

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference <b>011610.00476</b>	<b>FOR FURTHER ACTION</b>		See item 4 below
International application No. <b>PCT/US2013/029888</b>	International filing date ( <i>day/month/year</i> ) <b>08 March 2013 (08.03.2013)</b>	Priority date ( <i>day/month/year</i> ) <b>08 March 2012 (08.03.2012)</b>	
International Patent Classification (8th edition unless older edition indicated) <b>See relevant information in Form PCT/ISA/237</b>			
Applicant <b>RTC INDUSTRIES, INC.</b>			

<p>1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p>In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.</p>																								
<p>3. This report contains indications relating to the following items:</p> <table> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table> <p>4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).</p>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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	Date of issuance of this report <b>09 September 2014 (09.09.2014)</b>
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# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

# PCT

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY  
(PCT Rule 43bis.1)**

To:

see form PCT/ISA/220

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference see form PCT/ISA/220	<b>FOR FURTHER ACTION</b> See paragraph 2 below
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International application No. PCT/US2013/029888	International filing date (day/month/year) 08.03.2013	Priority date (day/month/year) 08.03.2012
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International Patent Classification (IPC) or both national classification and IPC  
INV. F21S4/00 A47F3/00 A47F11/10 F21V7/00 ADD. F21W131/405 F21Y101/02 F21Y103/00

Applicant  
RTC INDUSTRIES, INC.

1. This opinion contains indications relating to the following items:



- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

<p>Name and mailing address of the ISA:</p> <div style="text-align: center;">  </div> <p>European Patent Office P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Fax: +31 70 340 - 3016</p>	<p>Date of completion of this opinion</p> <p>see form PCT/ISA/210</p>	<p>Authorized Officer</p> <p>Allen, Katie</p> <p>Telephone No. +31 70 340-2825</p>	
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**Box No. I Basis of the opinion**

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1. With regard to the **language**, this opinion has been established on the basis of:
  - the international application in the language in which it was filed
  - a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2.  This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:
  - a. (means)
    - on paper
    - in electronic form
  - b. (time)
    - in the international application as filed
    - together with the international application in electronic form
    - subsequently to this Authority for the purposes of search
4.  In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	<u>1-7, 9, 12, 17, 18</u>
	No: Claims	<u>8, 10, 11, 13-16, 19, 20</u>
Inventive step (IS)	Yes: Claims	
	No: Claims	<u>1-20</u>
Industrial applicability (IA)	Yes: Claims	<u>1-20</u>
	No: Claims	

2. Citations and explanations

**see separate sheet**

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

Reference is made to the following documents:

- D1 GB 2 468 036 A (HUSSMANN CORP [US]) 25 August 2010 (2010-08-25)
- D2 WO 2011/019753 A1 (INTEMATIX CORP [US]; YANG HAITAO [US]) 17 February 2011 (2011-02-17)
- D3 US 2008/158858 A1 (MADIREDDI SESHA C [US] ET AL) 3 July 2008 (2008-07-03)
- D4 WO 2008/100894 A1 (LUMINATION LLC [US]; SOMMERS MATHEW [US]; MAYER MARK J [US]; SEKELA WI) 21 August 2008 (2008-08-21)
- D5 US 2011/310598 A1 (SWAFFORD JR JOHN WESLEY [US]) 22 December 2011 (2011-12-22)

1 The present application does not meet the criteria of Article 33(3) PCT, because the subject-matter of claim 1 does not involve an inventive step.

1.1 Document D1 is regarded as being the prior art closest to the subject-matter of claim 1, and discloses:

A lighting assembly (see figure 3) for a merchandise display comprising: a lighting bar (see housing 90), wherein the lighting bar is defined by a C-shaped configuration in cross section (see opposing C-shaped configurations);  
a circuit board (240) assembly having a plurality of LEDs (245) mounted to the inside of the lighting bar (90), wherein the plurality of LEDs (245) project a light onto a merchandise display; and  
a plurality of reflective surfaces (105, 110) located adjacent to the plurality of LEDs (245), wherein the plurality of reflective surfaces (105, 110) are positioned such that the LEDs project a first light beam in a first direction (along axis 247) and the plurality of reflective surfaces (105, 110) direct a second light beam in a second direction (i.e. in an upward direction in figure 3) different than the first direction.

- 1.2 The subject-matter of claim 1 therefore differs from this known lighting assembly in that it further comprises two opposing support arms and the lighting bar extends between the two opposing support arms, and is therefore new.
- 1.3 The problem to be solved by the present invention may therefore be regarded as how to provide an alternative way of mounting the lighting bar of the assembly.
- 1.4 The solution proposed in claim 1 of the present application cannot be considered as involving an inventive step (Article 33(3) PCT) for the following reasons:
- 1.5 Mounting the lighting bar using two opposing arms would be merely one of several straightforward possibilities from which the skilled person would select, in accordance with circumstances, without the exercise of inventive skill, in order to solve the problem posed. See, for example, document D5, which discloses such a mounting system.
- 1.6 Note that the subject-matter of claim 1 is also considered not inventive given each of documents D2-D4. The same reasoning applies.
- 2 The present application does not meet the criteria of Article 33(2) PCT, because the subject-matter of claims 8 and 13 is not new.
- 2.1 Document D2 discloses:  
A merchandise display lighting method (see figure 4) comprising:  
arranging a plurality of LEDs (14) on a circuit board (36) located within a lighting bar (housing 12) that defines a C-shaped configuration in cross section, wherein the plurality of LEDs (14) project a light onto a merchandise display;  
securing a plurality of reflective surfaces (18) to the circuit board (36); and  
placing the plurality of reflective surfaces (18) adjacent to the plurality of LEDs (14), wherein the plurality of reflective surfaces (18) are positioned such that the LEDs (14) project a first light beam in a first direction (i.e. light emitted directly by LEDs 14) and the plurality of reflective surfaces (18) direct a second light beam in a second direction (i.e. part of beam from LEDs that is reflected by surfaces 18 in an upward direction in figure 4) different than the first direction.
- 2.2 Document D1 discloses:

An LED lighting system (see figure 3) for a merchandise display comprising:  
a lighting bar (90);  
a circuit board (240) assembly having a plurality of LEDs (245) mounted to the inside of the lighting bar (90), wherein the plurality of LEDs (245) project a light beam onto a merchandise display; and  
one or more reflective surfaces (105, 110) positioned parallel to the path of the light beam from the LEDs (245) and covering a portion of the light beam, wherein the plurality of LEDs (245) project a first beam in a first direction (along axis 247) and the one or more reflective surfaces (105, 110) direct a second beam in a second direction (i.e. upward direction) different than the first direction, wherein the first direction is based on a direction the LED is directionally pointing and the second direction is based on a position and an angle of the one or more reflective surfaces covering the light beam.

- 2.3 Note that the subject-matter of claim 13 is also disclosed in each of documents D2-D4.
- 3 Dependent claims 2-7, 9-12 and 14-20 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step, see documents D1-D5 and the corresponding references cited in the search report.
- 4 Other matters:
- 4.1 Note that there are two claims 17, one mistakenly attached to claim 16.