

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: P1033575

Luminaire Tested: S124DIW-B575D1340UB35-4F0-XX-W2A-D1

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1033575  
REPORT IS A COMBINATION OF REPORTS P997718 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124DIW-B575D1340UB35-4F0-XX-W2A-D1  
Description: Define 4 Direct/Indirect Wall Mount with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}  
Light Source: -  
Ballast/Driver: -

**Summary**

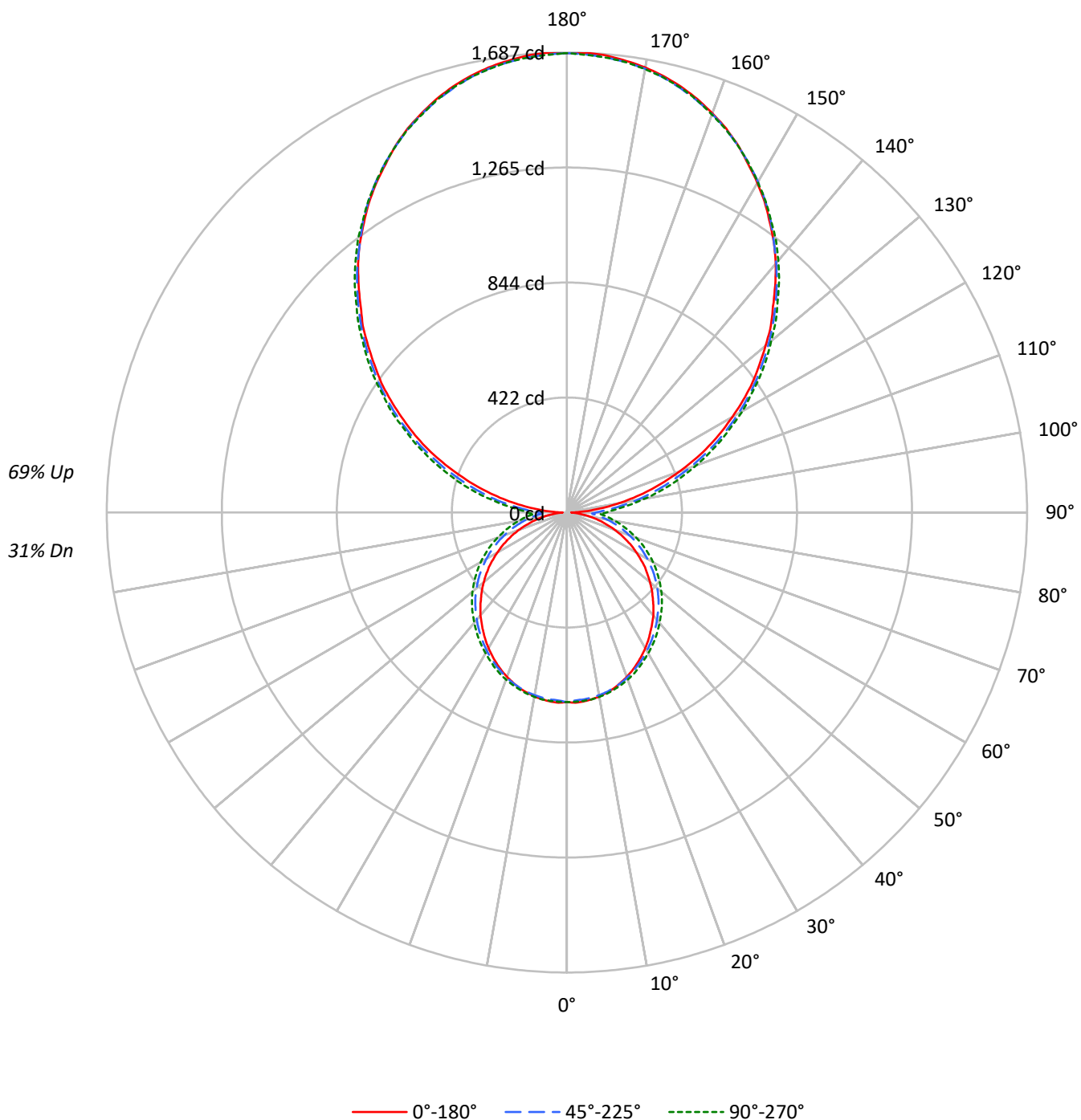
Lumens per Lamp: N/A  
Luminaire Lumens: 7048.0 lumens  
Efficiency: N/A  
Efficacy: 106.6 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 66.1  
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   | 103 | 103 | 103 | 103 | 92 | 92 | 92 | 92 | 73 | 73 | 73 | 55 | 55 | 55 | 39 | 39 | 39 |
| 1   | 93  | 88  | 84  | 81  | 83 | 80 | 76 | 73 | 63 | 60 | 58 | 47 | 46 | 44 | 33 | 32 | 31 |
| 2   | 84  | 77  | 71  | 65  | 75 | 69 | 64 | 59 | 55 | 51 | 48 | 41 | 39 | 37 | 29 | 27 | 26 |
| 3   | 77  | 67  | 60  | 54  | 69 | 61 | 54 | 49 | 48 | 43 | 40 | 36 | 33 | 31 | 25 | 23 | 22 |
| 4   | 70  | 59  | 51  | 45  | 62 | 53 | 47 | 41 | 42 | 37 | 34 | 32 | 29 | 26 | 22 | 20 | 19 |
| 5   | 64  | 53  | 45  | 39  | 57 | 47 | 40 | 35 | 38 | 33 | 29 | 29 | 25 | 22 | 20 | 18 | 16 |
| 6   | 59  | 47  | 39  | 33  | 53 | 42 | 35 | 30 | 34 | 29 | 25 | 26 | 22 | 19 | 18 | 16 | 14 |
| 7   | 54  | 42  | 34  | 29  | 49 | 38 | 31 | 26 | 30 | 25 | 22 | 23 | 20 | 17 | 17 | 14 | 12 |
| 8   | 50  | 38  | 31  | 25  | 45 | 35 | 28 | 23 | 28 | 23 | 19 | 21 | 18 | 15 | 15 | 13 | 11 |
| 9   | 47  | 35  | 27  | 22  | 42 | 31 | 25 | 21 | 25 | 20 | 17 | 19 | 16 | 13 | 14 | 12 | 10 |
| 10  | 43  | 32  | 25  | 20  | 39 | 29 | 22 | 18 | 23 | 18 | 15 | 18 | 14 | 12 | 13 | 11 | 9  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 5668 | 5668 | 5668 |
| 5°  | 5684 | 5521 | 5531 |
| 10° | 5647 | 5412 | 5397 |
| 15° | 5594 | 5290 | 5246 |
| 20° | 5516 | 5157 | 5098 |
| 25° | 5428 | 5012 | 4940 |
| 30° | 5333 | 4868 | 4779 |
| 35° | 5224 | 4720 | 4635 |
| 40° | 5137 | 4578 | 4486 |
| 45° | 5010 | 4445 | 4354 |
| 50° | 4901 | 4294 | 4216 |
| 55° | 4787 | 4148 | 4055 |
| 60° | 4611 | 3967 | 3905 |
| 65° | 4419 | 3772 | 3724 |
| 70° | 4185 | 3547 | 3514 |
| 75° | 3859 | 3300 | 3315 |
| 80° | 3488 | 3046 | 3106 |
| 85° | 3005 | 2793 | 2937 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 90°

Luminance: 5349 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 65.9   | 0.9       |
| 10°-20°   | 188.7  | 2.7       |
| 20°-30°   | 285.3  | 4.0       |
| 30°-40°   | 345.2  | 4.9       |
| 40°-50°   | 364.9  | 5.2       |
| 50°-60°   | 343.5  | 4.9       |
| 60°-70°   | 285.0  | 4.0       |
| 70°-80°   | 200.0  | 2.8       |
| 80°-90°   | 116.4  | 1.7       |
| 90°-100°  | 176.9  | 2.5       |
| 100°-110° | 378.6  | 5.4       |
| 110°-120° | 592.1  | 8.4       |
| 120°-130° | 755.7  | 10.7      |
| 130°-140° | 835.8  | 11.9      |
| 140°-150° | 815.1  | 11.6      |
| 150°-160° | 684.2  | 9.7       |
| 160°-170° | 455.2  | 6.5       |
| 170°-180° | 159.4  | 2.3       |
| 0°-30°    | 539.9  | 7.7       |
| 0°-40°    | 885.1  | 12.6      |
| 0°-60°    | 1593.5 | 22.6      |
| 0°-90°    | 2194.9 | 31.1      |
| 90°-120°  | 1147.7 | 16.3      |
| 90°-150°  | 3554.3 | 50.4      |
| 90°-180°  | 4853.0 | 68.9      |
| 0°-180°   | 7048.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 695  | 695   | 695  | 695   | 695  |      |
| 5°   | 696  | 694   | 688  | 694   | 694  | 66   |
| 15°  | 667  | 668   | 666  | 673   | 672  | 188  |
| 25°  | 610  | 615   | 617  | 626   | 627  | 281  |
| 35°  | 534  | 543   | 551  | 562   | 564  | 334  |
| 45°  | 445  | 460   | 475  | 488   | 492  | 344  |
| 55°  | 349  | 365   | 388  | 404   | 409  | 311  |
| 65°  | 241  | 266   | 293  | 312   | 318  | 239  |
| 75°  | 134  | 163   | 195  | 217   | 224  | 142  |
| 85°  | 41   | 74    | 109  | 132   | 140  | 43   |
| 90°  | 16   | 62    | 106  | 136   | 145  | 14   |
| 95°  | 88   | 126   | 167  | 192   | 199  | 93   |
| 105° | 311  | 328   | 362  | 385   | 395  | 330  |
| 115° | 573  | 580   | 602  | 618   | 622  | 565  |
| 125° | 830  | 830   | 848  | 860   | 862  | 740  |
| 135° | 1069 | 1076  | 1082 | 1092  | 1092 | 827  |
| 145° | 1297 | 1302  | 1303 | 1306  | 1306 | 812  |
| 155° | 1485 | 1485  | 1484 | 1489  | 1484 | 684  |
| 165° | 1617 | 1613  | 1610 | 1618  | 1613 | 456  |
| 175° | 1682 | 1676  | 1674 | 1683  | 1674 | 160  |
| 180° | 1685 | 1685  | 1685 | 1685  | 1685 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 695.1 | 695.1 | 695.1 | 695.1 | 695.1 |
| 2.5°   | 698.2 | 695.9 | 689.7 | 695.1 | 694.4 |
| 5°     | 695.9 | 693.6 | 688.1 | 694.4 | 693.6 |
| 7.5°   | 691.2 | 689.7 | 685.0 | 692.0 | 691.2 |
| 10°    | 685.0 | 684.2 | 680.3 | 687.4 | 686.6 |
| 12.5°  | 676.5 | 676.5 | 674.1 | 680.3 | 680.3 |
| 15°    | 667.1 | 667.9 | 665.6 | 672.6 | 671.8 |
| 17.5°  | 654.7 | 657.0 | 656.2 | 663.2 | 662.4 |
| 20°    | 641.4 | 643.8 | 644.5 | 652.3 | 652.3 |
| 22.5°  | 626.6 | 629.7 | 631.3 | 639.1 | 640.6 |
| 25°    | 610.3 | 615.0 | 617.3 | 625.9 | 626.6 |
| 27.5°  | 592.4 | 599.4 | 602.5 | 610.3 | 611.1 |
| 30°    | 574.5 | 580.7 | 586.2 | 594.7 | 596.3 |
| 32.5°  | 555.0 | 562.8 | 569.0 | 579.1 | 580.7 |
| 35°    | 534.0 | 543.3 | 551.1 | 562.0 | 564.4 |
| 37.5°  | 513.0 | 523.9 | 533.2 | 544.1 | 546.5 |
| 40°    | 492.7 | 502.9 | 513.8 | 525.4 | 528.6 |
| 42.5°  | 469.4 | 481.1 | 494.3 | 507.5 | 509.9 |
| 45°    | 445.3 | 460.1 | 474.8 | 488.1 | 492.0 |
| 47.5°  | 422.7 | 437.5 | 454.6 | 467.8 | 472.5 |
| 50°    | 397.8 | 414.9 | 432.0 | 447.6 | 452.3 |
| 52.5°  | 372.9 | 390.0 | 410.2 | 425.8 | 430.5 |
| 55°    | 348.7 | 365.1 | 388.4 | 404.0 | 408.7 |
| 57.5°  | 321.5 | 341.7 | 364.3 | 383.0 | 386.9 |
| 60°    | 295.0 | 315.3 | 341.0 | 358.9 | 365.1 |
| 62.5°  | 269.3 | 291.9 | 317.6 | 335.5 | 341.7 |
| 65°    | 241.3 | 266.2 | 292.7 | 312.1 | 318.4 |
| 67.5°  | 214.8 | 241.3 | 269.3 | 288.8 | 295.0 |
| 70°    | 187.6 | 214.1 | 243.6 | 264.7 | 270.1 |
| 72.5°  | 161.1 | 188.4 | 220.3 | 240.5 | 246.8 |
| 75°    | 133.9 | 162.7 | 195.4 | 217.2 | 224.2 |
| 77.5°  | 108.2 | 138.6 | 172.8 | 194.6 | 202.4 |
| 80°    | 84.8  | 116.0 | 150.2 | 173.6 | 179.8 |
| 82.5°  | 61.5  | 94.2  | 128.4 | 152.6 | 159.6 |
| 85°    | 41.3  | 74.0  | 109.0 | 132.3 | 140.1 |
| 87.5°  | 25.7  | 57.6  | 91.9  | 114.4 | 121.4 |
| 90°    | 16.4  | 61.8  | 105.8 | 136.1 | 145.0 |
| 92.5°  | 45.6  | 89.7  | 129.7 | 155.4 | 162.9 |
| 95°    | 88.3  | 125.7 | 166.7 | 191.6 | 198.6 |
| 97.5°  | 134.4 | 167.4 | 209.7 | 235.2 | 242.2 |
| 100°   | 191.0 | 216.4 | 258.5 | 282.2 | 287.6 |
| 102.5° | 250.9 | 269.3 | 309.4 | 333.5 | 341.0 |
| 105°   | 310.6 | 327.5 | 361.5 | 384.8 | 395.0 |
| 107.5° | 374.4 | 388.9 | 417.5 | 442.1 | 446.3 |
| 110°   | 438.8 | 452.3 | 478.3 | 493.6 | 503.7 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 505.7  | 515.1  | 538.2  | 555.3  | 561.5  |
| 115°   | 572.8  | 579.8  | 602.1  | 617.9  | 622.1  |
| 117.5° | 636.6  | 641.2  | 663.3  | 675.7  | 678.1  |
| 120°   | 699.7  | 707.2  | 725.9  | 735.0  | 743.8  |
| 122.5° | 766.1  | 767.4  | 787.1  | 798.8  | 797.7  |
| 125°   | 830.5  | 829.7  | 847.9  | 860.1  | 862.1  |
| 127.5° | 889.1  | 892.2  | 905.2  | 916.6  | 920.8  |
| 130°   | 950.8  | 954.0  | 966.4  | 977.8  | 977.3  |
| 132.5° | 1014.7 | 1016.6 | 1024.6 | 1035.2 | 1038.6 |
| 135°   | 1068.7 | 1076.5 | 1081.9 | 1091.8 | 1092.5 |
| 137.5° | 1129.9 | 1133.0 | 1138.8 | 1146.5 | 1151.7 |
| 140°   | 1191.2 | 1193.0 | 1193.8 | 1202.6 | 1205.2 |
| 142.5° | 1246.4 | 1249.0 | 1246.9 | 1255.5 | 1258.6 |
| 145°   | 1297.2 | 1301.6 | 1302.9 | 1306.3 | 1305.5 |
| 147.5° | 1349.3 | 1355.0 | 1353.7 | 1353.2 | 1355.0 |
| 150°   | 1396.2 | 1400.7 | 1400.7 | 1400.7 | 1399.3 |
| 152.5° | 1439.7 | 1442.3 | 1443.6 | 1447.6 | 1443.6 |
| 155°   | 1485.3 | 1485.3 | 1484.0 | 1489.3 | 1484.0 |
| 157.5° | 1524.4 | 1521.8 | 1521.8 | 1525.7 | 1521.8 |
| 160°   | 1558.3 | 1557.0 | 1555.7 | 1559.6 | 1553.1 |
| 162.5° | 1589.6 | 1585.7 | 1584.4 | 1592.2 | 1585.7 |
| 165°   | 1616.9 | 1613.0 | 1610.4 | 1618.2 | 1613.0 |
| 167.5° | 1639.1 | 1633.9 | 1633.9 | 1641.7 | 1633.9 |
| 170°   | 1657.3 | 1650.8 | 1652.1 | 1659.9 | 1650.8 |
| 172.5° | 1670.4 | 1665.1 | 1665.1 | 1674.3 | 1665.1 |
| 175°   | 1682.1 | 1675.6 | 1674.3 | 1683.4 | 1674.3 |
| 177.5° | 1687.3 | 1680.8 | 1680.8 | 1689.9 | 1679.5 |
| 180°   | 1684.7 | 1684.7 | 1684.7 | 1684.7 | 1684.7 |

(END OF REPORT)