

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: P334252

Luminaire Tested: **S124RDS-S795D930-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334252  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-26)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124RDS-S795D930-4F0-1E-UDD-F  
Description: DEFINE 4 REGRESSED DIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER  
PENDANT/SURFACE/WALL MOUNT, 795 LUMENS PER FOOT  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2460.3 lumens  
Efficiency: N/A  
Efficacy: 93.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Direct

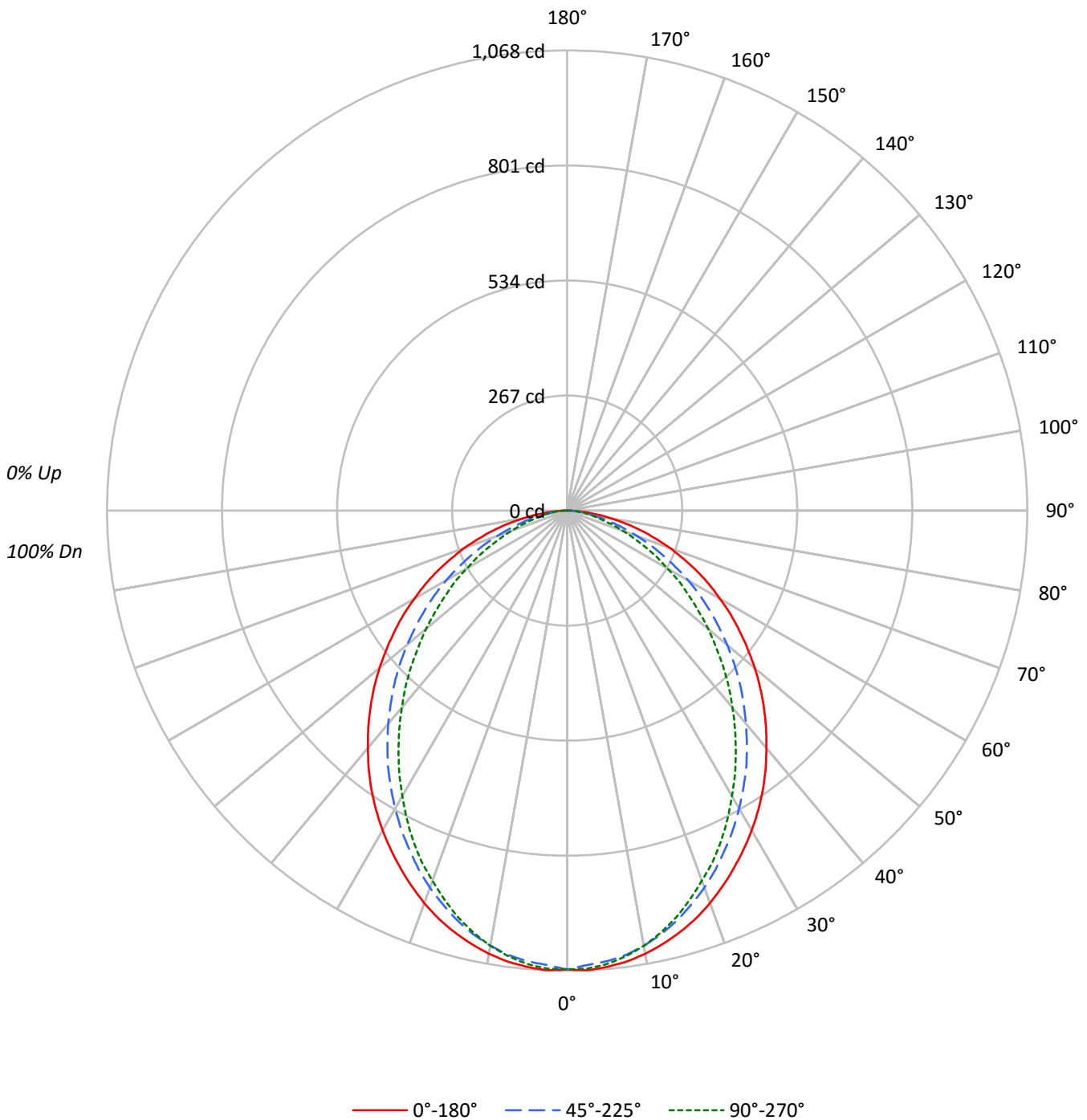
Input Watts (W): 26.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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   | 110 | 105 | 101 | 98  | 107 | 103 | 99  | 96  | 99  | 96  | 93  |  | 95  | 92  | 90  |  | 91  | 89  | 87  | 85  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 82  | 78  |  | 84  | 80  | 76  |  | 81  | 78  | 74  | 72  |
| 3   | 92  | 82  | 74  | 68  | 89  | 80  | 73  | 67  | 77  | 71  | 66  |  | 75  | 69  | 65  |  | 72  | 68  | 64  | 62  |
| 4   | 84  | 73  | 65  | 58  | 82  | 72  | 64  | 58  | 69  | 62  | 57  |  | 67  | 61  | 56  |  | 65  | 60  | 56  | 54  |
| 5   | 78  | 66  | 57  | 51  | 76  | 65  | 56  | 50  | 62  | 55  | 50  |  | 61  | 54  | 49  |  | 59  | 53  | 49  | 47  |
| 6   | 72  | 59  | 51  | 45  | 70  | 58  | 50  | 44  | 57  | 49  | 44  |  | 55  | 49  | 44  |  | 53  | 48  | 43  | 41  |
| 7   | 67  | 54  | 46  | 40  | 65  | 53  | 45  | 40  | 52  | 45  | 39  |  | 50  | 44  | 39  |  | 49  | 43  | 39  | 37  |
| 8   | 63  | 50  | 41  | 36  | 61  | 49  | 41  | 36  | 48  | 40  | 35  |  | 46  | 40  | 35  |  | 45  | 39  | 35  | 33  |
| 9   | 59  | 46  | 38  | 32  | 57  | 45  | 37  | 32  | 44  | 37  | 32  |  | 43  | 36  | 32  |  | 42  | 36  | 32  | 30  |
| 10  | 55  | 42  | 35  | 29  | 54  | 42  | 34  | 29  | 41  | 34  | 29  |  | 40  | 33  | 29  |  | 39  | 33  | 29  | 27  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 8596 | 8596 | 8596 |
| 5°  | 8615 | 8510 | 8562 |
| 10° | 8561 | 8407 | 8407 |
| 15° | 8463 | 8232 | 8170 |
| 20° | 8328 | 7999 | 7852 |
| 25° | 8156 | 7727 | 7531 |
| 30° | 7988 | 7441 | 7129 |
| 35° | 7802 | 7143 | 6725 |
| 40° | 7578 | 6805 | 6289 |
| 45° | 7372 | 6469 | 5845 |
| 50° | 7137 | 6082 | 5375 |
| 55° | 6885 | 5681 | 4866 |
| 60° | 6609 | 5239 | 4343 |
| 65° | 6353 | 4688 | 3832 |
| 70° | 5986 | 4079 | 3253 |
| 75° | 5518 | 3381 | 2645 |
| 80° | 4812 | 2576 | 2427 |
| 85° | 4076 | 2343 | 2186 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 100.1  | 4.1       |
| 10°-20°   | 279.2  | 11.3      |
| 20°-30°   | 403.1  | 16.4      |
| 30°-40°   | 456.8  | 18.6      |
| 40°-50°   | 441.0  | 17.9      |
| 50°-60°   | 366.7  | 14.9      |
| 60°-70°   | 253.1  | 10.3      |
| 70°-80°   | 127.9  | 5.2       |
| 80°-90°   | 32.5   | 1.3       |
| 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°    | 782.3  | 31.8      |
| 0°-40°    | 1239.1 | 50.4      |
| 0°-60°    | 2046.9 | 83.2      |
| 0°-90°    | 2460.3 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2460.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1065 | 1065  | 1065 | 1065  | 1065 |      |
| 5°  | 1063 | 1060  | 1050 | 1058  | 1057 | 101  |
| 15° | 1013 | 1005  | 985  | 983   | 978  | 285  |
| 25° | 916  | 901   | 868  | 854   | 846  | 422  |
| 35° | 792  | 766   | 725  | 697   | 682  | 495  |
| 45° | 646  | 616   | 567  | 527   | 512  | 498  |
| 55° | 489  | 457   | 404  | 361   | 346  | 438  |
| 65° | 333  | 298   | 245  | 210   | 201  | 328  |
| 75° | 177  | 147   | 108  | 90    | 85   | 187  |
| 85° | 44   | 28    | 25   | 24    | 24   | 51   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1064.8 | 1064.8 | 1064.8 | 1064.8 | 1064.8 |
| 2.5°  | 1068.0 | 1064.8 | 1055.8 | 1064.8 | 1064.0 |
| 5°    | 1063.1 | 1059.9 | 1050.1 | 1058.3 | 1056.6 |
| 7.5°  | 1055.8 | 1052.6 | 1040.3 | 1046.0 | 1043.6 |
| 10°   | 1044.4 | 1040.3 | 1025.6 | 1028.9 | 1025.6 |
| 12.5° | 1029.7 | 1024.8 | 1006.9 | 1008.5 | 1003.6 |
| 15°   | 1012.6 | 1005.3 | 984.9  | 983.3  | 977.5  |
| 17.5° | 993.0  | 982.4  | 958.8  | 954.7  | 946.6  |
| 20°   | 969.4  | 958.8  | 931.1  | 924.5  | 914.0  |
| 22.5° | 943.3  | 931.1  | 900.9  | 890.3  | 882.2  |
| 25°   | 915.6  | 900.9  | 867.5  | 853.6  | 845.5  |
| 27.5° | 887.0  | 869.1  | 834.1  | 817.7  | 806.3  |
| 30°   | 856.9  | 836.5  | 798.2  | 777.8  | 764.8  |
| 32.5° | 825.1  | 801.4  | 761.5  | 737.0  | 724.8  |
| 35°   | 791.7  | 765.6  | 724.8  | 697.1  | 682.4  |
| 37.5° | 756.6  | 729.7  | 684.9  | 654.7  | 640.0  |
| 40°   | 719.1  | 692.2  | 645.7  | 611.5  | 596.8  |
| 42.5° | 683.2  | 654.7  | 605.8  | 570.7  | 555.2  |
| 45°   | 645.7  | 615.6  | 566.6  | 526.7  | 512.0  |
| 47.5° | 607.4  | 576.4  | 525.9  | 484.3  | 468.0  |
| 50°   | 568.3  | 536.5  | 484.3  | 443.5  | 428.0  |
| 52.5° | 528.3  | 497.3  | 443.5  | 401.9  | 385.6  |
| 55°   | 489.2  | 456.6  | 403.6  | 361.2  | 345.7  |
| 57.5° | 450.9  | 416.6  | 364.4  | 321.2  | 309.8  |
| 60°   | 409.3  | 376.7  | 324.5  | 282.1  | 269.0  |
| 62.5° | 371.8  | 337.5  | 283.7  | 245.4  | 235.6  |
| 65°   | 332.6  | 297.6  | 245.4  | 210.3  | 200.6  |
| 67.5° | 291.9  | 258.4  | 209.5  | 178.6  | 167.1  |
| 70°   | 253.6  | 219.3  | 172.8  | 145.9  | 137.8  |
| 72.5° | 212.8  | 182.6  | 139.4  | 117.4  | 110.1  |
| 75°   | 176.9  | 146.8  | 108.4  | 89.7   | 84.8   |
| 77.5° | 139.4  | 113.3  | 80.7   | 67.7   | 66.0   |
| 80°   | 103.5  | 79.9   | 55.4   | 53.0   | 52.2   |
| 82.5° | 72.6   | 51.4   | 39.9   | 38.3   | 37.5   |
| 85°   | 44.0   | 27.7   | 25.3   | 23.6   | 23.6   |
| 87.5° | 18.8   | 12.2   | 11.4   | 10.6   | 11.4   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)