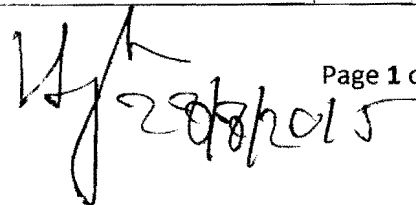


**OFFICE OF THE PROJECT DIRECTOR
MP PWD (PIU) Nirman Bhawan Bhopal
SCHEDULE OF RATES FOR ELECTRICAL WORKS (w.e.f.1.08.2014)
AMMENDMENT NO.1**

The Rates of following items (S.O.R. Electrical Works w.e.f.1/08/2014) are Amended as under and rates shall be Applicable with effect from the date of issue i.e. 28/08/2015.

**CHAPTER-31 (Item no 31.22 to 31.31.2)
LED LIGHTING**

| | | Existing | | Amendment | | | |
|-------|----------|---|------|-----------|--|------|------|
| S.NO. | Item NO. | Description | OLD | | Description | New | |
| | | | Unit | Rate | | Unit | Rate |
| 1 | 31.22 | Supply and fixing Led tube rod comprising of LED tube with non integral / integral driver, 6500K color temp having 40000 burning hrs life with minimum @ L 70, system lumen output should be minimum with efficacy > 80 lm/W. LED driver PF 0.95 & THD < 20%. The colour rendering index of LED light should be more than 70. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer mandatory i/c connection wire, testing etc. to complete the job. 2 Yrs Guarantee certificate from manufacturer. | | | Supply and fixing Led tube rod comprising of LED tube with non integral / integral driver, 4000K to 6500K color temp. having more then 25000 to 40000 burning hrs. life with minimum @ L 80, system lumen output should be minimum with efficacy >0.90 lm/W. LED driver PF > 0.90 & THD < 30%. The colour rendering index of LED light should be more than 70. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer mandatory i/c connection wire, testing etc. to complete the job. 2 Yrs Guarantee certificate from manufacturer. | | |
| 2 | 31.22.1 | 1 X 5/8W Integral Tube fitting complete | Each | 1620 | 1 X 5/8W Integral Tube fitting complete. | Each | 859 |
| 3 | 31.22.2 | 1 X 18/20/22W, Integral | Each | 2208 | 1 X 18/20/22W, Integral | Each | 1579 |
| 4 | 31.22.3 | 1 X 18/20/22W, Non Integral with driver | Each | 3067 | 1 X 18/20/22W, Non Integral with driver | Each | 1328 |
| 5 | 31.22.4 | LED Retrofit tube only 18/20/22W 3 - 6K without box suitable for replacing existing 36/40W FTL | Each | 2515 | LED Retrofit tube only 18/20/22W 3 - 6K without boxesuitable for replacing existing 36/40W FTL | Each | 933 |


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| | | | | | | | |
|----|---------|---|------|-------|--|------|------|
| 7 | 31.23 | Supply & fixing Mounting rail / Batten made of CRCA powder coated with suitable lamp holding brackets for LED Tube rod 1200mm Single on wall / ceiling including connection testing etc complete as required. | Each | 669 | Supply & fixing Mounting rail / Batten made of CRCA powder coated with suitable lamp holding brackets for LED Tube rod 1200mm Single on wall / ceiling including connection testing etc complete as required. | Each | 543 |
| 8 | 31.24 | Supply and fixing of recessed mounting type Led light fixture, LED of 1 to 3 W each assembled on single MCPCB, having color temp 6500K & having 50000 burning hrs life with minimum @ L 70, system lumen output should be minimum with efficacy>80lm/W. LED driver, PF 0.95 & THD < 20%. The colour rendering index of LED light should be more than 70. Housing made of CRCA with glare free diffused polycarbonate cover. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer mandatory i/c connection wire, testing etc. to complete the job. 2 Yrs Guarantee certificate from manufacturer. | | | Supply and fixing of recessed mounting type Led light fixture, LED of 1 to 3 W each assembled on single MCPCB, having color temp 4000K to 6500K & having 25000 to 50000 burning hrs life with minimum @ L 80, system lumen output should be minimum with efficacy>80lm/W. LED driver, PF >0.90. The colour rendering index of LED light should be more than 70. Housing made of CRCA with glare free diffused polycarbonate cover. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer mandatory i/c connection wire, testing etc. to complete the job. 2 Yrs Guarantee certificate from manufacturer. | | |
| 9 | 31.24.1 | Led luminaire 1' X 1', 24W, 4-6.5k | Each | 4753 | Led luminaire 1' X 1', 24W, 4-6.5k | Each | 3924 |
| 10 | 31.24.2 | Led luminaire 2' X 2', 36W, 4-6.5K | Each | 9811 | Led luminaire 2' X 2', 36W, 4-6.5K | Each | 5496 |
| 11 | 31.24.3 | Led luminaire 2' X 2', 45W, 4-6.5K | Each | 10226 | Led luminaire 2' X 2', 42-45W, 4-6.5K | Each | 6754 |

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|----|---------|---|------|-------|---|------|------|
| 12 | 31.25 | Supply and fixing of surface mounting type Led light fixture, LED of 1 to 3 W each assembled on single MCPCB, having color temp 6500K & having 50000 burning hrs life with minimum @ L 70, system lumen output should be minimum with efficacy>80lm/W. LED driver, PF 0.95 & THD < 20%. The colour rendering index of LED light should be more than 70. Housing made of CRCA with glare free diffused polycarbonate cover. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer mandatory. i/c connection wire, testing etc. to complete the job. 2 Yrs Guarantee certificate from manufacturer.58 | | | Supply and fixing of recessed mounting type Led light fixture, LED of 1 to 3 W each assembled on single MCPCB, having color temp 4000K to 6500K & having 25000 to 50000 burning hrs life with minimum @ L 80, system lumen output should be minimum with efficacy>80lm/W. LED driver, PF >0.90. The colour rendering index of LED light should be more than 70. Housing made of CRCA with glare free diffused polycarbonate cover. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer mandatory. i/c connection wire, testing etc. to complete the job. 2 Yrs Guarantee certificate from manufacturer. | | |
| 13 | 31.25.1 | Led luminaire 1' X 1', 24W, 4-6.5k | Each | 4753 | Led luminaire 1' X 1', 24W, 4-6.5k | Each | 3924 |
| 14 | 31.25.2 | Led luminaire 2' X 2', 36W, 4-6.5k | Each | 11126 | Led luminaire 2' X 2', 36W, 4-6.5k | Each | 5941 |
| 15 | 31.25.3 | Led luminaire 2' X 2', 45W, 4-6.5k | Each | 10251 | Led luminaire 2' X 2', 42-45W, 4-6.5k | Each | 6779 |

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|----|---------|--|------|------|--|------|------|
| 16 | 31.26 | Supplying and fixing surface mounting LED down lighter, LED of 1 to 3 W each assembled on single MCPCB, having color temp 6500K & having 50000 burning hrs life with minimum @ L 70, system lumen output should be minimum with efficacy>80lm/W. LED driver PF 0.95 & THD < 20%. The colour rendering index of LED light should be more than 70. Housing made of CRCA powder coated frame with glare free diffused polycarbonate cover. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer mandatory. i/c connection wire, testing etc. to complete the job. 2 Yrs Guarantee certificate from manufacturer. | | | Supplying and fixing surface mounting LED down lighter, LED of 1 to 3 W each assembled on single MCPCB, having color temp 4000K to 6500K & having 25000 to 50000 burning hrs life with minimum @ L 80, system lumen output should be minimum with efficacy>80lm/W. LED driver PF 0.90. The colour rendering index of LED light should be more than 70. Housing made of CRCA powder coated frame with glare free diffused polycarbonate cover. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer mandatory. i/c connection wire, testing etc. to complete the job. 2 Yrs Guarantee certificate from manufacturer. | Each | |
| 17 | 31.26.1 | 7 W/8 W, 100/150mm | Each | 2348 | 7 W/8 W, 100/150mm | Each | 1629 |
| 18 | 31.26.2 | 15 W, 180/200mm | Each | 3822 | 15 W, 180/200mm | Each | 2561 |
| 19 | 31.26.3 | 30 W, 300mm | Each | 6955 | 24-30 W, 300mm | Each | 5869 |
| 20 | 31.27 | Supplying and fixing recessed mounting LED down lighter, LED of 1 to 3 W each assembled on single MCPCB, having color temp 6500K & having 50000 burning hrs life with minimum @ L 70, system lumen output should be minimum with efficacy>80lm/W. LED driver PF 0.95 & THD < 20%. The colour rendering index of LED light should be more than 70. Housing made of | | | Supplying and fixing recessed mounting LED down lighter, LED of 1 to 3 W each assembled on single MCPCB, having color temp 4000K to 6500K & having 25000 to 50000 burning hrs life with minimum @ L 80, system lumen output should be minimum with efficacy>80lm/W. LED driver PF >0.90. The colour rendering index of LED light should be more than 70. Housing | Each | |

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|----|---------|---|------|------|--|------|------|
| | | CRCA powder coated frame with glare freediffused polycarbonate cover. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer manadatory. i/c connection wire, testing etc. to complete the job. 2 Yrs Guarantee certificate from manufacturer. | | | made of CRCA powder coated frame with glare free diffused polycarbonate cover. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer manadatory. i/c connection wire, testing etc. to complete the job. 2 Yrs Guarantee certificate from manufacturer. | | |
| 21 | 31.27.1 | 8 W , 100/150mm | Each | 1657 | 8 W , 100/150mm | Each | 1472 |
| 22 | 31.27.2 | 12 W , 180/200mm | Each | 2348 | 12 W , 180/200mm | Each | 1932 |
| 23 | 31.27.3 | 15 W , 180/200mm | Each | 2763 | 15 W , 180/200mm | Each | 2089 |
| 24 | 31.28 | Supplying and fixing integral post top lantern LED fitting comprises of copper dust finish cast aluminium spigot and spun aluminium canopy fixed with opal polycarbonate, pipe arrangement for vertical mounting, open construction driver and accessories are wired up to terminal block. LED of 1 to 3 W each assembled on single MCPCB, having color temp 6500K & having 50000 burning hrs life with minimum @ L 70, system lumen output should be minimum with efficacy> 80lm / W. LED driver PF 0.95 & surge protection 2KV.The colour rendering index of LED light should be more than70. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturermanadatory. i/c connection wire, | | | Supplying and fixing integral post top lantern LED fitting comprises of copper dust finish cast aluminium spigot and spun aluminium canopy fixed with opal polycarbonate, pipe arrangement for vertical mounting, open construction driver and accesories are wired upto terminal block. LED of 1 to 3 W each assembled on single MCPCB, having color temp 4000K to 6500K & having25000 to 50000 burning hrs life with minimum @ L 80, system lumen output should be minimum with efficacy>80lm/W. LED driver PF >0.90. The colour rendering index of LED light should be more than 70. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. | Each | |

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| | | testing etc. to complete the job. 2 Yrs Guarantee certificate from manufacturer.59 | | | Manufacturer mandatory. i/c connection wire, testing etc. to complete the job. 2 Yrs Guarantee certificate from manufacturer. | | |
| 25 | 31.28.1 | 40 W LED | Each | 16654 | 40 W LED | Each | 11811 |
| 26 | 31.29 | Supplying and fixing street light with high power LED of 1 to 3 W each assembled on single MCPCB, system lumens output with efficacy>90 lm/W. luminaire having color temp 6500K & 50000 burning hrs life with minimum @ L 70, The colour rendering index of LED light should be more than 70. Luminaire comprises of driver, PF 0.95 & surge protection 3KV. Housing made of pressure die cast aluminium with heat resistant flat glass / Lens type, IP65 protection. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer mandatory i/c 50mm.dia G.I. Pipe bracket upto 2 mtr. long in required angle/shape, connection lead, testing etc to complete the job. 2 Yrs Guarantee certificate from manufacturer. | | | Supplying and fixing street light with high power LED of 1 to 3 W each assembled on single MCPCB, system lumens output with efficacy>90 lm/W. luminaire having color temp 4000K to 6500K & 50000 burning hrs life with minimum @ L 70, The colour rendering index of LED light should be more than 70. Luminaire comprises of driver, PF 0.95 & surge protection 3KV. Housing made of pressure die cast aluminium with heat resistant flat glass / Lens type, IP65 protection. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer mandatory i/c 50mm.dia G.I. Pipe bracket upto 2 mtr. long in required angle/shape, connection lead, testing etc to complete the job. 2 Yrs Guarantee certificate from manufacturer. | | |
| 27 | 31.29.1 | 24W / 25W | Each | 9138 | 24W / 25W | Each | 5304 |
| 28 | 31.29.2 | 40W / 48W | Each | 18634 | 40W / 48W | Each | 9140 |
| 29 | 31.29.3 | 60W, | Each | 22584 | 60W | Each | 11946 |
| 30 | 31.29.4 | 90W, | Each | 23923 | 90W, | Each | 15186 |
| 31 | 31.29.5 | 120W, | Each | 35585 | 120W, | Each | 17888 |
| 32 | 31.29.6 | 150W, | Each | 44283 | 150W, | Each | 20049 |

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|----|---------|---|------|-------|--|------|-------|
| 33 | 31.3 | Supplying and fixing flood light with high power LED of 1 to 3 W each assembled on single MCPCB, system lumens output with efficacy>90 lm/W. luminaire having color temp 6500K & 50000 burning hrs life with minimum @ L 70, The colour rendering index of LED light should be more than 70. Luminaire comprises of driver, PF 0.95 & surge protection 3KV. Housing made of pressure die cast aluminium with heat resistant flat glass, IP65 protection. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer mandatory i/c connection lead, testing etc to complete the job. 2 Yrs Guarantee certificate from manufacturer. | | | Supplying and fixing flood light with high power LED of 1 to 3 W each assembled on single MCPCB, system lumens output with efficacy>90 lm/W. luminaire having color temp 4000K to 6500K & 25000 to 50000 burning hrs life with minimum @ L 80, The colour rendering index of LED light should be more than 70. Luminaire comprises of driver, PF >0.90 & surge protection 3KV. Housing made of pressure die cast aluminium with heat resistant flat glass, IP65 protection. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer mandatory i/c connection lead, testing etc to complete the job. 2 Yrs Guarantee certificate from manufacturer. | | |
| 34 | 31.30.1 | 10W | Each | 4628 | 10W | Each | 3528 |
| 35 | 31.30.2 | 30W | Each | 10184 | 30W | Each | 4716 |
| 36 | 31.30.3 | 60W, | Each | 24048 | 60W, | Each | 9794 |
| 37 | 31.30.4 | 90W, | Each | 25378 | 90W, | Each | 19519 |
| 38 | 31.30.5 | 120W, | Each | 25378 | 120W, | Each | 29243 |
| 39 | 31.30.6 | 150W, | Each | 34257 | 150W, | Each | 33565 |
| 40 | 31.31 | Supply, Installation testing and commissioning of Redcolour Aviation light LED integral type comprising of Aluminium powder coated housing with polycarbonate enclosure IP 65 on existing pipe/ support including connection, testing etc. as required. 2 Yrs Guarantee certificate | | | Supply, Installation testing and commissioning of Red colour Aviation light LED integral type comprising of Aluminium powder coated housing with polycarbonate enclosure IP 65 on existing pipe/ support including connection, testing etc. as required. 2 Yrs | | |

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|----|---------|--------------------|------|------|---|------|------|
| | | from manufacturer. | | | Guarantee certificate from manufacturer. | | |
| 41 | 31.31.1 | 180 LED | Each | 6053 | 180 LED | Each | 6073 |
| 42 | 31.31.2 | 300 LED | Each | 8465 | 300 LED | Each | 6073 |


 28/8/2015
Project Director
PWD PUJ Bhopal

Endt. No.F-1-2/2014/Electrical SOR/Work/P.D./ 2696

Bhopal Date: 28-08-2015

Copy is forwarded to:-

1. P.A to Hon'ble Minister, M.P.P.W.D. Bhopal
2. The Principal Secretary to Govt. of M.P.P.W.D. Bhopal
3. The Secretary to Govt. of M.P.P.W.D. Bhopal
4. The Engineer-in -Chief, M.P.P.W.D. Bhopal
5. The Chief Technical Examiner, M.P. Bhopal.
6. The Principal Secretary to Govt. of M.P. Housing & Environment Bhopal.
7. The Accountant General, M.P. Gwalior/Bhopal.
8. The Secretary to Hon'ble Lokayukta, M.P. Bhopal.
9. The Chief Engineer P.W.D..... M.P.
- 10.The Additional Project Director P.W.D.(PIU).....M.P.
- 11.The Chief Engineer, M.P. R.D.C. Bhopal.
- 12.The Chief Engineer Rural Engineering Services, M.P. Bhopal.
- 13.The Commissioner, Housing Board, M.P. Bhopal.
- 14.The Commissioner, Bhopal.
- 15.The Collector, Bhopal.
- 16.The Superintending Engineer, Capital Project Circle CPA Bhopal.
- 17.The Superintending Engineer M.P.P.W.D.....
- 18.The Divisional Project Engineer, M.P.P.W.D.....
- 19.The Executive Engineer, M.P.P.W.D. Division.
- 20.Chairman, Contractor Association, MP Bhopal.


 28/8/2015
Project Director
PWD PIU Bhopal