

**RETURN BIDS TO:**  
**RETOURNER LES SOUMISSIONS À:**  
Bid Receiving - PWGSC / Réception des  
soumissions - TPSGC  
11 Laurier St./ 11 rue, Laurier  
Place du Portage, Phase III  
Core 0A1 / Noyau 0A1  
Gatineau, Québec K1A 0S5  
Bid Fax: (819) 997-9776

**REQUEST FOR PROPOSAL**  
**DEMANDE DE PROPOSITION**

**Proposal To: Public Works and Government  
Services Canada**

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

**Proposition aux: Travaux Publics et Services  
Gouvernementaux Canada**

Nous offrons par la présente de vendre à Sa Majesté la Reine du chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

**Comments - Commentaires**

<b>Title - Sujet</b> SPECTRORADIOMETER	
<b>Solicitation No. - N° de l'invitation</b> HT227-122692/A	<b>Date</b> 2012-09-13
<b>Client Reference No. - N° de référence du client</b> HT227-122692	
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$\$PV-943-61190	
<b>File No. - N° de dossier</b> pv943.HT227-122692	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2012-10-24</b>	
<b>Time Zone</b> Fuseau horaire Eastern Daylight Saving Time EDT	
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> MacNeil, Jennifer	<b>Buyer Id - Id de l'acheteur</b> pv943
<b>Telephone No. - N° de téléphone</b> (819) 956-5577 ( )	<b>FAX No. - N° de FAX</b> (819) 956-3814
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b> DEPARTMENT OF HEALTH CCRPB BROOKFIELD RD PL63 7756 BROOKFIELD RD OTTAWA, ON K1A 1C1	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

**Vendor/Firm Name and Address**  
**Raison sociale et adresse du  
fournisseur/de l'entrepreneur**

**Issuing Office - Bureau de distribution**  
Scientific, Medical and Photographic Division / Division de  
l'équipement scientifique, des produits photographiques et  
pharmaceutiques  
11 Laurier St./ 11 rue, Laurier  
6B1, Place du Portage  
Gatineau, Québec K1A 0S5

<b>Delivery Required - Livraison exigée</b> See Herein	<b>Delivery Offered - Livraison proposée</b>
<b>Vendor/Firm Name and Address</b> <b>Raison sociale et adresse du fournisseur/de l'entrepreneur</b>	
<b>Telephone No. - N° de téléphone</b> <b>Facsimile No. - N° de télécopieur</b>	
<b>Name and title of person authorized to sign on behalf of Vendor/Firm</b> <b>(type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>



Item Article	Description	Dest. Code Dest.	Inv. Code Fact.	Qty Qté	U. of I. U. de D.	Destination	Unit Price/Prix unitaire FOB/FAM	Plant/Usine	Delivery Req. Livraison Req.	Del. Offered Liv. offerte
1	SPECTRORADIOMETER As per the mandatory specifications stated at Annex A including installation, training, service, manuals, 2 year warranty and shipping.	HT227	HT227	1	Each	\$	XXXXXXXXXXXX	XXXXXXXXXXXX	See Herein	

## **PART 1 - GENERAL INFORMATION**

1. Security
2. Requirement
3. Debriefings

## **PART 2 - BIDDER INSTRUCTIONS**

1. Standard Instructions, Clauses and Conditions
2. Submission of Bids
3. Enquiries - Bid Solicitation
4. Applicable Laws

## **PART 3 - BID PREPARATION INSTRUCTIONS**

1. Bid Preparation Instructions

## **PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION**

1. Evaluation Procedures
2. Basis of Selection

## **PART 5 - CERTIFICATIONS**

1. Code of Conduct Certifications - Certifications Required Precedent to Contract Award
2. Certifications Precedent to Contract Award

## **PART 6 - RESULTING CONTRACT CLAUSES**

1. Security Requirement
2. Requirement
3. Standard Clauses and Conditions
4. Term of Contract
5. Authorities
6. Payment
7. Invoicing Instructions
8. Certifications
9. Applicable Laws
10. SACC Manual Clauses
11. Shipping Instructions - FOB Destination
12. Priority of Documents

### **List of Annexes:**

Annex A      Mandatory Technical Specifications for a Spectroradiometer

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## PART 1 - GENERAL INFORMATION

### 1. Security Requirement

There is no security requirement associated with the requirement.

### 2. Requirement

The requirement is detailed under the "Line Item Detail".

### 3. Debriefings

After contract award, bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days of receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

## PART 2 - BIDDER INSTRUCTIONS

### 1. Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the *Standard Acquisition Clauses and Conditions Manual* (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The 2003 2012-07-11 Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

The text under Subsection 4 of Section 01 - Code of Conduct and Certifications of 2003 referenced above is replaced by:

Bidders should provide, with their bid or promptly thereafter, a complete list of names of all individuals who are currently directors of the Bidder. If such a list has not been received by the time the evaluation of bids is completed, Canada will inform the Bidder of a time frame within which to provide the information. Failure to provide such a list within the required time frame will render the bid non-responsive. Bidders must always submit the list of directors before contract award.

Canada may, at any time, request that a Bidder provide properly completed and Signed Consent Forms (Consent to a Criminal Record Verification form - PWGSC-TPSGC 229) for any or all individuals named in the aforementioned list within a specified delay. Failure to provide such Consent Forms within the delay will result in the bid being declared non-responsive.

The text under Subsection 5 of Section 01 - Code of Conduct and Certifications of 2003 referenced above is replaced by:

The Bidder must diligently maintain the list up-to-date by informing Canada in writing of any change occurring during the validity period of the bid, and must also provide Canada, when requested, with the corresponding Consent Forms. The Bidder will also be required to diligently maintain the list and when requested, provide Consent Forms during the period of any contract arising from this bid solicitation.

## 2. Submission of Bids

Bids must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated on page 1 of the bid solicitation.

## 3. Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than ten (10) calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the questions or may request that the Bidder do so, so that the proprietary nature of the question is eliminated, and the enquiry can be answered with copies to all bidders. Enquiries not submitted in a form that can be distributed to all bidders may not be answered by Canada.

## 4. Applicable Laws

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in province of Ontario.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the bidders.

## PART 3 - BID PREPARATION INSTRUCTIONS

### 1. Bid Preparation Instructions

Canada requests that bidders provide their bid in separately bound sections as follows:

Section I: Technical Bid (two hard copies)  
Section II: Financial Bid (one hard copy)  
Section III: Certifications (one hard copy)

Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

Canada requests that bidders follow the format instructions described below in the preparation of their bid:

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper;
- (b) use a numbering system that corresponds to the bid solicitation.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process [Policy on Green Procurement](#)

(<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>).

To assist Canada in reaching its objectives, bidders are encouraged to:

- 1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and/or containing minimum 30% recycled content; and
- 2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

**Section I: Technical Bid**

The following applies to the Requirement and bidders must provide the following information in the bid where applicable:

**1.1.1 Delivery (Bidder to complete)**

While delivery must be no later than March 31, 2013, the best delivery that could be offered by the Bidder is \_\_\_\_\_.

**1.1.2 Installation (Bidder to complete)**

On-site installation must be provided and must be carried out by a qualified service technician.

State your best installation schedule:

Installation will be carried out within \_\_\_\_\_ calendar days of delivery and be completed within \_\_\_\_\_ calendar days.

**1.1.3 Manuals**

One (1) copy of an operational, maintenance and calibration manual in English must be supplied with the system.

**1.1.4 Training (Bidder to complete)**

On-site training for operation and maintenance must be provided for one (1) user. All costs associated with the on-site training must be included in the price.

On-site training will be completed within \_\_\_\_\_ calendar days of installation.

Provide complete details of training e.g. duration, scope, etc.,

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**1.1.5 Service (Bidder to complete)**

Purchase of the system must include: regional technical support; technical phone support; support via the Internet; and support via a fax-back document system.

Response for service must be within 24 hours or less.

Also, provide the following with your bid:

- a) Location of available service facilities (after sales service and repair). List the service facilities closest to the destination.  
\_\_\_\_\_
- b) Locations of available replacement parts from consumables to major components.  
\_\_\_\_\_
- c) Response time re: service calls, and escalation schedule, i.e. (how many days with no resolution to a problem until a more experienced person is called in, and from which location).  
\_\_\_\_\_
- d) List the frequency of routine maintenance visits provided by a qualified service technician during the warranty period, if applicable and included in the price.  
\_\_\_\_\_

**1.1.6 Contacts**

Bidders are requested to provide the following: Information pertaining to Article 5.3 Contractor Representatives under Part 6, Resulting Contract Clauses.

**Section II: Financial Bid**

Bidders must submit their financial bid in accordance with the Basis of Payment. The total amount of Goods and Services Tax (GST) or Harmonized Sales Tax (HST) must be shown separately, if applicable.

**1.1 Exchange Rate Fluctuation**

C3011T Exchange Rate Fluctuation 2010-01-11

**Section III: Certifications**

Bidders must submit the certifications required under Part 5.

**PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION**

**1. Evaluation Procedures**

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids.

**1.1 Technical Evaluation**

**1.1.1 Mandatory Technical Criteria**

See Annex A.

**1.2 Financial Evaluation**

A0220T Evaluation of Price 2007-05-25

**2. Basis of Selection**

A0031T Basis of Selection - Mandatory Technical Criteria Only 2010-08-16

**PART 5 - CERTIFICATIONS**

Bidders must provide the required certifications to be awarded a contract. Canada will declare a bid non-responsive if the required certifications are not completed and submitted as requested.

Compliance with the certifications bidders provide to Canada is subject to verification by Canada during the bid evaluation period (before award of a contract) and after award of a contract. The Contracting Authority will have the right to ask for additional information to verify bidders' compliance with the certifications before award of a contract. The bid will be declared non-responsive if any certification made by the Bidder is untrue, whether made knowingly or unknowingly. Failure to comply with the certifications or to comply with the request of the Contracting Authority for additional information will also render the bid non-responsive.

**1. Code of Conduct Certifications - Certifications Required Precedent to Contract Award**

**1.1** Bidders should provide, with their bids or promptly thereafter, a complete list of names of all individuals who are currently directors of the Bidder. If such a list has not been received by the time the evaluation of bids is completed, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Bidders must submit the list of directors before contract award, failure to provide such a list within the required time frame will render the bid non-responsive.

The Contracting Authority may, at any time, request that a Bidder provide properly completed and Signed Consent Forms (Consent to a Criminal Record Verification form - PWGSC-TPSGC 229) for any or all individuals named in the aforementioned list within a specified delay. Failure to provide such Consent Forms within the delay will result in the bid being declared non-responsive.

**2. Certifications Precedent to Contract Award**

The certifications listed below should be completed and submitted with the bid, but may be submitted afterwards. If any of these required certifications is not completed and submitted as requested, the Contracting Authority will so inform the Bidder and provide the Bidder with a time frame within which to meet the requirement. Failure to comply with the request of the Contracting Authority and meet the requirement within that time period will render the bid non-responsive.

**2.1 Federal Contractors Program - Certification**

**2.1.1 Federal Contractors Program - over \$25,000 and below \$200,000**

Suppliers who are subject to the Federal Contractors Program (FCP) and have been declared ineligible contractors by Human Resources and Skills Development Canada (HRSDC) are no longer eligible to receive federal government contracts over the threshold for solicitation of bids as set out in the Government Contracts Regulations. Suppliers may be declared ineligible contractors either as a result of a finding of non-compliance by HRSDC, or following their voluntary withdrawal from the FCP for a reason other than the reduction of their workforce to less than 100 employees. Any bids from ineligible contractors, including a bid from a joint venture that has a member who is an ineligible contractor, will be declared non-responsive.

The Bidder, or, if the Bidder is a joint venture the member of the joint venture, certifies its status with the FCP, as follows:

The Bidder or the member of the joint venture

- (a) ( ) is not subject to the FCP, having a workforce of less than 100 full-time or part-time permanent employees, or temporary employees having worked 12 weeks or more in Canada;
- (b) ( ) is not subject to the FCP, being a regulated employer under the Employment Equity Act, S.C. 1995, c. 44;
- (c) ( ) is subject to the requirements of the FCP, having a workforce of 100 or more full-time or part-time permanent employees, or temporary employees having worked 12 weeks or more in Canada, but has not previously obtained a certificate number from HRSDC, having not bid on requirements of \$200,000 or more;
- (d) ( ) has not been declared an ineligible contractor by HRSDC, and has a valid certificate number as follows: \_\_\_\_\_.

Further information on the FCP is available on the HRSDC Web site:

[Http://www.hrsdc.gc.ca/eng/labour/equality/fcp/index.shtml](http://www.hrsdc.gc.ca/eng/labour/equality/fcp/index.shtml)

Signature of authorized representative: \_\_\_\_\_ . Date: \_\_\_\_\_

**PART 6 - RESULTING CONTRACT CLAUSES**

**1. Security Requirement**

There is no security requirement associated with the requirement.

**2. Requirement**

The Contractor must provide the items detailed under the "Line Item Detail".

### 3. Standard Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the *Standard Acquisition Clauses and Conditions Manual* (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

#### 3.1 General Conditions

2010A 2012-07-16, General Conditions - Goods (Medium Complexity), apply to and form part of the Contract.

The text under Subsection 04 of Section 29 - Code of Conduct and Certifications of 2010A referenced above is replaced by:

During the entire period of the Contract, the Contractor must diligently update, by written notice to the Contracting Authority, the list of names of all individuals who are directors of the Contractor whenever there is a change. As well, whenever requested by Canada, the Contractor must provide the corresponding Consent Forms.

Section 09 of general conditions 2010A is amended by replacing the period of twelve (12) months by twenty-four months.

All other provisions of the warranty section remain in effect.

### 4. Term of Contract

#### 4.1 Delivery Date

All the deliverables must be received on or before \_\_\_\_\_ (filled in at contract award).

### 5. Authorities

#### 5.1 Contracting Authority

The Contracting Authority for the Contract is:

Jennifer MacNeil  
Public Works and Government Services Canada  
Acquisitions Branch  
Commercial Consumer Products Directorate  
11 Laurier Street, 6A2, Phase III  
Place du Portage, Hull, Quebec, K1A 0S5  
Telephone: (819) 956-5577  
Facsimile: (819) 956-3814  
E-mail address: jennifer.macneil@tpsgc-pwgsc.gc.ca

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

## 5.2 Technical Authority

The Technical Authority for the Contract is: **(filled in at contract award)**

The Technical Authority named above is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Technical Authority, however the Technical Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

## 5.3 Contractor's Representative (Bidder to complete)

The telephone number of the person responsible for:

### General enquiries

Name: \_\_\_\_\_  
 Telephone No. \_\_\_\_\_  
 Facsimile No. \_\_\_\_\_  
 E-mail address: \_\_\_\_\_

### Delivery Follow-up

Name: \_\_\_\_\_  
 Telephone No. \_\_\_\_\_  
 Facsimile No. \_\_\_\_\_  
 E-mail address: \_\_\_\_\_

## 6. Payment

### 6.1 Basis of Payment - Firm Price

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a firm price, as specified in the contract for a cost of \$ \_\_\_\_\_ **(filled in at contract award)**. Customs duties are included and Goods and Services Tax or Harmonized Sales Tax is extra, if applicable.

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work, unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

### 6.2 SACC Manual Clauses

H1000C      Single Payment      2008-05-12

## 7. Invoicing Instructions

1. The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.
2. Invoices must be distributed as follows:
  - (a) The original and one (1) copy must be forwarded to the address shown on page 1 of the Contract for certification and payment.
  - (b) One (1) copy must be forwarded to the Contracting Authority identified under the section entitled "Authorities" of the Contract.

## 8. Certifications

Compliance with the certifications provided by the Contractor in its bid is a condition of the Contract and subject to verification by Canada during the term of the Contract. If the Contractor does not comply with any certification or it is determined that any certification made by the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

## 9. Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in the province of Ontario.

## 10. SACC Manual Clauses

B1501C	Electrical Equipment	2006-06-16
A9068C	Government Site Regulations	2010-01-11
A2000C	Foreign Nationals (Canadian Contractor)	2006-06-16
A2001C	Foreign Nationals (Foreign Contractor)	2006-06-16
G1005C	Insurance	2008-05-12

## 11. Shipping Instructions - FOB Destination

Goods must be consigned and delivered to the destination specified in the contract:

FOB Destination Ottawa, Ontario including all delivery charges and customs duties and taxes.

## 12. Priority of Documents

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;
- (b) the general conditions 2010A 2012-07-16, General Conditions - Goods (Medium Complexity);
- (c) Annex A, Mandatory Specifications for a Spectroradiometer;
- (d) the Contractor's bid dated \_\_\_\_\_ (**filled in at contract award**).

**ANNEX A**

**MANDATORY SPECIFICATIONS FOR A SPECTRORADIOMETER**

The bidder is requested to cross reference the mandatory technical criteria contained herein to their supporting technical documentation. Supporting documentation must be provide with the bid at time of bid closing. Technical brochures or technical data must be provided to verify compliancy to the technical mandatory specifications.

The UV-VIS-IR Spectroradiometer specified below is needed for the Lasers and Electro-Optics laboratory. This equipment will increase the laboratory capability by allowing the risk assessment of Light Emitting Diodes (LED) and Lamps against the International Electrotechnical Committee (IEC-62471) standard. The requirements for this equipment are based on this standard.

**1.0 Optical Measurement Capabilities**

1.1 Must be able to measure spectral irradiance within the wavelength range of 200 nm up to 3000 nm.

**Reference in Contractors Proposal:** \_\_\_\_\_

1.2 Must be able to measure spectral radiance within the wavelength range of 300 nm up to 1400 nm.

**Reference in Contractors Proposal:** \_\_\_\_\_

1.3 In the wavelength range of 200 nm up to 1100 nm the wavelength accuracy must be less than or equal to 0.2 nm.

**Reference in Contractors Proposal:** \_\_\_\_\_

1.4 In the wavelength range of 1100 nm up to 3000 nm the wavelength accuracy must be less than or equal to 1 nm.

**Reference in Contractors Proposal:** \_\_\_\_\_

1.5 The collecting input optics to measure spectral irradiance, which can be a combination of cosine response diffusers or integrating spheres, must have a cosine angular response error of less than or equal to 2% in the wavelength range of 200 nm up to 1100 nm.

**Reference in Contractors Proposal:** \_\_\_\_\_

1.6 The collecting input optics to measure spectral radiance must be capable of mimicking the imaging function of the human eye selecting the field of view between 1.7 mrad and 11 mrad. This collecting input optics is motorized and comprise of a USB camera viewer for the user to view the FOV.

**Reference in Contractors Proposal:** \_\_\_\_\_

1.7 Input optics must be able to be connected to a flexible fiber bundle.

**Reference in Contractors Proposal:** \_\_\_\_\_

1.8 The system must have an integrated luxmeter option for General Lighting System source positioning.

**Reference in Contractors Proposal:** \_\_\_\_\_

**2.0 Automation and Operational Capabilities**

2.1 The core analytical optic components composed of monochromators, entrance and exit slits and gratings must be motorized and automated.

**Reference in Contractors Proposal:** \_\_\_\_\_

2.2 The system must be able to be connected to a laptop and fully software controlled.

**Reference in Contractors Proposal:** \_\_\_\_\_

2.3 The software must offer guidance to the user through the measurement requirements for each specific source step by step. It must use the resulting measurement spectra to do all the necessary calculations for the user and generate measurement reports.

**Reference in Contractors Proposal:** \_\_\_\_\_

**3.0 Calibration Capabilities**

3.1 The system must have a set of calibration standards for the calibration of the spectral irradiance within the wavelength range of 200 nm up to 3000 nm.

**Reference in Contractors Proposal:** \_\_\_\_\_

3.2 The system must have a set of calibration standards for the calibration of the spectral radiance within the wavelength range of 300 nm up to 1400 nm.

**Reference in Contractors Proposal:** \_\_\_\_\_

3.3 The calibrations must be traceable to provide the user with a traceable calibration chain.

**Reference in Contractors Proposal:** \_\_\_\_\_

**4.0 Electrical specifications**

4.1 The spectroradiometer system must operate on voltage: 120/240V AC 50/60 Hz.

**Reference in Contractors Proposal:** \_\_\_\_\_

4.2 The system must allow remote control capability by a laptop computer through a USB serial port.

**Reference in Contractors Proposal:** \_\_\_\_\_

4.3 The Analog to Digital converter must be a minimum of 14 bits for higher precision.

**Reference in Contractors Proposal:** \_\_\_\_\_

Solicitation No. - N° de l'invitation

HT227-122692/A

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur

pv943

Client Ref. No. - N° de réf. du client

File No. - N° du dossier

CCC No./N° CCC - FMS No/ N° VME

HT227-122692

pv943HT227-122692

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- 4.4 The trans-impedance amplifier must allow for 6 decades of gain to accommodate wide input power range digitalization.

**Reference in Contractors Proposal:** \_\_\_\_\_