

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P34052

Luminaire Tested: **2BCLED-LD4-20SL-F-UNV-L835-CD1-U**

Test Date: 04/06/15



Test Information

Test Method: LM-79-08
Report Number: P34052
Test Lab: INNOVATION CENTER-P3
Test Date: 04/06/15
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 2BCLED-LD4-20SL-F-UNV-L835-CD1-U
Description:
Light Source: (56) COOPER LIGHTING 3500K LEDS
Ballast/Driver: (1) ELECTRONIC DRIVER PROGRAMED

Summary

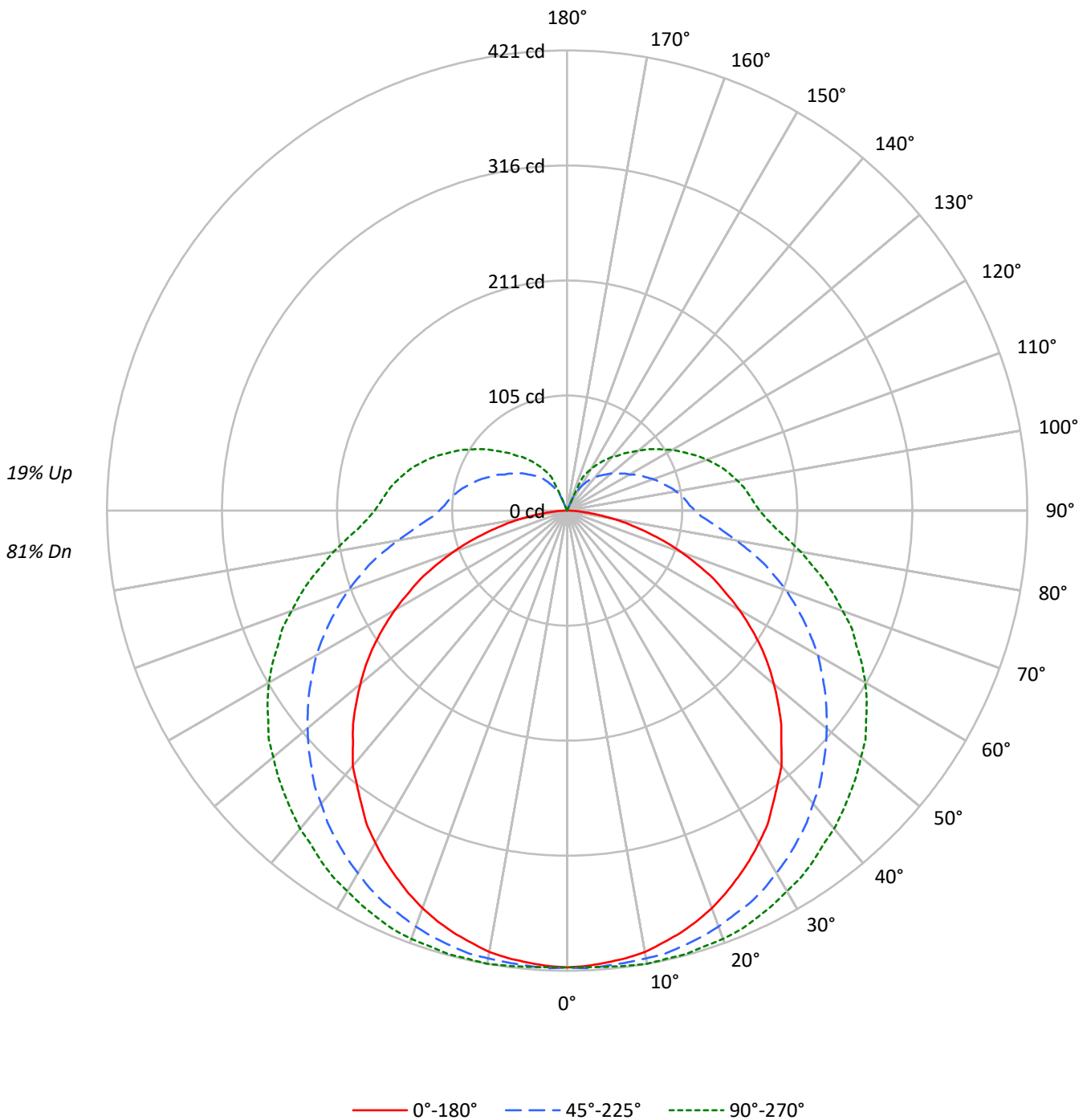
Lumens per Lamp: N/A
Luminaire Lumens: 1989.3 lumens
Efficiency: N/A
Efficacy: 84.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.44 / 1.51
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 2' x H: 0.21')
CIE Type: Semi-Direct

Input Watts (W): 23.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

TEST NUMBER: P34052

CATALOG NUMBER: 2BCLED-LD4-20SL-F-UNV-L835-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P34052

CATALOG NUMBER: 2BCLED-LD4-20SL-F-UNV-L835-CD1-U

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|
| RF | 20 | | | | 20 | | | | 20 | | | | 20 | | | | 20 | |
| RC | 80 | | | | 70 | | | | 50 | | | | 30 | | | | 10 | 0 |
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 115 | 115 | 115 | 115 | 110 | 110 | 110 | 110 | 101 | 101 | 101 | 92 | 92 | 92 | 85 | 85 | 85 | 81 |
| 1 | 102 | 96 | 91 | 86 | 97 | 92 | 87 | 83 | 84 | 80 | 77 | 77 | 74 | 71 | 70 | 68 | 66 | 62 |
| 2 | 91 | 82 | 74 | 68 | 87 | 78 | 71 | 65 | 72 | 66 | 61 | 66 | 61 | 57 | 60 | 56 | 53 | 50 |
| 3 | 83 | 71 | 62 | 55 | 78 | 68 | 60 | 53 | 62 | 56 | 50 | 57 | 51 | 47 | 52 | 48 | 44 | 41 |
| 4 | 75 | 62 | 53 | 46 | 71 | 60 | 51 | 44 | 55 | 48 | 42 | 50 | 44 | 39 | 46 | 41 | 37 | 34 |
| 5 | 69 | 55 | 46 | 39 | 65 | 53 | 44 | 38 | 49 | 41 | 36 | 45 | 39 | 34 | 41 | 36 | 32 | 29 |
| 6 | 63 | 50 | 40 | 33 | 60 | 48 | 39 | 33 | 44 | 36 | 31 | 40 | 34 | 29 | 37 | 32 | 27 | 25 |
| 7 | 59 | 45 | 36 | 29 | 56 | 43 | 34 | 28 | 40 | 32 | 27 | 37 | 30 | 26 | 34 | 28 | 24 | 22 |
| 8 | 54 | 41 | 32 | 26 | 52 | 39 | 31 | 25 | 36 | 29 | 24 | 33 | 27 | 23 | 31 | 25 | 21 | 19 |
| 9 | 51 | 37 | 29 | 23 | 48 | 36 | 28 | 22 | 33 | 26 | 21 | 31 | 25 | 20 | 28 | 23 | 19 | 17 |
| 10 | 47 | 34 | 26 | 21 | 45 | 33 | 25 | 20 | 31 | 24 | 19 | 28 | 22 | 18 | 26 | 21 | 17 | 15 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 5999 | 5999 | 5999 |
| 5° | 5925 | 5786 | 5757 |
| 10° | 5867 | 5602 | 5588 |
| 15° | 5782 | 5441 | 5432 |
| 20° | 5695 | 5288 | 5298 |
| 25° | 5588 | 5150 | 5169 |
| 30° | 5487 | 5000 | 5044 |
| 35° | 5356 | 4860 | 4945 |
| 40° | 5255 | 4713 | 4856 |
| 45° | 5092 | 4581 | 4776 |
| 50° | 4906 | 4448 | 4715 |
| 55° | 4705 | 4325 | 4660 |
| 60° | 4426 | 4207 | 4608 |
| 65° | 4108 | 4057 | 4525 |
| 70° | 3621 | 3917 | 4451 |
| 75° | 2955 | 3763 | 4384 |
| 80° | 2182 | 3559 | 4321 |
| 85° | 1052 | 3459 | 4302 |



TEST NUMBER: P34052

CATALOG NUMBER: 2BCLED-LD4-20SL-F-UNV-L835-CD1-U

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 39.8 | 2.0 |
| 10°-20° | 116.3 | 5.8 |
| 20°-30° | 181.6 | 9.1 |
| 30°-40° | 228.5 | 11.5 |
| 40°-50° | 252.6 | 12.7 |
| 50°-60° | 252.8 | 12.7 |
| 60°-70° | 228.3 | 11.5 |
| 70°-80° | 183.8 | 9.2 |
| 80°-90° | 133.7 | 6.7 |
| 90°-100° | 106.9 | 5.4 |
| 100°-110° | 88.9 | 4.5 |
| 110°-120° | 68.9 | 3.5 |
| 120°-130° | 49.4 | 2.5 |
| 130°-140° | 32.7 | 1.6 |
| 140°-150° | 19.0 | 1.0 |
| 150°-160° | 6.2 | 0.3 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 337.6 | 17.0 |
| 0°-40° | 566.1 | 28.5 |
| 0°-60° | 1071.5 | 53.9 |
| 0°-90° | 1617.4 | 81.3 |
| 90°-120° | 264.7 | 13.3 |
| 90°-150° | 365.8 | 18.4 |
| 90°-180° | 372.0 | 18.7 |
| 0°-180° | 1989.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0° | 418 | 418 | 418 | 418 | 418 | |
| 5° | 415 | 416 | 418 | 419 | 419 | 39 |
| 15° | 400 | 404 | 412 | 418 | 420 | 113 |
| 25° | 370 | 380 | 396 | 408 | 411 | 171 |
| 35° | 328 | 344 | 368 | 386 | 392 | 206 |
| 45° | 277 | 298 | 331 | 356 | 366 | 213 |
| 55° | 216 | 244 | 288 | 322 | 334 | 193 |
| 65° | 148 | 184 | 239 | 278 | 292 | 145 |
| 75° | 74 | 123 | 186 | 228 | 243 | 79 |
| 85° | 14 | 70 | 133 | 177 | 192 | 17 |
| 90° | 0 | 54 | 117 | 160 | 176 | 1 |
| 95° | 0 | 47 | 109 | 152 | 167 | 0 |
| 105° | 0 | 36 | 92 | 133 | 148 | 0 |
| 115° | 0 | 30 | 75 | 110 | 123 | 0 |
| 125° | 0 | 24 | 59 | 87 | 98 | 0 |
| 135° | 0 | 18 | 46 | 66 | 74 | 0 |
| 145° | 0 | 12 | 33 | 48 | 54 | 0 |
| 155° | 0 | 5 | 18 | 30 | 34 | 0 |
| 165° | 0 | 0 | 0 | 0 | 0 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P34052

CATALOG NUMBER: 2BCLED-LD4-20SL-F-UNV-L835-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 0° | 418 | 418 | 418 | 418 | 418 | 418 | 418 | 418 | 418 | 418 | 418 |
| 2.5° | 417 | 417 | 417 | 417 | 418 | 418 | 419 | 419 | 419 | 419 | 419 |
| 5° | 415 | 415 | 415 | 416 | 416 | 417 | 417 | 418 | 418 | 418 | 418 |
| 7.5° | 413 | 413 | 413 | 413 | 414 | 415 | 416 | 417 | 418 | 417 | 418 |
| 10° | 410 | 409 | 410 | 410 | 411 | 413 | 414 | 415 | 416 | 416 | 417 |
| 12.5° | 405 | 405 | 406 | 407 | 408 | 409 | 410 | 413 | 414 | 415 | 416 |
| 15° | 400 | 400 | 401 | 402 | 403 | 405 | 407 | 410 | 411 | 412 | 414 |
| 17.5° | 394 | 394 | 395 | 396 | 398 | 401 | 403 | 405 | 407 | 409 | 411 |
| 20° | 387 | 387 | 388 | 390 | 392 | 395 | 397 | 400 | 403 | 405 | 408 |
| 22.5° | 379 | 379 | 381 | 383 | 386 | 388 | 392 | 395 | 398 | 400 | 404 |
| 25° | 370 | 371 | 372 | 375 | 378 | 382 | 385 | 389 | 393 | 396 | 399 |
| 27.5° | 361 | 362 | 364 | 367 | 370 | 374 | 378 | 382 | 386 | 390 | 394 |
| 30° | 351 | 352 | 354 | 357 | 361 | 366 | 370 | 375 | 379 | 383 | 387 |
| 32.5° | 341 | 341 | 344 | 348 | 352 | 357 | 362 | 367 | 372 | 376 | 381 |
| 35° | 328 | 330 | 333 | 336 | 342 | 347 | 352 | 358 | 363 | 368 | 374 |
| 37.5° | 316 | 318 | 321 | 326 | 331 | 337 | 342 | 349 | 354 | 360 | 366 |
| 40° | 305 | 305 | 309 | 314 | 319 | 325 | 332 | 338 | 344 | 350 | 356 |
| 42.5° | 290 | 292 | 296 | 301 | 307 | 314 | 320 | 328 | 334 | 342 | 348 |
| 45° | 277 | 278 | 283 | 289 | 295 | 302 | 309 | 316 | 324 | 331 | 338 |
| 47.5° | 262 | 265 | 269 | 275 | 282 | 290 | 297 | 306 | 313 | 321 | 328 |
| 50° | 247 | 250 | 254 | 261 | 268 | 277 | 284 | 293 | 301 | 310 | 317 |
| 52.5° | 232 | 234 | 239 | 247 | 255 | 263 | 272 | 281 | 290 | 299 | 308 |
| 55° | 216 | 218 | 224 | 231 | 240 | 249 | 259 | 268 | 278 | 288 | 297 |
| 57.5° | 199 | 202 | 208 | 216 | 225 | 234 | 244 | 256 | 266 | 276 | 286 |
| 60° | 182 | 185 | 191 | 200 | 209 | 220 | 231 | 243 | 254 | 265 | 275 |
| 62.5° | 164 | 168 | 175 | 184 | 194 | 205 | 217 | 229 | 241 | 252 | 263 |
| 65° | 148 | 150 | 157 | 167 | 177 | 190 | 203 | 215 | 227 | 239 | 249 |
| 67.5° | 129 | 132 | 140 | 150 | 162 | 175 | 189 | 202 | 215 | 226 | 236 |
| 70° | 111 | 114 | 123 | 134 | 146 | 160 | 174 | 188 | 200 | 213 | 224 |
| 72.5° | 93 | 97 | 106 | 117 | 131 | 146 | 160 | 174 | 187 | 199 | 211 |
| 75° | 74 | 79 | 89 | 101 | 116 | 130 | 145 | 159 | 172 | 186 | 196 |
| 77.5° | 58 | 62 | 73 | 86 | 101 | 116 | 131 | 145 | 159 | 171 | 183 |
| 80° | 42 | 46 | 57 | 72 | 87 | 102 | 117 | 131 | 145 | 157 | 169 |
| 82.5° | 26 | 32 | 44 | 58 | 74 | 89 | 104 | 118 | 132 | 144 | 157 |
| 85° | 14 | 19 | 31 | 46 | 62 | 77 | 92 | 106 | 120 | 133 | 145 |
| 87.5° | 5 | 11 | 23 | 37 | 52 | 67 | 83 | 97 | 111 | 123 | 135 |
| 90° | 0 | 6 | 17 | 31 | 46 | 61 | 76 | 90 | 104 | 117 | 128 |
| 92.5° | 0 | 4 | 15 | 28 | 43 | 57 | 72 | 87 | 100 | 112 | 124 |
| 95° | 0 | 4 | 13 | 26 | 40 | 54 | 69 | 83 | 96 | 109 | 120 |
| 97.5° | 0 | 3 | 12 | 23 | 37 | 51 | 66 | 79 | 93 | 105 | 116 |
| 100° | 0 | 3 | 11 | 22 | 34 | 48 | 62 | 76 | 89 | 101 | 112 |
| 102.5° | 0 | 3 | 10 | 20 | 32 | 45 | 59 | 72 | 85 | 97 | 108 |
| 105° | 0 | 3 | 10 | 19 | 30 | 43 | 56 | 68 | 81 | 92 | 103 |
| 107.5° | 0 | 3 | 10 | 18 | 29 | 40 | 52 | 65 | 77 | 88 | 98 |
| 110° | 0 | 3 | 9 | 18 | 27 | 38 | 49 | 61 | 73 | 84 | 94 |



TEST NUMBER: P34052

CATALOG NUMBER: 2BCLED-LD4-20SL-F-UNV-L835-CD1-U

CANDELA DISTRIBUTION (continued):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|--------|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 112.5° | 0 | 2 | 9 | 17 | 26 | 36 | 47 | 58 | 69 | 79 | 89 |
| 115° | 0 | 2 | 8 | 16 | 25 | 34 | 44 | 54 | 65 | 75 | 84 |
| 117.5° | 0 | 2 | 8 | 15 | 24 | 33 | 42 | 51 | 61 | 71 | 79 |
| 120° | 0 | 2 | 7 | 15 | 23 | 31 | 40 | 49 | 58 | 66 | 75 |
| 122.5° | 0 | 2 | 7 | 14 | 22 | 30 | 38 | 46 | 54 | 63 | 70 |
| 125° | 0 | 1 | 6 | 13 | 21 | 28 | 36 | 44 | 52 | 59 | 66 |
| 127.5° | 0 | 1 | 5 | 12 | 19 | 27 | 35 | 42 | 49 | 56 | 62 |
| 130° | 0 | 1 | 5 | 11 | 18 | 25 | 33 | 39 | 46 | 53 | 59 |
| 132.5° | 0 | 1 | 4 | 10 | 17 | 23 | 30 | 37 | 43 | 49 | 55 |
| 135° | 0 | 1 | 4 | 9 | 15 | 22 | 28 | 35 | 41 | 46 | 52 |
| 137.5° | 0 | 1 | 3 | 8 | 14 | 20 | 26 | 32 | 38 | 43 | 48 |
| 140° | 0 | 1 | 3 | 7 | 12 | 18 | 24 | 30 | 35 | 40 | 45 |
| 142.5° | 0 | 1 | 3 | 6 | 11 | 16 | 21 | 26 | 32 | 37 | 41 |
| 145° | 0 | 1 | 2 | 5 | 9 | 14 | 18 | 23 | 28 | 33 | 38 |
| 147.5° | 0 | 0 | 2 | 4 | 7 | 12 | 16 | 20 | 25 | 29 | 33 |
| 150° | 0 | 0 | 1 | 4 | 6 | 10 | 14 | 17 | 21 | 25 | 29 |
| 152.5° | 0 | 0 | 1 | 3 | 5 | 8 | 11 | 15 | 18 | 21 | 25 |
| 155° | 0 | 0 | 1 | 2 | 4 | 6 | 9 | 12 | 15 | 18 | 21 |
| 157.5° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 160° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 162.5° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 165° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 167.5° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 170° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 172.5° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 177.5° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P34052

CATALOG NUMBER: 2BCLED-LD4-20SL-F-UNV-L835-CD1-U

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|
| 0° | 418 | 418 | 418 | 418 | 418 | 418 | 418 | 418 |
| 2.5° | 419 | 419 | 419 | 419 | 419 | 419 | 418 | 418 |
| 5° | 419 | 418 | 419 | 419 | 419 | 419 | 419 | 419 |
| 7.5° | 419 | 419 | 420 | 420 | 420 | 420 | 420 | 420 |
| 10° | 418 | 419 | 420 | 420 | 421 | 421 | 421 | 421 |
| 12.5° | 417 | 418 | 419 | 420 | 420 | 421 | 420 | 420 |
| 15° | 416 | 417 | 418 | 419 | 420 | 420 | 420 | 420 |
| 17.5° | 413 | 414 | 416 | 417 | 418 | 418 | 419 | 418 |
| 20° | 410 | 412 | 414 | 415 | 416 | 417 | 417 | 417 |
| 22.5° | 406 | 408 | 410 | 412 | 413 | 414 | 414 | 415 |
| 25° | 401 | 404 | 407 | 408 | 410 | 411 | 411 | 411 |
| 27.5° | 397 | 400 | 402 | 405 | 405 | 406 | 407 | 407 |
| 30° | 391 | 394 | 397 | 399 | 401 | 402 | 402 | 402 |
| 32.5° | 384 | 388 | 391 | 393 | 395 | 397 | 398 | 398 |
| 35° | 377 | 381 | 385 | 387 | 390 | 391 | 392 | 392 |
| 37.5° | 370 | 374 | 377 | 381 | 383 | 385 | 386 | 385 |
| 40° | 361 | 366 | 371 | 374 | 376 | 378 | 379 | 380 |
| 42.5° | 353 | 358 | 363 | 366 | 369 | 371 | 372 | 373 |
| 45° | 344 | 350 | 355 | 358 | 362 | 364 | 366 | 366 |
| 47.5° | 335 | 341 | 348 | 352 | 355 | 358 | 359 | 359 |
| 50° | 325 | 333 | 338 | 343 | 347 | 350 | 351 | 351 |
| 52.5° | 316 | 323 | 329 | 335 | 339 | 341 | 343 | 344 |
| 55° | 305 | 313 | 319 | 325 | 329 | 332 | 334 | 334 |
| 57.5° | 295 | 303 | 309 | 315 | 320 | 322 | 324 | 325 |
| 60° | 284 | 292 | 299 | 304 | 309 | 312 | 314 | 315 |
| 62.5° | 272 | 281 | 288 | 294 | 298 | 302 | 304 | 304 |
| 65° | 259 | 268 | 275 | 281 | 286 | 289 | 292 | 292 |
| 67.5° | 247 | 256 | 263 | 269 | 275 | 278 | 280 | 282 |
| 70° | 234 | 243 | 251 | 257 | 262 | 266 | 267 | 268 |
| 72.5° | 220 | 229 | 238 | 244 | 249 | 253 | 256 | 256 |
| 75° | 207 | 216 | 224 | 231 | 236 | 239 | 242 | 243 |
| 77.5° | 193 | 203 | 211 | 217 | 222 | 227 | 228 | 229 |
| 80° | 180 | 190 | 197 | 205 | 210 | 213 | 216 | 217 |
| 82.5° | 167 | 177 | 185 | 192 | 197 | 201 | 203 | 204 |
| 85° | 156 | 165 | 173 | 181 | 186 | 190 | 192 | 192 |
| 87.5° | 146 | 155 | 164 | 171 | 176 | 180 | 182 | 183 |
| 90° | 139 | 149 | 157 | 164 | 169 | 173 | 175 | 176 |
| 92.5° | 135 | 144 | 153 | 159 | 165 | 168 | 171 | 171 |
| 95° | 131 | 140 | 148 | 155 | 160 | 164 | 167 | 167 |
| 97.5° | 127 | 136 | 144 | 151 | 156 | 160 | 162 | 163 |
| 100° | 122 | 132 | 140 | 146 | 151 | 155 | 157 | 158 |
| 102.5° | 118 | 127 | 135 | 141 | 146 | 150 | 152 | 153 |
| 105° | 113 | 122 | 130 | 136 | 141 | 145 | 147 | 148 |
| 107.5° | 108 | 117 | 125 | 131 | 136 | 139 | 141 | 142 |
| 110° | 103 | 112 | 119 | 125 | 130 | 134 | 136 | 136 |



TEST NUMBER: P34052

CATALOG NUMBER: 2BCLED-LD4-20SL-F-UNV-L835-CD1-U

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|
| 112.5° | 98 | 106 | 113 | 119 | 124 | 127 | 129 | 130 |
| 115° | 93 | 101 | 108 | 113 | 118 | 121 | 123 | 123 |
| 117.5° | 88 | 95 | 102 | 107 | 112 | 115 | 117 | 117 |
| 120° | 83 | 90 | 96 | 101 | 105 | 109 | 110 | 111 |
| 122.5° | 78 | 85 | 90 | 95 | 99 | 102 | 104 | 104 |
| 125° | 73 | 79 | 85 | 89 | 93 | 96 | 97 | 98 |
| 127.5° | 68 | 74 | 80 | 84 | 87 | 90 | 91 | 92 |
| 130° | 64 | 69 | 74 | 78 | 81 | 84 | 85 | 85 |
| 132.5° | 60 | 65 | 69 | 73 | 76 | 78 | 79 | 79 |
| 135° | 57 | 61 | 65 | 68 | 71 | 72 | 73 | 74 |
| 137.5° | 53 | 57 | 60 | 63 | 66 | 67 | 68 | 68 |
| 140° | 49 | 53 | 56 | 59 | 61 | 63 | 63 | 64 |
| 142.5° | 45 | 49 | 52 | 54 | 56 | 58 | 59 | 59 |
| 145° | 41 | 45 | 47 | 50 | 52 | 53 | 54 | 54 |
| 147.5° | 37 | 40 | 43 | 45 | 47 | 48 | 49 | 49 |
| 150° | 33 | 36 | 39 | 41 | 42 | 43 | 44 | 44 |
| 152.5° | 28 | 31 | 34 | 36 | 37 | 38 | 39 | 39 |
| 155° | 23 | 26 | 29 | 31 | 32 | 33 | 34 | 34 |
| 157.5° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 160° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 162.5° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 165° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 167.5° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 170° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 172.5° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 177.5° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

(END OF REPORT)