

Avago 20 & 26.5mm Range



Carclo Technical Plastics

111 Buckingham Avenue, Slough, Berkshire SL1 4PF ENGLAND / 600 Depot Street Latrobe PA. 15650 USA

Web: www.carclo-optics.com e-mail: sales@carclo-optics.com

Tel UK: 0044 (0) 1753 575011 Tel USA 00 (1) 724 539 6982

Avago Aveon 20 & 26.5mm Range

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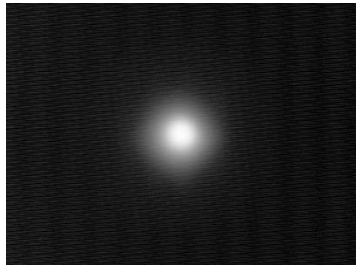
Avago Aveon 20mm range

| Part No. | Description | White | | |
|----------|------------------------|-------------|-------|-------|
| | | FWHM# | EFF | Cd/lm |
| 10199 | Plain Tight | 9.25*9.07 | 85.9% | 19.76 |
| 10200 | Frosted Narrow | 12.98*12.64 | 83.2% | 11.33 |
| 10210 | Ripple Medium | 22.16*21.37 | 85.9% | 5.79 |
| 10201 | Medium Frosted | 21.86*21.67 | 79.9% | 3.98 |
| 10211 | Ripple Wide | 45.21*45.26 | 83.4% | 1.68 |
| 10202 | Wide Frosted | 31.51*31.17 | 79.0% | 2.46 |
| 10203 | Elliptical | 47.99*9.54 | 83.1% | 4.58 |
| 10204 | Elliptical Orthogonal* | 47.45*10.01 | 81.8% | 4.47 |
| 10357 | wide angle reflector | | | |

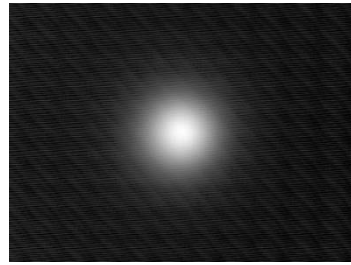
*Orthogonal is the elliptical beam turned through 90deg.

#Full Width Half Maximum i.e. total viewing angle

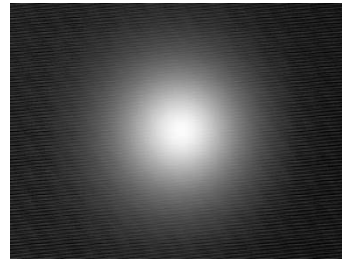
Base of lens to PCB height is 3.6mm



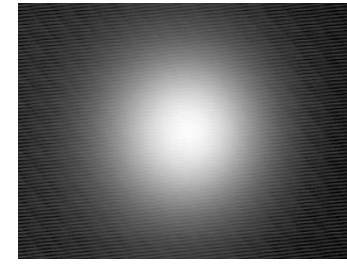
10199



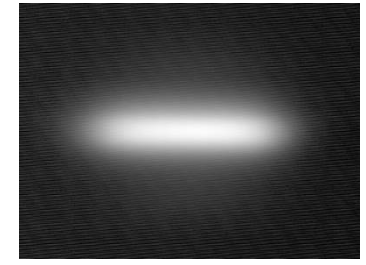
10200



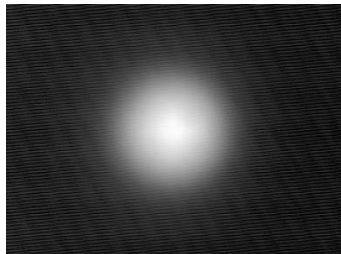
10201



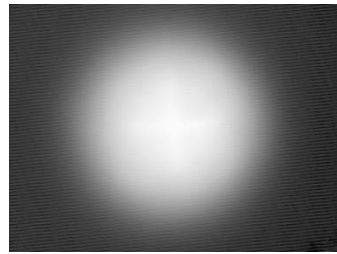
10202



10203 & 10204



10210



10211

Avago Aveon 26.5mm range

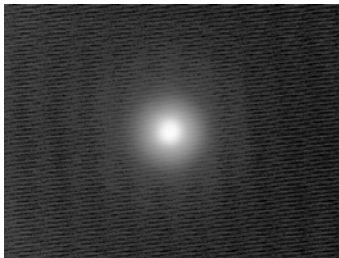
| Part No. | Description | White | | |
|----------|------------------------|------------------------|-------|-------|
| | | FWHM# | EFF | Cd/lm |
| 10048 | Plain Tight | 6.91*6.89 | 84.9% | 25.65 |
| 10124 | Frosted Narrow | 11.27*10.94 | 81.8% | 13.79 |
| 10108 | Medium Frosted | 22.32*21.97 | 78.7% | 3.92 |
| 10260 | Frosted Wide | Optic will not fit LED | | |
| 10049 | Elliptical | 44.01*8.14 | 80.3% | 5.80 |
| 10224 | Elliptical Orthogonal* | 48.25*8.14 | 80.8% | 5.35 |
| 10234 | Elliptical Ramp Optic | 45.61*7.83 | 80.0% | 5.57 |



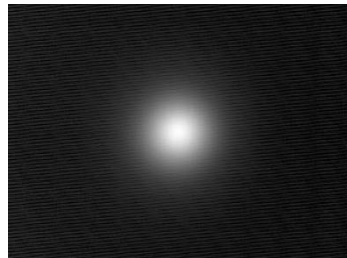
| Part No. | Colour | Description |
|----------|--------|--------------------------|
| 10449 | White | 4.3mm foot (not Stocked) |
| 10459 | White | 2.0mm foot (Not Stocked) |
| 10469 | White | 0.8mm foot (Stocked) |
| 10479 | Black | 4.3mm foot (Not Stocked) |
| 10489 | Black | 2.0mm foot (Not Stocked) |
| 10499 | Black | 0.8mm foot (Not Stocked) |

*Orthogonal is the elliptical beam turned through 90deg.

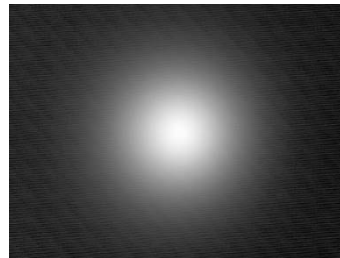
Full Width Half Maximum i.e. total viewing angle



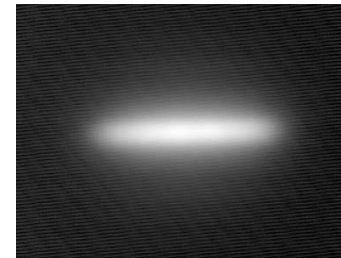
10048



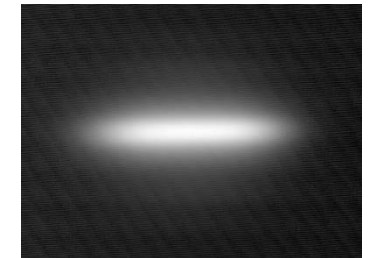
10124



10108



10049 & 10224



10234

Avago Jade 20 & 26.5mm Range

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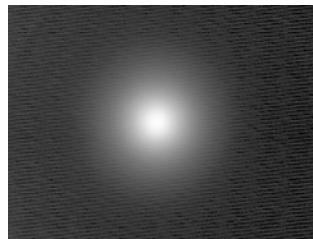
Avago Jade 20mm range

| Part No. | Description | White | | |
|-----------|------------------------|-------------|-------|-------|
| | | FWHM# | EFF | Cd/lm |
| 10003 | Plain Tight | 11.27*11.25 | 90.1% | 12 |
| 10138 | Frosted Narrow | 16.53*16.80 | 91.6% | 7.59 |
| 10003/15 | Ripple Medium | 20.14*20.54 | 90.7% | 3.92 |
| 10139 | Medium Frosted | 23.22*23.03 | 87.4% | 4.25 |
| 10003/25 | Ripple Wide | 36.33*34.19 | 85.3% | 2.24 |
| 10140 | Wide Frosted | 31.37*31.60 | 82.2% | 2.51 |
| 10003/L25 | Elliptical | 44.14*14.80 | 89.3% | 4.01 |
| 10192 | Elliptical Orthogonal* | 46.94*13.72 | 90.1% | 3.99 |
| 10034 | wide angle reflector | | | |

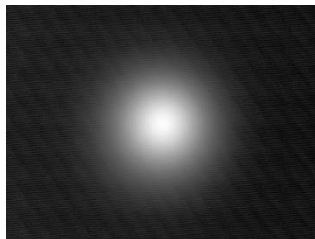
*Orthogonal is the elliptical beam turned through 90deg.

#Full Width Half Maximum i.e. total viewing angle

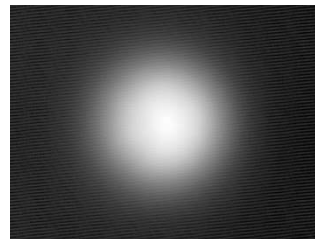
Base of lens to PCB height is 3.6mm



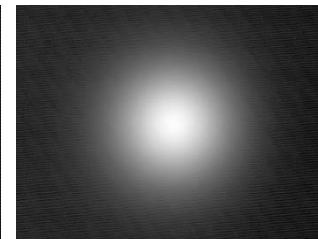
10003



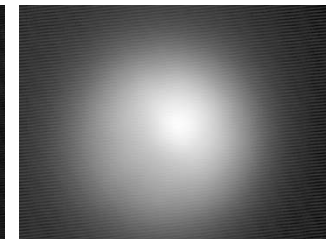
10138



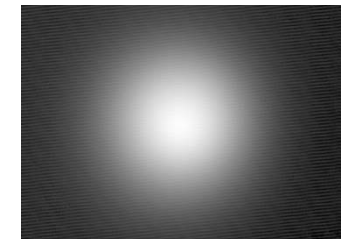
10003/15



10139



10003/25



10140

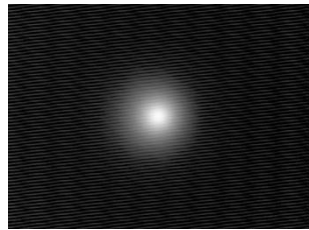
Avago Jade 26.5mm range

| Part No. | Description | White | | |
|----------|------------------------|-------------|-------|-------|
| | | FWHM# | EFF | Cd/lm |
| 10048 | Plain Tight | 8.31*8.14 | 88.8% | 20.07 |
| 10124 | Frosted Narrow | 13.59*13.26 | 86.6% | 11.15 |
| 10108 | Medium Frosted | 23.82*23.78 | 81.7% | 4.01 |
| 10260 | Frosted Wide | 28.15*28.09 | 82.1% | 3.05 |
| 10049 | Elliptical | 43.87*10.94 | 85.5% | 5.40 |
| 10224 | Elliptical Orthogonal* | 47.19*11.25 | 85.1% | 4.60 |
| 10234 | Elliptical Ramp Optic | 45.17*10.94 | 85.1% | 5.30 |

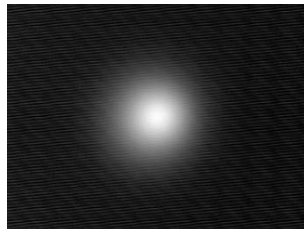
| Part No. | Colour | Description |
|----------|--------|--------------------------|
| 10441 | White | 4.3mm foot (not Stocked) |
| 10451 | White | 2.0mm foot (Not Stocked) |
| 10461 | White | 0.8mm foot (Stocked) |
| 10471 | Black | 4.3mm foot (Not Stocked) |
| 10481 | Black | 2.0mm foot (Not Stocked) |
| 10491 | Black | 0.8mm foot (Not Stocked) |

*Orthogonal is the elliptical beam turned through 90deg.

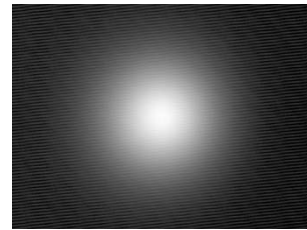
Full Width Half Maximum i.e. total viewing angle



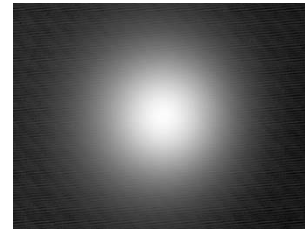
10048



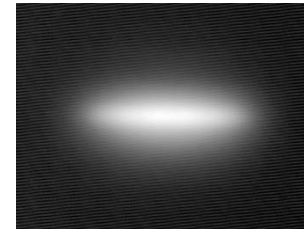
10124



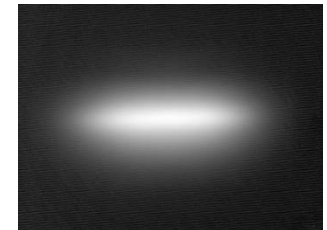
10108



10260



1049 & 10224



10234

Avago Moonstone 20 & 26.5mm Range



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Avago Moonstone 20mm range

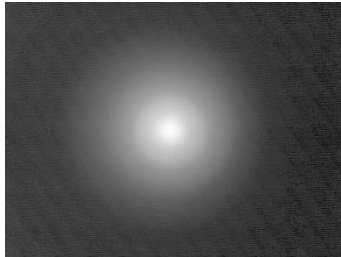
| Part No. | Description | Warm White | | |
|----------|------------------------|-------------|-------|-------|
| | | FWHM# | EFF | Cd/lm |
| 10199 | Plain Tight | 11.12*11.09 | 88.5% | 8.19 |
| 10200 | Frosted Narrow | 17.81*17.41 | 88% | 5.31 |
| 10210 | Ripple Medium | 26.46*25.97 | 87.7% | 3.24 |
| 10201 | Medium Frosted | 27.77*27.28 | 82.8% | 2.43 |
| 10211 | Ripple Wide | 46.49*46.02 | 83.9% | 1.24 |
| 10202 | Wide Frosted | 39.32*40.35 | 80.6% | 1.41 |
| 10203 | Elliptical | 45.97*17.33 | 85.7% | 2.66 |
| 10204 | Elliptical Orthogonal* | 45.23*20.03 | 84.5% | 2.29 |
| 10357 | wide angle reflector | | | |



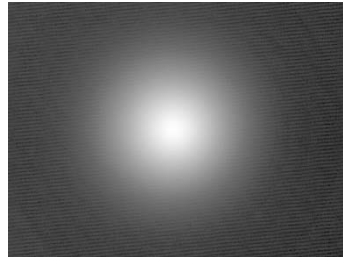
*Orthogonal is the elliptical beam turned through 90deg.

#Full Width Half Maximum i.e. total viewing angle

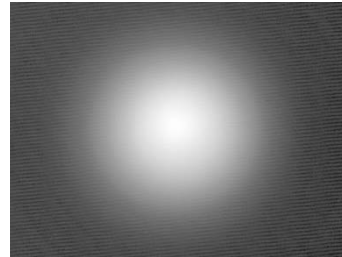
Base of lens to PCB height is 3.6mm



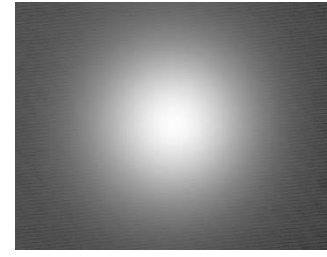
10199



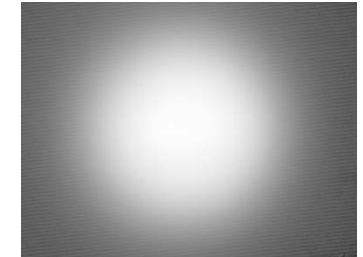
10200



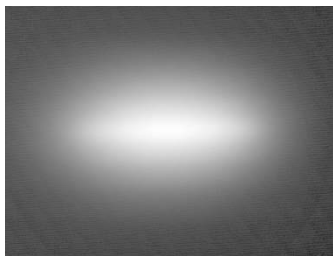
10210



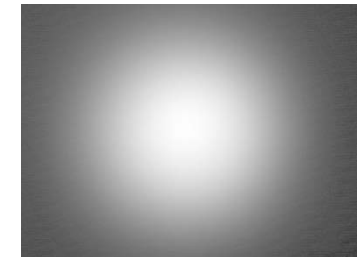
10201



10211



10203 & 10204



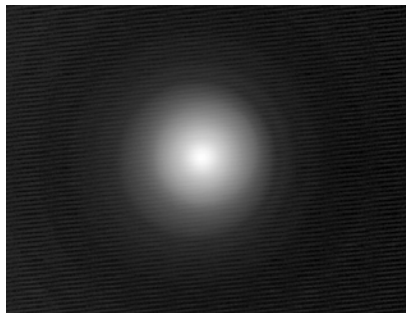
10202

Avago Moonstone 26.5mm range

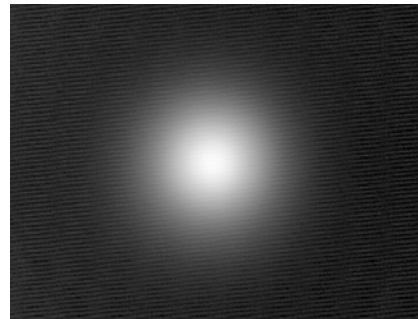
| Part No. | Description | Warm White | | |
|----------|----------------|-------------------|-------|-------|
| | | FWHM [#] | EFF | Cd/lm |
| 10391 | Plain Tight | 12 | 87.2% | 10.50 |
| 10392 | Frosted Narrow | 17.2 | 83.1% | 6.00 |
| 10393 | Medium Frosted | 25.5 | 78.5% | 2.76 |
| 10394 | Frosted Wide | | | |
| 10395 | Elliptical | 44*16 | 83.1% | 2.99 |

| WHITE HOLDERS | | | BLACK HOLDERS | | |
|------------------------|------------------------|--------------------|------------------------|------------------------|------------------------|
| 4.3 PEG Not Stocked | 2.0 PEG Not stocked | 0.8 PEG Stocked | 4.3 PEG Not Stocked | 2.0 PEG Not Stocked | 0.8 PEG Not Stocked |
| 10449 | 10459 | 10469 | 10479 | 10489 | 10499 |

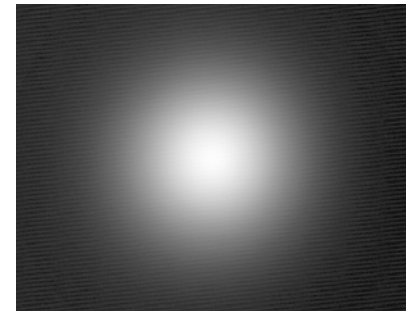
Results for white LED



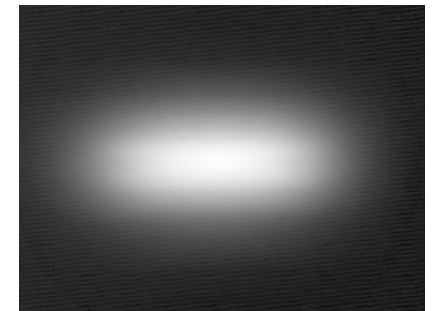
10391



10392



10393



10395

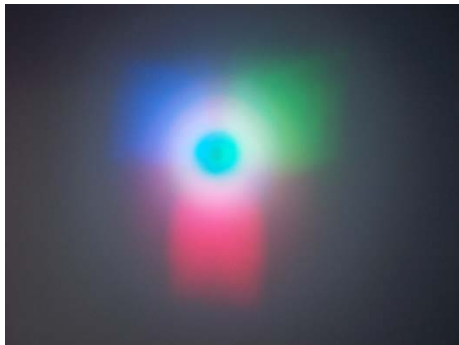
Avago RGB Moonstone 20mm range

| Part No. | Description | White | | |
|----------|----------------|-------------|-------|-------|
| | | FWHM# | EFF | Cd/lm |
| 10199 | Plain Tight | 13.10*13.54 | 86.2% | 12.17 |
| 10200 | Frosted Narrow | 17.81*17.41 | 85.1% | 6.71 |
| 10201 | Medium Frosted | 25.43*25.96 | 81.0% | 2.73 |
| 10202 | Wide Frosted | 38.02*38.09 | 76.7% | 1.38 |

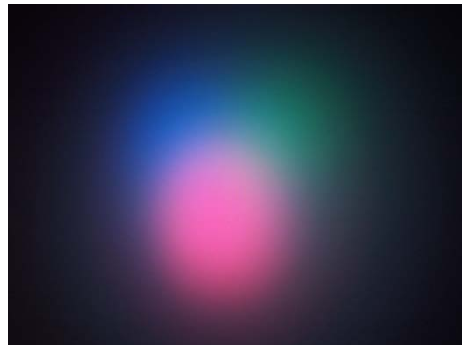
*Orthogonal is the elliptical beam turned through 90deg.

#Full Width Half Maximum i.e. total viewing angle

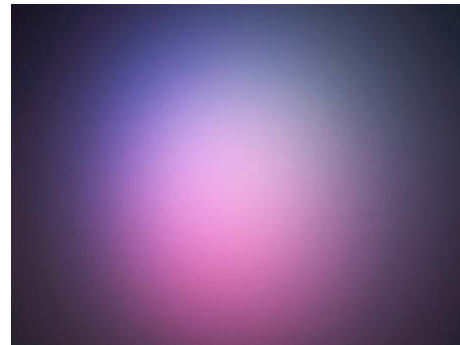
Base of lens to PCB height is 3.6mm



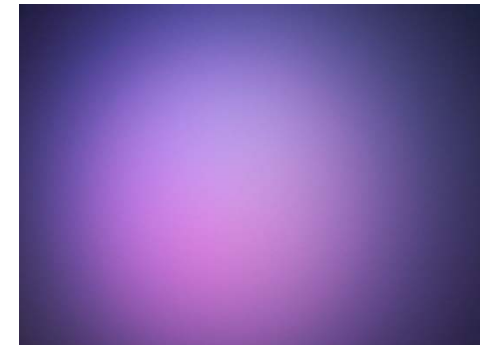
10199



10200



10201

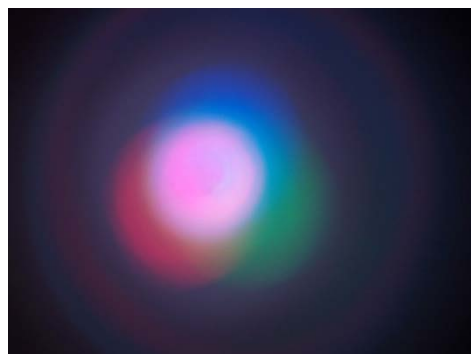


10202

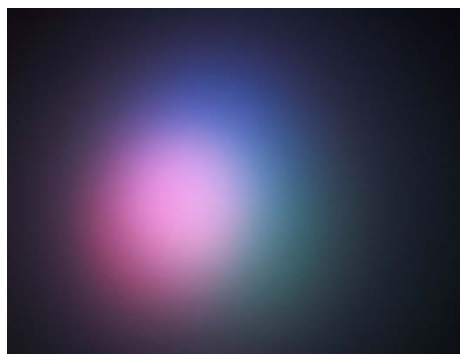
Avago RGB Moonstone 26.5mm range

| Part No. | Description | Warm White | | |
|----------|----------------|-------------------|-------|-------|
| | | FWHM [#] | EFF | Cd/lm |
| 10391 | Plain Tight | 12.2 | 87.2% | 13 |
| 10392 | Frosted Narrow | 15.9 | 88% | 6.30 |
| 10393 | Medium Frosted | 26.5 | 81% | 2.4 |
| 10394 | Frosted Wide | 29.1 | 84.7% | 2.2 |
| 10395 | Elliptical | | | |

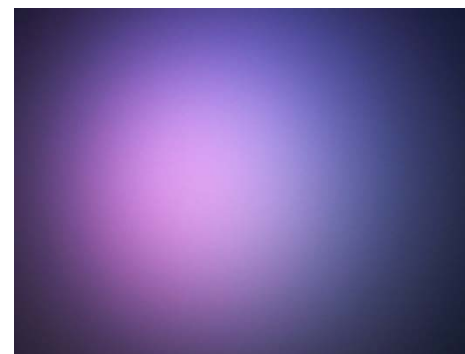
| WHITE HOLDERS | | | BLACK HOLDERS | | |
|------------------------|------------------------|--------------------|------------------------|------------------------|------------------------|
| 4.3 PEG Not Stocked | 2.0 PEG Not stocked | 0.8 PEG Stocked | 4.3 PEG Not Stocked | 2.0 PEG Not Stocked | 0.8 PEG Not Stocked |
| 10449 | 10459 | 10469 | 10479 | 10489 | 10499 |



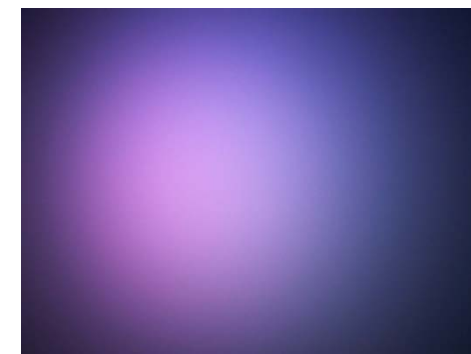
10391



10392



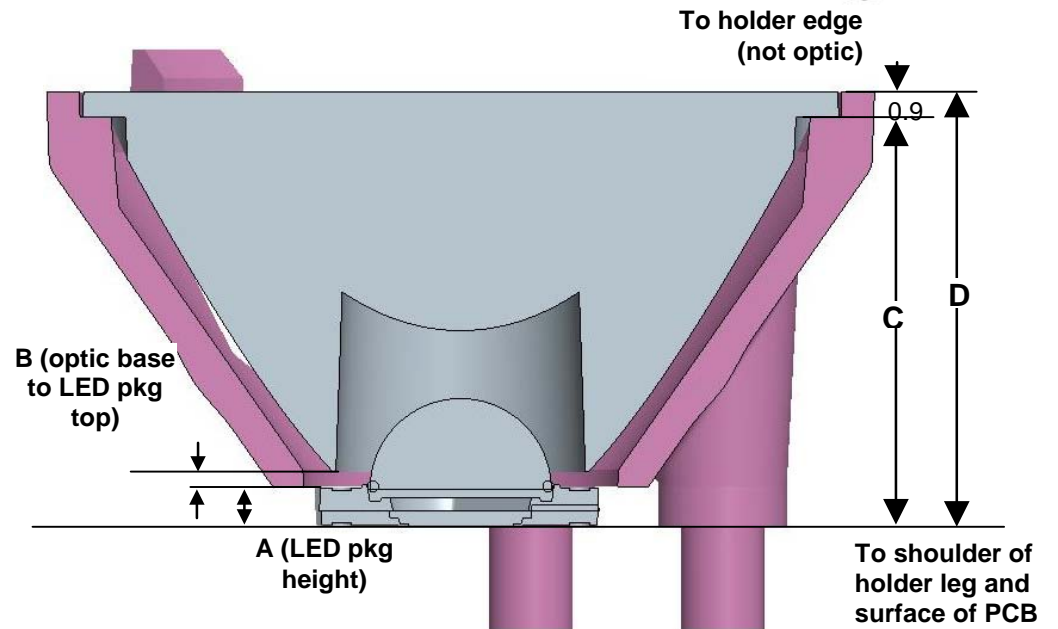
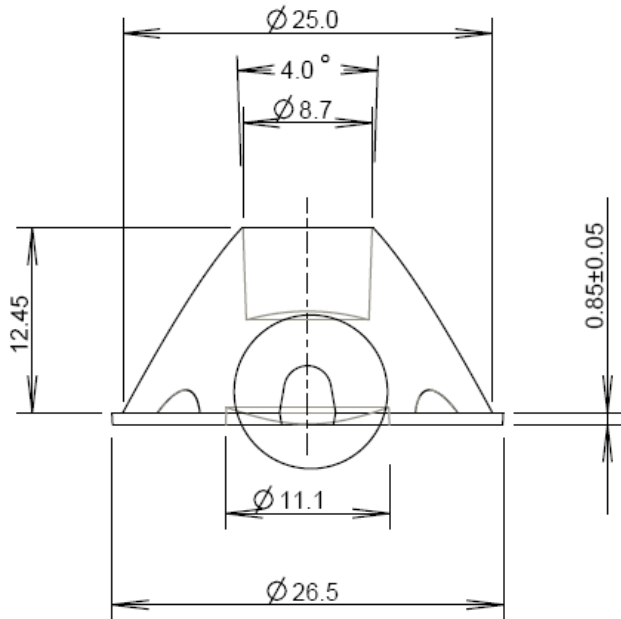
10393



10394

26.5mm OPTIC

| Part No. | TYPE |
|----------|------------------|
| 10391 | Plain Tight |
| 10392 | Narrow Frosted |
| 10393 | Medium Frosted |
| 10394 | Wide Frosted |
| 10395 | Elliptical |
| 10396 | Elliptical Ortho |



Notes:

- CARCLO multi-chip holder compatible with LED package mounted on 19.9mm (across flats) star board, otherwise drill holes on PCB for location pegs on legs. Refer to Drawing 60475 for hole separation
- The multichip holder leg height includes an extra 1.0mm for the AcuLED since only a 13mm (across flats) star board is available. The CARCLO holder reaches over the AcuLED star board so that the holder sits directly on the PCB (and not the star board).

26.5mm Holder location holes

