

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: P1031398

Luminaire Tested: S123DIW-B1000D755UB40-4F0-XX-W2A-D

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1031398  
REPORT IS A COMBINATION OF REPORTS P990834 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DIW-B1000D755UB40-4F0-XX-W2A-D  
Description: Define 3 Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}  
Light Source: -  
Ballast/Driver: -

**Summary**

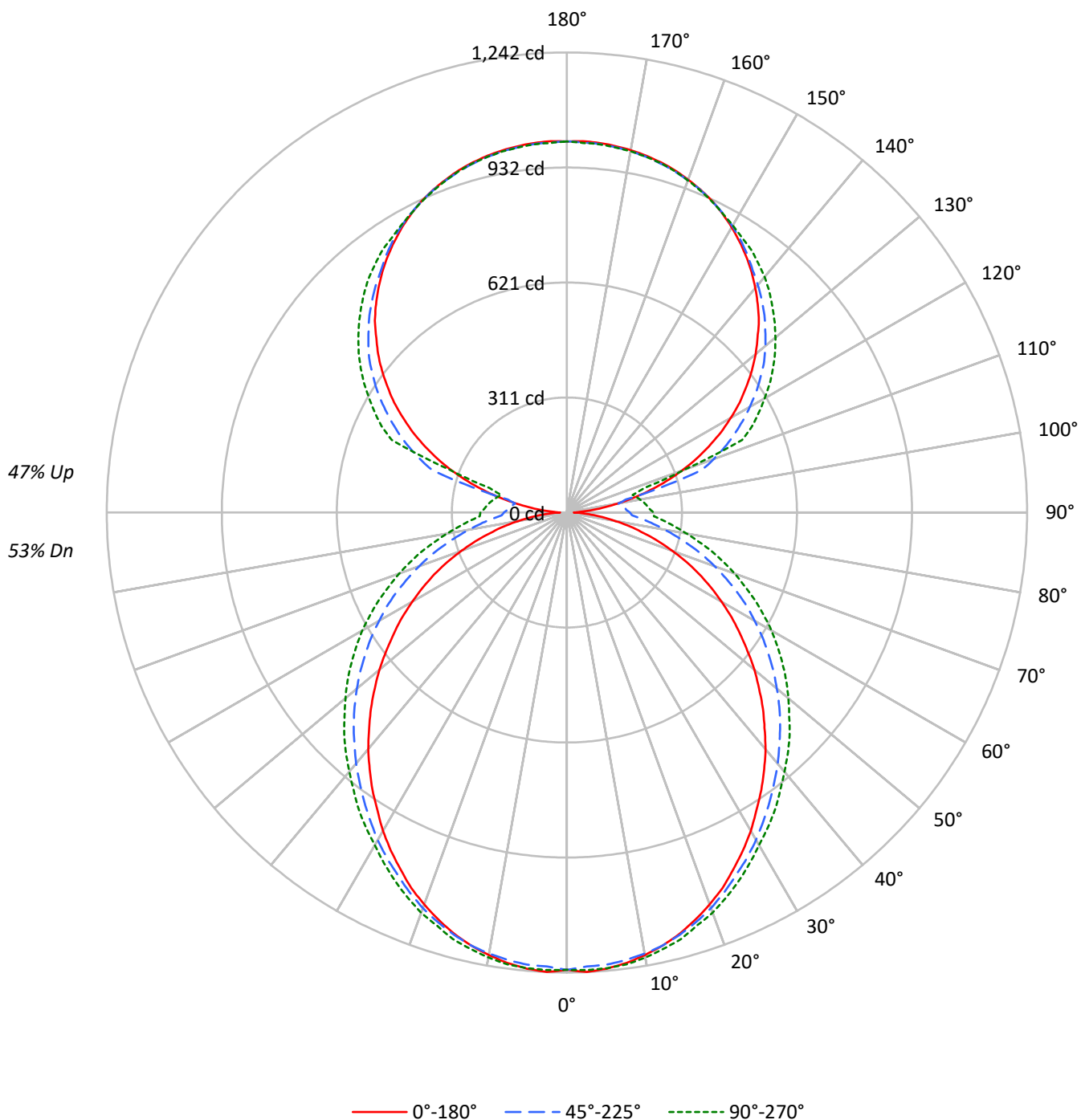
Lumens per Lamp: N/A  
Luminaire Lumens: 7206.0 lumens  
Efficiency: N/A  
Efficacy: 102.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 70  
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 |
| RCR |     |     |     |     |     |     |     |     |    |    |    |  |    |    |    |  |    |
| 0   | 108 | 108 | 108 | 108 | 100 | 100 | 100 | 100 | 85 | 85 | 85 |  | 71 | 71 | 71 |  | 59 |
| 1   | 97  | 92  | 88  | 84  | 90  | 86  | 82  | 78  | 73 | 70 | 67 |  | 61 | 59 | 57 |  | 50 |
| 2   | 88  | 80  | 73  | 68  | 81  | 74  | 68  | 63  | 63 | 59 | 55 |  | 53 | 50 | 47 |  | 43 |
| 3   | 80  | 70  | 62  | 56  | 74  | 65  | 58  | 53  | 55 | 50 | 46 |  | 46 | 42 | 39 |  | 38 |
| 4   | 73  | 62  | 53  | 47  | 67  | 57  | 50  | 44  | 49 | 43 | 39 |  | 41 | 37 | 33 |  | 34 |
| 5   | 67  | 55  | 46  | 40  | 62  | 51  | 43  | 38  | 44 | 38 | 33 |  | 37 | 32 | 29 |  | 30 |
| 6   | 62  | 49  | 41  | 35  | 57  | 46  | 38  | 33  | 39 | 33 | 29 |  | 33 | 29 | 25 |  | 28 |
| 7   | 57  | 44  | 36  | 30  | 53  | 41  | 34  | 29  | 36 | 30 | 25 |  | 30 | 25 | 22 |  | 25 |
| 8   | 53  | 40  | 32  | 27  | 49  | 38  | 30  | 25  | 32 | 27 | 22 |  | 28 | 23 | 20 |  | 23 |
| 9   | 49  | 37  | 29  | 24  | 45  | 34  | 27  | 23  | 30 | 24 | 20 |  | 25 | 21 | 18 |  | 21 |
| 10  | 46  | 34  | 26  | 21  | 42  | 31  | 25  | 20  | 27 | 22 | 18 |  | 23 | 19 | 16 |  | 20 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 13291 | 13291 | 13291 |
| 5°  | 13328 | 12901 | 12891 |
| 10° | 13203 | 12552 | 12456 |
| 15° | 13029 | 12166 | 11995 |
| 20° | 12781 | 11736 | 11500 |
| 25° | 12476 | 11251 | 10987 |
| 30° | 12163 | 10814 | 10472 |
| 35° | 11813 | 10353 | 10053 |
| 40° | 11478 | 9932  | 9608  |
| 45° | 11107 | 9525  | 9243  |
| 50° | 10741 | 9122  | 8847  |
| 55° | 10333 | 8708  | 8482  |
| 60° | 9937  | 8284  | 8108  |
| 65° | 9527  | 7834  | 7672  |
| 70° | 8914  | 7328  | 7221  |
| 75° | 8137  | 6751  | 6755  |
| 80° | 7231  | 6166  | 6224  |
| 85° | 6330  | 5695  | 5843  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 11107 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 117.1  | 1.6       |
| 10°-20°   | 333.9  | 4.6       |
| 20°-30°   | 499.4  | 6.9       |
| 30°-40°   | 596.2  | 8.3       |
| 40°-50°   | 623.8  | 8.7       |
| 50°-60°   | 585.4  | 8.1       |
| 60°-70°   | 489.0  | 6.8       |
| 70°-80°   | 349.6  | 4.9       |
| 80°-90°   | 210.0  | 2.9       |
| 90°-100°  | 166.1  | 2.3       |
| 100°-110° | 266.9  | 3.7       |
| 110°-120° | 482.7  | 6.7       |
| 120°-130° | 567.9  | 7.9       |
| 130°-140° | 584.0  | 8.1       |
| 140°-150° | 534.2  | 7.4       |
| 150°-160° | 428.1  | 5.9       |
| 160°-170° | 276.3  | 3.8       |
| 170°-180° | 95.2   | 1.3       |
| <hr/>     |        |           |
| 0°-30°    | 950.4  | 13.2      |
| 0°-40°    | 1546.6 | 21.5      |
| 0°-60°    | 2755.9 | 38.2      |
| 0°-90°    | 3804.5 | 52.8      |
| 90°-120°  | 915.7  | 12.7      |
| 90°-150°  | 2601.9 | 36.1      |
| 90°-180°  | 3402.0 | 47.2      |
| 0°-180°   | 7206.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1235 | 1235  | 1235 | 1235  | 1235 |      |
| 5°   | 1236 | 1234  | 1225 | 1236  | 1235 | 117  |
| 15°  | 1177 | 1181  | 1180 | 1193  | 1192 | 332  |
| 25°  | 1063 | 1076  | 1080 | 1098  | 1098 | 490  |
| 35°  | 915  | 936   | 954  | 974   | 979  | 572  |
| 45°  | 748  | 780   | 814  | 839   | 850  | 577  |
| 55°  | 570  | 615   | 663  | 700   | 710  | 511  |
| 65°  | 394  | 447   | 506  | 546   | 560  | 390  |
| 75°  | 214  | 277   | 344  | 389   | 405  | 228  |
| 85°  | 66   | 133   | 204  | 250   | 264  | 68   |
| 90°  | 18   | 92    | 170  | 218   | 234  | 15   |
| 95°  | 60   | 82    | 156  | 203   | 217  | 66   |
| 105° | 233  | 273   | 264  | 170   | 183  | 246  |
| 115° | 423  | 443   | 498  | 538   | 552  | 418  |
| 125° | 590  | 596   | 638  | 668   | 679  | 528  |
| 135° | 733  | 736   | 754  | 780   | 785  | 564  |
| 145° | 844  | 848   | 849  | 862   | 867  | 528  |
| 155° | 928  | 927   | 927  | 931   | 927  | 428  |
| 165° | 979  | 976   | 976  | 982   | 976  | 277  |
| 175° | 1002 | 998   | 999  | 1004  | 998  | 95   |
| 180° | 1002 | 1002  | 1002 | 1002  | 1002 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1234.8 | 1234.8 | 1234.8 | 1234.8 | 1234.8 |
| 2.5°   | 1241.6 | 1237.5 | 1226.8 | 1237.5 | 1236.2 |
| 5°     | 1236.2 | 1233.5 | 1225.4 | 1236.2 | 1234.8 |
| 7.5°   | 1226.8 | 1226.8 | 1218.7 | 1232.1 | 1230.8 |
| 10°    | 1213.3 | 1216.0 | 1209.3 | 1222.7 | 1220.0 |
| 12.5°  | 1197.2 | 1201.2 | 1197.2 | 1209.3 | 1206.6 |
| 15°    | 1177.0 | 1181.0 | 1179.7 | 1193.1 | 1191.8 |
| 17.5°  | 1152.8 | 1160.8 | 1159.5 | 1171.6 | 1168.9 |
| 20°    | 1125.9 | 1133.9 | 1136.6 | 1148.7 | 1150.1 |
| 22.5°  | 1097.6 | 1105.7 | 1109.7 | 1125.9 | 1124.5 |
| 25°    | 1062.7 | 1076.1 | 1080.1 | 1097.6 | 1097.6 |
| 27.5°  | 1029.0 | 1043.8 | 1051.9 | 1066.7 | 1068.0 |
| 30°    | 992.7  | 1010.2 | 1021.0 | 1037.1 | 1037.1 |
| 32.5°  | 952.4  | 972.5  | 987.3  | 1004.8 | 1008.8 |
| 35°    | 914.7  | 936.2  | 953.7  | 973.9  | 979.3  |
| 37.5°  | 874.3  | 898.5  | 918.7  | 941.6  | 945.6  |
| 40°    | 834.0  | 858.2  | 885.1  | 908.0  | 913.3  |
| 42.5°  | 789.6  | 820.5  | 848.8  | 874.3  | 882.4  |
| 45°    | 747.9  | 780.2  | 813.8  | 839.4  | 850.1  |
| 47.5°  | 703.5  | 739.8  | 777.5  | 805.7  | 813.8  |
| 50°    | 660.5  | 698.1  | 739.8  | 770.8  | 780.2  |
| 52.5°  | 614.7  | 655.1  | 702.2  | 734.4  | 746.5  |
| 55°    | 570.3  | 614.7  | 663.2  | 699.5  | 710.2  |
| 57.5°  | 527.3  | 573.0  | 625.5  | 661.8  | 673.9  |
| 60°    | 481.6  | 530.0  | 585.1  | 622.8  | 637.6  |
| 62.5°  | 438.5  | 488.3  | 547.5  | 585.1  | 598.6  |
| 65°    | 394.1  | 446.6  | 505.8  | 546.1  | 559.6  |
| 67.5°  | 349.7  | 404.9  | 464.1  | 508.5  | 519.2  |
| 70°    | 302.7  | 360.5  | 425.1  | 468.1  | 481.6  |
| 72.5°  | 259.6  | 317.5  | 384.7  | 429.1  | 442.5  |
| 75°    | 213.9  | 277.1  | 344.4  | 388.7  | 404.9  |
| 77.5°  | 174.9  | 238.1  | 305.3  | 352.4  | 364.5  |
| 80°    | 133.2  | 199.1  | 269.0  | 314.8  | 328.2  |
| 82.5°  | 96.8   | 164.1  | 235.4  | 281.1  | 294.6  |
| 85°    | 65.9   | 133.2  | 204.5  | 250.2  | 263.6  |
| 87.5°  | 40.4   | 107.6  | 176.2  | 221.9  | 235.4  |
| 90°    | 18.2   | 91.6   | 169.9  | 218.5  | 233.5  |
| 92.5°  | 33.2   | 86.7   | 160.6  | 210.2  | 223.0  |
| 95°    | 60.2   | 82.2   | 156.3  | 203.2  | 216.6  |
| 97.5°  | 96.1   | 123.7  | 148.9  | 195.3  | 209.4  |
| 100°   | 137.9  | 195.9  | 141.6  | 186.5  | 200.8  |
| 102.5° | 185.7  | 233.0  | 164.1  | 177.1  | 192.1  |
| 105°   | 232.6  | 273.0  | 263.9  | 169.8  | 183.4  |
| 107.5° | 281.1  | 316.1  | 382.3  | 304.0  | 218.6  |
| 110°   | 329.6  | 359.8  | 421.8  | 432.2  | 336.5  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 377.3  | 401.3  | 460.6  | 500.8  | 511.6  |
| 115°   | 422.7  | 443.4  | 498.5  | 538.2  | 551.9  |
| 117.5° | 468.9  | 484.9  | 534.3  | 572.6  | 584.1  |
| 120°   | 510.0  | 523.4  | 570.0  | 606.9  | 616.3  |
| 122.5° | 553.2  | 561.1  | 605.8  | 639.1  | 649.2  |
| 125°   | 590.5  | 596.4  | 638.4  | 668.2  | 679.1  |
| 127.5° | 629.2  | 633.8  | 671.2  | 700.3  | 708.2  |
| 130°   | 664.9  | 669.6  | 699.4  | 728.0  | 734.5  |
| 132.5° | 697.8  | 703.8  | 726.2  | 753.4  | 760.6  |
| 135°   | 732.8  | 735.9  | 753.7  | 780.2  | 784.7  |
| 137.5° | 762.6  | 767.1  | 778.1  | 803.4  | 808.6  |
| 140°   | 791.0  | 795.4  | 801.8  | 824.9  | 830.1  |
| 142.5° | 818.5  | 821.7  | 823.9  | 843.6  | 848.1  |
| 145°   | 843.8  | 847.7  | 849.2  | 861.5  | 866.8  |
| 147.5° | 867.1  | 870.8  | 872.3  | 877.8  | 879.4  |
| 150°   | 889.4  | 891.6  | 893.1  | 894.6  | 895.1  |
| 152.5° | 909.5  | 910.2  | 911.0  | 914.0  | 910.2  |
| 155°   | 928.1  | 926.6  | 927.3  | 931.1  | 926.6  |
| 157.5° | 943.0  | 943.0  | 942.2  | 946.7  | 940.7  |
| 160°   | 956.4  | 955.6  | 954.9  | 959.4  | 954.1  |
| 162.5° | 969.0  | 966.8  | 966.1  | 971.3  | 966.8  |
| 165°   | 978.7  | 976.5  | 975.7  | 981.7  | 976.5  |
| 167.5° | 986.9  | 983.9  | 983.9  | 989.9  | 983.9  |
| 170°   | 993.6  | 990.6  | 990.6  | 996.6  | 990.6  |
| 172.5° | 998.1  | 994.3  | 995.1  | 1001.0 | 994.3  |
| 175°   | 1001.8 | 998.1  | 998.8  | 1004.0 | 998.1  |
| 177.5° | 1003.3 | 999.5  | 1000.3 | 1006.2 | 998.8  |
| 180°   | 1001.8 | 1001.8 | 1001.8 | 1001.8 | 1001.8 |

(END OF REPORT)