

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1011033

Luminaire Tested: S123DIP-B1000D1025UB30-4F0-XX-W2A-D4

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1011033  
REPORT IS A COMBINATION OF REPORTS P989048 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DIP-B1000D1025UB30-4F0-XX-W2A-D4  
Description: Define 3 Direct/Indirect Pendant with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}  
Light Source: -  
Ballast/Driver: -

**Summary**

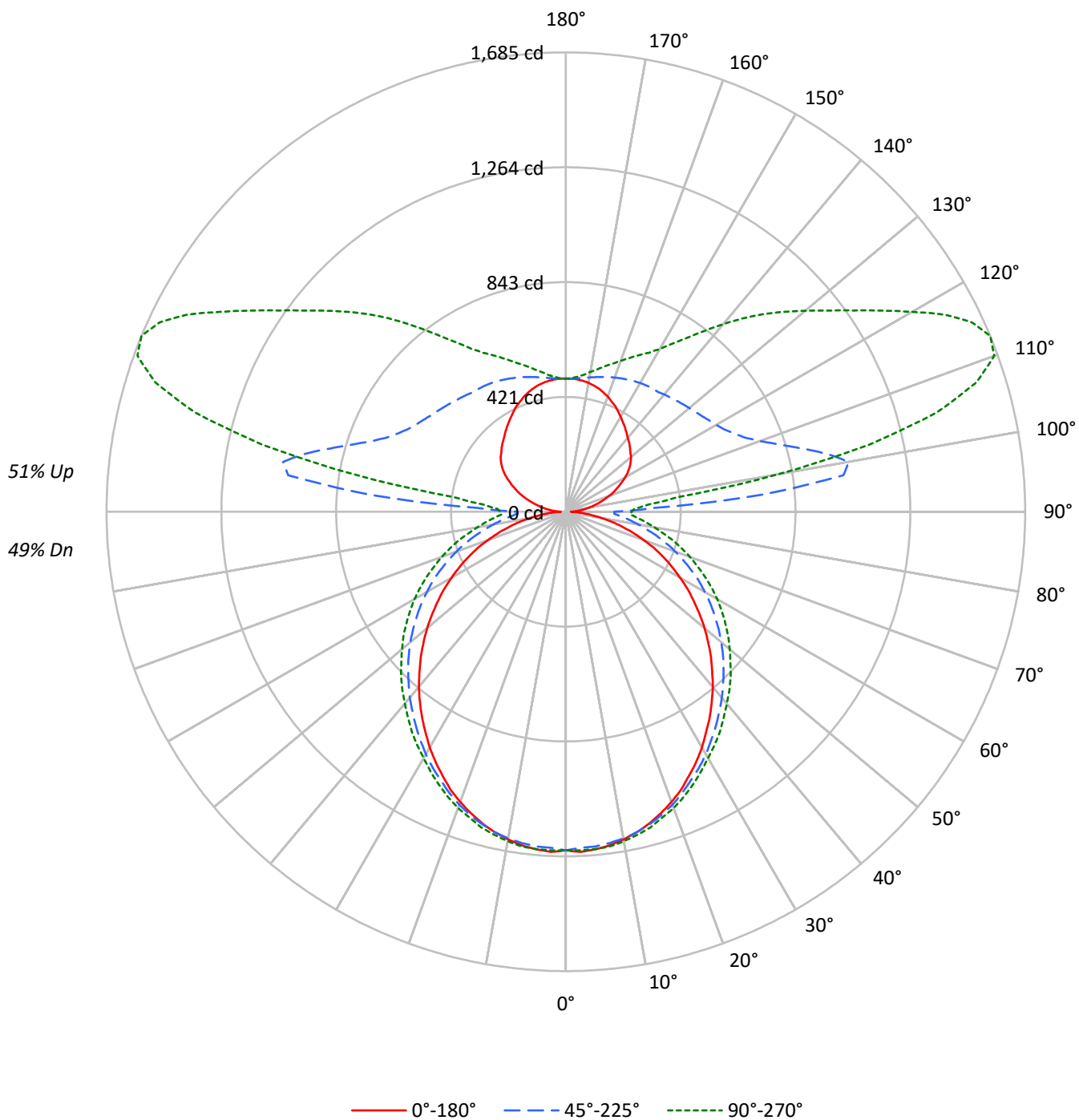
Lumens per Lamp: N/A  
Luminaire Lumens: 7857.5 lumens  
Efficiency: N/A  
Efficacy: 104.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 75.3  
Input Voltage (V):  
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: 24 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 |
| RW  | 70  | 50  | 30  | 10  | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 107 | 107 | 107 | 107 | 98 | 98 | 98 | 98 | 83 | 83 | 83 | 68 | 68 | 68 | 55 | 55 | 55 |
| 1   | 96  | 92  | 87  | 84  | 89 | 84 | 81 | 77 | 71 | 68 | 66 | 58 | 56 | 55 | 47 | 46 | 44 |
| 2   | 87  | 79  | 73  | 67  | 80 | 73 | 68 | 63 | 62 | 57 | 54 | 51 | 48 | 45 | 41 | 39 | 37 |
| 3   | 79  | 70  | 62  | 56  | 73 | 64 | 57 | 52 | 54 | 49 | 45 | 44 | 41 | 38 | 36 | 33 | 31 |
| 4   | 73  | 61  | 53  | 47  | 66 | 57 | 49 | 44 | 48 | 42 | 38 | 39 | 35 | 32 | 32 | 29 | 26 |
| 5   | 67  | 54  | 46  | 40  | 61 | 50 | 43 | 37 | 43 | 37 | 32 | 35 | 31 | 27 | 28 | 25 | 23 |
| 6   | 61  | 49  | 40  | 34  | 56 | 45 | 38 | 32 | 38 | 32 | 28 | 32 | 27 | 24 | 26 | 22 | 20 |
| 7   | 57  | 44  | 36  | 30  | 52 | 41 | 33 | 28 | 35 | 29 | 25 | 29 | 24 | 21 | 23 | 20 | 18 |
| 8   | 52  | 40  | 32  | 26  | 48 | 37 | 30 | 25 | 32 | 26 | 22 | 26 | 22 | 19 | 22 | 18 | 16 |
| 9   | 49  | 36  | 29  | 24  | 45 | 34 | 27 | 22 | 29 | 23 | 19 | 24 | 20 | 17 | 20 | 17 | 14 |
| 10  | 46  | 33  | 26  | 21  | 42 | 31 | 24 | 20 | 27 | 21 | 17 | 22 | 18 | 15 | 18 | 15 | 13 |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 13369 | 13369 | 13369 |
| 5°  | 13405 | 12976 | 12966 |
| 10° | 13279 | 12625 | 12529 |
| 15° | 13104 | 12237 | 12065 |
| 20° | 12854 | 11804 | 11566 |
| 25° | 12548 | 11317 | 11051 |
| 30° | 12233 | 10876 | 10532 |
| 35° | 11881 | 10413 | 10110 |
| 40° | 11544 | 9989  | 9664  |
| 45° | 11171 | 9580  | 9297  |
| 50° | 10802 | 9175  | 8898  |
| 55° | 10393 | 8758  | 8531  |
| 60° | 9993  | 8332  | 8156  |
| 65° | 9582  | 7879  | 7716  |
| 70° | 8964  | 7369  | 7261  |
| 75° | 8182  | 6788  | 6793  |
| 80° | 7269  | 6203  | 6260  |
| 85° | 6368  | 5725  | 5878  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 11171 cd/sqm

TEST NUMBER: P1011033

CATALOG NUMBER: S123DIP-B1000D1025UB30-4F0-XX-W2A-D4

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 117.8  | 1.5       |
| 10°-20°   | 335.9  | 4.3       |
| 20°-30°   | 502.3  | 6.4       |
| 30°-40°   | 599.7  | 7.6       |
| 40°-50°   | 627.4  | 8.0       |
| 50°-60°   | 588.8  | 7.5       |
| 60°-70°   | 491.8  | 6.3       |
| 70°-80°   | 351.7  | 4.5       |
| 80°-90°   | 212.0  | 2.7       |
| 90°-100°  | 408.9  | 5.2       |
| 100°-110° | 872.1  | 11.1      |
| 110°-120° | 820.7  | 10.4      |
| 120°-130° | 638.9  | 8.1       |
| 130°-140° | 491.8  | 6.3       |
| 140°-150° | 358.0  | 4.6       |
| 150°-160° | 247.4  | 3.1       |
| 160°-170° | 145.3  | 1.8       |
| 170°-180° | 47.3   | 0.6       |
| 0°-30°    | 955.9  | 12.2      |
| 0°-40°    | 1555.6 | 19.8      |
| 0°-60°    | 2771.8 | 35.3      |
| 0°-90°    | 3827.2 | 48.7      |
| 90°-120°  | 2101.7 | 26.7      |
| 90°-150°  | 3590.3 | 45.7      |
| 90°-180°  | 4030.0 | 51.3      |
| 0°-180°   | 7857.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1242 | 1242  | 1242 | 1242  | 1242 |      |
| 5°   | 1243 | 1241  | 1232 | 1243  | 1242 | 118  |
| 15°  | 1184 | 1188  | 1186 | 1200  | 1199 | 333  |
| 25°  | 1069 | 1082  | 1086 | 1104  | 1104 | 493  |
| 35°  | 920  | 942   | 959  | 980   | 985  | 575  |
| 45°  | 752  | 785   | 818  | 844   | 855  | 580  |
| 55°  | 574  | 618   | 667  | 704   | 714  | 514  |
| 65°  | 396  | 449   | 509  | 549   | 563  | 392  |
| 75°  | 215  | 279   | 346  | 391   | 407  | 230  |
| 85°  | 66   | 134   | 206  | 252   | 265  | 68   |
| 90°  | 20   | 96    | 178  | 227   | 241  | 15   |
| 95°  | 48   | 177   | 720  | 347   | 304  | 47   |
| 105° | 125  | 213   | 896  | 1529  | 1409 | 133  |
| 115° | 209  | 276   | 680  | 1437  | 1644 | 208  |
| 125° | 286  | 337   | 611  | 1100  | 1287 | 254  |
| 135° | 333  | 395   | 576  | 887   | 1025 | 257  |
| 145° | 378  | 431   | 552  | 705   | 780  | 237  |
| 155° | 428  | 462   | 535  | 608   | 634  | 197  |
| 165° | 467  | 481   | 512  | 543   | 552  | 132  |
| 175° | 487  | 488   | 491  | 498   | 497  | 46   |
| 180° | 488  | 488   | 488  | 488   | 488  |      |

TEST NUMBER: P1011033

CATALOG NUMBER: S123DIP-B1000D1025UB30-4F0-XX-W2A-D4

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1242.0 | 1242.0 | 1242.0 | 1242.0 | 1242.0 |
| 2.5°   | 1248.7 | 1244.7 | 1233.9 | 1244.7 | 1243.3 |
| 5°     | 1243.3 | 1240.6 | 1232.5 | 1243.3 | 1242.0 |
| 7.5°   | 1233.9 | 1233.9 | 1225.7 | 1239.3 | 1237.9 |
| 10°    | 1220.3 | 1223.0 | 1216.3 | 1229.8 | 1227.1 |
| 12.5°  | 1204.1 | 1208.1 | 1204.1 | 1216.3 | 1213.6 |
| 15°    | 1183.8 | 1187.9 | 1186.5 | 1200.0 | 1198.7 |
| 17.5°  | 1159.4 | 1167.6 | 1166.2 | 1178.4 | 1175.7 |
| 20°    | 1132.4 | 1140.5 | 1143.2 | 1155.4 | 1156.7 |
| 22.5°  | 1104.0 | 1112.1 | 1116.2 | 1132.4 | 1131.0 |
| 25°    | 1068.8 | 1082.3 | 1086.4 | 1104.0 | 1104.0 |
| 27.5°  | 1035.0 | 1049.9 | 1058.0 | 1072.9 | 1074.2 |
| 30°    | 998.4  | 1016.0 | 1026.9 | 1043.1 | 1043.1 |
| 32.5°  | 957.9  | 978.2  | 993.0  | 1010.6 | 1014.7 |
| 35°    | 920.0  | 941.6  | 959.2  | 979.5  | 984.9  |
| 37.5°  | 879.4  | 903.7  | 924.0  | 947.0  | 951.1  |
| 40°    | 838.8  | 863.2  | 890.2  | 913.2  | 918.6  |
| 42.5°  | 794.2  | 825.3  | 853.7  | 879.4  | 887.5  |
| 45°    | 752.2  | 784.7  | 818.5  | 844.2  | 855.0  |
| 47.5°  | 707.6  | 744.1  | 782.0  | 810.4  | 818.5  |
| 50°    | 664.3  | 702.2  | 744.1  | 775.2  | 784.7  |
| 52.5°  | 618.3  | 658.9  | 706.2  | 738.7  | 750.9  |
| 55°    | 573.6  | 618.3  | 667.0  | 703.5  | 714.3  |
| 57.5°  | 530.3  | 576.3  | 629.1  | 665.6  | 677.8  |
| 60°    | 484.3  | 533.0  | 588.5  | 626.4  | 641.3  |
| 62.5°  | 441.0  | 491.1  | 550.6  | 588.5  | 602.0  |
| 65°    | 396.4  | 449.2  | 508.7  | 549.3  | 562.8  |
| 67.5°  | 351.8  | 407.2  | 466.8  | 511.4  | 522.2  |
| 70°    | 304.4  | 362.6  | 427.5  | 470.8  | 484.3  |
| 72.5°  | 261.1  | 319.3  | 386.9  | 431.6  | 445.1  |
| 75°    | 215.1  | 278.7  | 346.3  | 391.0  | 407.2  |
| 77.5°  | 175.9  | 239.5  | 307.1  | 354.5  | 366.6  |
| 80°    | 133.9  | 200.2  | 270.6  | 316.6  | 330.1  |
| 82.5°  | 97.4   | 165.1  | 236.8  | 282.8  | 296.3  |
| 85°    | 66.3   | 133.9  | 205.6  | 251.6  | 265.2  |
| 87.5°  | 40.6   | 108.2  | 177.2  | 223.2  | 236.8  |
| 90°    | 19.6   | 95.8   | 177.6  | 226.6  | 241.1  |
| 92.5°  | 31.0   | 133.7  | 325.9  | 249.4  | 251.3  |
| 95°    | 48.5   | 176.8  | 719.9  | 346.9  | 304.0  |
| 97.5°  | 66.9   | 187.2  | 1027.1 | 596.3  | 415.1  |
| 100°   | 85.3   | 193.4  | 1053.6 | 1056.2 | 790.1  |
| 102.5° | 104.7  | 201.4  | 981.2  | 1351.6 | 1142.3 |
| 105°   | 125.4  | 212.8  | 896.1  | 1528.7 | 1408.6 |
| 107.5° | 145.9  | 227.2  | 819.8  | 1601.0 | 1579.0 |
| 110°   | 168.2  | 242.0  | 756.6  | 1595.3 | 1672.3 |

TEST NUMBER: P1011033

CATALOG NUMBER: S123DIP-B1000D1025UB30-4F0-XX-W2A-D4

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 189.9 | 257.8 | 711.0 | 1530.0 | 1685.0 |
| 115°   | 209.4 | 275.5 | 679.5 | 1436.9 | 1643.8 |
| 117.5° | 230.1 | 290.8 | 654.6 | 1337.8 | 1566.6 |
| 120°   | 250.5 | 306.2 | 636.9 | 1243.7 | 1466.1 |
| 122.5° | 269.3 | 321.8 | 623.3 | 1167.8 | 1373.1 |
| 125°   | 285.8 | 336.6 | 610.6 | 1099.5 | 1286.9 |
| 127.5° | 299.6 | 353.0 | 600.8 | 1041.9 | 1211.6 |
| 130°   | 312.4 | 368.8 | 591.1 | 988.4  | 1146.7 |
| 132.5° | 320.9 | 383.2 | 583.3 | 937.8  | 1085.6 |
| 135°   | 332.8 | 395.2 | 575.6 | 887.0  | 1024.8 |
| 137.5° | 343.7 | 406.0 | 568.2 | 837.4  | 962.2  |
| 140°   | 353.2 | 415.9 | 561.8 | 790.2  | 898.2  |
| 142.5° | 365.1 | 423.4 | 554.4 | 745.0  | 836.8  |
| 145°   | 377.9 | 431.4 | 552.4 | 705.0  | 780.1  |
| 147.5° | 389.4 | 439.8 | 549.5 | 672.6  | 731.9  |
| 150°   | 402.2 | 446.7 | 545.5 | 645.8  | 689.5  |
| 152.5° | 415.1 | 454.1 | 540.6 | 626.1  | 657.2  |
| 155°   | 427.9 | 461.5 | 534.6 | 607.8  | 633.5  |
| 157.5° | 437.8 | 468.0 | 529.7 | 590.0  | 610.7  |
| 160°   | 449.7 | 473.4 | 523.8 | 573.7  | 589.0  |
| 162.5° | 458.6 | 477.4 | 517.8 | 558.3  | 569.2  |
| 165°   | 467.4 | 480.8 | 511.9 | 543.0  | 552.4  |
| 167.5° | 474.4 | 483.8 | 506.0 | 529.7  | 535.6  |
| 170°   | 480.3 | 485.2 | 500.1 | 517.8  | 520.8  |
| 172.5° | 484.2 | 486.7 | 495.1 | 507.5  | 507.0  |
| 175°   | 487.2 | 487.7 | 491.2 | 498.1  | 497.1  |
| 177.5° | 489.2 | 488.2 | 488.2 | 492.2  | 490.2  |
| 180°   | 488.2 | 488.2 | 488.2 | 488.2  | 488.2  |

(END OF REPORT)