

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: P1037022

Luminaire Tested: S122DS-B865DB35-4F0-XX-W2A-D

Issue Date: 5/2/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1037022  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-14)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/2/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122DS-B865DB35-4F0-XX-W2A-D  
Description: Define 2 Direct Surface with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}  
Light Source: -  
Ballast/Driver: -

**Summary**

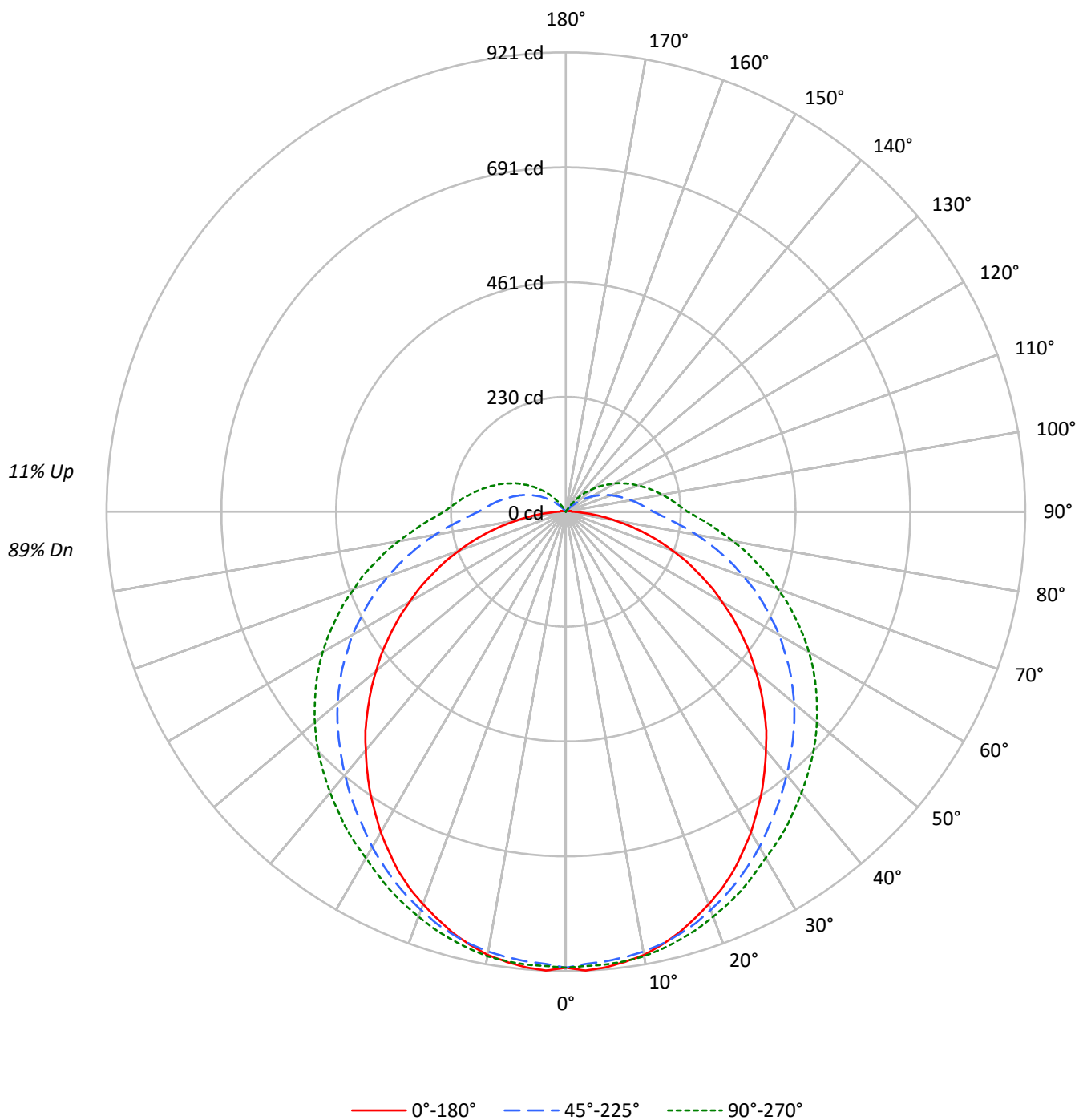
Lumens per Lamp: N/A  
Luminaire Lumens: 3488.0 lumens  
Efficiency: N/A  
Efficacy: 74.5 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 46.8  
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: P1037022

CATALOG NUMBER: S122DS-B865DB35-4F0-XX-W2A-D

### Luminous Intensity Polar Plot



TEST NUMBER: P1037022

CATALOG NUMBER: S122DS-B865DB35-4F0-XX-W2A-D

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

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 14470 | 14470 | 14470 |
| 5°  | 14568 | 14379 | 14484 |
| 10° | 14501 | 14395 | 14545 |
| 15° | 14329 | 14372 | 14546 |
| 20° | 14104 | 14305 | 14551 |
| 25° | 13883 | 14254 | 14601 |
| 30° | 13561 | 14189 | 14650 |
| 35° | 13235 | 14157 | 14899 |
| 40° | 12894 | 14235 | 15194 |
| 45° | 12574 | 14414 | 15630 |
| 50° | 12234 | 14714 | 16182 |
| 55° | 11883 | 15101 | 16892 |
| 60° | 11451 | 15646 | 17827 |
| 65° | 11016 | 16375 | 19054 |
| 70° | 10548 | 17536 | 20910 |
| 75° | 9969  | 19687 | 24225 |
| 80° | 9061  | 24275 | 31039 |
| 85° | 8663  | 38976 | 52452 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 96167 cd/sqm

TEST NUMBER: P1037022

CATALOG NUMBER: S122DS-B865DB35-4F0-XX-W2A-D

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 86.7   | 2.5       |
| 10°-20°   | 248.5  | 7.1       |
| 20°-30°   | 376.6  | 10.8      |
| 30°-40°   | 458.6  | 13.1      |
| 40°-50°   | 493.4  | 14.1      |
| 50°-60°   | 479.2  | 13.7      |
| 60°-70°   | 418.5  | 12.0      |
| 70°-80°   | 322.1  | 9.2       |
| 80°-90°   | 215.7  | 6.2       |
| 90°-100°  | 148.8  | 4.3       |
| 100°-110° | 108.7  | 3.1       |
| 110°-120° | 71.8   | 2.1       |
| 120°-130° | 40.0   | 1.1       |
| 130°-140° | 16.8   | 0.5       |
| 140°-150° | 2.8    | 0.1       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| <hr/>     |        |           |
| 0°-30°    | 711.8  | 20.4      |
| 0°-40°    | 1170.4 | 33.6      |
| 0°-60°    | 2142.9 | 61.4      |
| 0°-90°    | 3099.1 | 88.9      |
| 90°-120°  | 329.3  | 9.4       |
| 90°-150°  | 388.8  | 11.1      |
| 90°-180°  | 389.0  | 11.2      |
| 0°-180°   | 3488.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 914 | 914   | 914 | 914   | 914 |      |
| 5°   | 917 | 913   | 905 | 913   | 912 | 87   |
| 15°  | 874 | 877   | 877 | 889   | 888 | 246  |
| 25°  | 795 | 804   | 816 | 832   | 836 | 366  |
| 35°  | 685 | 708   | 733 | 762   | 771 | 428  |
| 45°  | 562 | 598   | 644 | 685   | 698 | 434  |
| 55°  | 431 | 478   | 547 | 595   | 612 | 385  |
| 65°  | 294 | 359   | 437 | 492   | 509 | 292  |
| 75°  | 163 | 237   | 322 | 379   | 396 | 172  |
| 85°  | 48  | 130   | 215 | 270   | 289 | 50   |
| 90°  | 13  | 90    | 175 | 228   | 244 | 9    |
| 95°  | 11  | 73    | 152 | 203   | 219 | 8    |
| 105° | 7   | 45    | 114 | 160   | 175 | 8    |
| 115° | 5   | 20    | 80  | 119   | 134 | 5    |
| 125° | 3   | 3     | 45  | 81    | 93  | 3    |
| 135° | 1   | 1     | 15  | 42    | 53  | 1    |
| 145° | 0   | 0     | 0   | 8     | 15  | 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: P1037022

CATALOG NUMBER: S122DS-B865DB35-4F0-XX-W2A-D

**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 914.1 | 914.1 | 914.1 | 914.1 | 914.1 |
| 2.5°   | 920.8 | 916.8 | 907.5 | 914.1 | 911.5 |
| 5°     | 916.8 | 912.8 | 904.9 | 912.8 | 911.5 |
| 7.5°   | 910.2 | 907.5 | 900.9 | 910.2 | 908.8 |
| 10°    | 902.2 | 899.6 | 895.6 | 906.2 | 904.9 |
| 12.5°  | 889.0 | 890.3 | 887.6 | 898.2 | 896.9 |
| 15°    | 874.4 | 877.0 | 877.0 | 889.0 | 887.6 |
| 17.5°  | 855.8 | 861.1 | 865.1 | 877.0 | 877.0 |
| 20°    | 837.3 | 843.9 | 849.2 | 863.8 | 863.8 |
| 22.5°  | 817.4 | 825.4 | 833.3 | 847.9 | 850.5 |
| 25°    | 794.9 | 804.2 | 816.1 | 832.0 | 836.0 |
| 27.5°  | 768.4 | 783.0 | 796.2 | 816.1 | 818.7 |
| 30°    | 741.9 | 759.1 | 776.3 | 797.5 | 801.5 |
| 32.5°  | 712.8 | 732.6 | 753.8 | 779.0 | 786.9 |
| 35°    | 684.9 | 707.5 | 732.6 | 761.8 | 771.0 |
| 37.5°  | 654.5 | 679.6 | 711.4 | 743.2 | 752.5 |
| 40°    | 624.0 | 653.1 | 688.9 | 723.4 | 735.3 |
| 42.5°  | 594.8 | 624.0 | 666.4 | 704.8 | 716.7 |
| 45°    | 561.7 | 597.5 | 643.9 | 684.9 | 698.2 |
| 47.5°  | 529.9 | 568.4 | 621.3 | 663.7 | 678.3 |
| 50°    | 496.8 | 537.9 | 597.5 | 642.5 | 657.1 |
| 52.5°  | 465.0 | 508.7 | 572.3 | 618.7 | 634.6 |
| 55°    | 430.6 | 478.3 | 547.2 | 594.8 | 612.1 |
| 57.5°  | 397.4 | 450.4 | 519.3 | 571.0 | 588.2 |
| 60°    | 361.7 | 418.6 | 494.2 | 544.5 | 563.1 |
| 62.5°  | 329.9 | 389.5 | 465.0 | 519.3 | 536.6 |
| 65°    | 294.1 | 359.0 | 437.2 | 491.5 | 508.7 |
| 67.5°  | 262.3 | 329.9 | 409.4 | 463.7 | 482.2 |
| 70°    | 227.9 | 296.8 | 378.9 | 435.9 | 451.8 |
| 72.5°  | 196.1 | 267.6 | 351.1 | 406.7 | 426.6 |
| 75°    | 163.0 | 237.1 | 321.9 | 378.9 | 396.1 |
| 77.5°  | 131.2 | 208.0 | 294.1 | 351.1 | 369.6 |
| 80°    | 99.4  | 180.2 | 266.3 | 321.9 | 340.5 |
| 82.5°  | 72.9  | 152.4 | 239.8 | 295.4 | 312.7 |
| 85°    | 47.7  | 129.8 | 214.6 | 270.3 | 288.8 |
| 87.5°  | 29.1  | 108.6 | 193.4 | 247.7 | 265.0 |
| 90°    | 13.2  | 90.1  | 174.9 | 227.9 | 243.8 |
| 92.5°  | 11.9  | 82.1  | 163.0 | 214.6 | 230.5 |
| 95°    | 10.6  | 72.9  | 152.4 | 202.7 | 218.6 |
| 97.5°  | 9.3   | 66.2  | 143.1 | 192.1 | 208.0 |
| 100°   | 9.3   | 58.3  | 132.5 | 181.5 | 196.1 |
| 102.5° | 7.9   | 51.7  | 123.2 | 170.9 | 185.5 |
| 105°   | 6.6   | 45.0  | 113.9 | 160.3 | 174.9 |
| 107.5° | 6.6   | 38.4  | 104.7 | 149.7 | 164.3 |
| 110°   | 5.3   | 31.8  | 96.7  | 139.1 | 153.7 |



TEST NUMBER: P1037022

CATALOG NUMBER: S122DS-B865DB35-4F0-XX-W2A-D

**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45°  | 67.5° | 90°   |
|--------|-----|-------|------|-------|-------|
| 112.5° | 5.3 | 26.5  | 87.4 | 129.8 | 144.4 |
| 115°   | 5.3 | 19.9  | 79.5 | 119.2 | 133.8 |
| 117.5° | 4.0 | 14.6  | 70.2 | 110.0 | 123.2 |
| 120°   | 4.0 | 9.3   | 62.3 | 99.4  | 113.9 |
| 122.5° | 4.0 | 5.3   | 54.3 | 90.1  | 102.0 |
| 125°   | 2.6 | 2.6   | 45.0 | 80.8  | 92.7  |
| 127.5° | 2.6 | 1.3   | 37.1 | 70.2  | 82.1  |
| 130°   | 2.6 | 1.3   | 29.1 | 60.9  | 71.5  |
| 132.5° | 2.6 | 1.3   | 21.2 | 51.7  | 62.3  |
| 135°   | 1.3 | 1.3   | 14.6 | 42.4  | 53.0  |
| 137.5° | 1.3 | 1.3   | 7.9  | 33.1  | 42.4  |
| 140°   | 1.3 | 0.0   | 2.6  | 23.8  | 31.8  |
| 142.5° | 1.3 | 0.0   | 0.0  | 15.9  | 22.5  |
| 145°   | 0.0 | 0.0   | 0.0  | 7.9   | 14.6  |
| 147.5° | 0.0 | 0.0   | 0.0  | 1.3   | 5.3   |
| 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)