Specifications of LED Fixtures

LED Streetlight fixtuture – Technical specification 2019

1) Technical specification for 60 **W LED** streetlight luminaire

Integral high pressure Die cast/extruded aluminum LED Streetlight luminary with proper heat dissipation & toughened glass protector or with non yellowing injection molded polycarbonate cover having high light transmission index. The LEDs are provided with suitable lens for dispersal for achieving street light optics to ensure uniform light distribution. The LED fixture are designed for at least L70 life of minimum 50,000 burning hours. at ambient temperature not less than 35^0C. The system wattage (fixture's total power consumption) should be 60 W +/- 5 Watt.

Ingress protection of IP66 with separate compartment for driver and lamp. The system level efficacy of the luminary should be equal or greater than **120 lumens / W** & Power factor should be greater than 0.95. CRI should be greater than 70 & color temperature should be between 4000^0K to 6000^0K (max limit). The color temperature variation should not be more than +/- 200^0 K in LED fixtures provided for one project. Driver should be potted with efficiency greater than 85% & THD Limits- For Current<10% and for voltage<3%.

The driver shall be potted and dimmable. The LED fixture should have integral surge protection of not less than 10 kV & operating voltage range should be within 140 V - 270 V. Standard street lighting photometric distribution of the luminary should be validated with LM -79 Report & the LED module data should be supported by the LM 80 test report from the manufacturer.

Fixture lighting deliverables should be as follows;
Min / Avg =>0.4 , Min / Max =>0.3 , Maintenance factor =0.8
Mounting height - 7 meter, road width- 7 meter
Distance Between pole = 20 meter
min. Avg Lux =20 Lux
Tilt 10 degree.

2) Technical specification for 90 **W LED** streetlight luminaire

Integral high pressure Die cast/extruded aluminum LED Streetlight luminary with proper heat dissipation & toughened glass protector or with non yellowing injection molded polycarbonate cover having high light transmission index. The LEDs are provided with suitable lens for dispersal for achieving street light optics to ensure uniform light distribution. The LED fixture are designed for at least L70 life of minimum 50,000 burning hours. at ambient temperature not less than 35^0C. The system wattage (fixture's total power consumption)should be 90 W +/- 5 Watt.

Ingress protection of IP66 with separate compartment for driver and lamp. The system level efficacy of the luminary should be equal or greater than **120 lumens / W** & Power factor should be greater than 0.95. CRI should be greater than 70 & color temperature should be between 4000^0K to 6000^0K (max limit). The color temperature variation should not be more than +/- 200^0 K in LED fixtures provided for one project. Driver should be potted with efficiency greater than 85% & THD Limits- For Current<10% and for voltage<3%.

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The driver shall be potted and dimmable. The LED fixture should have integral surge protection of not less than 10 kV & operating voltage range should be within 140 V - 270 V. Standard street lighting photometric distribution of the luminary should be validated with LM -79 Report & the LED module data should be supported by the LM 80 test report from the manufacturer.
Fixture lighting deliverables should be as follows;

Min / Avg =>0.4 , Min / Max =>0.3 , Maintenance factor =0.8
Mounting height - 8 meter, road width- 7 to 9 meter
Distance Between pole = 27 meter
min. Avg Lux =20 Lux
Tilt 10 degree, Arm Length: 1 meter

3) Technical specification for 120 **W LED** streetlight luminaire

Integral high pressure Die cast/extruded aluminum LED Streetlight luminary with proper heat dissipation & toughened glass protector or with non yellowing injection molded polycarbonate cover having high light transmission index. The LEDs are provided with suitable lens for dispersal for achieving street light optics to ensure uniform light distribution. The LED fixture are designed for at least L70 life of minimum 50,000 burning hours. at ambient temperature not less than 35^0C. The system wattage (fixture's total power consumption)should be 120 W +/- 5 Watt.

Ingress protection of IP66 with separate compartment for driver and lamp. The system level efficacy of the luminary should be equal or greater than **120 lumens / W** & Power factor should be greater than 0.95. CRI should be greater than 70 & color temperature should be between 4000^0K to 6000^0K (max limit). The color temperature variation should not be more than +/- 200^0 K in LED fixtures provided for one project. Driver should be potted with efficiency greater than 85% & THD Limits- For Current<10% and for voltage<3%.

The driver shall be potted and dimmable. The LED fixture should have integral surge protection of not less than 10 kV & operating voltage range should be within 140 V - 270 V. Standard street lighting photometric distribution of the luminary should be validated with LM -79 Report & the LED module data should be supported by the LM 80 test report from the manufacturer.

Fixture lighting deliverables should be as follows;
Min / Avg =>0.4 , Min / Max =>0.3 , Maintenance factor =0.8
Mounting height - 9 meter, road width- 9to 10 meter
Distance Between pole = 30 meter
Avg Lux =22 Lux, Tilt 10 degree, Arm Length: 1.5 meter

4) Technical specification for 160 **W LED** streetlight luminaire

Integral high pressure Die cast/extruded aluminum LED Streetlight luminary with proper heat dissipation & toughened glass protector or with non yellowing injection molded polycarbonate cover having high light transmission index. The LEDs are provided with suitable lens for dispersal for achieving street light optics to ensure uniform light distribution. The LED fixture are designed for at least L70 life of minimum 50,000 burning hours. at ambient temperature not less than 35^0C. The system wattage (fixture's total power consumption)should be 160 W +/- 5 Watt.

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Ingress protection of IP66 with separate compartment for driver and lamp. The driver compartment cover shall be provided with safety wire rope. The system level efficacy of the luminary should be equal or greater than **120 lumens / W** & Power factor should be greater than 0.95. CRI should be greater than 70 & color temperature should be between 4000^0K to 6000^0K (max limit). The color temperature variation should not be more than +/- 200^0 K in LED fixtures provided for one project. Driver should be potted with efficiency greater than 85% & THD Limits- For Current<10% and for voltage<3%.

The driver shall be potted and dimmable. The LED fixture should have integral surge protection of not less than 10 kV & operating voltage range should be within 140 V - 270 V. Standard street lighting photometric distribution of the luminary should be validated with LM -79 Report & the LED module data should be supported by the LM 80 test report from the manufacturer. The ballast and fixture shound be BIS certifies.

Fixture lighting deliverables should be as follows;
Min / Avg =>0.4 , Min / Max =>0.3 , Maintenance factor =0.8
Mounting height - 10 meter, road width- 9 to 12 meter
Distance Between pole = 30 meter and above
Avg Lux =30 Lux
Tilt 10 degree
Arm Length: 1.5 meter

Tilt 10 degree
Arm Length: 1.5 meter

5) Technical specification for 120/150/200/240/350 **W LED** Flood light luminaire

Integral high pressure Die cast/extruded aluminum LED Streetlight luminary with proper heat dissipation & toughened glass protector or with non yellowing injection molded polycarbonate cover having high light transmission index. The LEDs are provided with suitable lens for dispersal for achieving street light optics to ensure uniform light distribution. The LED fixture are designed for at least L70 life of minimum 50,000 burning hours. at ambient temperature not less than 35^0C. The system wattage (fixture's total power consumption)should be +/- 5 Watt than rated power.

Ingress protection of IP66. The system level efficacy of the luminary should be equal or greater than **120 lumens / W** & Power factor should be greater than 0.95. CRI should be greater than 70 & color temperature should be between 4000^0K to 6000^0K (max limit). The color temperature variation should not be more than +/- 200^0 K in LED fixtures provided for one project. Driver should be potted with efficiency greater than 85% & THD Limits- For Current<10% and for voltage<3%.

The driver shall be dimmable. The LED fixture should have integral surge protection of not less than 10 kV & operating voltage range should be within 140 V - 270 V. Standard street lighting photometric distribution of the luminary should be validated with LM -79 Report & the LED module data should be supported by the LM 80 test report from the manufacturer.
Note: For 240/350 W LED flood light driver may be Dimmable or Not dimmable as applicable.

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