

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: P1008796

Luminaire Tested: S122DIP-B290D1080UB40-4F0-XX-W2A-D4

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1008796  
REPORT IS A COMBINATION OF REPORTS P983865 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122DIP-B290D1080UB40-4F0-XX-W2A-D4  
Description: Define 2 Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}  
Light Source: -  
Ballast/Driver: -

**Summary**

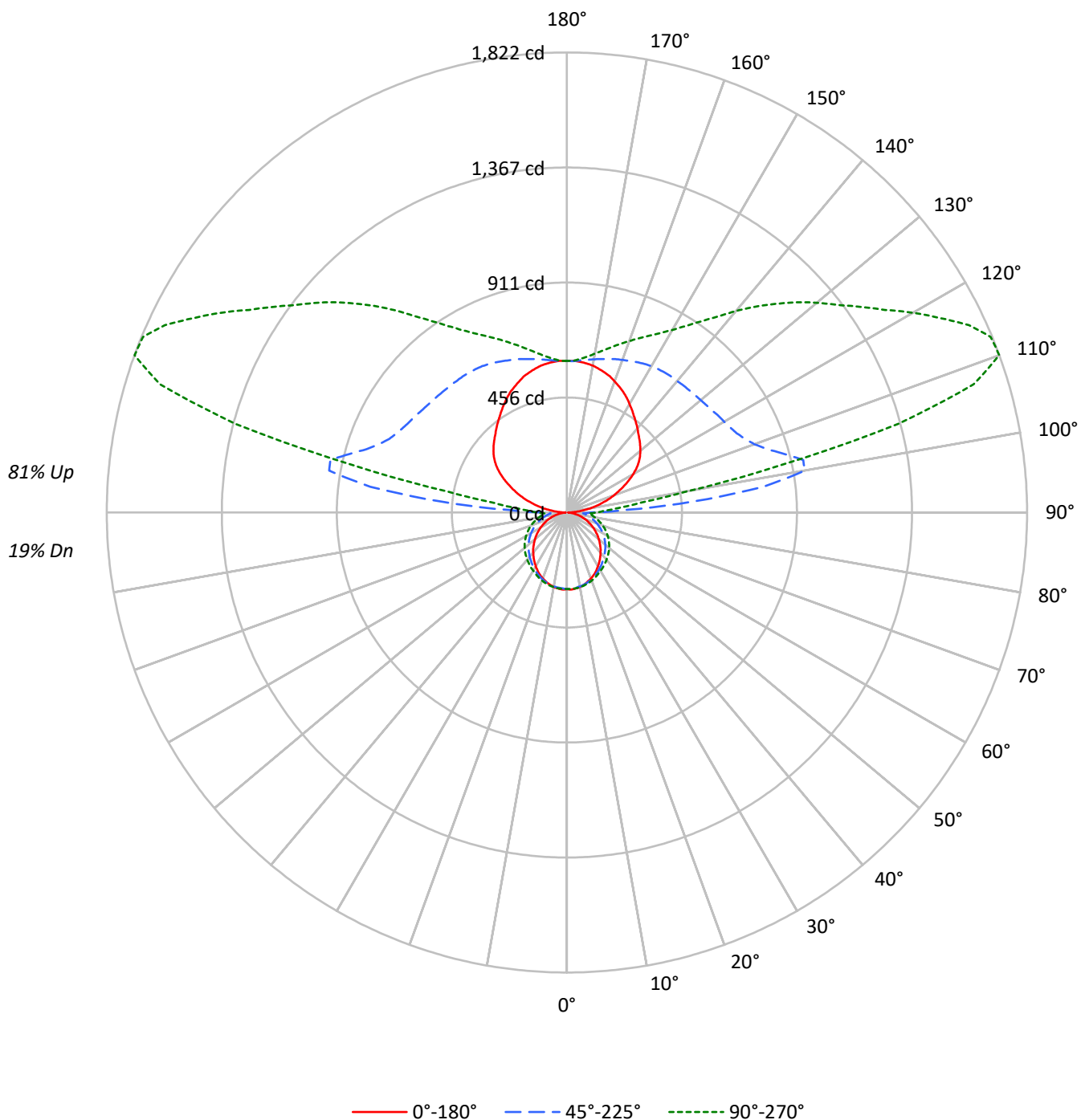
Lumens per Lamp: N/A  
Luminaire Lumens: 5346.8 lumens  
Efficiency: N/A  
Efficacy: 111.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 48  
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

TEST NUMBER: P1008796

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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 |
| RCR |     |     |     |     |    |    |    |    |    |    |    |  |    |    |    |  |    |
| 0   | 100 | 100 | 100 | 100 | 88 | 88 | 88 | 88 | 66 | 66 | 66 |  | 46 | 46 | 46 |  | 28 |
| 1   | 90  | 86  | 82  | 78  | 79 | 76 | 73 | 70 | 57 | 55 | 53 |  | 40 | 38 | 37 |  | 24 |
| 2   | 82  | 75  | 69  | 64  | 72 | 66 | 61 | 57 | 50 | 46 | 43 |  | 34 | 32 | 30 |  | 20 |
| 3   | 75  | 65  | 58  | 52  | 65 | 58 | 52 | 47 | 43 | 39 | 36 |  | 30 | 28 | 25 |  | 18 |
| 4   | 68  | 58  | 50  | 44  | 60 | 51 | 44 | 39 | 38 | 34 | 30 |  | 27 | 24 | 22 |  | 16 |
| 5   | 62  | 51  | 43  | 37  | 55 | 45 | 38 | 33 | 34 | 29 | 26 |  | 24 | 21 | 18 |  | 14 |
| 6   | 57  | 45  | 38  | 32  | 50 | 40 | 34 | 29 | 30 | 26 | 22 |  | 21 | 18 | 16 |  | 13 |
| 7   | 53  | 41  | 33  | 28  | 46 | 36 | 30 | 25 | 27 | 23 | 19 |  | 19 | 16 | 14 |  | 12 |
| 8   | 49  | 37  | 29  | 24  | 43 | 33 | 26 | 22 | 25 | 20 | 17 |  | 18 | 14 | 12 |  | 11 |
| 9   | 45  | 33  | 26  | 21  | 40 | 30 | 23 | 19 | 23 | 18 | 15 |  | 16 | 13 | 11 |  | 10 |
| 10  | 42  | 30  | 23  | 19  | 37 | 27 | 21 | 17 | 21 | 16 | 13 |  | 15 | 12 | 10 |  | 9  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4804 | 4804 | 4804 |
| 5°  | 4826 | 4599 | 4573 |
| 10° | 4793 | 4439 | 4375 |
| 15° | 4726 | 4275 | 4172 |
| 20° | 4641 | 4101 | 3979 |
| 25° | 4556 | 3936 | 3803 |
| 30° | 4438 | 3767 | 3631 |
| 35° | 4319 | 3605 | 3504 |
| 40° | 4194 | 3465 | 3377 |
| 45° | 4073 | 3338 | 3267 |
| 50° | 3943 | 3221 | 3159 |
| 55° | 3808 | 3097 | 3048 |
| 60° | 3644 | 2967 | 2931 |
| 65° | 3470 | 2816 | 2797 |
| 70° | 3278 | 2657 | 2654 |
| 75° | 3026 | 2497 | 2517 |
| 80° | 2635 | 2330 | 2376 |
| 85° | 2232 | 2174 | 2255 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
Vertical Angle: 45°  
Luminance: 4073 cd/sqm

TEST NUMBER: P1008796

CATALOG NUMBER: S122DIP-B290D1080UB40-4F0-XX-W2A-D4

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 28.8   | 0.5       |
| 10°-20°   | 82.5   | 1.5       |
| 20°-30°   | 125.0  | 2.3       |
| 30°-40°   | 152.2  | 2.8       |
| 40°-50°   | 163.8  | 3.1       |
| 50°-60°   | 159.1  | 3.0       |
| 60°-70°   | 138.9  | 2.6       |
| 70°-80°   | 106.9  | 2.0       |
| 80°-90°   | 75.5   | 1.4       |
| 90°-100°  | 292.7  | 5.5       |
| 100°-110° | 858.7  | 16.1      |
| 110°-120° | 888.5  | 16.6      |
| 120°-130° | 724.3  | 13.5      |
| 130°-140° | 577.0  | 10.8      |
| 140°-150° | 432.6  | 8.1       |
| 150°-160° | 303.4  | 5.7       |
| 160°-170° | 178.7  | 3.3       |
| 170°-180° | 58.1   | 1.1       |
| 0°-30°    | 236.3  | 4.4       |
| 0°-40°    | 388.5  | 7.3       |
| 0°-60°    | 711.5  | 13.3      |
| 0°-90°    | 1032.7 | 19.3      |
| 90°-120°  | 2040.0 | 38.2      |
| 90°-150°  | 3773.8 | 70.6      |
| 90°-180°  | 4314.0 | 80.7      |
| 0°-180°   | 5346.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90°  | Flux |
|------|-----|-------|-----|-------|------|------|
| 0°   | 304 | 304   | 304 | 304   | 304  |      |
| 5°   | 304 | 303   | 300 | 303   | 303  | 29   |
| 15°  | 290 | 291   | 291 | 295   | 295  | 82   |
| 25°  | 264 | 267   | 271 | 276   | 278  | 121  |
| 35°  | 227 | 235   | 243 | 253   | 256  | 142  |
| 45°  | 186 | 198   | 214 | 227   | 232  | 144  |
| 55°  | 143 | 159   | 182 | 198   | 203  | 128  |
| 65°  | 98  | 119   | 145 | 163   | 169  | 97   |
| 75°  | 54  | 79    | 107 | 126   | 132  | 57   |
| 85°  | 16  | 43    | 71  | 90    | 96   | 17   |
| 90°  | 6   | 46    | 97  | 113   | 119  | 6    |
| 95°  | 44  | 123   | 503 | 238   | 204  | 45   |
| 105° | 143 | 227   | 893 | 1582  | 1359 | 152  |
| 115° | 250 | 320   | 742 | 1517  | 1756 | 248  |
| 125° | 347 | 411   | 703 | 1223  | 1420 | 309  |
| 135° | 407 | 485   | 685 | 1020  | 1168 | 314  |
| 145° | 464 | 533   | 676 | 842   | 924  | 291  |
| 155° | 528 | 570   | 657 | 743   | 772  | 243  |
| 165° | 575 | 592   | 629 | 667   | 678  | 162  |
| 175° | 599 | 600   | 605 | 612   | 611  | 57   |
| 180° | 600 | 600   | 600 | 600   | 600  |      |

TEST NUMBER: P1008796

CATALOG NUMBER: S122DIP-B290D1080UB40-4F0-XX-W2A-D4

**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 0°     | 303.5 | 303.5 | 303.5 | 303.5  | 303.5  |
| 2.5°   | 305.7 | 304.4 | 301.3 | 303.5  | 302.6  |
| 5°     | 304.4 | 303.0 | 300.4 | 303.0  | 302.6  |
| 7.5°   | 302.2 | 301.3 | 299.1 | 302.2  | 301.7  |
| 10°    | 299.5 | 298.6 | 297.3 | 300.8  | 300.4  |
| 12.5°  | 295.1 | 295.6 | 294.7 | 298.2  | 297.8  |
| 15°    | 290.3 | 291.2 | 291.2 | 295.1  | 294.7  |
| 17.5°  | 284.1 | 285.9 | 287.2 | 291.2  | 291.2  |
| 20°    | 278.0 | 280.2 | 281.9 | 286.8  | 286.8  |
| 22.5°  | 271.4 | 274.0 | 276.7 | 281.5  | 282.4  |
| 25°    | 263.9 | 267.0 | 270.9 | 276.2  | 277.5  |
| 27.5°  | 255.1 | 259.9 | 264.3 | 270.9  | 271.8  |
| 30°    | 246.3 | 252.0 | 257.7 | 264.8  | 266.1  |
| 32.5°  | 236.6 | 243.2 | 250.3 | 258.6  | 261.3  |
| 35°    | 227.4 | 234.9 | 243.2 | 252.9  | 256.0  |
| 37.5°  | 217.3 | 225.6 | 236.2 | 246.7  | 249.8  |
| 40°    | 207.2 | 216.8 | 228.7 | 240.2  | 244.1  |
| 42.5°  | 197.5 | 207.2 | 221.2 | 234.0  | 238.0  |
| 45°    | 186.5 | 198.4 | 213.8 | 227.4  | 231.8  |
| 47.5°  | 175.9 | 188.7 | 206.3 | 220.4  | 225.2  |
| 50°    | 164.9 | 178.6 | 198.4 | 213.3  | 218.2  |
| 52.5°  | 154.4 | 168.9 | 190.0 | 205.4  | 210.7  |
| 55°    | 142.9 | 158.8 | 181.7 | 197.5  | 203.2  |
| 57.5°  | 132.0 | 149.5 | 172.4 | 189.6  | 195.3  |
| 60°    | 120.1 | 139.0 | 164.1 | 180.8  | 186.9  |
| 62.5°  | 109.5 | 129.3 | 154.4 | 172.4  | 178.1  |
| 65°    | 97.6  | 119.2 | 145.1 | 163.2  | 168.9  |
| 67.5°  | 87.1  | 109.5 | 135.9 | 153.9  | 160.1  |
| 70°    | 75.7  | 98.5  | 125.8 | 144.7  | 150.0  |
| 72.5°  | 65.1  | 88.8  | 116.6 | 135.0  | 141.6  |
| 75°    | 54.1  | 78.7  | 106.9 | 125.8  | 131.5  |
| 77.5°  | 43.5  | 69.1  | 97.6  | 116.6  | 122.7  |
| 80°    | 33.0  | 59.8  | 88.4  | 106.9  | 113.0  |
| 82.5°  | 24.2  | 50.6  | 79.6  | 98.1   | 103.8  |
| 85°    | 15.8  | 43.1  | 71.3  | 89.7   | 95.9   |
| 87.5°  | 9.7   | 36.1  | 64.2  | 82.2   | 88.0   |
| 90°    | 5.6   | 45.5  | 97.3  | 113.2  | 119.0  |
| 92.5°  | 21.3  | 82.2  | 231.9 | 153.2  | 146.9  |
| 95°    | 43.9  | 123.4 | 503.1 | 238.1  | 204.2  |
| 97.5°  | 63.1  | 153.0 | 785.1 | 406.7  | 289.6  |
| 100°   | 92.0  | 179.8 | 955.9 | 743.0  | 478.3  |
| 102.5° | 118.0 | 204.2 | 958.6 | 1211.0 | 867.3  |
| 105°   | 143.0 | 227.4 | 893.2 | 1582.1 | 1359.0 |
| 107.5° | 170.7 | 250.6 | 832.3 | 1714.2 | 1689.0 |
| 110°   | 198.0 | 274.4 | 790.5 | 1688.8 | 1821.7 |

TEST NUMBER: P1008796

CATALOG NUMBER: S122DIP-B290D1080UB40-4F0-XX-W2A-D4

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 223.4 | 297.4 | 762.0 | 1611.2 | 1816.3 |
| 115°   | 250.0 | 320.0 | 742.1 | 1516.6 | 1756.3 |
| 117.5° | 277.2 | 343.0 | 729.7 | 1426.3 | 1667.3 |
| 120°   | 302.6 | 365.6 | 719.1 | 1344.9 | 1582.3 |
| 122.5° | 326.8 | 389.0 | 711.7 | 1281.2 | 1493.0 |
| 125°   | 347.2 | 410.6 | 703.0 | 1223.2 | 1419.5 |
| 127.5° | 364.5 | 431.6 | 696.8 | 1173.0 | 1350.2 |
| 130°   | 379.5 | 450.6 | 691.9 | 1122.6 | 1292.4 |
| 132.5° | 393.4 | 469.0 | 688.1 | 1070.5 | 1232.7 |
| 135°   | 406.7 | 485.2 | 684.7 | 1019.5 | 1168.5 |
| 137.5° | 419.4 | 499.1 | 682.5 | 968.0  | 1106.1 |
| 140°   | 434.4 | 511.4 | 679.6 | 922.1  | 1041.4 |
| 142.5° | 449.4 | 521.8 | 678.7 | 878.5  | 977.1  |
| 145°   | 464.0 | 533.3 | 676.4 | 842.4  | 923.6  |
| 147.5° | 480.2 | 542.6 | 673.0 | 810.7  | 875.6  |
| 150°   | 496.4 | 551.8 | 669.5 | 785.0  | 834.6  |
| 152.5° | 512.5 | 561.0 | 663.7 | 763.6  | 801.1  |
| 155°   | 527.5 | 569.6 | 656.8 | 742.8  | 772.2  |
| 157.5° | 540.2 | 576.6 | 649.9 | 723.2  | 746.8  |
| 160°   | 552.9 | 583.6 | 643.0 | 703.6  | 722.6  |
| 162.5° | 565.6 | 588.7 | 637.2 | 685.1  | 699.5  |
| 165°   | 574.9 | 592.2 | 629.1 | 667.2  | 677.6  |
| 167.5° | 582.9 | 595.6 | 622.2 | 651.0  | 656.8  |
| 170°   | 591.0 | 597.4 | 616.4 | 636.0  | 638.3  |
| 172.5° | 595.6 | 599.0 | 609.5 | 622.8  | 623.3  |
| 175°   | 599.1 | 599.7 | 604.9 | 612.3  | 610.6  |
| 177.5° | 601.4 | 600.2 | 600.2 | 604.9  | 601.4  |
| 180°   | 600.2 | 600.2 | 600.2 | 600.2  | 600.2  |

(END OF REPORT)