

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P334002

Luminaire Tested: **S123DP-S775D927-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334002  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S123DP-S775D927-4F0-1E-UDD-F  
Description: DEFINE 3 DIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER  
PENDANT/SURFACE/WALL MOUNT, 775 LUMENS PER FOOT  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2397.8 lumens  
Efficiency: N/A  
Efficacy: 91.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3  
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')  
CIE Type: Direct

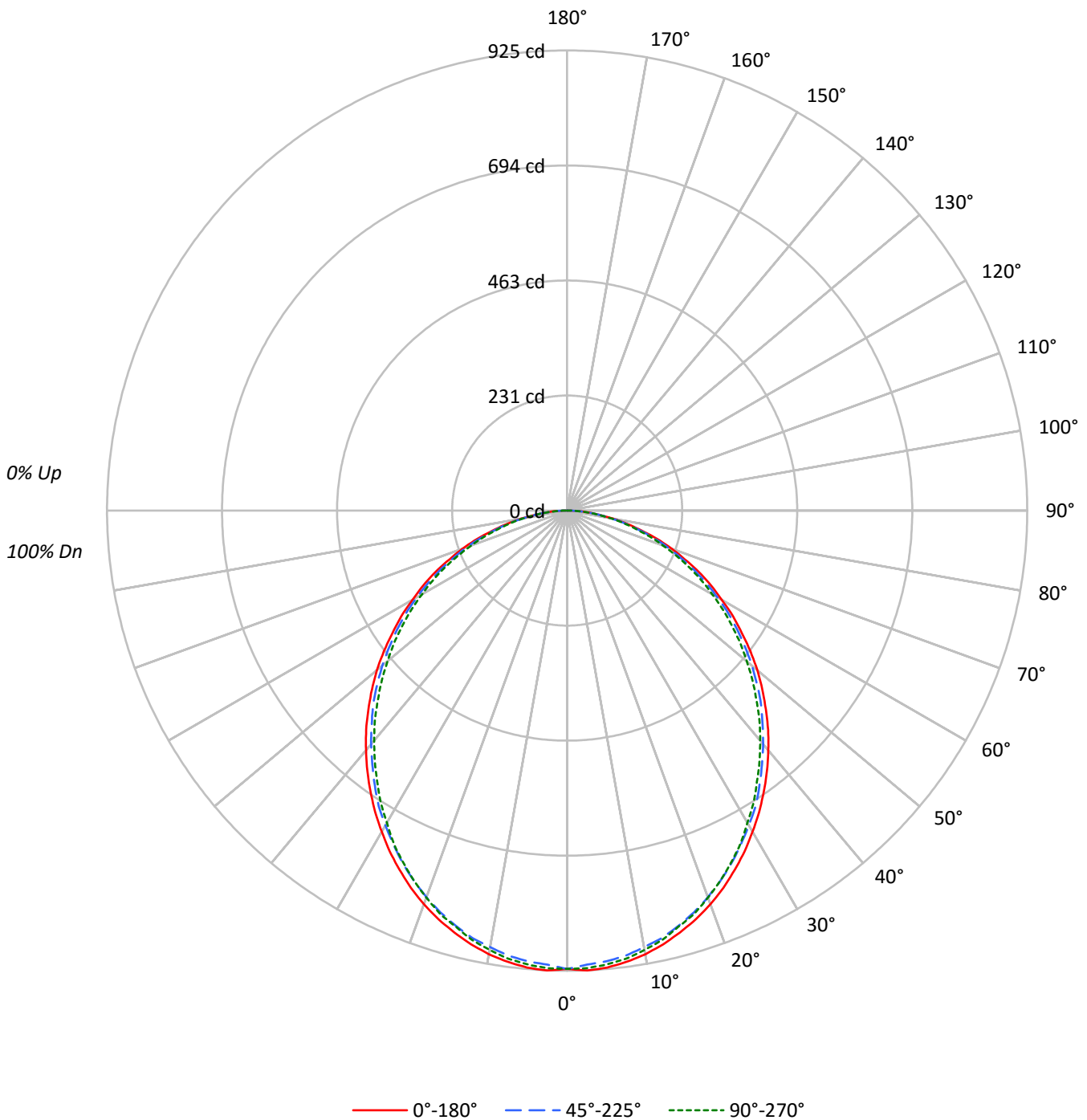
Input Watts (W): 26.3  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  | 0   |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1   | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 95  | 98  | 94  | 92  | 94  | 91  | 89  | 90  | 88  | 86  | 84  |
| 2   | 99  | 91  | 84  | 79  | 97  | 89  | 83  | 78  | 86  | 80  | 76  | 82  | 78  | 74  | 79  | 76  | 72  | 70  |
| 3   | 91  | 80  | 72  | 66  | 88  | 79  | 71  | 65  | 76  | 69  | 64  | 73  | 67  | 63  | 70  | 66  | 62  | 59  |
| 4   | 83  | 71  | 62  | 56  | 81  | 70  | 62  | 55  | 67  | 60  | 55  | 65  | 59  | 54  | 63  | 58  | 53  | 51  |
| 5   | 76  | 64  | 55  | 48  | 74  | 63  | 54  | 48  | 60  | 53  | 47  | 58  | 52  | 47  | 57  | 51  | 46  | 44  |
| 6   | 71  | 57  | 49  | 42  | 69  | 56  | 48  | 42  | 55  | 47  | 42  | 53  | 46  | 41  | 51  | 46  | 41  | 39  |
| 7   | 66  | 52  | 43  | 37  | 64  | 51  | 43  | 37  | 50  | 42  | 37  | 48  | 42  | 37  | 47  | 41  | 36  | 34  |
| 8   | 61  | 48  | 39  | 33  | 60  | 47  | 39  | 33  | 46  | 38  | 33  | 44  | 38  | 33  | 43  | 37  | 33  | 31  |
| 9   | 57  | 44  | 36  | 30  | 56  | 43  | 35  | 30  | 42  | 35  | 30  | 41  | 34  | 30  | 40  | 34  | 30  | 28  |
| 10  | 54  | 40  | 33  | 27  | 52  | 40  | 32  | 27  | 39  | 32  | 27  | 38  | 32  | 27  | 37  | 31  | 27  | 25  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 9917 | 9917 | 9917 |
| 5°  | 9963 | 9826 | 9895 |
| 10° | 9897 | 9741 | 9801 |
| 15° | 9781 | 9631 | 9649 |
| 20° | 9646 | 9473 | 9482 |
| 25° | 9465 | 9286 | 9267 |
| 30° | 9265 | 9078 | 9009 |
| 35° | 9056 | 8858 | 8744 |
| 40° | 8838 | 8615 | 8481 |
| 45° | 8598 | 8394 | 8188 |
| 50° | 8358 | 8118 | 7892 |
| 55° | 8043 | 7835 | 7597 |
| 60° | 7726 | 7505 | 7266 |
| 65° | 7445 | 7142 | 6920 |
| 70° | 7031 | 6732 | 6433 |
| 75° | 6425 | 6193 | 5931 |
| 80° | 5796 | 5548 | 5498 |
| 85° | 5088 | 4891 | 4693 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 86.9   | 3.6       |
| 10°-20°   | 245.2  | 10.2      |
| 20°-30°   | 362.2  | 15.1      |
| 30°-40°   | 423.0  | 17.6      |
| 40°-50°   | 425.3  | 17.7      |
| 50°-60°   | 373.6  | 15.6      |
| 60°-70°   | 278.2  | 11.6      |
| 70°-80°   | 158.3  | 6.6       |
| 80°-90°   | 45.0   | 1.9       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 694.3  | 29.0      |
| 0°-40°    | 1117.3 | 46.6      |
| 0°-60°    | 1916.2 | 79.9      |
| 0°-90°    | 2397.8 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2397.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 921 | 921   | 921 | 921   | 921 |      |
| 5°  | 922 | 918   | 909 | 917   | 916 | 87   |
| 15° | 878 | 875   | 864 | 871   | 866 | 248  |
| 25° | 797 | 792   | 782 | 783   | 780 | 367  |
| 35° | 689 | 684   | 674 | 669   | 665 | 431  |
| 45° | 565 | 562   | 551 | 542   | 538 | 436  |
| 55° | 429 | 428   | 418 | 409   | 405 | 384  |
| 65° | 292 | 288   | 280 | 274   | 272 | 288  |
| 75° | 154 | 151   | 149 | 145   | 143 | 165  |
| 85° | 41  | 40    | 40  | 38    | 38  | 47   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 921.3 | 921.3 | 921.3 | 921.3 | 921.3 |
| 2.5°  | 925.3 | 922.1 | 913.4 | 921.3 | 920.5 |
| 5°    | 922.1 | 918.1 | 909.4 | 917.3 | 915.8 |
| 7.5°  | 915.0 | 911.0 | 902.3 | 909.4 | 908.6 |
| 10°   | 905.5 | 901.5 | 891.2 | 898.3 | 896.7 |
| 12.5° | 892.8 | 889.6 | 880.1 | 884.9 | 884.1 |
| 15°   | 877.7 | 874.6 | 864.3 | 870.6 | 865.9 |
| 17.5° | 861.1 | 857.1 | 846.8 | 851.6 | 850.0 |
| 20°   | 842.1 | 837.3 | 827.0 | 830.2 | 827.8 |
| 22.5° | 820.7 | 815.9 | 805.6 | 808.0 | 804.9 |
| 25°   | 796.9 | 792.2 | 781.9 | 782.7 | 780.3 |
| 27.5° | 772.4 | 767.6 | 756.5 | 757.3 | 754.9 |
| 30°   | 745.4 | 741.5 | 730.4 | 730.4 | 724.8 |
| 32.5° | 718.5 | 713.0 | 705.0 | 699.5 | 697.1 |
| 35°   | 689.2 | 684.4 | 674.1 | 669.4 | 665.4 |
| 37.5° | 659.9 | 653.5 | 643.3 | 637.7 | 635.3 |
| 40°   | 629.0 | 624.2 | 613.1 | 606.8 | 603.6 |
| 42.5° | 598.1 | 592.6 | 581.5 | 575.1 | 572.0 |
| 45°   | 564.8 | 561.7 | 551.4 | 541.9 | 537.9 |
| 47.5° | 532.3 | 527.6 | 518.1 | 508.6 | 505.4 |
| 50°   | 499.1 | 495.1 | 484.8 | 476.1 | 471.3 |
| 52.5° | 464.2 | 461.8 | 450.8 | 443.6 | 438.9 |
| 55°   | 428.6 | 427.8 | 417.5 | 408.8 | 404.8 |
| 57.5° | 395.3 | 392.1 | 384.2 | 376.3 | 371.5 |
| 60°   | 358.9 | 358.1 | 348.6 | 341.4 | 337.5 |
| 62.5° | 326.4 | 324.0 | 314.5 | 307.4 | 305.0 |
| 65°   | 292.3 | 288.4 | 280.4 | 274.1 | 271.7 |
| 67.5° | 255.9 | 252.7 | 246.4 | 240.8 | 237.7 |
| 70°   | 223.4 | 218.6 | 213.9 | 208.3 | 204.4 |
| 72.5° | 189.3 | 186.2 | 180.6 | 175.9 | 174.3 |
| 75°   | 154.5 | 151.3 | 148.9 | 145.0 | 142.6 |
| 77.5° | 123.6 | 122.0 | 118.8 | 115.7 | 115.7 |
| 80°   | 93.5  | 91.1  | 89.5  | 88.7  | 88.7  |
| 82.5° | 64.2  | 64.2  | 64.2  | 62.6  | 61.8  |
| 85°   | 41.2  | 39.6  | 39.6  | 38.0  | 38.0  |
| 87.5° | 20.6  | 18.2  | 17.4  | 16.6  | 16.6  |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)