarding the product, where the manufacturer is not established in the Community, and has no authorised representative in the Community. The person who imports a product into the Community may, in these situations, be considered as the person who must assume the responsibilities placed on the manufacturer.

Distributor

Provisions regarding distribution are in general not included in the CPD. A distributor is to be considered as any person in the supply chain who takes subsequent commercial actions after the product has been placed on the Community market. The distributor shall act with due care in order not to place clearly non-compliant products on the Community market. He shall be capable of demonstrating this to the national surveillance authority.

Assembler and Installer

The installer and assembler of a product, which is already placed on the market, should take necessary measures to ensure that it still complies with the essential requirements at the moment of first use within the Community. This applies to products where the directive in question covers putting into service, and where such manipulations may have an impact on the compliance of the product.

User

The CPD does not lay down obligations for users, apart from those related to putting into service. Community legislation concerning health and safety of the

workplace has an impact on the maintenance and use of products covered by the CPD that are used in the workplace.

Producer

A producer is a manufacturer of a finished product or a component part of a finished product, a producer of any raw material, or any person who presents himself as a manufacturer (for example by fixing a trade mark). It includes a designer who subcontracts the manufacture of a product but places the product on the market under his own name. Importers placing products on the Community market from third countries are all considered to be producers according to the Directive on product liability. The CPD states that the producer is responsible for the conformity of the product at the time it is placed on the European Economic Area (EEA) market (i.e. the initial action of making a product available on the EEA market, with a view to its distribution and/or use within the EEA).

Whether each party in the supply chain is a manufacturer, an authorised representative, a producer, an importer, a distributor, an assembler and installer, or an end user and whether they will need to undertake CE Marking will depend on the chain of contracts between parties in the supply chain. It will also depend which of the parties are based within the Community. Some examples of typical supply chains within the UK are presented below as examples.

Example 1 Column and Bracket Manufacturer (manufacturer) to Local Authority/Developer (user)

Column and bracket is designed and manufactured by one company and sold directly to the Local Authority or Developer purchasing and using it. The column would be designed under BS EN 40. The column and bracket would be labelled on the backboard and inside the end of the column base with the simplified labelling method.

The CE mark and accompanying information is supplied in the commercial documentation. The accompanying information would use the data from the standard column data sheet (maximum luminaire weight and windage for post top or various bracket lengths, quoting the wind speed, terrain category and altitude that would be required to give the Rationalised Wind Load Factors as quoted in PD 6547: 2004 Guidance on the Use of BS EN 40-3-1 and BS EN 40-3-3).

Data sheets for other site specific wind conditions may be requested by the purchasers at the quotation stage, and any additional cost for the bespoke designs and data sheets incorporated into the price of the sale.

Example 2 Column Manufacturer (manufacturer) to Contractor who adds bracket (assembler and installer) before selling to Local Authority/Developer (user)

The column is designed and fabricated by the manufacturer, and supplied with simplified labelling information on the column and with CE mark and information on a data sheet in the commercial documentation.

The contractor adds the same manufacturer's standard bracket to the column taken from his stockyard, before installing it on site along with a luminaire. As the contractor is using the column within the limits intended in the column design and foreseen by the column manufacturer during design, the ability of the column to meet the essential requirements is not being changed. No alteration to the CE marking label or data sheet is required, but the CE mark and accompanying information should be transferred with the column resale.

If a bracket from a different manufacturer was added to the column, the contractor would be responsible for re-applying the CE Mark fully in compliance with BS EN 40. In effect, this may prevent this particular practice, except with the authorisation and/or assistance of the column manufacturer.

Example 3 Column Manufacturer (producer) as subcontract to Bracket Manufacturer (manufacturer) to Local Authority/Developer (user)

The column is design and manufacture to BS EN 40 is subcontracted to the column manufacturer by the bracket manufacturer. The bracket manufacturer designs and fabricates a special bracket which is added to the column before its sale. The bracket manufacturer confirms that the weight and windage of the bracket are within the capacity of the column as stated on the column data sheet. The bracket manufacturer provides a data sheet showing the allowable luminaire weight and windage for the column and bracket combination, and applies a new CE mark to the column and bracket assembly. The bracket manufacturer may have to subcontract the column manufacturer to complete the design to satisfy the essential requirement for "resistance to horizontal loads" and to provide the maximum luminaire weight and windage values for the column and bracket assembly data sheet, but the bracket manufacturer would be fully responsible for the design and manufacture of the column and bracket assembly when it is first placed on the market, and for CE Marking.

Example 4 Bracket Manufacturer to Local Authority/Developer

No CE marking is required as brackets are not covered by themselves by the requirements of BS EN 40. However, they may be designed and manufactured under the requirements of other standards requiring compliance with the Construction Products Directive.

Where the brackets and columns to be combined by a secondary vendor are fabricated by the same manufacturer. To comply in this case, the CE mark product characteristics should present maximum safe weight and windage capacity including data for a bracket of the relevant length. Note that in the case of column and bracket assemblies, manufacturers should provide the maximum lantern weight and windage in the data having deducted the weight and windage of any standard bracket before publication.

Typical industry data sheets include for both post top columns and columns with standard brackets of various lengths. For the purposes of CE marking, a standard bracket is considered to be a substantially straight tubular outreach bracket attached to a vertical upstand which mounts on the column spigot. Critically, there are no additional decorations or adornments which would increase the weight and windage above that of a standard tubular bracket.

For non-standard brackets, the organisation adding the bracket would remain responsible for applying a new CE mark, along with the revised accompanying information for the new assembly.

APPENDIX A – EXAMPLES OF CE MARKING LABELS

A.1 Example of Simplified Label

 0123
AnyCo Ltd, PO Bx 21, B-1050 45PJ76/05 0123-CPD-0456
EN 40-5

CE conformity marking consisting of the CE symbol given in directive 93/68/EEC
Identification number of the Notified Body

Name or identifying mark and registered address of the manufacturer

Product identification number and last two digits of the year in which the marking was affixed

Number of the EC certificate

Number of this European standard

A.2 Example of CE marking with Method 1

 0123
AnyCo Ltd, PO Bx 21, B-1050 45PJ76/05 0123-CPD-0456
EN 40-5 Steel lighting column for circulation areas
Material – Welded carbon steel tube to EN 10210 Grade – S355J2 Geometric characteristics Length $L = 9200$ mm Wall thicknesses: $T_1 = 4.0$ mm $T_2 = 6.3$ mm Diameters: $D_1 = 88.9$ mm $D_2 = 168.3$ mm Performance under vehicle impact (passive safety): <i>Untested</i> - Class 0 or <i>Tested</i> – 100:NE:3 For durability see Technical Information Technical Information: Product Catalogue ABC : 2002 – Clause ii Data Sheet : No 5678

CE conformity marking consisting of the CE symbol given in directive 93/68/EEC

Identification of the Notified Body

Name or identifying mark and registered address of the manufacturer

Product identification number and last two digits of the year in which the marking was affixed

Number of the EC certificate

Number of this European standard

Generic name and intended use

Information on product geometry and material characteristics including detailing

(to be adapted to the specific product by the manufacturer)

Notes:

1. Numerical values are only as example.
2. A sketch should be included unless equivalent information is available in referenced Technical Information (e.g. product catalogue or datasheet) referred to

**A.3 Example of CE marking with Method 2
(verification by calculation or testing)**

 0123					
AnyCo Ltd, PO Bx 21, B-1050 45PJ76/05 0123-CPD-0456					
EN 40-5 Steel lighting column for circulation areas					
Resistance to horizontal loads:					
Wind velocity V_{ref} m/s	Partial load factor class	Deflection class	Maximum Bracket length m	Maximum luminaire weight kg	Maximum luminaire windage m ²
26	B	3	2.5	20	0.25
Performance under vehicle impact (passive safety): <i>Untested</i> - Class 0 or <i>Tested</i> – 100:NE:3 For durability and other NDPs see the Technical Documentation Technical Documentation: Product Catalogue ABC : 2002 – Clause ii					

CE conformity marking consisting of the CE symbol given in directive 93/68/EEC
 Identification of the Notified Body

Name or identifying mark and registered address of the manufacturer
 Product identification number and last two digits of the year in which the marking was affixed

Number of the EC certificate

Number of this European standard

Generic name and intended use

Information on product mandated characteristics

A.4 Example of CE marking with Method 3

 0123	
AnyCo Ltd, PO Bx 21, B-1050 45PJ76/05 0123-CPD-0456	
EN 40-5 Steel lighting column for circulation areas	
For resistance to horizontal loads, performance under impact (passive safety) and durability see the design specifications Design Specification: Order Codexxxxxx	

CE conformity marking consisting of the CE symbol given in directive 93/68/EEC

Identification of the Notified Body

Name or identifying mark and registered address of the manufacturer
 Product identification number and last two digits of the year in which the marking was affixed

Number of the EC certificate

Number of this European standard
 Generic name and intended use and

Information on product mandated characteristics