

## Seasonal Affective Disorder Light Therapy Product Comparison Chart

(This chart represents some of the available light boxes in the U.S. and Canada)

| Product Name           | Brand/Information   | Cost <sup>a</sup> | 10,000 Lux Intensity <sup>b</sup> | UV Exposure <sup>c</sup>     | Weight, Other Features  |
|------------------------|---|-------------------|-----------------------------------|------------------------------|---|
| Bio-Light Executive    | Enviro-Med*<br>800 222 3296<br>www.Bio-Light.com                                  | \$399             | 19 inches                         | Broad Spectrum               | 6.5 lbs., variable intensity settings                           |
| Bio-Light Solar Deluxe | Enviro-Med*<br>800 222 3296<br>www.Bio-Light.com                                  | \$420             | 24 inches                         | Broad Spectrum               | 9 lbs.  |
| Bio-Light Ultra        | Enviro-Med*<br>800 222 3296<br>www.Bio-Light.com                                  | \$299             | 20 inches                         | Broad Spectrum               | 9 lbs.  |
| BOX-elite              | Northern Light Technologies*<br>800 263 0066<br>www.northernlighttechnologies.com | \$290             | 24 inches                         | Broad Spectrum               | 6 lbs.  |
| Brite Lite III         | Apollo Health<br>800 545 9667<br>www.apollolight.com                              | \$249             | 24 inches                         | Full Spectrum with UV filter | 6 lbs.  |
| Brite Lite IV          | Apollo Health<br>800 545 9667<br>www.apollolight.com                              | \$329             | 28 inches                         | Full Spectrum with UV filter | 7.5 lbs., for 1 to 2 users                                      |
| Brite Lite V           | Apollo Health<br>800 545 9667<br>www.apollolight.com                              | \$449             | 36 inches                         | Full Spectrum with UV filter | 12 lbs., for 2 or more users, adjustable intensity levels       |
| Flamingo               | Northern Light Technologies*<br>800 263 0066<br>www.northernlighttechnologies.com | \$260             | 12 inches                         | Broad Spectrum               | 15 lbs., floor lamp model                                       |
| goLITE P1              | Apollo Health<br>800 545 9667<br>www.apollolight.com                              | \$249             | 20 inches                         | Broad Spectrum               | 0.7 lbs., for travel, programmable clock, optional battery pack |
| NorthStar 10,000       | Alaska Northern Lights<br>888 880 6953<br>www.alaskanorthernlights.com            | \$239             | 24 inches                         | Broad Spectrum               | 10 lbs.   |
| SADelite               | Northern Light Technologies*<br>800 263 0066<br>www.northernlighttechnologies.com | \$225             | 18 inches                         | Broad Spectrum               | 8 lbs., Desk lamp style, adjustable angles                      |

| <b>Product Name</b> | <b>Brand/Information</b>  | <b>Cost<sup>a</sup></b> | <b>10,000 Lux Intensity<sup>b</sup></b> | <b>UV Exposure<sup>c</sup></b>          | <b>Weight, Other Features</b>  |
|---------------------|---|-------------------------|---|---|--|
| Satellite Desk Lamp | Bio-Brite, Inc.*<br>800 621 5483<br>www.biobrite.com  | \$255                   | 20 inches                               | Full Spectrum with UV filter            | 10 lbs., Desk lamp style, adjustable angles                                |
| Sun Touch Plus      | Apollo Health<br>800 545 9667<br>www.apollolight.com  | \$279                   | 18 inches                               | Full Spectrum with UV filter            | 8 lbs.   |
| SunBox DL           | The SunBox Company*<br>800 548 3968<br>www.sunbox.com   | \$249                   | 14 inches                               | Full Spectrum with ultraviolet diffuser | 6 lbs., Desk lamp style  |
| SunLight Jr.        | The SunBox Company*<br>800 548 3968<br>www.sunbox.com   | \$225                   | 14 inches                               | Full Spectrum with ultraviolet diffuser | 4 lbs., for travel   |
| SunRay              | The SunBox Company*<br>800 548 3968<br>www.sunbox.com   | \$399                   | 18.5 inches                             | Full Spectrum with ultraviolet diffuser | 14 lbs., downward angle  |
| SunRayII            | The SunBox Company*<br>800 548 3968<br>www.sunbox.com   | \$449                   | 23 inches (high)<br>14 inches (low)     | Full Spectrum with ultraviolet diffuser | 16.5 lbs., downward angle, dual settings                                   |
| SunSation           | The SunBox Company*<br>800 548 3968<br>www.sunbox.com   | \$237                   | 14 inches                               | Full Spectrum with ultraviolet diffuser | 3.5 lbs., downward angle, detachable desk stand included, light for travel |
| SunSquare+          | The SunBox Company*<br>800 548 3968<br>www.sunbox.com   | \$525                   | 27 inches (high)<br>17 inches (low)     | Full Spectrum with ultraviolet diffuser | 34.5 lbs., downward angle, box plus stand, dual settings                   |
| The Litebook        | The Litebook Company Ltd.*<br>877 723 5483<br>www.litebook.com<br>Available through authorized resellers. | \$203                   | 4 inches                                | Broad Spectrum                          | 0.5 lbs., portable for travel, light emitting diode technology             |

| <b>Product Name</b> | <b>Brand/Information</b>  | <b>Cost<sup>a</sup></b> | <b>10,000 Lux Intensity<sup>b</sup></b> | <b>UV Exposure<sup>c</sup></b>               | <b>Weight, Other Features</b>        |
|---------------------|---|-------------------------|---|--|--------------------------------------|
| TRAVelite           | Northern Light Technologies*<br>800 263 0066<br>www.northernlighttechnologies.com | \$195                   | 12 inches                               | Broad Spectrum                               | 2.5 lbs., portable                   |
| Travel Lite         | Bio-Brite, Inc.*<br>800 621 5483<br>www.biobrite.com                              | \$200                   | 10 inches                               | Full Spectrum with UV filter                 | 2 lbs., portable                     |
| UltraLux            | Full Spectrum Solutions<br>888 574 7014<br>www.fullspectrumolutions.com           | \$200                   | 12 inches                               | Full Spectrum (without ultraviolet spectrum) | 15 lbs., Floor lamp, includes dimmer |
| UltraLux Desk Lamp  | Full Spectrum Solutions<br>888 574 7014<br>www.fullspectrumolutions.com           | \$170                   | 12 inches                               | Full Spectrum (without ultraviolet spectrum) | 7 lbs., Desk lamp style              |
| UltraLux I          | Full Spectrum Solutions<br>888 574 7014<br>www.fullspectrumolutions.com           | \$349                   | 16 inches                               | Full Spectrum (without ultraviolet spectrum) | 6 lbs., includes dimmer              |
| UltraLux II         | Full Spectrum Solutions<br>888 574 7014<br>www.fullspectrumolutions.com           | \$499                   | 24 inches                               | Full Spectrum (without ultraviolet spectrum) | 7 lbs.                               |

- <sup>a.</sup> Cost information is approximate as of the time this chart was prepared. It is based on the manufacturer-stated Internet website price in U.S. dollars including shipping. Actual selling prices may differ.
- <sup>b.</sup> The 10,000 lux intensity is rated at the shown distance as specified by the manufacturer at the time this chart was prepared.
- <sup>c.</sup> Full spectrum light includes the ultraviolet (UV) spectrum. Filters or diffusers are used to eliminate UV spectrum. Broad spectrum light excludes the UV spectrum.
- \* A Circadian Lighting Association member company. This association sets product standards for manufacturer members to assure safety, quality, and customers' confidence



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## Seasonal Affective Disorder (SAD) Light Therapy

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Seasonal Affective Disorder (SAD) is a seasonal form of clinical depression typically seen in the fall and winter. It affects an estimated six percent of the U.S. population and two to three percent of the Canadian population. It is more common in women than men. It is not a self-diagnosable ailment. SAD can cause problems in functioning both at work and in one's personal life.<sup>1,2</sup> The American Psychiatric Association guidelines on major depressive disorders recommend the entire range of depressive treatments for SAD, in combination with or as an alternative to light therapy. Light therapy is considered adjunctive to psychopharmacologic therapies for severe forms of SAD.<sup>3</sup>

SAD is thought to be caused by the light-dark cycle or photoperiodic mechanisms that mediate seasonal rhythms. Other theories involve neurotransmitter or neurohormonal systems, including melatonin, serotonin, tryptophan, and dopamine.<sup>4</sup> The antidepressant effects of increased serotonin are well recognized as is the relationship of darkness to increased melatonin production that leads to sleepiness.

Effective light therapy is achieved by exposure to 10,000 lux cool-white light. Distance of exposure from the light to the person is specific for 10,000 lux intensity rating. Lower intensity-rated products are available but require closer distances and extended exposure. Boxes are equipped with either full spectrum or broad spectrum lights. Full spectrum lights include the ultraviolet spectrum and must be used with an ultraviolet filter or diffuser for safety. Broad spectrum lights exclude the ultraviolet spectrum. Optimal exposure is for 30 to 45 minutes early in the morning upon awakening. Eyes must be open not closed for therapy to be effective.<sup>4</sup>

The Circadian Lighting Association is an international trade association of light therapy manufacturers. It sets certain product standards for manufacturer members to assure customers'

confidence. Through independent testing of products checks on ultraviolet light filtration, lux output at designated distances, and other quality tests are required for membership designation.<sup>5</sup>

Insurance coverage for light therapy is difficult and varies with the particular insurer. Since the FDA has not evaluated light therapy, many insurance companies consider it experimental. SAD is recognized as an accepted psychiatric diagnosis and as such the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) of the American Psychiatric Association is used to classify and code it.

The clinical depression diagnoses codes include:

| DSM IV Code Number | Diagnosis                                   |
|--------------------|---|
| 296.3x             | Major depression, recurrent                 |
| 296.4x             | Bipolar disorder, most recent episode-manic |
| 296.5x             | Bipolar disorder, depressed                 |
| 296.6x             | Bipolar disorder, Mixed                     |
| 296.8              | Bipolar disorder, NOS                       |
| 311.00             | Depressive disorder, NOS                    |

The fifth digit represented by "x" in the above table is a modifier for the severity of the disorder.<sup>6</sup>

Reimbursement for light boxes can be tried with a physician letter indicating medical necessity. A sample letter can be found at the Sunbox Company website at: <https://www.sunbox.com/Products/BuyersGuide.asp>

*Users of this document are cautioned to use their own professional judgment and consult any other necessary or appropriate sources prior to making clinical judgments based on the content of this document. Our editors have researched the information with input from experts, government agencies, and national*

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organizations. Information and Internet links in this article were current as of the date of publication.

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