

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: P333817

Luminaire Tested: **SA2XXDP-C675D835-4F0-1E-UDD-F**

Issue Date: 10/11/2019

Test Information

Test Method: LM-79-08
Report Number: P333817
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-10)
Test Lab: INNOVATIONS CENTER
Issue Date: 10/11/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: SA2XXDP-C675D835-4F0-1E-UDD-F
Description: DEFINE 2 DIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER
PENDANT/SURFACE/WALL MOUNT, 675 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

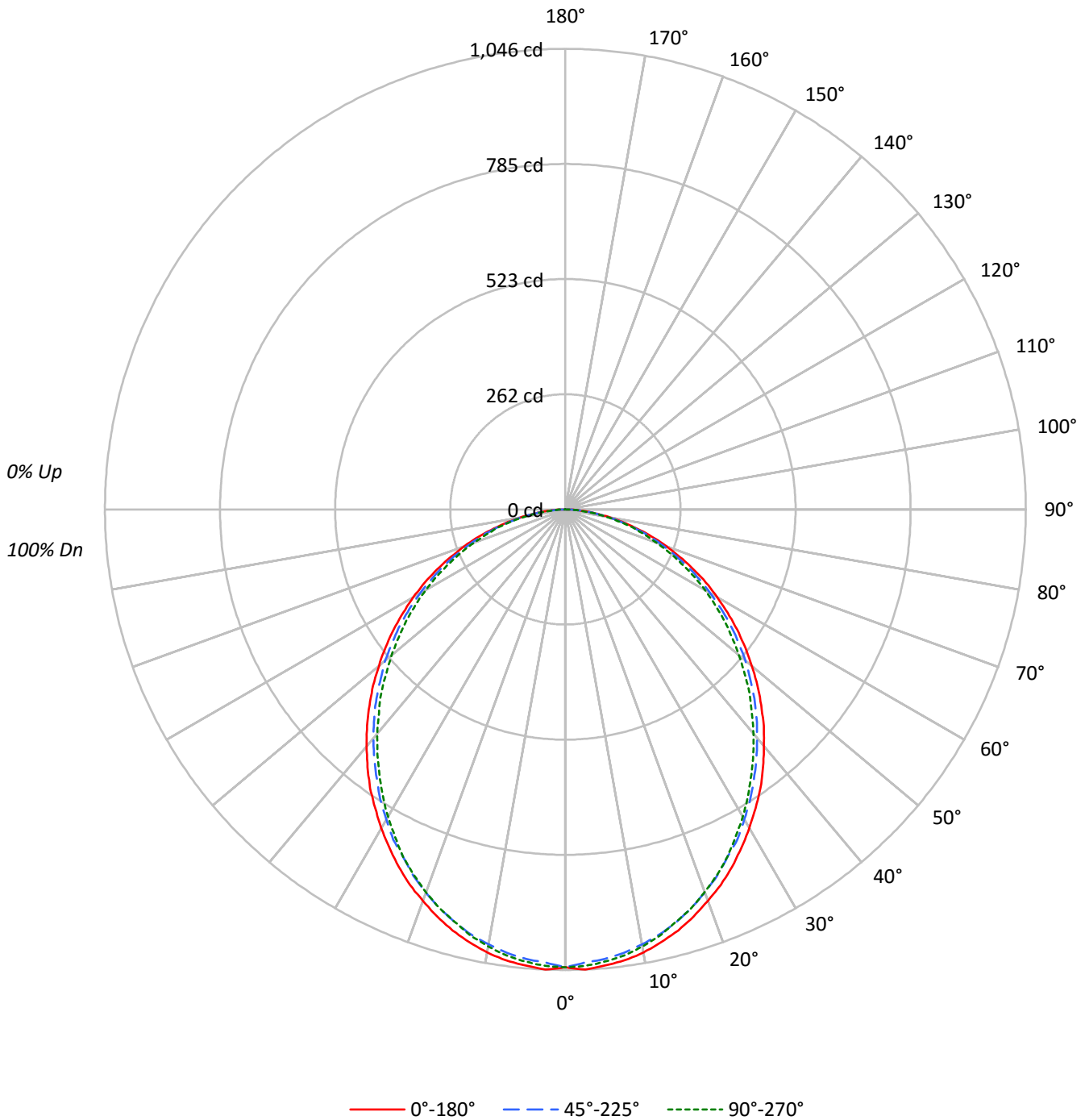
Lumens per Lamp: N/A
Luminaire Lumens: 2645.9 lumens
Efficiency: N/A
Efficacy: 100.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 26.3
Input Voltage (V): 120
Input Current (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 | 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° | 16792 | 16792 | 16792 |
| 5° | 16856 | 16613 | 16710 |
| 10° | 16756 | 16444 | 16526 |
| 15° | 16548 | 16231 | 16214 |
| 20° | 16254 | 15911 | 15893 |
| 25° | 15962 | 15517 | 15517 |
| 30° | 15586 | 15157 | 15027 |
| 35° | 15236 | 14724 | 14507 |
| 40° | 14796 | 14290 | 14016 |
| 45° | 14362 | 13860 | 13518 |
| 50° | 13891 | 13413 | 12936 |
| 55° | 13399 | 12892 | 12414 |
| 60° | 12852 | 12271 | 11819 |
| 65° | 12264 | 11652 | 11117 |
| 70° | 11519 | 10905 | 10386 |
| 75° | 10480 | 10044 | 9794 |
| 80° | 9298 | 9019 | 8554 |
| 85° | 7595 | 7225 | 6484 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 97.9 | 3.7 |
| 10°-20° | 275.4 | 10.4 |
| 20°-30° | 404.7 | 15.3 |
| 30°-40° | 470.1 | 17.8 |
| 40°-50° | 469.5 | 17.7 |
| 50°-60° | 409.4 | 15.5 |
| 60°-70° | 302.6 | 11.4 |
| 70°-80° | 171.2 | 6.5 |
| 80°-90° | 45.2 | 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° | 778.0 | 29.4 |
| 0°-40° | 1248.1 | 47.2 |
| 0°-60° | 2126.9 | 80.4 |
| 0°-90° | 2645.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2645.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1040 | 1040 | 1040 | 1040 | 1040 | |
| 5° | 1040 | 1036 | 1025 | 1033 | 1031 | 99 |
| 15° | 990 | 984 | 971 | 975 | 970 | 279 |
| 25° | 896 | 888 | 871 | 873 | 871 | 412 |
| 35° | 773 | 763 | 747 | 741 | 736 | 483 |
| 45° | 629 | 622 | 607 | 596 | 592 | 485 |
| 55° | 476 | 470 | 458 | 446 | 441 | 426 |
| 65° | 321 | 315 | 305 | 296 | 291 | 317 |
| 75° | 168 | 166 | 161 | 155 | 157 | 179 |
| 85° | 41 | 40 | 39 | 36 | 35 | 48 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|------|-------|------|-------|------|
| 0° | 1040 | 1040 | 1040 | 1040 | 1040 |
| 2.5° | 1046 | 1041 | 1030 | 1040 | 1038 |
| 5° | 1040 | 1036 | 1025 | 1033 | 1031 |
| 7.5° | 1033 | 1027 | 1016 | 1024 | 1022 |
| 10° | 1022 | 1015 | 1003 | 1011 | 1008 |
| 12.5° | 1007 | 1001 | 989 | 994 | 992 |
| 15° | 990 | 984 | 971 | 975 | 970 |
| 17.5° | 969 | 963 | 950 | 955 | 950 |
| 20° | 946 | 940 | 926 | 929 | 925 |
| 22.5° | 923 | 914 | 901 | 901 | 899 |
| 25° | 896 | 888 | 871 | 873 | 871 |
| 27.5° | 866 | 859 | 846 | 843 | 838 |
| 30° | 836 | 828 | 813 | 810 | 806 |
| 32.5° | 804 | 798 | 782 | 776 | 772 |
| 35° | 773 | 763 | 747 | 741 | 736 |
| 37.5° | 738 | 729 | 713 | 706 | 701 |
| 40° | 702 | 694 | 678 | 669 | 665 |
| 42.5° | 667 | 659 | 643 | 633 | 627 |
| 45° | 629 | 622 | 607 | 596 | 592 |
| 47.5° | 592 | 585 | 569 | 558 | 552 |
| 50° | 553 | 548 | 534 | 520 | 515 |
| 52.5° | 515 | 508 | 495 | 484 | 477 |
| 55° | 476 | 470 | 458 | 446 | 441 |
| 57.5° | 437 | 432 | 419 | 407 | 403 |
| 60° | 398 | 394 | 380 | 369 | 366 |
| 62.5° | 360 | 353 | 343 | 333 | 329 |
| 65° | 321 | 315 | 305 | 296 | 291 |
| 67.5° | 281 | 276 | 267 | 260 | 256 |
| 70° | 244 | 240 | 231 | 224 | 220 |
| 72.5° | 206 | 202 | 197 | 190 | 187 |
| 75° | 168 | 166 | 161 | 155 | 157 |
| 77.5° | 134 | 130 | 128 | 125 | 122 |
| 80° | 100 | 99 | 97 | 94 | 92 |
| 82.5° | 68 | 68 | 67 | 63 | 63 |
| 85° | 41 | 40 | 39 | 36 | 35 |
| 87.5° | 18 | 16 | 14 | 11 | 10 |
| 90° | 0 | 0 | 0 | 0 | 0 |

(END OF REPORT)