

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: NEO-RAY

Report Number: P333799

Luminaire Tested: **S122DW-S1005D930-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333799
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-14)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DW-S1005D930-4F0-1E-UDD-D
Description: DEFINE 2 DIRECT LED LUMINAIRE, DROP SATIN WHITE DIFFUSER
PENDANT/SURFACE/WALL MOUNT, 1005 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3181.3 lumens
Efficiency: N/A
Efficacy: 77.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

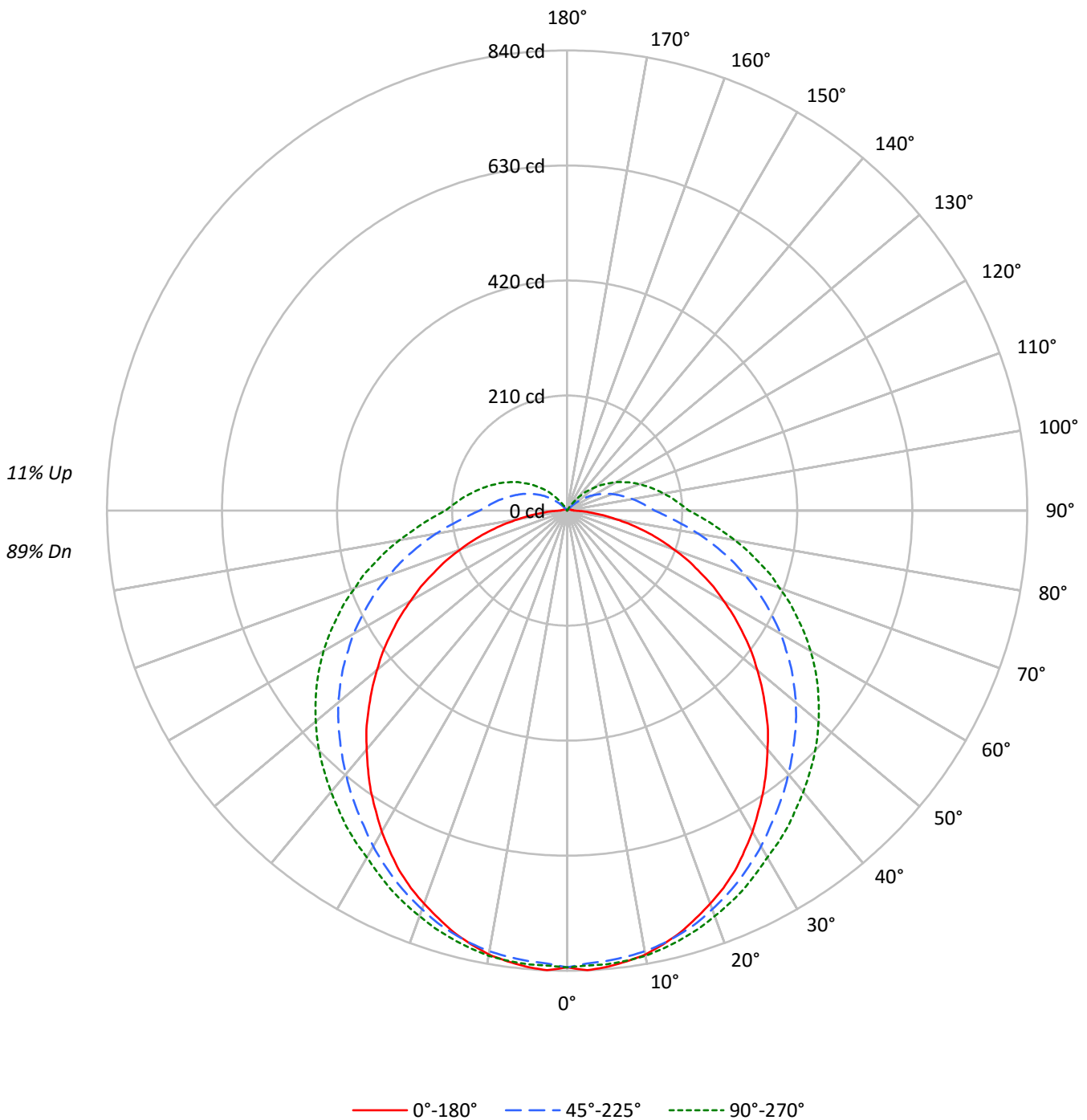
Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P333799

CATALOG NUMBER: S122DW-S1005D930-4F0-1E-UDD-D

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 | 116 | 116 | 116 | 116 | 112 | 112 | 112 | 112 | 105 | 105 | 105 | | 98 | 98 | 98 | | 92 | 92 | 92 | 89 |
| 1 | 104 | 98 | 93 | 88 | 100 | 95 | 90 | 86 | 88 | 85 | 81 | | 82 | 79 | 77 | | 77 | 75 | 72 | 69 |
| 2 | 94 | 84 | 77 | 70 | 90 | 81 | 74 | 68 | 76 | 70 | 65 | | 71 | 66 | 62 | | 66 | 62 | 59 | 56 |
| 3 | 85 | 73 | 64 | 57 | 81 | 71 | 63 | 56 | 66 | 59 | 54 | | 62 | 56 | 51 | | 58 | 53 | 49 | 46 |
| 4 | 77 | 64 | 55 | 48 | 74 | 62 | 54 | 47 | 58 | 51 | 45 | | 55 | 48 | 43 | | 51 | 46 | 42 | 39 |
| 5 | 71 | 57 | 48 | 41 | 68 | 56 | 47 | 40 | 52 | 44 | 39 | | 49 | 42 | 37 | | 46 | 40 | 36 | 33 |
| 6 | 65 | 51 | 42 | 35 | 63 | 50 | 41 | 35 | 47 | 39 | 34 | | 44 | 37 | 32 | | 42 | 36 | 31 | 29 |
| 7 | 60 | 46 | 37 | 31 | 58 | 45 | 37 | 31 | 43 | 35 | 30 | | 40 | 34 | 29 | | 38 | 32 | 28 | 25 |
| 8 | 56 | 42 | 34 | 28 | 54 | 41 | 33 | 27 | 39 | 32 | 26 | | 37 | 30 | 25 | | 35 | 29 | 25 | 23 |
| 9 | 52 | 39 | 30 | 25 | 50 | 38 | 30 | 24 | 36 | 29 | 24 | | 34 | 27 | 23 | | 32 | 26 | 22 | 20 |
| 10 | 49 | 36 | 28 | 22 | 47 | 35 | 27 | 22 | 33 | 26 | 21 | | 31 | 25 | 21 | | 30 | 24 | 20 | 18 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 13462 | 13462 | 13462 |
| 5° | 13553 | 13376 | 13473 |
| 10° | 13491 | 13391 | 13531 |
| 15° | 13331 | 13371 | 13533 |
| 20° | 13122 | 13307 | 13536 |
| 25° | 12916 | 13260 | 13584 |
| 30° | 12616 | 13202 | 13628 |
| 35° | 12313 | 13171 | 13862 |
| 40° | 11995 | 13243 | 14134 |
| 45° | 11698 | 13410 | 14540 |
| 50° | 11381 | 13690 | 15053 |
| 55° | 11054 | 14047 | 15716 |
| 60° | 10653 | 14554 | 16582 |
| 65° | 10250 | 15236 | 17727 |
| 70° | 9810 | 16315 | 19449 |
| 75° | 9270 | 18316 | 22539 |
| 80° | 8424 | 22585 | 28870 |
| 85° | 8058 | 36272 | 48796 |



TEST NUMBER: P333799

CATALOG NUMBER: S122DW-S1005D930-4F0-1E-UDD-D

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 79.0 | 2.5 |
| 10°-20° | 226.7 | 7.1 |
| 20°-30° | 343.5 | 10.8 |
| 30°-40° | 418.3 | 13.1 |
| 40°-50° | 450.0 | 14.1 |
| 50°-60° | 437.0 | 13.7 |
| 60°-70° | 381.7 | 12.0 |
| 70°-80° | 293.7 | 9.2 |
| 80°-90° | 196.8 | 6.2 |
| 90°-100° | 135.7 | 4.3 |
| 100°-110° | 99.1 | 3.1 |
| 110°-120° | 65.4 | 2.1 |
| 120°-130° | 36.5 | 1.1 |
| 130°-140° | 15.3 | 0.5 |
| 140°-150° | 2.6 | 0.1 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 649.2 | 20.4 |
| 0°-40° | 1067.5 | 33.6 |
| 0°-60° | 1954.5 | 61.4 |
| 0°-90° | 2826.7 | 88.9 |
| 90°-120° | 300.3 | 9.4 |
| 90°-150° | 354.7 | 11.1 |
| 90°-180° | 355.0 | 11.2 |
| 0°-180° | 3181.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0° | 834 | 834 | 834 | 834 | 834 | |
| 5° | 836 | 832 | 825 | 832 | 831 | 79 |
| 15° | 798 | 800 | 800 | 811 | 810 | 225 |
| 25° | 725 | 734 | 744 | 759 | 762 | 333 |
| 35° | 625 | 645 | 668 | 695 | 703 | 390 |
| 45° | 512 | 545 | 587 | 625 | 637 | 396 |
| 55° | 393 | 436 | 499 | 542 | 558 | 351 |
| 65° | 268 | 328 | 399 | 448 | 464 | 267 |
| 75° | 149 | 216 | 294 | 346 | 361 | 157 |
| 85° | 44 | 118 | 196 | 246 | 263 | 46 |
| 90° | 12 | 82 | 160 | 208 | 222 | 8 |
| 95° | 10 | 66 | 139 | 185 | 199 | 8 |
| 105° | 6 | 41 | 104 | 146 | 160 | 7 |
| 115° | 5 | 18 | 72 | 109 | 122 | 4 |
| 125° | 2 | 2 | 41 | 74 | 85 | 3 |
| 135° | 1 | 1 | 13 | 39 | 48 | 1 |
| 145° | 0 | 0 | 0 | 7 | 13 | 0 |
| 155° | 0 | 0 | 0 | 0 | 0 | 0 |
| 165° | 0 | 0 | 0 | 0 | 0 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P333799

CATALOG NUMBER: S122DW-S1005D930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 0° | 833.8 | 833.8 | 833.8 | 833.8 | 833.8 |
| 2.5° | 839.8 | 836.2 | 827.7 | 833.8 | 831.3 |
| 5° | 836.2 | 832.5 | 825.3 | 832.5 | 831.3 |
| 7.5° | 830.1 | 827.7 | 821.7 | 830.1 | 828.9 |
| 10° | 822.9 | 820.5 | 816.8 | 826.5 | 825.3 |
| 12.5° | 810.8 | 812.0 | 809.6 | 819.3 | 818.0 |
| 15° | 797.5 | 799.9 | 799.9 | 810.8 | 809.6 |
| 17.5° | 780.6 | 785.4 | 789.0 | 799.9 | 799.9 |
| 20° | 763.7 | 769.7 | 774.5 | 787.8 | 787.8 |
| 22.5° | 745.5 | 752.8 | 760.0 | 773.3 | 775.8 |
| 25° | 725.0 | 733.5 | 744.3 | 758.8 | 762.5 |
| 27.5° | 700.8 | 714.1 | 726.2 | 744.3 | 746.8 |
| 30° | 676.7 | 692.4 | 708.1 | 727.4 | 731.0 |
| 32.5° | 650.1 | 668.2 | 687.5 | 710.5 | 717.8 |
| 35° | 624.7 | 645.3 | 668.2 | 694.8 | 703.3 |
| 37.5° | 596.9 | 619.9 | 648.9 | 677.9 | 686.3 |
| 40° | 569.1 | 595.7 | 628.3 | 659.8 | 670.6 |
| 42.5° | 542.5 | 569.1 | 607.8 | 642.8 | 653.7 |
| 45° | 512.3 | 545.0 | 587.3 | 624.7 | 636.8 |
| 47.5° | 483.3 | 518.4 | 566.7 | 605.4 | 618.7 |
| 50° | 453.1 | 490.6 | 545.0 | 586.0 | 599.3 |
| 52.5° | 424.1 | 464.0 | 522.0 | 564.3 | 578.8 |
| 55° | 392.7 | 436.2 | 499.0 | 542.5 | 558.3 |
| 57.5° | 362.5 | 410.8 | 473.7 | 520.8 | 536.5 |
| 60° | 329.9 | 381.8 | 450.7 | 496.6 | 513.5 |
| 62.5° | 300.9 | 355.3 | 424.1 | 473.7 | 489.4 |
| 65° | 268.3 | 327.5 | 398.8 | 448.3 | 464.0 |
| 67.5° | 239.3 | 300.9 | 373.4 | 422.9 | 439.8 |
| 70° | 207.8 | 270.7 | 345.6 | 397.5 | 412.0 |
| 72.5° | 178.8 | 244.1 | 320.2 | 371.0 | 389.1 |
| 75° | 148.6 | 216.3 | 293.6 | 345.6 | 361.3 |
| 77.5° | 119.6 | 189.7 | 268.3 | 320.2 | 337.1 |
| 80° | 90.6 | 164.3 | 242.9 | 293.6 | 310.5 |
| 82.5° | 66.5 | 139.0 | 218.7 | 269.5 | 285.2 |
| 85° | 43.5 | 118.4 | 195.8 | 246.5 | 263.4 |
| 87.5° | 26.6 | 99.1 | 176.4 | 226.0 | 241.7 |
| 90° | 12.1 | 82.2 | 159.5 | 207.8 | 222.3 |
| 92.5° | 10.9 | 74.9 | 148.6 | 195.8 | 210.3 |
| 95° | 9.7 | 66.5 | 139.0 | 184.9 | 199.4 |
| 97.5° | 8.5 | 60.4 | 130.5 | 175.2 | 189.7 |
| 100° | 8.5 | 53.2 | 120.8 | 165.5 | 178.8 |
| 102.5° | 7.3 | 47.1 | 112.4 | 155.9 | 169.2 |
| 105° | 6.0 | 41.1 | 103.9 | 146.2 | 159.5 |
| 107.5° | 6.0 | 35.0 | 95.5 | 136.5 | 149.8 |
| 110° | 4.8 | 29.0 | 88.2 | 126.9 | 140.2 |



TEST NUMBER: P333799

CATALOG NUMBER: S122DW-S1005D930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|------|-------|-------|
| 112.5° | 4.8 | 24.2 | 79.8 | 118.4 | 131.7 |
| 115° | 4.8 | 18.1 | 72.5 | 108.8 | 122.0 |
| 117.5° | 3.6 | 13.3 | 64.0 | 100.3 | 112.4 |
| 120° | 3.6 | 8.5 | 56.8 | 90.6 | 103.9 |
| 122.5° | 3.6 | 4.8 | 49.5 | 82.2 | 93.0 |
| 125° | 2.4 | 2.4 | 41.1 | 73.7 | 84.6 |
| 127.5° | 2.4 | 1.2 | 33.8 | 64.0 | 74.9 |
| 130° | 2.4 | 1.2 | 26.6 | 55.6 | 65.3 |
| 132.5° | 2.4 | 1.2 | 19.3 | 47.1 | 56.8 |
| 135° | 1.2 | 1.2 | 13.3 | 38.7 | 48.3 |
| 137.5° | 1.2 | 1.2 | 7.3 | 30.2 | 38.7 |
| 140° | 1.2 | 0.0 | 2.4 | 21.8 | 29.0 |
| 142.5° | 1.2 | 0.0 | 0.0 | 14.5 | 20.5 |
| 145° | 0.0 | 0.0 | 0.0 | 7.3 | 13.3 |
| 147.5° | 0.0 | 0.0 | 0.0 | 1.2 | 4.8 |
| 150° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 152.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 155° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 157.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 160° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 162.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 165° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 167.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 170° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 172.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 175° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 177.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)