



## Comune di Sannazzaro de' Burgondi (PV)



### RIQUALIFICAZIONE ENERGETICA E NORMATIVA DELL'IMPIANTO DI ILLUMINAZIONE PUBBLICA

Oggetto

#### **Progetto Esecutivo**

ai sensi del D.Lgs 50/2016 e ss.ii. e mm.

Titolo elaborato

#### **ORARI DI FUNZIONAMENTO IP**

"opere di riqualificazione energetica e normativa"

Revisione

**01**

Numerazione

**16**

Data

**12 Dicembre 2018**

Committente

Promotore

#### **Global Power Service S.p.A.**

C.so Porta Nuova 127

37122 Verona

info@globalpowerservice.it

Progettisti

**EZA srl**

info@ezasrl.it

**Ing. Anna Busolini**

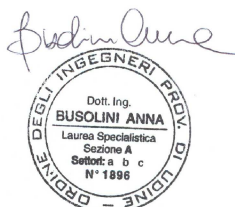


Tabella orari accensione e spegnimenti impianti illuminazione pubblica per il comune di  
SANNAZZARO DE' BURGONDI - 4.000 ore

Calcolo orari ALBA - TRAMONTO e ACCENSIONI /SPEGNIMENTI

|                       |                         |             |  |
|-----------------------|-------------------------|-------------|--|
| Località              |                         |             |  |
| Latitudine            | 45° Nord                |             |  |
| Longitudine           | 9° Est                  |             |  |
| Paese                 | Italia                  |             |  |
| Città                 | SANNAZZARO DE' BURGONDI |             |  |
| Fuso orario           | UTC +1h                 |             |  |
| Regola estate/inverno | Europa                  |             |  |
|                       | Sorgere del sole        | Tramonto    |  |
| al più presto         | 05:37                   | 16:43       |  |
| al più tardi          | 08:03                   | 21:15       |  |
|                       | Tempo di Off            | Tempo di On |  |
| al più presto         | 05:37                   | 16:43       |  |
| al più tardi          | 08:03                   | 21:15       |  |

# Gennaio

| giorno | alba  | tramonto | tot.  | off   | on    | funzionamento |
|--------|-------|----------|-------|-------|-------|---------------|
| 1      | 07:59 | 16:48    | 15:11 | 07:29 | 17:06 | 14:23         |
| 2      | 07:58 | 16:49    | 15:09 | 07:28 | 17:07 | 14:21         |
| 3      | 07:58 | 16:50    | 15:08 | 07:28 | 17:08 | 14:20         |
| 4      | 07:58 | 16:51    | 15:07 | 07:28 | 17:09 | 14:19         |
| 5      | 07:57 | 16:52    | 15:05 | 07:27 | 17:10 | 14:17         |
| 6      | 07:57 | 16:53    | 15:04 | 07:27 | 17:11 | 14:16         |
| 7      | 07:57 | 16:54    | 15:03 | 07:27 | 17:12 | 14:15         |
| 8      | 07:56 | 16:55    | 15:01 | 07:26 | 17:13 | 14:13         |
| 9      | 07:56 | 16:57    | 14:59 | 07:26 | 17:15 | 14:11         |
| 10     | 07:56 | 16:58    | 14:58 | 07:26 | 17:16 | 14:10         |
| 11     | 07:55 | 16:59    | 14:56 | 07:25 | 17:17 | 14:08         |
| 12     | 07:55 | 17:00    | 14:55 | 07:25 | 17:18 | 14:07         |
| 13     | 07:55 | 17:01    | 14:54 | 07:25 | 17:19 | 14:06         |
| 14     | 07:54 | 17:02    | 14:52 | 07:24 | 17:20 | 14:04         |
| 15     | 07:54 | 17:03    | 14:51 | 07:24 | 17:21 | 14:03         |
| 16     | 07:54 | 17:04    | 14:50 | 07:24 | 17:22 | 14:02         |
| 17     | 07:54 | 17:06    | 14:48 | 07:24 | 17:24 | 14:00         |
| 18     | 07:53 | 17:07    | 14:46 | 07:23 | 17:25 | 13:58         |
| 19     | 07:52 | 17:08    | 14:44 | 07:22 | 17:26 | 13:56         |
| 20     | 07:51 | 17:10    | 14:41 | 07:21 | 17:28 | 13:53         |
| 21     | 07:50 | 17:11    | 14:39 | 07:20 | 17:29 | 13:51         |
| 22     | 07:49 | 17:13    | 14:36 | 07:19 | 17:31 | 13:48         |
| 23     | 07:48 | 17:14    | 14:34 | 07:18 | 17:32 | 13:46         |
| 24     | 07:47 | 17:16    | 14:31 | 07:17 | 17:34 | 13:43         |
| 25     | 07:46 | 17:17    | 14:29 | 07:16 | 17:35 | 13:41         |
| 26     | 07:45 | 17:18    | 14:27 | 07:15 | 17:36 | 13:39         |
| 27     | 07:44 | 17:20    | 14:24 | 07:14 | 17:38 | 13:36         |
| 28     | 07:43 | 17:21    | 14:22 | 07:13 | 17:39 | 13:34         |
| 29     | 07:42 | 17:23    | 14:19 | 07:12 | 17:41 | 13:31         |
| 30     | 07:41 | 17:24    | 14:17 | 07:11 | 17:42 | 13:29         |
| 31     | 07:40 | 17:26    | 14:14 | 07:10 | 17:44 | 13:26         |

457:54:00

433:06:00

# Febbraio

| giorno | alba  | tramonto | tot.  | off   | on    | funzionamento |
|--------|-------|----------|-------|-------|-------|---------------|
| 1      | 07:39 | 17:27    | 14:12 | 07:09 | 17:45 | 13:24         |
| 2      | 07:39 | 17:29    | 14:10 | 07:09 | 17:47 | 13:22         |
| 3      | 07:37 | 17:30    | 14:07 | 07:07 | 17:48 | 13:19         |
| 4      | 07:36 | 17:31    | 14:05 | 07:06 | 17:49 | 13:17         |
| 5      | 07:34 | 17:33    | 14:01 | 07:04 | 17:51 | 13:13         |
| 6      | 07:33 | 17:34    | 13:59 | 07:03 | 17:52 | 13:11         |
| 7      | 07:32 | 17:36    | 13:56 | 07:02 | 17:54 | 13:08         |
| 8      | 07:30 | 17:37    | 13:53 | 07:00 | 17:55 | 13:05         |
| 9      | 07:29 | 17:39    | 13:50 | 06:59 | 17:57 | 13:02         |
| 10     | 07:28 | 17:40    | 13:48 | 06:58 | 17:58 | 13:00         |
| 11     | 07:26 | 17:41    | 13:45 | 06:56 | 17:59 | 12:57         |
| 12     | 07:25 | 17:43    | 13:42 | 06:55 | 18:01 | 12:54         |
| 13     | 07:23 | 17:44    | 13:39 | 06:53 | 18:02 | 12:51         |
| 14     | 07:22 | 17:46    | 13:36 | 06:52 | 18:04 | 12:48         |
| 15     | 07:21 | 17:47    | 13:34 | 06:51 | 18:05 | 12:46         |
| 16     | 07:19 | 17:49    | 13:30 | 06:49 | 18:07 | 12:42         |
| 17     | 07:18 | 17:50    | 13:28 | 06:48 | 18:08 | 12:40         |
| 18     | 07:17 | 17:52    | 13:25 | 06:47 | 18:10 | 12:37         |
| 19     | 07:15 | 17:53    | 13:22 | 06:45 | 18:11 | 12:34         |
| 20     | 07:13 | 17:54    | 13:19 | 06:43 | 18:12 | 12:31         |
| 21     | 07:11 | 17:56    | 13:15 | 06:41 | 18:14 | 12:27         |
| 22     | 07:10 | 17:57    | 13:13 | 06:40 | 18:15 | 12:25         |
| 23     | 07:08 | 17:58    | 13:10 | 06:38 | 18:16 | 12:22         |
| 24     | 07:06 | 18:00    | 13:06 | 06:36 | 18:18 | 12:18         |
| 25     | 07:05 | 18:01    | 13:04 | 06:35 | 18:19 | 12:16         |
| 26     | 07:03 | 18:03    | 13:00 | 06:33 | 18:21 | 12:12         |
| 27     | 07:01 | 18:04    | 12:57 | 06:31 | 18:22 | 12:09         |
| 28     | 07:00 | 18:05    | 12:55 | 06:30 | 18:23 | 12:07         |
| 29     |       |          |       |       |       |               |
| 30     |       |          |       |       |       |               |
| 31     |       |          |       |       |       |               |

380:01:00

357:37:00

# Marzo

| giorno | alba  | tramonto | tot.  | off   | on    | funzionamento |
|--------|-------|----------|-------|-------|-------|---------------|
| 1      | 06:58 | 18:07    | 12:51 | 06:28 | 18:25 | 12:03         |
| 2      | 06:56 | 18:08    | 12:48 | 06:26 | 18:26 | 12:00         |
| 3      | 06:55 | 18:09    | 12:46 | 06:25 | 18:27 | 11:58         |
| 4      | 06:53 | 18:11    | 12:42 | 06:23 | 18:29 | 11:54         |
| 5      | 06:51 | 18:12    | 12:39 | 06:21 | 18:30 | 11:51         |
| 6      | 06:50 | 18:14    | 12:36 | 06:20 | 18:32 | 11:48         |
| 7      | 06:48 | 18:15    | 12:33 | 06:18 | 18:33 | 11:45         |
| 8      | 06:46 | 18:16    | 12:30 | 06:16 | 18:34 | 11:42         |
| 9      | 06:44 | 18:17    | 12:27 | 06:14 | 18:35 | 11:39         |
| 10     | 06:42 | 18:19    | 12:23 | 06:12 | 18:37 | 11:35         |
| 11     | 06:40 | 18:20    | 12:20 | 06:10 | 18:38 | 11:32         |
| 12     | 06:38 | 18:21    | 12:17 | 06:08 | 18:39 | 11:29         |
| 13     | 06:36 | 18:22    | 12:14 | 06:06 | 18:40 | 11:26         |
| 14     | 06:35 | 18:24    | 12:11 | 06:05 | 18:42 | 11:23         |
| 15     | 06:33 | 18:25    | 12:08 | 06:03 | 18:43 | 11:20         |
| 16     | 06:31 | 18:26    | 12:05 | 06:01 | 18:44 | 11:17         |
| 17     | 06:29 | 18:27    | 12:02 | 05:59 | 18:45 | 11:14         |
| 18     | 06:27 | 18:29    | 11:58 | 05:57 | 18:47 | 11:10         |
| 19     | 06:25 | 18:30    | 11:55 | 05:55 | 18:48 | 11:07         |
| 20     | 06:23 | 18:31    | 11:52 | 05:53 | 18:49 | 11:04         |
| 21     | 06:21 | 18:32    | 11:49 | 05:51 | 18:50 | 11:01         |
| 22     | 06:20 | 18:34    | 11:46 | 05:50 | 18:52 | 10:58         |
| 23     | 06:18 | 18:35    | 11:43 | 05:48 | 18:53 | 10:55         |
| 24     | 06:16 | 18:36    | 11:40 | 05:46 | 18:54 | 10:52         |
| 25     | 06:14 | 18:37    | 11:37 | 05:44 | 18:55 | 10:49         |
| 26     | 07:12 | 19:39    | 11:33 | 06:42 | 19:57 | 10:45         |
| 27     | 07:10 | 19:40    | 11:30 | 06:40 | 19:58 | 10:42         |
| 28     | 07:09 | 19:41    | 11:28 | 06:39 | 19:59 | 10:40         |
| 29     | 07:07 | 19:43    | 11:24 | 06:37 | 20:01 | 10:36         |
| 30     | 07:05 | 19:44    | 11:21 | 06:35 | 20:02 | 10:33         |
| 31     | 07:03 | 19:45    | 11:18 | 06:33 | 20:03 | 10:30         |

374:26:00

349:38:00

# Aprile

| giorno | alba  | tramonto | tot.  | off   | on    | funzionamento |
|--------|-------|----------|-------|-------|-------|---------------|
| 1      | 07:01 | 19:47    | 11:14 | 06:31 | 20:05 | 10:26         |
| 2      | 07:00 | 19:48    | 11:12 | 06:30 | 20:06 | 10:24         |
| 3      | 06:58 | 19:49    | 11:09 | 06:28 | 20:07 | 10:21         |
| 4      | 06:56 | 19:51    | 11:05 | 06:26 | 20:09 | 10:17         |
| 5      | 06:54 | 19:52    | 11:02 | 06:24 | 20:10 | 10:14         |
| 6      | 06:52 | 19:53    | 10:59 | 06:22 | 20:11 | 10:11         |
| 7      | 06:51 | 19:55    | 10:56 | 06:21 | 20:13 | 10:08         |
| 8      | 06:49 | 19:56    | 10:53 | 06:19 | 20:14 | 10:05         |
| 9      | 06:47 | 19:57    | 10:50 | 06:17 | 20:15 | 10:02         |
| 10     | 06:45 | 19:58    | 10:47 | 06:15 | 20:16 | 09:59         |
| 11     | 06:44 | 20:00    | 10:44 | 06:14 | 20:18 | 09:56         |
| 12     | 06:42 | 20:01    | 10:41 | 06:12 | 20:19 | 09:53         |
| 13     | 06:40 | 20:02    | 10:38 | 06:10 | 20:20 | 09:50         |
| 14     | 06:38 | 20:03    | 10:35 | 06:08 | 20:21 | 09:47         |
| 15     | 06:37 | 20:05    | 10:32 | 06:07 | 20:23 | 09:44         |
| 16     | 06:35 | 20:06    | 10:29 | 06:05 | 20:24 | 09:41         |
| 17     | 06:33 | 20:07    | 10:26 | 06:03 | 20:25 | 09:38         |
| 18     | 06:31 | 20:08    | 10:23 | 06:01 | 20:26 | 09:35         |
| 19     | 06:30 | 20:10    | 10:20 | 06:00 | 20:28 | 09:32         |
| 20     | 06:28 | 20:11    | 10:17 | 05:58 | 20:29 | 09:29         |
| 21     | 06:26 | 20:12    | 10:14 | 05:56 | 20:30 | 09:26         |
| 22     | 06:24 | 20:13    | 10:11 | 05:54 | 20:31 | 09:23         |
| 23     | 06:23 | 20:15    | 10:08 | 05:53 | 20:33 | 09:20         |
| 24     | 06:21 | 20:16    | 10:05 | 05:51 | 20:34 | 09:17         |
| 25     | 06:20 | 20:17    | 10:03 | 05:50 | 20:35 | 09:15         |
| 26     | 06:18 | 20:18    | 10:00 | 05:48 | 20:36 | 09:12         |
| 27     | 06:17 | 20:20    | 09:57 | 05:47 | 20:38 | 09:09         |
| 28     | 06:15 | 20:21    | 09:54 | 05:45 | 20:39 | 09:06         |
| 29     | 06:14 | 20:22    | 09:52 | 05:44 | 20:40 | 09:04         |
| 30     | 06:12 | 20:23    | 09:49 | 05:42 | 20:41 | 09:01         |

315:25:00

291:25:00

## Maggio

| giorno | alba  | tramonto | tot.  | off   | on    | funzionamento |
|--------|-------|----------|-------|-------|-------|---------------|
| 1      | 06:11 | 20:25    | 09:46 | 05:41 | 20:43 | 08:58         |
| 2      | 06:09 | 20:26    | 09:43 | 05:39 | 20:44 | 08:55         |
| 3      | 06:08 | 20:27    | 09:41 | 05:38 | 20:45 | 08:53         |
| 4      | 06:06 | 20:28    | 09:38 | 05:36 | 20:46 | 08:50         |
| 5      | 06:05 | 20:30    | 09:35 | 05:35 | 20:48 | 08:47         |
| 6      | 06:03 | 20:31    | 09:32 | 05:33 | 20:49 | 08:44         |
| 7      | 06:02 | 20:32    | 09:30 | 05:32 | 20:50 | 08:42         |
| 8      | 06:00 | 20:33    | 09:27 | 05:30 | 20:51 | 08:39         |
| 9      | 05:59 | 20:35    | 09:24 | 05:29 | 20:53 | 08:36         |
| 10     | 05:57 | 20:36    | 09:21 | 05:27 | 20:54 | 08:33         |
| 11     | 05:56 | 20:37    | 09:19 | 05:26 | 20:55 | 08:31         |
| 12     | 05:55 | 20:38    | 09:17 | 05:25 | 20:56 | 08:29         |
| 13     | 05:54 | 20:39    | 09:15 | 05:24 | 20:57 | 08:27         |
| 14     | 05:53 | 20:40    | 09:13 | 05:23 | 20:58 | 08:25         |
| 15     | 05:52 | 20:41    | 09:11 | 05:22 | 20:59 | 08:23         |
| 16     | 05:51 | 20:42    | 09:09 | 05:21 | 21:00 | 08:21         |
| 17     | 05:50 | 20:44    | 09:06 | 05:20 | 21:02 | 08:18         |
| 18     | 05:48 | 20:45    | 09:03 | 05:18 | 21:03 | 08:15         |
| 19     | 05:47 | 20:46    | 09:01 | 05:17 | 21:04 | 08:13         |
| 20     | 05:46 | 20:47    | 08:59 | 05:16 | 21:05 | 08:11         |
| 21     | 05:45 | 20:48    | 08:57 | 05:15 | 21:06 | 08:09         |
| 22     | 05:44 | 20:49    | 08:55 | 05:14 | 21:07 | 08:07         |
| 23     | 05:43 | 20:50    | 08:53 | 05:13 | 21:08 | 08:05         |
| 24     | 05:42 | 20:51    | 08:51 | 05:12 | 21:09 | 08:03         |
| 25     | 05:41 | 20:53    | 08:48 | 05:11 | 21:11 | 08:00         |
| 26     | 05:40 | 20:53    | 08:47 | 05:10 | 21:11 | 07:59         |
| 27     | 05:40 | 20:54    | 08:46 | 05:10 | 21:12 | 07:58         |
| 28     | 05:39 | 20:55    | 08:44 | 05:09 | 21:13 | 07:56         |
| 29     | 05:39 | 20:56    | 08:43 | 05:09 | 21:14 | 07:55         |
| 30     | 05:38 | 20:57    | 08:41 | 05:08 | 21:15 | 07:53         |
| 31     | 05:38 | 20:57    | 08:41 | 05:08 | 21:15 | 07:53         |

283:56:00

259:08:00

# Giugno

| giorno | alba  | tramonto | tot.  | off   | on    | funzionamento |
|--------|-------|----------|-------|-------|-------|---------------|
| 1      | 05:37 | 20:58    | 08:39 | 05:07 | 21:16 | 07:51         |
| 2      | 05:37 | 20:59    | 08:38 | 05:07 | 21:17 | 07:50         |
| 3      | 05:36 | 21:00    | 08:36 | 05:06 | 21:18 | 07:48         |
| 4      | 05:36 | 21:01    | 08:35 | 05:06 | 21:19 | 07:47         |
| 5      | 05:35 | 21:01    | 08:34 | 05:05 | 21:19 | 07:46         |
| 6      | 05:35 | 21:02    | 08:33 | 05:05 | 21:20 | 07:45         |
| 7      | 05:34 | 21:03    | 08:31 | 05:04 | 21:21 | 07:43         |
| 8      | 05:34 | 21:04    | 08:30 | 05:04 | 21:22 | 07:42         |
| 9      | 05:33 | 21:05    | 08:28 | 05:03 | 21:23 | 07:40         |
| 10     | 05:33 | 21:06    | 08:27 | 05:03 | 21:24 | 07:39         |
| 11     | 05:33 | 21:06    | 08:27 | 05:03 | 21:24 | 07:39         |
| 12     | 05:33 | 21:06    | 08:27 | 05:03 | 21:24 | 07:39         |
| 13     | 05:33 | 21:06    | 08:27 | 05:03 | 21:24 | 07:39         |
| 14     | 05:33 | 21:07    | 08:26 | 05:03 | 21:25 | 07:38         |
| 15     | 05:33 | 21:07    | 08:26 | 05:03 | 21:25 | 07:38         |
| 16     | 05:33 | 21:07    | 08:26 | 05:03 | 21:25 | 07:38         |
| 17     | 05:33 | 21:08    | 08:25 | 05:03 | 21:26 | 07:37         |
| 18     | 05:33 | 21:08    | 08:25 | 05:03 | 21:26 | 07:37         |
| 19     | 05:33 | 21:08    | 08:25 | 05:03 | 21:26 | 07:37         |
| 20     | 05:33 | 21:09    | 08:24 | 05:03 | 21:27 | 07:36         |
| 21     | 05:33 | 21:09    | 08:24 | 05:03 | 21:27 | 07:36         |
| 22     | 05:33 | 21:09    | 08:24 | 05:03 | 21:27 | 07:36         |
| 23     | 05:33 | 21:10    | 08:23 | 05:03 | 21:28 | 07:35         |
| 24     | 05:33 | 21:10    | 08:23 | 05:03 | 21:28 | 07:35         |
| 25     | 05:33 | 21:10    | 08:23 | 05:03 | 21:28 | 07:35         |
| 26     | 05:34 | 21:11    | 08:23 | 05:04 | 21:29 | 07:35         |
| 27     | 05:34 | 21:10    | 08:24 | 05:04 | 21:28 | 07:36         |
| 28     | 05:35 | 21:10    | 08:25 | 05:05 | 21:28 | 07:37         |
| 29     | 05:35 | 21:10    | 08:25 | 05:05 | 21:28 | 07:37         |
| 30     | 05:36 | 21:09    | 08:27 | 05:06 | 21:27 | 07:39         |

253:50:00

229:50:00

# Luglio

| giorno | alba  | tramonto | tot.  | off   | on    | funzionamento |
|--------|-------|----------|-------|-------|-------|---------------|
| 1      | 05:37 | 21:09    | 08:28 | 05:07 | 21:27 | 07:40         |
| 2      | 05:37 | 21:09    | 08:28 | 05:07 | 21:27 | 07:40         |
| 3      | 05:38 | 21:08    | 08:30 | 05:08 | 21:26 | 07:42         |
| 4      | 05:39 | 21:08    | 08:31 | 05:09 | 21:26 | 07:43         |
| 5      | 05:39 | 21:08    | 08:31 | 05:09 | 21:26 | 07:43         |
| 6      | 05:40 | 21:07    | 08:33 | 05:10 | 21:25 | 07:45         |
| 7      | 05:40 | 21:07    | 08:33 | 05:10 | 21:25 | 07:45         |
| 8      | 05:41 | 21:07    | 08:34 | 05:11 | 21:25 | 07:46         |
| 9      | 05:42 | 21:06    | 08:36 | 05:12 | 21:24 | 07:48         |
| 10     | 05:42 | 21:06    | 08:36 | 05:12 | 21:24 | 07:48         |
| 11     | 05:43 | 21:06    | 08:37 | 05:13 | 21:24 | 07:49         |
| 12     | 05:44 | 21:06    | 08:38 | 05:14 | 21:24 | 07:50         |
| 13     | 05:45 | 21:05    | 08:40 | 05:15 | 21:23 | 07:52         |
| 14     | 05:46 | 21:04    | 08:42 | 05:16 | 21:22 | 07:54         |
| 15     | 05:47 | 21:03    | 08:44 | 05:17 | 21:21 | 07:56         |
| 16     | 05:48 | 21:02    | 08:46 | 05:18 | 21:20 | 07:58         |
| 17     | 05:49 | 21:01    | 08:48 | 05:19 | 21:19 | 08:00         |
| 18     | 05:50 | 21:00    | 08:50 | 05:20 | 21:18 | 08:02         |
| 19     | 05:51 | 20:59    | 08:52 | 05:21 | 21:17 | 08:04         |
| 20     | 05:52 | 20:59    | 08:53 | 05:22 | 21:17 | 08:05         |
| 21     | 05:53 | 20:58    | 08:55 | 05:23 | 21:16 | 08:07         |
| 22     | 05:54 | 20:57    | 08:57 | 05:24 | 21:15 | 08:09         |
| 23     | 05:55 | 20:56    | 08:59 | 05:25 | 21:14 | 08:11         |
| 24     | 05:56 | 20:55    | 09:01 | 05:26 | 21:13 | 08:13         |
| 25     | 05:57 | 20:54    | 09:03 | 05:27 | 21:12 | 08:15         |
| 26     | 05:58 | 20:53    | 09:05 | 05:28 | 21:11 | 08:17         |
| 27     | 05:59 | 20:52    | 09:07 | 05:29 | 21:10 | 08:19         |
| 28     | 06:00 | 20:52    | 09:08 | 05:30 | 21:10 | 08:20         |
| 29     | 06:01 | 20:50    | 09:11 | 05:31 | 21:08 | 08:23         |
| 30     | 06:02 | 20:49    | 09:13 | 05:32 | 21:07 | 08:25         |
| 31     | 06:03 | 20:47    | 09:16 | 05:33 | 21:05 | 08:28         |

272:45:00

247:57:00

# Agosto

| giorno | alba  | tramonto | tot.  | off   | on    | funzionamento |
|--------|-------|----------|-------|-------|-------|---------------|
| 1      | 06:04 | 20:46    | 09:18 | 05:34 | 21:04 | 08:30         |
| 2      | 06:05 | 20:45    | 09:20 | 05:35 | 21:03 | 08:32         |
| 3      | 06:07 | 20:43    | 09:24 | 05:37 | 21:01 | 08:36         |
| 4      | 06:08 | 20:42    | 09:26 | 05:38 | 21:00 | 08:38         |
| 5      | 06:09 | 20:41    | 09:28 | 05:39 | 20:59 | 08:40         |
| 6      | 06:10 | 20:39    | 09:31 | 05:40 | 20:57 | 08:43         |
| 7      | 06:11 | 20:38    | 09:33 | 05:41 | 20:56 | 08:45         |
| 8      | 06:13 | 20:36    | 09:37 | 05:43 | 20:54 | 08:49         |
| 9      | 06:14 | 20:35    | 09:39 | 05:44 | 20:53 | 08:51         |
| 10     | 06:15 | 20:34    | 09:41 | 05:45 | 20:52 | 08:53         |
| 11     | 06:16 | 20:32    | 09:44 | 05:46 | 20:50 | 08:56         |
| 12     | 06:17 | 20:31    | 09:46 | 05:47 | 20:49 | 08:58         |
| 13     | 06:19 | 20:30    | 09:49 | 05:49 | 20:48 | 09:01         |
| 14     | 06:20 | 20:28    | 09:52 | 05:50 | 20:46 | 09:04         |
| 15     | 06:21 | 20:26    | 09:55 | 05:51 | 20:44 | 09:07         |
| 16     | 06:22 | 20:24    | 09:58 | 05:52 | 20:42 | 09:10         |
| 17     | 06:23 | 20:23    | 10:00 | 05:53 | 20:41 | 09:12         |
| 18     | 06:24 | 20:21    | 10:03 | 05:54 | 20:39 | 09:15         |
| 19     | 06:26 | 20:19    | 10:07 | 05:56 | 20:37 | 09:19         |
| 20     | 06:27 | 20:18    | 10:09 | 05:57 | 20:36 | 09:21         |
| 21     | 06:28 | 20:16    | 10:12 | 05:58 | 20:34 | 09:24         |
| 22     | 06:29 | 20:14    | 10:15 | 05:59 | 20:32 | 09:27         |
| 23     | 06:30 | 20:13    | 10:17 | 06:00 | 20:31 | 09:29         |
| 24     | 06:32 | 20:11    | 10:21 | 06:02 | 20:29 | 09:33         |
| 25     | 06:33 | 20:09    | 10:24 | 06:03 | 20:27 | 09:36         |
| 26     | 06:34 | 20:08    | 10:26 | 06:04 | 20:26 | 09:38         |
| 27     | 06:35 | 20:06    | 10:29 | 06:05 | 20:24 | 09:41         |
| 28     | 06:36 | 20:04    | 10:32 | 06:06 | 20:22 | 09:44         |
| 29     | 06:38 | 20:03    | 10:35 | 06:08 | 20:21 | 09:47         |
| 30     | 06:39 | 20:01    | 10:38 | 06:09 | 20:19 | 09:50         |
| 31     | 06:40 | 19:59    | 10:41 | 06:10 | 20:17 | 09:53         |

309:10:00

284:22:00

# Settembre

| giorno | alba  | tramonto | tot.  | off   | on    | funzionamento |
|--------|-------|----------|-------|-------|-------|---------------|
| 1      | 06:41 | 19:57    | 10:44 | 06:11 | 20:15 | 09:56         |
| 2      | 06:42 | 19:55    | 10:47 | 06:12 | 20:13 | 09:59         |
| 3      | 06:43 | 19:53    | 10:50 | 06:13 | 20:11 | 10:02         |
| 4      | 06:45 | 19:52    | 10:53 | 06:15 | 20:10 | 10:05         |
| 5      | 06:46 | 19:50    | 10:56 | 06:16 | 20:08 | 10:08         |
| 6      | 06:47 | 19:48    | 10:59 | 06:17 | 20:06 | 10:11         |
| 7      | 06:48 | 19:46    | 11:02 | 06:18 | 20:04 | 10:14         |
| 8      | 06:49 | 19:44    | 11:05 | 06:19 | 20:02 | 10:17         |
| 9      | 06:51 | 19:43    | 11:08 | 06:21 | 20:01 | 10:20         |
| 10     | 06:52 | 19:41    | 11:11 | 06:22 | 19:59 | 10:23         |
| 11     | 06:53 | 19:39    | 11:14 | 06:23 | 19:57 | 10:26         |
| 12     | 06:54 | 19:37    | 11:17 | 06:24 | 19:55 | 10:29         |
| 13     | 06:55 | 19:35    | 11:20 | 06:25 | 19:53 | 10:32         |
| 14     | 06:57 | 19:34    | 11:23 | 06:27 | 19:52 | 10:35         |
| 15     | 06:58 | 19:32    | 11:26 | 06:28 | 19:50 | 10:38         |
| 16     | 06:59 | 19:30    | 11:29 | 06:29 | 19:48 | 10:41         |
| 17     | 07:00 | 19:28    | 11:32 | 06:30 | 19:46 | 10:44         |
| 18     | 07:01 | 19:26    | 11:35 | 06:31 | 19:44 | 10:47         |
| 19     | 07:02 | 19:24    | 11:38 | 06:32 | 19:42 | 10:50         |
| 20     | 07:04 | 19:22    | 11:42 | 06:34 | 19:40 | 10:54         |
| 21     | 07:05 | 19:20    | 11:45 | 06:35 | 19:38 | 10:57         |
| 22     | 07:06 | 19:19    | 11:47 | 06:36 | 19:37 | 10:59         |
| 23     | 07:07 | 19:17    | 11:50 | 06:37 | 19:35 | 11:02         |
| 24     | 07:08 | 19:15    | 11:53 | 06:38 | 19:33 | 11:05         |
| 25     | 07:10 | 19:13    | 11:57 | 06:40 | 19:31 | 11:09         |
| 26     | 07:11 | 19:11    | 12:00 | 06:41 | 19:29 | 11:12         |
| 27     | 07:12 | 19:09    | 12:03 | 06:42 | 19:27 | 11:15         |
| 28     | 07:13 | 19:07    | 12:06 | 06:43 | 19:25 | 11:18         |
| 29     | 07:14 | 19:05    | 12:09 | 06:44 | 19:23 | 11:21         |
| 30     | 07:16 | 19:04    | 12:12 | 06:46 | 19:22 | 11:24         |

343:53:00

319:53:00

# Ottobre

| giorno | alba  | tramonto | tot.  | off   | on    | funzionamento |
|--------|-------|----------|-------|-------|-------|---------------|
| 1      | 07:17 | 19:02    | 12:15 | 06:47 | 19:20 | 11:27         |
| 2      | 07:18 | 19:00    | 12:18 | 06:48 | 19:18 | 11:30         |
| 3      | 07:19 | 18:58    | 12:21 | 06:49 | 19:16 | 11:33         |
| 4      | 07:21 | 18:56    | 12:25 | 06:51 | 19:14 | 11:37         |
| 5      | 07:22 | 18:54    | 12:28 | 06:52 | 19:12 | 11:40         |
| 6      | 07:23 | 18:52    | 12:31 | 06:53 | 19:10 | 11:43         |
| 7      | 07:24 | 18:50    | 12:34 | 06:54 | 19:08 | 11:46         |
| 8      | 07:26 | 18:49    | 12:37 | 06:56 | 19:07 | 11:49         |
| 9      | 07:27 | 18:47    | 12:40 | 06:57 | 19:05 | 11:52         |
| 10     | 07:28 | 18:45    | 12:43 | 06:58 | 19:03 | 11:55         |
| 11     | 07:29 | 18:43    | 12:46 | 06:59 | 19:01 | 11:58         |
| 12     | 07:31 | 18:41    | 12:50 | 07:01 | 18:59 | 12:02         |
| 13     | 07:32 | 18:39    | 12:53 | 07:02 | 18:57 | 12:05         |
| 14     | 07:33 | 18:37    | 12:56 | 07:03 | 18:55 | 12:08         |
| 15     | 07:34 | 18:35    | 12:59 | 07:04 | 18:53 | 12:11         |
| 16     | 07:36 | 18:34    | 13:02 | 07:06 | 18:52 | 12:14         |
| 17     | 07:37 | 18:32    | 13:05 | 07:07 | 18:50 | 12:17         |
| 18     | 07:38 | 18:30    | 13:08 | 07:08 | 18:48 | 12:20         |
| 19     | 07:40 | 18:29    | 13:11 | 07:10 | 18:47 | 12:23         |
| 20     | 07:41 | 18:27    | 13:14 | 07:11 | 18:45 | 12:26         |
| 21     | 07:42 | 18:26    | 13:16 | 07:12 | 18:44 | 12:28         |
| 22     | 07:44 | 18:24    | 13:20 | 07:14 | 18:42 | 12:32         |
| 23     | 07:45 | 18:23    | 13:22 | 07:15 | 18:41 | 12:34         |
| 24     | 07:47 | 18:21    | 13:26 | 07:17 | 18:39 | 12:38         |
| 25     | 07:48 | 18:19    | 13:29 | 07:18 | 18:37 | 12:41         |
| 26     | 07:49 | 18:18    | 13:31 | 07:19 | 18:36 | 12:43         |
| 27     | 07:51 | 18:16    | 13:35 | 07:21 | 18:34 | 12:47         |
| 28     | 07:52 | 18:15    | 13:37 | 07:22 | 18:33 | 12:49         |
| 29     | 06:53 | 17:13    | 13:40 | 06:23 | 17:31 | 12:52         |
| 30     | 06:55 | 17:12    | 13:43 | 06:25 | 17:30 | 12:55         |
| 31     | 06:56 | 17:10    | 13:46 | 06:26 | 17:28 | 12:58         |

403:41:00

378:53:00

# Novembre

| giorno | alba  | tramonto | tot.  | off   | on    | funzionamento |
|--------|-------|----------|-------|-------|-------|---------------|
| 1      | 06:58 | 17:09    | 13:49 | 06:28 | 17:27 | 13:01         |
| 2      | 06:59 | 17:07    | 13:52 | 06:29 | 17:25 | 13:04         |
| 3      | 07:00 | 17:06    | 13:54 | 06:30 | 17:24 | 13:06         |
| 4      | 07:02 | 17:05    | 13:57 | 06:32 | 17:23 | 13:09         |
| 5      | 07:03 | 17:04    | 13:59 | 06:33 | 17:22 | 13:11         |
| 6      | 07:04 | 17:02    | 14:02 | 06:34 | 17:20 | 13:14         |
| 7      | 07:06 | 17:01    | 14:05 | 06:36 | 17:19 | 13:17         |
| 8      | 07:07 | 17:00    | 14:07 | 06:37 | 17:18 | 13:19         |
| 9      | 07:09 | 16:59    | 14:10 | 06:39 | 17:17 | 13:22         |
| 10     | 07:10 | 16:57    | 14:13 | 06:40 | 17:15 | 13:25         |
| 11     | 07:11 | 16:56    | 14:15 | 06:41 | 17:14 | 13:27         |
| 12     | 07:13 | 16:55    | 14:18 | 06:43 | 17:13 | 13:30         |
| 13     | 07:14 | 16:54    | 14:20 | 06:44 | 17:12 | 13:32         |
| 14     | 07:15 | 16:52    | 14:23 | 06:45 | 17:10 | 13:35         |
| 15     | 07:17 | 16:51    | 14:26 | 06:47 | 17:09 | 13:38         |
| 16     | 07:18 | 16:50    | 14:28 | 06:48 | 17:08 | 13:40         |
| 17     | 07:20 | 16:49    | 14:31 | 06:50 | 17:07 | 13:43         |
| 18     | 07:21 | 16:48    | 14:33 | 06:51 | 17:06 | 13:45         |
| 19     | 07:22 | 16:47    | 14:35 | 06:52 | 17:05 | 13:47         |
| 20     | 07:23 | 16:47    | 14:36 | 06:53 | 17:05 | 13:48         |
| 21     | 07:25 | 16:46    | 14:39 | 06:55 | 17:04 | 13:51         |
| 22     | 07:26 | 16:45    | 14:41 | 06:56 | 17:03 | 13:53         |
| 23     | 07:27 | 16:45    | 14:42 | 06:57 | 17:03 | 13:54         |
| 24     | 07:28 | 16:44    | 14:44 | 06:58 | 17:02 | 13:56         |
| 25     | 07:30 | 16:44    | 14:46 | 07:00 | 17:02 | 13:58         |
| 26     | 07:31 | 16:43    | 14:48 | 07:01 | 17:01 | 14:00         |
| 27     | 07:32 | 16:42    | 14:50 | 07:02 | 17:00 | 14:02         |
| 28     | 07:33 | 16:42    | 14:51 | 07:03 | 17:00 | 14:03         |
| 29     | 07:35 | 16:41    | 14:54 | 07:05 | 16:59 | 14:06         |
| 30     | 07:36 | 16:40    | 14:56 | 07:06 | 16:58 | 14:08         |

432:24:00

408:24:00

# Dicembre

| giorno | alba  | tramonto | tot.  | off   | on    | funzionamento |
|--------|-------|----------|-------|-------|-------|---------------|
| 1      | 07:37 | 16:40    | 14:57 | 07:07 | 16:58 | 14:09         |
| 2      | 07:38 | 16:39    | 14:59 | 07:08 | 16:57 | 14:11         |
| 3      | 07:40 | 16:39    | 15:01 | 07:10 | 16:57 | 14:13         |
| 4      | 07:40 | 16:39    | 15:01 | 07:10 | 16:57 | 14:13         |
| 5      | 07:41 | 16:39    | 15:02 | 07:11 | 16:57 | 14:14         |
| 6      | 07:42 | 16:39    | 15:03 | 07:12 | 16:57 | 14:15         |
| 7      | 07:43 | 16:39    | 15:04 | 07:13 | 16:57 | 14:16         |
| 8      | 07:44 | 16:39    | 15:05 | 07:14 | 16:57 | 14:17         |
| 9      | 07:45 | 16:39    | 15:06 | 07:15 | 16:57 | 14:18         |
| 10     | 07:46 | 16:39    | 15:07 | 07:16 | 16:57 | 14:19         |
| 11     | 07:47 | 16:39    | 15:08 | 07:17 | 16:57 | 14:20         |
| 12     | 07:47 | 16:39    | 15:08 | 07:17 | 16:57 | 14:20         |
| 13     | 07:48 | 16:39    | 15:09 | 07:18 | 16:57 | 14:21         |
| 14     | 07:49 | 16:39    | 15:10 | 07:19 | 16:57 | 14:22         |
| 15     | 07:50 | 16:39    | 15:11 | 07:20 | 16:57 | 14:23         |
| 16     | 07:51 | 16:39    | 15:12 | 07:21 | 16:57 | 14:24         |
| 17     | 07:52 | 16:39    | 15:13 | 07:22 | 16:57 | 14:25         |
| 18     | 07:53 | 16:39    | 15:14 | 07:23 | 16:57 | 14:26         |
| 19     | 07:54 | 16:40    | 15:14 | 07:24 | 16:58 | 14:26         |
| 20     | 07:54 | 16:40    | 15:14 | 07:24 | 16:58 | 14:26         |
| 21     | 07:54 | 16:41    | 15:13 | 07:24 | 16:59 | 14:25         |
| 22     | 07:54 | 16:42    | 15:12 | 07:24 | 17:00 | 14:24         |
| 23     | 07:55 | 16:42    | 15:13 | 07:25 | 17:00 | 14:25         |
| 24     | 07:55 | 16:43    | 15:12 | 07:25 | 17:01 | 14:24         |
| 25     | 07:55 | 16:44    | 15:11 | 07:25 | 17:02 | 14:23         |
| 26     | 07:56 | 16:44    | 15:12 | 07:26 | 17:02 | 14:24         |
| 27     | 07:56 | 16:45    | 15:11 | 07:26 | 17:03 | 14:23         |
| 28     | 07:56 | 16:46    | 15:10 | 07:26 | 17:04 | 14:22         |
| 29     | 07:57 | 16:46    | 15:11 | 07:27 | 17:04 | 14:23         |
| 30     | 07:57 | 16:47    | 15:10 | 07:27 | 17:05 | 14:22         |
| 31     | 07:57 | 16:48    | 15:09 | 07:27 | 17:06 | 14:21         |

469:22:00

444:34:00

|                            |            |
|----------------------------|------------|
| totale ore tramonto - alba | 4296:47:00 |
| ore funzionamento          | 4004:47:00 |
| discrepanza in ore         | 296        |
| discrepanza in minuti      | 17760      |
| discrepanza giornaliera    | 48,65      |

Per gli orari di parzializzazione del flusso luminoso, occorre fare riferimento a quanto riportato per ciascun punto luce nel documento progettuale "Legenda e distinta corpi illuminanti", dove sono indicati gli orari di parzializzazione e la percentuale di riduzione alla colonna "Dispositivi di regolazione del nuovo apparecchio", recepiti da quanto era indicato nel Piano dell'Illuminazione approvato.