**TABLE 1.** Characteristics of the studies included in this meta-analysis. BLT: bright light therapy, PLC: placebo, HDRS: Hamilton Depression Rating Scale, SIGH-SAD(-SR): Structured Interview Guide for the HDRS, SAD version (self rating), BDI: Beck Depression Inventory.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Study** | **N** | **Timing of treatment** | **Type of BLT** | **Illuminance BLT (lux)** | **Type of placebo** | **Illuminance PLC (lux)** | **Duration per day (minutes)** | **Duration (days)** | **Scale** | **Medication** |
| Rosenthal et al. 1984 [[2](#_ENREF_2)] | 7 | Morning & evening | Light box | 2500 | Dim light | 100 | 360 | 14 | HDRS-23 | None |
| Rosenthal et al. 1985 [[83](#_ENREF_83)] | 16 | Morning | Light box | 2500 | Dim light | 300 | 180 | 14 | HDRS-21 | None |
| Wirz-Justice et al. 1986 [[64](#_ENREF_64)] | 11 | Morning & evening | Light box | 2500 | Dim light | 250 | 120 | 7 | HDRS-21 | Stable |
| Grota et al. 1989 [[63](#_ENREF_63)] | 16 | Evening | Light box | 2000 | Dim light | 300 | 120 | 7 | Modified HDRS | None |
| Magnusson et al. 1991 [[61](#_ENREF_61)] | 10 | Morning | Light box | 10000 | Dim light | 400 | 40 | 8 | SIGH-SAD | None |
| Eastman et al. 1992 [[55](#_ENREF_55)] | 32 | Morning | Light box | 7000 | Sham negative ion generator | 0 | 60 | 14 | SIGH-SAD-24 | None |
| Levitt et al. 1994 [[53](#_ENREF_53)] | 43 | Morning | Light visor | 4106 | Dim light visor | 96 | 30 | 14 | HDRS-21 | Stable |
| Martinez et al. 1994 [[71](#_ENREF_71)] | 20 | Morning | Light box | 3000 | Dim light | 300 | 120 | 28 | HDRS | Hypericin 900mg |
| Levitt et al. 1996 [[70](#_ENREF_70)] | 31 | Morning | Light box | 5000-10000 | Dim light or Sham light visor | 0 | 30 | 14 | SIGH-SAD-24 | Stable |
| Michalon et al. 1997 [[72](#_ENREF_72)] | 29 | Morning | Light box | 2500 | Dim light | 300 | 120 | 14 | SIGH-SAD | None |
| Eastman et al. 1998 [[56](#_ENREF_56)] | 64 | Morning | Light box | 6000 | Sham negative ion generator | 0 | 90 | 28 | BDI | None |
| Terman et al. 1998 [[58](#_ENREF_58)] | 65 | Morning | Light box | 10000 | Sham negative ion generator | 0 | 30 | 10-14 | SIGH-SAD | None |
| Avery et al. 2001 [[73](#_ENREF_73)] | 64 | Morning | Light box | 10000 | Dim light | 0,5 | 30 (BLT) 90 (PLC) | 42 | SIGH-SAD | None |
| Wileman et al. 2001 [[60](#_ENREF_60)] | 48 | Morning | Light box | 10000 | Dim light | 500 | 30 | 28 | SIGH-SAD-SR | Stable |
| Terman et al. 2006 [[57](#_ENREF_57)] | 37 | Morning | Light box | 10000 | Sham negative ion generator | 0 | 30 | 19-23 | SIGH-SAD | None |
| Desan et al. 2007 [[54](#_ENREF_54)] | 23 | Morning | Light box | 1350 | Sham negative ion generator | 0 | 30 | 28 | SIGH-SAD | None |
| Flory et al. 2010 [[59](#_ENREF_59)] | 55 | Morning | Light box | 10000 | Dim light or low density negative ion generator | 300 | 30 | 12 | SIGH-SAD-SR | Stable |
| Reeves et al. 2012 [[62](#_ENREF_62)] | 79 | >11:00 a.m. | Light box | 10000 | Dim light | 50 | 60 | 1 | BDI-II | None |
| Spies et al. 2018 [[21](#_ENREF_21)] | 21 | Morning | Light box | 10000 | Dim light | 400 | 30 | 21 | HDRS-24 | None |

**Table 2.** Risk of bias of included studies based on the Cochrane Collaboration’s tool for assessing risk of bias (RoB 2) [[42](#_ENREF_42)]. +: low risk of bias, ~: some risk of bias, -: high risk of bias.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Study** | **Randomization process** | **Adherence to intervention** | **Missing outcome data** | **Measurement of the outcome** | **Selective outcome reporting** | **Overall risk** |
| Rosenthal et al. 1984 [[2](#_ENREF_2)] | **+** | **-** | **+** | **+** | **+** | **-** |
| Rosenthal et al. 1985 [[83](#_ENREF_83)] | **+** | **-** | **+** | **+** | **+** | **-** |
| Wirz-Justice et al. 1986 [[64](#_ENREF_64)] | **+** | **-** | **+** | **~** | **+** | **-** |
| Grota et al. 1989 [[63](#_ENREF_63)] | **~** | **-** | **+** | **+** | **+** | **-** |
| Magnusson et al. 1991 [[61](#_ENREF_61)] | **~** | **+** | **+** | **+** | **+** | **~** |
| Eastman et al. 1992 [[55](#_ENREF_55)] | **-** | **+** | **+** | **+** | **+** | **-** |
| Levitt et al. 1994 [[53](#_ENREF_53)] | **~** | **-** | **+** | **+** | **+** | **-** |
| Martinez et al. 1994 [[71](#_ENREF_71)] | **+** | **-** | **+** | **-** | **+** | **-** |
| Levitt et al. 1996 [[70](#_ENREF_70)] | **+** | **-** | **+** | **+** | **+** | **-** |
| Michalon et al. 1997 [[72](#_ENREF_72)] | **~** | **+** | **+** | **+** | **+** | **~** |
| Eastman et al. 1998 [[56](#_ENREF_56)] | **-** | **+** | **+** | **+** | **+** | **-** |
| Terman et al. 1998 [[58](#_ENREF_58)] | **~** | **+** | **+** | **+** | **+** | **~** |
| Avery et al. 2001 [[73](#_ENREF_73)] | **~** | **-** | **+** | **+** | **-** | **-** |
| Wileman et al. 2001 [[60](#_ENREF_60)] | **+** | **-** | **+** | **+** | **+** | **-** |
| Terman et al. 2006 [[57](#_ENREF_57)] | **~** | **+** | **+** | **+** | **+** | **~** |
| Desan et al. 2007 [[54](#_ENREF_54)] | **+** | **+** | **+** | **+** | **+** | **+** |
| Flory et al. 2010 [[59](#_ENREF_59)] | **~** | **+** | **~** | **+** | **+** | **~** |
| Reeves et al. 2012 [[62](#_ENREF_62)] | **~** | **+** | **+** | **+** | **+** | **~** |
| Spies et al. 2018 [[21](#_ENREF_21)] | **+** | **+** | **+** | **+** | **+** | **+** |

**Figure 1.** Flow chart of the selection of studies during this systematic review based on the PRISMA statement [[96](#_ENREF_96)].

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**Figure 2.** Forest plot for primary outcome (depression scores) of included studies. BLT: bright light therapy, PLC: placebo, SD: standard deviation, SMD: standardized mean difference, 95%-CI: 95% confidence intervals.



**Figure 3.** Forest plot for secondary outcome (response rates) of included studies. BLT: bright light therapy, PLC: placebo, RR: risk ratio, 95%-CI: 95% confidence intervals.



**Figure 3.** Contour enhanced funnel plot for primary outcome (depression scores) of included studies. The areas of statistical significance are indicated by different shades of gray; see Peters et al. [[97](#_ENREF_97)] for more details.



**Figure 4.** Contour enhanced funnel plot for secondary outcome (response rates) of included studies. The areas of statistical significance are indicated by different shades of gray; see Peters et al. [[97](#_ENREF_97)] for more details. Note: Two data points (Levitt et al. 1996 and Wileman et al. 2001) have been slightly adjusted to avoid overlapping labels.



**Figure 5.** Forest plot of leave-one-out meta-analysis for primary outcome (depression scores).



**Figure 6.** Forest plot of leave-one-out meta-analysis for secondary outcome (response rates).

