

## SUPPLY AND DELIVERY OF ENERGY EFFICIENCY LUMINAIRES

**Bid No. 2470G**

### **Question and Answers**

Item	Questions	Comments
1	Should the test reports be for a family of luminaires or individual- NB individual test reports e.g. for each wattage has cost implications.	There is no range requirement for Luminaires
2	Based on reference CP_TSSPEC_231 page 6 of 26 item 4.2.1 refers to maximum output current of 350ma for the Streetlights whilst CP_TSSPEC_278 page 8 of 21 item 4.7 refers to constant current driver mandatory and the driver shall be either 350ma or 500ma. So the question is could this rule apply to both the 250w & 400w streetlight(350ma) and Floodlight(350ma or 500ma) luminaires as the schedules for both are not the same whilst the technical specification are the same. The rule of law the higher the output the higher the driver	These are two different specifications and therefore compliance to each specification is required
3	Please advise what is the road setback for the streetlight and post-top luminaires as this is required for design purposes	Refer to the amended Design Data requirement
4	Based on previous simulations the setback for the A1 road classifications is 2m, is that still the criteria, if not please advise.	Refer to the amended Design Data requirement
5	May you also kindly view attached design data which reflects that all LED equivalents are 31.5w Maximum whilst the Technical Schedule Reference CP_TSSPEC_015, page 17-27 of 29 indicates various wattages based on the lumen output. Your schedule starts from 25w,31w,45w and 56w.	Refer to the amended Design Data requirement
6	I would like to enquire if the minutes of the above-mentioned BID Number are available	No
7	I am writing to ask, Is it possible for us to submit our bid if we did not attend the bid information meeting on the 15th of December 2022.	The site briefing is not compulsory, you are welcome to submit your tender
8	1. Would all the luminaires proposed need to be already wired and must be able to accommodate a NEMA (ANSI C136.41) 7 pin node receptacles without compromising on the IP rating of the full luminaire such that it is telemanagement ready?	Please refer to specifications for all requirements and compliance
9	<b>2.1 SUBCLAUSE 3.12.1 [RISK]</b> 1. How is the supplier to be held responsible for all events between delivery of GOODS AND SERVICES to the point of delivery to commissioning? Beyond the point of delivery and inspection and acceptance of the GOODS AND SERVICES by CITY POWER should absolve the SUPPLIER of all risk. Here only a warranty may apply if commissioning done in accordance with the SUPPLIER'S installation instructions, guidelines and use of GOODS AND SERVICES within terms and conditions of the warranty for it be valid.	This is a supply and delivery of Goods and therefore the risk will remain with the supplier until the goods are delivered at CP stores. Thereafter the GOODS guarantees and warranties shall apply.
10	<b>2.2 SUBCLAUSE 3.12.2 [INSURANCE]</b> 1. Does the SUPPLIER need to have insurance in place upon appointment for the following cover: a. Minimum limit of indemnity for insurance in respect of loss or damage to property (except the works, Plant, Machinery and Equipment) and liability for bodily injury to or death of a person i. R 5 MILLION per event b. Minimum insurance against loss of or damage to the works, Plant and Materials which includes cover for Plant and Materials provided by the Employer i. R 50 MILLION per event	Not applicable to this BID
11	2. If relevant to this Contract, please clarify how the SUPPLIER (Contractor) is "liable for insurance in respect of death of or bodily injury to employees of the Contractor arising out and in the course of their employment in connection with this contract."?	Not applicable to this BID

12	<p>3.1 SECTION 4.1 RETURNABLE DOCUMENTS REQUIRED FOR TENDER EVALUATION PURPOSES</p> <p>1. Please indicate why technical documentation (lighting simulation reports, test certificates, etc) are not listed as required documentation for tender evaluation purposes?</p> <p>2. This deviates from the documentation requested under SECTION 5.1 EVALUATION CRITERIA</p>	The Commercial returnables and technical specifications requirements are two different documents
13	<p>3.2 SECTION 4.2. OTHER DOCUMENTS REQUIRED FOR TENDER EVALUATION PURPOSES</p> <p>1. Similarly as above, please indicate why technical documentation (lighting simulation reports, test certificates, etc) are not listed as required documentation for tender evaluation purposes?</p> <p>2. Similarly, this deviates from the documentation requested under SECTION 5.1 EVALUATION CRITERIA</p>	The Commercial returnables and technical specifications requirements are two different documents
14	<p>4.1 SECTION 5.1: EVALUATION CRITERIA</p> <p>1. How are these technical criteria valid for evaluation when not listed as forming part of the returnable schedules and required documentation required for tender evaluation purposes, refer to PART 4: RETURNABLE SCHEDULES.</p>	The Commercial returnables and technical specifications requirements are two different documents
15	<p>SECTION 5.3 SPECIFICATION (CP_TSSPEC_231, CP_TSSPEC_278, CP_TSSPEC_015 &amp; CP_TSSPEC_014) AND DESIGN DATA - REFER TO THE ATTACHED</p> <p>4.2.1 CP_TSSPEC_231 Document</p> <p>1. Referring to 4.1.1.3, it is required that only the optical compartment is IP66, what of the rest of the luminaire? This is repeated in 4.1.1.11.</p> <p>2. Referring to 4.1.1.19 should the supplier provide 1.5mm diameter cable that is 500mm in length or 1.5mm<sup>2</sup>. How many cores? What type of cable? Insulation rating of 500V or 1000V?</p> <p>3. Referring to 4.2.1 that states that the maximum output current should be 350mA deviates from the output current ratings stated further in the specification (4.11.1.5). Is this still relevant or may SUPPLIERS propose luminaires with other output currents?</p> <p>4. Referring to 4.2.4, is it necessary to have a 10kV/10kA surge protection device? This adds unnecessary expenditure to the luminaire where a 5kV/5kA surge protection device would suffice to handle electrical surges on the electrical infrastructure. With LED luminaires being electronic, any lightning strike would damage these luminaires regardless of the type of surge protection implemented.</p> <p>5. Referring to 4.4.4, please clarify why the colour temperature should be between 4000K &lt; x &lt; 5000K?</p> <p>a. May we recommend a CCT of 4000K or less (ideally below 3000K for residential and pedestrians).</p> <p>b. International best practice and studies indicate that low CCT should be implemented.</p> <p>c. The lower CCT further reduces:</p> <p>i. Glare</p> <p>ii. Impact on environment/ecologies; and</p> <p>iii. Night pollution</p> <p>6. Referring to 4.11.1 [Type Test], it would not be possible to test or certify any luminaire in accordance with SANS 475 that may have integrated solar systems and use on d.c. supply voltages. These luminaires would be non-compliant.</p>	<p>1. Referring to 4.1.1.3, it is required that only the optical compartment is IP66, what of the rest of the luminaire? This is repeated in 4.1.1.11. - <b>As per the Specification IP66 is applicable to the complete Luminaire</b></p> <p>2. Referring to 4.1.1.19 should the supplier provide 1.5mm diameter cable that is 500mm in length or 1.5mm<sup>2</sup>. How many cores? What type of cable? Insulation rating of 500V or 1000V? - <b>As per the normative reference SANS 1507 is listed as the required reference</b></p> <p>3. Referring to 4.2.1 that states that the maximum output current should be 350mA deviates from the output current ratings stated further in the specification (4.11.1.5). Is this still relevant or may SUPPLIERS propose luminaires with other output currents? - <b>Refer to the amended specification</b></p> <p>4. Referring to 4.2.4, is it necessary to have a 10kV/10kA surge protection device? This adds unnecessary expenditure to the luminaire where a 5kV/5kA surge protection device would suffice to handle electrical surges on the electrical infrastructure. With LED luminaires being electronic, any lightning strike would damage these luminaires regardless of the type of surge protection implemented. - <b>Comply to the specification</b></p> <p>5. Referring to 4.4.4, please clarify why the colour temperature should be between 4000K &lt; x &lt; 5000K?</p> <p>a. May we recommend a CCT of 4000K or less (ideally below 3000K for residential and pedestrians).</p> <p>b. International best practice and studies indicate that low CCT should be implemented.</p> <p>c. The lower CCT further reduces:</p> <p>i. Glare</p> <p>ii. Impact on environment/ecologies; and</p> <p>iii. Night pollution - <b>Comply to the specification</b></p> <p>6. Referring to 4.11.1 [Type Test], it would not be possible to test or certify any luminaire in accordance with SANS 475 that may have integrated solar systems and use on d.c. supply voltages. These luminaires would be non-compliant. - <b>Comply to the specification</b></p>

16	<p>7. Referring to the TECHNICAL SCHEDULES A &amp; B: for the various equivalent LED luminaire proposals</p> <p>a. Item 15, Lighting design standard to comply, agreed ARP035 can be referred to provided design criteria are provided to ensure lighting level compliance to the respective SANS 10098-1/2 lighting category.</p> <p>b. Item 18, Degree of protection to SANS 60529</p> <p>i. What should the overall IP rating be of the luminaire? Minimum IP65 as per SANS 475?</p> <p>c. Item 29, why is such a high lifetime requested, 100 000 hours?</p> <p>d. Item 31, how can a SUPPLIER guarantee that the luminaire will have a life expectancy of 20 years minimum?</p> <p>i. Is this only referring to the housing?</p> <p>ii. The aging of components and materials propose risk to discolouration, distortion, and other factors that may lead to poor performance.</p> <p>iii. Why procure a luminaire with such a long life and at extra expenditure?</p> <p>iv. In addition, 100 000 hours, relates to 27 years for a high capital cost luminaire compared to procuring possibly 50 000 hour operating luminaires that become more energy efficient in 7 – 10 years later as technology develops, where current minimum efficacy of 120 lm/W would become 170 lm/W in 10 years, offering a further potential 30% energy saving. This strategy further supports CITY POWER's energy saving strategies in the future as well as supporting the National Energy Act and NEES targets set by DMRE. In essence, more cost effective with increased energy savings with cheaper luminaires of shorter confirmed operating life (e.g. 50 000 hours confirmed, while 100 000 hours still calculated).</p>	Comply to the specification requirements
17	<p>4.2.2 Design data - 2470G Document</p> <p>1. With regards to the provision of lighting simulation reports of the proposed luminaires offered to indicate compliance for design scenario tables for:</p> <p>a. LED STREETLIGHT EQUIVALENCE OF THE 70 WATT HPS/T: SAP no. 3533</p> <p>b. LED STREETLIGHT EQUIVALENCE OF THE 100 WATT HPS/T: SAP no. 3532</p> <p>c. ANNEXURE A: LED STREETLIGHT EQUIVALENCE OF THE 250 WATT HPS/T: SAP no. 3531</p> <p>d. ANNEXURE B: LED STREETLIGHT EQUIVALENCE OF 400 WATT HPS/T: SAP no. 3534</p> <p>e. POST TOPS DESIGN DATA</p> <p>i. LMR LED PT EQUIV 70W HPS: SAP no. 4803</p> <p>ii. LMR LED PT EQUIV 100W HPS: SAP no. 4804</p> <p>iii. ANNEXURE C: LMR LED PT EQUIV 125W HPMV: SAP no. 4805</p> <p>iv. ANNEXURE D: LMR LED PT EQUIV 57W CFL: SAP no. 4806</p> <p>Please provide additional clarity to the design criteria in addition to the provision of cross-sectional drawings for each criterion stipulated in the tables above as it is not clear what the road cross section and lighting arrangements should look like for each design criteria. The provision of these cross-sectional drawings and additional information would allow for fair and transparent competitive opportunity being awarded to all bidders.</p>	Comply to the specification requirements
18	<p>The key concerns are:</p> <p>Referring to the Notes:</p> <p>1. All designs for the below should be based on pole spacing of 40m</p> <p>a. This contradicts all tables including the 250W and 400W tables that indicate 30-40m. Hence unclear what spacing should be applied for all.</p>	The Design Data information is accurate

19	<p>2. What is meant by “one luminaire series should meet all the requirements”?</p> <p>a. Does it refer to one luminaire family as defined in IEC 62722-2-1 and SANS/IEC 60598-1?</p> <p>b. Or does it refer to a luminaire of a specific wattage with a single type of optic that should be used for all criteria stipulated for HID replacement?</p> <p>c. Example:</p> <p>i. One (1) Luminaire A-series 100W with one (1) Optic 123 and not</p> <p>ii. Multiple derivatives of Luminaire A-series, 10W to 400W, Optic 123 to 789 variations.</p>	The series in this case refers same wattage different optics
20	<p>Referring to section beneath “The following parameters shall be utilized for the designs”</p> <p>1. Please clarify how the value of maintenance factor = 80% was determined if:</p> <p>a. Dirt depreciation factor for South Africa &gt; 0.83 for min 36month cleaning cycle, SANS 10098-1 Table B1</p> <p>b. As per point 4. “Luminaire losses of 80% minimum”</p> <p>c. Thus MF = Dirt depreciation factor x Luminaire losses = 0.83 x 0.8 = 66.4% MF and not 80%</p>	Comply to the specification requirements
21	<p>2. There are two road arrangements:</p> <p>a. road arrangement of median 1 of 2m-3m and 4 lanes</p> <p>i. How many lanes on each side of the median (2 of 4 lanes)?</p> <p>b. road arrangement with no median and 4 lanes</p> <p>It is indicated that this applies only to the 250W and 400W arrangements, what are the road arrangements for the other lighting options? What sort of lighting arrangements are required for road arrangements:</p> <p>a. median</p> <p>b. single side bottom / top</p> <p>c. double row opposing</p> <p>d. double row offset</p> <p>Would we simulate on 2m or 3m wide median?</p> <p>What about emergency lanes?</p> <p>What about sidewalks?</p>	Comply to the specification requirements
22	<p>3. Please clarify what is meant by “Luminaire losses of 80% minimum”</p> <p>a. What losses are being referred to?</p> <p>b. Would it be acceptable to have 100% luminaire losses, i.e. no light output on the roadway?</p> <p>c. Should this not be maximum and not minimum?</p>	Comply to the specification requirements
23	<p>4. Please clarify when “Boom length of 0.5” is applicable and for which lighting criteria?</p> <p>a. Please indicate the unit, is it 0.5 metres?</p> <p>b. This contradicts all tables where the boom length or outreach arms differ. Please clarify which to use.</p>	Refer to the amended Design Data
24	<p>5. Please clarify Longitudinal displacement of 0?</p> <p>a. Is this the distance the pole is away from edge of road? Or</p> <p>b. Is this the distance the luminaire is away from edge of road?</p> <p>c. This displacement is not possible for lighting along the median with a boom length already defined as 0.5m (assumed)</p> <p>d. Or is this the distance between two (2) luminaires mounted next to other with an offset on a double spigot (where 0m implies that the luminaires are on top of each other with a displacement of 0m)?</p>	Refer to the amended Design Data
25	<p>6. Reference is made that the lighting simulations should yield results compliant to 600 cars per hour as per SANS 10098</p> <p>a. To which simulations does this apply and those to which it does not apply?</p> <p>b. This contradicts all tables that indicate B class lighting criteria. Hence clarity requested on which tables to be applied to what SANS 10098 criteria without ambiguity.</p>	Comply to the specification and Design data requirements

26	I wanted to ask if we can choose which commodity or item we can bid for or we are mandated to bid for every commodity/item	Yes
27	Hi can we submit more than one proposal on the energy efficiency luminaires . Can we use one document request for bid.	Yes
28	Hi sir thank you for the email but on page 67 of the request 2470G it say if the bid is for more than one product. I am not clear want to submit 3 proposals .	Page 67 is applicable to Local Content and is not applicable to this Bid
29	As per page 75 & 76, the evaluation criteria for the 70 Watt & 100 Watt replacements. It does not require design for evaluation and there is no design data provided. It seems as designs are only required for the 250 Watt & 400 Watt replacements. However on page 14 & 17 of CP_TSSPEC_231 point number 37, it mentions that design are required to be submitted. Please clarify this requirement.	Refer to the amended CP_TSSPEC_231
30	As per the Design Data it clearly states parameters that need to be used, on point number 3 it states we need to design a road for the 250 Watt & 400 Watt replacement luminaire but without a median. Parameters for the setback of the pole is not given. This will be the distance between road edge and the pole. Please indicate this distance.	Refer to the amended Design Data requirement
31	As per the Design Date, point number 5 states a boom length of 0.5m. Pole data that needs to be incorporated into the design states that S1 and S2 have a arm that is 2m & 3m respectively. This will mean that the boom length in Dialux design will be 2m & 3m. Please clarify this requirement.	Refer to the amended Design Data requirement