

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: CORELITE

Report Number: P35859

Luminaire Tested: **Z3-WD-1L30-LD5-UNV-22**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P35859
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: Z3-WD-1L30-LD5-UNV-22
Description: CLASS Z3 2X2 RECESSED LED LUMIANIRE
WITH A CLEAR SMOOTH ROUND LENS & ROUND PERF INLAY
Light Source: (84) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1818.3 lumens
Efficiency: N/A
Efficacy: 110.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.4 / 1.45
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

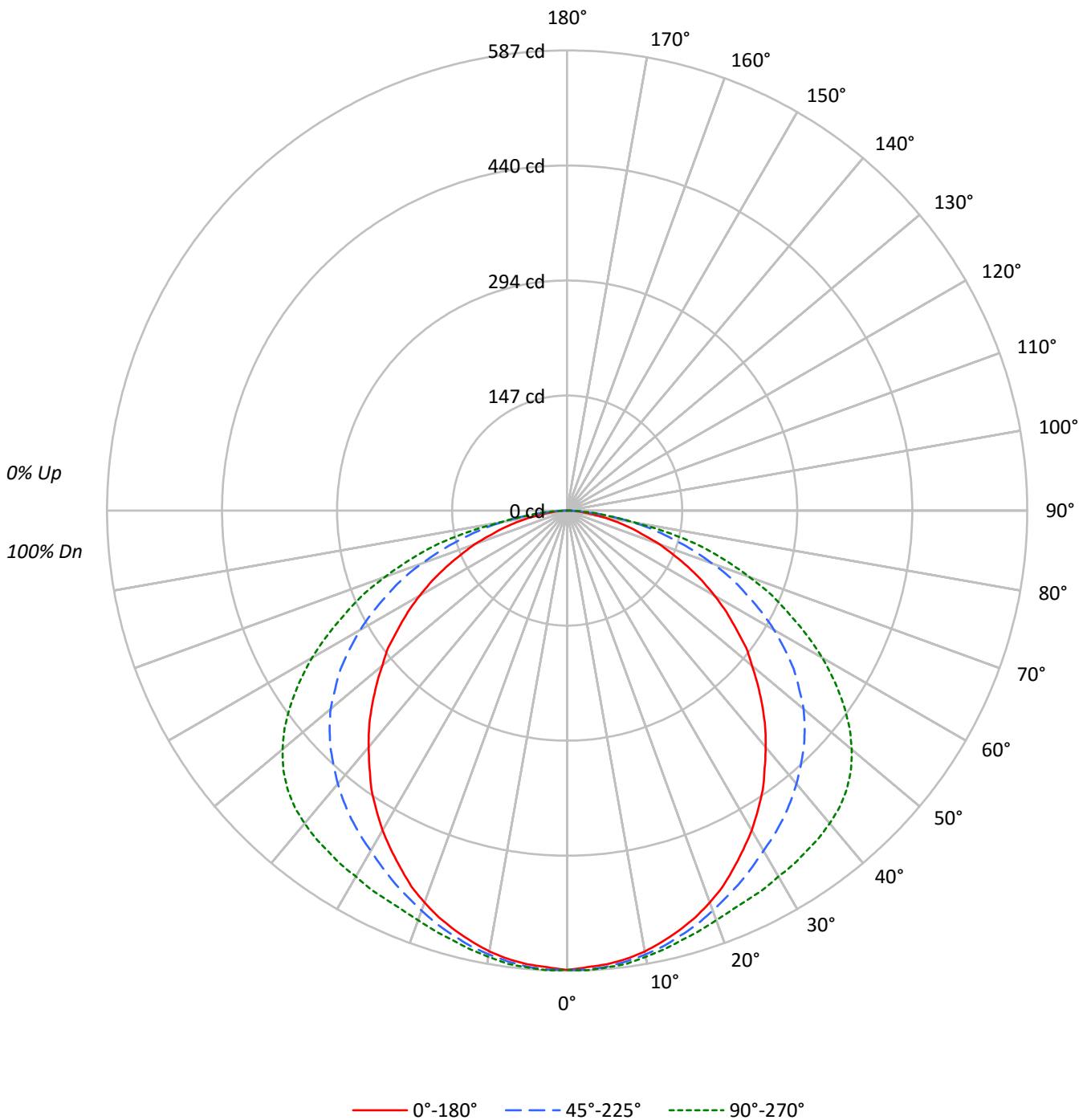
Input Watts (W): 16.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | | 106 | 106 | 106 | | 102 | 102 | 102 | 100 |
| 1 | 108 | 103 | 99 | 95 | 106 | 101 | 97 | 93 | 97 | 94 | 91 | | 93 | 90 | 88 | | 89 | 87 | 85 | 83 |
| 2 | 98 | 90 | 83 | 77 | 95 | 88 | 81 | 76 | 84 | 79 | 74 | | 81 | 76 | 72 | | 78 | 74 | 71 | 68 |
| 3 | 89 | 78 | 70 | 63 | 87 | 77 | 69 | 62 | 74 | 67 | 61 | | 71 | 65 | 60 | | 68 | 63 | 59 | 57 |
| 4 | 81 | 69 | 60 | 53 | 79 | 68 | 59 | 53 | 65 | 58 | 52 | | 63 | 56 | 51 | | 61 | 55 | 50 | 48 |
| 5 | 75 | 61 | 52 | 45 | 72 | 60 | 52 | 45 | 58 | 50 | 45 | | 56 | 49 | 44 | | 54 | 48 | 44 | 41 |
| 6 | 69 | 55 | 46 | 39 | 67 | 54 | 45 | 39 | 52 | 45 | 39 | | 51 | 44 | 38 | | 49 | 43 | 38 | 36 |
| 7 | 64 | 50 | 41 | 35 | 62 | 49 | 40 | 34 | 47 | 40 | 34 | | 46 | 39 | 34 | | 45 | 38 | 34 | 32 |
| 8 | 59 | 45 | 37 | 31 | 58 | 45 | 36 | 31 | 43 | 36 | 30 | | 42 | 35 | 30 | | 41 | 35 | 30 | 28 |
| 9 | 55 | 42 | 33 | 27 | 54 | 41 | 33 | 27 | 40 | 32 | 27 | | 39 | 32 | 27 | | 38 | 31 | 27 | 25 |
| 10 | 52 | 38 | 30 | 25 | 50 | 38 | 30 | 25 | 37 | 30 | 25 | | 36 | 29 | 25 | | 35 | 29 | 24 | 23 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1577 | 1577 | 1577 |
| 5° | 1569 | 1578 | 1580 |
| 10° | 1560 | 1571 | 1579 |
| 15° | 1543 | 1563 | 1580 |
| 20° | 1523 | 1555 | 1592 |
| 25° | 1493 | 1553 | 1624 |
| 30° | 1464 | 1557 | 1675 |
| 35° | 1429 | 1577 | 1744 |
| 40° | 1384 | 1598 | 1830 |
| 45° | 1340 | 1625 | 1918 |
| 50° | 1289 | 1649 | 1984 |
| 55° | 1234 | 1656 | 2017 |
| 60° | 1168 | 1641 | 2024 |
| 65° | 1082 | 1605 | 1993 |
| 70° | 983 | 1550 | 1943 |
| 75° | 853 | 1445 | 1851 |
| 80° | 666 | 1302 | 1348 |
| 85° | 494 | 895 | 957 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 55.4 | 3.0 |
| 10°-20° | 158.4 | 8.7 |
| 20°-30° | 241.9 | 13.3 |
| 30°-40° | 301.3 | 16.6 |
| 40°-50° | 329.4 | 18.1 |
| 50°-60° | 312.4 | 17.2 |
| 60°-70° | 244.8 | 13.5 |
| 70°-80° | 141.5 | 7.8 |
| 80°-90° | 33.2 | 1.8 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 455.7 | 25.1 |
| 0°-40° | 757.0 | 41.6 |
| 0°-60° | 1398.9 | 76.9 |
| 0°-90° | 1818.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1818.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 586 | 586 | 586 | 586 | 586 | |
| 5° | 581 | 582 | 584 | 585 | 585 | 55 |
| 15° | 554 | 556 | 561 | 566 | 567 | 156 |
| 25° | 503 | 508 | 523 | 540 | 547 | 232 |
| 35° | 435 | 445 | 480 | 517 | 531 | 271 |
| 45° | 352 | 373 | 427 | 482 | 504 | 271 |
| 55° | 263 | 295 | 353 | 409 | 430 | 236 |
| 65° | 170 | 200 | 252 | 297 | 313 | 168 |
| 75° | 82 | 104 | 139 | 166 | 178 | 87 |
| 85° | 16 | 23 | 29 | 31 | 31 | 20 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P35859

CATALOG NUMBER: Z3-WD-1L30-LD5-UNV-22

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-----|-------|-----|-------|-----|
| 0° | 586 | 586 | 586 | 586 | 586 |
| 2.5° | 583 | 584 | 586 | 587 | 587 |
| 5° | 581 | 582 | 584 | 585 | 585 |
| 7.5° | 577 | 578 | 580 | 582 | 583 |
| 10° | 571 | 572 | 575 | 578 | 578 |
| 12.5° | 563 | 565 | 569 | 572 | 573 |
| 15° | 554 | 556 | 561 | 566 | 567 |
| 17.5° | 544 | 547 | 553 | 559 | 562 |
| 20° | 532 | 534 | 543 | 552 | 556 |
| 22.5° | 519 | 522 | 533 | 546 | 551 |
| 25° | 503 | 508 | 523 | 540 | 547 |
| 27.5° | 487 | 494 | 512 | 535 | 544 |
| 30° | 471 | 478 | 501 | 529 | 539 |
| 32.5° | 453 | 462 | 491 | 523 | 536 |
| 35° | 435 | 445 | 480 | 517 | 531 |
| 37.5° | 414 | 427 | 468 | 510 | 527 |
| 40° | 394 | 408 | 455 | 502 | 521 |
| 42.5° | 374 | 390 | 441 | 493 | 514 |
| 45° | 352 | 373 | 427 | 482 | 504 |
| 47.5° | 330 | 354 | 411 | 469 | 491 |
| 50° | 308 | 333 | 394 | 453 | 474 |
| 52.5° | 288 | 313 | 373 | 432 | 454 |
| 55° | 263 | 295 | 353 | 409 | 430 |
| 57.5° | 241 | 270 | 329 | 384 | 404 |
| 60° | 217 | 246 | 305 | 357 | 376 |
| 62.5° | 194 | 222 | 279 | 328 | 345 |
| 65° | 170 | 200 | 252 | 297 | 313 |
| 67.5° | 146 | 174 | 227 | 266 | 283 |
| 70° | 125 | 151 | 197 | 233 | 247 |
| 72.5° | 101 | 126 | 168 | 200 | 212 |
| 75° | 82 | 104 | 139 | 166 | 178 |
| 77.5° | 62 | 83 | 112 | 130 | 135 |
| 80° | 43 | 61 | 84 | 91 | 87 |
| 82.5° | 28 | 42 | 54 | 56 | 55 |
| 85° | 16 | 23 | 29 | 31 | 31 |
| 87.5° | 7 | 9 | 10 | 10 | 10 |
| 90° | 0 | 0 | 0 | 0 | 0 |

(END OF REPORT)