097.13 DPWH
05.19.2023

Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
**OFFICE OF THE SECRETARY**
Manila

MAY 18 2023

**DEPARTMENT ORDER** )
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)
)
**NO.** 48 )
**Series of 2023** )
dA 5/19/23

**SUBJECT:** **Supplemental Parameters in Table 2 – Roadway Lighting Stationing and Parameters, D.O. No. 19, Series of 2023, Re: Guidelines and Standard Design Drawings for Solar-Powered Roadway Lighting Along National Roads**

In order to provide additional reference for a more cost-effective and efficient design of solar-powered roadway lighting suitable for secondary and tertiary roads, supplementary parameters for **6-meter high solar powered roadway lighting poles** are included in the hereto attached revised Table 2 – Roadway Lighting Stationing and Parameters (Annex "A") of D.O. No. 19, Series of 2023, Re: Guidelines and Standard Design Drawings for Solar-Powered Roadway Lighting Along National Roads.

This order shall take effect immediately.

**MANUEL M. BONOAN**
Secretary

5.1 LLL/DLB/RPBG/MLC

Department of Public Works and Highways
Office of the Secretary
WIN3R01592

**ANNEX "A"**

**TABLE 2 – ROADWAY LIGHTING STATIONING AND PARAMETERS (REVISED)**

| ROAD CLASSIFICATION | LIGHTING ARRANGEMENT | ROAD WIDTH (meter) | POLE PLACING (meter) | MOUNTING HEIGHT (meter) | LAMP WATTAGE (watt) | | MAST ARM LENGTH (meter) |
|---|---|---|---|---|---|---|---|
| | | | | | HPS | LED | |
| PRIMARY | SINGLE | 6.7 | 10-25 | 10 | 150-250 | 80-125 | 1.5 |
| | | 13.4 | 15-35 | 12 | 150-250 | 80-125 | 3.0 |
| | AXIAL | 13.4 | 20-35 | 10 | 150-250 | 80-125 | 1.5 |
| | | 20.1 | 20-40 | 12 | 150-250 | 80-125 | 3.0 |
| | | 26.8 | 20-45 | 12 | 300-400 | 200-300 | 3.0 |
| | OPPOSITE | 6.7 | 20-35 | 10 | 70-120 | 50-80 | 1.5 |
| | | 13.4 | 20-35 | 12 | 150-250 | 80-125 | 1.5 |
| | | 20.1 | 20-40 | 12 | 300-400 | 200-300 | 1.5 |
| | | 26.8 | 20-45 | 12 | 300-400 | 200-300 | 1.5 |
| | STAGGERED | 6.7 | 10-25 | 8 | 70-120 | 50-80 | 1.5 |
| | | 13.4 | 10-25 | 10 | 150-250 | 80-125 | 1.5 |
| | | 20.1 | 15-25 | 12 | 300-400 | 200-300 | 3 |
| | | 26.8 | 15-25 | 12 | 300-400 | 200-300 | 3 |
| SECONDARY | SINGLE | 6.7 | 15-35 | 10 | 150-250 | 80-125 | 1.5 |
| | | 6.7 | 15-35 | 6 | 70-120 | 50-80 | 1.5 |
| | OPPOSITE | 6.7 | 20-40 | 8 | 150-250 | 80-125 | 1.5 |
| | STAGGERED | 6.7 | 15-35 | 8 | 150-250 | 80-125 | 1.5 |
| | | 6.7 | 15-35 | 6 | 70-120 | 50-80 | 1.5 |
| TERTIARY | SINGLE | 5 | 10-25 | 8 | 70-120 | 50-80 | 1.5 |
| | | 6.1 | 10-25 | 8 | 70-120 | 50-80 | 1.5 |
| | | 5 | 10-25 | 6 | 70-120 | 50-80 | 1.5 |
| | | 6.1 | 10-25 | 6 | 70-120 | 50-80 | 1.5 |
| | STAGGERED | 5 | 10-25 | 8 | 70-120 | 50-80 | 1.5 |
| | | 6.1 | 10-25 | 8 | 70-120 | 50-80 | 1.5 |
| | | 5 | 10-25 | 6 | 70-120 | 50-80 | 1.5 |
| | | 6.1 | 10-25 | 6 | 70-120 | 50-80 | 1.5 |

Notes for 6-meter-high solar-powered roadway lighting poles:

1. The LED luminaire shall not overhang within the roadway in order to avoid potential collisions with large vehicles. Thus, the mast arm of the pole must be 1.5 meters long with tilt angle of 60 degrees.

2. The structural system components to be used shall be identical with the previously approved Department Order for the 8-meter pole calculation considering that the minimum and maximum diameter of the pole be retained. Structural guidelines are based on road elevation and the unique design of roads so as to ensure that solar-powered roadway lighting will not be adversely affected even under extreme operating conditions.