



TO: Members of the City Commission
City Manager, Cathy Swanson-Rivenbark

FROM: Commissioner Vince Lago

DATE: August 21, 2017

SUBJECT: City-wide LED Street Light Conversion

Since 2014, I have urged the City to consider transitioning from standard street lighting to LED lighting. I have consistently met with a multitude of vendors to discuss efficient street lighting options such as: Horsepower Electric, Honeywell, Citlum, and Consultia (to name a few). Several neighboring cities such as the City of Miami Beach are already exploring this option and have called for Request for Quotations (RFQ) to be submitted. The City of Miami issued a contract to a vendor a few years ago after putting it through the bidding process.

As we continue to adopt sustainable practices, it is important to analyze other areas which call for improvement. The benefits of moving forward with LED lighting would allow the City to save money on electricity due to efficient energy usage, modernize the City (while being able to continue its highly desired amber lighting), allow the City to have control over its lighting, keep a better record of bulb outages which would improve service and allow staff to gain a better understanding our inventory. More importantly, several studies have shown there to be a decrease in criminal activity when street lighting is enhanced. According to a study completed by the University of Massachusetts, improved street lighting had a positive effect on crime reduction specifically, burglaries and theft.

Currently, Florida Power and Light owns 4115 lights (see chart below). By comparison, the City owns 583. On August 11, Public Works sent a Memorandum which provided an update on LED lighting. Although I highly appreciate that the City is transitioning to LED lighting in its facilities, there is still much to be done in terms of a city-wide plan that will include the 4000 + lights.

As such, I would like to pose the following questions to understand what is needed to move forward with the city-wide LED conversion of streetlights.

- 1) What is delaying us in moving forward with the city-wide LED streetlight conversion?
- 2) Is there a plan in place to move forward with LED streetlight conversion?
- 3) Has there been a cost-benefit analysis or report done which discusses in depth the pros-cons?
- 4) Is the commission interested in having a Sunshine Meeting to discuss a plan to move forward?

As always, I welcome your feedback and look forward to discuss this topic in more detail.

To view the City of Miami's RFP and additional streetlight information:
<http://egov.ci.miami.fl.us/Legistarweb/Attachments/73945.pdf>

To view City of Miami Beach's RFQ (see attachments).

City of Coral Gables Lighting Fixtures by type and total amount:

Component Type	E	F	R	Grand Total
0034KWH	8			8
0175KWH	4			4
HPS0070		2068	1	2069
HPS0100	54	214	302	570
HPS0150	8	398	174	580
HPS0200	12	316		328
HPS0400		118		118
MV00140		1		1
MV00250	8			8
MV00400	12			12
ZLTANDA=MH 250 watt Teardrop		6		6
ZLTCG21=MH 150watt Acorn		3		3
ZLTCG22=MH 250watt Teardrop		2		2
ZLTCGHA=HPS 70watt Acorn		5		5
ZLTCGSL=HPS 150watt Acorn		4		4
ZLTCOLL=MH 250watt Teardrop		4		4
ZLTCOSP=MH 175watt Acorn		2		2
ZLTGBR1=MH 250watt Teardrop		3		3
ZLTGBRE=MH 150watt Acorn		7		7
ZLTGEST=HPS 100watt Acorn		182		182
ZLTGRNW=HPS 70watt Acorn		86		86
ZLTHRLN=HPS 70watt Acorn		19		19
ZLTMERR=MH-175watt Acorn		16		16
ZLTM PAC=MH 175watt Acorn		5		5
ZLTMPP2=MH 250watt Teardrop		12		12
ZLTMPTD=MH 250watt Teardrop		15		15
ZLTPONC=MH 250watt Teardrop		14		14
ZLTSNAM=HPS 70watt Acorn		32		32
	106	3532	477	4115

CC: Assistant City Manager, Peter Iglesias
 City Attorney, Craig Leen
 Deputy City Attorney, Miriam Ramos
 City Clerk, Walter Foeman
 Public Works Director, Ed Santamaria
 Assistant Public Works Director, Jessica Keller
 Sustainability Specialist, Matt Anderson

REQUEST FOR QUALIFICATIONS (RFQ)

SMART CITY STREET LIGHTING SYSTEM – DESIGN, BUILD, OPERATE, AND MAINTAIN

RFQ NO. 2017-119-KB

RFP ISSUANCE DATE: JUNE 14, 2017

PROPOSAL DUE DATE: JULY 31, 2017 AT 3:00 PM

ISSUED BY:

MIAMIBEACH

Kristy Bada, *Contracting Officer III*
PROCUREMENT DEPARTMENT
1700 Convention Center Drive, Miami Beach, FL 33139
305.673.7490 | kristybada@miamibeachfl.gov
www.miamibeachfl.gov

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SECTION 0200 INSTRUCTIONS TO RESPONDENTS & GENERAL CONDITIONS

1. GENERAL. This Request for Qualifications (RFQ) is issued by the City of Miami Beach, Florida (the “City”), as the means for prospective Proposer to submit their qualifications, proposed scopes of work and cost Statement of Qualifications (the “proposal”) to the City for the City’s consideration as an option in achieving the required scope of services and requirements as noted herein. All documents released in connection with this solicitation, including all appendixes and addenda, whether included herein or released under separate cover, comprise the solicitation, and are complementary to one another and together establish the complete terms, conditions and obligations of the Proposer and, subsequently, the successful proposer(s) (the “contractor[s]”) if this RFQ results in an award.

The City utilizes **PublicPurchase** (www.publicpurchase.com) for automatic notification of competitive solicitation opportunities and document fulfillment, including the issuance of any addendum to this RFQ. Any prospective proposer who has received this RFQ by any means other than through **PublicPurchase** must register immediately with **PublicPurchase** to assure it receives any addendum issued to this RFQ. **Failure to receive an addendum may result in disqualification of proposal submitted.**

2. PURPOSE.

The City is soliciting proposals for Design, Build, Operation and Maintenance (DBOM) Services from qualified teams with experience in the design, construction, implementation, integration, operation, maintenance, management, and oversight of a SMART City street lighting system (“the Project”), starting with the creation of an overall Smart City LED Street Lighting Conversion Master Plan to guide the vision and direction of the Project. The Smart City LED Street Lighting Conversion Master Plan should “future proof” the City by planning for the integration of the smart services of tomorrow that the City can implement in a phased approach. The design should apply the concepts of Lighting Master Plan to all elements of the city smart lighting conversion and utilize the improved street lighting network as a platform to not only manage its streetlights, but as an open platform capable of integrating some of the existing smart city initiatives and other smart city services such as smart parking, traffic management, air quality and sound sensors, electrical vehicles charging stations, security cameras, etc., in an effort to upgrade the City’s urban lighting systems, to promote energy conservation, public safety, and economic development; and to ensure the effective long-term operation, maintenance, and management of the systems. The City may require a finance component, which will enable the system’s upgrade, operation, maintenance and management, while providing a pricing structure that meets the City’s cost and budget objectives. Additionally, the terms “FIRM”, “PROPOSER”, “CONSULTANT”, “PRIME PROPOSER” are used interchangeably and shall refer to the firm that will contract with the City for the development and implementation of the project. Additional detail and project description is provided in the attached Minimum Requirements and Specifications Section (Appendix C).

This RFP is issued pursuant to Chapter 287.055, Florida Statutes, the Consultants Competitive Negotiations Act (CCNA). As such, the City may negotiate with the top-ranked firm to determine the scope and cost of any resulting contract. Should the City be unable to negotiate a satisfactory contract with the firm considered to be the most qualified at a price the City determines to be fair, competitive, and reasonable, negotiations with that firm will be terminated. The City may then undertake negotiations with the next ranked firms, in order of rank.

3. SOLICITATION TIMETABLE. The tentative schedule for this solicitation is as follows:

Solicitation Issued	June 14, 2017
Pre-Submittal Meeting	June 23, 2017 AT 10:00 AM
Deadline for Receipt of Questions	July 21, 2017 AT 5:00 PM

Responses Due	July 31, 2017 AT 3:00 PM
Evaluation Committee Review	TBD
Proposer Presentations	TBD
Tentative Commission Approval	TBD
Contract Negotiations	Following Commission Approval

4. PROCUREMENT CONTACT. Any questions or clarifications concerning this solicitation shall be submitted to the Procurement Contact noted below:

Procurement Contact: Kristy Bada Telephone: 305-673-7490 Email: kristybada@miamibeachfl.gov

Additionally, the City Clerk is to be copied on all communications via e-mail at: RafaelGranado@miamibeachfl.gov; or via facsimile: 786-394-4188.

The Bid title/number shall be referenced on all correspondence. All questions or requests for clarification must be received no later than seven (7) calendar days prior to the date proposals are due as scheduled in Section 0200-3. All responses to questions/clarifications will be sent to all prospective Proposers in the form of an addendum.

5. PRE-PROPOSAL MEETING OR SITE VISIT(S). Only if deemed necessary by the City, a pre-proposal meeting or site visit(s) may be scheduled.

A Pre-PROPOSAL conference will be held as scheduled in Anticipated RFQ Timetable section above at the following address:

**City of Miami Beach
Procurement Department
Conference Room
1755 Meridian Avenue, 3rd Floor
Miami Beach, Florida 33139**

Attendance (in person or via telephone) is encouraged and recommended as a source of information, but is not mandatory. Proposers interested in participating in the Pre-Proposal Submission Meeting via telephone must follow these steps:

- (1) Dial the TELEPHONE NUMBER: 1- 888-270-9936 (Toll-free North America)
- (2) Enter the MEETING NUMBER: 5804578

Proposers who are interested in participating via telephone should send an e-mail to the contact person listed in this RFQ expressing their intent to participate via telephone.

6. PRE-PROPOSAL INTERPRETATIONS. Oral information or responses to questions received by prospective Proposers are not binding on the City and will be without legal effect, including any information received at pre-submittal meeting or site visit(s). The City by means of Addenda will issue interpretations or written addenda clarifications considered necessary by the City in response to questions. Only questions answered by written addenda will be binding and may supersede terms noted in this solicitation. Addendum will be released through *PublicPurchase*. Any prospective proposer who has received this RFQ by any means other than through

PublicPurchase must register immediately with PublicPurchase to assure it receives any addendum issued to this RFQ. Failure to receive an addendum may result in disqualification of proposal. Written questions should be received no later than the date outlined in the **Anticipated RFQ Timetable** section.

7. CONE OF SILENCE. This RFQ is subject to, and all proposers are expected to be or become familiar with, the City's Cone of Silence Requirements, as codified in Section 2-486 of the City Code. Proposers shall be solely responsible for ensuring that all applicable provisions of the City's Cone of Silence are complied with, and shall be subject to any and all sanctions, as prescribed therein, including rendering their response voidable, in the event of such non-compliance. Communications regarding this solicitation are to be submitted in writing to the Procurement Contact named herein with a copy to the City Clerk at rafaelgranado@miamibeachfl.gov

8. SPECIAL NOTICES. You are hereby advised that this solicitation is subject to the following ordinances/resolutions, which may be found on the City Of Miami Beach website: <http://web.miamibeachfl.gov/procurement/scroll.aspx?id=79113> .

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| • CONE OF SILENCE..... | CITY CODE SECTION 2-486 |
| • PROTEST PROCEDURES..... | CITY CODE SECTION 2-371 |
| • DEBARMENT PROCEEDINGS..... | CITY CODE SECTIONS 2-397 THROUGH 2-485.3 |
| • LOBBYIST REGISTRATION AND DISCLOSURE OF FEES..... | CITY CODE SECTIONS 2-481 THROUGH 2-406 |
| • CAMPAIGN CONTRIBUTIONS BY VENDORS..... | CITY CODE SECTION 2-487 |
| • CAMPAIGN CONTRIBUTIONS BY LOBBYISTS ON PROCUREMENT ISSUES..... | CITY CODE SECTION 2-488 |
| • REQUIREMENT FOR CITY CONTRACTORS TO PROVIDE EQUAL BENEFITS FOR DOMESTIC PARTNERS..... | CITY CODE SECTION 2-373 |
| • LIVING WAGE REQUIREMENT..... | CITY CODE SECTIONS 2-407 THROUGH 2-410 |
| • PREFERENCE FOR FLORIDA SMALL BUSINESSES OWNED AND CONTROLLED BY VETERANS AND TO STATE-CERTIFIED SERVICE-DISABLED VETERAN BUSINESS ENTERPRISES..... | CITY CODE SECTION 2-374 |
| • FALSE CLAIMS ORDINANCE..... | CITY CODE SECTION 70-300 |
| • ACCEPTANCE OF GIFTS, FAVORS & SERVICES..... | CITY CODE SECTION 2-449 |

9. PUBLIC ENTITY CRIME. A person or affiliate who has been placed on the convicted vendor list following a conviction for public entity crimes may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to public entity, may not be awarded or perform work as a contractor, supplier, sub-contractor, or consultant under a contract with a public entity, and may not transact business with any public entity in excess of the threshold amount provided in Sec. 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.

10. COMPLIANCE WITH THE CITY'S LOBBYIST LAWS. This RFQ is subject to, and all Proposers are expected to be or become familiar with, all City lobbyist laws. Proposers shall be solely responsible for ensuring that all City lobbyist laws are complied with, and shall be subject to any and all sanctions, as prescribed therein, including, without limitation, disqualification of their responses, in the event of such non-compliance.

11. DEBARMENT ORDINANCE: This RFQ is subject to, and all proposers are expected to be or become familiar with, the City's Debarment Ordinance as codified in Sections 2-397 through 2-406 of the City Code.

12. WITH THE CITY'S CAMPAIGN FINANCE REFORM LAWS. This RFQ is subject to, and all Proposers are expected to be or become familiar with, the City's Campaign Finance Reform laws, as codified in Sections 2-487 through 2-490 of the City Code. Proposers shall be solely responsible for ensuring that all applicable provisions of the City's Campaign Finance Reform laws are complied with, and shall be subject to any and all sanctions, as prescribed therein, including disqualification of their responses, in the event of such non-compliance.

13. CODE OF BUSINESS ETHICS. Pursuant to City Resolution No.2000-23879, the Proposer shall adopt a Code of Business Ethics ("Code") and submit that Code to the Procurement Department with its response or within five (5) days upon receipt of request. The Code shall, at a minimum, require the Proposer, to comply with all applicable governmental rules and regulations including, among others, the conflict of interest, lobbying and ethics provision of the City of Miami Beach and Miami Dade County.

14. AMERICAN WITH DISABILITIES ACT (ADA). Call 305-673-7490 to request material in accessible format; sign language interpreters (five (5) days in advance when possible), or information on access for persons with disabilities. For more information on ADA compliance, please call the Public Works Department, at 305-673-7000, Extension 2984.

15. POSTPONEMENT OF DUE DATE FOR RECEIPT OF PROPOSALS. The City reserves the right to postpone the deadline for submittal of proposals and will make a reasonable effort to give at least three (3) calendar days written notice of any such postponement to all prospective Proposers through *PublicPurchase*.

16. PROTESTS. Proposers that are not selected may protest any recommendation for selection of award in accordance with the proceedings established pursuant to the City's bid protest procedures, as codified in Sections 2-370 and 2-371 of the City Code (the City's Bid Protest Ordinance). Protest not timely made pursuant to the requirements of the City's Bid Protest Ordinance shall be barred.

17. NOT USED.

18. VETERAN BUSINESS ENTERPRISES PREFERENCE. Pursuant to City Code Section 2-374, the City shall give a preference to a responsive and responsible Proposer which is a small business concern owned and controlled by a veteran(s) or which is a service-disabled veteran business enterprise, and which is within five percent (5%) of the lowest responsive, responsible proposer, by providing such proposer an opportunity of providing said goods or contractual services for the lowest responsive proposal amount (or in this RFQ, the highest proposal amount). Whenever, as a result of the foregoing preference, the adjusted prices of two (2) or more proposers which are a small business concern owned and controlled by a veteran(s) or a service-disabled veteran business enterprise constitute the lowest proposal pursuant to an RFQ or oral or written request for quotation, and such proposals are responsive, responsible and otherwise equal with respect to quality and service, then the award shall be made to the service-disabled veteran business enterprise.

19. DETERMINATION OF AWARD. The final ranking results of Step 1 & 2 outlined in Section 0400, Evaluation of Proposals, will be considered by the City Manager who may recommend to the City Commission the Proposer(s) s/he deems to be in the best interest of the City or may recommend rejection of all proposals. The City Manager's recommendation need not be consistent with the scoring results identified herein and takes into consideration Miami Beach City Code Section 2-369, including the following considerations:

- (1) The ability, capacity and skill of the Proposer to perform the contract.
- (2) Whether the Proposer can perform the contract within the time specified, without delay or interference.
- (3) The character, integrity, reputation, judgment, experience and efficiency of the Proposer.
- (4) The quality of performance of previous contracts.
- (5) The previous and existing compliance by the Proposer with laws and ordinances relating to the contract.

The City Commission shall consider the City Manager's recommendation and may approve such recommendation. The City Commission may also, at its option, reject the City Manager's recommendation and select another Proposal or Proposals which it deems to be in the best interest of the City, or it may also reject all Proposals.

20. NEGOTIATIONS. Following selection, the City reserves the right to enter into further negotiations with the top-ranked Proposer. The City may negotiate with the top-ranked firm to determine the scope, cost and terms of any resulting contract. Should the City be unable to negotiate a satisfactory contract with the firm considered to be the most qualified at a price the City determines to be fair, competitive, and reasonable, negotiations with that firm will be terminated. The City may then undertake negotiations with the next ranked firms, in order of rank. Notwithstanding the preceding, the City is in no way obligated to enter into a contract with any Proposer in the event the parties are unable to negotiate a contract. It is also understood and acknowledged by Proposers that no property, contract or legal rights of any kind shall be created at any time until and unless an Agreement has been agreed to; approved by the City; and executed by the parties.

21. POSTPONEMENT/CANCELLATION/ACCEPTANCE/REJECTION. The City may, at its sole and absolute discretion, reject any and all, or parts of any and all, responses; re-advertise this RFQ; postpone or cancel, at any time, this RFQ process; or waive any irregularities in this RFQ, or in any responses received as a result of this RFQ. Reasonable efforts will be made to either award the proposer the contract or reject all proposals within one-hundred twenty (120) calendar days after proposal opening date. A proposer may withdraw its proposal after expiration of one hundred twenty (120) calendar days from the date of proposal opening by delivering written notice of withdrawal to the Department of Procurement Management prior to award of the contract by the City Commission.

22. PROPOSER'S RESPONSIBILITY. Before submitting a response, each Proposer shall be solely responsible for making any and all investigations, evaluations, and examinations, as it deems necessary, to ascertain all conditions and requirements affecting the full performance of the contract. Ignorance of such conditions and requirements, and/or failure to make such evaluations, investigations, and examinations, will not relieve the Proposer from any obligation to comply with every detail and with all provisions and requirements of the contract, and will not be accepted as a basis for any subsequent claim whatsoever for any monetary consideration on the part of the Proposer.

23. COSTS INCURRED BY PROPOSERS. All expenses involved with the preparation and submission of Proposals, or any work performed in connection therewith, shall be the sole responsibility (and shall be at the sole cost and expense) of the Proposer, and shall not be reimbursed by the City.

24. RELATIONSHIP TO THE CITY. It is the intent of the City, and Proposers hereby acknowledge and agree, that the successful Proposer is considered to be an independent contractor, and that neither the Proposer, nor the Proposer's employees, agents, and/or contractors, shall, under any circumstances, be considered employees or agents of the City.

24. OCCUPATIONAL HEALTH AND SAFETY. In compliance with Chapter 442, Florida Statutes, any toxic substance listed in Section 38F-41.03 of the Florida Administrative Code delivered as a result of this proposal must be accompanied by a Material Safety Data Sheet (MSDS) which may be obtained from the manufacturer.

25. ENVIRONMENTAL REGULATIONS. The City reserves the right to consider a proposer's history of citations and/or violations of environmental regulations in investigating a proposer's responsibility, and further reserves the right to declare a proposer not responsible if the history of violations warrant such determination in the opinion of the City. Proposer shall submit with its proposal, a complete history of all citations and/or violations, notices and dispositions thereof. The non-submission of any such documentation shall be deemed to be an affirmation by the Proposer that there are no citations or violations. Proposer shall notify the City immediately of notice of any citation or violation which proposer may receive after the proposal opening date and during the time of performance of any contract awarded to it.

26. TAXES. The City of Miami Beach is exempt from all Federal Excise and State taxes.

27. MISTAKES. Proposers are expected to examine the terms, conditions, specifications, delivery schedules, proposed pricing, and all instructions pertaining to the goods and services relative to this RFQ. Failure to do so will be at the Proposer's risk and may result in the Proposal being non-responsive.

28. PAYMENT. Payment will be made by the City after the goods or services have been received, inspected, and found to comply with contract, specifications, free of damage or defect, and are properly invoiced. Invoices must be consistent with Purchase Order format.

29. COPYRIGHT, PATENTS & ROYALTIES. Proposer shall indemnify and save harmless the City of Miami Beach, Florida, and its officers, employees, contractors, and/or agents, from liability of any nature or kind, including cost and expenses for, or on account of, any copyrighted, patented, or unpatented invention, process, or article manufactured or used in the performance of the contract, including its use by the City of Miami Beach, Florida. If the Proposer uses any design, device or materials covered by letters, patent, or copyright, it is mutually understood and agreed, without exception, that the proposal prices shall include all royalties or cost arising from the use of such design, device, or materials in any way involved in the work.

30. DEFAULT. Failure or refusal of the selected Proposer to execute a contract following approval of such contract by the City Commission, or untimely withdrawal of a response before such award is made and approved, may result in a claim for damages by the City and may be grounds for removing the Proposer from the City's vendor list.

31. MANNER OF PERFORMANCE. Proposer agrees to perform its duties and obligations in a professional manner and in accordance with all applicable Local, State, County, and Federal laws, rules, regulations and codes. Lack of knowledge or ignorance by the Proposer with/of applicable laws will in no way be a cause for relief from responsibility. Proposer agrees that the services provided shall be provided by employees that are educated, trained, experienced, certified, and licensed in all areas encompassed within their designated duties. Proposer agrees to furnish to the City any and all documentation, certification, authorization, license, permit, or registration currently required by applicable laws, rules, and regulations. Proposer further certifies that it and its employees will keep all licenses, permits, registrations, authorizations, or certifications required by applicable laws or regulations in full force and effect during the term of this contract. Failure of Proposer to comply with this paragraph shall constitute a material breach of this contract.

Where contractor is required to enter or go on to City of Miami Beach property to deliver materials or perform work or services as a result of any contract resulting from this solicitation, the contractor will assume the full duty, obligation and expense of obtaining all necessary licenses, permits, and insurance, and assure all work complies with all applicable laws. The contractor shall be liable for any damages or loss to the City occasioned by negligence of the Proposer, or its officers, employees, contractors, and/or agents, for failure to comply with applicable laws.

32. SPECIAL CONDITIONS. Any and all Special Conditions that may vary from these General Terms and Conditions shall have precedence.

33. NON-DISCRIMINATION. The Proposer certifies that it is in compliance with the non-discrimination clause contained in Section 202, Executive Order 11246, as amended by Executive Order 11375, relative to equal employment opportunity for all persons without regard to race, color, religion, sex or national origin. In accordance with the City's Human Rights Ordinance, codified in Chapter 62 of the City Code, Proposer shall prohibit discrimination by reason of race, color, national origin, religion, sex, intersexuality, gender identity, sexual orientation, marital and familial status, and age or disability.

34. DEMONSTRATION OF COMPETENCY. The city may consider any evidence available regarding the financial, technical, and other qualifications and abilities of a Proposer, including past performance (experience) in making an award that is in the best interest of the City, including:

- A. Pre-award inspection of the Proposer's facility may be made prior to the award of contract.
- B. Proposals will only be considered from firms which are regularly engaged in the business of providing the goods and/or services as described in this solicitation.
- C. Proposers must be able to demonstrate a good record of performance for a reasonable period of time, and have sufficient financial capacity, equipment, and organization to ensure that they can satisfactorily perform the services if awarded a contract under the terms and conditions of this solicitation.
- D. The terms "equipment and organization", as used herein shall, be construed to mean a fully equipped and well established company in line with the best business practices in the industry, and as determined by the City of Miami Beach.
- E. The City may consider any evidence available regarding the financial, technical, and other qualifications and abilities of a Proposer, including past performance (experience), in making an award that is in the best interest of the City.
- F. The City may require Proposer s to show proof that they have been designated as authorized representatives of a manufacturer or supplier, which is the actual source of supply. In these instances, the City may also require material information from the source of supply regarding the quality, packaging, and characteristics of the products to be supply to the City.

35. ASSIGNMENT. The successful Proposer shall not assign, transfer, convey, sublet or otherwise dispose of the contract, including any or all of its right, title or interest therein, or his/her or its power to execute such contract, to any person, company or corporation, without the prior written consent of the City.

36. LAWS, PERMITS AND REGULATIONS. The Proposer shall obtain and pay for all licenses, permits, and inspection fees required to complete the work and shall comply with all applicable laws.

37. OPTIONAL CONTRACT USAGE. When the successful Proposer (s) is in agreement, other units of government or non-profit agencies may participate in purchases pursuant to the award of this contract at the option of the unit of government or non-profit agency.

38. VOLUME OF WORK TO BE RECEIVED BY CONTRACTOR. It is the intent of the City to purchase the goods and services specifically listed in this solicitation from the contractor. However, the City reserves the right to purchase any goods or services awarded from state or other governmental contract, or on an as-needed basis through the City's spot market purchase provisions.

39. DISPUTES. In the event of a conflict between the documents, the order of priority of the documents shall be as follows:

- A. Any contract or agreement resulting from the award of this solicitation; then
- B. Addendum issued for this solicitation, with the latest Addendum taking precedence; then
- C. The solicitation; then
- D. The Proposer's proposal in response to the solicitation.

40. INDEMNIFICATION. The Proposer shall indemnify and hold harmless the City and its officers, employees, agents and instrumentalities from any and all liability, losses or damages, including attorney's fees and costs of defense, which the City or its officers, employees, agents or instrumentalities may incur as a result of claims, demands, suits, causes of actions or proceedings of any kind or nature arising out of, relating to or resulting from the performance of

the agreement by the contractor or its employees, agents, servants, partners, principals or subcontractors. The contractor shall pay all claims and losses in connection therewith, and shall investigate and defend all claims, suits or actions of any kind or nature in the name of the City, where applicable, including appellate proceedings, and shall pay all costs, judgments, and attorney's fees which may be incurred thereon. The Proposer expressly understands and agrees that any insurance protection required by this Agreement or otherwise provided by the contractor shall in no way limit the responsibility to indemnify, keep and save harmless and defend the City or its officers, employees, agents and instrumentalities as herein provided. The above indemnification provisions shall survive the expiration or termination of this Agreement.

41. CONTRACT EXTENSION. The City reserves the right to require the Contractor to extend contract past the stated termination date for a period of up to 120 days in the event that a subsequent contract has not yet been awarded. Additional extensions past the 120 days may occur as needed by the City and as mutually agreed upon by the City and the contractor.

42. FLORIDA PUBLIC RECORDS LAW. Proposers are hereby notified that all Bid including, without limitation, any and all information and documentation submitted therewith, are exempt from public records requirements under Section 119.07(1), Florida Statutes, and s. 24(a), Art. 1 of the State Constitution until such time as the City provides notice of an intended decision or until thirty (30) days after opening of the proposals, whichever is earlier. Additionally, Contractor agrees to be in full compliance with Florida Statute 119.0701 including, but not limited to, agreement to (a) Keep and maintain public records that ordinarily and necessarily would be required by the public agency in order to perform the services; (b) provide the public with access to public records on the same terms and conditions that the public agency would provide the records and at a cost that does not exceed the cost provided in this chapter or as otherwise provided by law; (c) Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law; (d) Meet all requirements for retaining public records and transfer, at no cost, to the public agency all public records in possession of the contractor upon termination of the contract and destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. All records stored electronically must be provided to the public agency in a format that is compatible with the information technology systems of the public agency.

43. OBSERVANCE OF LAWS. Proposers are expected to be familiar with, and comply with, all Federal, State, County, and City laws, ordinances, codes, rules and regulations, and all orders and decrees of bodies or tribunals having jurisdiction or authority which, in any manner, may affect the scope of services and/or project contemplated by this RFQ (including, without limitation, the Americans with Disabilities Act, Title VII of the Civil Rights Act, the EEOC Uniform Guidelines, and all EEO regulations and guidelines). Ignorance of the law(s) on the part of the Proposer will in no way relieve it from responsibility for compliance.

44. CONFLICT OF INTEREST. All Proposers must disclose, in their Proposal, the name(s) of any officer, director, agent, or immediate family member (spouse, parent, sibling, and child) who is also an employee of the City of Miami Beach. Further, all Proposers must disclose the name of any City employee who owns, either directly or indirectly, an interest of ten (10%) percent or more in the Proposer entity or any of its affiliates.

45. MODIFICATION/WITHDRAWALS OF PROPOSALS. A Proposer may submit a modified Proposal to replace all or any portion of a previously submitted Proposal up until the Proposal due date and time. Modifications received after the Proposal due date and time will not be considered. Proposals shall be irrevocable until contract award unless withdrawn in writing prior to the Proposal due date, or after expiration of **120** calendar days from the opening of Proposals without a contract award. Letters of withdrawal received after the Proposal due date and before said expiration date, and letters of withdrawal received after contract award will not be considered.

47. EXCEPTIONS TO RFQ. Proposers must clearly indicate any exceptions they wish to take to any of the terms in this RFQ, and outline what, if any, alternative is being offered. All exceptions and alternatives shall be included and clearly delineated, in writing, in the Proposal. The City, at its sole and absolute discretion, may accept or reject any or all exceptions and alternatives. In cases in which exceptions and alternatives are rejected, the City shall require the Proposer to comply with the particular term and/or condition of the RFQ to which Proposer took exception to (as said term and/or condition was originally set forth on the RFQ).

48. ACCEPTANCE OF GIFTS, FAVORS, SERVICES. Proposers shall not offer any gratuities, favors, or anything of monetary value to any official, employee, or agent of the City, for the purpose of influencing consideration of this Proposal. Pursuant to Sec. 2-449 of the City Code, no officer or employee of the City shall accept any gift, favor or service that might reasonably tend improperly to influence him in the discharge of his official duties.

49. SUPPLEMENTAL INFORMATION. City reserves the right to request supplemental information from Proposers at any time during the RFQ solicitation process.

50. ADDITIONAL SERVICES. Although this solicitation and resultant contract identifies specific goods, services or facilities ("items"), it is hereby agreed and understood that the City, through the approval of the Department and Procurement Directors (for additional items up to \$50,000) or the City Manager (for additional items greater than \$50,000), may require additional items to be added to the Contract which are required to complete the work. When additional items are required to be added to the Contract, awarded vendor(s), as applicable to the item being requested, under this contract may be invited to submit price quote(s) for these additional requirements. If these quote(s) are determined to be fair and reasonable, then the additional work will be awarded to the current contract vendor(s) that offers the lowest acceptable pricing. The additional items shall be added to this contract by through a Purchase Order (or Change Order if Purchase Order already exists). In some cases, the City may deem it necessary to add additional items through a formal amendment to the Contract, to be approved by the City Manager.

The City may determine to obtain price quotes for the additional items from other vendors in the event that fair and reasonable pricing is not obtained from the current contract vendors, or for other reasons at the City's discretion.

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SECTION 0300 SUBMITTAL INSTRUCTIONS AND FORMAT

1. SEALED RESPONSES. One original Statement of Qualifications (preferably in 3-ring binder) must be submitted in an opaque, sealed envelope or container on or before the due date established for the receipt of proposals. Additionally, ten (10) bound copies and one (1) electronic format (CD or USB format) are to be submitted. The following information should be clearly marked on the face of the envelope or container in which the proposal is submitted: solicitation number, solicitation title, proposer name, proposer return address. Statement of Qualifications received electronically, either through email or facsimile, are not acceptable and will be rejected.

2. LATE BIDS. Statement of Qualifications are to be received on or before the due date established herein for the receipt of Bids. **Any Bid received after the deadline established for receipt of Statement of Qualifications will be considered late and not be accepted or will be returned to proposer unopened.** The City does not accept responsibility for any delays, natural or otherwise.

3. STATEMENTS OF QUALIFICATIONS FORMAT. In order to maintain comparability, facilitate the review process and assist the Evaluation Committee in review of Statement of Qualifications, it is strongly recommended that Statement of Qualifications be organized and tabbed in accordance with the sections and manner specified below. Hard copy submittal should be tabbed as enumerated below and contain a table of contents with page references. Electronic copies should also be tabbed and contain a table of contents with page references. Statement of Qualifications that do not include the required information will be deemed non-responsive and will not be considered.

TAB 1	Cover Letter & Minimum Qualifications Requirements
<p>1.1 Cover Letter and Table of Contents. The cover letter must indicate Proposer and Proposer Primary Contact for the purposes of this solicitation.</p> <p>1.2 Response Certification, Questionnaire & Requirements Affidavit (Appendix A). Attach Appendix A fully completed and executed.</p> <p>1.3 Minimum Qualifications Requirements. Submit verifiable information documenting compliance with the minimum qualifications requirements established in Appendix C, Minimum Requirements and Specifications.</p>	

TAB 2	Experience & Qualifications
<p>2.1 Qualifications of Proposing Firm. Submit detailed information regarding the firm’s history and relevant experience and proven track record of providing the scope of services similar as identified in this solicitation, including experience in providing similar scope of services to public sector agencies. Proposer shall submit no less than 5 and no more than 10 projects as evidence of similar experience, the following is required:</p> <ul style="list-style-type: none"> • Name of the client and the project identifier • Point of contact and telephone number and mailing address for the client • Project start date and contract length • Tasks performed • Key personnel involved on the project • Financing information including overall budget, financing type, structure, term and amounts • Key achievements <p>2.1.1 Experience with Environment. Submit detailed information which exemplifies the firm’s history and relevant experience relative to the following:</p> <ul style="list-style-type: none"> • Coastal Environments • Local Wildlife Environments with sensitive lighting areas such as sea turtle habitats. <p>2.1.2 Computerized Maintenance Management System (CMMS) and Data Management Provide detailed</p>	

narrative, charts, screenshots and other representations that describe Offeror's CMMS and Data Management qualifications, including experience using this CMMS, key features, system architecture and data hosting, data exchange methodology if applicable, experience implementing the solution, training plan.

2.2 Qualifications of Proposer Team. Provide an organizational chart of all personnel and consultants to be used for this project if awarded, the role that each team member will play in providing the services detailed herein and each team members' qualifications. A resume of each individual, including education, experience, and any other pertinent information, shall be included for each respondent team member to be assigned to this contract.

2.2.1 Experience with Environment. Submit detailed information which exemplifies the team's history and relevant experience relative to the following:

- Coastal Environments
- Local Wildlife Environments with sensitive lighting areas such as sea turtle habitats.

2.3 Financial Capacity. Each proposer shall arrange for Dun & Bradstreet to submit a Supplier Qualification Report (SQR) directly to the Procurement Contact named herein. No proposal will be considered without receipt, by the City, of the SQR directly from Dun & Bradstreet. The cost of the preparation of the SQR shall be the responsibility of the Proposer. The Proposer shall request the SQR report from D&B at:

<https://supplierportal.dnb.com/webapp/wcs/stores/servlet/SupplierPortal?storeId=11696>

Proposals are responsible for the accuracy of the information contained in its SQR. It is highly recommended that each proposer review the information contained in its SQR for accuracy prior to submittal to the City and as early as possible in the solicitation process. For assistance with any portion of the SQR submittal process, contact Dun & Bradstreet at 800-424-2495.

TAB 3 Approach and Methodology

3.1 Submit detailed information on the approach and methodology proposer has used on other related projects, including detailed information, as applicable, on the following:

3.1.1 Communications Management

3.1.1.1 Provide information and examples of past projects that describes Proposer's approach for communicating with project stakeholders, including general communications protocols and responsibility assignments; crisis communications; issues management; and Government relations.

3.1.1.2 Provide a detailed narrative that describes how Proposer has worked Residents, Business Owners and other stakeholders, including community relations and complaints management, dedicated website, stakeholder relations, on past projects.

3.1.2 Provide a narrative that describes the strategy Proposer has used on other related projects for accomplishing client goals, and the associated technology for the smart city lighting system.

Note: After proposal submittal, the City reserves the right to require additional information from Proposer (or proposer team members or sub-consultants) to determine: qualifications (including, but not limited to, litigation history, regulatory action, or additional references); and financial capability (including, but not limited to, annual reviewed/audited financial statements with the auditors notes for each of their last two complete fiscal years).

SECTION 0400 STATEMENTS OF QUALIFICATIONS EVALUATION

1. Evaluation Committee. An Evaluation Committee, appointed by the City Manager, shall meet to evaluate each Statement of Qualifications in accordance with the requirements set forth in the solicitation. If further information is desired, Proposals may be requested to make additional written submissions of a clarifying nature or oral presentations to the Evaluation Committee. The evaluation of Statement of Qualifications will proceed in a two-step process as noted below. It is important to note that the Evaluation Committee will score the qualitative portions of the Statement of Qualifications only. The Evaluation Committee does not make an award recommendation to the City Manager. The results of Step 1 & Step 2 Evaluations will be forwarded to the City Manager who will utilize the results to make a recommendation to the City Commission. In the event that only one responsive proposal is received, the City Manager, after determination that the sole responsive proposal materially meets the requirements of the RFP, may, without an evaluation committee, recommend to the City Commission that the Administration enter into negotiations. The City, in its discretion, may utilize technical or other advisers to assist the evaluation committee in the evaluation of proposals.

2. Step 1 Evaluation. The first step will consist of the qualitative criteria listed below to be considered by the Evaluation Committee. The second step will consist of quantitative criteria established below to be added to the Evaluation Committee results by the Department of Procurement Management. An Evaluation Committee, appointed by the City Manager, shall meet to evaluate each Statement of Qualifications in accordance with the qualifications criteria established below for Step 1, Qualitative Criteria. In doing so, the Evaluation Committee may review and score all proposals received, with or without conducting interview sessions.

Step 1 - Qualitative Criteria	Maximum Points
Proposer Experience and Qualifications	70
Approach and Methodology	30
TOTAL AVAILABLE STEP 1 POINTS	100

3. Step 2 Evaluation. Following the results of Step 1 Evaluation of qualitative criteria, the Proposer may receive additional quantitative criteria points to be added by the Department of Procurement to those points earned in Step 1, as follows.

Step 2 - Quantitative Criteria	Maximum Points
Veterans Preference	5
The volume of work previously awarded to each firm by the City within the last three (3) years from the due date for proposal. See Section 4 below.	5
TOTAL AVAILABLE STEP 2 POINTS	10

4. Volume of Work Points: Points awarded to the proposer for volume of work awarded by the City in the last three (3) years in accordance with the following table:

Less than \$250,000	5
\$250,000.01 – \$2,000,000	3
Greater than \$2,000,000	0

4. Determination of Final Ranking. At the conclusion of the Evaluation Committee Step 1 scoring, Step 2 Points will be added to each evaluation committee member’s scores by the Department of Procurement Management. Step 1 and 2 scores will be converted to rankings in accordance with the example below:

		Proposer A	Proposer B	Proposer C
Committee Member 1	Step 1 Points	82	76	80
	Step 2 Points	22	15	12
	Total	104	91	92
	Rank	1	3	2
Committee Member 2	Step 1 Points	79	85	72
	Step 2 Points	22	15	12
	Total	101	100	84
	Rank	1	2	3
Committee Member 2	Step 1 Points	80	74	66
	Step 2 Points	22	15	12
	Total	102	89	78
	Rank	1	2	3
Low Aggregate Score		3	7	8
Final Ranking*		1	2	3

* Final Ranking is presented to the City Manager for further due diligence and recommendation to the City Commission. Final Ranking does not constitute an award recommendation until such time as the City Manager has made his recommendation to the City Commission, which may be different than final ranking results.

APPENDIX A

MIAMI BEACH

Response Certification, Questionnaire & Requirements Affidavit

2017-119-KB PROGRESSIVE DESIGN, BUILD, OPERATION, AND MAINTENANCE SERVICES FOR A SMART CITY STREET LIGHTING SYSTEM

PROCUREMENT DEPARTMENT
1755 Meridian Avenue, 3rd Floor
Miami Beach, Florida 33139

Solicitation No: 2017-119-KB	Solicitation Title: SMART CITY STREET LIGHTING SYSTEM – DESIGN, BUILD, OPERATE, AND MAINTAIN	
Procurement Contact: KRISTY BADA	Tel: 305-673-7490	Procurement Contact: KRISTY BADA

STATEMENTS OF QUALIFICATIONS CERTIFICATION, QUESTIONNAIRE & REQUIREMENTS AFFIDAVIT

Purpose: The purpose of this Response Certification, Questionnaire and Requirements Affidavit Form is to inform prospective Proposals of certain solicitation and contractual requirements, and to collect necessary information from Proposals in order that certain portions of responsiveness, responsibility and other determining factors and compliance with requirements may be evaluated. **This Statement of Qualifications Certification, Questionnaire and Requirements Affidavit Form is a REQUIRED FORM that must be submitted fully completed and executed.**

1. General Proposer Information.

FIRM NAME:		
NO. OF YEARS IN BUSINESS:	NO. OF YEARS IN BUSINESS LOCALLY:	NO. OF EMPLOYEES:
OTHER NAME(S) PROPOSER HAS OPERATED UNDER IN THE LAST 10 YEARS:		
FIRM PRIMARY ADDRESS (HEADQUARTERS):		
CITY:		
STATE:	ZIP CODE:	
TELEPHONE NO.:		
TOLL FREE NO.:		
FAX NO.:		
FIRM LOCAL ADDRESS:		
CITY:		
STATE:	ZIP CODE:	
PRIMARY ACCOUNT REPRESENTATIVE FOR THIS ENGAGEMENT:		
ACCOUNT REP TELEPHONE NO.:		
ACCOUNT REP TOLL FREE NO.:		
ACCOUNT REP EMAIL:		
FEDERAL TAX IDENTIFICATION NO.:		

The City reserves the right to seek additional information from proposer or other source(s), including but not limited to: any firm or principal information, applicable licensure, resumes of relevant individuals, client information, financial information, or any information the City deems necessary to evaluate the capacity of the proposer to perform in accordance with contract requirements.

1. **Veteran Owned Business.** Is Proposer claiming a veteran owned business status?
 YES NO

SUBMITTAL REQUIREMENT: Proposers claiming veteran owned business status shall submit a documentation proving that firm is certified as a veteran-owned business or a service-disabled veteran owned business by the State of Florida or United States federal government, as required pursuant to ordinance 2011-3748.

2. **Conflict Of Interest.** All Proposers must disclose, in their Proposal, the name(s) of any officer, director, agent, or immediate family member (spouse, parent, sibling, and child) who is also an employee of the City of Miami Beach. Further, all Proposers must disclose the name of any City employee who owns, either directly or indirectly, an interest of ten (10%) percent or more in the Proposer entity or any of its affiliates.

SUBMITTAL REQUIREMENT: Proposers must disclose the name(s) of any officer, director, agent, or immediate family member (spouse, parent, sibling, and child) who is also an employee of the City of Miami Beach. Proposers must also disclose the name of any City employee who owns, either directly or indirectly, an interest of ten (10%) percent or more in the Proposer entity or any of its affiliates

3. **References & Past Performance.** Proposer shall submit at least three (3) references for whom the Proposer has completed work similar in size and nature as the work referenced in solicitation.

SUBMITTAL REQUIREMENT: For each reference submitted, the following information is required: 1) Firm Name, 2) Contact Individual Name & Title, 3) Address, 4) Telephone, 5) Contact's Email and 6) Narrative on Scope of Services Provided.

4. **Suspension, Debarment or Contract Cancellation.** Has Proposer ever been debarred, suspended or other legal violation, or had a contract cancelled due to non-performance by any public sector agency?
 YES NO

SUBMITTAL REQUIREMENT: If answer to above is "YES," Proposer shall submit a statement detailing the reasons that led to action(s).

5. **Vendor Campaign Contributions.** Proposers are expected to be or become familiar with, the City's Campaign Finance Reform laws, as codified in Sections 2-487 through 2-490 of the City Code. Proposers shall be solely responsible for ensuring that all applicable provisions of the City's Campaign Finance Reform laws are complied with, and shall be subject to any and all sanctions, as prescribed therein, including disqualification of their Proposals, in the event of such non-compliance.

SUBMITTAL REQUIREMENT: Submit the names of all individuals or entities (including your sub-consultants) with a controlling financial interest as defined in solicitation. For each individual or entity with a controlling financial interest indicate whether or not each individual or entity has contributed to the campaign either directly or indirectly, of a candidate who has been elected to the office of Mayor or City Commissioner for the City of Miami Beach.

6. **Code of Business Ethics.** Pursuant to City Resolution No.2000-23879, each person or entity that seeks to do business with the City shall adopt a Code of Business Ethics ("Code") and submit that Code to the Department of Procurement Management with its proposal/response or within five (5) days upon receipt of request. The Code shall, at a minimum, require the Proposer, to comply with all applicable governmental rules and regulations including, among others, the conflict of interest, lobbying and ethics provision of the City of Miami Beach and Miami Dade County.

SUBMITTAL REQUIREMENT: Proposer shall submit firm's Code of Business Ethics. In lieu of submitting Code of Business Ethics, Proposer may submit a statement indicating that it will adopt, as required in the ordinance, the City of Miami Beach Code of Ethics, available at www.miamibeachfl.gov/procurement/scroll.aspx?id=79113 .

7. **Living Wage.** Pursuant to Section 2-408 of the Miami Beach City Code, as same may be amended from time to time, Proposers shall be required to pay all employees who provide services pursuant to this Agreement, the hourly living wage rates listed below:
- Commencing with City fiscal year 2012-13 (October 1, 2012), the hourly living rate will be \$11.28/hr. with health benefits, and \$12.92/hr. without benefits.

The living wage rate and health care benefits rate may, by Resolution of the City Commission be indexed annually for inflation using the Consumer Price Index for all Urban Consumers (CPI-U) Miami/Ft. Lauderdale, issued by the U.S. Department of Labor's Bureau of Labor Statistics. Notwithstanding the preceding, no annual index shall exceed three percent (3%). The City may also, by resolution, elect not to index the living wage rate in any particular year, if it determines it would not be fiscally sound to implement same (in a particular year).

Proposers' failure to comply with this provision shall be deemed a material breach under this proposal, under which the City may, at its sole option, immediately deem said Proposer as non-responsive, and may further subject Proposer to additional penalties and fines, as provided in the City's Living Wage Ordinance, as amended. Further information on the Living Wage requirement is available at www.miamibeachfl.gov/procurement/.

SUBMITTAL REQUIREMENT: No additional submittal is required. By virtue of executing this affidavit document, Proposer agrees to the living wage requirement.

8. **Equal Benefits for Employees with Spouses and Employees with Domestic Partners.** When awarding competitively solicited contracts valued at over \$100,000 whose contractors maintain 51 or more full time employees on their payrolls during 20 or more calendar work weeks, the Equal Benefits for Domestic Partners Ordinance 2005-3494 requires certain contractors doing business with the City of Miami Beach, who are awarded a contract pursuant to competitive proposals, to provide "Equal Benefits" to their employees with domestic partners, as they provide to employees with spouses. The Ordinance applies to all employees of a Contractor who work within the City limits of the City of Miami Beach, Florida; and the Contractor's employees located in the United States, but outside of the City of Miami Beach limits, who are directly performing work on the contract within the City of Miami Beach.

- A. Does your company provide or offer access to any benefits to employees with spouses or to spouses of employees?
 YES NO
- B. Does your company provide or offer access to any benefits to employees with (same or opposite sex) domestic partners* or to domestic partners of employees?
 YES NO
- C. Please check all benefits that apply to your answers above and list in the "other" section any additional benefits not already specified. Note: some benefits are provided to employees because they have a spouse or domestic partner, such as bereavement leave; other benefits are provided directly to the spouse or domestic partner, such as medical insurance.

BENEFIT	Firm Provides for Employees with Spouses	Firm Provides for Employees with Domestic Partners	Firm does not Provide Benefit
Health			
Sick Leave			
Family Medical Leave			
Bereavement Leave			

If Proposer cannot offer a benefit to domestic partners because of reasons outside your control, (e.g., there are no insurance providers in your area willing to offer domestic partner coverage) you may be eligible for Reasonable Measures compliance. To comply on this basis, you must agree to pay a cash equivalent and submit a completed Reasonable Measures Application (attached) with all necessary documentation. Your Reasonable Measures Application will be reviewed for consideration by the City Manager, or his designee. Approval is not guaranteed and the City Manager's decision is final. Further information on the Equal Benefits requirement is available at www.miamibeachfl.gov/procurement/.

9. **Public Entity Crimes.** Section 287.133(2)(a), Florida Statutes, as currently enacted or as amended from time to time, states that a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a proposal, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a proposal, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit proposals, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in s. [287.017](#) for CATEGORY TWO for a period of 36 months following the date of being placed on the convicted vendor list.

SUBMITTAL REQUIREMENT: No additional submittal is required. By virtue of executing this affidavit document, Proposer agrees with the requirements of Section 287.133, Florida Statutes, and certifies it has not been placed on convicted vendor list.

10. **Non-Discrimination.** Pursuant to City Ordinance No.2016-3990, the City shall not enter into a contract with a business unless the business represents that it does not and will not engage in a boycott as defined in Section 2-375(a) of the City Code, including the blacklisting, divesting from, or otherwise refusing to deal with a person or entity when such action is based on race, color, national origin, religion, sex, intersexuality, gender identity, sexual orientation, marital or familial status, age or disability.

SUBMITTAL REQUIREMENT: No additional submittal is required. By virtue of executing this affidavit document, Proposer agrees it is and shall remain in full compliance with Section 2-375 of the City of Miami Beach City Code.

11. **Moratorium on Travel to and the Purchase of Goods or Services from North Carolina and Mississippi.** Pursuant to Resolution 2016-29375, the City of Miami Beach, Florida, prohibits official City travel to the states of North Carolina and Mississippi, as well as the purchase of goods or services sourced in North Carolina and Mississippi. Proposer shall agree that no travel shall occur on behalf of the City to North Carolina or Mississippi, nor shall any product or services it provides to the City be sourced from these states.

SUBMITTAL REQUIREMENT: No additional submittal is required. By virtue of executing this affidavit document, Proposer agrees it is and shall remain in full compliance with Resolution 2016-29375.

12. **Fair Chance Requirement.** Pursuant to Section 2-376 of the City Code, the City shall not enter into any contract resulting from a competitive solicitation, unless the proposer certifies in writing that the business has adopted and employs written policies, practices, and standards that are consistent with the City's Fair Chance Ordinance, set forth in Article V of Chapter 62 of the City Code ("Fair Chance Ordinance"), and which, among other things, (i) prohibits City contractors, as an employer, from inquiring about an applicant's criminal history until the applicant is given a conditional offer of employment; (ii) prohibits advertising of employment positions with a statement that an individual with a criminal record may not apply for the position, and (iii) prohibits placing a statement on an employment application that a person with a criminal record may not apply for the position.

SUBMITTAL REQUIREMENT: No additional submittal is required at this time. By virtue of executing this affidavit, Proposer certifies that it has adopted policies, practices and standards consistent with the City's Fair Chance Ordinance. Proposer agrees to provide the City with supporting documentation evidencing its compliance upon request. Proposer further agrees that any breach of the representations made herein shall constitute a material breach of contract, and shall entitle the City to the immediate termination for cause of the agreement, in addition to any damages that may be available at law and in equity.

13. **Acknowledgement of Addendum.** After issuance of solicitation, the City may release one or more addendum to the solicitation which may provide additional information to Proposers or alter solicitation requirements. The City will strive to reach every Proposer having received solicitation through the City's e-procurement system, PublicPurchase.com. However, Proposers are solely responsible for assuring they have received any and all addendum issued pursuant to solicitation. This Acknowledgement of Addendum section certifies that the Proposer has received all addendum released by the City pursuant to this solicitation. Failure to obtain and acknowledge receipt of all addenda may result in proposal disqualification.

Initial to Confirm Receipt		Initial to Confirm Receipt		Initial to Confirm Receipt	
	Addendum 1		Addendum 6		Addendum 11
	Addendum 2		Addendum 7		Addendum 12
	Addendum 3		Addendum 8		Addendum 13
	Addendum 4		Addendum 9		Addendum 14
	Addendum 5		Addendum 10		Addendum 15

If additional confirmation of addendum is required, submit under separate cover.

DISCLOSURE AND DISCLAIMER SECTION

The solicitation referenced herein is being furnished to the recipient by the City of Miami Beach (the "City") for the recipient's convenience. Any action taken by the City in response to Statement of Qualifications made pursuant to this solicitation, or in making any award, or in failing or refusing to make any award pursuant to such Statement of Qualifications, or in cancelling awards, or in withdrawing or cancelling this solicitation, either before or after issuance of an award, shall be without any liability or obligation on the part of the City.

In its sole discretion, the City may withdraw the solicitation either before or after receiving Statement of Qualifications, may accept or reject Statement of Qualifications, and may accept Statement of Qualifications which deviates from the solicitation, as it deems appropriate and in its best interest. In its sole discretion, the City may determine the qualifications and acceptability of any party or parties submitting Statement of Qualifications in response to this solicitation.

Following submission of Statement of Qualifications, the applicant agrees to deliver such further details, information and assurances, including financial and disclosure data, relating to the Statement of Qualifications and the applicant including, without limitation, the applicant's affiliates, officers, directors, shareholders, partners and employees, as requested by the City in its discretion.

The information contained herein is provided solely for the convenience of prospective Proposals. It is the responsibility of the recipient to assure itself that information contained herein is accurate and complete. The City does not provide any assurances as to the accuracy of any information in this solicitation.

Any reliance on these contents, or on any permitted communications with City officials, shall be at the recipient's own risk. Proposals should rely exclusively on their own investigations, interpretations, and analyses. The solicitation is being provided by the City without any warranty or representation, express or implied, as to its content, its accuracy, or its completeness. No warranty or representation is made by the City or its agents that any Statement of Qualifications conforming to these requirements will be selected for consideration, negotiation, or approval.

The City shall have no obligation or liability with respect to this solicitation, the selection and the award process, or whether any award will be made. Any recipient of this solicitation who responds hereto fully acknowledges all the provisions of this Disclosure and Disclaimer, is totally relying on this Disclosure and Disclaimer, and agrees to be bound by the terms hereof. Any Statement of Qualifications submitted to the City pursuant to this solicitation are submitted at the sole risk and responsibility of the party submitting such Statement of Qualifications.

This solicitation is made subject to correction of errors, omissions, or withdrawal from the market without notice. Information is for guidance only, and does not constitute all or any part of an agreement.

The City and all Proposals will be bound only as, if and when a Statement of Qualifications, as same may be modified, and the applicable definitive agreements pertaining thereto, are approved and executed by the parties, and then only pursuant to the terms of the definitive agreements executed among the parties. Any response to this solicitation may be accepted or rejected by the City for any reason, or for no reason, without any resultant liability to the City.

The City is governed by the Government-in-the-Sunshine Law, and all Statement of Qualifications and supporting documents shall be subject to disclosure as required by such law. All Statement of Qualifications shall be submitted in sealed proposal form and shall remain confidential to the extent permitted by Florida Statutes, until the date and time selected for opening the responses. At that time, all documents received by the City shall become public records.

Proposals are expected to make all disclosures and declarations as requested in this solicitation. By submission of a Statement of Qualifications, the Proposer acknowledges and agrees that the City has the right to make any inquiry or investigation it deems appropriate to substantiate or supplement information contained in the Statement of Qualifications, and authorizes the release to the City of any and all information sought in such inquiry or investigation. Each Proposer certifies that the information contained in the Statement of Qualifications is true, accurate and complete, to the best of its knowledge, information, and belief.

Notwithstanding the foregoing or anything contained in the solicitation, all Proposals agree that in the event of a final unappealable judgment by a court of competent jurisdiction which imposes on the City any liability arising out of this solicitation, or any response thereto, or any action or inaction by the City with respect thereto, such liability shall be limited to \$10,000.00 as agreed-upon and liquidated damages. The previous sentence, however, shall not be construed to circumvent any of the other provisions of this Disclosure and Disclaimer which imposes no liability on the City.

In the event of any differences in language between this Disclosure and Disclaimer and the balance of the solicitation, it is understood that the provisions of this Disclosure and Disclaimer shall always govern. The solicitation and any disputes arising from the solicitation shall be governed by and construed in accordance with the laws of the State of Florida.

PROPOSER CERTIFICATION

I hereby certify that: I, as an authorized agent of the Proposer , am submitting the following information as my firm's proposal; Proposer agrees to complete and unconditional acceptance of the terms and conditions of this document, inclusive of this solicitation, all attachments, exhibits and appendices and the contents of any Addenda released hereto, and the Disclosure and Disclaimer Statement; proposer agrees to be bound to any and all specifications, terms and conditions contained in the solicitation, and any released Addenda and understand that the following are requirements of this solicitation and failure to comply will result in disqualification of proposal submitted; Proposer has not divulged, discussed, or compared the proposal with other Proposals and has not colluded with any other proposer or party to any other proposal; proposer acknowledges that all information contained herein is part of the public domain as defined by the State of Florida Sunshine and Public Records Laws; all responses, data and information contained in this proposal, inclusive of the Statement of Qualifications Certification, Questionnaire and Requirements Affidavit are true and accurate.

Name of Proposer 's Authorized Representative:	Title of Proposer 's Authorized Representative:
Signature of Proposer 's Authorized Representative:	Date:

State of FLORIDA)
)
 County of _____)
 of _____, a corporation, and that the instrument was signed in behalf of
 the said corporation by authority of its board of directors and acknowledged said
 instrument to be its voluntary act and deed. Before me:

 Notary Public for the State of Florida
 My Commission Expires: _____.

APPENDIX B

MIAMI BEACH

“No Bid” Form

2017-119-KB SMART CITY STREET LIGHTING SYSTEM – DESIGN, BUILD, OPERATE, AND MAINTAIN

PROCUREMENT DEPARTMENT
1755 Meridian Avenue, 3rd Floor
Miami Beach, Florida 33139

Note: It is important for those vendors who have received notification of this solicitation but have decided not to respond, to complete and submit the attached “Statement of No Bid.” The “Statement of No Bid” provides the City with information on how to improve the solicitation process. Failure to submit a “Statement of No Bid” may result in not being notified of future solicitations by the City.

Statement of No Bid

WE HAVE ELECTED NOT TO SUBMIT A STATEMENTS OF QUALIFICATIONS AT THIS TIME FOR REASON(S) CHECKED AND/OR INDICATED BELOW:

- Workload does not allow us to proposal
- Insufficient time to respond
- Specifications unclear or too restrictive
- Unable to meet specifications
- Unable to meet service requirements
- Unable to meet insurance requirements
- Do not offer this product/service
- OTHER. (Please specify)

We do do not want to be retained on your mailing list for future proposals of this type product and/or service.

Signature: _____

Title: _____

Legal Company Name: _____

Note: Failure to respond, either by submitting a proposal or this completed form, may result in your company being removed from our vendors list.

PLEASE RETURN TO:
CITY OF MIAMI BEACH
Procurement Department
ATTN: **Kristy Bada**
PROPOSAL #**2017-119-KB**
1755 Meridian Avenue 3rd Floor
MIAMI BEACH, FL 33139

APPENDIX C

MIAMI BEACH

Minimum Requirements & Specifications

2017-119-KB SMART CITY STREET LIGHTING SYSTEM – DESIGN, BUILD, OPERATE, AND MAINTAIN

PROCUREMENT DEPARTMENT
1755 Meridian Avenue, 3rd Floor
Miami Beach, Florida 33139

C1. Minimum Eligibility Requirements. The Minimum Eligibility Requirements for this solicitation are listed below. Proposer shall submit, with its proposal, the required submittal(s) documenting compliance with each minimum requirement. Proposers that fail to include the required submittals with its proposal or fail to comply with minimum requirements shall be deemed non-responsive and shall not have its proposal considered.

1. Each of following SMART City street lighting conversion project components shall have been provided, by the Prime Proposer or a Team Member Firm, to at least one (1) public agency in the last five (5) years.
 - i. Design Services
 - ii. Construction Services
 - iii. Integration Services
 - iv. Operations Services
 - v. Maintenance

Submittal Requirement: Project name and location; project description; original and final contract duration, original and final cost of the project; date of completion, owner's representative and contact information; role in project.

C2. STATEMENT OF WORK REQUIRED.

The City's Public Works Department is seeking to hire a Consultant to develop and implement a Smart City LED Street Lighting Conversion Master Plan as set forth in detail by the following sections of this Solicitation, the Consultant selected by the City for the Project (the "Project Company") must be capable of providing to the City the experience, skills, and ability to:

- Conduct a detailed inventory analysis of the existing urban lighting system;
- Work with the City's recently completed urban lighting photometric analysis which includes evaluation of specific lighting needs area-by-area, to enhance public safety, improve connectivity and develop City branding;
- Work with the City's Administration and Citizenry to establish Citywide Lighting Standards thru a series of Public workshops, meetings and presentations.
- Based on the result of the inventory analysis, urban lighting analysis and established lighting standards, provide the Design for the upgrade and conversion of the existing urban lighting system that reflect the City's objectives for energy savings, public safety, aesthetics, connectivity and to use the street lighting network as a platform to not only manage its streetlights, but to implement smart city technologies and economic development;
- The preferred design will consist of a non-proprietary open platform and expandable system with the capacity to interact with the City's existing initiatives and other smart city public services such as smart parking, traffic management, air quality and sound/noise sensors, electrical vehicles charging stations, security cameras, etc.; and to include all required hardware (endpoint sensors, access points, etc).
- Proposer shall provide a list of other platforms/systems that will interact with the proposed lighting fixtures;
- Prepare and implement a financing plan, to secure all financing for the implementation of the upgrades of the urban lighting systems, if required;
- Implementation and construction of the approved designed lighting plan in collaboration with the City's Public Works department and other City departments as required;
- Design and implementation of a centralized Computerized Maintenance Management System (CMMS) of all urban lighting assets with the following capabilities:
 - a) Compatibility with streetlight NEMA 7-pin receptacle.

- b) Real-time monitoring capabilities of streetlight performance.
- c) Meter-grade measurements in accordance with ANSI standards.
- d) TALQ (see <http://www.talq-consortium.org/>).
- e) Control capabilities such as those for dimming and turning the lights off and on.
- Provide support to the City for the negotiation of new energy rates with Florida Power & Light Company, Inc. (FPL).
- Guarantee operations and energy performance from system upgrades, including lighting performance, electrical and mechanical performance, and energy conservation;
- Provide high quality and cost effective long-term maintenance and management of the existing and upgraded systems at a guaranteed rate. If required by the City.

C3. SPECIFICATIONS

The project will include two performance phases.

Phase 1 will commence immediately after execution of the Project Agreement and includes the following:

- Performance of a full system inventory that will capture data points for all streetlights.
- Conduct a detailed inventory analysis of the existing urban lighting system.
- Develop an urban lighting analysis, which includes evaluation of specific lighting needs area-by-area, to enhance public safety, improve connectivity and develop City branding.
- Based on the result of the inventory analysis and urban lighting analysis, provide the Design of the Upgrade of the existing urban lighting system that reflect the City's objectives for energy savings, public safety, aesthetics, connectivity and use of new streetlight network as a platform to not only manage its streetlights, but as a platform to implement smart city technologies and economic development.
- Development of a final Design and final plans for operations and energy efficiencies in cooperation and coordination with City representatives.
- Design of a centralized Computerized Maintenance Management System (CMMS) of all urban lighting assets.
- Deliver plans for operations and energy efficiencies throughout the contract.

Phase 2 will commence immediately after the completion of Phase 1 and continue for multiple years. Phase 2 includes:

- Development and Implementation of the final approved financial plan, including support for the closing of all finance transactions, if the City requires the Offeror to secure all financing for the Project.
- Incorporation of final Phase 2 pricing and technical requirements into the Project Agreement, consistent with all final plans.
- Implementation of all streets and architectural lighting and other upgrades according to the approved Design.
- Implementation of a centralized Computerized Maintenance Management System (CMMS) of all urban lighting assets.
- Guarantee operations and energy performance from system upgrades, including lighting performance, electrical and mechanical performance, and energy conservation.
- The provision of all necessary resources to perform operation and maintenance tasks. If required by the City.
- Management of the contract, including management of energy savings, CMMS, and other monitoring, reporting, and communication tasks. If required by the City.

The City may elect to cancel the Project Agreement prior to the start of Phase 2. If the City chooses to cancel, the Project Company will be under no further obligation to perform, and the City agrees to pay the Project Company any outstanding fees for Phase 1.

If the City continues the project to Phase 2, then the Project Company's compensation for all work will be made through the Phase 2 fixed price that shall be developed and agreed to subsequent to the final Lighting Design and memorialized in the Project Agreement. Compensation to the Project Company during Phase 2 will be in the form of a monthly amount at a flat rate over the course of the Phase 2 period.

C4. PROJECT REQUIREMENTS

C4.1 Project Management

Computerized Maintenance Management System (CMMS) and Data Management

The Project Company will be required to implement - on a centralized computerized platform – a Computerized Maintenance Management System (CMMS) of all urban lighting assets. The main function of the CMMS is to enable the management of the status of the lighting system with real-time monitoring of all changes, including but not limited to, alerts, malfunctions, updates and upgrades, operation and maintenance, and quality service monitoring.

Safety Management

Selected firm shall provide a detailed narrative, charts, pictures and other representations that describe how they intend to address work zone safety, worker protection, public safety, emergencies, and disasters.

Traffic Management

Selected firm shall provide a detailed narrative that describes their approach to managing public and construction vehicle traffic during the Project term. Firm shall describe traffic control provisions, specific to the project, which should demonstrate an understanding of relevant traffic standard, Project Company obligations and detailed a description of key procedures and necessary resources.

Risk Management

Selected firm shall provide a detailed narrative that describes:

- Any potential issues or risks that may affect the progress, implementation or success of the Project.
- Company mitigation techniques and procedures.

Quality Management

Selected firm shall provide a detailed narrative that describes:

- Quality policy and quality control regime for design quality management, construction quality management, operations and maintenance quality management.
- Processes for nonconformance review and disposition, including the approach for the development of a nonconformance Tracking system, its required components and corrective and preventative action response strategies for non-conformances.
- Approach to interface key management activities (such as design, construction, operations, maintenance, etc.) with each other and with the quality management system, including the reporting and internal governance within and between all activities.
- Quality management process for technologies used for this project

Communications Management

- Communication with City: communicating with City Administration and other municipal stakeholders, including general communications protocols and responsibility assignments; crisis communications; issues management; and Government relations.
- Community Outreach Management:
 - Working with Residents, Business Owners and other municipal stakeholders, including community relations and complaints management, dedicated website, stakeholder relations.
 - Working with City Administration, Elected Officials, Residents, Business Owners and other Municipal stakeholders in the provision of Public Information workshops, meetings and presentations.

C4.2 Project Preliminary Plans

Final Plans will be developed during Phase 1 of the project. Selected proposer shall provide preliminary plans using narratives, charts, etc. that explain how the firm intends to perform specific tasks of the Project.

Preliminary Design

The selected firm shall develop a Preliminary Lighting Design that includes the following:

Inventory

Proposer will conduct an inventory which clearly identifies the resources, including equipment, materials and staff necessary and available, as well as the techniques, practices and time line to perform this task.

The selected firm will provide an updated lighting system inventory. The lighting system inventory prepared by the Project Company shall at a minimum include the collection and reporting of the following data:

- GPS location of each asset
- Asset ID number
- Pole type, height, and material
- Arm type and material
- Fixture type
- Lamp type and wattage
- Type of service (e.g. overhead, underground)
- Condition of the pole/arm/fixture/lamp
- Photos of each asset including any existing damage
- Any other information the City may find useful

The completed inventory (inclusive of all the information listed above) should be compiled in an electronic database that will be delivered to the City upon completion of Phase 1. The database should include updated coordinate data on each light in a format that can be imported into the City's GIS system. The City will retain ownership of the database and all information therein.

Preliminary Urban Lighting Analysis

Selected firm will conduct its Urban Lighting Analysis and clearly identifies how Proposer plans to:

- Work with the City's Administration, Citizenry and Business Owners to establish Citywide Lighting Standards.
- Enhance public and traffic safety in areas where energy savings may not drive

- replacement fixture selection.
- Improve connectivity between “strategic economic” areas and neighborhood livability.
- Develop City branding through permanent architectural and ambiance lighting.

Proposer’s preliminary Urban Lighting Analysis shall at a minimum include appropriate maps, preliminary technical specifications, and a plan for coordination with government agencies and other key stakeholders.

Preliminary Upgrade Plan

Selected firm will address under-lit and over-lit areas, and “street-by-street” (type, width, lanes, etc. and lighting standards) to improve lighting quality. Proposer’s Preliminary Upgrade Plan Design must provide, at a minimum:

- A plan to optimize energy conservation while converting the system to more energy efficient fixtures.
- Engineering specifications conforming to criteria allowed under the Technical Specifications, establishing the values of variables that will be used on the Project.
- Preliminary engineering calculations and analyses for the planned illumination system improvements the Proposer intend to implement on the Project.
- Type and quantity of material to be installed. Explanation of where and when the equipment will be installed.

Preliminary Construction Plans for Architectural and Street Lighting

Construction Plan for Architectural Lighting and Street Lighting that includes the following:

Preliminary Architectural Lighting Construction Plan

Selected firm shall provide re-imagining and enhancements of existing elements of the City’s infrastructure, architecture, landscape, waterscape, and iconic elements to broaden the appeal of the City as a tourist destination. The Preliminary Architectural Lighting Plan shall at a minimum include:

- Overview of Proposer’s design approach and philosophy as it relates to its preliminary Design
- Preliminary list of heritage, architectural monuments, City building, etc.
- Identification of key way finding opportunities.
- Renderings of proposed architectural lighting elements.
- Appropriate maps, renderings of lighting concepts, preliminary technical specifications, and a plan for coordination with government agencies and other key stakeholders.

Preliminary Street Lighting Construction Plan

- Methods by which firm manages street lighting system upgrade, including implementation strategies or techniques Proposer intends to employ in carrying out all the tasks, including CMMS implementation, LED installations, civil work, architectural lighting installation.
- Firm’s project schedule, identifying key tasks and deliverables to be performed, durations for each task, and overall time of completion. This Preliminary Street Lighting Construction Plan shall be consistent with Firm’s Preliminary Upgrade plan.
- Firm’s material management plans, including procurement, supply chain and

storage.

- Specific tasks Firm will require from City staff. Explain what the respective roles of City staff and staff would be to complete the tasks.
- Firm's preliminary plan to manage salvaged or demolished work materials. This preliminary plan should address anticipated material reuse, recycling, hauling and stockpiling; and should identify any commitments to implement environmentally sustainable practices.

Preliminary Operations and Energy Efficiency Plan

Preliminary Operations and Energy Plan that includes the following:

Preliminary Lighting Performance Plan

Selected firm shall guarantee the illumination levels through the duration of the contract, including Proposer's "Preliminary Photometric Plan." The Preliminary Lighting Performance Plan must at a minimum identify the resources, including equipment, materials and staff necessary and available, the techniques and practices to perform this task, as well as its frequency.

Preliminary Electrical, Mechanical Performance and Maintenance Plan

Selected firm shall clearly identify:

- A general overview of a Maintenance Plan for the Project.
- The resources, including equipment, facilities, materials and staff necessary and available.
- Works methods and procedures specific to the different tasks, including innovative techniques and practices.
- Ability to meet or exceed all key performance indicators.

Preliminary Energy Efficiency Plan

Selected firm shall describe energy savings over the duration of the Project. Proposer's Response must clearly identify the assumptions (including all applicable FPL tariff rates), scope, inclusions and exclusions, and applicable performance measures for this plan.

Preliminary Technological Innovation Plan

Selected firm shall to determine and incorporate new innovative and emerging technologies in the Project scope.

C4.3 Preliminary Financial Plan

Overall Financing Structure

At the City's option, the Project may require the successful Proposer to secure all financing for the implementation of the upgrades of the urban lighting systems under Final Design. The City expects the candidate to optimize the financial model by smoothing its remuneration on the overall duration of the contract, providing the City with a profile of charges as regularly as possible, and ensure a balance between City's financial capabilities and the City's share of financial costs.

The Preliminary Financial Plan includes, as a minimum, the following information:

- Overall Financial Structure Design.
- The anticipated financing providers and other financial participants and their proposed contribution (approximate in percentage terms), including where available, letters of support.
- Overview of the recent financial performance and financial strength of the financial

providers.

- Descriptions of at least two, but no more than four, recent innovative financial structures/mechanisms that were utilized by Proposer in Citywide Urban Lighting Management projects.

C5. CHANGE OF PROJECT MANAGER.

A change in the Consultant's project manager (as well as any replacement) shall be subject to the prior written approval of the City Manager or his designee (who in this case shall be an Assistant City Manager). Replacement (including reassignment) of an approved project manager or public information officer shall not be made without submitting a resume for the replacement staff person and receiving prior written approval of the City Manager or his designee (i.e. the City project manager).

C6. SUB-CONSULTANTS.

The Consultant shall not retain, add, or replace any sub-consultant without the prior written approval of the City Manager, in response to a written request from the Consultant stating the reasons for any proposed substitution. Any approval of a sub-consultant by the City Manager shall not in any way shift the responsibility for the quality and acceptability by the City of the services performed by the sub-consultant from the Consultant to the City. The quality of services and acceptability to the City of the services performed by sub-consultants shall be the sole responsibility of Consultant.

APPENDIX D

MIAMI BEACH

Insurance Requirements

2017-119-KB
SMART CITY STREET LIGHTING SYSTEM
– DESIGN, BUILD, OPERATE, AND
MAINTAIN

PROCUREMENT DEPARTMENT
1755 Meridian Avenue, 3rd Floor
Miami Beach, Florida 33139

MIAMI BEACH

DESIGN & CONSTRUCTION PHASE INSURANCE REQUIREMENTS

The DBOM Firm shall provide, pay for and maintain in force at all times until substantial completion of the Design & Build phase of the project (unless otherwise provided), the following insurance policies:

1. **Commercial General Liability** with minimum limits of One Million Dollars (\$1,000,000) per occurrence combined single limit for Bodily Injury Liability and Property Damage Liability, with a minimum aggregate limit of Two Million Dollars (\$2,000,000). Coverage must be afforded on a form no more restrictive than the latest edition of the Commercial General Liability policy, without restrictive endorsements, as filed by the Insurance Services Office, and must include:

Premises and/or Operations coverage;

a. Independent Contractor or Contractor Owners Protection Liability which includes liability coverage for operations performed for the name of the insured by independent and/or subcontractors that are hired, and acts or omissions of the named insured in connection with his/her general supervision of such operations;

b. Products and/or Completed Operations coverage (the DBOM Firm shall maintain in force for 2 years after completion of all work required coverage for Products/Completed Operations, including Broad Form Property Damage);

c. Explosion/Collapse and Underground Hazard coverage;

d. Broad Form Property Damage.

e. Broad Form Contractual Coverage applicable to this specific Agreement, including any hold harmless and/or indemnification agreement contained in the Contract Documents.

f. City must be named as an Additional Insured on this policy as set forth in Section III.4 below.

2. **Workers' Compensation Insurance** to apply for all employees in compliance with the "Workers Compensation Law" of the State of Florida and all applicable Federal laws. The DBOM Firm shall ensure that all subcontractor(s) at all tiers have Workers' Compensation Insurance for their employees in accordance with Florida's Workers' Compensation law. In addition, the policy (ies) must include: Employers' Liability with minimum limits of Five Hundred Thousand Dollars (\$500,000) each accident.

3. **Business Automobile Liability** with minimum limits of One Million Dollars (\$1,000,000) per occurrence combined single limit for Bodily Injury Liability and Property Damage Liability. Coverage must be afforded on a form no more restrictive than the latest edition of the Business Automobile Liability policy, without restrictive endorsements, as filed by the Insurance Services Office, and must include: (i) Owned Vehicles; and (ii) hired and Non-Owned Vehicles.

4. **Design Professional Liability** or equivalent Errors & Omissions Liability shall be maintained with the limits of liability provided by such policy to be no less than Two Million Dollars (\$2,000,000) for each claim, subject to a maximum deductible acceptable to the City and not-to-exceed \$100,000. The DBOM Firm shall maintain the claims made form coverage with a minimum of three (3) years extended reporting following Final Completion and shall annually provide City with evidence of renewal coverage. The DBOM Firm is responsible for all deductibles in the event of a claim. The DBOM Firm shall indicate

the deductible for this coverage on its Certificate of Insurance. The DBOM Firm shall notify City in writing within thirty (30) days of any claims filed or made against the Design Professional Liability Insurance Policy. Design Consultant and Design Subconsultants shall each maintain the same Errors & Omissions Liability coverages required herein.

5. **Installation Floater Insurance** for the installation of machinery and/or equipment into an existing structure. The coverage shall be "All Risk" coverage including installation and transit for one hundred percent (100%) of the "installed replacement cost value" covering the City as a named insured, with a deductible of not more than Five Thousand dollars (\$5,000.00) each claim.

6. **Excess umbrella liability insurance** with a limit of not less than Three Million Dollars (\$3,000,000) per occurrence and in the aggregate in excess of the above mentioned insurance. DBOM firm may cause the insurance listed in this subsection to be provided through an overall "wrap up" policy, in lieu of individual policies provided by Contractors. This policy must name the City of Miami Beach, Florida, as additional insured.

I. **ADDITIONAL TERMS AND CONDITIONS**

1. **Notice to City.** If the initial insurance expires prior to the completion of the Work, renewal copies of insurance policies shall be furnished to the City at least fourteen (14) days prior to the date of their expiration. The insurance policy (ies) must be endorsed to provide the City with at least thirty (30) days' notice of cancellation and/or restriction.

2. **Certificates of Insurance.** The DBOM Firm shall furnish to the City Certificates of Insurance or endorsements evidencing the insurance coverage specified herein within fifteen (15) days after notification of award of the Agreement, and shall also furnish to the City a copy of each insurance policy required by this Agreement. The required Certificates of Insurance shall name the types of policies provided, refer specifically to this Agreement, and state that such insurance is as required by this Agreement. The Certificates of Insurance shall be in form acceptable to, and subject to, approval by City. The failure to provide the Certificates of Insurance within fifteen (15) days shall be the basis for the rescission of the awarding Agreement. The official title of the certificate holder is City of Miami Beach, Florida. This official title shall be used in all insurance documentation.

3. **Right to revise or reject.** City's Risk Management Division reserves the right, but not the obligation, to review and revise any insurance requirements at the time of insurance contract renewal and/or any amendments, not limited to deductibles, limits, coverages and endorsements based on insurance market conditions affecting the availability or affordability of coverage; or changes in the scope of work/specifications affecting the scope and applicability of coverage.

4. **Additional Insured.** City and Design Criteria Professional shall be expressly included as an Additional Insured on all policies, as applicable, and with an endorsement that is acceptable to the City. Additional insured certificates for the City shall read "City of Miami Beach, Florida", 1700 Convention Center Drive, Miami Beach, FL, 33139, Attn: Risk Management, 3rd Floor.

5. **Notice of Cancellation and/or Restriction.** The policy (ies) must be endorsed to provide City with at least thirty (30) days' notice of cancellation or non-renewal and/or restriction. A copy of the endorsement(s) shall be provided with the Certificates of Insurance.

6. **Duty of Care.** The DBOM Firm's furnishing insurance coverage shall in no way relieve or limit, or be construed to limit or relieve or limit, the DBOM Firm or any of its Subcontractors of any responsibility, liability, or obligation imposed by the Contract Documents, or by Applicable Laws, including, without limitation, any indemnification obligations which the DBOM Firm or any of its Design Consultant, Design Subconsultants, Contractors, and Subcontractors have to City thereunder.

7. **The DBOM Firm's Failure to Procure.** The DBOM Firm's failure to procure or maintain the insurance required by this Appendix during the entire term of the Work shall constitute a material breach and automatic Default of the

Agreement. In the event of such a breach, the City may exercise all available rights and remedies hereunder, including the right to immediately suspend or terminate the Agreement without any further notice or opportunity to use for DBOM Firm or, at its discretion, procure or renew such insurance to protect the City's interests and pay any and all premiums in connection therewith, and withhold or recover all monies so paid by the City from the DBOM Firm.

8. **Waiver of Subrogation.** Where permitted by law, the DBOM Firm hereby waives all rights of recovery by subrogation or otherwise (including, without limitation, claims related to deductible or self-insured retention clauses, inadequacy of limits of any insurance policy, insolvency of any insurer, limitations or exclusions of coverage), against City, and its respective officers, agents, or employees. Certificates of insurance shall evidence the waiver of subrogation in favor of the City, and that coverage shall be primary and noncontributory, and that each evidenced policy includes a Cross Liability or Severability of Interests provision, with no requirement of premium payment by the City.

OPERATION & MAINTENANCE PHASE **INSURANCE REQUIREMENTS**

The DBOM Firm shall provide, pay for and maintain in force at all times upon substantial completion of the Design & Build phase and for the life of this agreement (unless otherwise provided) and any extensions thereof, the following insurance policies:

7. **Commercial General Liability** with minimum limits of One Million Dollars (\$1,000,000) per occurrence combined single limit for Bodily Injury Liability and Property Damage Liability, with a minimum aggregate limit of Two Million Dollars (\$2,000,000). Coverage must be afforded on a form no more restrictive than the latest edition of the Commercial General Liability policy, without restrictive endorsements, as filed by the Insurance Services Office, and must include:

Premises and/or Operations coverage;

g. Independent Contractor or Contractor Owners Protection Liability which includes liability coverage for operations performed for the name of the insured by independent and/or subcontractors that are hired, and acts or omissions of the named insured in connection with his/her general supervision of such operations;

h. Products and/or Completed Operations coverage (the DBOM Firm shall maintain in force for 2 years after completion of all work required coverage for Products/Completed Operations, including Broad Form Property Damage);

i. Explosion/Collapse and Underground Hazard coverage;

j. Broad Form Property Damage.

k. Broad Form Contractual Coverage applicable to this specific Agreement, including any hold harmless and/or indemnification agreement contained in the Contract Documents.

l. City must be named as an Additional Insured on this policy as set forth in Section III.4 below.

8. **Workers' Compensation Insurance** to apply for all employees in compliance with the "Workers Compensation Law" of the State of Florida and all applicable Federal laws. The DBOM Firm shall ensure that all subcontractor(s) at all tiers have Workers' Compensation Insurance for their employees in accordance with Florida's Workers' Compensation law. In addition, the policy (ies) must include: Employers' Liability with minimum limits of Five Hundred Thousand Dollars (\$500,000) each accident.

9. **Business Automobile Liability** with minimum limits of One Million Dollars (\$1,000,000) per occurrence combined single limit for Bodily Injury Liability and Property Damage Liability. Coverage must be afforded on a form no more restrictive than the latest edition of the Business Automobile Liability policy, without restrictive endorsements, as filed by the

Insurance Services Office, and must include: (i) Owned Vehicles; and (ii) hired and Non-Owned Vehicles.

10. **Professional Liability** or equivalent Errors & Omissions Liability shall be maintained with the limits of liability provided by such policy to be no less than Two Million Dollars (\$2,000,000) for each claim, subject to a maximum deductible acceptable to the City and not-to-exceed \$100,000. The DBOM Firm shall maintain the claims made form coverage with a minimum of three (3) years extended reporting following Final Completion and shall annually provide City with evidence of renewal coverage. The DBOM Firm is responsible for all deductibles in the event of a claim. The DBOM Firm shall indicate the deductible for this coverage on its Certificate of Insurance. The DBOM Firm shall notify City in writing within thirty (30) days of any claims filed or made against the Design Professional Liability Insurance Policy. Design Consultant and Design Subconsultants shall each maintain the same Errors & Omissions Liability coverages required herein.

11. **Cyber Liability Insurance**, with limits not less than One Million Dollars (\$1,000,000) per occurrence and a Two Million Dollar (\$2,000,000) aggregate limit. Coverage shall be sufficiently broad to respond to the duties and obligations as is undertaken by DBOM firm in this agreement and shall include, but not be limited to, claims involving infringement of copyright, trademark, trade dress, invasion of privacy violations, information theft, damage to or destruction of electronic information, release of private information, alteration of electronic information, extortion and network security.

12. **Excess umbrella liability insurance** with a limit of not less than Three Million Dollars (\$3,000,000) per occurrence and in the aggregate in excess of the above mentioned insurance. DBOM firm may cause the insurance listed in this subsection to be provided through an overall "wrap up" policy, in lieu of individual policies provided by Contractors. This policy must name the City of Miami Beach, Florida, as additional insured.

II. **ADDITIONAL TERMS AND CONDITIONS**

1. **Notice to City.** If the initial insurance expires prior to the completion of the Work, renewal copies of insurance policies shall be furnished to the City at least fourteen (14) days prior to the date of their expiration. The insurance policy (ies) must be endorsed to provide the City with at least thirty (30) days' notice of cancellation and/or restriction.

2. **Certificates of Insurance.** The DBOM Firm shall furnish to the City Certificates of Insurance or endorsements evidencing the insurance coverage specified herein within fifteen (15) days after notification of award of the Agreement, and shall also furnish to the City a copy of each insurance policy required by this Agreement. The required Certificates of Insurance shall name the types of policies provided, refer specifically to this Agreement, and state that such insurance is as required by this Agreement. The Certificates of Insurance shall be in form acceptable to, and subject to, approval by City. The failure to provide the Certificates of Insurance within fifteen (15) days shall be the basis for the rescission of the awarding Agreement. The official title of the certificate holder is City of Miami Beach, Florida. This official title shall be used in all insurance documentation.

3. **Right to revise or reject.** City's Risk Management Division reserves the right, but not the obligation, to review and revise any insurance requirements at the time of insurance contract renewal and/or any amendments, not limited to deductibles, limits, coverages and endorsements based on insurance market conditions affecting the availability or affordability of coverage; or changes in the scope of work/specifications affecting the scope and applicability of coverage.

4. **Additional Insured.** City and Design Criteria Professional shall be expressly included as an Additional Insured on all policies, as applicable, and with an endorsement that is acceptable to the City. Additional insured certificates for the City shall read "City of Miami Beach, Florida", 1700 Convention Center Drive, Miami Beach, FL, 33139, Attn: Risk Management, 3rd Floor.

5. **Notice of Cancellation and/or Restriction.** The policy (ies) must be endorsed to provide City with at least thirty (30) days' notice of cancellation or non-renewal and/or restriction. A copy of the endorsement(s) shall be provided with the Certificates of Insurance.

6. **Duty of Care.** The DBOM Firm's furnishing insurance coverage shall in no way relieve or limit, or be construed to limit or relieve or limit, the DBOM Firm or any of its Subcontractors of any responsibility, liability, or obligation imposed by the Contract Documents, or by Applicable Laws, including, without limitation, any indemnification obligations which the DBOM Firm or any of its Design Consultant, Design Subconsultants, Contractors, and Subcontractors have to City thereunder.

7. **The DBOM Firm's Failure to Procure.** The DBOM Firm's failure to procure or maintain the insurance required by this Appendix during the entire term of the Work shall constitute a material breach and automatic Default of the Agreement. In the event of such a breach, the City may exercise all available rights and remedies hereunder, including the right to immediately suspend or terminate the Agreement without any further notice to or opportunity to use for DBOM Firm or, at its discretion, procure or renew such insurance to protect the City's interests and pay any and all premiums in connection therewith, and withhold or recover all monies so paid by the City from the DBOM Firm.

8. **Waiver of Subrogation.** Where permitted by law, the DBOM Firm hereby waives all rights of recovery by subrogation or otherwise (including, without limitation, claims related to deductible or self-insured retention clauses, inadequacy of limits of any insurance policy, insolvency of any insurer, limitations or exclusions of coverage), against City, and its respective officers, agents, or employees. Certificates of insurance shall evidence the waiver of subrogation in favor of the City, and that coverage shall be primary and noncontributory, and that each evidenced policy includes a Cross Liability or Severability of Interests provision, with no requirement of premium payment by the City.

APPENDIX E

MIAMI BEACH

Citywide Photometric Analysis

2017-119-KB SMART CITY STREET LIGHTING SYSTEM – DESIGN, BUILD, OPERATE, AND MAINTAIN

PROCUREMENT DEPARTMENT
1755 Meridian Avenue, 3rd Floor
Miami Beach, Florida 33139

MIAMI BEACH

// CITEMETRIX™ ANALYSIS





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SECTION I

EXECUTIVE SUMMARY

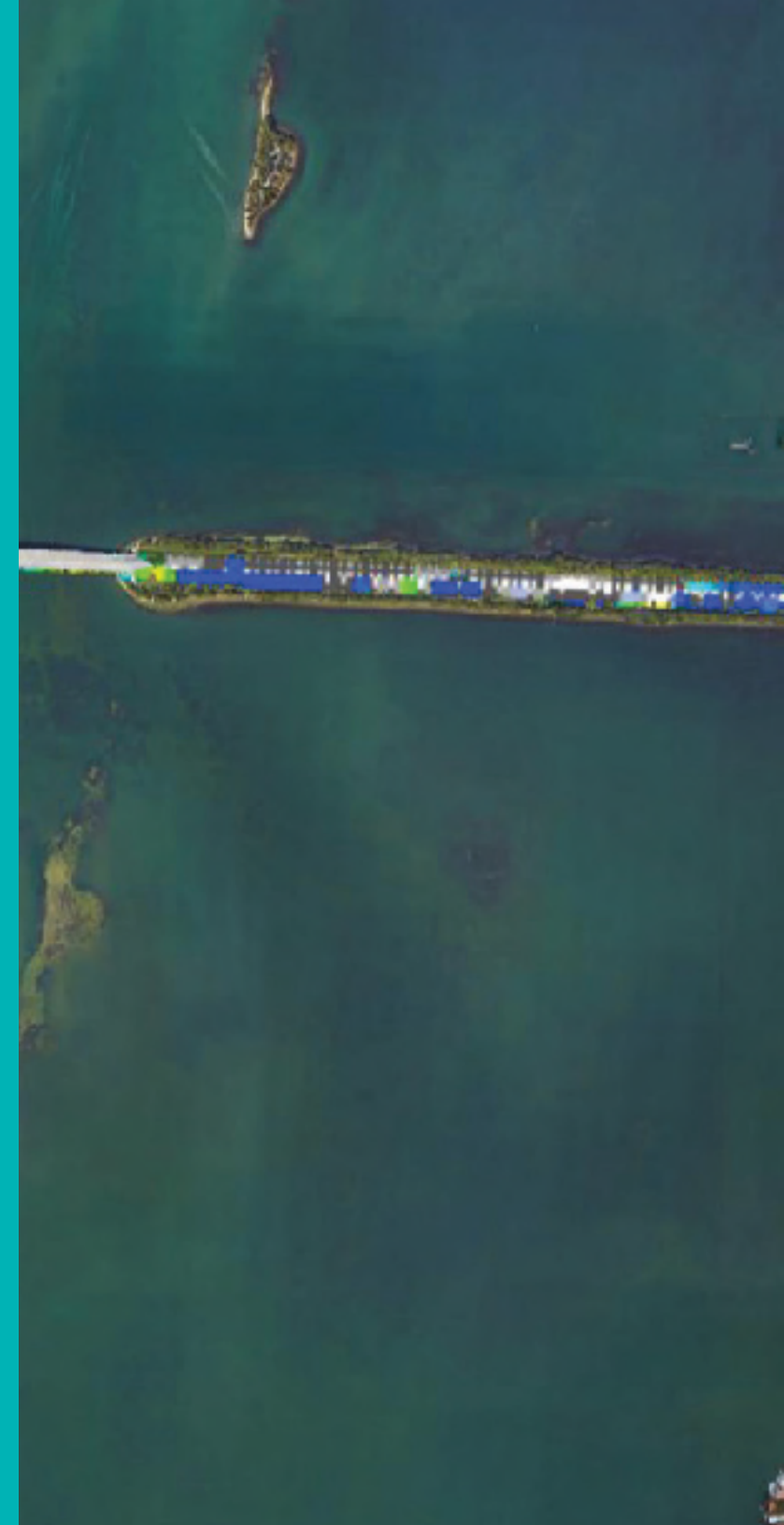
CITEMETRIX™ ANALYSIS

In mid-2015, Citelum approached the City of Miami Beach to propose the preparation of a Lighting Master Plan. The goal of such a plan is to ensure that the City has appropriate and desired lighting levels and lighting uniformity in accordance with its goals for tourism and public safety, among other things. Essentially, **the right light at the right place and the right time.**

Generally, such a process begins with assessing the City's current lighting by conducting a comprehensive inventory and analysis of lighting levels, i.e., a Citemetrix™ Analysis. Since the city has an existing, albeit somewhat dated GIS database of its street lights, it was decided that this database could be utilized for an initial analysis.

Citelum was advised that one of the City's main concerns at present is to analyze the current lighting in the city and assess its adequacy. Citelum was ultimately contracted to perform a photometric analysis of the City's street lights for this purpose.

Citelum sent a team of technicians to perform a city-wide photometric analysis for Miami Beach. Over the course of multiple weeks, the team drove and measured performance of all accessible roadways. This information was then mapped and analyzed by Citelum engineers in order to generate a top level understanding of lighting performance.





MEASUREMENT PROCEDURE

THE PHOTOMETRIC PATROL CAR & MUSE[®]

Citelum's Citemetrix™ Analysis is performed using our proprietary Computerized Maintenance Management System, MUSE[®], and tailor-made smart lighting vehicle, the Photometric Patrol Car. MUSE[®] provides all software from route design to data integration, and from cross analysis to automatic reports.

The Photometric Patrol Car is equipped with an Illuminance meter (Konica Minolta T10-A), a GPS radio (BU-353) and a Control PC/Laptop. Through a CAN bus interface, the equipment also collects the location and odometer readings directly from the vehicle that are then factored in and recorded to the Control PC running the Photometric Module. LUX meter reading is recorded for every wheel rotation, in this case every 80 cm.

Equipment calibration is performed by external certified laboratories periodically. Additional information on the measurement tools may be found in Appendix C.



SOFTWARE DESCRIPTION

Citelum worked with the City of Miami Beach to gather as much existing data as possible to ensure a successful measurement. This included the GIS layer for street light locations as well as the street centerlines. This data was then imported into the MUSE® GIS platform as the basis for the creation of measurement routes, known as “itineraries.” The itineraries are generated as a method to systematically measure all roadway segments in an optimized manner.

After the itinerary segments have been created, patrols are scheduled and they are downloaded to the Control PC. The patrol team consists of a Driver and a Control PC Technician. The Technician acts as a navigator, providing required direction to the Driver to record measurements for each itinerary. The Control PC automatically indicates when the data has been acquired successfully. Also, itineraries are color coded so that roads to be patrolled are easily distinguishable from roads already patrolled. At the end of each patrol, data is reviewed and uploaded to the main database for additional quality control.

ACCESSIBILITY ISSUES

During the data collection of the Citemetrix™ Analysis in Miami Beach, specific street segments were not measured due to accessibility restrictions.

List of Inaccessible Streets:

Española	Drexel Ave.	Meridian Ave.
Lincoln Ave.	Lincoln Ln.	W. 63rd St.
Lincoln Rd.	N. Bay Rd.	34th St.
Lincoln Ct.	14th & Bay Rd.	87th Terrace
Euclid Ave.	Alton Ct.	Atlantic Way & 80th St.







THE PURPOSE OF A CITEMETRIX™ ANALYSIS IS TO TAKE THE FIRST STEP TOWARDS A FULLY DESIGNED LIGHTING MASTER PLAN.

HOW MUCH LIGHT IS THERE?
HOW MUCH LIGHT DOES THERE NEED TO BE?

**WHAT IS THE RIGHT LIGHT,
FOR THE RIGHT APPLICATION,
FOR EVERY LOCATION IN THE
CITY OF MIAMI BEACH?**

IMPORTATION & EVALUATION

DATA IMPORT / QUALITY ASSURANCE

After an itinerary has been completed, all measurements from that route are sent to the main database for quality assurance and control purposes. After all routes have been completed and quality-checked, reporting can be performed, as described in this report

For Miami Beach, we broke down the roadway segments by roadway type (accompanying chart 3c). The total numbers of segments, and their related distance are reflected in the accompanying chart:

NUMBER OF ROADWAY SEGMENTS (3a)

<i>Roadway Types</i>	<i>Sections</i>
COLLECTOR	10
EXPRESSWAY	12
LOCAL	1,775
MAJOR	379
TOTAL	2176

DISTANCE BREAKDOWN (MILES) (3c)



MILES OF ROADWAY MEASURED (3b)

<i>Roadway Types</i>	<i>Distance (Miles)</i>	<i>Distance Percentage</i>
COLLECTOR	1.46	1%
EXPRESSWAY	10.05	6%
LOCAL	124.40	73%
MAJOR	33.59	20%
TOTAL	169.49	100%

For reporting purposes, all results are segregated by roadway type, and in expressed distance instead of by number of street segments. This provides a better base of measurement, as roadway segments may vary in length.



EVALUATION STANDARDS

After reviewing and providing quality control of the collected data, Citelum was able to begin the evaluation process. Our goal was to evaluate the measurements against accepted lighting standards, identify over lit and under lit areas, and calculate the uniformity of each roadway segment.

In order to evaluate the data collected and compare lighting levels to known standards, Citelum made specific assumptions.

- 1) **Citelum used the IESNA RP-8 Roadway Lighting standards to set the acceptable lighting level requirements**
- 2) **Within the RP-8 standard, lighting levels are outlined by roadway type, pavement classification, and pedestrian conflict level.**
 - a. Citelum assumed that the roadways measured all have a pavement classification of R2 or R3.
 - b. The roadway types defined in the RP-8 vary slightly from the City's roadway type definitions, and therefore, we made the following assumptions:



Miami Beach Roadway
Classification Nomenclature

RP-8 Equivalent
Nomenclature (*Assumed*)

Pedestrian Conflict
Area (*Assumed*)

RP-8 Recommended Illuminance
Level (f.c./LUX)

RP-8 Recommended Uniformity
Ratio (E_{AVE}/E_{MIN})

INTERSTATE	EXPRESSWAY	LOW	0.9/9.0	3.0
ARTERIAL	MAJOR	MEDIUM	1.3/13.0	3.0
RAMP	COLLECTOR	MEDIUM	0.9/9.0	4.0
RESIDENTIAL	LOCAL	MEDIUM	0.7/7.0	6.0
ALLEY	LOCAL	LOW	0.4/4.0	6.0
BEACH	LOCAL	HIGH	0.9/9.0	6.0

The photometric measurements taken were measured with a greater number of significant figures than normally factored into the RP-8 prescribed standards. Also, based on Citelum's previous experience, it would be highly unlikely to find any roadway segments adhering exactly to the strict standard. Therefore, Citelum included a safety factor to expand the standard values to be a range of values. For Illuminance, we factored in a $\pm 25\%$ allowable variance from standard and for uniformity, we factored in a $\pm 20\%$ allowable variance from standard.

GENERAL FINDINGS

OVERALL SUMMARY

The following values have been analyzed for photometric results:

- Average lighting levels
- Lighting level compliance with standards
- Average uniformity
- Uniformity compliance with standards

All results are broken down by roadway types, following the IESNA recommendations.

LIGHTING LEVELS (FULL RESULTS IN APPENDIX A)

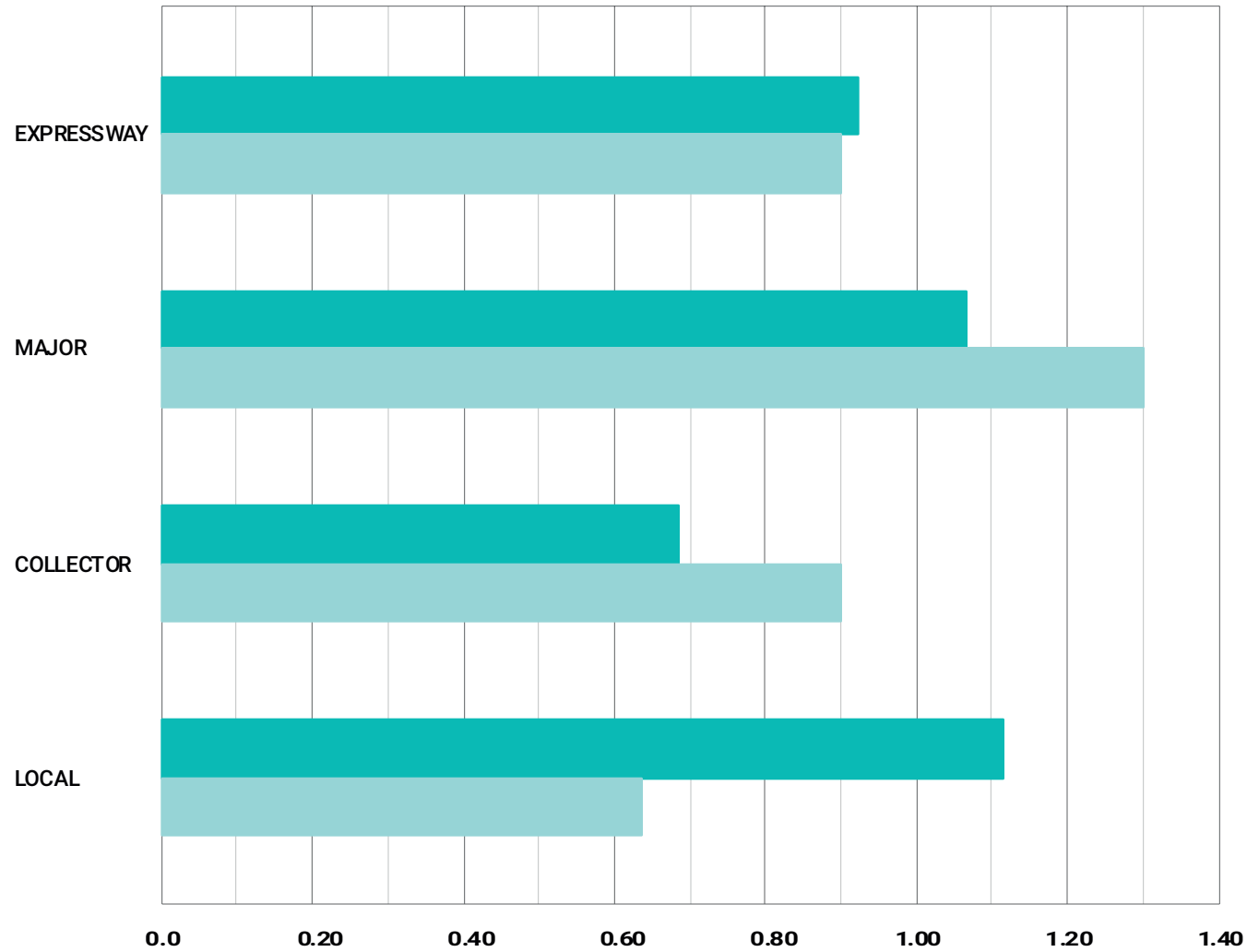
For each roadway segment, the average Illuminance has been calculated based on all measured values for this segment. The full results are available in Appendix A.

Then for each roadway type, the average Illuminance has been calculated and compared to the RP-8 standard values. Results below are displayed in foot-candles (fc), following the IESNA recommendations.

<i>Roadway Types</i>	<i>Average Illuminance (fc)</i>	<i>Standard Illuminance (fc)</i>
EXPRESSWAY	0.92	0.9
MAJOR	1.07	1.3
COLLECTOR	0.68	0.9
LOCAL	1.11	0.63*

*Standard Illuminance for local roadways can either be 0.4, 0.7 or 0.9 fc based on pedestrian conflict area factor.

● Average Illuminance (fc)
 ● Standard Illuminance (fc)

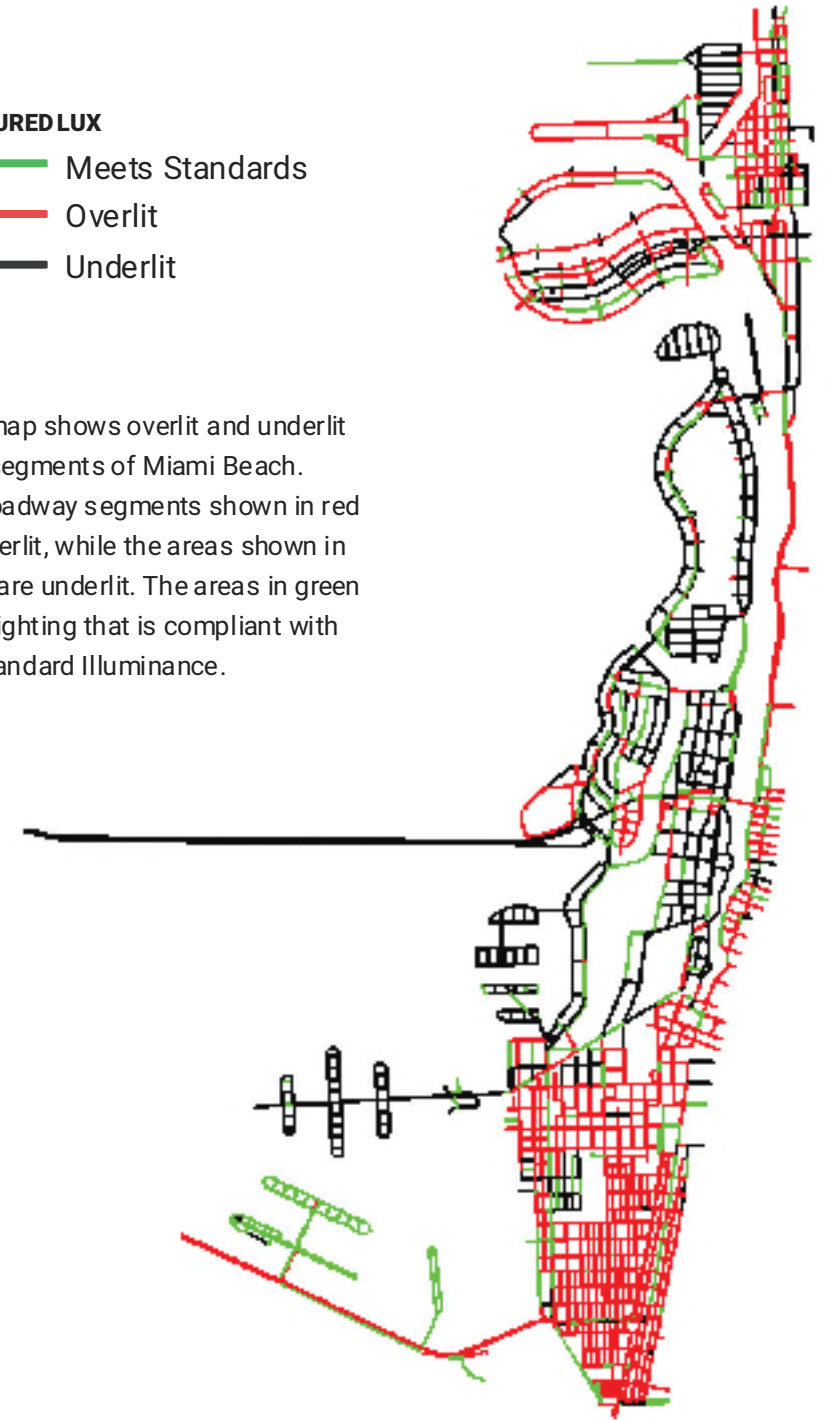


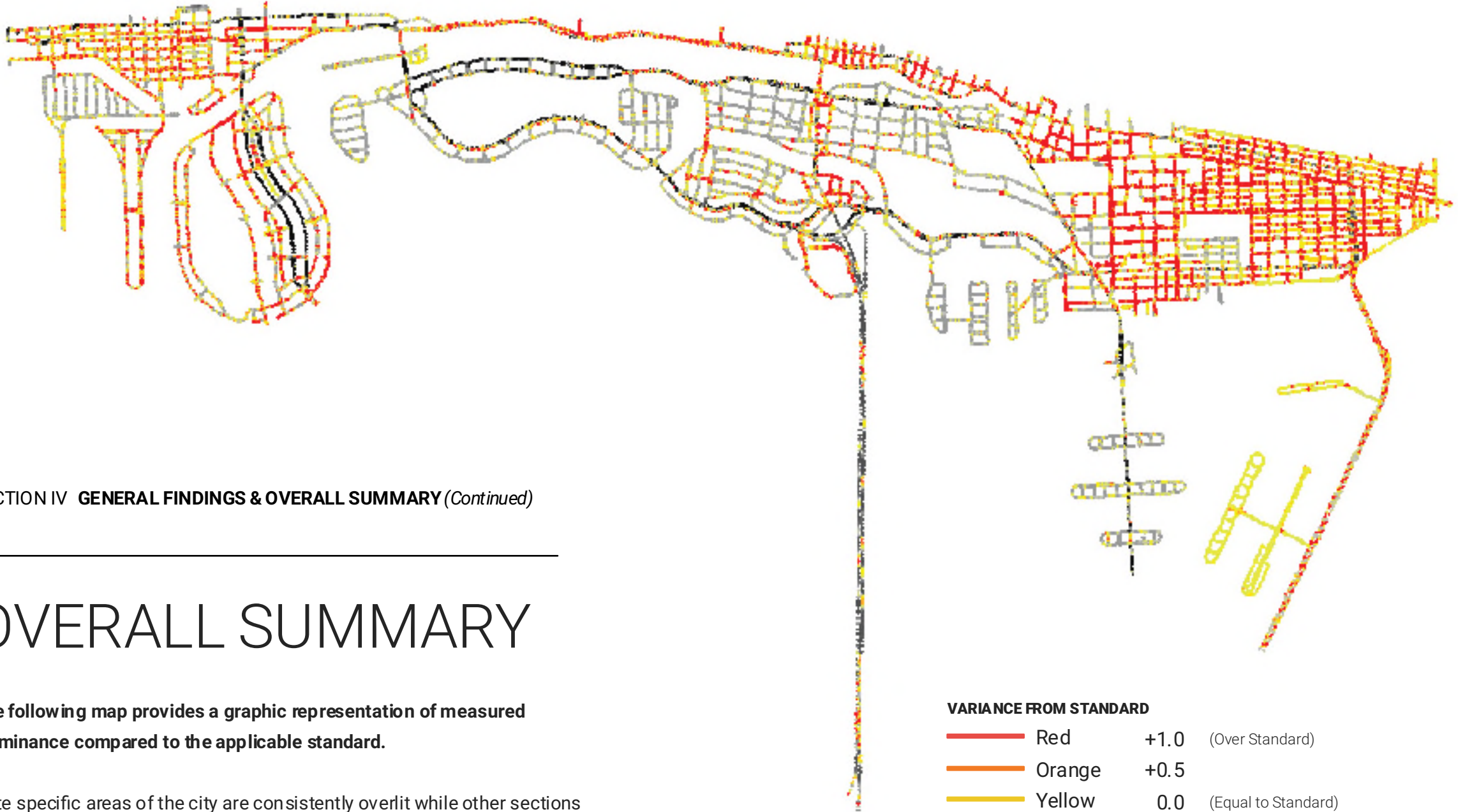
MEASURED LUX

- Meets Standards
- Overlit
- Underlit

RIGHT

This map shows overlit and underlit road segments of Miami Beach. The roadway segments shown in red are overlit, while the areas shown in black are underlit. The areas in green have lighting that is compliant with the standard Illuminance.





SECTION IV GENERAL FINDINGS & OVERALL SUMMARY (Continued)

OVERALL SUMMARY

The following map provides a graphic representation of measured illuminance compared to the applicable standard.

Note specific areas of the city are consistently overlit while other sections are lit below standard. Further detail on measurements can be found in subsequent pages of this section.



OVERALL SUMMARY

On average, expressway, major and collector roadways are lit below standards.

Local roadways, however, are highly above standards on average.

When we break down the results in terms of compliance with standards, a roadway type can appear close to standards, but individual street results are typically overlit or underlit, giving the incorrect impression of averaging near the recommended standards.

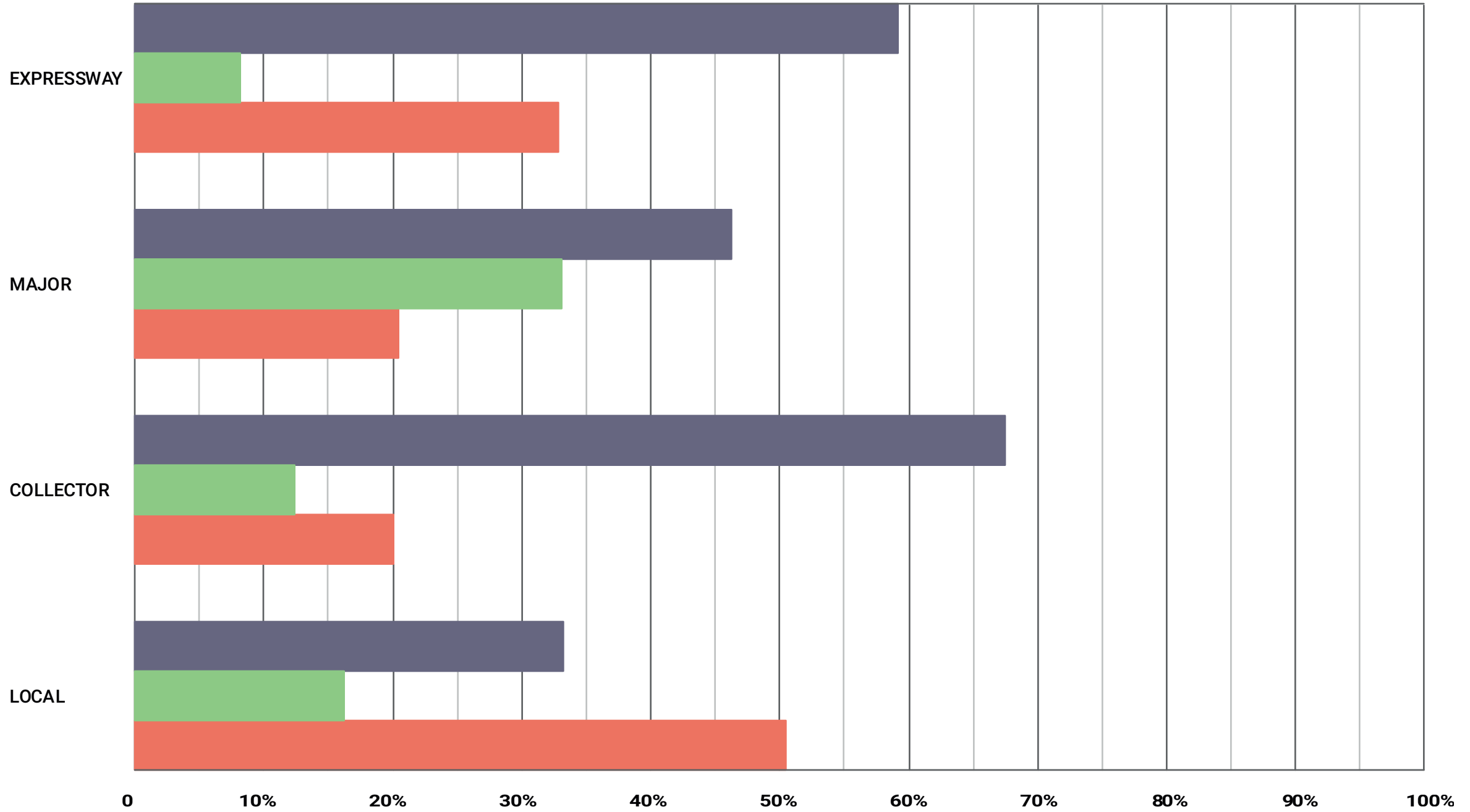
When comparing results to recommended standards, the average Illuminance by street segment can be deemed:

- **Compliant with standard (if included in a +/- 25% range)**
- **Underlit**
- **Overlit**

The results below are shown in percentage of the total distance in miles for each one of the four roadway types:

Roadway Type	Underlit	Compliant	Overlit	Grand Total
EXPRESSWAY	59.1%	8.1%	32.8%	100.0%
MAJOR	46.3%	33.1%	20.5%	100.0%
COLLECTOR	67.6%	12.4%	20.0%	100.0%
LOCAL	33.3%	16.2%	50.5%	100.0%
GRAND TOTAL	37.7%	19.0%	43.2%	100.0%

Underlit Compliant Overlit



UNIFORMITY

CALCULATING UNIFORMITY

(FULL RESULTS IN APPENDIX B.)

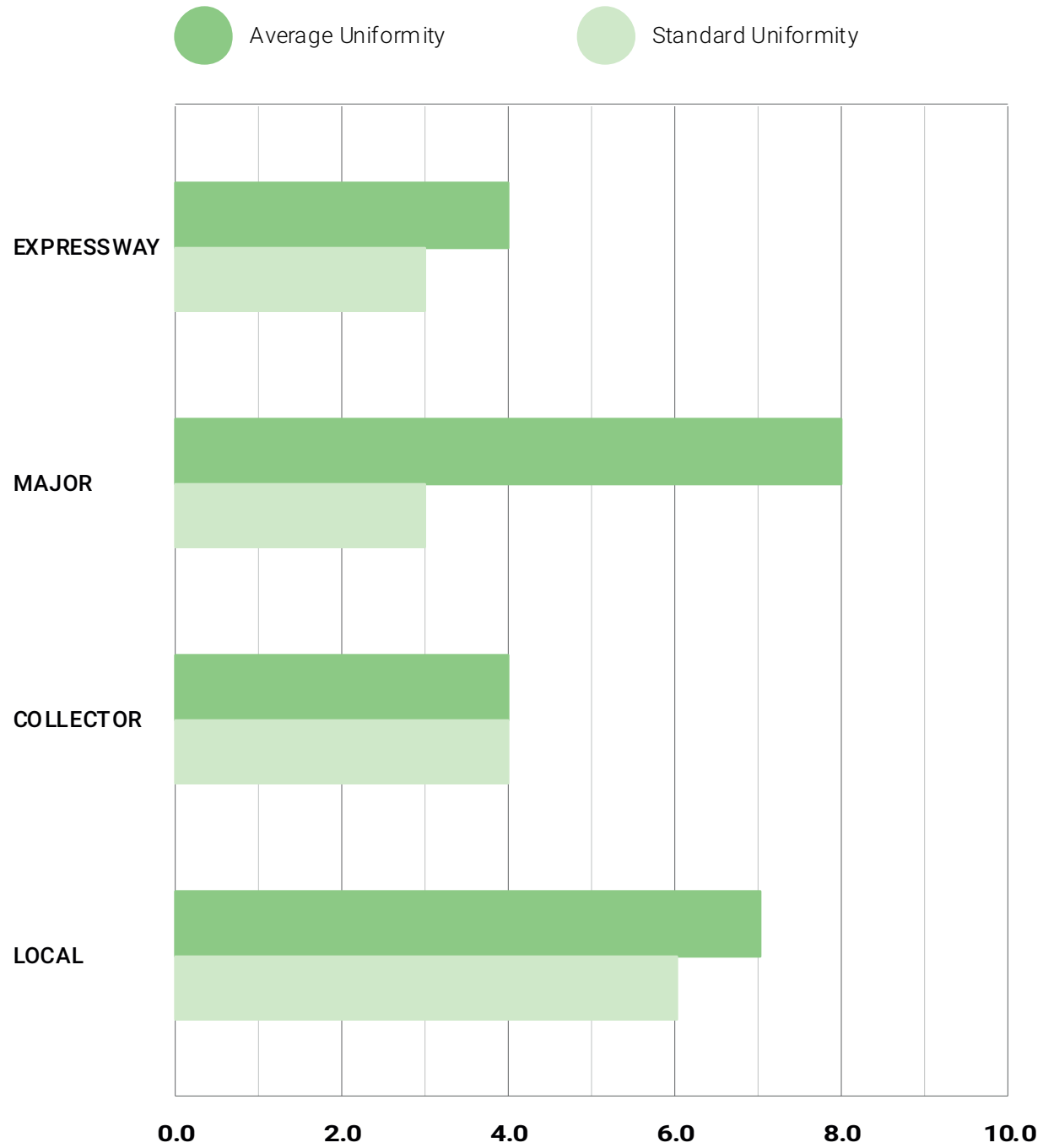
For each roadway segment, the average uniformity has been calculated based on all measured values for this segment, using the following formula:

AVERAGE ILLUMINANCE

MINIMUM ILLUMINANCE

Then for each roadway type, the average uniformity has been calculated and compared to the standard values, following the IESNA recommendations. **The results are below:**

<i>Roadway Types</i>	<i>Average Uniformity</i>	<i>Standard Uniformity</i>
EXPRESSWAY	4	3
MAJOR	8	3
COLLECTOR	4	4
LOCAL	7	6

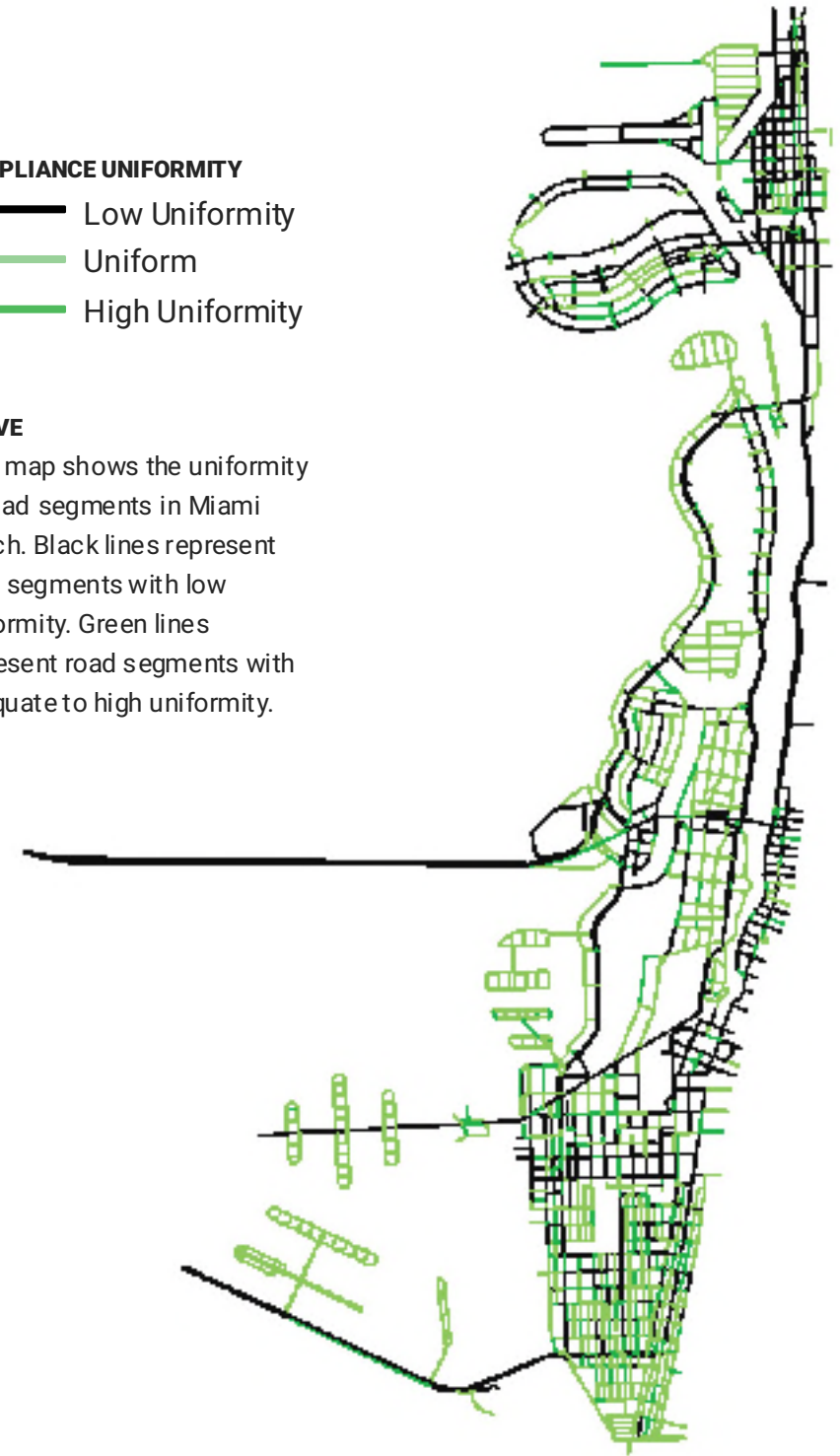


COMPLIANCE UNIFORMITY

- Low Uniformity
- Uniform
- High Uniformity

ABOVE

This map shows the uniformity of road segments in Miami Beach. Black lines represent road segments with low uniformity. Green lines represent road segments with adequate to high uniformity.



UNIFORMITY OVERVIEW

Uniformity is expressed as a ratio of Average Illuminance divided by the Minimum Illuminance, meaning a calculated value of 1 is “perfectly uniform” lighting. Roadways that are not uniform will exhibit bright and dark areas, meaning the ratio between the average and minimum lighting levels will be a larger number.

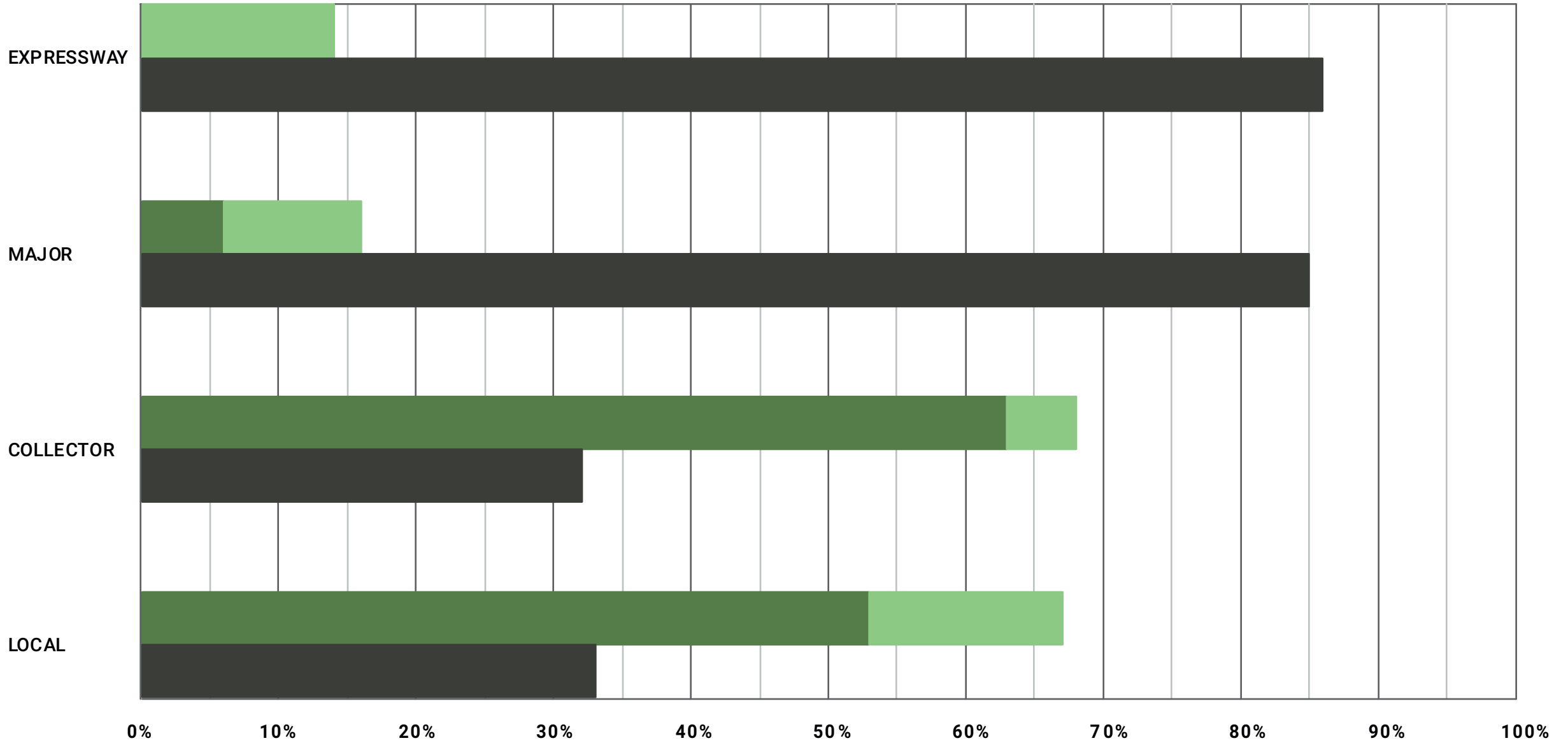
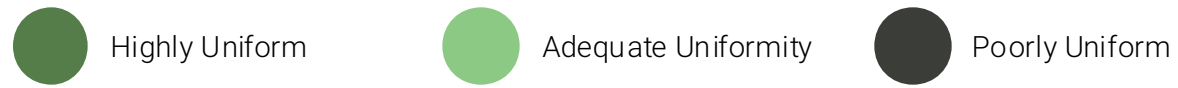
On average, expressways and major roadways exhibit low levels of uniformity (calculated value greater than standard). Both collectors and local roadways are generally uniform or exhibit greater uniformity than required, meaning the ratio is closer to “perfect uniformity” than required.

When comparing results to recommended standards, the average uniformity by street segment can be deemed:

- **Compliant with standard (if included in a +/- 20% range)**
- **High Uniformity (if uniformity is lower than 80% of the standard)**
- **Low Uniformity (if uniformity is higher than 120% of the standard)**

The results below are showed in percentage of the total distance in miles for each one of the four roadway types:

Roadway Type	Low Uniformity	Adequate Uniformity	Highly Uniformity	Grand Total
EXPRESSWAY	86%	14%	0%	100%
MAJOR	85%	10%	6%	100%
COLLECTOR	32%	5%	63%	100%
LOCAL	33%	14%	53%	100%
GRAND TOTAL	47%	13%	41%	100%





SOUTH

NEIGHBORHOODS INCLUDED

South Point
 Flamingo/Lummus
 West Avenue
 Star Island
 Palm Island
 Hibiscus Island
 Venetian Islands

ILLUMINATION TRENDS

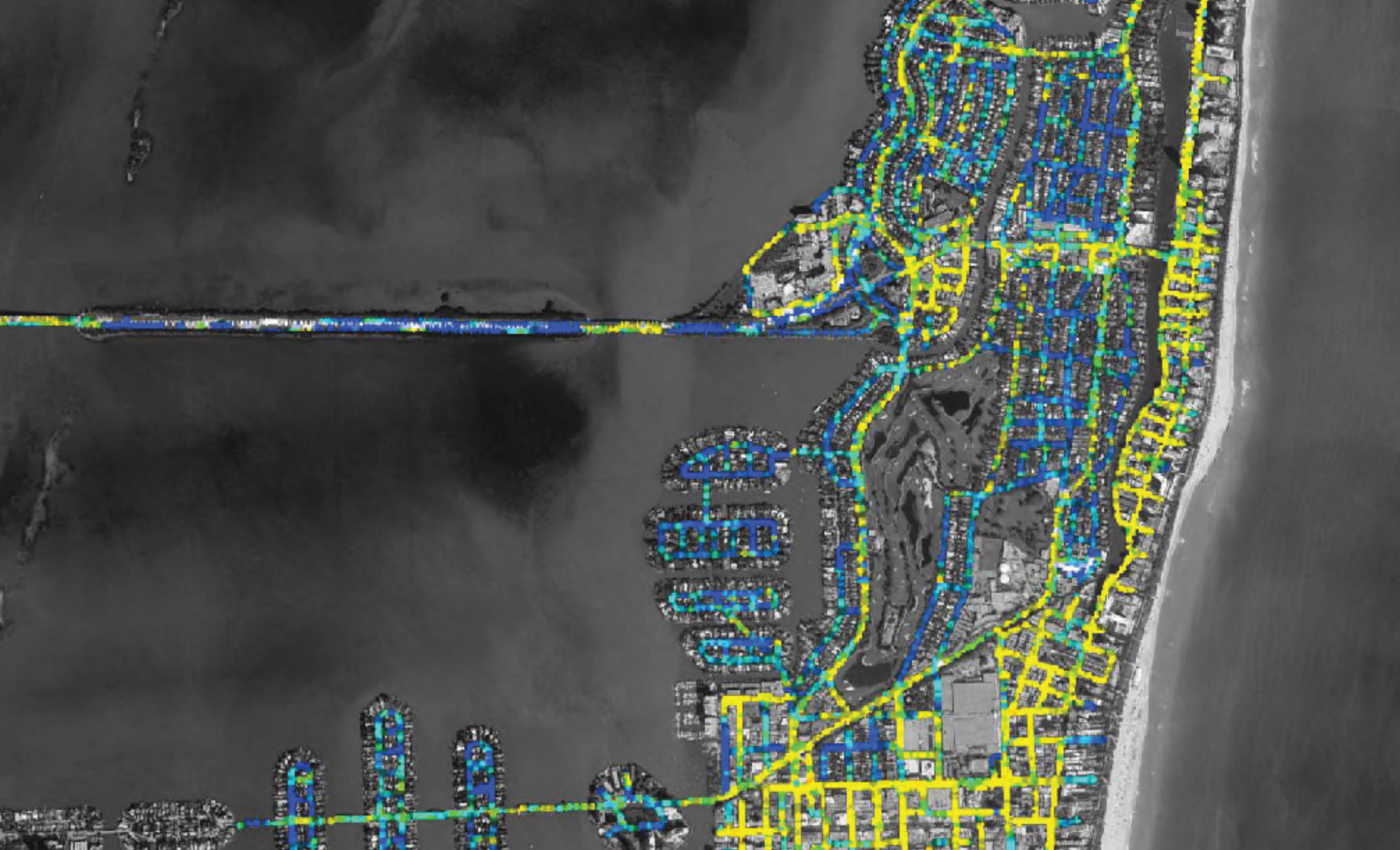
The South of Miami Beach is world renowned tourist destination. Currently, most of the area is brightly lit. While this may be more light than standards require, it could be a strategic choice to over light this area.

One exception is the area west of Flamingo Park, which is considerably darker and lit below standard.

LEGEND



(fc)



CENTRAL

NEIGHBORHOODS INCLUDED

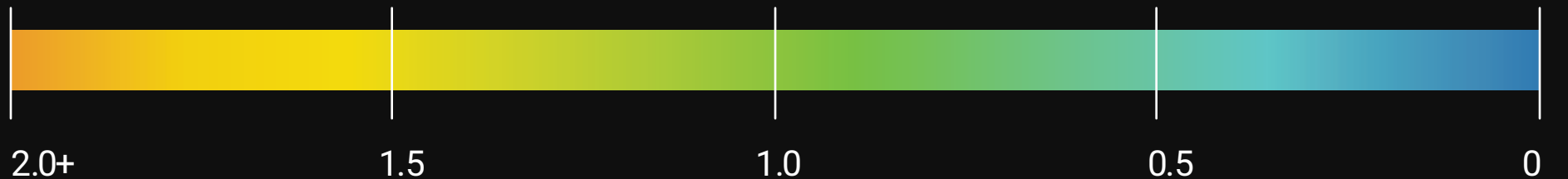
- Bayshore
- City Center
- Ocean Front
- Nautilus

ILLUMINATION TRENDS

Central Miami Beach begins the transition from tourist mecca to residential area. With this known, lower lighting levels are seen and accepted. These local roadways are lit slightly below standards.

Major roadways, such as Alton Road or the Julia Tuttle Causeway, while lit to the same level of these residential neighborhoods, require greater levels of lighting and improvements may be required.

LEGEND



(fc)



BISCAYNE BAY

NEIGHBORHOODS INCLUDED

- Ocean Front
- Nautilus
- La Gorce

ILLUMINATION TRENDS

Similar to the trends exhibited in central Miami Beach, the area surrounding La Gorce are lit to a lower level, with major streets (Alton Road, W 63rd Street) lit below standards.

LEGEND



(fc)



NORTH

NEIGHBORHOODS INCLUDED

- North Shore
- Normandy Isle
- Normandy Shores
- La Gorce
- Biscayne Point

ILLUMINATION TRENDS

As the Miami Beach becomes more heavily trafficked in the North, lighting levels increase to those seen in the South portion. Again, this may be a strategic decision by the City.

The major difference is the existence of dark spots within the roadway network. On Collins Ave, poor uniformity leads to dark corners lit below standard. Also, Normandy Drive / 71st Street stand out from the surrounding streets with considerably lower lighting levels.

LEGEND



(fc)

OVERALL ASSESSMENT

In order to assess the overall compliance with standards, Citelum cross referenced the data collected for Illuminance and Uniformity.

The following table shows (in miles of roadway) how much of the overall system falls within the assumed acceptable range for Illuminance and Uniformity when compared to standards.

The portions of the data in grey represent the amount of roadway that is underlit, overlit, and/or not uniform.

This information is for all roadway types. The data can be parsed by roadway type, as described further in **Section 6, General Recommendations**.

18.2%

of roadways meet both Illuminance and Uniformity standards

Uniformity	Underlit	Compliant	Overlit	Grand Total
POORLY UNIFORM	17.8	14.0	47.1	79.0
UNIFORM	2.7	9.5	9.2	21.5
HIGHLY UNIFORM	43.4	8.7	16.9	69.0
GRAND TOTAL	63.9	32.3	73.3	169.5



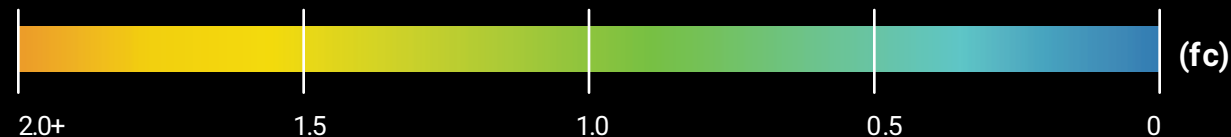
SPECIFIC EXAMPLES - UNDERLIT

This is an example of a very dark/underlit intersection in an area of the city that is mostly underlit. Available street lighting is either not working or obstructed by overgrown trees. Additional maintenance may provide better service in this area. If the City elects to install new LED street lights, properly designed lighting can alleviate these issues.

ILLUMINANCE



LEGEND



OVERLIT - UNDERLIT



LEGEND



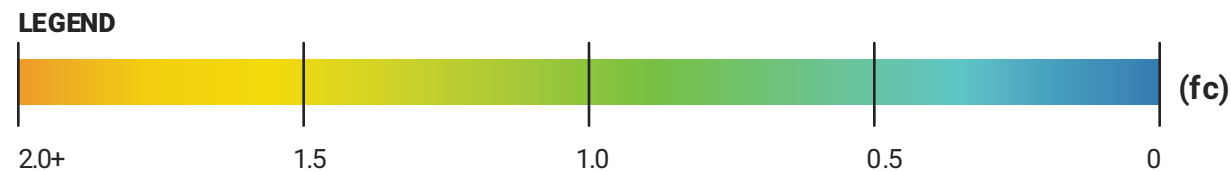


UNDERLIT INTERSECTION
13TH & LENNOX

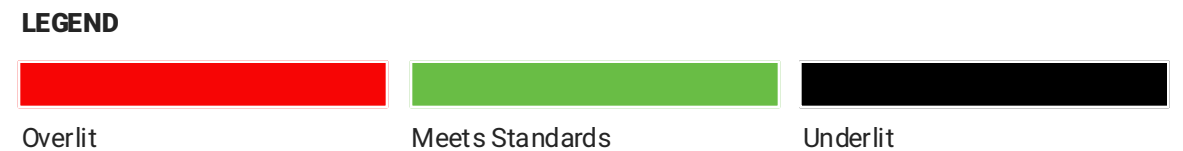
SPECIFIC EXAMPLES - OVERLIT

This shows an example of a technically overlit street. Given the location, land use, and pedestrian movement in the area, the City may elect to keep the lighting of the roadway at an elevated level for safety.

ILLUMINANCE



OVERLIT - UNDERLIT



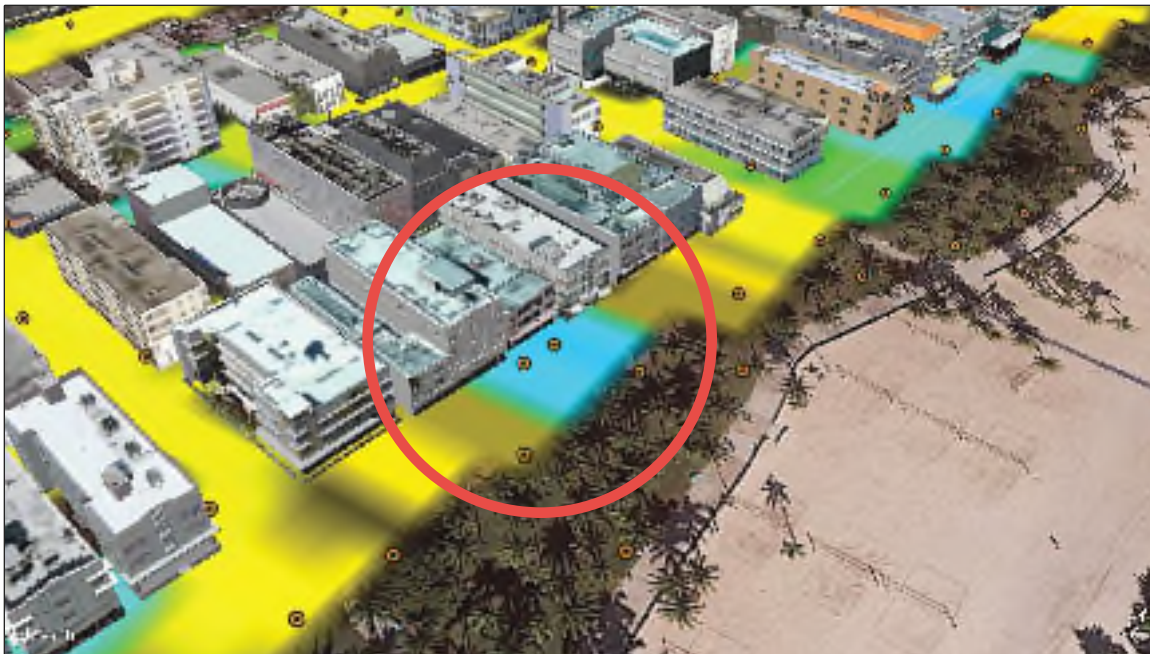


OVERLIT INTERSECTION
WASHINGTON AVE. (BETWEEN 12TH & 13TH)

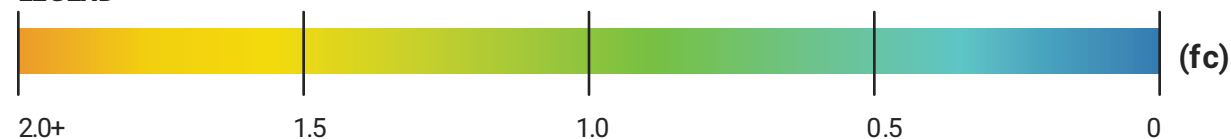
SPECIFIC EXAMPLES - POORLY UNIFORM

This major roadway provides a good example of the importance of uniformity and properly designed lighting. While the lighting level is close to standard, the lighting mid-block is measurably lower (*approximately 1.0 fc*) than the lighting at the intersections. This is most likely caused by the fixture type (*Post Top*) and location (*offset from roadway*) along Ocean Drive as compared to the cobra head fixtures used to illuminate the intersections. This poor uniformity can lead to drivers having issues adjusting their eyes to higher levels of glare when entering brighter spaces. On a roadway with heavy pedestrian traffic, like Ocean Drive, this can lead to safety issues.

ILLUMINANCE



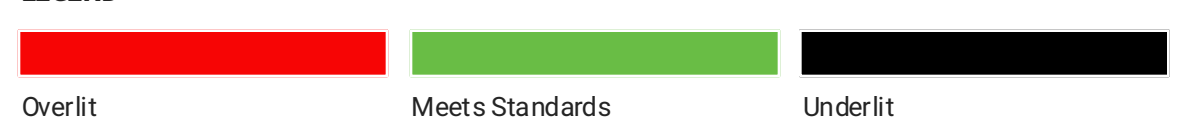
LEGEND



OVERLIT - UNDERLIT



LEGEND





POORLY UNIFORM INTERSECTION
OCEAN DR. (BETWEEN 7TH & 8TH)

SUMMARY

After a thorough review of the lighting conditions in Miami Beach, Citelum has reached a few general conclusions:

- 1) **Only approximately 18.2% of the roadways (by mileage) fall within the assumed acceptable range for Illuminance and Uniformity when compared to standards**
- 2) **Expressways are either underlit or overlit, but in most cases display low uniformity**
- 3) **Major roadways can be underlit, compliant or overlit but in most cases the uniformity is low**
- 4) **The majority of surveyed collectors are underlit, however the uniformity is acceptable**
- 5) **A variety of issues can be observed on local roadways, with entire sections of the City that are overlit as well as specific underlit streets**



GENERAL RECOMMENDATIONS

Based on these findings, Citelum suggests the following:

- 1) **The City should update their existing inventory of street lights to account for any information that is more than 5 years out of date**
- 2) **The City should work with industry to develop a Lighting Master Plan. This plan will define the lighting goals of the City, as performing only to standard may not best the best option for specific regions. For example:**
 - a. The City may choose to continue to over light the main tourist and commercial centers of the city
 - b. The City should define a desirable lighting level for residential neighborhoods
 - c. Working with Police Department and the Emergency Services, the City should identify areas within the city that should be over lit with the goals of crime prevention and increased safety

- 3) **The City should improve the operation and maintenance services to address street light outages in proactive or preventative manner. This can be accomplished through a robust Computerized Maintenance Management System (CMMS), higher standards for O&M performance through Key Performance Indicators (KPIs), or the introduction of an advanced street light monitoring and control system**
- 4) **The City could include a remote control system on LED lights, setting a schedule for lighting levels. Specific areas can be kept bright when needed and adjusted during off-peak hours**
- 5) **The uniformity of street lighting within the City should be improved. This can be accomplished multiple ways:**
 - a. The city can investigate the possibility of adding additional street lights where needed and removing extraneous luminaires
 - b. The city can investigate upgrading the existing street lights to LED. LED fixtures provide directed light and with proper design (distribution types, low back-light and glare, etc.) uniformity issues can be corrected



