## Table 1-9—Atomization Parameters for Lund Straight Stream Nozzle

### LUND STRAIGHT STREAM NOZZLE 6 Orifice, 0° Angle
### FIXED-WING

| PSI | Airspeed, mph | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 100 | | | 110 | | | 120 | | | 130 | | | 140 | | | 150 | | | 160 | | |
| | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 |
| 20 | 503 | C | 3.9 | 430 | M | 5.2 | 369 | F | 7.1 | 320 | F | 9.5 | 284 | VF | 12.6 | 261 | VF | 16.3 | 250 | VF | 20.5 |
| 30 | 544 | C | 3.2 | 466 | C | 4.3 | 400 | M | 5.9 | 346 | F | 8.1 | 306 | F | 10.9 | 278 | VF | 14.2 | 262 | VF | 18.2 |
| 40 | 587 | C | 2.8 | 504 | C | 3.5 | 433 | C | 4.8 | 375 | M | 6.7 | 329 | F | 9.2 | 296 | VF | 12.3 | 276 | VF | 16.0 |
| 50 | 632 | C | 2.4 | 544 | C | 2.9 | 468 | C | 3.9 | 405 | M | 5.6 | 355 | F | 7.8 | 317 | F | 10.6 | 292 | VF | 14.0 |
| 60 | 679 | VC | 2.2 | 586 | C | 2.4 | 506 | C | 3.2 | 438 | C | 4.5 | 383 | M | 6.4 | 340 | F | 9.0 | 310 | F | 12.1 |

### LUND STRAIGHT STREAM NOZZLE 6 Orifice, 10° Angle
### FIXED-WING

| PSI | Airspeed, mph | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 100 | | | 110 | | | 120 | | | 130 | | | 140 | | | 150 | | | 160 | | |
| | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 |
| 20 | 508 | C | 2.5 | 432 | C | 3.7 | 368 | M | 5.5 | 318 | F | 7.8 | 279 | F | 10.7 | 254 | VF | 14.2 | 241 | VF | 18.3 |
| 30 | 546 | C | 2.4 | 465 | C | 3.3 | 397 | M | 4.7 | 342 | M | 6.8 | 299 | F | 9.4 | 268 | F | 12.6 | 251 | VF | 16.5 |
| 40 | 587 | C | 2.3 | 501 | C | 2.9 | 429 | M | 4.1 | 368 | M | 5.9 | 320 | F | 8.3 | 285 | F | 11.2 | 263 | VF | 14.7 |
| 50 | 630 | VC | 2.4 | 540 | C | 2.8 | 462 | C | 3.7 | 397 | M | 5.2 | 344 | M | 7.2 | 304 | F | 9.9 | 277 | VF | 13.1 |
| 60 | 675 | VC | 2.7 | 580 | C | 2.7 | 497 | C | 3.4 | 427 | M | 4.6 | 370 | M | 6.4 | 325 | F | 8.7 | 293 | F | 11.7 |

## LUND STRAIGHT STREAM NOZZLE 6 Orifice, 20° Angle
## FIXED-WING

| PSI | Airspeed, mph | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 100 | | | 110 | | | 120 | | | 130 | | | 140 | | | 150 | | | 160 | | |
| | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 |
| 20 | 532 | C | 1.6 | 454 | C | 2.7 | 388 | M | 4.3 | 335 | M | 6.5 | 295 | F | 9.3 | 267 | F | 12.6 | 252 | VF | 16.6 |
| 30 | 568 | VC | 1.9 | 485 | C | 2.6 | 415 | M | 4.0 | 357 | M | 5.9 | 312 | F | 8.4 | 279 | F | 11.5 | 259 | VF | 15.1 |
| 40 | 607 | VC | 2.3 | 519 | C | 2.8 | 444 | C | 3.8 | 382 | M | 5.4 | 332 | M | 7.7 | 294 | F | 10.5 | 269 | VF | 13.9 |
| 50 | 648 | VC | 2.9 | 556 | C | 3.0 | 476 | C | 3.8 | 408 | M | 5.2 | 353 | M | 7.1 | 311 | F | 9.6 | 282 | VF | 12.7 |
| 60 | 691 | VC | 3.6 | 594 | C | 3.5 | 509 | C | 3.9 | 437 | M | 5.0 | 377 | M | 6.7 | 330 | F | 8.9 | 296 | F | 11.7 |

## LUND STRAIGHT STREAM NOZZLE 8 Orifice, 0° Angle
## FIXED-WING

| PSI | Airspeed, mph | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 100 | | | 110 | | | 120 | | | 130 | | | 140 | | | 150 | | | 160 | | |
| | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 |
| 20 | 495 | C | 3.1 | 422 | M | 4.4 | 361 | M | 6.2 | 313 | F | 8.6 | 277 | F | 11.6 | 254 | VF | 15.2 | 244 | VF | 19.4 |
| 30 | 535 | C | 2.6 | 457 | M | 3.5 | 392 | M | 5.1 | 338 | M | 7.2 | 298 | F | 9.9 | 270 | VF | 13.2 | 255 | VF | 17.1 |
| 40 | 578 | VC | 2.2 | 495 | C | 2.8 | 424 | M | 4.1 | 366 | M | 6.0 | 321 | F | 8.4 | 288 | F | 11.4 | 268 | VF | 15.0 |
| 50 | 622 | VC | 1.9 | 534 | C | 2.3 | 459 | C | 3.3 | 396 | M | 4.8 | 346 | M | 7.0 | 309 | F | 9.7 | 284 | VF | 13.0 |
| 60 | 668 | VC | 1.8 | 576 | VC | 1.9 | 496 | C | 2.6 | 428 | M | 3.9 | 373 | M | 5.7 | 331 | F | 8.2 | 301 | F | 11.2 |

## LUND STRAIGHT STREAM NOZZLE 8 Orifice, 10° Angle
## FIXED-WING

| PSI | Airspeed, mph | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 100 | | | 110 | | | 120 | | | 130 | | | 140 | | | 150 | | | 160 | | |
| | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 |
| 20 | 497 | C | 2.6 | 422 | M | 3.7 | 358 | M | 5.4 | 308 | F | 7.7 | 270 | F | 10.5 | 245 | VF | 14.0 | 232 | VF | 18.0 |
| 30 | 535 | C | 2.5 | 455 | M | 3.3 | 387 | M | 4.7 | 332 | M | 6.7 | 289 | F | 9.3 | 259 | VF | 12.5 | 241 | VF | 16.2 |
| 40 | 575 | VC | 2.5 | 490 | C | 3.1 | 417 | M | 4.2 | 357 | M | 5.9 | 310 | F | 8.2 | 275 | F | 11.1 | 253 | VF | 14.5 |
| 50 | 618 | VC | 2.7 | 528 | C | 3.0 | 450 | M | 3.8 | 385 | M | 5.2 | 333 | M | 7.2 | 293 | F | 9.8 | 266 | VF | 13.0 |
| 60 | 662 | VC | 3.0 | 567 | C | 3.0 | 485 | C | 3.6 | 415 | M | 4.7 | 358 | M | 6.4 | 314 | F | 8.8 | 282 | F | 11.6 |

## LUND STRAIGHT STREAM NOZZLE 8 Orifice, 20° Angle
## FIXED-WING

| PSI | Airspeed, mph | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 100 | | | 110 | | | 120 | | | 130 | | | 140 | | | 150 | | | 160 | | |
| | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 |
| 20 | 519 | C | 2.5 | 441 | M | 3.4 | 376 | M | 5.0 | 323 | M | 7.1 | 283 | F | 9.9 | 255 | VF | 13.2 | 240 | VF | 17.0 |
| 30 | 555 | C | 2.8 | 472 | C | 3.5 | 402 | M | 4.8 | 345 | M | 6.6 | 300 | F | 9.1 | 267 | F | 12.1 | 248 | VF | 15.7 |
| 40 | 593 | C | 3.3 | 506 | C | 3.7 | 431 | M | 4.7 | 369 | M | 6.3 | 319 | F | 8.4 | 282 | F | 11.1 | 257 | VF | 14.5 |
| 50 | 634 | VC | 3.9 | 541 | C | 4.1 | 462 | C | 4.8 | 394 | M | 6.0 | 340 | F | 7.9 | 298 | F | 10.4 | 269 | VF | 13.4 |
| 60 | 676 | VC | 4.7 | 579 | C | 4.5 | 494 | C | 5.0 | 422 | M | 6.0 | 363 | F | 7.5 | 316 | F | 9.7 | 282 | VF | 12.5 |

## LUND STRAIGHT STREAM NOZZLE 10 Orifice, 0° Angle
## FIXED-WING

| PSI | Airspeed, mph | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 100 | | | 110 | | | 120 | | | 130 | | | 140 | | | 150 | | | 160 | | |
| | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 |
| 20 | 479 | M | 2.2 | 406 | M | 3.4 | 345 | F | 5.1 | 297 | F | 7.5 | 262 | F | 10.4 | 239 | VF | 14.0 | 229 | VF | 18.1 |
| 30 | 519 | C | 1.7 | 441 | M | 2.6 | 375 | M | 4.1 | 322 | F | 6.2 | 282 | F | 8.8 | 254 | F | 12.1 | 239 | VF | 15.9 |
| 40 | 560 | VC | 1.4 | 477 | M | 2.0 | 407 | M | 3.2 | 349 | M | 5.0 | 304 | M | 7.3 | 272 | F | 10.3 | 252 | VF | 13.8 |
| 50 | 604 | VC | 1.2 | 516 | C | 1.5 | 441 | M | 2.4 | 379 | M | 3.9 | 329 | M | 6.0 | 292 | F | 8.7 | 267 | F | 11.9 |
| 60 | 649 | VC | 1.1 | 557 | VC | 1.2 | 477 | C | 1.8 | 410 | M | 3.0 | 356 | M | 4.8 | 314 | F | 7.2 | 284 | F | 10.2 |

## LUND STRAIGHT STREAM NOZZLE 10 Orifice, 10° Angle
## FIXED-WING

| PSI | Airspeed, mph | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 100 | | | 110 | | | 120 | | | 130 | | | 140 | | | 150 | | | 160 | | |
| | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 |
| 20 | 479 | M | 2.5 | 403 | M | 3.5 | 340 | M | 5.1 | 290 | F | 7.3 | 253 | F | 10.1 | 227 | VF | 13.5 | 215 | VF | 17.5 |
| 30 | 516 | C | 2.4 | 436 | M | 3.2 | 368 | M | 4.5 | 313 | F | 6.5 | 271 | F | 9.0 | 241 | VF | 12.1 | 224 | VF | 15.8 |
| 40 | 556 | VC | 2.5 | 471 | M | 3.0 | 398 | M | 4.1 | 338 | M | 5.7 | 291 | F | 8.0 | 256 | F | 10.8 | 234 | VF | 14.2 |
| 50 | 597 | VC | 2.8 | 507 | C | 3.0 | 430 | M | 3.8 | 366 | M | 5.1 | 314 | M | 7.1 | 274 | F | 9.6 | 247 | VF | 12.7 |
| 60 | 641 | VC | 3.2 | 547 | VC | 3.1 | 464 | C | 3.6 | 395 | M | 4.7 | 338 | M | 6.3 | 294 | F | 8.6 | 262 | VF | 11.4 |

## LUND STRAIGHT STREAM NOZZLE 10 Orifice, 20° Angle
## FIXED-WING

| PSI | Airspeed, mph | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 100 | | | 110 | | | 120 | | | 130 | | | 140 | | | 150 | | | 160 | | |
| | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 | $D_{V0.5}$ | DSC | %<100 |
| 20 | 498 | C | 3.1 | 421 | M | 4.0 | 356 | M | 5.5 | 303 | F | 7.6 | 263 | F | 10.3 | 236 | VF | 13.5 | 221 | VF | 17.3 |
| 30 | 534 | C | 3.5 | 451 | M | 4.2 | 381 | M | 5.4 | 324 | M | 7.2 | 279 | F | 9.5 | 247 | VF | 12.5 | 228 | VF | 16.0 |
| 40 | 571 | C | 4.1 | 484 | C | 4.4 | 409 | M | 5.4 | 347 | M | 6.9 | 298 | F | 9.0 | 261 | VF | 11.6 | 237 | VF | 14.9 |
| 50 | 611 | C | 4.8 | 519 | C | 4.9 | 439 | M | 5.5 | 373 | M | 6.7 | 318 | F | 8.5 | 277 | VF | 10.9 | 247 | VF | 13.9 |
| 60 | 653 | C | 5.7 | 556 | C | 5.4 | 472 | C | 5.8 | 400 | M | 6.7 | 341 | F | 8.2 | 294 | F | 10.4 | 260 | VF | 13.0 |