



Series/Model: 2400 Double Hung

NFRC U-FACTOR, SHGC, VT, AND CR COMPUTER SIMULATION REPORT SUMMARY

Standards: NFRC 100-2014, NFRC 200-2014, NFRC 500-2014

| ID | Frame Depth | U-Factor | SHGC | VT | CR | Fill | Spacer | Exterior Lite | | Air Space | Lite # 2 | | Air Space | Lite # 3 | | Air Space | Lite # 4 | |
|----|-------------|-------------|------|------|----|---------------|-----------------|---------------|-------------|-----------|----------|------------|-----------|----------|-------|-----------|----------|-------|
| 1 | 4.5 | 0.61 | 0.51 | 0.58 | 39 | Air | None | 0.266 | Lami | 2.050 | 0.225 | Clear | | | | | | |
| 1a | 4.5 | 0.61 | 0.42 | 0.40 | 39 | Air | None | 0.276 | Gray Lami | 2.050 | 0.225 | Clear | | | | | | |
| 1b | 4.5 | 0.61 | 0.42 | 0.54 | 39 | Air | None | 0.278 | Green Lami | 2.050 | 0.225 | Clear | | | | | | |
| 1c | 4.5 | 0.61 | 0.43 | 0.44 | 39 | Air | None | 0.278 | Bronze Lami | 2.050 | 0.225 | Clear | | | | | | |
| 1d | 4.5 | 0.61 | 0.47 | 0.48 | 39 | Air | None | 0.288 | Blue Lami | 2.050 | 0.225 | Clear | | | | | | |
| 2 | 4.5 | 0.50 | 0.49 | 0.54 | 44 | Air | None | 0.266 | Lami | 2.050 | 0.222 | Comfort E2 | | | | | | |
| 2a | 4.5 | 0.50 | 0.38 | 0.37 | 44 | Air | None | 0.276 | Gray Lami | 2.050 | 0.222 | Comfort E2 | | | | | | |
| 2b | 4.5 | 0.50 | 0.39 | 0.50 | 44 | Air | None | 0.278 | Green Lami | 2.050 | 0.222 | Comfort E2 | | | | | | |
| 2c | 4.5 | 0.50 | 0.40 | 0.41 | 44 | Air | None | 0.278 | Bronze Lami | 2.050 | 0.222 | Comfort E2 | | | | | | |
| 2d | 4.5 | 0.50 | 0.43 | 0.45 | 44 | Air | None | 0.288 | Blue Lami | 2.050 | 0.222 | Comfort E2 | | | | | | |
| 3 | 4.5 | 0.60 | 0.50 | 0.58 | 40 | Air | None | 0.296 | Lami | 1.983 | 0.296 | Lami | | | | | | |
| 4 | 4.5 | 0.49 | 0.40 | 0.39 | 45 | Air | None | 0.335 | S500 Lami | 1.990 | 0.266 | Lami | | | | | | |
| 5 | 4.5 | 0.49 | 0.42 | 0.52 | 45 | Air | None | 0.335 | S500 Lami | 1.943 | 0.313 | Lami | | | | | | |
| 6 | 4.5 | 0.62 | 0.56 | 0.60 | 40 | Air | None | 0.225 | Clear | 2.129 | 0.123 | Clear | | | | | | |
| 6a | 4.5 | 0.62 | 0.37 | 0.30 | 40 | Air | None | 0.222 | Gray | 2.129 | 0.123 | Clear | | | | | | |
| 6b | 4.5 | 0.62 | 0.39 | 0.52 | 40 | Air | None | 0.222 | Green | 2.129 | 0.123 | Clear | | | | | | |
| 6c | 4.5 | 0.62 | 0.39 | 0.36 | 40 | Air | None | 0.221 | Bronze | 2.129 | 0.123 | Clear | | | | | | |
| 6d | 4.5 | 0.62 | 0.47 | 0.43 | 40 | Air | None | 0.223 | Blue | 2.129 | 0.123 | Clear | | | | | | |
| 7 | 4.5 | 0.50 | 0.52 | 0.55 | 45 | Air | None | 0.225 | Clear | 2.129 | 0.122 | Comfort E2 | | | | | | |
| 7a | 4.5 | 0.50 | 0.32 | 0.28 | 45 | Air | None | 0.222 | Gray | 2.129 | 0.122 | Comfort E2 | | | | | | |
| 7b | 4.5 | 0.50 | 0.50 | 0.48 | 45 | Air | None | 0.222 | Green | 2.129 | 0.122 | Comfort E2 | | | | | | |
| 7c | 4.5 | 0.50 | 0.50 | 0.33 | 45 | Air | None | 0.221 | Bronze | 2.129 | 0.122 | Comfort E2 | | | | | | |
| 7d | 4.5 | 0.50 | 0.50 | 0.40 | 45 | Air | None | 0.223 | Blue | 2.129 | 0.122 | Comfort E2 | | | | | | |
| 8 | 4.5 | 0.50 | 0.50 | 0.56 | 45 | Air | None | 0.222 | Comfort E2 | 2.129 | 0.123 | Clear | | | | | | |
| 9 | 4.5 | 0.51 | 0.51 | 0.55 | 45 | Air | None | 0.223 | S500 | 2.129 | 0.129 | Clear | | | | | | |
| 10 | 4.5 | 0.50 | 0.50 | 0.55 | 38 | Air | Aluminum | 0.266 | Lami | 1.925 | 0.123 | Clear | 0.250 | 0.123 | Clear | | | |
| 11 | 4.5 | 0.47 | 0.47 | 0.50 | 38 | Air | Aluminum | 0.225 | Clear | 1.925 | 0.122 | Comfort E2 | 0.250 | 0.123 | Clear | | | |
| 12 | 4.5 | 0.42 | 0.42 | 0.43 | 38 | Air/Argon | Stainless Steel | 0.223 | Clear | 1.925 | 0.117 | E366 | 0.266 | 0.117 | Clear | | | |
| 13 | 4.5 | 0.43 | 0.43 | 0.48 | 38 | Air/Argon | Stainless Steel | 0.223 | Clear | 1.925 | 0.117 | E272 | 0.266 | 0.117 | Clear | | | |
| 14 | 4.5 | 0.50 | 0.50 | 0.55 | 37 | Air | Aluminum | 0.225 | Clear | 1.925 | 0.123 | Clear | 0.250 | 0.123 | Clear | | | |
| 15 | 4.5 | 0.50 | 0.52 | 0.55 | 40 | Air | Aluminum | 0.123 | Clear | 0.250 | 0.123 | Lami | 1.925 | 0.266 | Lami | | | |
| 16 | 4.5 | 0.48 | 0.48 | 0.50 | 41 | Air | Aluminum | 0.123 | Comfort E2 | 0.250 | 0.122 | Clear | 1.925 | 0.225 | Clear | | | |
| 17 | 4.5 | 0.43 | 0.26 | 0.43 | 42 | Argon/Air | Stainless Steel | 0.117 | E366 | 0.266 | 0.117 | Clear | 1.925 | 0.223 | Clear | | | |
| 18 | 4.5 | 0.43 | 0.34 | 0.48 | 42 | Argon/Air | Stainless Steel | 0.117 | E272 | 0.266 | 0.117 | Clear | 1.925 | 0.223 | Clear | | | |
| 19 | 4.5 | 0.51 | 0.53 | 0.55 | 40 | Air | Aluminum | 0.123 | Clear | 0.250 | 0.123 | Clear | 1.925 | 0.225 | Clear | | | |
| 20 | 4.5 | 0.44 | 0.49 | 0.51 | 40 | Air | Aluminum | 0.123 | Clear | 0.250 | 0.123 | Clear | 1.800 | 0.123 | Clear | 0.250 | 0.123 | Clear |
| 21 | 4.5 | 0.42 | 0.42 | 0.47 | 40 | Air | Aluminum | 0.122 | Comfort E2 | 0.250 | 0.123 | Clear | 1.800 | 0.123 | Clear | 0.250 | 0.123 | Clear |
| 22 | 4.5 | 0.42 | 0.44 | 0.47 | 40 | Air | Aluminum | 0.123 | Clear | 0.250 | 0.122 | Comfort E2 | 1.800 | 0.123 | Clear | 0.250 | 0.117 | Clear |
| 23 | 4.5 | 0.40 | 0.27 | 0.45 | 41 | Argon/Air/Air | Stainless Steel | 0.117 | E272 | 0.266 | 0.117 | Clear | 1.800 | 0.117 | Clear | 0.250 | 0.117 | Clear |
| 24 | 4.5 | 0.39 | 0.18 | 0.40 | 41 | Argon/Air/Air | Stainless Steel | 0.117 | E366 | 0.266 | 0.117 | Clear | 1.800 | 0.117 | Clear | 0.250 | 0.117 | Clear |
| 25 | 4.5 | 0.40 | 0.17 | 0.25 | 41 | Argon/Air/Air | Stainless Steel | 0.118 | E240 | 0.266 | 0.117 | Clear | 1.800 | 0.117 | Clear | 0.250 | 0.117 | Clear |

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|-----|-----|------|------|------|----|-----------------|-----------------|-------|-------------|-------|-------|------------|-------|-------|------------|-------|-------|------------|
| 26 | 5 | 0.59 | 0.51 | 0.58 | 43 | Air | None | 0.266 | Lami | 2.587 | 0.225 | Clear | | | | | | |
| 26a | 5 | 0.59 | 0.42 | 0.40 | 43 | Air | None | 0.276 | Gray Lami | 2.587 | 0.225 | Clear | | | | | | |
| 26b | 5 | 0.59 | 0.42 | 0.54 | 43 | Air | None | 0.278 | Green Lami | 2.587 | 0.225 | Clear | | | | | | |
| 26c | 5 | 0.59 | 0.43 | 0.44 | 43 | Air | None | 0.278 | Bronze Lami | 2.587 | 0.225 | Clear | | | | | | |
| 26d | 5 | 0.59 | 0.47 | 0.48 | 43 | Air | None | 0.288 | Blue Lami | 2.587 | 0.225 | Clear | | | | | | |
| 27 | 5 | 0.47 | 0.49 | 0.54 | 49 | Air | None | 0.266 | Lami | 2.587 | 0.222 | Comfort E2 | | | | | | |
| 27a | 5 | 0.47 | 0.38 | 0.37 | 49 | Air | None | 0.276 | Gray Lami | 2.587 | 0.222 | Comfort E2 | | | | | | |
| 27b | 5 | 0.47 | 0.39 | 0.50 | 49 | Air | None | 0.278 | Green Lami | 2.587 | 0.222 | Comfort E2 | | | | | | |
| 27c | 5 | 0.47 | 0.40 | 0.41 | 49 | Air | None | 0.278 | Bronze Lami | 2.587 | 0.222 | Comfort E2 | | | | | | |
| 27d | 5 | 0.47 | 0.43 | 0.45 | 49 | Air | None | 0.288 | Blue Lami | 2.587 | 0.222 | ComgtE2 | | | | | | |
| 28 | 5 | 0.57 | 0.50 | 0.58 | 43 | Air | None | 0.296 | Lami | 2.520 | 0.296 | Lami | | | | | | |
| 29 | 5 | 0.47 | 0.40 | 0.39 | 49 | Air | None | 0.335 | S500 Lami | 2.527 | 0.266 | White Lami | | | | | | |
| 30 | 5 | 0.46 | 0.42 | 0.52 | 49 | Air | None | 0.335 | S500 Lami | 2.500 | 0.313 | Lami | | | | | | |
| 31 | 5 | 0.60 | 0.56 | 0.60 | 42 | Air | None | 0.225 | Clear | 2.661 | 0.123 | Clear | | | | | | |
| 31a | 5 | 0.60 | 0.37 | 0.30 | 42 | Air | None | 0.222 | Gray | 2.661 | 0.123 | Clear | | | | | | |
| 31b | 5 | 0.60 | 0.39 | 0.52 | 42 | Air | None | 0.222 | Green | 2.661 | 0.123 | Clear | | | | | | |
| 31c | 5 | 0.60 | 0.39 | 0.36 | 42 | Air | None | 0.221 | Bronze | 2.661 | 0.123 | Clear | | | | | | |
| 31d | 5 | 0.60 | 0.47 | 0.43 | 42 | Air | None | 0.223 | Blue | 2.661 | 0.123 | Clear | | | | | | |
| 32 | 5 | 0.48 | 0.52 | 0.55 | 48 | Air | None | 0.225 | Clear | 2.661 | 0.122 | Comfort E2 | | | | | | |
| 32a | 5 | 0.48 | 0.32 | 0.28 | 48 | Air | None | 0.222 | Gray | 2.661 | 0.122 | Comfort E2 | | | | | | |
| 32b | 5 | 0.48 | 0.34 | 0.48 | 48 | Air | None | 0.222 | Green | 2.661 | 0.122 | Comfort E2 | | | | | | |
| 32c | 5 | 0.48 | 0.35 | 0.33 | 48 | Air | None | 0.221 | Bronze | 2.661 | 0.122 | Comfort E2 | | | | | | |
| 32d | 5 | 0.48 | 0.43 | 0.40 | 48 | Air | None | 0.223 | Blue | 2.661 | 0.122 | Comfort E2 | | | | | | |
| 33 | 5 | 0.48 | 0.48 | 0.56 | 49 | Air | None | 0.222 | Comfort E2 | 2.661 | 0.123 | Clear | | | | | | |
| 34 | 5 | 0.48 | 0.47 | 0.55 | 49 | Air | None | 0.223 | S500 | 2.661 | 0.129 | Clear | | | | | | |
| 35 | 5 | 0.48 | 0.47 | 0.55 | 41 | Air | Aluminum | 0.266 | Lami | 2.461 | 0.123 | Clear | 0.250 | 0.123 | | | | |
| 36 | 5 | 0.45 | 0.46 | 0.50 | 41 | Air | Aluminum | 0.225 | Clear | 2.461 | 0.122 | Comfort E2 | 0.250 | 0.123 | Clear | | | |
| 37 | 5 | 0.40 | 0.24 | 0.43 | 41 | Air/Argon | Stainless Steel | 0.223 | Clear | 2.461 | 0.117 | E366 | 0.266 | 0.117 | Clear | | | |
| 38 | 5 | 0.41 | 0.32 | 0.48 | 41 | Air/Argon | Stainless Steel | 0.223 | Clear | 2.461 | 0.117 | E272 | 0.266 | 0.117 | Clear | | | |
| 39 | 5 | 0.48 | 0.51 | 0.55 | 41 | Air | Aluminum | 0.225 | Clear | 2.461 | 0.123 | Clear | 0.250 | 0.123 | Clear | | | |
| 40 | 5 | 0.48 | 0.52 | 0.55 | 44 | Air | Aluminum | 0.123 | Clear | 0.250 | 0.123 | Lami | 2.461 | 0.266 | Lami | | | |
| 41 | 5 | 0.46 | 0.48 | 0.50 | 45 | Air | Aluminum | 0.123 | Comfort E2 | 0.250 | 0.122 | Clear | 2.461 | 0.225 | Clear | | | |
| 42 | 5 | 0.41 | 0.26 | 0.43 | 46 | Argon/Air | Stainless Steel | 0.117 | E366 | 0.266 | 0.117 | Clear | 2.461 | 0.223 | Clear | | | |
| 43 | 5 | 0.41 | 0.34 | 0.48 | 46 | Argon/Air | Stainless Steel | 0.117 | E272 | 0.266 | 0.117 | Clear | 2.461 | 0.223 | Clear | | | |
| 44 | 5 | 0.48 | 0.53 | 0.55 | 44 | Air | Aluminum | 0.123 | Clear | 0.250 | 0.123 | Clear | 2.461 | 0.225 | Clear | | | |
| 45 | 5 | 0.42 | 0.49 | 0.51 | 43 | Air | Aluminum | 0.123 | Clear | 0.250 | 0.123 | Clear | 2.337 | 0.123 | Clear | 0.250 | 0.123 | Clear |
| 46 | 5 | 0.40 | 0.42 | 0.47 | 44 | Air | Aluminum | 0.122 | Comfort E2 | 0.250 | 0.123 | Clear | 2.337 | 0.123 | Clear | 0.250 | 0.123 | Clear |
| 47 | 5 | 0.40 | 0.44 | 0.47 | 44 | Air | Aluminum | 0.123 | Clear | 0.250 | 0.122 | Comfort E2 | 2.337 | 0.123 | Clear | 0.250 | 0.123 | Clear |
| 48 | 5 | 0.38 | 0.27 | 0.45 | 45 | Argon/Air/Air | Stainless Steel | 0.117 | E272 | 0.266 | 0.117 | Clear | 2.337 | 0.117 | Clear | 0.250 | 0.117 | Clear |
| 49 | 5 | 0.37 | 0.18 | 0.40 | 45 | Argon/Air/Air | Stainless Steel | 0.117 | E366 | 0.266 | 0.117 | Clear | 2.337 | 0.117 | Clear | 0.250 | 0.117 | Clear |
| 50 | 5 | 0.38 | 0.17 | 0.25 | 45 | Argon/Air/Air | Stainless Steel | 0.118 | E240 | 0.266 | 0.117 | Clear | 2.337 | 0.117 | Clear | 0.250 | 0.117 | Clear |
| 51 | 4.5 | 0.39 | 0.27 | 0.44 | 41 | Argon/Air/Argon | Stainless Steel | 0.187 | E272 | 0.266 | 0.117 | Clear | 1.770 | 0.117 | Clear | 0.250 | 0.117 | Clear |
| 52 | 4.5 | 0.39 | 0.27 | 0.45 | 41 | Argon/Air/Argon | Stainless Steel | 0.187 | E272 | 0.266 | 0.087 | Clear | 1.790 | 0.117 | Clear | 0.250 | 0.117 | Clear |
| 53 | 4.5 | 0.37 | 0.26 | 0.41 | 41 | Argon/Air/Argon | Stainless Steel | 0.187 | E272 | 0.266 | 0.087 | Clear | 1.790 | 0.117 | Clear | 0.250 | 0.122 | Comfort E2 |
| 54 | 4.5 | 0.37 | 0.32 | 0.44 | 47 | Argon/Air | Stainless Steel | 0.117 | E272 | 0.266 | 0.117 | Clear | 1.925 | 0.222 | Comfort E2 | | | |
| 55 | 4.5 | 0.37 | 0.32 | 0.45 | 47 | Argon/Air | Stainless Steel | 0.117 | E272 | 0.266 | 0.117 | Clear | 1.964 | 0.183 | Comfort E2 | | | |
| 56 | 4.5 | 0.33 | 0.18 | 0.39 | 47 | Argon/Air | Stainless Steel | 0.117 | E366 | 0.306 | 0.122 | Comfort E2 | 1.933 | 0.187 | i89 | | | |
| 57 | 4.5 | 0.32 | 0.18 | 0.39 | 51 | Argon/Air | Stainless Steel | 0.117 | E366 | 0.306 | 0.122 | Comfort E2 | 1.933 | 0.187 | i89 | | | |
| 58 | 5 | 0.31 | 0.18 | 0.39 | 52 | Argon/Air | Stainless Steel | 0.117 | E366 | 0.306 | 0.122 | Comfort E2 | 2.460 | 0.187 | i89 | | | |
| 59 | 5 | 0.46 | 0.31 | 0.32 | 48 | Air | None | 0.497 | Bronze Lami | 2.483 | 0.223 | S500 | | | | | | |
| 60 | 5 | 0.46 | 0.27 | 0.27 | 48 | Air | None | 0.497 | Gray Lami | 2.483 | 0.223 | S500 | | | | | | |

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|----|---|-------------|------|------|----|-----|------|-------|------------------|-------|-------|------|--|--|--|--|--|--|
| 61 | 5 | 0.46 | 0.20 | 0.27 | 46 | Air | None | 0.533 | SB60 Bronze Lami | 2.444 | 0.223 | S500 | | | | | | |
| 62 | 5 | 0.46 | 0.19 | 0.22 | 46 | Air | None | 0.536 | SB60 Gray Lami | 2.444 | 0.223 | S500 | | | | | | |
| 63 | 5 | 0.46 | 0.36 | 0.38 | 48 | Air | None | 0.497 | Blue Lami | 2.483 | 0.223 | S500 | | | | | | |
| 64 | 5 | 0.46 | 0.21 | 0.28 | 46 | Air | None | 0.536 | SB60 Blue Lami | 2.444 | 0.223 | S500 | | | | | | |