

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: P333842

Luminaire Tested: **S122DS-S675D940-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333842  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122DS-S675D940-4F0-1E-UDD-F  
Description: DEFINE 2 DIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER  
PENDANT/SURFACE/WALL MOUNT, 675 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2359.4 lumens  
Efficiency: N/A  
Efficacy: 89.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Direct

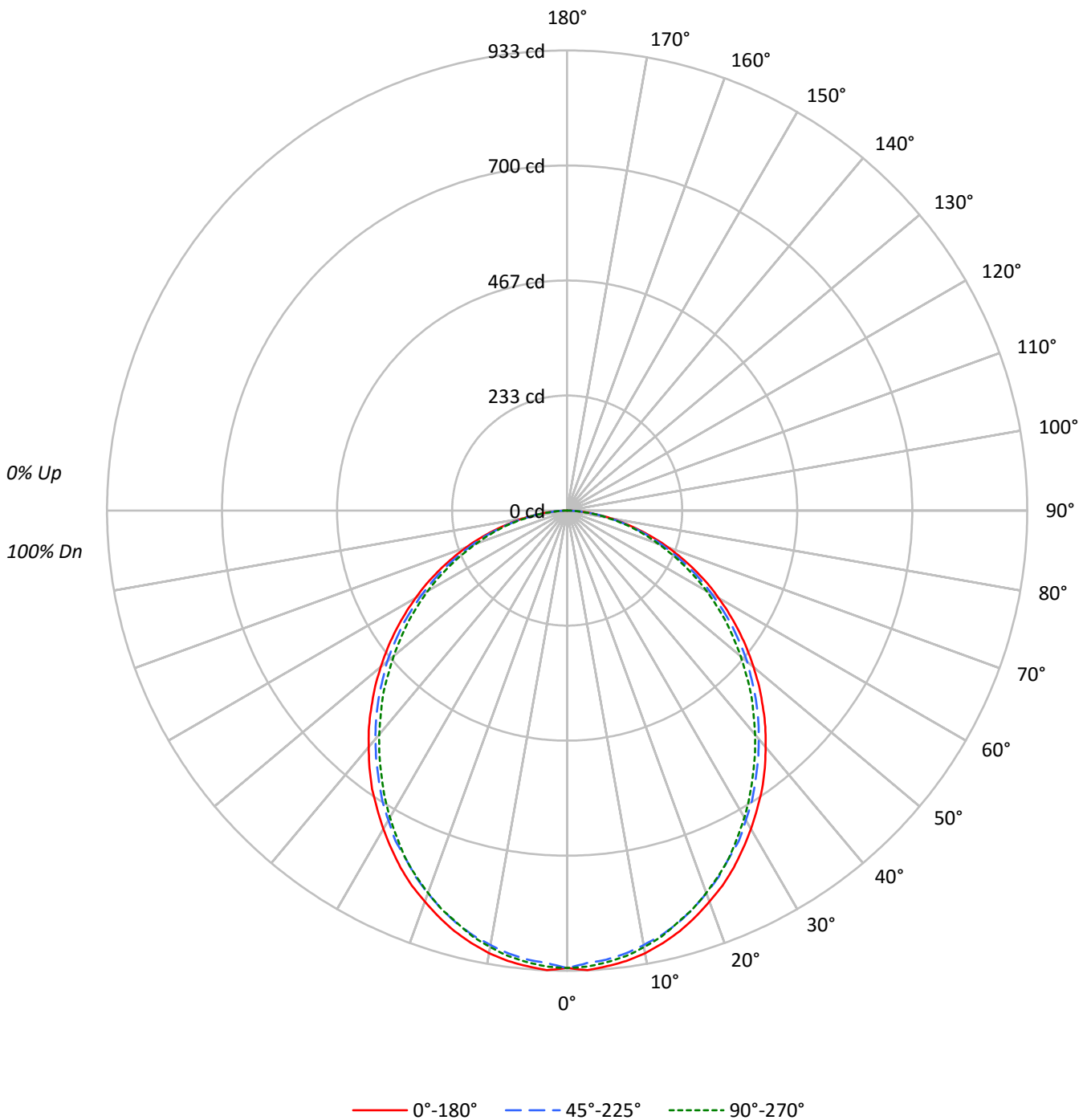
Input Watts (W): 26.3  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  | 95  | 92  | 94  | 91  | 89  | 90  | 88  | 86  | 84  |
| 2   | 99  | 91  | 85  | 79  | 97  | 89  | 83  | 78  | 86  | 81  | 76  | 83  | 78  | 74  | 80  | 76  | 73  | 71  |
| 3   | 91  | 80  | 72  | 66  | 88  | 79  | 71  | 65  | 76  | 69  | 64  | 73  | 68  | 63  | 71  | 66  | 62  | 60  |
| 4   | 83  | 71  | 63  | 56  | 81  | 70  | 62  | 56  | 68  | 61  | 55  | 65  | 59  | 54  | 63  | 58  | 54  | 51  |
| 5   | 77  | 64  | 55  | 49  | 75  | 63  | 55  | 48  | 61  | 53  | 48  | 59  | 52  | 47  | 57  | 51  | 47  | 45  |
| 6   | 71  | 58  | 49  | 43  | 69  | 57  | 48  | 42  | 55  | 48  | 42  | 53  | 47  | 42  | 52  | 46  | 41  | 39  |
| 7   | 66  | 52  | 44  | 38  | 64  | 52  | 43  | 38  | 50  | 43  | 37  | 49  | 42  | 37  | 47  | 41  | 37  | 35  |
| 8   | 61  | 48  | 40  | 34  | 60  | 47  | 39  | 34  | 46  | 39  | 33  | 45  | 38  | 33  | 44  | 38  | 33  | 31  |
| 9   | 57  | 44  | 36  | 30  | 56  | 43  | 36  | 30  | 42  | 35  | 30  | 41  | 35  | 30  | 40  | 34  | 30  | 28  |
| 10  | 54  | 41  | 33  | 28  | 53  | 40  | 33  | 28  | 39  | 32  | 27  | 38  | 32  | 27  | 37  | 32  | 27  | 26  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 14974 | 14974 | 14974 |
| 5°  | 15031 | 14814 | 14901 |
| 10° | 14941 | 14664 | 14736 |
| 15° | 14756 | 14474 | 14459 |
| 20° | 14495 | 14187 | 14172 |
| 25° | 14234 | 13837 | 13837 |
| 30° | 13899 | 13517 | 13399 |
| 35° | 13586 | 13129 | 12936 |
| 40° | 13194 | 12743 | 12499 |
| 45° | 12807 | 12360 | 12054 |
| 50° | 12386 | 11961 | 11534 |
| 55° | 11949 | 11496 | 11068 |
| 60° | 11460 | 10944 | 10540 |
| 65° | 10934 | 10392 | 9914  |
| 70° | 10272 | 9725  | 9262  |
| 75° | 9345  | 8958  | 8734  |
| 80° | 8294  | 8043  | 7624  |
| 85° | 6780  | 6447  | 5780  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 87.3   | 3.7       |
| 10°-20°   | 245.6  | 10.4      |
| 20°-30°   | 360.9  | 15.3      |
| 30°-40°   | 419.2  | 17.8      |
| 40°-50°   | 418.7  | 17.7      |
| 50°-60°   | 365.0  | 15.5      |
| 60°-70°   | 269.8  | 11.4      |
| 70°-80°   | 152.7  | 6.5       |
| 80°-90°   | 40.3   | 1.7       |
| 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°    | 693.8  | 29.4      |
| 0°-40°    | 1112.9 | 47.2      |
| 0°-60°    | 1896.6 | 80.4      |
| 0°-90°    | 2359.4 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2359.4 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 927 | 927   | 927 | 927   | 927 |      |
| 5°  | 927 | 924   | 914 | 921   | 919 | 88   |
| 15° | 883 | 877   | 866 | 869   | 865 | 249  |
| 25° | 799 | 792   | 777 | 778   | 777 | 368  |
| 35° | 689 | 680   | 666 | 661   | 656 | 430  |
| 45° | 561 | 555   | 541 | 532   | 528 | 433  |
| 55° | 424 | 419   | 408 | 398   | 393 | 380  |
| 65° | 286 | 281   | 272 | 264   | 260 | 283  |
| 75° | 150 | 148   | 144 | 138   | 140 | 160  |
| 85° | 37  | 36    | 35  | 32    | 31  | 43   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 927.4 | 927.4 | 927.4 | 927.4 | 927.4 |
| 2.5°  | 932.7 | 928.3 | 918.5 | 927.4 | 925.6 |
| 5°    | 927.4 | 923.8 | 914.0 | 921.1 | 919.4 |
| 7.5°  | 921.1 | 915.8 | 906.0 | 913.1 | 911.3 |
| 10°   | 911.3 | 905.1 | 894.4 | 901.5 | 898.8 |
| 12.5° | 898.0 | 892.6 | 881.9 | 886.4 | 884.6 |
| 15°   | 882.8 | 877.4 | 865.9 | 869.4 | 865.0 |
| 17.5° | 864.1 | 858.7 | 847.1 | 851.6 | 847.1 |
| 20°   | 843.6 | 838.2 | 825.7 | 828.4 | 824.8 |
| 22.5° | 823.1 | 815.0 | 803.4 | 803.4 | 801.6 |
| 25°   | 799.0 | 791.8 | 776.7 | 778.5 | 776.7 |
| 27.5° | 772.2 | 766.0 | 754.4 | 751.7 | 747.3 |
| 30°   | 745.5 | 738.3 | 725.0 | 722.3 | 718.7 |
| 32.5° | 716.9 | 711.6 | 697.3 | 692.0 | 688.4 |
| 35°   | 689.3 | 680.4 | 666.1 | 660.8 | 656.3 |
| 37.5° | 658.1 | 650.1 | 635.8 | 629.5 | 625.1 |
| 40°   | 626.0 | 618.8 | 604.6 | 596.6 | 593.0 |
| 42.5° | 594.8 | 587.6 | 573.4 | 564.5 | 559.1 |
| 45°   | 560.9 | 554.6 | 541.3 | 531.5 | 527.9 |
| 47.5° | 527.9 | 521.7 | 507.4 | 497.6 | 492.2 |
| 50°   | 493.1 | 488.7 | 476.2 | 463.7 | 459.2 |
| 52.5° | 459.2 | 453.0 | 441.4 | 431.6 | 425.3 |
| 55°   | 424.5 | 419.1 | 408.4 | 397.7 | 393.2 |
| 57.5° | 389.7 | 385.2 | 373.6 | 362.9 | 359.4 |
| 60°   | 354.9 | 351.3 | 338.9 | 329.0 | 326.4 |
| 62.5° | 321.0 | 314.8 | 305.9 | 296.9 | 293.4 |
| 65°   | 286.2 | 280.9 | 272.0 | 263.9 | 259.5 |
| 67.5° | 250.6 | 246.1 | 238.1 | 231.8 | 228.3 |
| 70°   | 217.6 | 214.0 | 206.0 | 199.7 | 196.2 |
| 72.5° | 183.7 | 180.1 | 175.7 | 169.4 | 166.8 |
| 75°   | 149.8 | 148.0 | 143.6 | 138.2 | 140.0 |
| 77.5° | 119.5 | 115.9 | 114.1 | 111.5 | 108.8 |
| 80°   | 89.2  | 88.3  | 86.5  | 83.8  | 82.0  |
| 82.5° | 60.6  | 60.6  | 59.7  | 56.2  | 56.2  |
| 85°   | 36.6  | 35.7  | 34.8  | 32.1  | 31.2  |
| 87.5° | 16.1  | 14.3  | 12.5  | 9.8   | 8.9   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)