

BSA BOLLARD SERIES - LED

PHOTOMETRIC DATA GUIDE - LUMEN CHARTS

| BSA6-LED | | | | | | | | | | | | | | | | | | | |
|-----------|--------------------|--------------|-------------|---------------------|-----|------------|---------------------|-----|------------|---------------------|-----|------------|---------------------|-----|------------|--------------|-------------|-----|------------|
| LED Count | Drive Current (mA) | System Watts | Dist'n Type | 27K (2700K - 70CRI) | | | 30K (3000K - 70CRI) | | | 40K (4000K - 70CRI) | | | 50K (5000K - 70CRI) | | | System Watts | TRA (590nm) | | |
| | | | | LUMENS | LPW | BUG RATING | LUMENS | LPW | BUG RATING | LUMENS | LPW | BUG RATING | LUMENS | LPW | BUG RATING | | LUMENS | LPW | BUG RATING |
| 12 | 350 | 13.2 | PR | 1406 | 106 | B1-U3-G1 | 1518 | 115 | B1-U3-G1 | 1598 | 121 | B1-U3-G1 | 1677 | 127 | B1-U3-G1 | 10.1 | 481 | 48 | B0-U3-G1 |
| | | | PR-HS180 | 912 | 69 | B0-U3-G1 | 984 | 75 | B0-U3-G1 | 1036 | 78 | B0-U3-G1 | 1087 | 82 | B0-U3-G1 | | 311 | 31 | B0-U3-G1 |
| 24 | 350 | 26.4 | CL | 912 | 35 | B1-U3-G1 | 984 | 37 | B1-U3-G1 | 1036 | 39 | B1-U3-G1 | 1087 | 41 | B1-U3-G1 | 20.3 | 311 | 15 | B0-U3-G1 |
| | | | CL-HS180 | 521 | 20 | B0-U3-G1 | 562 | 21 | B0-U3-G1 | 591 | 22 | B0-U3-G1 | 620 | 23 | B0-U3-G1 | | 178 | 9 | B0-U2-G1 |
| | | | IL | 1623 | 61 | B1-U3-G2 | 1752 | 66 | B1-U3-G2 | 1844 | 70 | B1-U3-G2 | 1936 | 73 | B1-U3-G2 | | 554 | 27 | B0-U3-G1 |
| | | | IL-HS180 | 966 | 37 | B0-U3-G2 | 1043 | 40 | B0-U3-G2 | 1098 | 42 | B0-U3-G2 | 1152 | 44 | B0-U3-G2 | | 329 | 16 | B0-U3-G1 |
| | | | WA | 1959 | 74 | B1-U4-G2 | 2115 | 80 | B1-U4-G2 | 2226 | 84 | B1-U4-G2 | 2337 | 89 | B1-U4-G2 | | 668 | 33 | B0-U3-G1 |
| | | | WA-HS180 | 1084 | 41 | B0-U3-G2 | 1170 | 44 | B0-U3-G2 | 1231 | 47 | B0-U3-G2 | 1292 | 49 | B0-U3-G2 | | 370 | 18 | B0-U3-G1 |

| BSA8-LED | | | | | | | | | | | | | | | | | | | |
|-----------|--------------------|--------------|-------------|---------------------|-----|------------|---------------------|-----|------------|---------------------|-----|------------|---------------------|-----|------------|--------------|-------------|-----|------------|
| LED Count | Drive Current (mA) | System Watts | Dist'n Type | 27K (2700K - 70CRI) | | | 30K (3000K - 70CRI) | | | 40K (4000K - 70CRI) | | | 50K (5000K - 70CRI) | | | System Watts | TRA (590nm) | | |
| | | | | LUMENS | LPW | BUG RATING | LUMENS | LPW | BUG RATING | LUMENS | LPW | BUG RATING | LUMENS | LPW | BUG RATING | | LUMENS | LPW | BUG RATING |
| 18 | 350 | 19.8 | PR | 2109 | 107 | B1-U3-G1 | 2278 | 115 | B1-U3-G1 | 2397 | 121 | B1-U3-G1 | 2516 | 127 | B1-U3-G1 | 15.2 | 720 | 47 | B0-U3-G1 |
| | | | PR-HS180 | 1367 | 69 | B0-U3-G1 | 1476 | 75 | B0-U3-G1 | 1553 | 78 | B0-U3-G1 | 1630 | 82 | B0-U3-G2 | | 466 | 31 | B0-U3-G1 |
| 24 | 350 | 26.4 | CL | 912 | 35 | B1-U3-G1 | 984 | 37 | B1-U3-G1 | 1036 | 39 | B1-U3-G1 | 1087 | 41 | B1-U3-G1 | 20.3 | 311 | 15 | B0-U3-G1 |
| | | | CL-HS180 | 521 | 20 | B0-U3-G1 | 562 | 21 | B0-U3-G1 | 591 | 22 | B0-U3-G1 | 620 | 23 | B0-U3-G1 | | 178 | 9 | B0-U2-G1 |
| | | | IL | 1623 | 61 | B1-U3-G2 | 1752 | 66 | B1-U3-G2 | 1844 | 70 | B1-U3-G2 | 1936 | 73 | B1-U3-G2 | | 554 | 27 | B0-U3-G1 |
| | | | IL-HS180 | 966 | 37 | B0-U3-G2 | 1043 | 40 | B0-U3-G2 | 1098 | 42 | B0-U3-G2 | 1152 | 44 | B0-U3-G2 | | 329 | 16 | B0-U3-G1 |
| | | | WA | 1959 | 74 | B1-U4-G2 | 2115 | 80 | B1-U4-G2 | 2226 | 84 | B1-U4-G2 | 2337 | 89 | B1-U4-G2 | | 668 | 33 | B0-U3-G1 |
| | | | WA-HS180 | 1084 | 41 | B0-U3-G2 | 1170 | 44 | B0-U3-G2 | 1231 | 47 | B0-U3-G2 | 1292 | 49 | B0-U3-G2 | | 370 | 18 | B0-U3-G1 |
| 36 | 350 | 39.6 | CL | 1226 | 31 | B1-U3-G1 | 1323 | 33 | B1-U3-G1 | 1394 | 35 | B1-U3-G1 | 1463 | 37 | B1-U3-G1 | 30.5 | 419 | 14 | B0-U3-G1 |
| | | | CL-HS180 | 716 | 18 | B0-U3-G1 | 773 | 20 | B0-U3-G1 | 814 | 21 | B0-U3-G1 | 854 | 22 | B0-U3-G1 | | 245 | 8 | B0-U3-G1 |
| | | | IL | 2138 | 54 | B1-U4-G2 | 2308 | 58 | B1-U4-G2 | 2429 | 61 | B1-U4-G2 | 2550 | 64 | B1-U4-G2 | | 729 | 24 | B0-U3-G1 |
| | | | IL-HS180 | 1269 | 32 | B0-U3-G2 | 1370 | 35 | B0-U3-G2 | 1442 | 36 | B0-U3-G2 | 1513 | 38 | B0-U3-G2 | | 433 | 14 | B0-U3-G1 |
| | | | WA | 2877 | 73 | B1-U5-G2 | 3105 | 78 | B1-U5-G2 | 3269 | 83 | B1-U5-G2 | 3433 | 87 | B1-U5-G2 | | 981 | 32 | B0-U3-G1 |
| | | | WA-HS180 | 1591 | 40 | B0-U4-G2 | 1717 | 43 | B0-U4-G2 | 1808 | 46 | B0-U4-G2 | 1898 | 48 | B0-U4-G2 | | 543 | 18 | B0-U3-G1 |

PHOTOMETRIC DATA GUIDE - LM-80 LUMEN MAINTENANCE

| LED Life / Operating Hours | Lumen Depreciation | Lumen Depreciation Scale Factor |
|-----------------------------------|--------------------|---------------------------------|
| 60,000 (10x Test Time Calculated) | L94 | 0.94x |
| 100,000 (Theoretical Calculated) | L92 | 0.92x |
| 150,000 (Theoretical Calculated) | L89 | 0.89x |

Lumen Depreciation Calculations Done in Accordance With IESNA TM-21 & LM-80 (25°C Ambient)
TM-21 6x Test Time Dictates that L94 > 60,000 Hours.

ELECTRICAL DATA GUIDE - AMPERAGE CHARTS

| ELECTRICAL LOAD | | | CURRENT (A) | | | | |
|-----------------|-----|--------------|-------------|------|------|------|------|
| # of LEDs | mA | System Watts | 120V | 208V | 277V | 347V | 480V |
| 12 | 350 | 13.2 | 0.11 | 0.06 | 0.05 | 0.04 | 0.03 |
| 18 | 350 | 19.8 | 0.17 | 0.10 | 0.07 | 0.06 | 0.04 |
| 24 | 350 | 26.4 | 0.22 | 0.13 | 0.10 | 0.08 | 0.06 |
| 36 | 350 | 39.6 | 0.33 | 0.19 | 0.14 | 0.11 | 0.08 |