

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: P333896

Luminaire Tested: **S122RDS-S485D927-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333896  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-24)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122RDS-S485D927-4F0-1E-UDD-F  
Description: DEFINE 2 REGRESSED DIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER  
PENDANT/SURFACE/WALL MOUNT, 485 LUMENS PER FOOT  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

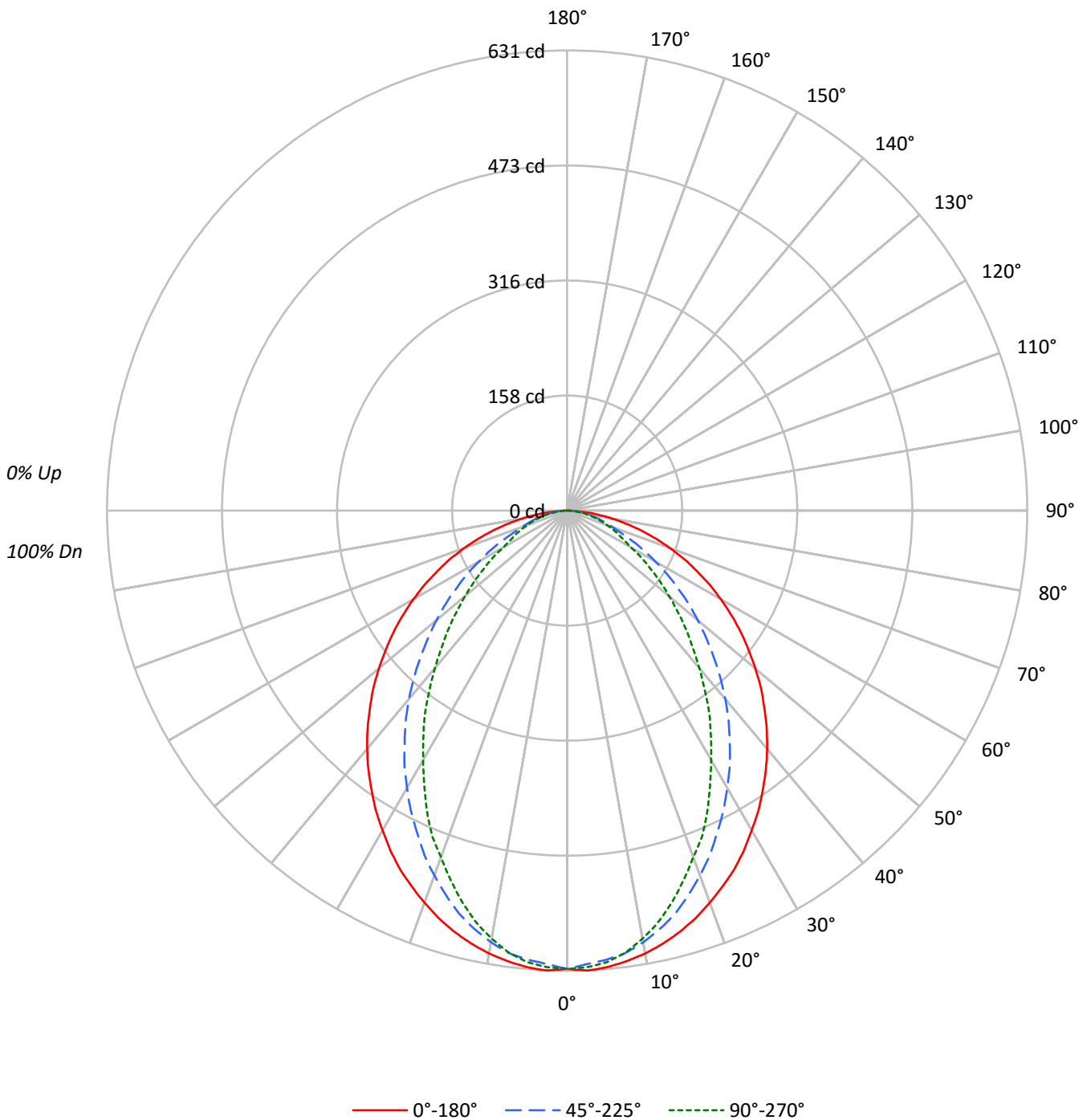
Lumens per Lamp: N/A  
Luminaire Lumens: 1292.6 lumens  
Efficiency: N/A  
Efficacy: 68.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 18.8  
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 | 106 | 102 | 98  | 107 | 103 | 100 | 97  | 99  | 96  | 94  |  | 95  | 93  | 91  |  | 92  | 90  | 88  | 86  |
| 2   | 101 | 94  | 87  | 82  | 98  | 92  | 86  | 81  | 88  | 83  | 79  |  | 85  | 81  | 78  |  | 82  | 79  | 76  | 74  |
| 3   | 93  | 83  | 76  | 70  | 90  | 82  | 75  | 69  | 79  | 73  | 68  |  | 76  | 71  | 67  |  | 74  | 69  | 66  | 64  |
| 4   | 86  | 75  | 66  | 60  | 83  | 73  | 66  | 60  | 71  | 64  | 59  |  | 69  | 63  | 58  |  | 66  | 62  | 57  | 55  |
| 5   | 79  | 67  | 59  | 53  | 77  | 66  | 58  | 52  | 64  | 57  | 52  |  | 62  | 56  | 51  |  | 60  | 55  | 51  | 49  |
| 6   | 74  | 61  | 53  | 47  | 72  | 60  | 52  | 46  | 58  | 51  | 46  |  | 57  | 50  | 46  |  | 55  | 50  | 45  | 43  |
| 7   | 68  | 56  | 47  | 42  | 67  | 55  | 47  | 42  | 53  | 46  | 41  |  | 52  | 46  | 41  |  | 51  | 45  | 41  | 39  |
| 8   | 64  | 51  | 43  | 38  | 62  | 51  | 43  | 37  | 49  | 42  | 37  |  | 48  | 42  | 37  |  | 47  | 41  | 37  | 35  |
| 9   | 60  | 47  | 39  | 34  | 59  | 47  | 39  | 34  | 46  | 39  | 34  |  | 44  | 38  | 34  |  | 44  | 38  | 34  | 32  |
| 10  | 56  | 44  | 36  | 31  | 55  | 43  | 36  | 31  | 42  | 36  | 31  |  | 41  | 35  | 31  |  | 41  | 35  | 31  | 29  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 10148 | 10148 | 10148 |
| 5°  | 10186 | 10021 | 10076 |
| 10° | 10109 | 9857  | 9773  |
| 15° | 9992  | 9565  | 9289  |
| 20° | 9832  | 9148  | 8689  |
| 25° | 9666  | 8674  | 8106  |
| 30° | 9437  | 8186  | 7360  |
| 35° | 9217  | 7658  | 6704  |
| 40° | 8991  | 7109  | 5946  |
| 45° | 8727  | 6494  | 5261  |
| 50° | 8457  | 5873  | 4587  |
| 55° | 8183  | 5205  | 3938  |
| 60° | 7860  | 4501  | 3268  |
| 65° | 7496  | 3782  | 2976  |
| 70° | 7062  | 3116  | 2738  |
| 75° | 6531  | 2838  | 2558  |
| 80° | 5765  | 2538  | 2325  |
| 85° | 4539  | 2001  | 2001  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 58.9   | 4.6       |
| 10°-20°   | 161.7  | 12.5      |
| 20°-30°   | 227.0  | 17.6      |
| 30°-40°   | 247.5  | 19.1      |
| 40°-50°   | 227.4  | 17.6      |
| 50°-60°   | 178.6  | 13.8      |
| 60°-70°   | 116.3  | 9.0       |
| 70°-80°   | 59.9   | 4.6       |
| 80°-90°   | 15.3   | 1.2       |
| 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°    | 447.7  | 34.6      |
| 0°-40°    | 695.1  | 53.8      |
| 0°-60°    | 1101.2 | 85.2      |
| 0°-90°    | 1292.6 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1292.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 628 | 628   | 628 | 628   | 628 |      |
| 5°  | 628 | 626   | 618 | 623   | 622 | 60   |
| 15° | 598 | 592   | 572 | 561   | 556 | 168  |
| 25° | 543 | 524   | 487 | 464   | 455 | 250  |
| 35° | 468 | 438   | 388 | 353   | 340 | 293  |
| 45° | 382 | 344   | 284 | 244   | 230 | 295  |
| 55° | 291 | 246   | 185 | 151   | 140 | 260  |
| 65° | 196 | 150   | 99  | 80    | 78  | 195  |
| 75° | 105 | 65    | 46  | 42    | 41  | 111  |
| 85° | 24  | 12    | 11  | 11    | 11  | 29   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 628.5 | 628.5 | 628.5 | 628.5 | 628.5 |
| 2.5°  | 631.4 | 628.5 | 622.3 | 628.0 | 626.8 |
| 5°    | 628.5 | 625.7 | 618.3 | 623.4 | 621.7 |
| 7.5°  | 623.4 | 620.0 | 612.0 | 614.3 | 611.5 |
| 10°   | 616.6 | 612.6 | 601.2 | 599.5 | 596.1 |
| 12.5° | 608.1 | 602.9 | 587.6 | 584.2 | 577.9 |
| 15°   | 597.8 | 591.6 | 572.2 | 561.4 | 555.7 |
| 17.5° | 585.9 | 576.8 | 552.9 | 540.4 | 531.3 |
| 20°   | 572.2 | 560.8 | 532.4 | 518.2 | 505.7 |
| 22.5° | 557.4 | 544.3 | 511.4 | 492.0 | 483.5 |
| 25°   | 542.6 | 524.4 | 486.9 | 463.6 | 455.0 |
| 27.5° | 525.0 | 505.7 | 464.1 | 437.4 | 424.3 |
| 30°   | 506.2 | 484.6 | 439.1 | 410.1 | 394.8 |
| 32.5° | 488.0 | 461.9 | 415.2 | 381.1 | 366.9 |
| 35°   | 467.6 | 438.5 | 388.5 | 352.7 | 340.1 |
| 37.5° | 447.7 | 416.4 | 363.5 | 324.2 | 310.0 |
| 40°   | 426.6 | 392.5 | 337.3 | 296.9 | 282.1 |
| 42.5° | 405.0 | 368.6 | 311.1 | 269.0 | 254.8 |
| 45°   | 382.2 | 344.1 | 284.4 | 244.0 | 230.4 |
| 47.5° | 360.6 | 320.2 | 258.8 | 218.4 | 205.9 |
| 50°   | 336.7 | 296.3 | 233.8 | 194.5 | 182.6 |
| 52.5° | 313.4 | 270.8 | 209.9 | 172.3 | 161.5 |
| 55°   | 290.7 | 246.3 | 184.9 | 150.7 | 139.9 |
| 57.5° | 267.3 | 221.8 | 162.7 | 130.8 | 121.7 |
| 60°   | 243.4 | 197.9 | 139.4 | 110.3 | 101.2 |
| 62.5° | 220.1 | 174.6 | 119.4 | 92.1  | 87.6  |
| 65°   | 196.2 | 150.2 | 99.0  | 79.6  | 77.9  |
| 67.5° | 173.5 | 127.4 | 79.6  | 70.0  | 68.3  |
| 70°   | 149.6 | 105.2 | 66.0  | 60.3  | 58.0  |
| 72.5° | 126.8 | 84.8  | 55.2  | 50.6  | 49.5  |
| 75°   | 104.7 | 64.8  | 45.5  | 41.5  | 41.0  |
| 77.5° | 82.5  | 46.1  | 35.8  | 33.6  | 32.4  |
| 80°   | 62.0  | 33.0  | 27.3  | 25.0  | 25.0  |
| 82.5° | 43.2  | 22.2  | 18.8  | 17.6  | 17.6  |
| 85°   | 24.5  | 12.5  | 10.8  | 10.8  | 10.8  |
| 87.5° | 9.1   | 4.6   | 4.6   | 4.0   | 4.0   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)