

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: P1011254

Luminaire Tested: S123DIP-B1165D1025UB30-4F0-XX-W2A-F1

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1011254  
REPORT IS A COMBINATION OF REPORTS P989350 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DIP-B1165D1025UB30-4F0-XX-W2A-F1  
Description: Define 3 Direct/Indirect Pendant with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}  
Light Source: -  
Ballast/Driver: -

**Summary**

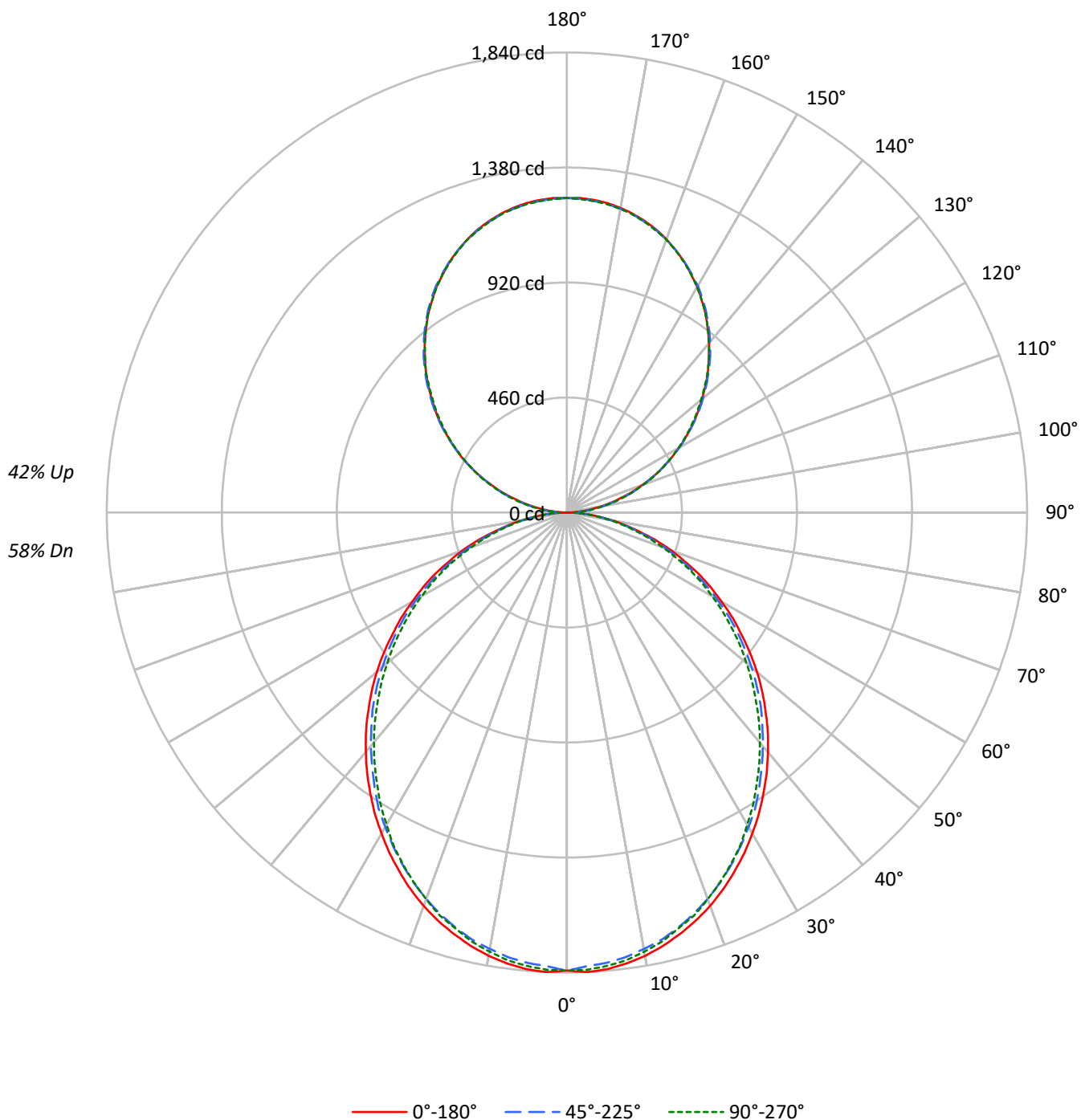
Lumens per Lamp: N/A  
Luminaire Lumens: 8256.0 lumens  
Efficiency: N/A  
Efficacy: 91.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 89.8  
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

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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   | 109 | 109 | 109 | 109 | 102 | 102 | 102 | 102 | 88 | 88 | 88 | 75 | 75 | 75 | 63 | 63 | 63 |
| 1   | 99  | 95  | 91  | 88  | 93  | 89  | 85  | 82  | 77 | 74 | 72 | 66 | 64 | 62 | 56 | 55 | 53 |
| 2   | 91  | 83  | 77  | 71  | 84  | 78  | 72  | 67  | 67 | 63 | 60 | 58 | 55 | 52 | 49 | 47 | 45 |
| 3   | 83  | 73  | 65  | 60  | 77  | 68  | 62  | 56  | 59 | 54 | 50 | 51 | 47 | 44 | 43 | 41 | 38 |
| 4   | 76  | 65  | 57  | 50  | 70  | 60  | 53  | 48  | 53 | 47 | 43 | 46 | 41 | 38 | 39 | 36 | 33 |
| 5   | 69  | 58  | 49  | 43  | 64  | 54  | 47  | 41  | 47 | 41 | 37 | 41 | 36 | 33 | 35 | 31 | 29 |
| 6   | 64  | 52  | 43  | 37  | 59  | 49  | 41  | 36  | 43 | 37 | 32 | 37 | 32 | 29 | 32 | 28 | 25 |
| 7   | 59  | 47  | 39  | 33  | 55  | 44  | 37  | 31  | 39 | 33 | 28 | 34 | 29 | 25 | 29 | 25 | 22 |
| 8   | 55  | 42  | 35  | 29  | 51  | 40  | 33  | 28  | 35 | 29 | 25 | 31 | 26 | 23 | 27 | 23 | 20 |
| 9   | 51  | 39  | 31  | 26  | 48  | 37  | 30  | 25  | 32 | 27 | 23 | 28 | 24 | 20 | 25 | 21 | 18 |
| 10  | 48  | 36  | 28  | 23  | 45  | 34  | 27  | 22  | 30 | 24 | 20 | 26 | 22 | 18 | 23 | 19 | 16 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 19719 | 19719 | 19719 |
| 5°  | 19769 | 19039 | 19011 |
| 10° | 19593 | 18395 | 18206 |
| 15° | 19321 | 17724 | 17330 |
| 20° | 19008 | 16981 | 16460 |
| 25° | 18604 | 16196 | 15531 |
| 30° | 18162 | 15383 | 14554 |
| 35° | 17699 | 14553 | 13583 |
| 40° | 17214 | 13682 | 12629 |
| 45° | 16681 | 12833 | 11630 |
| 50° | 16138 | 11887 | 10629 |
| 55° | 15441 | 10901 | 9615  |
| 60° | 14725 | 9813  | 8534  |
| 65° | 14052 | 8636  | 7407  |
| 70° | 13081 | 7331  | 6093  |
| 75° | 11686 | 5806  | 4730  |
| 80° | 10092 | 4080  | 3345  |
| 85° | 7867  | 2194  | 1676  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 16681 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 172.7  | 2.1       |
| 10°-20°   | 487.7  | 5.9       |
| 20°-30°   | 720.3  | 8.7       |
| 30°-40°   | 841.2  | 10.2      |
| 40°-50°   | 845.7  | 10.2      |
| 50°-60°   | 742.9  | 9.0       |
| 60°-70°   | 553.3  | 6.7       |
| 70°-80°   | 314.9  | 3.8       |
| 80°-90°   | 92.2   | 1.1       |
| 90°-100°  | 81.0   | 1.0       |
| 100°-110° | 245.1  | 3.0       |
| 110°-120° | 417.2  | 5.1       |
| 120°-130° | 548.9  | 6.6       |
| 130°-140° | 617.0  | 7.5       |
| 140°-150° | 606.5  | 7.3       |
| 150°-160° | 510.6  | 6.2       |
| 160°-170° | 340.0  | 4.1       |
| 170°-180° | 119.0  | 1.4       |
| 0°-30°    | 1380.7 | 16.7      |
| 0°-40°    | 2221.8 | 26.9      |
| 0°-60°    | 3810.4 | 46.2      |
| 0°-90°    | 4770.7 | 57.8      |
| 90°-120°  | 743.3  | 9.0       |
| 90°-150°  | 2515.7 | 30.5      |
| 90°-180°  | 3485.0 | 42.2      |
| 0°-180°   | 8256.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1832 | 1832  | 1832 | 1832  | 1832 |      |
| 5°   | 1834 | 1826  | 1808 | 1824  | 1821 | 174  |
| 15°  | 1745 | 1739  | 1719 | 1731  | 1722 | 492  |
| 25°  | 1585 | 1575  | 1555 | 1556  | 1552 | 730  |
| 35°  | 1370 | 1361  | 1341 | 1331  | 1323 | 857  |
| 45°  | 1123 | 1117  | 1096 | 1078  | 1070 | 867  |
| 55°  | 852  | 851   | 830  | 813   | 805  | 763  |
| 65°  | 581  | 573   | 558  | 545   | 540  | 573  |
| 75°  | 307  | 301   | 296  | 288   | 284  | 328  |
| 85°  | 82   | 79    | 79   | 76    | 76   | 88   |
| 90°  | 1    | 11    | 24   | 28    | 30   | 10   |
| 95°  | 58   | 65    | 73   | 77    | 77   | 64   |
| 105° | 222  | 224   | 233  | 233   | 235  | 238  |
| 115° | 420  | 423   | 421  | 422   | 421  | 416  |
| 125° | 615  | 618   | 616  | 612   | 608  | 548  |
| 135° | 797  | 803   | 802  | 798   | 796  | 614  |
| 145° | 967  | 969   | 972  | 971   | 967  | 604  |
| 155° | 1108 | 1108  | 1109 | 1113  | 1106 | 510  |
| 165° | 1206 | 1204  | 1204 | 1210  | 1202 | 340  |
| 175° | 1255 | 1251  | 1251 | 1257  | 1250 | 119  |
| 180° | 1258 | 1258  | 1258 | 1258  | 1258 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1832.0 | 1832.0 | 1832.0 | 1832.0 | 1832.0 |
| 2.5°   | 1839.9 | 1833.6 | 1816.3 | 1832.0 | 1830.5 |
| 5°     | 1833.6 | 1825.7 | 1808.4 | 1824.2 | 1821.0 |
| 7.5°   | 1819.4 | 1811.6 | 1794.2 | 1808.4 | 1806.8 |
| 10°    | 1800.5 | 1792.7 | 1772.2 | 1786.4 | 1783.2 |
| 12.5°  | 1775.3 | 1769.0 | 1750.1 | 1759.6 | 1758.0 |
| 15°    | 1745.4 | 1739.1 | 1718.6 | 1731.2 | 1721.8 |
| 17.5°  | 1712.3 | 1704.4 | 1684.0 | 1693.4 | 1690.3 |
| 20°    | 1674.5 | 1665.1 | 1644.6 | 1650.9 | 1646.2 |
| 22.5°  | 1632.0 | 1622.5 | 1602.1 | 1606.8 | 1600.5 |
| 25°    | 1584.7 | 1575.3 | 1554.8 | 1556.4 | 1551.6 |
| 27.5°  | 1535.9 | 1526.4 | 1504.4 | 1506.0 | 1501.2 |
| 30°    | 1482.3 | 1474.5 | 1452.4 | 1452.4 | 1441.4 |
| 32.5°  | 1428.8 | 1417.7 | 1402.0 | 1391.0 | 1386.2 |
| 35°    | 1370.5 | 1361.0 | 1340.6 | 1331.1 | 1323.2 |
| 37.5°  | 1312.2 | 1299.6 | 1279.1 | 1268.1 | 1263.4 |
| 40°    | 1250.8 | 1241.3 | 1219.3 | 1206.7 | 1200.4 |
| 42.5°  | 1189.3 | 1178.3 | 1156.3 | 1143.6 | 1137.3 |
| 45°    | 1123.2 | 1116.9 | 1096.4 | 1077.5 | 1069.6 |
| 47.5°  | 1058.6 | 1049.1 | 1030.2 | 1011.3 | 1005.0 |
| 50°    | 992.4  | 984.5  | 964.1  | 946.7  | 937.3  |
| 52.5°  | 923.1  | 918.4  | 896.3  | 882.2  | 872.7  |
| 55°    | 852.2  | 850.6  | 830.2  | 812.8  | 805.0  |
| 57.5°  | 786.1  | 779.8  | 764.0  | 748.3  | 738.8  |
| 60°    | 713.6  | 712.0  | 693.1  | 678.9  | 671.1  |
| 62.5°  | 649.0  | 644.3  | 625.4  | 611.2  | 606.5  |
| 65°    | 581.3  | 573.4  | 557.6  | 545.0  | 540.3  |
| 67.5°  | 508.8  | 502.5  | 489.9  | 478.9  | 472.6  |
| 70°    | 444.2  | 434.8  | 425.3  | 414.3  | 406.4  |
| 72.5°  | 376.5  | 370.2  | 359.2  | 349.7  | 346.6  |
| 75°    | 307.2  | 300.9  | 296.2  | 288.3  | 283.5  |
| 77.5°  | 245.7  | 242.6  | 236.3  | 230.0  | 230.0  |
| 80°    | 185.9  | 181.2  | 178.0  | 176.4  | 176.4  |
| 82.5°  | 127.6  | 127.6  | 127.6  | 124.4  | 122.9  |
| 85°    | 81.9   | 78.8   | 78.8   | 75.6   | 75.6   |
| 87.5°  | 41.0   | 36.2   | 34.7   | 33.1   | 33.1   |
| 90°    | 1.0    | 10.9   | 23.7   | 27.7   | 29.6   |
| 92.5°  | 29.6   | 35.6   | 41.5   | 44.5   | 42.5   |
| 95°    | 58.3   | 65.2   | 73.1   | 77.1   | 77.1   |
| 97.5°  | 95.8   | 100.8  | 106.7  | 111.7  | 110.7  |
| 100°   | 134.4  | 140.3  | 145.3  | 148.2  | 150.2  |
| 102.5° | 178.8  | 181.8  | 188.7  | 191.7  | 190.7  |
| 105°   | 222.3  | 224.3  | 233.2  | 233.2  | 235.2  |
| 107.5° | 273.7  | 274.7  | 278.6  | 281.6  | 280.6  |
| 110°   | 321.1  | 323.1  | 325.1  | 329.0  | 327.1  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 370.5  | 371.5  | 371.5  | 376.5  | 376.5  |
| 115°   | 420.0  | 422.9  | 420.9  | 421.9  | 420.9  |
| 117.5° | 470.3  | 471.3  | 469.4  | 469.4  | 466.4  |
| 120°   | 516.8  | 522.7  | 517.8  | 516.8  | 514.8  |
| 122.5° | 565.2  | 569.2  | 567.2  | 564.2  | 561.3  |
| 125°   | 614.6  | 617.6  | 615.6  | 611.6  | 607.7  |
| 127.5° | 660.1  | 666.0  | 664.0  | 658.1  | 654.1  |
| 130°   | 705.5  | 713.4  | 710.5  | 706.5  | 699.6  |
| 132.5° | 751.0  | 758.9  | 756.9  | 752.0  | 747.0  |
| 135°   | 797.4  | 803.3  | 802.4  | 798.4  | 796.4  |
| 137.5° | 839.9  | 844.8  | 847.8  | 842.9  | 839.9  |
| 140°   | 884.4  | 889.3  | 890.3  | 889.3  | 882.4  |
| 142.5° | 924.9  | 929.8  | 931.8  | 930.8  | 925.9  |
| 145°   | 967.4  | 969.3  | 972.3  | 971.3  | 967.4  |
| 147.5° | 1003.9 | 1007.9 | 1010.8 | 1010.8 | 1004.9 |
| 150°   | 1042.5 | 1044.4 | 1046.4 | 1046.4 | 1040.5 |
| 152.5° | 1074.1 | 1077.0 | 1078.0 | 1080.0 | 1075.1 |
| 155°   | 1107.7 | 1107.7 | 1108.7 | 1112.6 | 1105.7 |
| 157.5° | 1136.3 | 1135.3 | 1136.3 | 1140.3 | 1134.4 |
| 160°   | 1163.0 | 1161.0 | 1161.0 | 1166.0 | 1162.0 |
| 162.5° | 1186.7 | 1183.8 | 1184.8 | 1189.7 | 1182.8 |
| 165°   | 1206.5 | 1203.5 | 1203.5 | 1209.5 | 1202.5 |
| 167.5° | 1223.3 | 1219.3 | 1220.3 | 1226.3 | 1220.3 |
| 170°   | 1237.1 | 1233.2 | 1233.2 | 1240.1 | 1233.2 |
| 172.5° | 1248.0 | 1244.0 | 1244.0 | 1250.0 | 1243.1 |
| 175°   | 1254.9 | 1251.0 | 1251.0 | 1256.9 | 1250.0 |
| 177.5° | 1258.9 | 1254.9 | 1254.9 | 1260.8 | 1253.9 |
| 180°   | 1257.9 | 1257.9 | 1257.9 | 1257.9 | 1257.9 |

(END OF REPORT)