

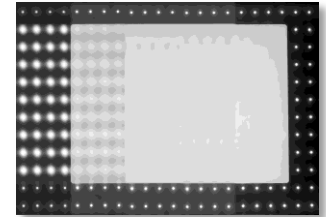
# High-Efficiency Diffusers

C-Series High Performance Diffusers



## General purpose symmetric diffusers Lamp hiding, color mixing, angle

C-Series diffusers efficiently hide lamps and provide smooth illumination in both LED and fluorescent applications. They provide excellent depixelation, angle control, color mixing, and color uniformity. An applications engineer will be happy to help select the correct product for your application. Please contact sales@brightviewtech.com.



C-Series diffuser at different distances from LED array

**New!** An optional anti-wet-out coating is available on the back surface for

| Distance to achieve complete LED hiding<br><small>(Distance between lamps : Working distance to diffuser)</small> | Typical angle in a 90° downlight (FWHM: full width half max) |   | ASTM D1003 Transmission <sup>2</sup> | Efficiency in typical LED luminaire <sup>3</sup> | Comments |
|---|--|---|--------------------------------------|--|----------|
|   | <small>(microstructures facing away from lamps)</small>      | <small>(microstructures facing toward lamps - atypical)<sup>1</sup></small> |                                      |  |          |

### Standard C-HE single-sided diffusers: the industry standard for

|          |         |     |      |       |           |  |
|----------|---------|-----|------|-------|-----------|--|
| C - HE05 |         | 91° | 91°  | > 92% | 93 - 96 % | Diffusers toward the top of this table have high efficiency, and are used for softening LED images and smoothing light distributions<br><br> |
| C - HE10 |         | 92° | 92°  | > 92% | 93 - 96 % |  |
| C - HE15 | 1 : 4   | 92° | 91°  | > 92% | 93 - 96 % |  |
| C - HE20 | 1 : 3.5 | 89° | 91°  | > 93% | 92 - 96 % |  |
| C - HE30 | 1 : 2.5 | 83° | 94°  | > 96% | 91 - 95 % |  |
| C - HE40 | 1 : 2.3 | 78° | 97°  | > 96% | 90 - 94 % |  |
| C - HE55 | 1 : 2   | 75° | 106° | > 96% | 89 - 93 % |  |
| C - HE80 | 1 : 1.5 | 70° | 115° | > 96% | 88 - 92 % |  |

### New Improved C-HH double-sided diffusers: improved efficiency and hiding over their C-HE counterparts

|          |         |     |      |       |           |  |
|----------|---------|-----|------|-------|-----------|--|
| C - HH20 | 1 : 2.5 | 91° | 92°  | > 93% | 93 - 97 % | C-HH Series diffusers have a special double-sided coating that gives them greater efficiency and stronger LED hiding than their C-HE counterparts, above. As above, higher numbers in the part number indicate increased amounts of diffusion and LED hiding |
| C - HH30 | 1 : 2.3 | 86° | 93°  | > 96% | 92 - 96 % |  |
| C - HH40 | 1 : 2   | 82° | 95°  | > 96% | 91 - 95 % |  |
| C - HH55 | 1 : 1.5 | 80° | 103° | > 96% | 90 - 94 % |  |
| C - HH80 | 1 : 1   | 77° | 111° | > 88% | 89 - 93 % |  |

### New V-Series volumetric diffusers: available seamless and in wide

|        |          |      |      |       |           |   |
|--------|----------|------|------|-------|-----------|---|
| V-HHDE | 1 : 0.75 | 110° | 110° | < 50% | 75 - 85 % | Highest possible hiding, white opalescent |
|--------|----------|------|------|-------|-----------|---|

*Typical values: angles and efficiency can be varied greatly by choices of luminaire*

#### Usage Notes:

- Choose the highest-efficiency diffuser that meets your lamp-hiding goals
- C-Series diffusers are directional and are generally used with the microstructures facing away from the LEDs or lamps when LED hiding is desired; please try both orientations
- Bright View applications engineers can assist with product choices and help your design achieve peak performance

1. Angles for "microstructure facing toward lamps" are listed in gray above because C-Series diffusers are not typically used in this orientation
2. ASTMD1003 transmissions are provided for reference and are listed in gray above. Although widely quoted in lighting, this measurement uses a collimated beam (atypical) and fails to account for recirculation of reflected light inside luminaires
3. Angles and efficiencies are typical; they vary greatly depending on luminaire design. Bright View tests include: commercial 4-inch LED downlight module, linear LED fluorescent tube-replacement, 2'x2' LED troffer with clear acrylic cover