

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: P1010994

Luminaire Tested: S123RDIP-B775D365UB2750-4F0-XX-W2A-F\_2700K

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1010994  
REPORT IS A COMBINATION OF REPORTS P993610 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDIP-B775D365UB2750-4F0-XX-W2A-F\_2700K  
Description: Define 3 Regressed Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473}  
{m-EER=0.52}  
Light Source: -  
Ballast/Driver: -

**Summary**

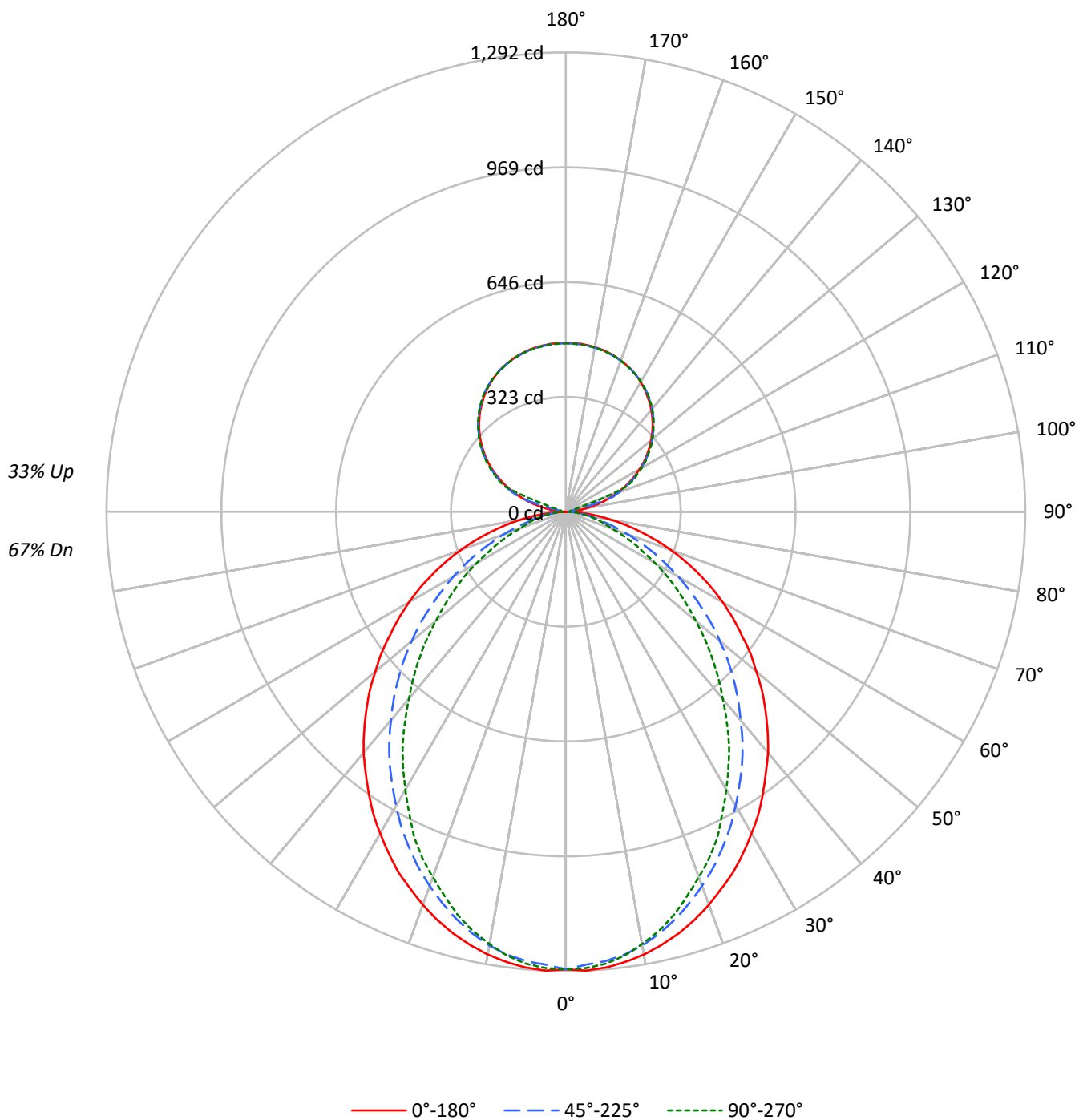
Lumens per Lamp: N/A  
Luminaire Lumens: 4354.0 lumens  
Efficiency: N/A  
Efficacy: 96.3 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.07 / 1.22  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: Semi-Direct

Input Watts (W): 45.2  
Input Voltage (V): 120  
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 | 50 | 30 | 10 |
| RCR |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 111 | 111 | 111 | 111 | 105 | 105 | 105 | 105 | 93 | 93 | 93 | 82 | 82 | 82 | 72 | 72 | 72 | 67 |    |    |
| 1   | 102 | 98  | 94  | 90  | 96  | 92  | 89  | 86  | 82 | 80 | 77 | 73 | 71 | 69 | 64 | 63 | 61 | 57 |    |    |
| 2   | 93  | 86  | 80  | 75  | 88  | 81  | 76  | 71  | 72 | 68 | 65 | 64 | 61 | 58 | 57 | 54 | 52 | 49 |    |    |
| 3   | 85  | 76  | 69  | 63  | 80  | 72  | 65  | 60  | 64 | 59 | 55 | 57 | 53 | 50 | 51 | 48 | 45 | 42 |    |    |
| 4   | 78  | 68  | 60  | 54  | 74  | 64  | 57  | 51  | 57 | 52 | 47 | 51 | 47 | 43 | 46 | 42 | 39 | 36 |    |    |
| 5   | 72  | 60  | 52  | 46  | 68  | 57  | 50  | 44  | 52 | 46 | 41 | 46 | 41 | 38 | 41 | 37 | 34 | 32 |    |    |
| 6   | 67  | 54  | 46  | 40  | 63  | 52  | 44  | 39  | 47 | 41 | 36 | 42 | 37 | 33 | 38 | 34 | 30 | 28 |    |    |
| 7   | 62  | 49  | 41  | 36  | 58  | 47  | 40  | 34  | 43 | 36 | 32 | 38 | 33 | 30 | 34 | 30 | 27 | 25 |    |    |
| 8   | 57  | 45  | 37  | 32  | 54  | 43  | 36  | 31  | 39 | 33 | 29 | 35 | 30 | 27 | 32 | 28 | 25 | 22 |    |    |
| 9   | 54  | 41  | 34  | 29  | 51  | 39  | 32  | 28  | 36 | 30 | 26 | 33 | 28 | 24 | 29 | 25 | 22 | 20 |    |    |
| 10  | 50  | 38  | 31  | 26  | 47  | 36  | 30  | 25  | 33 | 27 | 23 | 30 | 25 | 22 | 27 | 23 | 20 | 18 |    |    |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 13851 | 13851 | 13851 |
| 5°  | 13874 | 13360 | 13324 |
| 10° | 13764 | 12858 | 12605 |
| 15° | 13586 | 12238 | 11816 |
| 20° | 13350 | 11562 | 10936 |
| 25° | 13109 | 10861 | 10102 |
| 30° | 12799 | 10114 | 9115  |
| 35° | 12480 | 9381  | 8216  |
| 40° | 12180 | 8585  | 7224  |
| 45° | 11795 | 7806  | 6331  |
| 50° | 11370 | 6974  | 5408  |
| 55° | 10930 | 6085  | 4562  |
| 60° | 10509 | 5172  | 3703  |
| 65° | 9964  | 4234  | 2890  |
| 70° | 9282  | 3203  | 2066  |
| 75° | 8296  | 2168  | 1637  |
| 80° | 7079  | 1506  | 1147  |
| 85° | 5312  | 813   | 601   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 11795 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 121.0  | 2.8       |
| 10°-20°   | 336.5  | 7.7       |
| 20°-30°   | 484.5  | 11.1      |
| 30°-40°   | 545.6  | 12.5      |
| 40°-50°   | 521.9  | 12.0      |
| 50°-60°   | 427.2  | 9.8       |
| 60°-70°   | 288.0  | 6.6       |
| 70°-80°   | 144.5  | 3.3       |
| 80°-90°   | 38.7   | 0.9       |
| 90°-100°  | 16.7   | 0.4       |
| 100°-110° | 80.9   | 1.9       |
| 110°-120° | 198.2  | 4.6       |
| 120°-130° | 251.6  | 5.8       |
| 130°-140° | 268.8  | 6.2       |
| 140°-150° | 251.3  | 5.8       |
| 150°-160° | 202.7  | 4.7       |
| 160°-170° | 130.8  | 3.0       |
| 170°-180° | 45.1   | 1.0       |
| <hr/>     |        |           |
| 0°-30°    | 942.0  | 21.6      |
| 0°-40°    | 1487.6 | 34.2      |
| 0°-60°    | 2436.7 | 56.0      |
| 0°-90°    | 2908.0 | 66.8      |
| 90°-120°  | 295.8  | 6.8       |
| 90°-150°  | 1067.4 | 24.5      |
| 90°-180°  | 1446.0 | 33.2      |
| 0°-180°   | 4354.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1287 | 1287  | 1287 | 1287  | 1287 |      |
| 5°   | 1287 | 1282  | 1269 | 1278  | 1276 | 122  |
| 15°  | 1227 | 1216  | 1187 | 1181  | 1174 | 346  |
| 25°  | 1117 | 1091  | 1043 | 1021  | 1009 | 514  |
| 35°  | 966  | 929   | 864  | 819   | 800  | 605  |
| 45°  | 794  | 747   | 667  | 607   | 582  | 613  |
| 55°  | 603  | 552   | 463  | 403   | 382  | 541  |
| 65°  | 412  | 355   | 273  | 222   | 211  | 408  |
| 75°  | 218  | 168   | 111  | 100   | 98   | 232  |
| 85°  | 55   | 32    | 29   | 27    | 27   | 61   |
| 90°  | 0    | 4     | 8    | 10    | 11   | 5    |
| 95°  | 22   | 7     | 11   | 13    | 13   | 26   |
| 105° | 105  | 109   | 77   | 15    | 16   | 111  |
| 115° | 197  | 199   | 202  | 206   | 207  | 195  |
| 125° | 278  | 280   | 282  | 283   | 283  | 248  |
| 135° | 346  | 348   | 349  | 350   | 349  | 266  |
| 145° | 399  | 401   | 402  | 403   | 403  | 250  |
| 155° | 439  | 439   | 439  | 441   | 439  | 202  |
| 165° | 463  | 462   | 462  | 465   | 462  | 131  |
| 175° | 474  | 473   | 473  | 475   | 473  | 45   |
| 180° | 474  | 474   | 474  | 474   | 474  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1286.8 | 1286.8 | 1286.8 | 1286.8 | 1286.8 |
| 2.5°   | 1292.0 | 1287.8 | 1275.3 | 1286.8 | 1284.7 |
| 5°     | 1286.8 | 1281.5 | 1269.0 | 1278.4 | 1276.3 |
| 7.5°   | 1277.4 | 1272.1 | 1256.5 | 1262.7 | 1259.6 |
| 10°    | 1264.8 | 1257.5 | 1238.7 | 1239.8 | 1234.6 |
| 12.5°  | 1247.1 | 1238.7 | 1214.7 | 1213.7 | 1207.4 |
| 15°    | 1227.3 | 1215.8 | 1186.6 | 1181.3 | 1174.0 |
| 17.5°  | 1203.3 | 1190.7 | 1154.2 | 1143.8 | 1133.3 |
| 20°    | 1176.1 | 1159.4 | 1119.8 | 1106.2 | 1093.7 |
| 22.5°  | 1145.9 | 1126.0 | 1083.3 | 1065.5 | 1054.0 |
| 25°    | 1116.6 | 1090.6 | 1042.6 | 1020.6 | 1009.2 |
| 27.5°  | 1081.2 | 1053.0 | 1000.8 | 971.6  | 953.8  |
| 30°    | 1044.6 | 1013.3 | 954.9  | 919.4  | 902.7  |
| 32.5°  | 1008.1 | 971.6  | 909.0  | 869.3  | 851.6  |
| 35°    | 966.4  | 928.8  | 864.1  | 819.2  | 800.4  |
| 37.5°  | 924.6  | 883.9  | 816.1  | 766.0  | 743.0  |
| 40°    | 885.0  | 839.0  | 765.0  | 710.7  | 686.7  |
| 42.5°  | 840.1  | 794.2  | 716.9  | 656.4  | 635.5  |
| 45°    | 794.2  | 747.2  | 666.9  | 607.4  | 582.3  |
| 47.5°  | 749.3  | 697.1  | 617.8  | 553.1  | 531.2  |
| 50°    | 699.2  | 650.2  | 565.6  | 500.9  | 476.9  |
| 52.5°  | 654.3  | 600.1  | 516.6  | 448.7  | 427.9  |
| 55°    | 603.2  | 552.1  | 463.4  | 402.8  | 382.0  |
| 57.5°  | 557.3  | 502.0  | 412.2  | 354.8  | 337.1  |
| 60°    | 509.3  | 451.9  | 365.3  | 308.9  | 291.2  |
| 62.5°  | 461.3  | 403.9  | 317.3  | 265.1  | 246.3  |
| 65°    | 412.2  | 354.8  | 273.4  | 222.3  | 210.8  |
| 67.5°  | 363.2  | 304.7  | 225.4  | 186.8  | 174.3  |
| 70°    | 315.2  | 258.8  | 185.8  | 149.2  | 137.8  |
| 72.5°  | 267.2  | 211.8  | 147.1  | 119.0  | 115.8  |
| 75°    | 218.1  | 168.0  | 110.6  | 100.2  | 98.1   |
| 77.5°  | 173.2  | 127.3  | 86.6   | 80.4   | 78.3   |
| 80°    | 130.4  | 87.7   | 65.7   | 62.6   | 60.5   |
| 82.5°  | 89.7   | 54.3   | 47.0   | 43.8   | 43.8   |
| 85°    | 55.3   | 32.4   | 29.2   | 27.1   | 27.1   |
| 87.5°  | 25.0   | 13.6   | 13.6   | 12.5   | 11.5   |
| 90°    | 0.4    | 3.9    | 8.5    | 9.9    | 10.6   |
| 92.5°  | 8.1    | 6.0    | 9.2    | 11.6   | 12.0   |
| 95°    | 21.5   | 7.0    | 10.9   | 13.4   | 13.4   |
| 97.5°  | 39.1   | 29.2   | 11.3   | 14.1   | 14.4   |
| 100°   | 59.6   | 66.6   | 11.6   | 14.4   | 14.8   |
| 102.5° | 82.8   | 87.4   | 26.1   | 14.4   | 15.2   |
| 105°   | 105.0  | 108.9  | 77.2   | 14.8   | 15.5   |
| 107.5° | 128.6  | 131.8  | 137.1  | 82.8   | 36.7   |
| 110°   | 152.2  | 155.1  | 158.9  | 147.3  | 96.9   |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 174.8 | 177.3 | 181.1 | 184.3 | 183.6 |
| 115°   | 197.0 | 199.1 | 202.3 | 205.8 | 207.2 |
| 117.5° | 218.8 | 221.3 | 223.1 | 225.9 | 226.2 |
| 120°   | 238.9 | 242.1 | 243.2 | 246.0 | 246.0 |
| 122.5° | 259.4 | 261.8 | 263.2 | 265.0 | 265.4 |
| 125°   | 277.7 | 280.5 | 281.9 | 282.6 | 283.3 |
| 127.5° | 296.0 | 298.8 | 300.6 | 301.7 | 301.0 |
| 130°   | 312.9 | 315.8 | 317.2 | 318.6 | 317.9 |
| 132.5° | 329.1 | 332.0 | 333.0 | 334.4 | 333.4 |
| 135°   | 345.7 | 347.8 | 349.2 | 350.3 | 349.2 |
| 137.5° | 359.8 | 362.6 | 363.3 | 365.1 | 364.4 |
| 140°   | 373.9 | 376.0 | 377.1 | 378.5 | 377.8 |
| 142.5° | 386.9 | 389.1 | 390.1 | 391.2 | 390.1 |
| 145°   | 398.9 | 401.4 | 402.1 | 402.8 | 402.8 |
| 147.5° | 410.6 | 412.3 | 413.0 | 413.7 | 412.0 |
| 150°   | 421.1 | 422.2 | 422.9 | 423.6 | 422.5 |
| 152.5° | 430.6 | 431.0 | 431.3 | 432.8 | 431.0 |
| 155°   | 439.4 | 438.7 | 439.1 | 440.9 | 438.7 |
| 157.5° | 446.5 | 446.5 | 446.1 | 448.3 | 445.4 |
| 160°   | 452.8 | 452.5 | 452.1 | 454.2 | 451.8 |
| 162.5° | 458.8 | 457.8 | 457.4 | 459.9 | 457.8 |
| 165°   | 463.4 | 462.4 | 462.0 | 464.8 | 462.4 |
| 167.5° | 467.3 | 465.9 | 465.9 | 468.7 | 465.9 |
| 170°   | 470.5 | 469.0 | 469.0 | 471.9 | 469.0 |
| 172.5° | 472.6 | 470.8 | 471.2 | 474.0 | 470.8 |
| 175°   | 474.3 | 472.6 | 472.9 | 475.4 | 472.6 |
| 177.5° | 475.0 | 473.3 | 473.6 | 476.5 | 472.9 |
| 180°   | 474.3 | 474.3 | 474.3 | 474.3 | 474.3 |

(END OF REPORT)