

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: P1000256

Luminaire Tested: SA2XXRDIP-B865D925UB50-4F0-XX-W2A-F

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1000256  
REPORT IS A COMBINATION OF REPORTS P988816 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: SA2XXRDIP-B865D925UB50-4F0-XX-W2A-F  
Description: Define 2 Regressed Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015}  
{m-EER=1.115}  
Light Source: -  
Ballast/Driver: -

**Summary**

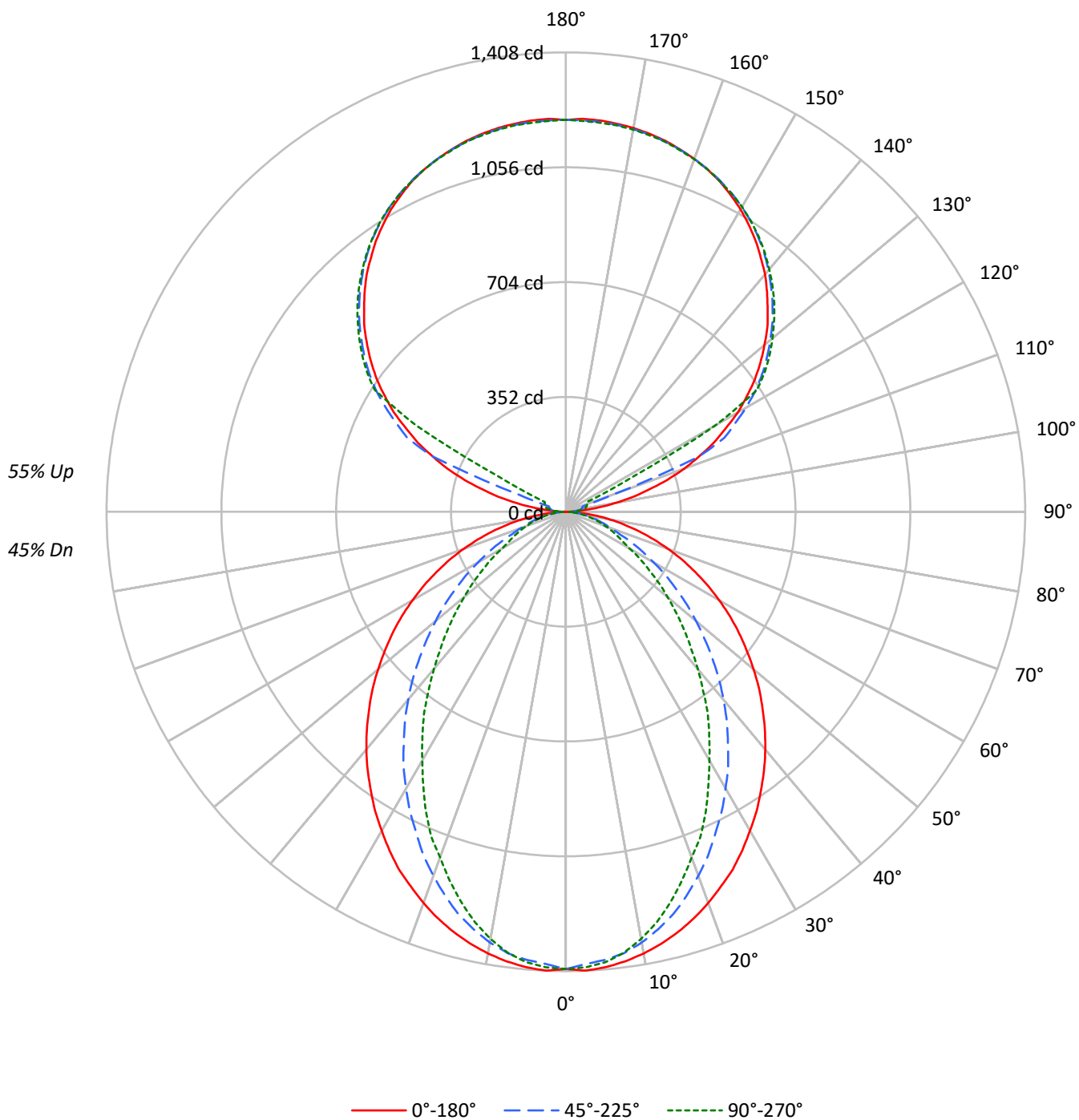
Lumens per Lamp: N/A  
Luminaire Lumens: 6406.0 lumens  
Efficiency: N/A  
Efficacy: 85.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

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   | 106 | 106 | 106 | 106 | 97 | 97 | 97 | 97 | 81 | 81 | 81 | 65 | 65 | 65 | 52 | 52 | 52 |
| 1   | 97  | 93  | 89  | 86  | 89 | 85 | 82 | 79 | 71 | 69 | 67 | 58 | 57 | 55 | 46 | 45 | 44 |
| 2   | 89  | 82  | 76  | 71  | 81 | 75 | 70 | 66 | 63 | 59 | 56 | 52 | 49 | 47 | 41 | 40 | 38 |
| 3   | 81  | 72  | 65  | 60  | 74 | 67 | 60 | 56 | 56 | 51 | 48 | 46 | 43 | 40 | 37 | 35 | 33 |
| 4   | 75  | 64  | 57  | 51  | 68 | 59 | 53 | 47 | 50 | 45 | 41 | 41 | 38 | 35 | 33 | 31 | 29 |
| 5   | 69  | 57  | 49  | 44  | 63 | 53 | 46 | 41 | 45 | 40 | 36 | 37 | 33 | 30 | 30 | 27 | 25 |
| 6   | 63  | 52  | 44  | 38  | 58 | 48 | 41 | 36 | 41 | 35 | 31 | 34 | 30 | 27 | 28 | 25 | 22 |
| 7   | 59  | 47  | 39  | 34  | 54 | 43 | 36 | 32 | 37 | 32 | 28 | 31 | 27 | 24 | 25 | 22 | 20 |
| 8   | 54  | 42  | 35  | 30  | 50 | 39 | 33 | 28 | 34 | 28 | 25 | 28 | 24 | 21 | 23 | 20 | 18 |
| 9   | 51  | 39  | 32  | 27  | 47 | 36 | 30 | 25 | 31 | 26 | 22 | 26 | 22 | 19 | 22 | 19 | 16 |
| 10  | 47  | 36  | 29  | 24  | 44 | 33 | 27 | 23 | 29 | 24 | 20 | 24 | 20 | 18 | 20 | 17 | 15 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 22182 | 22182 | 22182 |
| 5°  | 22218 | 21103 | 20947 |
| 10° | 21999 | 20016 | 19354 |
| 15° | 21696 | 18731 | 17540 |
| 20° | 21297 | 17270 | 15642 |
| 25° | 20886 | 15770 | 13905 |
| 30° | 20337 | 14311 | 12008 |
| 35° | 19797 | 12840 | 10380 |
| 40° | 19249 | 11394 | 8702  |
| 45° | 18612 | 9901  | 7239  |
| 50° | 17954 | 8462  | 5894  |
| 55° | 17267 | 7025  | 4679  |
| 60° | 16471 | 5617  | 3539  |
| 65° | 15553 | 4283  | 2877  |
| 70° | 14443 | 3107  | 2289  |
| 75° | 13051 | 2371  | 1748  |
| 80° | 11034 | 1605  | 1173  |
| 85° | 7698  | 735   | 567   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 18612 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 131.3  | 2.1       |
| 10°-20°   | 360.5  | 5.6       |
| 20°-30°   | 506.2  | 7.9       |
| 30°-40°   | 551.8  | 8.6       |
| 40°-50°   | 507.1  | 7.9       |
| 50°-60°   | 398.3  | 6.2       |
| 60°-70°   | 259.2  | 4.0       |
| 70°-80°   | 133.5  | 2.1       |
| 80°-90°   | 36.2   | 0.6       |
| 90°-100°  | 39.6   | 0.6       |
| 100°-110° | 147.7  | 2.3       |
| 110°-120° | 391.6  | 6.1       |
| 120°-130° | 649.6  | 10.1      |
| 130°-140° | 690.0  | 10.8      |
| 140°-150° | 641.3  | 10.0      |
| 150°-160° | 515.6  | 8.0       |
| 160°-170° | 332.2  | 5.2       |
| 170°-180° | 114.3  | 1.8       |
| 0°-30°    | 998.1  | 15.6      |
| 0°-40°    | 1549.8 | 24.2      |
| 0°-60°    | 2455.2 | 38.3      |
| 0°-90°    | 2884.1 | 45.0      |
| 90°-120°  | 578.9  | 9.0       |
| 90°-150°  | 2559.8 | 40.0      |
| 90°-180°  | 3522.0 | 55.0      |
| 0°-180°   | 6406.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1401 | 1401  | 1401 | 1401  | 1401 |      |
| 5°   | 1401 | 1395  | 1378 | 1390  | 1386 | 133  |
| 15°  | 1333 | 1319  | 1276 | 1252  | 1239 | 376  |
| 25°  | 1210 | 1169  | 1086 | 1034  | 1014 | 556  |
| 35°  | 1042 | 978   | 866  | 786   | 758  | 652  |
| 45°  | 852  | 767   | 634  | 544   | 514  | 658  |
| 55°  | 648  | 549   | 412  | 336   | 312  | 579  |
| 65°  | 438  | 335   | 221  | 178   | 174  | 434  |
| 75°  | 233  | 145   | 102  | 93    | 91   | 247  |
| 85°  | 54   | 28    | 24   | 24    | 24   | 63   |
| 90°  | 1    | 10    | 17   | 22    | 24   | 6    |
| 95°  | 56   | 28    | 34   | 38    | 37   | 67   |
| 105° | 264  | 290   | 53   | 63    | 66   | 282  |
| 115° | 500  | 515   | 536  | 134   | 71   | 492  |
| 125° | 707  | 718   | 734  | 741   | 743  | 630  |
| 135° | 874  | 888   | 896  | 905   | 903  | 676  |
| 145° | 1014 | 1014  | 1028 | 1034  | 1030 | 634  |
| 155° | 1117 | 1109  | 1120 | 1125  | 1118 | 515  |
| 165° | 1177 | 1172  | 1174 | 1180  | 1174 | 333  |
| 175° | 1204 | 1198  | 1200 | 1206  | 1197 | 115  |
| 180° | 1201 | 1201  | 1201 | 1201  | 1201 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1401.3 | 1401.3 | 1401.3 | 1401.3 | 1401.3 |
| 2.5°   | 1407.7 | 1401.3 | 1387.4 | 1400.1 | 1397.5 |
| 5°     | 1401.3 | 1395.0 | 1378.5 | 1389.9 | 1386.1 |
| 7.5°   | 1389.9 | 1382.3 | 1364.5 | 1369.6 | 1363.3 |
| 10°    | 1374.7 | 1365.8 | 1340.5 | 1336.6 | 1329.0 |
| 12.5°  | 1355.7 | 1344.3 | 1310.0 | 1302.4 | 1288.5 |
| 15°    | 1332.8 | 1318.9 | 1275.8 | 1251.7 | 1239.0 |
| 17.5°  | 1306.2 | 1285.9 | 1232.7 | 1204.8 | 1184.5 |
| 20°    | 1275.8 | 1250.4 | 1187.0 | 1155.3 | 1127.4 |
| 22.5°  | 1242.8 | 1213.6 | 1140.1 | 1097.0 | 1077.9 |
| 25°    | 1209.8 | 1169.2 | 1085.5 | 1033.6 | 1014.5 |
| 27.5°  | 1170.5 | 1127.4 | 1034.8 | 975.2  | 946.1  |
| 30°    | 1128.7 | 1080.5 | 979.0  | 914.3  | 880.1  |
| 32.5°  | 1088.1 | 1029.8 | 925.8  | 849.7  | 818.0  |
| 35°    | 1042.4 | 977.8  | 866.2  | 786.3  | 758.4  |
| 37.5°  | 998.0  | 928.3  | 810.4  | 722.9  | 691.2  |
| 40°    | 951.1  | 875.0  | 752.0  | 662.0  | 629.0  |
| 42.5°  | 902.9  | 821.8  | 693.7  | 599.8  | 568.1  |
| 45°    | 852.2  | 767.2  | 634.1  | 544.0  | 513.6  |
| 47.5°  | 804.0  | 714.0  | 577.0  | 487.0  | 459.1  |
| 50°    | 750.8  | 660.7  | 521.2  | 433.7  | 407.1  |
| 52.5°  | 698.8  | 603.6  | 468.0  | 384.3  | 360.2  |
| 55°    | 648.0  | 549.1  | 412.2  | 336.1  | 312.0  |
| 57.5°  | 596.0  | 494.6  | 362.7  | 291.7  | 271.4  |
| 60°    | 542.8  | 441.3  | 310.7  | 246.0  | 225.7  |
| 62.5°  | 490.8  | 389.3  | 266.3  | 205.4  | 195.3  |
| 65°    | 437.5  | 334.8  | 220.7  | 177.5  | 173.7  |
| 67.5°  | 386.8  | 284.1  | 177.5  | 156.0  | 152.2  |
| 70°    | 333.5  | 234.6  | 147.1  | 134.4  | 129.4  |
| 72.5°  | 282.8  | 189.0  | 123.0  | 112.9  | 110.3  |
| 75°    | 233.3  | 144.6  | 101.5  | 92.6   | 91.3   |
| 77.5°  | 183.9  | 102.7  | 79.9   | 74.8   | 72.3   |
| 80°    | 138.2  | 73.6   | 60.9   | 55.8   | 55.8   |
| 82.5°  | 96.4   | 49.5   | 41.8   | 39.3   | 39.3   |
| 85°    | 54.5   | 27.9   | 24.1   | 24.1   | 24.1   |
| 87.5°  | 20.3   | 10.1   | 10.1   | 8.9    | 8.9    |
| 90°    | 0.9    | 10.4   | 17.4   | 21.7   | 23.5   |
| 92.5°  | 21.7   | 18.3   | 20.9   | 22.6   | 23.5   |
| 95°    | 56.5   | 27.8   | 33.9   | 38.2   | 37.4   |
| 97.5°  | 101.7  | 30.4   | 44.3   | 46.9   | 47.8   |
| 100°   | 153.9  | 34.8   | 49.5   | 56.5   | 58.2   |
| 102.5° | 211.2  | 209.5  | 51.3   | 60.8   | 63.5   |
| 105°   | 264.3  | 290.3  | 53.0   | 62.6   | 66.1   |
| 107.5° | 326.0  | 347.7  | 54.8   | 64.3   | 67.8   |
| 110°   | 385.1  | 403.3  | 152.1  | 65.2   | 68.7   |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 440.7  | 456.4  | 441.6  | 66.9   | 69.5   |
| 115°   | 499.8  | 514.6  | 536.3  | 133.9  | 71.3   |
| 117.5° | 551.1  | 568.5  | 583.3  | 459.0  | 231.2  |
| 120°   | 608.5  | 621.5  | 637.2  | 647.6  | 530.3  |
| 122.5° | 657.2  | 671.1  | 688.5  | 693.7  | 694.5  |
| 125°   | 706.7  | 718.0  | 734.5  | 740.6  | 743.2  |
| 127.5° | 751.9  | 764.1  | 777.1  | 785.8  | 786.7  |
| 130°   | 794.5  | 808.4  | 818.0  | 827.5  | 826.7  |
| 132.5° | 838.0  | 849.3  | 858.8  | 866.7  | 865.8  |
| 135°   | 874.5  | 888.4  | 896.2  | 904.9  | 903.2  |
| 137.5° | 912.7  | 923.2  | 931.9  | 940.6  | 937.9  |
| 140°   | 950.1  | 957.1  | 966.6  | 974.5  | 970.1  |
| 142.5° | 981.4  | 987.5  | 998.8  | 1005.7 | 1001.4 |
| 145°   | 1014.4 | 1013.6 | 1028.3 | 1034.4 | 1030.1 |
| 147.5° | 1043.1 | 1040.5 | 1055.3 | 1059.6 | 1056.2 |
| 150°   | 1070.9 | 1064.9 | 1078.8 | 1084.0 | 1079.6 |
| 152.5° | 1094.4 | 1087.5 | 1100.5 | 1105.7 | 1099.6 |
| 155°   | 1117.0 | 1109.2 | 1119.6 | 1124.8 | 1117.9 |
| 157.5° | 1135.3 | 1128.3 | 1136.1 | 1142.2 | 1135.3 |
| 160°   | 1150.9 | 1145.7 | 1150.9 | 1156.1 | 1150.0 |
| 162.5° | 1164.8 | 1159.6 | 1164.0 | 1170.0 | 1162.2 |
| 165°   | 1177.0 | 1171.8 | 1174.4 | 1180.5 | 1174.4 |
| 167.5° | 1186.6 | 1181.3 | 1183.9 | 1190.0 | 1182.2 |
| 170°   | 1194.4 | 1189.2 | 1190.9 | 1197.0 | 1189.2 |
| 172.5° | 1199.6 | 1194.4 | 1196.1 | 1202.2 | 1194.4 |
| 175°   | 1203.9 | 1197.9 | 1199.6 | 1205.7 | 1197.0 |
| 177.5° | 1205.7 | 1199.6 | 1200.5 | 1206.5 | 1198.7 |
| 180°   | 1201.3 | 1201.3 | 1201.3 | 1201.3 | 1201.3 |

(END OF REPORT)