

SCM Division
100 KE Masinga Road,
Durban 4000
P.O Box 1588
Durban 4000
Tel. +27 31 362 5266
URL http://www.sabc.co.za
E-mail silangwen@sabc.co.za

### **REQUEST FOR QUOTATION (RFQ)**

# REPLACEMENT OF BUILING ELECTRICAL LIGHTING WITH NEW LED LIGHTING THROUGHOUT THE ENTIRE BUILDING AT SABC DURBAN

RFQ	RFQ/LOG/2020/2
RFQ ISSUE `DATE	16 MARCH 2020
VENUE	SABC BUILDING (FOYER) 100 KE MASINGA ROAD, DURBAN
COMPULSORY BRIEFING	
SESSION / SITE	23 MARCH 2020 @ 11H00
INSPECTION	
RFQ DESCRIPTION	REPLACEMENT OF BUILING ELECTRICAL LIGHTING WITH NEW LED
KI & DESCKII HON	LIGHTING THROUGHOUT THE ENTIRE BUILDING AT SABC DURBAN
CLOSING DATE & TIME	30 MARCH 2020 @ 12h00 Closing date extended to 22 April 2020 @
OLOGINO DATE & TIME	12h00

Submissions must be delivered to: **SABC 100 K E Masinga Road reception** in the RFQ box. Durban on the closing date of this RFQ.

# PLEASE NOTE THAT AS FROM 01 JULY 2016 COMPANIES THAT ARE NOT REGISTERED WITH CSD SHALL NOT BE CONSIDERED

For queries, please contact Nonjabulo Silangwe at Tel +2731 362 5266 <a href="silangwen@sabc.co.za">silangwen@sabc.co.za</a>
The SABC requests your quotation on the services listed above. Please furnish us with all the information as requested and return your quotation on the date and time stipulated above. Late and incomplete submissions will invalidate the quote submitted.

SUPPLIER NAME:	
POSTAL ADDRESS:	
TELEPHONE NO:	
FAX NO. :	
E MAIL ADDRESS:	
CONTACT PERSON:	



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CELL NO:	
SIGNATURE OF BIDDER:	

#### **DETAILED TECHNICAL SPECIFICATION**

# REPLACEMENT OF BUILING ELECTRICAL LIGHTING WITH NEW LED LIGHTING THROUGHOUT THE ENTIRE BUILDING AT SABC DURBAN

#### 1. BACKGROUND

The South African Broadcasting Corporation (SABC) is South Africa's national public broadcaster. Its objectives are to provide a comprehensive range of distinctive programmes and services with the view to inform, educate, entertain, support and develop culture in all 11 official languages. Its principal activities comprise of television and radio broadcasting utilising 18 radio stations and 3 television channels.

The current lighting in the Durban office has the old tube bulbs fitted over the ceiling. The system is wired and fed directly from the distribution board through the circuit breakers. There are no independent light switches for a specific zone or individual office partitioning. This configuration is cumbersome and highly inefficient. Each of the light fitting has a starter, ballast and two tubes.

Due to the wiring configuration, the lights burn 24/7 till they burn out. This causes continuous power consumption and as a result the starters and ballast life span are shortened, this has a direct bearing on the lighting maintenance cost. On average every week some fifteen light ballasts are replaced after being blown due to continuous burning, they do not get time to cool.

The successful service provider will be expected to comply with Occupational Health and Safety Regulations and provide SABC with a safety file

### 2. SCOPE OF SERVICES

The scope encompasses all building areas including passageways. The scope includes the following amongst others:

- Remove old light fittings and discard by removing rubble offsite.
- Discard the old light tubes in an environmentally friendly manner by crushing the tubes using approved methods
- Supply of new LED Lights
- Supply all wiring, trunking, mechanism and fittings (Cabling)
- Rewire all new lights to the existing light circuits
- Fit Motion sensors to all light circuits feeding boardrooms, passageways, kitchens and toilets

- Install all new LED lights, fittings, sensors, switches, etc. as per spec following briefing.
- Replace and make good all ceiling panels
- Test all lighting and domestic power plugs, circuits on distribution board and fix/replace any that are faulty
- Issue a certificate of compliance on completion of work done, to SABC Logistics
   Manager
- Remove and discard any redundant material used during construction and installation including rubble.
- Refer to Annexures D, E, F & G for number of lights and specification data.

#### 3. PAYMENTS

Payment by the SABC to the contractor shall be made 30 days in arrears after an invoice from the contractor is received by the SABC.

#### 4. RFQ Response Information

#### **Effective Date of Bid**

Vendors should state in writing in their quotation to the SABC that all furnished information, including price, will remain valid and applicable for 90 days from the date the vendor quotation is received by the SABC.

#### 5. COSTING

The quotation must reflect a detailed cost breakdown, and any indirect costs associated with the delivery and installation of equipment.

#### 6. DURATION OF THE CONTRACT

Once off.

#### 7. EVALUATION CRITERIA

#### 8.1 BBBEE and Price

The RFQ responses will be evaluated on the 80/20 point system

#### 8.2 Technical Evaluation

8.2.1 The RFQ submission will be technically evaluated out of a maximum of **100**;

- 8.2.2 A threshold of **70 out** of the **100** has been set.
- 8.2.3 Bidder who received less that **70** will be considered none responsive to this tender and will not be considered for the next phase of evaluation.

# 8.3 Objective Criteria

8.3.1 The SABC further reserve the right not to award this RFQ to any bidder based on the proven poor record of accomplishment of the bidder in previous projects within the SABC.

#### **Technical Criteria**

Evaluation area	Evaluation Criteria	MAX Points	
Company past relevant experience in similar projects (complete Table A Track Record with a list of projects)	Historical record, ability and success in delivering on projects of this nature.  Submission of annexure A completed with contactable references on related similar projects  • ≥10 (Ten) projects (40 Points)  • 5 - 9 projects (30 points)  • 1 - 4 projects – (20 points)	40	
Location	Service provider offices must be based within 100km radius  Less than 100km (10)  More than 100km (05 points)  Provide proof in a form of registered address in a company letterhead	10	
Delivery and installation	<ul> <li>Provide timeframe to complete installation (include Programme Plan from receiving the Order placement to sign-off)</li> <li>4 - 12 weeks = 10 points</li> <li>&gt;12 weeks = 5 points</li> </ul>	10	
Experience of the Electrical Engineer/s (Appropriate experience of Electrical Technician/ Electrician who will be assigned to the project)	<ul> <li>Bidder to submit CVs and registration certificates (no submission of CVs and registration certificates is zero)</li> <li>≥10 year experience practising as Electrical technician / Engineer/ Electrician (40 points)</li> <li>5-9 year experience practising as Electrical technician / Engineer/ Electrician (30 points)</li> <li>1-4 year experience practising as Electrical technician / Engineer/ Electrician (20 points)</li> </ul>	40	
Total		100	

#### 9 ADJUDICATION USING A POINT SYSTEM

- 9.1 The bidder obtaining the highest number of total points will be awarded the contract unless objective criteria justify the award to another bidder
- 9.2 Preference points shall be calculated after process has been brought to a comparative basis taking into account all factors of non-firm prices.
- 9.3 In the event that two or more bids have scored equal points, the successful bid must be the one scoring the highest number of preference points for B-BBEE.
- 9.4 However, when functionality is part of the evaluation process and two or more bids have scored equal points for B-BBEE, the successful bid must be the one scoring the highest score for functionality
- 9.5 Should two or more bids be equal in all respect, the award shall be decided by the drawing of lots.

#### 10 POINTS AWARDED FOR PRICE

The **80/20** preference point system A maximum of **80** points is allocated for price on the following basis:

Where:

Ps= 80 ( 1- Pmin )

Ps = Points scored for comparative price of bid under Consideration

Pt = Comparative price of bid under consideration

Pmin = Comparative price of lowest acceptable bid

#### **B-BBEE PREFERENTIAL POINTS WILL BE AWARDED AS FOLLOWS:**

#### **B-BBEE Status Level of Contributor Number of Points**

B-BBEE Status level of Contributor	Number of points
1	20
2	18
3	14
4	12
5	8
6	6
7	4
8	2
Non-compliant contributor	0

10.1. Bidders who qualify as EME's in terms of the B-BBEE Act must submit a certificate issued by an accounting officer as contemplated in the CCA or a verification Agency accredited by SANAS or a registered auditor. Registered auditors do not need to meet the prerequisite for IRBA's approval for the purpose of conducting verification and issuing EMEs with B-BBEE Status Level Certificates.

- 10.2. Bidders other than EMEs must submit their original and valid B-BBEE status level verification certificate or a certified copy thereof, substantiating their B-BBEE rating issued by a registered auditor approved by IRBA or a verification agency accredited by SANAS.
- 10.3. A trust, consortium or joint venture will qualify for points for their B-BBEE status level as a legal entity, provided that the entity submits their B-BBEE status level certificate.
- 10.4. A trust, consortium or joint venture will qualify for points for their B-BBEE status level as an unincorporated entity, provided that the entity submits their consolidated B-BBEE scorecard as if they were a group structure and that such a consolidated B-BBEE scorecard is prepared for every separate bid.
- 10.5. Tertiary institutions and public entities will be required to submit their B-BBEE status level certificates in terms of the specialized scorecard contained in the B-BBEE Codes of Good Practice.
- 10.6. A person will not be awarded points for B-BBEE status level if it is indicated in the bid documents that such a bidder intend sub-contracting more than 25% of the value of the contract to any other enterprise that does not qualify for at least the points that such a bidder qualifies for, unless the intended Sub-contractor is an EME that has the capacity and the ability to execute the sub-contract.
- 10.7. A person awarded a contract may not sub-contract more than 25% of the value of the contract to any other enterprise that does not have equal or higher B-BBEE status level than the person concerned, unless the contract is sub-contracted to an EME that has the capacity and the ability to execute the sub-contract.

#### 11 MANDATORY DOCUMENTS FOR ALL SOUTH AFRICAN PARTNERS

- > Bidder must be registered with CSD in order to do business with the SABC
- > Bidder must be registered with CIDB, 2 EB or Higher

#### 12 REQUIRED DOCUMENTS FOR ALL SOUTH AFRICAN PARTNERS

- Valid Original BBBEE Certificate (from SANAS accredited Verification Agency) or from the Auditors approved by the Independent Regulatory Body of Auditors(IRBA)
  - NOTE: Verification agencies and auditors who are accredited by the IRBA (Independent Regulatory Board for Auditors) are no longer the 'Approved Regulatory Bodies' for B-BBEE verification and therefore IRBA Auditors are NOT allowed to issue B-BBEE certificates after 30 September 2016.
  - Companies who have engaged their IRBA verification agency prior to 30 September will be able to receive their BEE Certificate after 30 September, but only until 31 December 2016.
- For Exempted Micro Entrepreneurs (EME's), as per CODE 000 statement 000 (Framework for measuring BBBEE) sufficient evidence of qualification as an EME is an Auditor's certificate issued by an accounting officer or verification agency. An EME is any enterprise with an Annual Total Revenue of R5million or less.

- Certified ID Copies of all directors/ Shareholders Certificate
- Company registration documents

#### 13 COMMUNICATION

Respondents are warned that a response will be disqualified should any attempt be made by a tenderer either directly or indirectly to canvass any officer(s) or employees of SABC in respect of a tender, between the closing date and the date of the award of the business.

All enquiries relating to this RFQ should be emailed three days before the closing date.

#### 14 CONDITIONS TO BE OBSERVED WHEN TENDERING

- 14.1 The Corporation does not bind itself to accept the lowest or any tender, nor shall it be responsible for or pay any expenses or losses which may be incurred by the Tenderer in the preparation and delivery of his tender. The Corporation reserves the right to accept a separate tender or separate tenders for any one or more of the sections of a specification. The Corporation also reserves the right to withdraw the tender at any stage.
- 14.2 No tender shall be deemed to have been accepted unless and until a formal contract / letter of intent is prepared and executed.
- 14.3 The Corporation reserves the right to:

Not evaluate and award submissions that do not comply strictly with his RFQ document.

#### Make a selection solely on the information received in the submissions and

- 14.3.1 Enter into negotiations with any one or more of preferred bidder(s) based on the criteria specified in the evaluation of this tender.
- 14.3.2 Contact any bidder during the evaluation process, in order to clarify any information, without informing any other bidders. During the evaluation process, no change in the content of the RFQ shall be sought, offered or permitted.
- 14.3.3 Award a contract to one or more bidder(s).
- 14.3.4 Accept any tender in part or full at its own discretion.
- 14.3.5 Cancel this RFQ or any part thereof at any time.
- 14.3.6 Should a bidder(s) be selected for further negotiations, they will be chosen on the basis of the greatest benefit to the Corporation and not necessarily on the basis of the lowest costs, aligned to the BBBEE & Preference Point system.

#### 15 Cost of Bidding

The Tenderer shall bear all costs and expenses associated with preparation and submission of its tender or RFQ, and the Corporation shall under no circumstances be responsible or liable for any such costs, regardless of, without limitation, the conduct or outcome of the bidding, evaluation, and selection process.

### **END OF RFQ DOCUMENT**

# Annexed to this document for completion and return with the document:

Annexure A - Declaration of Interest

Annexure B - Consortiums, Joint Ventures and Sub-Contracting Regulations

Annexure C - Previous completed projects/Current Projects
Annexure D. Admin Block Fitting Type and number of units
Annexure E. Ground Floor Fitting Type and number of units
Annexure F. Studio Block Fitting Type and number of units

Annexure G. Luminaire Compulsory Specification

#### **ANNEXURE A**

#### **DECLARATION OF INTEREST**

- Any legal or natural person, excluding any permanent employee of SABC, may make an offer or offers in terms of this tender invitation. In view of possible allegations of favouritism, should the resulting tender, or part thereof be awarded to-
  - (a) any person employed by the SABC in the capacity of Tenderer, consultant or service provider; or
  - (b) any person who acts on behalf of SABC; or
  - (c) any person having kinship, including a blood relationship, with a person employed by, or who acts on behalf of SABC; or
  - (d) any legal person which is in any way connected to any person contemplated in paragraph (a), (b) or (c),

It is required that:

The Tenderer or his/her authorised representative shall declare his/her position *vis-à-vis* SABC and/or take an oath declaring his/her interest, where it is known that any such relationship exists between the Tenderer and a person employed by SABC in any capacity.

Does such a relationship exist? [YES/NO]

If YES, state particulars of all such relationships (if necessary, please add additional pages containing the required information):

	[1]	4
NAME		
POSITION	1	
OFFICE WHERE EMPLOYED		
TELEPHONE NUMBER		
RELATIONSHIP		

- 2. Failure on the part of a Tenderer to fill in and/or sign this certificate may be interpreted to mean that an association as stipulated in paragraph 1, *supra*, exists.
- 3. In the event of a contract being awarded to a Tenderer with an association as stipulated in paragraph 1, *supra*, and it subsequently becomes known that false information was provided in response to the above question, SABC may, in addition to any other remedy it may have:
  - recover from the Tenderer all costs, losses or damages incurred or sustained by SABC as a result of the award of the contract; and/or
  - cancel the contract and claim any damages, which SABC may suffer by having to make less favourable arrangements after such cancellation.

SIGNATURE OF DECLARANT	TENDER NUMBER	DATE	
POSITION OF DECLARANT	NAME OF COMPANY O	R TENDERER	

#### **ANNEXURE B**

#### CONSORTIUMS, JOINT VENTURES AND SUB-CONTRACTING REGULATIONS

### 1. CONSORTIUMS AND JOINT VENTURES

- 1.1 A trust, consortium or joint venture will qualify for points for their B-BBEE status level as a legal entity, provided that the entity submits their B-BBEE status level certificate.
- 1.2 A trust, consortium or joint venture will qualify for points for their B-BBEE status level as an unincorporated entity, provided that the entity submits their consolidated B-BBEE scorecard as if they were a group structure and that such a consolidated B-BBEE scorecard is prepared for every separate tender.

#### 2 SUB-CONTRACTING

- 2.1 A person awarded a contract may only enter into a subcontracting arrangement with the approval of the organ of state.
- 2.2 A person awarded a contract in relation to a designated sector, may not subcontract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 2.3 A person awarded a contract may not subcontract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level of contributor than the person concerned, unless the contract is subcontracted to an EME that has the capability and ability to execute the subcontract.

#### 3 DECLARATION OF SUB-CONTRACTING

3.1	Will ar	Will any portion of the contract be sub-contracted? YES / NO								
3.2	If yes,	s, indicate:								
	3.2.1	The percentage of the	contract will be sub-contracted	%						
	3.2.2	The name of the sub-	contractor							
	3.2.3	The B-BBEE status le	vel of the sub-contractor							
	3.2.4	whether the sub-contra	actor is an EME YES / NO							
SIGN	IATURE	OF DECLARANT	TENDER NUMBER	DATE						
POSI	ITION OF	FDECLARANT	NAME OF COMPANY OR	TENDERER						

# Previous completed projects (preferably provide a detailed company profile, detailed the below mentioned information)

Project Descriptions	Client	Contact no	Contact person	Email address	Period of projects	Value of projects	Project Commence date	Completed date

# Current projects (preferably provide a detailed company profile, detailed the below mentioned information)

Project Descriptions	Client	Contact	Contact person	Email address	Period of projects	Value of projects	Project Commence date	Completion date

# **ANNEXURE D**

# Luminaire Schedule -SABC building Durban

### **ADMIN BUILDING**

Туре А	monument of the same of the sa	Qty- 222	LED Troffer 1200mm x 600mm Art no. T400444-126-ID-80TRA2E Wattage – 44 watts CCT – 4000k (80CRI) Nominal flux – 6812 lumens Dali compatible Repairable Warranty – 3 year or 50000-hour (L80 B50) Manufactured in South Africa SANS 60598 standard Similar to Illumination Technology or equal approved Refer to data sheet and special requirements for additional specification	
Type D		Qty- 59	LED recessed downlight Art no. D103124-1315TR80TRA2E Wattage – 12 watts CCT – 4000k (80CRI) Nominal flux – 2070 lumens Dali compatible Repairable Warranty – 3 year or 50000-hour (L80 B50) Manufactured in South Africa SANS 60598 standard Similar to Illumination Technology or equal approved Refer to data sheet and special requirements for additional specification	
Туре Е		Qty- 10	LED recessed downlight (EMG) Art no. D103124-1315TR80TRA1E Wattage – 12 watts CCT – 4000k (80CRI) Nominal flux – 2070 lumens Dali compatible Emergency battery back-up, self maintained with 1-hour duration Repairable Warranty – 3 year or 50000-hour (L80 B50) Manufactured in South Africa SANS 60598 standard Similar to Illumination Technology or equal approved Refer to data sheet and special requirements for additional specification	
Туре G		Qty- 12	LED Vapour Proof 600mm (EMG) Art no. V10018-4-6106980TRA1E Wattage – 18 watts CCT – 4000k (80CRI) Nominal flux – 2674 lumens Dali compatible Emergency battery back-up, self maintained with 1-hour duration Repairable Warranty – 3 year or 50000-hour (L80 B50) Manufactured in South Africa SANS 60598 standard Similar to Illumination Technology or equal approved Refer to data sheet and special requirements for additional specification	

# Luminaire Schedule -SABC building Durban

# **ADMIN BUILDING**

Туре Н		Qty- 2	LED Vapour Proof 1200mm (EMG) Art no. V10036-4-12-106980TRA2E Wattage – 36 watts CCT – 4000k (80CRI) Nominal flux – 5348 lumens Dali compatible Repairable Warranty – 3 year or 50000-hour (L80 B50) Manufactured in South Africa SANS 60598 standard Similar to Illumination Technology or equal approved Refer to data sheet and special requirements for additional specification	
Type L	- And de	Qty- 10	LED Troffer 600mm x 600mm Art no. T400224-6-6-ID-80TRA3E Wattage – 22 watts CCT – 4000k (80CRI) Nominal flux – 3406 lumens Dali compatible with integrated sensor Repairable Warranty – 5 year or 50000-hour (L80 B50) Manufactured in accordance with SANS 60598 Manufactured in South Africa Illumination Technology or equal approved Refer to data sheet and special requirements for additional specification	

#### Addition Requirements

- 1. All luminaires to be Dali compatible.
- Supply, installation, wiring and integration of all equipment to enable full digital control and programming of luminaires, sensors and controllers to be included in installation cost.
- 3.9 x Touch dimming controllers for all 6 board rooms.
- 4. 90 x Day Light Harvesting Sensor with presence detection in Offices, boardrooms and main entrance.
- 5. 126 x 5A plug sockets to be installed for areas that currently do not have sockets installed for luminaires to be plugged in.
- 6. 6 x 3 Phase lighting surge protection system with audible notification and mechanical override compatible and suited to offer protection to luminaires installed.
- 7. Supply approximately 42 x ceiling tiles (1200 x 600) and make ceiling good when relocated luminaires.
- 8. All luminaires, controllers and sensors must be group for individual offices, boardroom etc however this requirement will change from time to time as spaces are reconfigured. The regrouping of these luminaires, controllers, and sensors need to be achieve by means of software and not hardwiring to suit the new space configuration and requirement.
- 9. Programming requirements: All offices and boardrooms to be grouped individually together with a Day Light Harvesting Sensor with presence detection set to maintain 500lux on the desk between 7am - 6pm 7days per week when presence is detected and to dim to 10% after 30 minutes should no presence be detected. Between 6pm-7am luminaires should switch off if no presence is detected.
- The luminaire manufacturer should employ a quality management procedure that will ensure traceability of the luminaire components.
- 11. Five Year or 50000 hours on site warranty which must include a written warranty that will cover any failure within the 5 years which will be replaced at the suppliers cost including removal, installation, hoisting and transportation costs. A luminaire daily burning time of 24 hours per day must be covered under this warranty with a minimum switching cycles of 40,000. With a switching cycle defined as 30 seconds on 30 seconds off. This must also be supported by a LM 80 report achieving not less than 80% lumen maintenance over 50000 hours at the required wattage.
- 12. A written undertaking from the Luminaire manufacturer that they will conduct two annual site inspections to ensure all luminaires are performing as required which must be supported by lux readings to ensure degradation is within the specified values over the five year warranty period.
- 13. The potential supplier together with the Luminaire manufacturer must supply a written guarantee that they will respond to any failure of luminaires within 7 (Seven) hours from time of notification 365 days a year.
- Undertaking by the Luminaire manufacturer that luminaires will be fully serviceable and repairable in KwaZulu-Natal within 24 hours should a failure occur.
- 15. The luminaire manufacturer must be able to guarantee production of the proposed luminaire for at least 5 years, and the spares and components for a minimum of 7 years from date of purchase.
- 16. The Luminaire manufacturer is required to supply a written confirmation that they understand The Durban SABC's environmental and power conditions together with controls and the areas where the luminaires will be installed, and that the luminaire warranty offered does not preclude the use or control of the luminaire under these conditions.
- 17. The luminaire pricing must include a service level agreement which covers two annual inspections to ensure all luminaires are operational together with supported lux readings, removal and reinstallation of any luminaire that may fail and be covered under the luminaire manufactures warranty. A lighting audit conducted at project handover and twenty-four months thereafter combined with an AIA report signed off by a SAIOH accredited Occupational Hygienist. Failure to obtain a full compliant report will deem the supply, installation and integration not compliant with the project specification.

# **ANNEXURE E**

### Luminaire Schedule –SABC building Durban Ground Floor

Туре А	manness of the second	Qty- 89	LED Troffer 1200mm x 600mm Art no. T400444-126-ID-80TRA2E Wattage – 44 watts CCT – 4000k (80CRI) Nominal flux – 6812 lumens Dali compatible Repairable Warranty – 5 year or 50000-hour (L80 B50) Manufactured in accordance with SANS 60598 Manufactured in South Africa Illumination Technology or equal approved Refer to data sheet and special requirements for additional specification	
Туре В	Managarana	Qty- 46	LED Troffer 600mm x 600mm Art no. T400224-6-6-ID-80TRA2E Wattage – 22 watts CCT – 4000k (80CRI) Nominal flux – 3406 lumens Dali compatible Repairable Warranty – 5 year or 50000-hour (L80 B50) Manufactured in accordance with SANS 60598 Manufactured in South Africa Illumination Technology or equal approved Refer to data sheet and special requirements for additional specification	
Туре С	NAMES AND POST OF THE PARTY OF	Qty- 9	LED Troffer 600mm x 600mm (EMG) Art no. T400224-6-6-ID-80TRA1E Wattage – 22 watts CCT – 4000k (80CRI) Nominal flux – 3406 lumens Dali compatible Emergency battery back-up, self maintained with 1-hour duration Repairable Warranty – 5 year or 50000-hour (L80 B50) Manufactured in accordance with SANS 60598 Manufactured in South Africa Illumination Technology or equal approved Refer to data sheet and special requirements for additional specification	
Type D		Qty- 47	LED recessed downlight Art no. D103124-1315TR80TRA2E Wattage – 12 watts CCT – 4000k (80CRI) Nominal flux – 2070 lumens Dali compatible Repairable Warranty – 5 year or 50000-hour (L80 B50) Manufactured in accordance with SANS 60598 Manufactured in South Africa Illumination Technology or equal approved Refer to data sheet and special requirements for additional specification	
Туре Е		Qty- 7	LED recessed downlight (EMG) Art no. D103124-1315TR80TRA1E Wattage – 12 watts CCT – 4000k (80CRI) Nominal flux – 2070 lumens Dali compatible Emergency battery back-up, self maintained with 1-hour duration Repairable Warranty – 5 year or 50000-hour (L80 B50) Manufactured in accordance with SANS 60598 Manufactured in South Africa Illumination Technology or equal approved Refer to data sheet and special requirements for additional specification	

### Luminaire Schedule –SABC building Durban Ground Floor

Type F		Qty- 16	LED Wall Washer Art no. W10144-4-ID80TRA2E Wattage – 44 watts CCT – 4000k (80CRI) Nominal flux – 6812 lumens Dali compatible Repairable Warranty – 5 year or 50000-hour (L80 B50) Manufactured in accordance with SANS 60598 Manufactured in South Africa Illumination Technology or equal approved Refer to data sheet and special requirements for additional specification	
Туре G		Qty- 3	LED Vapour Proof 600mm (EMG) Art no. V10018-4-6I06980TRA1E Wattage – 18 watts CCT – 4000k (80CRI) Nominal flux – 2674 lumens Dali compatible Emergency battery back-up, self maintained with 1-hour duration Repairable Warranty – 5 year or 50000-hour (L80 B50) Manufactured in accordance with SANS 60598 Manufactured in South Africa Illumination Technology or equal approved Refer to data sheet and special requirements for additional specification	
Туре Н		Qty- 4	LED Vapour Proof 1200 mm (EMG) Art no. V10036-4-12-I06980TRA2E Wattage – 36 watts CCT – 4000k (80CRI) Nominal flux – 5348 lumens Repairable Warranty – 5 year or 50000-hour (L80 B50) Manufactured in accordance with SANS 60598 Manufactured in South Africa Illumination Technology or equal approved Refer to data sheet and special requirements for additional specification	
Туре L	and	Qty- 15	LED Troffer 600mm x 600mm Art no. T400224-6-6-ID-80TRA3E Wattage – 22 watts CCT – 4000k (80CRI) Nominal flux – 3406 lumens Dali compatible with integrated sensor Repairable Warranty – 5 year or 50000-hour (L80 B50) Manufactured in accordance with SANS 60598 Manufactured in South Africa Illumination Technology or equal approved Refer to data sheet and special requirements for additional specification	

#### Addition Requirements

- 1. All luminaires to be Dali compatible.
- Supply, installation, wiring and integration of all equipment to enable full digital control and programming of luminaires, sensors and controllers to be included in installation cost.
- 3.1 x Touch dimming controllers for all 6 board rooms.
- 4. 36 x Day Light Harvesting Sensor with presence detection in Offices, boardrooms and main entrance.
- 5. 86 x 5A plug sockets to be installed for areas that currently do not have sockets installed for luminaires to be plugged in.
- 6. 2 x 3 Phase lighting surge protection system with audible notification and mechanical override compatible and suited to offer protection to luminaires installed.
- 7. Supply approximately 12 x ceiling tiles (1200 x 600) and make ceiling good when relocated luminaires.
- 8. All luminaires, controllers and sensors must be group for individual offices, boardroom etc however this requirement will change from time to time as spaces are reconfigured. The regrouping of these luminaires, controllers, and sensors need to be achieve by means of software and not hardwiring to suit the new space configuration and requirement.
- 9. Programming requirements: All offices and boardrooms to be grouped individually together with a Day Light Harvesting Sensor with presence detection set to maintain 500lux on the desk between 7am - 6pm 7days per week when presence is detected and to dim to 10% after 30 minutes should no presence be detected. Between 6pm-7am luminaires should switch off if no presence is detected.
- 10. The luminaire manufacturer should employ a quality management procedure that will ensure traceability of the luminaire components.
- 11. Five Year or 50000 hours on site warranty which must include a written warranty that will cover any failure within the 5 years which will be replaced at the suppliers cost including removal, installation, hoisting and transportation costs. A luminaire daily burning time of 24 hours per day must be covered under this warranty with a minimum switching cycles of 40,000. With a switching cycle defined as 30 seconds on 30 seconds off. This must also be supported by a LM 80 report achieving not less than 80% lumen maintenance over 50000 hours at the required wattage.
- 12. A written undertaking from the Luminaire manufacturer that they will conduct two annual site inspections to ensure all luminaires are performing as required which must be supported by lux readings to ensure degradation is within the specified values over the five year warranty period.
- 13. The potential supplier together with the Luminaire manufacturer must supply a written guarantee that they will respond to any failure of luminaires within 7 (Seven) hours from time of notification 365 days a year.
- 14. Undertaking by the Luminaire manufacturer that luminaires will be fully serviceable and repairable in KwaZulu-Natal within 24 hours should a failure occur.
- 15. The luminaire manufacturer must be able to guarantee production of the proposed luminaire for at least 5 years, and the spares and components for a minimum of 7 years from date of purchase.
- 16. The Luminaire manufacturer is required to supply a written confirmation that they understand The Durban SABC's environmental and power conditions together with controls and the areas where the luminaires will be installed, and that the luminaire warranty offered does not preclude the use or control of the luminaire under these conditions.
- 17. The luminaire pricing must include a service level agreement which covers two annual inspections to ensure all luminaires are operational together with supported lux readings, removal and reinstallation of any luminaire that may fail and be covered under the luminaire manufactures warranty. A lighting audit conducted at project handover and twenty-four months thereafter combined with an AIA report signed off by a SAIOH accredited Occupational Hygienist. Failure to obtain a full compliant report will deem the supply, installation and integration not compliant with the project specification.

# **ANNEXURE F**

# Luminaire Schedule -SABC building Durban

### Studio Block

Туре А	monument of the same of the sa	Qty- 103	LED Troffer 1200mm x 600mm Art no. T400444-126-ID-80TRA2E Wattage – 44 watts CCT – 4000k (80CRI) Nominal flux – 6812 lumens Dali compatible Repairable Warranty – 5 year or 50000-hour (L80 B50) Manufactured in accordance with SANS 60598 Manufactured in South Africa Illumination Technology or equal approved Refer to data sheet and special requirements for additional specification	
Туре В	- Andrewson - Andr	Oty-8	LED Troffer 600mm x 600mm Art no. T400224-6-6-ID-80TRA2E Wattage – 22 watts CCT – 4000k (80CRI) Nominal flux – 3406 lumens Dali compatible Repairable Warranty – 5 year or 50000-hour (L80 B50) Manufactured in accordance with SANS 60598 Manufactured in South Africa Illumination Technology or equal approved Refer to data sheet and special requirements for additional specification	
Туре Е		Qty- 12	LED recessed downlight (EMG) Art no. D103124-1315TR80TRA1E Wattage – 12 watts CCT – 4000k (80CRI) Nominal flux – 2070 lumens Emergency battery back-up, self maintained with 1-hour duration Repairable Warranty – 5 year or 50000-hour (L80 B50) Manufactured in accordance with SANS 60598 Manufactured in South Africa Illumination Technology or equal approved Refer to data sheet and special requirements for additional specification	
Туре G		Qty-5	LED Vapour Proof 600mm (EMG) Art no. V10018-4-6106980TRA1E Wattage — 18 watts CCT — 4000k (80CRI) Nominal flux — 2674 lumens Dali compatible Emergency battery back-up, self maintained with 1-hour duration Repairable Warranty — 5 year or 50000-hour (L80 B50) Manufactured in accordance with SANS 60598 Manufactured in South Africa Illumination Technology or equal approved Refer to data sheet and special requirements for additional specification	
Type D		Qty- 87	LED recessed downlight Art no. D103134-1315TR80TRA2E Wattage – 12 watts CCT – 4000k (80CRI) Nominal flux – 2070 lumens Dali compatible Repairable Warranty – 5 year or 50000-hour (L80 B50) Manufactured in accordance with SANS 60598 Manufactured in South Africa Illumination Technology or equal approved Refer to data sheet and special requirements for additional specification	

#### Luminaire Schedule –SABC building Durban Studio Block

			tudio Block	
Туре Н		Qty- 8	LED Vapour Proof 1200 mm (EMG) Art no. V10036-4-12-106980TRA2E Wattage – 36 watts CCT – 4000k (80CRI) Nominal flux – 5348 lumens Dali compatible Repairable Warranty – 5 year or 50000-hour (L80 B50) Manufactured in accordance with SANS 60598 Manufactured in South Africa Illumination Technology or equal approved Refer to data sheet and special requirements for additional specification	
Type I		Qty- 36	LED recessed downlight Art no. D1007-4-7-9-BV106080TRA3E Wattage – 7 watts CCT – 4000k (80CRI) Nominal flux – 1007 lumens Phase dimmable Repairable Warranty – 5 year or 50000-hour (L80 B50) Manufactured in accordance with SANS 60598 Manufactured in South Africa Illumination Technology or equal approved Refer to data sheet and special requirements for additional specification	
Type J		Qty- 12	LED Linear 2400mm Art no. L110884-2407ID-80TRA2E Wattage — 88 watts CCT — 4000k (80CRI) Nominal flux — 13624 lumens Dali compatible Repairable Warranty — 5 year or 50000-hour (L80 B50) Manufactured in accordance with SANS 60598 Manufactured in South Africa Illumination Technology or equal approved Refer to data sheet and special requirements for additional specification	
Туре К		Qty- 9	LED high bay Art no. H1103064-I061222W-80TRA2E Wattage – 306 watts CCT – 4000k (80CRI) Nominal flux – 46314 lumens Dali compatible Repairable Warranty – 5 year or 50000-hour (L80 B50) Manufactured in accordance with SANS 60598 Manufactured in South Africa Illumination Technology or equal approved Refer to data sheet and special requirements for additional specification	
Type L	ANTHONORMAN	Qty- 2	LED Troffer 600mm x 600mm Art no. T400224-6-6-ID-80TRA3E Wattage – 22 watts CCT – 4000k (80CRI) Nominal flux – 3406 lumens Dali compatible with integrated sensor Repairable Warranty – 5 year or 50000-hour (L80 B50) Manufactured in accordance with SANS 60598 Manufactured in South Africa Illumination Technology or equal approved Refer to data sheet and special requirements for additional specification	

#### Addition Requirements

- 1. All luminaires to be Dali compatible.
- Supply, installation, wiring and integration of all equipment to enable full digital control and programming of luminaires, sensors and controllers to be included in installation cost.
- 3. 1 x Touch dimming controllers for all 6 board rooms.
- 4.8 x dimmer controllers for all studios.
- 5. 36 x Day Light Harvesting Sensor with presence detection in Offices, boardrooms and main entrance.
- 6. 117 x 5A plug sockets to be installed for areas that currently do not have sockets installed for luminaires to be plugged in.
- 7. 4 x 3 Phase lighting surge protection system with audible notification and mechanical override compatible and suited to offer protection to luminaires installed.
- 8. All luminaires, controllers and sensors must be group for individual offices, boardroom etc however this requirement will change from time to time as spaces are reconfigured. The regrouping of these luminaires, controllers, and sensors need to be achieve by means of software and not hardwiring to suit the new space configuration and requirement.
- 9. Programming requirements: All offices and boardrooms to be grouped individually together with a Day Light Harvesting Sensor with presence detection set to maintain 500lux on the desk between 7am - 6pm 7days per week when presence is detected and to dim to 10% after 30 minutes should no presence be detected. Between 6pm-7am luminaires should switch off if no presence is detected.
- The luminaire manufacturer should employ a quality management procedure that will ensure traceability of the luminaire components.
- 11. Five Year or 50000 hours on site warranty which must include a written warranty that will cover any failure within the 5 years which will be replaced at the suppliers cost including removal, installation, hoisting and transportation costs. A luminaire daily burning time of 24 hours per day must be covered under this warranty with a minimum switching cycles of 40,000. With a switching cycle defined as 30 seconds on 30 seconds off. This must also be supported by a LM 80 report achieving not less than 80% lumen maintenance over 50000 hours at the required wattage.
- 12. A written undertaking from the Luminaire manufacturer that they will conduct two annual site inspections to ensure all luminaires are performing as required which must be supported by lux readings to ensure degradation is within the specified values over the five year warranty period.
- 13. The potential supplier together with the Luminaire manufacturer must supply a written guarantee that they will respond to any failure of luminaires within 7 (Seven) hours from time of notification 365 days a year.
- 14. Undertaking by the Luminaire manufacturer that luminaires will be fully serviceable and repairable in KwaZulu-Natal within 24 hours should a failure occur.
- 15. The luminaire manufacturer must be able to guarantee production of the proposed luminaire for at least 5 years, and the spares and components for a minimum of 7 years from date of purchase.
- 16. The Luminaire manufacturer is required to supply a written confirmation that they understand The Durban SABC's environmental and power conditions together with controls and the areas where the luminaires will be installed, and that the luminaire warranty offered does not preclude the use or control of the luminaire under these conditions.
- 17. The luminaire pricing must include a service level agreement which covers two annual inspections to ensure all luminaires are operational together with supported lux readings, removal and reinstallation of any luminaire that may fail and be covered under the luminaire manufactures warranty. A lighting audit conducted at project handover and twenty-four months thereafter combined with an AIA report signed off by a SAIOH accredited Occupational Hygienist. Failure to obtain a full compliant report will deem the supply, installation and integration not compliant with the project specification.

10-19v.2A

# 44W Troffer Data Sheet

# T400

Special Requirements for T400444-126-I- - - D-80TRA2E

- 1. The complete luminaire including its housing structure should be designed and manufactured in South Africa.
- 2. The body must be manufactured from stainless steel or Aluminium, and powder coated with Akzonobel RAL39003. Pre treatment should be a minimum of eight stage cleaning and include organic zinc phosphate treatment.
- 3. The luminaire should have passive cooling technology. Active cooling will not be accepted.
- 4. The outer dimension of the housing should be 1195mm X 595mm with a height of 107mm.
- 5. The anti-glare recess should be manufactured from polycarbonate.
- 6. The luminaire must be manufactured using OSRAM LEDs with the chromaticity tolerance not greater than 3 MacAdam.
- 7. The LED driver should be flicker free < 4%
- 8. The luminaire should be designed to operate in an environment of ta 35°C with the solder point temperature of the PCB not exceeding 60°C.
- 9. The luminaire should be repairable and compatible for upgrades to future technology advances.
- 10. The luminaire must be fully enclosed to prevent dust and debris falling into the PCB.
- 11. Beam angle should be between 80° however, the luminaire design should allow for an interchangeable beam angle to 50°.
- 12. The optical efficiency should be greater than 87%.
- 13. The luminaire must be manufactured in accordance with SANS 60598 and all applicable parts thereof.
- 14. The Correlated Colour Temperature should be 4000 Kelvin, with a colour rendering index greater than 80.
- 15. The lamp luminous flux should not be less than 6812lm @ 44W based on ta 35°.
- 16. The power factor of the LED driver should be >0.95.
- 17. The wattage of the proposed luminaire must not exceed 44W.
- 18. The luminaire driver should have a nominal life of >100000hour and have the necessary protection to overcome voltage fluctuation, overheating, short circuits, overloads, voltage spikes up to 3.5Kv and have active auto power factor correction.
- 19. The luminaire manufacturer should employ a quality management procedure that will ensure traceability of the luminaire components.
- 20. A written undertaking from the Luminaire manufacturer that they will conduct two annual site inspections to ensure all luminaires are performing as required which must be supported by lux readings to ensure degradation is within the specified values over the five-year warranty period.
- 21. Five Year or 50000 hours on site warranty which must include a written warranty that will cover any failure within the 5 years which will be replaced at the suppliers cost including removal, installation, hoisting and transportation costs. A luminaire daily burning time of 24 hours per day must be covered under this warranty with a minimum switching cycles of 40,000. With a switching cycle defined as 30 seconds on 30 seconds off. This must also be supported by a LM 80 report achieving not less than 80% lumen maintenance over 50000 hours at the required wattage.
- 22. A written undertaking from the Luminaire manufacturer that they will conduct two annual site inspections to ensure all luminaires are performing as required which must be supported by lux readings to ensure degradation is within the specified values over the five-year warranty period.
- 23. The potential supplier together with the Luminaire manufacturer must supply a written guarantee that they will respond to any failure of luminaires within 7 (Seven) hours from time of notification 365 days a year.

- 24. Undertaking by the Luminaire manufacturer that luminaires will be fully serviceable and repairable in KwaZulu-Natal within 24 hours should a failure occur.
- 25. The luminaire manufacturer must be able to guarantee production of the proposed luminaire for at least 5 years, and the spares and components for a minimum of 7 years from date of purchase.
- 26. The Luminaire manufacturer is required to supply a written confirmation that they understand The Durban SABC's environmental and power conditions together with controls and the areas where the luminaires will be installed, and that the luminaire warranty offered does not preclude the use or control of the luminaire under these conditions.

#### **Supporting documentation required:**

Manufactures written warranty Data Sheet of luminaire LM 80 Report Data Sheet of LED driver

Written undertakings as per specification from potential supplier (Undertaking Point 23)

Written undertakings as per specification from luminaire manufacturer (Undertaking Point 1, Point 20, Point 21, Point 22, Point 23, Point 24, Point 25, Point 26) A fully operational working sample must be provided at point of submission.

# 22W Troffer Data Sheet

T400224-6-6-I- - - D-80TRA2E

# T400

Special Requirements for T400224-6-6-I- - - D-80TRA2E

- 1. The complete luminaire including its housing structure should be designed and manufactured in South Africa.
- 2. The body must be manufactured from stainless steel or Aluminium, and powder coated with Akzonobel RAL39003. Pre treatment should be a minimum of eight stage cleaning and include organic zinc phosphate treatment.
- 3. The luminaire should have passive cooling technology. Active cooling will not be accepted.
- 4. The outer dimension of the housing should be 595mm X 595mm with a height of 100mm.
- 5. The anti-glare recess should be manufactured from polycarbonate.
- 6. The luminaire must be manufactured using OSRAM LEDs with the chromaticity tolerance not greater than 3 MacAdam.
- 7. The LED driver should be flicker free < 4%
- 8. The luminaire should be designed to operate in an environment of ta 35°C with the solder point temperature of the PCB not exceeding 60°C.
- 9. The luminaire should be repairable and compatible for upgrades to future technology advances.
- 10. The luminaire must be fully enclosed to prevent dust and debris falling into the PCB.
- 11. Beam angle should be between 80° however, the luminaire design should allow for an interchangeable beam angle to 50°.
- 12. The optical efficiency should be greater than 87%.
- 13. The luminaire must be manufactured in accordance with SANS 60598 and all applicable parts thereof.
- 14. The Correlated Colour Temperature should be 4000 Kelvin, with a colour rendering index greater than 80.
- 15. The lamp luminous flux should not be less than 3406lm @ 22W based on ta 35°.
- 16. The power factor of the LED driver should be >0.95.
- 17. The wattage of the proposed luminaire must not exceed 22W.
- 18. The luminaire driver should have a nominal life of >100000hour and have the necessary protection to overcome voltage fluctuation, overheating, short circuits, overloads, voltage spikes up to 3.5Kv and have active auto power factor correction.
- 19. The luminaire manufacturer should employ a quality management procedure that will ensure traceability of the luminaire components.
- 20. A written undertaking from the Luminaire manufacturer that they will conduct two annual site inspections to ensure all luminaires are performing as required which must be supported by lux readings to ensure degradation is within the specified values over the five-year warranty period.
- 21. Five Year or 50000 hours on site warranty which must include a written warranty that will cover any failure within the 5 years which will be replaced at the suppliers cost including removal, installation, hoisting and transportation costs. A luminaire daily burning time of 24 hours per day must be covered under this warranty with a minimum switching cycles of 40,000. With a switching cycle defined as 30 seconds on 30 seconds off. This must also be supported by a LM 80 report achieving not less than 80% lumen maintenance over 50000 hours at the required wattage.
- 22. A written undertaking from the Luminaire manufacturer that they will conduct two annual site inspections to ensure all luminaires are performing as required which must be supported by lux readings to ensure degradation is within the specified values over the five-year warranty period.
- 23. The potential supplier together with the Luminaire manufacturer must supply a written guarantee that they will respond to any failure of luminaires within 7 (Seven) hours from time of notification 365 days a year.
- 24. Undertaking by the Luminaire manufacturer that luminaires will be fully serviceable and repairable in KwaZulu- Natal within 24 hours should a failure occur.

25. The luminaire manufacturer must be able to guarantee production of the proposed luminaire for at least 5 years, and the spares and components for a minimum of 7 years from date of purchase.

26. The Luminaire manufacturer is required to supply a written confirmation that they understand The Durban SABC's environmental and power conditions together with controls and the areas where the luminaires will be installed, and that the luminaire warranty offered does not preclude the use or control of the luminaire under these conditions.

#### Supporting documentation required:

Manufactures written warranty
Data Sheet of luminaire
LM 80 Report
Data Sheet of LED driver
Written undertakings as per specification from potential supplier
(Undertaking Point 23)
Written undertakings as per specification from luminaire manufacturer
(Undertaking Point 1, Point 20, Point 21, Point 22, Point 23, Point 24, Point 25, Point 26)
A fully operational working sample must be provided at point of submission.

# 22W Troffer Data Sheet

T400224-6-6-I- - - D-80TRA1E

# T400

Special Requirements for T400224-6-6-I- - -D-80TRA1E

- 1. The complete luminaire including its housing structure should be designed and manufactured in South Africa.
- 2. The body must be manufactured from stainless steel or Aluminium, and powder coated with Akzonobel RAL39003. Pre treatment should be a minimum of eight stage cleaning and include organic zinc phosphate treatment.
- 3. The luminaire should have passive cooling technology. Active cooling will not be accepted.
- 4. The outer dimension of the housing should be 595mm X 595mm with a height of 100mm.
- 5. The anti-glare recess should be manufactured from polycarbonate.
- 6. The luminaire must be manufactured using OSRAM LEDs with the chromaticity tolerance not greater than 3 MacAdam.
- 7. The LED driver should be flicker free < 4%
- 8. The luminaire should be designed to operate in an environment of ta 35°C with the solder point temperature of the PCB not exceeding 60°C.
- 9. The luminaire should be repairable and compatible for upgrades to future technology advances.
- 10. The luminaire must be fully enclosed to prevent dust and debris falling into the PCB.
- 11. Beam angle should be between 80° however, the luminaire design should allow for an interchangeable beam angle to 50°.
- 12. The optical efficiency should be greater than 87%.
- 13. The luminaire must be manufactured in accordance with SANS 60598 and all applicable parts thereof.
- 14. The Correlated Colour Temperature should be 4000 Kelvin, with a colour rendering index greater than 80.
- 15. The lamp luminous flux should not be less than 3406lm @ 22W based on ta 35°.
- 16. The power factor of the LED driver should be >0.95.
- 17. The wattage of the proposed luminaire must not exceed 22W.
- 18. The luminaire driver should have a nominal life of >100000hour and have the necessary protection to overcome voltage fluctuation, overheating, short circuits, overloads, voltage spikes up to 3.5Kv and have active auto power factor correction.
- 19. The luminaire manufacturer should employ a quality management procedure that will ensure traceability of the luminaire components.
- 20. A written undertaking from the Luminaire manufacturer that they will conduct two annual site inspections to ensure all luminaires are performing as required which must be supported by lux readings to ensure degradation is within the specified values over the five-year warranty period.
- 21. Five Year or 50000 hours on site warranty which must include a written warranty that will cover any failure within the 5 years which will be replaced at the suppliers cost including removal, installation, hoisting and transportation costs. A luminaire daily burning time of 24 hours per day must be covered under this warranty with a minimum switching cycles of 40,000. With a switching cycle defined as 30 seconds on 30 seconds off. This must also be supported by a LM 80 report achieving not less than 80% lumen maintenance over 50000 hours at the required wattage.
- 22. A written undertaking from the Luminaire manufacturer that they will conduct two annual site inspections to ensure all luminaires are performing as required which must be supported by lux readings to ensure degradation is within the specified values over the five-year warranty period.
- 23. The potential supplier together with the Luminaire manufacturer must supply a written guarantee that they will respond to any failure of luminaires within 7 (Seven) hours from time of notification 365 days a year.
- 24. Undertaking by the Luminaire manufacturer that luminaires will be fully serviceable and repairable in KwaZulu-Natal within 24 hours should a failure occur.
- 25. The luminaire manufacturer must be able to guarantee production of the proposed luminaire for at least 5 years, and the spares and components for a minimum of 7 years from date of purchase.

26. The Luminaire manufacturer is required to supply a written confirmation that they understand The Durban SABC's environmental and power conditions together with controls and the areas where the luminaires will be installed, and that the luminaire warranty offered does not preclude the use or control of the luminaire under these conditions.

#### **Supporting documentation required:**

Manufactures written warranty
Data Sheet of luminaire
LM 80 Report
Data Sheet of LED driver
Written undertakings as per specification from potential supplier
(Undertaking Point 23)
Written undertakings as per specification from luminaire manufacturer
(Undertaking Point 1, Point 20, Point 21, Point 22, Point 23, Point 24, Point 25, Point 26)
A fully operational working sample must be provided at point of submission.

# 12W Downlight Data Sheet

D103124-1315TR- - -80TRA2E

# D103

Special Requirements for D103124-1315TR- - -80TRA2E

- 1. The complete luminaire including its housing structure should be designed and manufactured in South Africa.
- 2. The body must be manufactured from stainless steel or Aluminium, and powder coated with Akzonobel RAL39003. Pre treatment should be a minimum of eight stage cleaning and include organic zinc phosphate treatment.
- 3. The luminaire should have passive cooling technology. Active cooling will not be accepted.
- 4. The outer dimension of the housing should be 155mm with a height of 42.8mm and a cut-out of 135mm.
- 5. The anti-glare recess should be a height of 20mm manufactured from stainless steel or Aluminium.
- 6. The luminaire must be manufactured using backlit or COB technology and OSRAM LEDs with the chromaticity tolerance not greater than 3 MacAdam. Edge-lit technology will not be excepted.
- 7. The LED driver should be flicker free < 4%
- 8. The luminaire should be designed to operate in an environment of ta 35°C with the solder point temperature of the PCB not exceeding 60°C.
- 9. The luminaire should be repairable and compatible for upgrades to future technology advances.
- 10. The luminaire must be fully enclosed to prevent dust and debris falling into the PCB.
- 11. Beam angle should be between 50°- 60°.
- 12. The optical efficiency should be greater than 80%.
- 13. The luminaire must be manufactured in accordance with SANS 60598 and all applicable parts thereof.
- 14. The Correlated Colour Temperature should be 4000 Kelvin, with a colour rendering index greater than 80.
- 15. The lamp luminous flux should not be less than 2070lm @ 12W based on ta 35°.
- 16. The power factor of the LED driver should be >0.95.
- 17. The wattage of the proposed luminaire must not exceed 12W.
- 18. The luminaire driver should have a nominal life of >100000hour and have the necessary protection to overcome voltage fluctuation, overheating, short circuits, overloads, voltage spikes up to 3.5Kv and have active auto power factor correction.
- 19. The luminaire manufacturer should employ a quality management procedure that will ensure traceability of the luminaire components.
- 20. A written undertaking from the Luminaire manufacturer that they will conduct two annual site inspections to ensure all luminaires are performing as required which must be supported by lux readings to ensure degradation is within the specified values over the five-year warranty period.
- 21. Five Year or 50000 hours on site warranty which must include a written warranty that will cover any failure within the 5 years which will be replaced at the suppliers cost including removal, installation, hoisting and transportation costs. A luminaire daily burning time of 24 hours per day must be covered under this warranty with a minimum switching cycles of 40,000. With a switching cycle defined as 30 seconds on 30 seconds off. This must also be supported by a LM 80 report achieving not less than 80% lumen maintenance over 50000 hours at the required wattage.
- 22. A written undertaking from the Luminaire manufacturer that they will conduct two annual site inspections to ensure all luminaires are performing as required which must be supported by lux readings to ensure degradation is within the specified values over the five year warranty period.
- 23. The potential supplier together with the Luminaire manufacturer must supply a written guarantee that they will respond to any failure of luminaires within 7 (Seven) hours from time of notification 365 days a year.
- 24. Undertaking by the Luminaire manufacturer that luminaires will be fully serviceable and repairable in KwaZulu-Natal within 24 hours should a failure occur.

25. The luminaire manufacturer must be able to guarantee production of the proposed luminaire for at least 5 years, and the spares and components for a minimum of 7 years from date of purchase.

26. The Luminaire manufacturer is required to supply a written confirmation that they understand The Durban SABC's environmental and power conditions together with controls and the areas where the luminaires will be installed, and that the luminaire warranty offered does not preclude the use or control of the luminaire under these conditions.

### **Supporting documentation required:**

Manufactures written warranty Data Sheet of luminaire

LM 80 Report

Data Sheet of LED driver

Written undertakings as per specification from potential supplier

(Undertaking Point 22)

Written undertakings as per specification from luminaire manufacturer

(Undertaking Point 1, Point 20, Point 21, Point 22, Point 23, Point 24, Point 25)

A fully operational compliant working sample must be provided at point of submission.

# 12W Downlight Data Sheet

D103124-1315TR- - -80TRA1E

# D103

Special Requirements for D103124-1315TR- - -80TRA1E

- 1. The complete luminaire including its housing structure should be designed and manufactured in South Africa.
- 2. The body must be manufactured from stainless steel or Aluminium, and powder coated with Akzonobel RAL39003. Pre treatment should be a minimum of eight stage cleaning and include organic zinc phosphate treatment.
- 3. The luminaire should have passive cooling technology. Active cooling will not be accepted.
- 4. The outer dimension of the housing should be 155mm with a height of 42.8mm and a cut-out of 135mm.
- 5. The anti-glare recess should be a height of 20mm manufactured from stainless steel or Aluminium.
- 6. The luminaire must be manufactured using backlit or COB technology and OSRAM LEDs with the chromaticity tolerance not greater than 3 MacAdam. Edge-lit technology will not be excepted.
- 7. The LED driver should be flicker free < 4%
- 8. The luminaire should be designed to operate in an environment of ta 35°C with the solder point temperature of the PCB not exceeding 60°C.
- 9. The luminaire should be repairable and compatible for upgrades to future technology advances.
- 10. The luminaire must be fully enclosed to prevent dust and debris falling into the PCB.
- 11. Beam angle should be between 50°- 60°.
- 12. The optical efficiency should be greater than 80%.
- 13. The luminaire must be manufactured in accordance with SANS 60598 and all applicable parts thereof.
- 14. The Correlated Colour Temperature should be 4000 Kelvin, with a colour rendering index greater than 80.
- 15. The lamp luminous flux should not be less than 2070lm @ 12W based on ta 35°.
- 16. The power factor of the LED driver should be >0.95.
- 17. The wattage of the proposed luminaire must not exceed 12W.
- 18. The luminaire driver should have a nominal life of >100000hour and have the necessary protection to overcome voltage fluctuation, overheating, short circuits, overloads, voltage spikes up to 3.5Kv and have active auto power factor correction.
- 19. The luminaire manufacturer should employ a quality management procedure that will ensure traceability of the luminaire components.
- 20. A written undertaking from the Luminaire manufacturer that they will conduct two annual site inspections to ensure all luminaires are performing as required which must be supported by lux readings to ensure degradation is within the specified values over the five-year warranty period.
- 21. Five Year or 50000 hours on site warranty which must include a written warranty that will cover any failure

within the 5 years which will be replaced at the suppliers cost including removal, installation, hoisting and transportation costs. A luminaire daily burning time of 24 hours per day must be covered under this warranty with a minimum switching cycles of 40,000. With a switching cycle defined as 30 seconds on 30 seconds off. This must also be supported by a LM 80 report achieving not less than 80% lumen maintenance over 50000 hours at the required wattage.

- 22. A written undertaking from the Luminaire manufacturer that they will conduct two annual site inspections to ensure all luminaires are performing as required which must be supported by lux readings to ensure degradation is within the specified values over the five-year warranty period.
- 23. The potential supplier together with the Luminaire manufacturer must supply a written guarantee that they will respond to any failure of luminaires within 7 (Seven) hours from time of notification 365 days a year.
- 24. Undertaking by the Luminaire manufacturer that luminaires will be fully serviceable and repairable in KwaZulu-Natal within 24 hours should a failure occur.

25. The luminaire manufacturer must be able to guarantee production of the proposed luminaire for at least 5 years, and the spares and components for a minimum of 7 years from date of purchase.

26. The Luminaire manufacturer is required to supply a written confirmation that they understand The Durban SABC's environmental and power conditions together with controls and the areas where the luminaires will be installed, and that the luminaire warranty offered does not preclude the use or control of the luminaire under these conditions.

#### **Supporting documentation required:**

Manufactures written warranty Data Sheet of luminaire LM 80 Report

Data Sheet of LED driver

Written undertakings as per specification from potential supplier (Undertaking Point 22)

Written undertakings as per specification from luminaire manufacturer (Undertaking Point 1, Point 20, Point 21, Point 22, Point 23, Point 24, Point 25)

A fully operational compliant working sample must be provided at point of submission.

# 44W Wall Washer Data Sheet

W10144-4-I- - - D- - - - 80TRA2E

# W101

Special Requirements for W10144-4-I- - -D- - - -80TRA2E

- 1. The complete luminaire including its housing structure should be designed and manufactured in South Africa.
- 2. The body must be manufactured from stainless steel or Aluminium, and powder coated with Akzonobel RAL39003. Pre treatment should be a minimum of eight stage cleaning and include organic zinc phosphate treatment.
- 3. The luminaire should have passive cooling technology. Active cooling will not be accepted.
- 4. The outer dimension of the housing should be 602mm X 105mm with a height of 101mm.
- 5. The anti-glare recess should be manufactured from polycarbonate.
- 6. The luminaire must be manufactured using OSRAM LEDs with the chromaticity tolerance not greater than 3 MacAdam.
- 7. The LED driver should be flicker free < 4%
- 8. The luminaire should be designed to operate in an environment of ta 35°C with the solder point temperature of the PCB not exceeding 60°C.
- 9. The luminaire should be repairable and compatible for upgrades to future technology advances.
- 10. The luminaire must be fully enclosed to prevent dust and debris falling into the PCB.
- 11. Beam angle should be between 80° however, the luminaire design should allow for an interchangeable beam angle to 50°.
- 12. The optical efficiency should be greater than 87%.
- 13. The luminaire must be manufactured in accordance with SANS 60598 and all applicable parts thereof.
- 14. The Correlated Colour Temperature should be 4000 Kelvin, with a colour rendering index greater than 80.
- 15. The lamp luminous flux should not be less than 6812lm @ 44W based on ta 35°.
- 16. The power factor of the LED driver should be >0.95.
- 17. The wattage of the proposed luminaire must not exceed 44W.
- 18. The luminaire driver should have a nominal life of >100000hour and have the necessary protection to overcome voltage fluctuation, overheating, short circuits, overloads, voltage spikes up to 3.5Kv and have active auto power factor correction.
- 19. The luminaire manufacturer should employ a quality management procedure that will ensure traceability of the luminaire components.
- 20. A written undertaking from the Luminaire manufacturer that they will conduct two annual site inspections to ensure all luminaires are performing as required which must be supported by lux readings to ensure degradation is within the specified values over the five-year warranty period.
- 21. Five Year or 50000 hours on site warranty which must include a written warranty that will cover any failure within the 5 years which will be replaced at the suppliers cost including removal, installation, hoisting and transportation costs. A luminaire daily burning time of 24 hours per day must be covered under this warranty with a minimum switching cycles of 40,000. With a switching cycle defined as 30 seconds on 30 seconds off. This must also be supported by a LM 80 report achieving not less than 80% lumen maintenance over 50000 hours at the required wattage.
- 22. A written undertaking from the Luminaire manufacturer that they will conduct two annual site inspections to ensure all luminaires are performing as required which must be supported by lux readings to ensure degradation is within the specified values over the five-year warranty period.
- 23. The potential supplier together with the Luminaire manufacturer must supply a written guarantee that they will respond to any failure of luminaires within 7 (Seven) hours from time of notification 365 days a year.
- 24. Undertaking by the Luminaire manufacturer that luminaires will be fully serviceable and repairable in KwaZulu-Natal within 24 hours should a failure occur.
- 25. The luminaire manufacturer must be able to guarantee production of the proposed luminaire for at least 5 years, and the spares and components for a minimum of 7 years from date of purchase.

26. The Luminaire manufacturer is required to supply a written confirmation that they understand The Durban SABC's environmental and power conditions together with controls and the areas where the luminaires will be installed, and that the luminaire warranty offered does not preclude the use or control of the luminaire under these conditions.

# **Supporting documentation required:**

Manufactures written warranty Data Sheet of luminaire LM 80 Report Data Sheet of LED driver

Written undertakings as per specification from potential supplier (Undertaking Point 23)

Written undertakings as per specification from luminaire manufacturer (Undertaking Point 1, Point 20, Point 21, Point 22, Point 23, Point 24, Point 25, Point 26) A fully operational working sample must be provided at point of submission.

# 18W Vapour Proof Data Sheet

V10018-4-6- -1069- -80TRA1E

# V100

Special Requirements for V10018-4-6- - I069- - 80TRA1E

- 1. The complete luminaire including its housing structure should be designed and manufactured in South Africa.
- 2. The body must be manufactured from stainless steel or Aluminium, and powder coated with Akzonobel

RAL39003. Pre treatment should be a minimum of eight stage cleaning and include organic zinc phosphate treatment.

- 3. The luminaire should have passive cooling technology. Active cooling will not be accepted.
- 4. The outer dimension of the housing should be 601mm X 107mm with a height of 77mm.
- 5. The luminaire must be manufactured using OSRAM LEDs with the chromaticity tolerance not greater than 3 MacAdam.
- 6. The LED driver should be flicker free < 4%
- 7. The luminaire should be designed to operate in an environment of ta 35°C with the solder point temperature of the PCB not exceeding 50°C.
- 8. The luminaire should be repairable and compatible for upgrades to future technology advances.
- 9. The luminaire must be fully enclosed to prevent dust and debris falling into the PCB.
- 10. Beam angle should be between 90°
- 11. The optical efficiency should be greater than 80%.
- 12. The luminaire must be manufactured in accordance with SANS 60598 and all applicable parts thereof.
- 13. The Correlated Colour Temperature should be 4000 Kelvin, with a colour rendering index greater than 80.
- 14. The lamp luminous flux should not be less than 2674lm @ 18W based on ta 35°.
- 15. The power factor of the LED driver should be >0.95.
- 16. The wattage of the proposed luminaire must not exceed 18W.
- 17. The luminaire driver should have a nominal life of >100000hour and have the necessary protection to overcome voltage fluctuation, overheating, short circuits, overloads, voltage spikes up to 3.5Kv and have active auto power factor correction.
- 18. The luminaire manufacturer should employ a quality management procedure that will ensure traceability of the luminaire components.
- 19. Five Year or 50000 hours on site warranty which must include a written warranty that will cover any failure within the 5 years which will be replaced at the suppliers cost including removal, installation, hoisting and transportation costs. A luminaire daily burning time of 24 hours per day must be covered under this warranty with a minimum switching cycles of 40,000. With a switching cycle defined as 30 seconds on 30 seconds off. This must also be supported by a LM 80 report achieving not less than 80% lumen maintenance over 50000 hours at the required wattage.
- 20. A written undertaking from the Luminaire manufacturer that they will conduct two annual site inspections to ensure all luminaires are performing as required which must be supported by lux readings to ensure degradation is within the specified values over the five-year warranty period.
- 21. The potential supplier together with the Luminaire manufacturer must supply a written guarantee that they will respond to any failure of luminaires within 7 (Seven) hours from time of notification 365 days a year.
- 22. Undertaking by the Luminaire manufacturer that luminaires will be fully serviceable and repairable in KwaZulu-Natal within 24 hours should a failure occur.
- 23. The luminaire manufacturer must be able to guarantee production of the proposed luminaire for at least 5 years, and the spares and components for a minimum of 7 years from date of purchase.
- 24. The Luminaire manufacturer is required to supply a written confirmation that they understand The Durban SABC's environmental and power conditions together with controls and the areas where the luminaires will be installed, and that the luminaire warranty offered does not preclude the use or control of the luminaire under these conditions.

### **Supporting documentation required:**

Manufactures written warranty
Data Sheet of luminaire
LM 80 Report
Data Sheet of LED driver
Written undertakings as per specification from potential supplier
(Undertaking Point 23)
Written undertakings as per specification from luminaire manufacturer
(Undertaking Point 1, Point 20, Point 21, Point 22, Point 23, Point 24, Point 25, Point 26)
A fully operational working sample must be provided at point of submission.

# 36W Vapour Proof Data Sheet

V10036-4-12-I069- -80TRA2E

# V100

Special Requirements for V10036-4-12-I069- -80TRA2E

- 1. The complete luminaire including its housing structure should be designed and manufactured in South Africa.
- 2. The body must be manufactured from stainless steel or Aluminium, and powder coated with Akzonobel RAL39003. Pre treatment should be a minimum of eight stage cleaning and include organic zinc phosphate treatment.
- 3. The luminaire should have passive cooling technology. Active cooling will not be accepted.
- 4. The outer dimension of the housing should be 1201mm X 107mm with a height of 77mm.
- 5. The luminaire must be manufactured using OSRAM LEDs with the chromaticity tolerance not greater than 3 MacAdam.
- 6. The LED driver should be flicker free < 4%
- 7. The luminaire should be designed to operate in an environment of ta 35°C with the solder point temperature of the PCB not exceeding 50°C.
- 8. The luminaire should be repairable and compatible for upgrades to future technology advances.
- 9. The luminaire must be fully enclosed to prevent dust and debris falling into the PCB.
- 10. Beam angle should be between 90°
- 11. The optical efficiency should be greater than 80%.
- 12. The luminaire must be manufactured in accordance with SANS 60598 and all applicable parts thereof.
- 13. The Correlated Colour Temperature should be 4000 Kelvin, with a colour rendering index greater than 80.
- 14. The lamp luminous flux should not be less than 5348lm @ 36W based on ta 35°.
- 15. The power factor of the LED driver should be >0.95.
- 16. The wattage of the proposed luminaire must not exceed 36W.
- 17. The luminaire driver should have a nominal life of >100000hour and have the necessary protection to overcome voltage fluctuation, overheating, short circuits, overloads, voltage spikes up to 3.5Kv and have active auto power factor correction.
- 18. The luminaire manufacturer should employ a quality management procedure that will ensure traceability of the luminaire components.
- 19. Five Year or 50000 hours on site warranty which must include a written warranty that will cover any failure within the 5 years which will be replaced at the suppliers cost including removal, installation, hoisting and transportation costs. A luminaire daily burning time of 24 hours per day must be covered under this warranty with a minimum switching cycles of 40,000. With a switching cycle defined as 30 seconds on 30 seconds off. This must also be supported by a LM 80 report achieving not less than 80% lumen maintenance over 50000 hours at the required wattage.
- 20. A written undertaking from the Luminaire manufacturer that they will conduct two annual site inspections to ensure all luminaires are performing as required which must be supported by lux readings to ensure degradation is within the specified values over the five-year warranty period.
- 21. The potential supplier together with the Luminaire manufacturer must supply a written guarantee that they will respond to any failure of luminaires within 7 (Seven) hours from time of notification 365 days a year.
- 22. Undertaking by the Luminaire manufacturer that luminaires will be fully serviceable and repairable in KwaZulu-Natal within 24 hours should a failure occur.
- 23. The luminaire manufacturer must be able to guarantee production of the proposed luminaire for at least 5 years, and the spares and components for a minimum of 7 years from date of purchase.
- 24. The Luminaire manufacturer is required to supply a written confirmation that they understand The Durban SABC's environmental and power conditions together with controls and the areas where the luminaires will be installed, and that the luminaire warranty offered does not preclude the use or control of the luminaire under these conditions.

### **Supporting documentation required:**

Manufactures written warranty
Data Sheet of luminaire
LM 80 Report
Data Sheet of LED driver
Written undertakings as per specification from potential supplier
(Undertaking Point 23)
Written undertakings as per specification from luminaire manufacturer
(Undertaking Point 1, Point 20, Point 21, Point 22, Point 23, Point 24, Point 25, Point 26)
A fully operational working sample must be provided at point of submission.

# 7W Downlight Data Sheet

D1007-4-7-9-BV106080TRA3E

# D100

Special Requirements for D1007-4-7-9-BV106080TRA3E

- 1. The complete luminaire including its housing structure should be designed and manufactured in South Africa.
- 2. The body must be manufactured from stainless steel or Aluminium, and powder coated with Akzonobel RAL39003. Pre treatment should be a minimum of eight stage cleaning and include organic zinc phosphate treatment.
- 3. The luminaire should have passive cooling technology. Active cooling will not be accepted.
- 4. The outer dimension of the housing should be 90mm with a height of 65mm and a cut-out of 63mm.
- 5. The anti-glare recess should be manufactured from stainless steel or Aluminium.
- 6. The luminaire must be manufactured using backlit or COB technology and OSRAM LEDs with the chromaticity tolerance not greater than 3 MacAdam. Edge-lit technology will not be excepted.
- 7. The LED driver should be flicker free < 4%
- 8. The luminaire should be designed to operate in an environment of ta 35°C with the solder point temperature of the PCB not exceeding 60°C.
- 9. The luminaire should be repairable and compatible for upgrades to future technology advances.
- 10. The luminaire must be fully enclosed to prevent dust and debris falling into the PCB.
- 11. Beam angle should be between 50°- 60°.
- 12. The optical efficiency should be greater than 87%.
- 13. The luminaire must be manufactured in accordance with SANS 60598 and all applicable parts thereof.
- 14. The Correlated Colour Temperature should be 4000 Kelvin, with a colour rendering index greater than 80.
- 15. The lamp luminous flux should not be less than 1007lm @7Wbased on ta 35°.
- 16. The power factor of the LED driver should be >0.95.
- 17. The wattage of the proposed luminaire must not exceed 7W.
- 18. The luminaire driver should have a nominal life of >100000hour and have the necessary protection to overcome voltage fluctuation, overheating, short circuits, overloads, voltage spikes up to 3.5Kv and have active auto power factor correction.
- 19. The luminaire manufacturer should employ a quality management procedure that will ensure traceability of the luminaire components.
- 20. Five Year or 50000 hours on site warranty which must include a written warranty that will cover any failure within the 5 years which will be replaced at the suppliers cost including removal, installation, hoisting and transportation costs. A luminaire daily burning time of 24 hours per day must be covered under this warranty with a minimum switching cycles of 40,000. With a switching cycle defined as 30 seconds on 30 seconds off. This must also be supported by a LM 80 report achieving not less than 80% lumen maintenance over 50000 hours at the required wattage.
- 21. A written undertaking from the Luminaire manufacturer that they will conduct two annual site inspections to ensure all luminaires are performing as required which must be supported by lux readings to ensure degradation is within the specified values over the five year warranty period.
- 22. The potential supplier together with the Luminaire manufacturer must supply a written guarantee that they will respond to any failure of luminaires within 7 (Seven) hours from time of notification 365 days a year.
- 23. Undertaking by the Luminaire manufacturer that luminaires will be fully serviceable and repairable in KwaZulu-Natal within 24 hours should a failure occur.
- 24. The luminaire manufacturer must be able to guarantee production of the proposed luminaire for at least 5 years, and the spares and components for a minimum of 7 years from date of purchase.
- 25. The Luminaire manufacturer is required to supply a written confirmation that they understand The Durban SABC's environmental and power conditions together with controls and the areas

where the luminaires will be installed, and that the luminaire warranty offered does not preclude the use or control of the luminaire under these conditions.

### **Supporting documentation required:**

Manufactures written warranty Data Sheet of luminaire

LM 80 Report

Data Sheet of LED driver

Written undertakings as per specification from potential supplier

(Undertaking Point 22)

Written undertakings as per specification from luminaire manufacturer

(Undertaking Point 1, Point 20, Point 21, Point 22, Point 23, Point 24, Point 25)

A fully operational compliant working sample must be provided at point of submission.

### 88W Linear Luminaire Data Sheet

L110884-2407I- - - D-80TRA2E

# L110

Special Requirements for L110884-2407I- - - D-80TRA2E

- 1. The complete luminaire including its housing structure should be designed and manufactured in South Africa.
- 2. The body must be manufactured from stainless steel or Aluminium, and powder coated with Akzonobel RAL39003. Pre treatment should be a minimum of eight stage cleaning and include organic zinc phosphate treatment.
- 3. The luminaire should have passive cooling technology. Active cooling will not be accepted.
- 4. The outer dimension of the housing should be 2400mm X 47mm with a height of 72mm.
- 5. The anti-glare recess should be manufactured from polycarbonate.
- 6. The luminaire must be manufactured using OSRAM LEDs with the chromaticity tolerance not greater than 3 MacAdam.
- 7. The LED driver should be flicker free < 4%
- 8. The luminaire should be designed to operate in an environment of ta 35°C with the solder point temperature of the PCB not exceeding 60°C.
- 9. The luminaire should be repairable and compatible for upgrades to future technology advances.
- 10. The luminaire must be fully enclosed to prevent dust and debris falling into the PCB.
- 11. Beam angle should be between 80° however, the luminaire design should allow for an interchangeable beam angle to 50°.
- 12. The optical efficiency should be greater than 87%.
- 13. The luminaire must be manufactured in accordance with SANS 60598 and all applicable parts thereof.
- 14. The Correlated Colour Temperature should be 4000 Kelvin, with a colour rendering index greater than 80.
- 15. The lamp luminous flux should not be less than 13624lm @ 88W based on ta 35°.
- 16. The power factor of the LED driver should be >0.95.
- 17. The wattage of the proposed luminaire must not exceed 88W.
- 18. The luminaire driver should have a nominal life of >100000hour and have the necessary protection to overcome voltage fluctuation, overheating, short circuits, overloads, voltage spikes up to 3.5Kv and have active auto power factor correction.
- 19. The luminaire manufacturer should employ a quality management procedure that will ensure traceability of the luminaire
- 20. A written undertaking from the Luminaire manufacturer that they will conduct two annual site inspections to ensure all luminaires are performing as required which must be supported by lux readings to ensure degradation is within the specified values over the five-year warranty period.
- 21. Five Year or 50000 hours on site warranty which must include a written warranty that will cover any failure within the 5 years which will be replaced at the suppliers cost including removal, installation, hoisting and transportation costs. A luminaire daily burning time of 24 hours per day must be covered under this warranty with a minimum switching cycles of 40,000. With a switching cycle defined as 30 seconds on 30 seconds off. This must also be supported by a LM 80 report achieving not less than 80% lumen maintenance over 50000 hours at the required wattage.
- 22. A written undertaking from the Luminaire manufacturer that they will conduct two annual site inspections to ensure all luminaires are performing as required which must be supported by lux readings to ensure degradation is within the specified values over the five-year warranty period.
- 23. The potential supplier together with the Luminaire manufacturer must supply a written guarantee that they will respond to any failure of luminaires within 7 (Seven) hours from time of notification 365 days a year.
- 24. Undertaking by the Luminaire manufacturer that luminaires will be fully serviceable and repairable in KwaZulu-Natal within 24 hours should a failure occur.
- 25. The luminaire manufacturer must be able to guarantee production of the proposed luminaire for at least 5 years, and the spares and components for a minimum of 7 years from date of purchase.

26. The Luminaire manufacturer is required to supply a written confirmation that they understand The Durban SABC's environmental and power conditions together with controls and the areas where the luminaires will be installed, and that the luminaire warranty offered does not preclude the use or control of the luminaire under these conditions.

# **Supporting documentation required:**

Manufactures written warranty
Data Sheet of luminaire
LM 80 Report
Data Sheet of LED driver
Written undertakings as per specification from potential supplier
(Undertaking Point 23)

Written undertakings as per specification from luminaire manufacturer (Undertaking Point 1, Point 20, Point 21, Point 22, Point 23, Point 24, Point 25, Point 26)

A fully

# 306W High Bay Data Sheet

H1103064-I061222W-80TRA2E

# H110

Special Requirements for H1103064-I061222W-80TRA2E

- 1. The complete luminaire including its housing structure should be designed and manufactured in South Africa.
- 2. The body must be manufactured from stainless steel or Aluminium, and powder coated with Akzonobel RAL39003. Pre treatment should be a minimum of eight stage cleaning and include organic zinc phosphate treatment.
- 3. The luminaire should have passive cooling technology. Active cooling will not be accepted.
- 4. The outer dimension of the housing should be 689mm X 264mm with a height of 126mm.
- 5. The luminaire must be manufactured using OSRAM LEDs with the chromaticity tolerance not greater than 3 MacAdam.
- 6. The LED driver should be flicker free <4%
- 7. The luminaire should be designed to operate in an environment of ta 35°C with the solder point temperature of the PCB not exceeding 60°C.
- 8. The luminaire should be repairable and compatible for upgrades to future technology advances.
- 9. The luminaire must be fully enclosed to prevent dust and debris falling into the PCB.
- 10. Beam angle should be between 80° however, the luminaire design should allow for an interchangeable beam angle to 50°.
- 11. The optical efficiency should be greater than 93%.
- 12. The luminaire must be manufactured in accordance with SANS 60598 and all applicable parts thereof.
- 13. The Correlated Colour Temperature should be 4000 Kelvin, with a colour rendering index greater than 80.
- 14. The lamp luminous flux should not be less than 46314lm @ 306W based on ta 35°.
- 15. The power factor of the LED driver should be >0.95.
- 16. The wattage of the proposed luminaire must not exceed 306W.
- 17. The luminaire driver should have a nominal life of >100000hour and have the necessary protection to overcome voltage fluctuation, overheating, short circuits, overloads, voltage spikes up to 3.5Kv and have active auto power factor correction.
- 18. The luminaire manufacturer should employ a quality management procedure that will ensure traceability of the luminaire components
- 19. Five Year or 50000 hours on site warranty which must include a written warranty that will cover any failure within the 5 years which will be replaced at the suppliers cost including removal, installation, hoisting and transportation costs. A luminaire daily burning time of 24 hours per day must be covered under this warranty with a minimum switching cycles of 40,000. With a switching cycle defined as 30 seconds on 30 seconds off. This must also be supported by a LM 80 report achieving not less than 80% lumen maintenance over 50000 hours at the required wattage.
- 20. A written undertaking from the Luminaire manufacturer that they will conduct two annual site inspections to ensure all luminaires are performing as required which must be supported by lux readings to ensure degradation is within the specified values over the five-year warranty period.
- 21. The potential supplier together with the Luminaire manufacturer must supply a written guarantee that they will respond to any failure of luminaires within 7 (Seven) hours from time of notification 365 days a year.
- 22. Undertaking by the Luminaire manufacturer that luminaires will be fully serviceable and repairable in KwaZulu-Natal within 24 hours should a failure occur.
- 23. The luminaire manufacturer must be able to guarantee production of the proposed luminaire for at least 5 years, and the spares and components for a minimum of 7 years from date of purchase.
- 24. The Luminaire manufacturer is required to supply a written confirmation that they understand The Durban SABC's environmental and power conditions together with controls and the areas where the luminaires will be installed, and that the luminaire warranty offered does not preclude the use or control of the luminaire under these conditions.

### **Supporting documentation required:**

Manufactures written warranty
Data Sheet of luminaire
LM 80 Report
Data Sheet of LED driver
Written undertakings as per specification from potential supplier
(Undertaking Point 23)
Written undertakings as per specification from luminaire manufacturer
(Undertaking Point 1, Point 20, Point 21, Point 22, Point 23, Point 24, Point 25, Point 26)
A fully

# 22W Troffer Data Sheet

T400224-6-6-I- - - D-80TRA3E

# T400

Special Requirements for T400224-6-6-I- - - D-80TRA3E

- 1. The complete luminaire including its housing structure should be designed and manufactured in South Africa.
- 2. The body must be manufactured from stainless steel or Aluminium, and powder coated with Akzonobel RAL39003. Pre treatment should be a minimum of eight stage cleaning and include organic zinc phosphate treatment.
- 3. The luminaire should have passive cooling technology. Active cooling will not be accepted.
- 4. The outer dimension of the housing should be 595mm X 595mm with a height of 100mm.
- 5. The anti-glare recess should be manufactured from polycarbonate.
- 6. The luminaire must be manufactured using OSRAM LEDs with the chromaticity tolerance not greater than 3 MacAdam.
- 7. The LED driver should be flicker free < 4%
- 8. The luminaire should be designed to operate in an environment of ta 35°C with the solder point temperature of the PCB not exceeding 60°C.
- 9. The luminaire should be repairable and compatible for upgrades to future technology advances.
- 10. The luminaire must be fully enclosed to prevent dust and debris falling into the PCB.
- 11. Beam angle should be between 80° however, the luminaire design should allow for an interchangeable beam angle to 50°.
- 12. The optical efficiency should be greater than 87%.
- 13. The luminaire must be manufactured in accordance with SANS 60598 and all applicable parts thereof.
- 14. The Correlated Colour Temperature should be 4000 Kelvin, with a colour rendering index greater than 80.
- 15. The lamp luminous flux should not be less than 3406lm @ 22W based on ta 35°.
- 16. The power factor of the LED driver should be >0.95.
- 17. The wattage of the proposed luminaire must not exceed 22W.
- 18. The luminaire driver should have a nominal life of >100000hour and have the necessary protection to overcome voltage fluctuation, overheating, short circuits, overloads, voltage spikes up to 3.5Kv and have active auto power factor correction.
- 19. The luminaire manufacturer should employ a quality management procedure that will ensure traceability of the luminaire components.
- 20. A written undertaking from the Luminaire manufacturer that they will conduct two annual site inspections to ensure all luminaires are performing as required which must be supported by lux readings to ensure degradation is within the specified values over the five-year warranty period.
- 21. Five Year or 50000 hours on site warranty which must include a written warranty that will cover any failure within the 5 years which will be replaced at the suppliers cost including removal, installation, hoisting and transportation costs. A luminaire daily burning time of 24 hours per day must be covered under this warranty with a minimum switching cycles of 40,000. With a switching cycle defined as 30 seconds on 30 seconds off. This must also be supported by a LM 80 report achieving not less than 80% lumen maintenance over 50000 hours at the required wattage.
- 22. A written undertaking from the Luminaire manufacturer that they will conduct two annual site inspections to ensure all luminaires are performing as required which must be supported by lux readings to ensure degradation is within the specified values over the five year warranty period.
- 23. The potential supplier together with the Luminaire manufacturer must supply a written guarantee that they will respond to any failure of luminaires within 7 (Seven) hours from time of notification 365 days a year.
- 24. Undertaking by the Luminaire manufacturer that luminaires will be fully serviceable and repairable in KwaZulu-Natal within 24 hours should a failure occur.
- 25. The luminaire manufacturer must be able to guarantee production of the proposed luminaire for at least 5 years, and the spares and components for a minimum of 7 years from date of purchase.

26. The Luminaire manufacturer is required to supply a written confirmation that they understand The Durban SABC's environmental and power conditions together with controls and the areas where the luminaires will be installed, and that the luminaire warranty offered does not preclude the use or control of the luminaire under these conditions.

# Supporting documentation required:

Manufactures written warranty Data Sheet of luminaire LM 80 Report Data Sheet of LED driver

Written undertakings as per specification from potential supplier (Undertaking Point 23)

Written undertakings as per specification from luminaire manufacturer (Undertaking Point 1, Point 20, Point 21, Point 22, Point 23, Point 24, Point 25, Point 26) A fully operational working sample must be provided at point of submission.