

DESCRIPTION

4 inch LED recessed narrow, medium, or wide beam downlight designed for glare free even illumination. Featuring a two-stage diffused reflector system producing smooth distribution with excellent light control and low aperture brightness. Lumen packages range from 1000 to 4000 with color temperatures of 2400K, 2700K, 3000K, 3500K, 4000K, and 5000K. Available with dim-to-warm technology – similar to halogen at full power, the 3000K LED warms smoothly as dimmed to 1850K creating a rich warm glow within the space.

| | | |
|--------------------|--|-------------|
| Catalog # | | Type |
| Project | | |
| Comments | | Date |
| Prepared by | | |

SPECIFICATION FEATURES

Lower Shielding Reflector

Painted die cast aluminum or spun aluminum lower reflector with a lensed upper optical chamber providing superior lumen output with minimal source brightness. Spun reflectors are offered in all Portfolio Alzak® finishes. Available with non-conductive polymer trim. Reflector is retained with two torsion springs holding the flange tight to the finished ceiling surface. Plaster lathing ring accessory offered for flush reflector transition.

Plaster Frame / Collar

Die cast aluminum 1-1/2" deep collar accommodates ceiling materials up to 2". Universal mounting bracket accepts 1/2" EMT, C channel and bar hangers and adjusts 5" vertically from above and below the ceiling.

Junction Box

Listed for (8) #12 AWG (four in, four out) 90°C conductors and feed thru branch wiring. (4) 1/2" and (2) 3/4" trade size pry outs positioned to allow straight conduit runs.

Thermal

Aluminum heat sink conducts heat away from the LED module for optimal performance and long life.

LED

Chip on board with a multitude of highly efficient white LED's, combined with a high reflectance upper reflector and convex transitional lens produce even distribution with no pixilation. Rated for 50,000 hours at 70% lumen maintenance. Auto resetting, thermally protected, LED's are turned off when safe operating temperatures are exceeded. Color variation within 3-step MacAdam ellipses. Quick disconnect allows for tool-less replacement of LED engine from below ceiling. Available in 80, 90 or 97 CRI. D2W™ – dim-to-warm shifts CCT from 3000K to 1850K as fixture dims mimicking halogen sources.

Driver

Standard 120-277V 0-10V dimming driver provides flicker free dimming from 100% to 1%. Optional 120V leading edge,

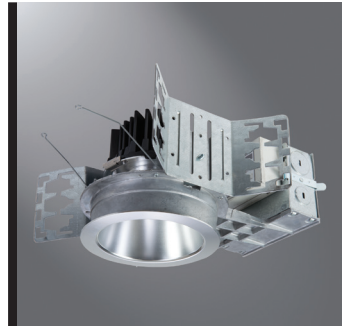
<1% 0-10V, Fifth Light, DMX or Lutron® Ecosystem. Driver can be serviced from above or through the aperture.

Code Compliance

Thermally protected and cULus listed for wet locations with covered ceiling. IP66 rated when used with IP66 gasket kit accessory. Optional City of Chicago environmental air (CCEA) marking for plenum applications. EMI/RFI emissions per FCC 47CFR Part 18 Class B consumer limits. 2000 lumen and above are Non-IC rated - Insulation must be kept 3" from top and sides of housing. IC rated up to 1500 lumens. RoHS Compliant. Photometric testing completed in accordance with IES LM 79 and TM-30 standards. LED life testing completed in accordance with LM 80 standards.

Warranty

5-year warranty

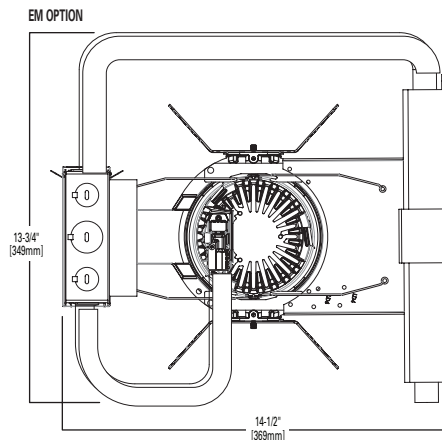
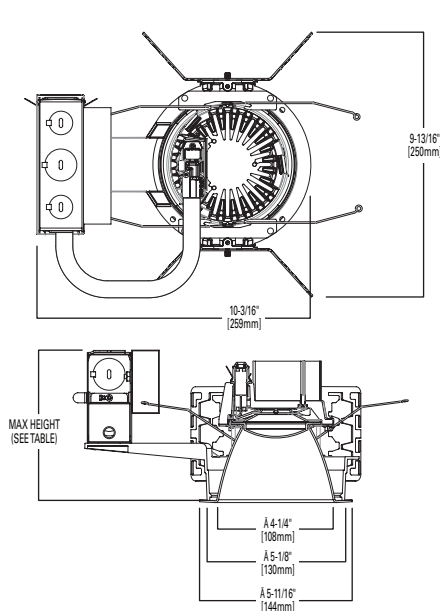


**LD4B EU4B
4LBW 4LBM
4LBN**

1000, 1500, 2000, 3000, 4000

Lumens LED

**Narrow, Medium, or Wide Beam
New Construction**



| | 1000-2000 LUMENS | 3000-5000 LUMENS | 6000-7000 LUMENS |
|----------------------|------------------|------------------|------------------|
| NARROW/MEDIUM | 5-1/2" [140mm] | 5-1/2" [140mm] | 6-5/8" [168mm] |
| WIDE | 5-1/2" [140mm] | 5-1/2" [140mm] | 6-3/16" [157mm] |
| SHALLOW | 3-9/16" [90mm] | 3-9/16" [90mm] | 5-5/16" [135mm] |

ORDERING INFORMATION

SAMPLE NUMBER: LD4B15D010IEMBOD

| Housing | Lumens ¹ | Voltage | Driver | Options |
|---|--|---|--|---|
| LD4B =LED Downlight 4" Nominal Aperture LD4BCP =LED Downlight 4" Nominal Aperture, Chicago Plenum | 10 =1000 lumens 15 =1500 lumens 20 =2000 lumens 30 =3000 lumens 40 =4000 lumens | Blank =120-277V 3 =347V step down transformer | 1000 - 4000 Lumen D010 =0-10V Dimming, 1% to 100%, 120V-277V D010TR =0-10V or Line Voltage Dimming, 5% to 100%, 120V-277V DE010 =0-10V Dimming, 0% to 100%, 120V-277V D5LT =Fifth Light [®] (DALI) Dimming, 0% to 100%, 120V-277V DMX =DMX Dimming, 0% to 100%, 120V-277V DL2 =Lutron [®] Hi-Lume Forward Phase Dimming, 1% to 100%, 120V Only DL3 =Lutron [®] Hi-Lume 3 Wire Dimming, 1% to 100%, 120V-277V DLE =Lutron Ecosystem dimming 1% to 100%, 120V-277V | EMBOD =Bodine [®] Emergency Module with Remote Test Switch ² EM7 =7W Emergency Module with Remote Test Switch ^{3,4} EM14 =14W Emergency Module with Remote Test Switch ^{3,4} IEMBOD =Bodine [®] Emergency Module with Integral Test Switch ³ IEM7 =7W Emergency Module with Integral Test Switch ^{3,4} IEM14 =14W Emergency Module with Integral Test Switch ^{3,4} |

SAMPLE NUMBER: EU4B10208035

| Power Module | Lumen Levels ¹ | CRI | Color | Options |
|--------------------------------------|---|---|---|---|
| EU4B =4" Universal LED Module | 1020 =1000, 1500, 2000 lumens 3040 =3000-4000 lumens 1015IC =1000, 1500 lumen IC rated | 80 =80 CRI Minimum 90 =90 CRI Minimum 97 =97 CRI Minimum | 80 CRI 27 =2700K 30 =3000K 35 =3500K 40 =4000K 50 =5000K | 90 CRI 24 =2400K 27 =2700K 30 =3000K 35 =3500K 40 =4000K 50 =5000K 30D2W =1800-3000K Dim 2 Warm (2000 lumen and below, 90 CRI) |

SAMPLE NUMBER: 4LBM1LIE

| Trim | Distribution ⁵ | Flange | Finish | Options |
|--------------------|--|---|---|--|
| 4LB =4" LED | N =Narrow (25° Beam), Spun Aluminum M =Medium (50° Beam), Spun Aluminum W =Wide (75° Beam), Spun Aluminum S =Shallow (75° Beam), Spun Aluminum PS =Plastic Shallow (75° Beam), Injection Molded white ¹¹ CS =Cast Shallow (75° Beam), Die Cast Aluminum BA =Baffle, Spun Aluminum ⁷ | 0 =White Polymer Trim Ring 1 =Self-flanged 2 =White Painted Self-flanged | L =Specular Clear ¹⁰ H =Semi-Specular Clear ¹⁰ WMH =Warm Haze ¹⁰ WH =Wheat ¹⁰ GPH =Graphite Haze ¹⁰ B =Specular Black ¹⁰ MW =Matte White ⁹ MB =Matte Black ⁹ MMS =Matte Metallic Silver ⁸ | E =Integral Emergency Test Switch Hole ⁶ |

Accessories

Accessories

| | |
|---|---|
| HB26 =C-channel Bar Hanger, 26" Long, Pair | HSA4 =Slope Adapter for 4" Aperture Housings, Specify Slope in 5° increments |
| HB50 =C-channel Bar Hanger, 50" Long, Pair | TRM4 =Metal Trim Ring, Specify Color ² |
| RMB22 =Wood Joist Bar Hanger, 22" Long, Pair | TRR4 =Rimless Trim Ring ² |
| H347 =347 to 120V Step Down Transformer, 75VA | LGS T4IP66 =IP66 Gasket Kit |
| H347200 =347 to 120V Step Down Transformer, 200VA | PRR4 =Rimless Plaster Ring for Flush Mount ² |
| PORLWTPD1 =LumaWatt Pro wireless sensor kit (0-10V only) | |

Notes:

- Nominal Lumens will vary depending on selected color, driver and reflector finish.
- Order spun trim with polymer trim ring or die cast with rimless flange (Consult specification sheet for color ordering information and options).
- Not available with Chicago Plenum.
- ULus approved only.
- Beam angles are nominal with LI finish trims.
- Only available with Narrow, Medium and Wide Spun Aluminum trims. Required for use with all IEMBOD, IEM7 and IEM14 housings.
- Only available with Matte White and Matte Black Finishes.
- Only available on CS distribution.
- Available only on BA and CS distributions.
- Not available on PS, CS or BA distributions.
- Matte white and self flanged only

ENERGY

| ENERGY DATA |
|--|
| Sound Rating: Class A standards |
| (Values at non-dimming line voltage) |
| Minimum Starting Temperature: -30°C (-22°F) |
| EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer) |
| Input Voltage: UNV (120V - 277V) |
| Power Factor: >0.90 (at nominal input 120-277 VAC & 100% of Rated Output Power) |
| Input Frequency: 50/60Hz |

| 1000 Lumen D010 | | 1500 Lumen D010 | |
|---------------------------|---------------------------|---------------------------|---------------------------|
| Input Power: 11W | THD: <14% | Input Power: 15.5W | THD: <13% |
| 120V Input Current: 0.09A | 277V Input Current: 0.04A | 120V Input Current: 0.13A | 277V Input Current: 0.06A |

| 2000 Lumen D010 | | 3000 Lumen D010 | |
|---------------------------|---------------------------|---------------------------|---------------------------|
| Input Power: 21.2W | THD: <9% | Input Power: 27.6W | THD: <10% |
| 120V Input Current: 0.18A | 277V Input Current: 0.08A | 120V Input Current: 0.23A | 277V Input Current: 0.10A |

| 4000 Lumen D010 | |
|---------------------------|---------------------------|
| Input Power: 41.6W | THD: <13% |
| 120V Input Current: 0.35A | 277V Input Current: 0.15A |

| Lumens | 120V | | 277V | |
|-----------------|------------|---------------|------------|---------------|
| | Inrush (A) | Duration (ms) | Inrush (A) | Duration (ms) |
| 1000 Lumen D010 | 1.02 | 0.041 | 2.18 | 0.021 |
| 1500 Lumen D010 | 1.02 | 0.042 | 2.24 | 0.064 |
| 2000 Lumen D010 | 1.02 | 0.077 | 2.43 | 0.027 |
| 3000 Lumen D010 | 1.15 | 0.067 | 3.26 | 0.027 |
| 4000 Lumen D010 | 1.2 | 0.088 | 3.9 | 0.03 |

PHOTOMETRY

| NARROW (25° BEAM) | | CANDLEPOWER DISTRIBUTION | | CONE OF LIGHT | | CANDELA TABLE | | ZONAL LUMEN SUMMARY | | | LUMINANCE | |
|-------------------|--------------|--------------------------|-----|---------------|------|------------------|---------|---------------------|--------|-----------|-------------------------|----------------------|
| Test Number | P201208 | | | | | Degrees Vertical | Candela | Zone | Lumens | % Fixture | Average Candela Degrees | Average 0° Luminance |
| Housing | LD4B15D010 | | | | | 0 | 2790 | 0-30 | 926 | 82.1 | 45 | 489 |
| Module | EU4B10208035 | | | | | 5 | 2550 | 0-40 | 1094 | 97 | 55 | 55 |
| Trim | 4LBN1LI | | | | | 15 | 1421 | 0-60 | 1127 | 99.9 | 65 | 26 |
| Lumens | 1128 | | | | | 25 | 667 | 0-90 | 1128 | 100 | 75 | 0 |
| Efficacy | 78.9 Lm/W | 35 | 266 | 90-180 | 0 | 0 | 85 | 0 | | | | |
| SC | 0.5 | 45 | 32 | 0-180 | 1128 | 100 | | | | | | |
| | | 55 | 3 | | | | | | | | | |
| | | 65 | 1 | | | | | | | | | |
| | | 75 | 0 | | | | | | | | | |
| | | 85 | 0 | | | | | | | | | |
| | | 90 | 0 | | | | | | | | | |
| | | | | | | | | | | | | |

| MEDIUM (50° BEAM) | | CANDLEPOWER DISTRIBUTION | | CONE OF LIGHT | | CANDELA TABLE | | ZONAL LUMEN SUMMARY | | | LUMINANCE | |
|-------------------|--------------|--------------------------|-----|---------------|------|------------------|---------|---------------------|--------|-----------|-------------------------|----------------------|
| Test Number | P201206 | | | | | Degrees Vertical | Candela | Zone | Lumens | % Fixture | Average Candela Degrees | Average 0° Luminance |
| Housing | LD4B15D010 | | | | | 0 | 2267 | 0-30 | 1144 | 77.3 | 45 | 1072 |
| Module | EU4B10208035 | | | | | 5 | 2227 | 0-40 | 1406 | 95 | 55 | 151 |
| Trim | 4LBM1LI | | | | | 15 | 1690 | 0-60 | 1477 | 99.7 | 65 | 77 |
| Lumens | 1481 | | | | | 25 | 1027 | 0-90 | 1481 | 100 | 75 | 42 |
| Efficacy | 103.6 Lm/W | 35 | 409 | 90-180 | 0 | 0 | 85 | 0 | | | | |
| SC | 0.71 | 45 | 70 | 0-180 | 1481 | 100 | | | | | | |
| | | 55 | 8 | | | | | | | | | |
| | | 65 | 3 | | | | | | | | | |
| | | 75 | 1 | | | | | | | | | |
| | | 85 | 0 | | | | | | | | | |
| | | 90 | 0 | | | | | | | | | |
| | | | | | | | | | | | | |

| WIDE (75° BEAM) | | CANDLEPOWER DISTRIBUTION | | CONE OF LIGHT | | CANDELA TABLE | | ZONAL LUMEN SUMMARY | | | LUMINANCE | |
|-----------------|--------------|--------------------------|-----|---------------|------|------------------|---------|---------------------|--------|-----------|-------------------------|----------------------|
| Test Number | P201204 | | | | | Degrees Vertical | Candela | Zone | Lumens | % Fixture | Average Candela Degrees | Average 0° Luminance |
| Housing | LD4B15D010 | | | | | 0 | 914 | 0-30 | 816 | 53.8 | 45 | 4372 |
| Module | EU4B10208035 | | | | | 5 | 925 | 0-40 | 1252 | 82.5 | 55 | 574 |
| Trim | 4LBW1LI | | | | | 15 | 998 | 0-60 | 1513 | 99.7 | 65 | 100 |
| Lumens | 1518 | | | | | 25 | 977 | 0-90 | 1518 | 100 | 75 | 42 |
| Efficacy | 106.2 Lm/W | 35 | 707 | 90-180 | 0 | 0 | 85 | 0 | | | | |
| SC | 1.3 | 45 | 286 | 0-180 | 1518 | 100 | | | | | | |
| | | 55 | 30 | | | | | | | | | |
| | | 65 | 4 | | | | | | | | | |
| | | 75 | 1 | | | | | | | | | |
| | | 85 | 0 | | | | | | | | | |
| | | 90 | 0 | | | | | | | | | |
| | | | | | | | | | | | | |

| SHALLOW (75° BEAM) | | CANDLEPOWER DISTRIBUTION | | CONE OF LIGHT | | CANDELA TABLE | | ZONAL LUMEN SUMMARY | | | LUMINANCE | |
|--------------------|--------------|--------------------------|-----|---------------|------|------------------|---------|---------------------|--------|-----------|-------------------------|----------------------|
| Test Number | P201210 | | | | | Degrees Vertical | Candela | Zone | Lumens | % Fixture | Average Candela Degrees | Average 0° Luminance |
| Housing | LD4B15D010 | | | | | 0 | 688 | 0-30 | 512 | 34.2 | 45 | 5827 |
| Module | EU4B10208035 | | | | | 5 | 682 | 0-40 | 816 | 54.5 | 55 | 4771 |
| Trim | 4LBCS1MMS | | | | | 15 | 645 | 0-60 | 1333 | 89 | 65 | 3226 |
| Lumens | 1497 | | | | | 25 | 577 | 0-90 | 1497 | 100 | 75 | 1339 |
| Efficacy | 104.7 Lm/W | 35 | 486 | 90-180 | 0 | 0 | 85 | 124 | | | | |
| SC | 1.16 | 45 | 380 | 0-180 | 1497 | 100 | | | | | | |
| | | 55 | 253 | | | | | | | | | |
| | | 65 | 126 | | | | | | | | | |
| | | 75 | 32 | | | | | | | | | |
| | | 85 | 1 | | | | | | | | | |
| | | 90 | 0 | | | | | | | | | |
| | | | | | | | | | | | | |

PHOTOMETRY

| NARROW (25° BEAM) | | CANDLEPOWER DISTRIBUTION | | CONE OF LIGHT | | | | CANDELA TABLE | | ZONAL LUMEN SUMMARY | | | LUMINANCE | |
|-------------------|--------------|--------------------------|-----|---------------|------|------|------|------------------|---------|---------------------|--------|-----------|-------------------------|----------------------|
| Test Number | PP201209 | | | | | | | Degrees Vertical | Candela | Zone | Lumens | % Fixture | Average Candela Degrees | Average 0° Luminance |
| Housing | LD4B40D010 | | | | | | | 0 | 7625 | 0-30 | 2531 | 82.1 | 45 | 1337 |
| Module | EU4B30408035 | | | 5 | 6969 | 0-40 | 2989 | 97 | 55 | 149 | | | | |
| Trim | 4LBN1LI | | | 15 | 3883 | 0-60 | 3080 | 99.9 | 65 | 67 | | | | |
| Lumens | 3083 | | | 25 | 1822 | 0-90 | 3083 | 100 | 75 | 0 | | | | |
| Efficacy | 73.8 Lm/W | 35 | 727 | 90-180 | 0 | 0 | 85 | 0 | | | | | | |
| SC | 0.5 | 45 | 87 | 0-180 | 3083 | 100 | 90 | 0 | | | | | | |
| | | D | FC | L | W | | | | | | | | | |
| | | 5.5' | 252 | 2.6 | 2.6 | | | | | | | | | |
| | | 7' | 156 | 3.4 | 3.4 | | | | | | | | | |
| | | 8' | 119 | 3.8 | 3.8 | | | | | | | | | |
| | | 9' | 94 | 4.4 | 4.4 | | | | | | | | | |

| MEDIUM (50° BEAM) | | CANDLEPOWER DISTRIBUTION | | CONE OF LIGHT | | | | CANDELA TABLE | | ZONAL LUMEN SUMMARY | | | LUMINANCE | |
|-------------------|--------------|--------------------------|------|---------------|------|------|------|------------------|---------|---------------------|--------|-----------|-------------------------|----------------------|
| Test Number | P201207 | | | | | | | Degrees Vertical | Candela | Zone | Lumens | % Fixture | Average Candela Degrees | Average 0° Luminance |
| Housing | LD4B40D010 | | | | | | | 0 | 6015 | 0-30 | 3036 | 77.3 | 45 | 2844 |
| Module | EU4B30408035 | | | 5 | 5909 | 0-40 | 3731 | 95 | 55 | 400 | | | | |
| Trim | 4LBM1LI | | | 15 | 4484 | 0-60 | 3918 | 99.7 | 65 | 205 | | | | |
| Lumens | 3929 | | | 25 | 2725 | 0-90 | 3929 | 100 | 75 | 113 | | | | |
| Efficacy | 94 Lm/W | 35 | 1085 | 90-180 | 0 | 0 | 85 | 0 | | | | | | |
| SC | 0.71 | 45 | 186 | 0-180 | 3929 | 100 | 90 | 0 | | | | | | |
| | | D | FC | L | W | | | | | | | | | |
| | | 5.5' | 199 | 3.8 | 3.8 | | | | | | | | | |
| | | 7' | 123 | 5 | 5 | | | | | | | | | |
| | | 8' | 94 | 5.6 | 5.6 | | | | | | | | | |
| | | 9' | 74 | 6.4 | 6.4 | | | | | | | | | |

| WIDE (75° BEAM) | | CANDLEPOWER DISTRIBUTION | | CONE OF LIGHT | | | | CANDELA TABLE | | ZONAL LUMEN SUMMARY | | | LUMINANCE | |
|-----------------|--------------|--------------------------|------|---------------|------|------|------|------------------|---------|---------------------|--------|-----------|-------------------------|----------------------|
| Test Number | P201205 | | | | | | | Degrees Vertical | Candela | Zone | Lumens | % Fixture | Average Candela Degrees | Average 0° Luminance |
| Housing | LD4B40D010 | | | | | | | 0 | 2499 | 0-30 | 2230 | 53.8 | 45 | 11948 |
| Module | EU4B30408035 | | | 5 | 2528 | 0-40 | 3421 | 82.5 | 55 | 1569 | | | | |
| Trim | 4LBW1LI | | | 15 | 2727 | 0-60 | 4134 | 99.7 | 65 | 274 | | | | |
| Lumens | 4148 | | | 25 | 2670 | 0-90 | 4148 | 100 | 75 | 113 | | | | |
| Efficacy | 99.2 Lm/W | 35 | 1933 | 90-180 | 0 | 0 | 85 | 0 | | | | | | |
| SC | 1.3 | 45 | 780 | 0-180 | 4148 | 100 | 90 | 0 | | | | | | |
| | | D | FC | L | W | | | | | | | | | |
| | | 5.5' | 83 | 7 | 7 | | | | | | | | | |
| | | 7' | 51 | 9 | 9 | | | | | | | | | |
| | | 8' | 39 | 10.4 | 10.4 | | | | | | | | | |
| | | 9' | 31 | 11.6 | 11.6 | | | | | | | | | |

| SHALLOW (75° BEAM) | | CANDLEPOWER DISTRIBUTION | | CONE OF LIGHT | | | | CANDELA TABLE | | ZONAL LUMEN SUMMARY | | | LUMINANCE | |
|--------------------|--------------|--------------------------|------|---------------|------|------|------|------------------|---------|---------------------|--------|-----------|-------------------------|----------------------|
| Test Number | P201211 | | | | | | | Degrees Vertical | Candela | Zone | Lumens | % Fixture | Average Candela Degrees | Average 0° Luminance |
| Housing | LD4B40D010 | | | | | | | 0 | 1880 | 0-30 | 1400 | 34.2 | 45 | 15933 |
| Module | EU4B30508035 | | | 5 | 1864 | 0-40 | 2230 | 54.5 | 55 | 13046 | | | | |
| Trim | 4LBCS1MMS | | | 15 | 1763 | 0-60 | 3645 | 89 | 65 | 8819 | | | | |
| Lumens | 4093 | | | 25 | 1578 | 0-90 | 4093 | 100 | 75 | 3657 | | | | |
| Efficacy | 97.9 Lm/W | 35 | 1329 | 90-180 | 0 | 0 | 85 | 323 | | | | | | |
| SC | 1.16 | 45 | 1040 | 0-180 | 4093 | 100 | 90 | 0 | | | | | | |
| | | D | FC | L | W | | | | | | | | | |
| | | 5.5' | 62 | 6.2 | 6.2 | | | | | | | | | |
| | | 7' | 38 | 8 | 8 | | | | | | | | | |
| | | 8' | 29 | 9.2 | 9.2 | | | | | | | | | |
| | | 9' | 23 | 10.4 | 10.4 | | | | | | | | | |