

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: P999980

Luminaire Tested: SA2XXRDIP-B675D530UB50-4F0-XX-W2A-F4

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P999980  
REPORT IS A COMBINATION OF REPORTS P988537 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: SA2XXRDIP-B675D530UB50-4F0-XX-W2A-F4  
Description: Define 2 Regressed Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015}  
{m-EER=1.115}  
Light Source: -  
Ballast/Driver: -

**Summary**

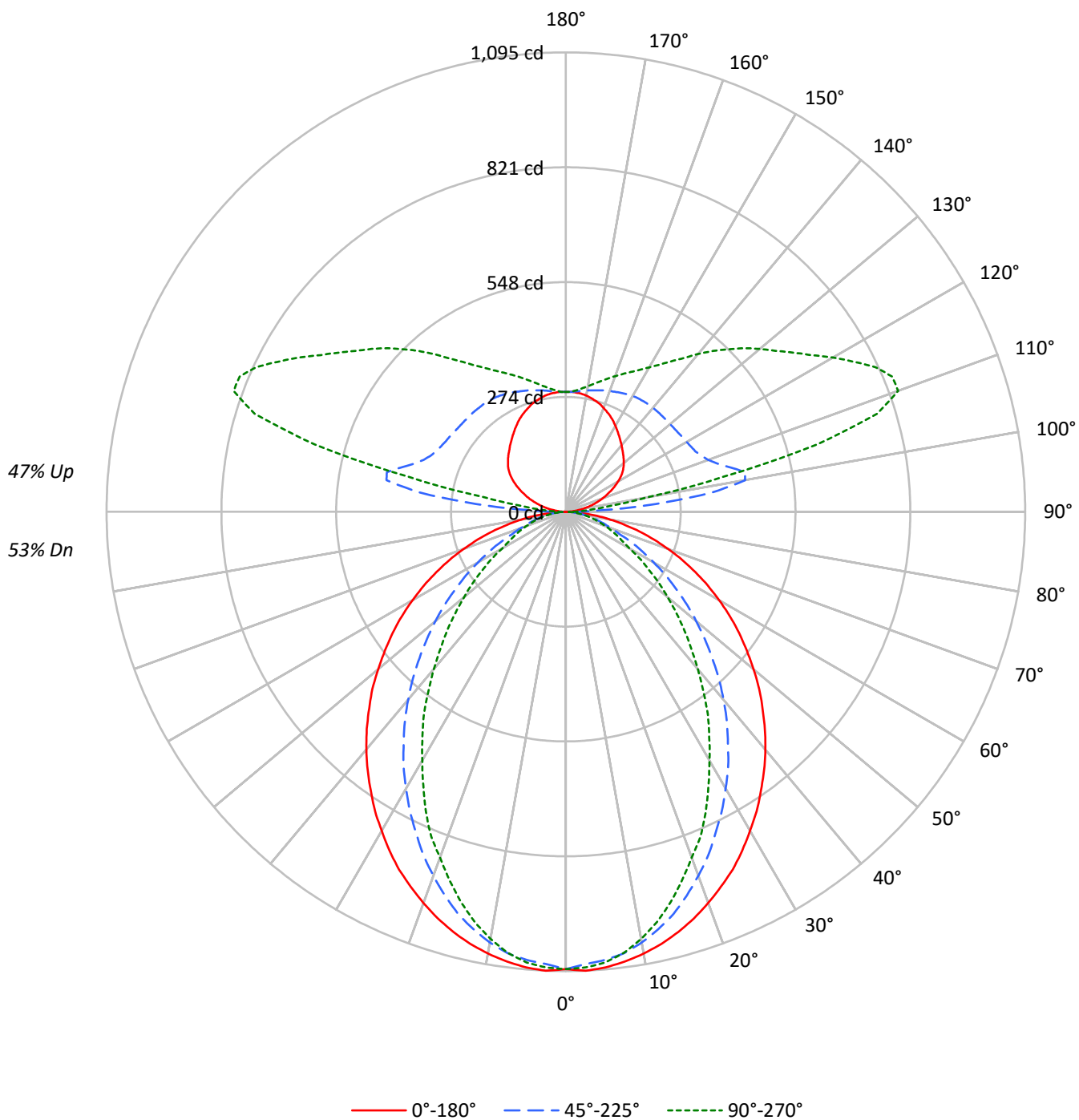
Lumens per Lamp: N/A  
Luminaire Lumens: 4236.2 lumens  
Efficiency: N/A  
Efficacy: 82.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 51.3  
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   | 108 | 108 | 108 | 108 | 100 | 100 | 100 | 100 | 85 | 85 | 85 | 71 | 71 | 71 | 59 | 59 | 59 |
| 1   | 99  | 95  | 91  | 88  | 92  | 88  | 85  | 82  | 75 | 73 | 71 | 64 | 62 | 60 | 53 | 52 | 51 |
| 2   | 91  | 83  | 77  | 73  | 84  | 78  | 72  | 68  | 67 | 63 | 59 | 56 | 54 | 51 | 47 | 45 | 43 |
| 3   | 83  | 74  | 67  | 61  | 77  | 69  | 62  | 57  | 59 | 54 | 51 | 50 | 47 | 44 | 42 | 40 | 38 |
| 4   | 76  | 66  | 58  | 52  | 70  | 61  | 54  | 49  | 53 | 48 | 44 | 45 | 41 | 38 | 38 | 35 | 33 |
| 5   | 70  | 59  | 51  | 45  | 65  | 55  | 48  | 43  | 48 | 42 | 38 | 41 | 37 | 33 | 35 | 31 | 29 |
| 6   | 65  | 53  | 45  | 39  | 60  | 50  | 42  | 37  | 43 | 38 | 33 | 37 | 33 | 30 | 32 | 28 | 26 |
| 7   | 60  | 48  | 40  | 35  | 56  | 45  | 38  | 33  | 39 | 34 | 30 | 34 | 30 | 26 | 29 | 26 | 23 |
| 8   | 56  | 44  | 36  | 31  | 52  | 41  | 34  | 29  | 36 | 30 | 27 | 31 | 27 | 24 | 27 | 23 | 21 |
| 9   | 52  | 40  | 33  | 28  | 48  | 38  | 31  | 26  | 33 | 28 | 24 | 29 | 24 | 21 | 25 | 21 | 19 |
| 10  | 49  | 37  | 30  | 25  | 45  | 35  | 28  | 24  | 31 | 25 | 22 | 27 | 22 | 19 | 23 | 20 | 17 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 17256 | 17256 | 17256 |
| 5°  | 17284 | 16417 | 16295 |
| 10° | 17114 | 15571 | 15057 |
| 15° | 16879 | 14572 | 13645 |
| 20° | 16568 | 13435 | 12168 |
| 25° | 16249 | 12269 | 10817 |
| 30° | 15820 | 11133 | 9342  |
| 35° | 15400 | 9988  | 8075  |
| 40° | 14975 | 8863  | 6769  |
| 45° | 14480 | 7703  | 5632  |
| 50° | 13965 | 6584  | 4585  |
| 55° | 13432 | 5464  | 3640  |
| 60° | 12811 | 4370  | 2754  |
| 65° | 12101 | 3332  | 2239  |
| 70° | 11238 | 2416  | 1780  |
| 75° | 10153 | 1843  | 1359  |
| 80° | 8583  | 1249  | 912   |
| 85° | 5989  | 570   | 440   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14480 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 102.2  | 2.4       |
| 10°-20°   | 280.5  | 6.6       |
| 20°-30°   | 393.8  | 9.3       |
| 30°-40°   | 429.2  | 10.1      |
| 40°-50°   | 394.5  | 9.3       |
| 50°-60°   | 309.8  | 7.3       |
| 60°-70°   | 201.7  | 4.8       |
| 70°-80°   | 103.8  | 2.5       |
| 80°-90°   | 28.3   | 0.7       |
| 90°-100°  | 115.8  | 2.7       |
| 100°-110° | 391.6  | 9.2       |
| 110°-120° | 411.7  | 9.7       |
| 120°-130° | 338.5  | 8.0       |
| 130°-140° | 272.0  | 6.4       |
| 140°-150° | 205.5  | 4.9       |
| 150°-160° | 144.5  | 3.4       |
| 160°-170° | 85.1   | 2.0       |
| 170°-180° | 27.7   | 0.7       |
| 0°-30°    | 776.4  | 18.3      |
| 0°-40°    | 1205.7 | 28.5      |
| 0°-60°    | 1910.0 | 45.1      |
| 0°-90°    | 2243.8 | 53.0      |
| 90°-120°  | 919.2  | 21.7      |
| 90°-150°  | 1735.2 | 41.0      |
| 90°-180°  | 1992.0 | 47.0      |
| 0°-180°   | 4236.2 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1090 | 1090  | 1090 | 1090  | 1090 |      |
| 5°   | 1090 | 1085  | 1072 | 1081  | 1078 | 103  |
| 15°  | 1037 | 1026  | 992  | 974   | 964  | 292  |
| 25°  | 941  | 910   | 844  | 804   | 789  | 433  |
| 35°  | 811  | 761   | 674  | 612   | 590  | 508  |
| 45°  | 663  | 597   | 493  | 423   | 400  | 512  |
| 55°  | 504  | 427   | 321  | 261   | 243  | 450  |
| 65°  | 340  | 260   | 172  | 138   | 135  | 337  |
| 75°  | 182  | 112   | 79   | 72    | 71   | 192  |
| 85°  | 42   | 22    | 19   | 19    | 19   | 49   |
| 90°  | 0    | 7     | 19   | 18    | 18   | 3    |
| 95°  | 19   | 47    | 215  | 81    | 63   | 20   |
| 105° | 67   | 101   | 407  | 728   | 619  | 71   |
| 115° | 118  | 149   | 341  | 703   | 815  | 117  |
| 125° | 165  | 195   | 328  | 570   | 661  | 147  |
| 135° | 193  | 231   | 324  | 479   | 548  | 149  |
| 145° | 221  | 254   | 322  | 400   | 438  | 139  |
| 155° | 251  | 271   | 313  | 354   | 368  | 116  |
| 165° | 274  | 282   | 300  | 318   | 323  | 77   |
| 175° | 285  | 286   | 288  | 292   | 291  | 27   |
| 180° | 286  | 286   | 286  | 286   | 286  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1090.1 | 1090.1 | 1090.1 | 1090.1 | 1090.1 |
| 2.5°   | 1095.1 | 1090.1 | 1079.3 | 1089.1 | 1087.2 |
| 5°     | 1090.1 | 1085.2 | 1072.4 | 1081.3 | 1078.3 |
| 7.5°   | 1081.3 | 1075.3 | 1061.5 | 1065.5 | 1060.5 |
| 10°    | 1069.4 | 1062.5 | 1042.8 | 1039.8 | 1033.9 |
| 12.5°  | 1054.6 | 1045.7 | 1019.1 | 1013.2 | 1002.3 |
| 15°    | 1036.9 | 1026.0 | 992.5  | 973.7  | 963.9  |
| 17.5°  | 1016.1 | 1000.4 | 958.9  | 937.2  | 921.4  |
| 20°    | 992.5  | 972.7  | 923.4  | 898.7  | 877.0  |
| 22.5°  | 966.8  | 944.1  | 886.9  | 853.4  | 838.6  |
| 25°    | 941.2  | 909.6  | 844.5  | 804.0  | 789.2  |
| 27.5°  | 910.6  | 877.0  | 805.0  | 758.7  | 736.0  |
| 30°    | 878.0  | 840.5  | 761.6  | 711.3  | 684.7  |
| 32.5°  | 846.5  | 801.1  | 720.2  | 661.0  | 636.3  |
| 35°    | 810.9  | 760.6  | 673.8  | 611.7  | 590.0  |
| 37.5°  | 776.4  | 722.2  | 630.4  | 562.3  | 537.7  |
| 40°    | 739.9  | 680.7  | 585.0  | 515.0  | 489.3  |
| 42.5°  | 702.4  | 639.3  | 539.6  | 466.6  | 442.0  |
| 45°    | 663.0  | 596.9  | 493.3  | 423.2  | 399.6  |
| 47.5°  | 625.5  | 555.4  | 448.9  | 378.8  | 357.1  |
| 50°    | 584.0  | 514.0  | 405.5  | 337.4  | 316.7  |
| 52.5°  | 543.6  | 469.6  | 364.0  | 298.9  | 280.2  |
| 55°    | 504.1  | 427.2  | 320.6  | 261.4  | 242.7  |
| 57.5°  | 463.7  | 384.8  | 282.2  | 226.9  | 211.1  |
| 60°    | 422.2  | 343.3  | 241.7  | 191.4  | 175.6  |
| 62.5°  | 381.8  | 302.9  | 207.2  | 159.8  | 151.9  |
| 65°    | 340.4  | 260.4  | 171.7  | 138.1  | 135.2  |
| 67.5°  | 300.9  | 221.0  | 138.1  | 121.3  | 118.4  |
| 70°    | 259.5  | 182.5  | 114.4  | 104.6  | 100.6  |
| 72.5°  | 220.0  | 147.0  | 95.7   | 87.8   | 85.8   |
| 75°    | 181.5  | 112.5  | 78.9   | 72.0   | 71.0   |
| 77.5°  | 143.0  | 79.9   | 62.2   | 58.2   | 56.2   |
| 80°    | 107.5  | 57.2   | 47.4   | 43.4   | 43.4   |
| 82.5°  | 75.0   | 38.5   | 32.6   | 30.6   | 30.6   |
| 85°    | 42.4   | 21.7   | 18.7   | 18.7   | 18.7   |
| 87.5°  | 15.8   | 7.9    | 7.9    | 6.9    | 6.9    |
| 90°    | 0.5    | 7.4    | 18.7   | 17.8   | 18.1   |
| 92.5°  | 8.2    | 26.1   | 84.6   | 39.0   | 33.5   |
| 95°    | 19.2   | 47.3   | 215.4  | 81.4   | 62.7   |
| 97.5°  | 28.6   | 62.4   | 351.2  | 163.2  | 105.0  |
| 100°   | 42.3   | 76.4   | 434.2  | 325.0  | 196.7  |
| 102.5° | 55.0   | 89.0   | 436.9  | 549.6  | 383.6  |
| 105°   | 67.0   | 101.1  | 407.2  | 727.9  | 619.4  |
| 107.5° | 80.2   | 113.2  | 379.8  | 792.5  | 778.2  |
| 110°   | 93.4   | 125.6  | 361.1  | 782.0  | 843.0  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 105.5 | 137.4 | 349.0 | 746.6 | 841.9 |
| 115°   | 118.2 | 149.2 | 340.7 | 703.2 | 815.0 |
| 117.5° | 131.3 | 161.0 | 336.3 | 661.7 | 774.3 |
| 120°   | 143.4 | 172.6 | 332.5 | 624.6 | 735.3 |
| 122.5° | 155.0 | 184.4 | 330.3 | 595.8 | 694.7 |
| 125°   | 164.9 | 195.1 | 327.5 | 569.6 | 661.1 |
| 127.5° | 173.1 | 205.2 | 325.9 | 547.4 | 629.8 |
| 130°   | 180.3 | 214.3 | 324.8 | 524.8 | 604.0 |
| 132.5° | 186.9 | 223.1 | 324.2 | 501.4 | 577.1 |
| 135°   | 193.4 | 230.8 | 323.7 | 478.7 | 547.9 |
| 137.5° | 199.5 | 237.4 | 323.7 | 455.6 | 519.9 |
| 140°   | 206.6 | 243.4 | 323.1 | 435.3 | 490.8 |
| 142.5° | 213.8 | 248.4 | 323.1 | 415.8 | 461.6 |
| 145°   | 220.9 | 253.9 | 322.0 | 399.8 | 437.5 |
| 147.5° | 228.6 | 258.3 | 320.4 | 385.8 | 416.0 |
| 150°   | 236.3 | 262.6 | 318.8 | 373.8 | 397.3 |
| 152.5° | 244.0 | 267.1 | 316.0 | 363.5 | 381.4 |
| 155°   | 251.2 | 271.2 | 312.7 | 353.6 | 367.7 |
| 157.5° | 257.2 | 274.5 | 309.4 | 344.3 | 355.6 |
| 160°   | 263.2 | 277.8 | 306.1 | 335.0 | 344.0 |
| 162.5° | 269.3 | 280.3 | 303.4 | 326.2 | 333.0 |
| 165°   | 273.7 | 282.0 | 299.5 | 317.7 | 322.6 |
| 167.5° | 277.5 | 283.6 | 296.2 | 310.0 | 312.7 |
| 170°   | 281.4 | 284.4 | 293.5 | 302.8 | 303.9 |
| 172.5° | 283.6 | 285.2 | 290.2 | 296.5 | 296.8 |
| 175°   | 285.2 | 285.5 | 288.0 | 291.6 | 290.7 |
| 177.5° | 286.3 | 285.8 | 285.8 | 288.0 | 286.3 |
| 180°   | 285.8 | 285.8 | 285.8 | 285.8 | 285.8 |

(END OF REPORT)