

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: P333957

Luminaire Tested: **S123DW-S775D835-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333957
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-15)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DW-S775D835-4F0-1E-UDD-D
Description: DEFINE 3 DIRECT LED LUMINAIRE, DROP SATIN WHITE DIFFUSER
PENDANT/SURFACE/WALL MOUNT, 775 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

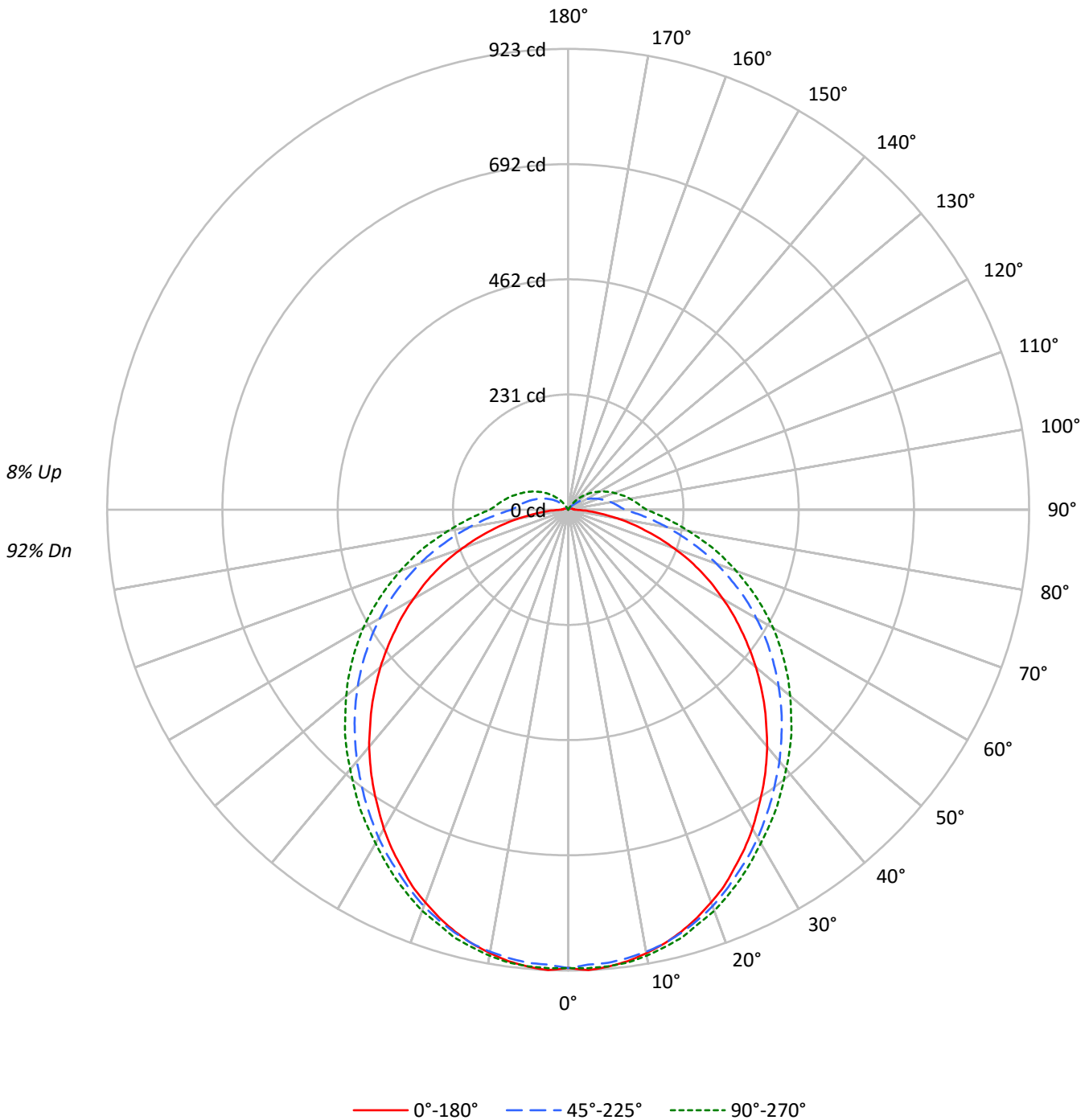
Lumens per Lamp: N/A
Luminaire Lumens: 3085.2 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 26.3
Input Voltage (V): 120
Input Current (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



TEST NUMBER: P333957
CATALOG NUMBER: S123DW-S775D835-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P333957

CATALOG NUMBER: S123DW-S775D835-4F0-1E-UDD-D

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 | 117 | 117 | 117 | 117 | 113 | 113 | 113 | 113 | 106 | 106 | 106 | 100 | 100 | 100 | 94 | 94 | 94 | 92 |
| 1 | 105 | 100 | 95 | 90 | 102 | 97 | 92 | 88 | 91 | 87 | 84 | 85 | 82 | 80 | 80 | 78 | 76 | 73 |
| 2 | 95 | 86 | 79 | 72 | 92 | 83 | 77 | 71 | 79 | 73 | 68 | 74 | 69 | 65 | 70 | 66 | 63 | 60 |
| 3 | 86 | 75 | 67 | 60 | 83 | 73 | 65 | 59 | 69 | 62 | 56 | 65 | 59 | 54 | 61 | 56 | 52 | 50 |
| 4 | 79 | 66 | 57 | 50 | 76 | 64 | 56 | 49 | 61 | 54 | 48 | 57 | 51 | 46 | 54 | 49 | 45 | 42 |
| 5 | 72 | 59 | 50 | 43 | 70 | 58 | 49 | 42 | 54 | 47 | 41 | 52 | 45 | 40 | 49 | 43 | 39 | 36 |
| 6 | 67 | 53 | 44 | 37 | 64 | 52 | 43 | 37 | 49 | 42 | 36 | 47 | 40 | 35 | 44 | 38 | 34 | 32 |
| 7 | 62 | 48 | 39 | 33 | 60 | 47 | 38 | 32 | 45 | 37 | 32 | 42 | 36 | 31 | 40 | 35 | 30 | 28 |
| 8 | 58 | 44 | 35 | 29 | 56 | 43 | 35 | 29 | 41 | 33 | 28 | 39 | 32 | 28 | 37 | 31 | 27 | 25 |
| 9 | 54 | 40 | 32 | 26 | 52 | 39 | 31 | 26 | 37 | 30 | 25 | 36 | 29 | 25 | 34 | 28 | 24 | 22 |
| 10 | 50 | 37 | 29 | 24 | 49 | 36 | 29 | 24 | 35 | 28 | 23 | 33 | 27 | 23 | 32 | 26 | 22 | 20 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|-------|-------|
| 0° | 9881 | 9881 | 9881 |
| 5° | 9930 | 9843 | 9919 |
| 10° | 9859 | 9826 | 9913 |
| 15° | 9751 | 9773 | 9873 |
| 20° | 9588 | 9679 | 9794 |
| 25° | 9383 | 9537 | 9691 |
| 30° | 9173 | 9434 | 9583 |
| 35° | 8935 | 9316 | 9566 |
| 40° | 8712 | 9246 | 9541 |
| 45° | 8464 | 9210 | 9621 |
| 50° | 8222 | 9210 | 9712 |
| 55° | 7957 | 9252 | 9909 |
| 60° | 7707 | 9365 | 10204 |
| 65° | 7463 | 9577 | 10595 |
| 70° | 7081 | 9945 | 11267 |
| 75° | 6613 | 10647 | 12518 |
| 80° | 6137 | 12397 | 15125 |
| 85° | 6052 | 18772 | 24206 |



TEST NUMBER: P333957

CATALOG NUMBER: S123DW-S775D835-4F0-1E-UDD-D

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 87.1 | 2.8 |
| 10°-20° | 248.3 | 8.0 |
| 20°-30° | 371.2 | 12.0 |
| 30°-40° | 443.2 | 14.4 |
| 40°-50° | 463.8 | 15.0 |
| 50°-60° | 435.2 | 14.1 |
| 60°-70° | 363.5 | 11.8 |
| 70°-80° | 259.9 | 8.4 |
| 80°-90° | 154.7 | 5.0 |
| 90°-100° | 97.2 | 3.2 |
| 100°-110° | 71.4 | 2.3 |
| 110°-120° | 47.7 | 1.5 |
| 120°-130° | 27.2 | 0.9 |
| 130°-140° | 12.2 | 0.4 |
| 140°-150° | 2.5 | 0.1 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 706.6 | 22.9 |
| 0°-40° | 1149.8 | 37.3 |
| 0°-60° | 2048.8 | 66.4 |
| 0°-90° | 2826.9 | 91.6 |
| 90°-120° | 216.3 | 7.0 |
| 90°-150° | 258.3 | 8.4 |
| 90°-180° | 258.0 | 8.4 |
| 0°-180° | 3085.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0° | 918 | 918 | 918 | 918 | 918 | |
| 5° | 919 | 917 | 911 | 919 | 918 | 87 |
| 15° | 875 | 878 | 877 | 887 | 886 | 246 |
| 25° | 790 | 800 | 803 | 816 | 816 | 364 |
| 35° | 680 | 696 | 709 | 724 | 728 | 425 |
| 45° | 556 | 580 | 605 | 624 | 632 | 429 |
| 55° | 424 | 457 | 493 | 520 | 528 | 380 |
| 65° | 293 | 332 | 376 | 406 | 416 | 290 |
| 75° | 159 | 206 | 256 | 289 | 301 | 170 |
| 85° | 49 | 99 | 152 | 186 | 196 | 50 |
| 90° | 13 | 62 | 113 | 147 | 157 | 9 |
| 95° | 11 | 50 | 99 | 130 | 140 | 9 |
| 105° | 8 | 32 | 75 | 103 | 112 | 8 |
| 115° | 5 | 17 | 53 | 77 | 85 | 5 |
| 125° | 3 | 3 | 32 | 53 | 60 | 3 |
| 135° | 2 | 1 | 12 | 30 | 35 | 2 |
| 145° | 1 | 0 | 0 | 8 | 12 | 0 |
| 155° | 0 | 0 | 0 | 0 | 0 | 0 |
| 165° | 0 | 0 | 0 | 0 | 0 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P333957

CATALOG NUMBER: S123DW-S775D835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|-----|-------|-----|
| 0° | 918 | 918 | 918 | 918 | 918 |
| 2.5° | 923 | 920 | 912 | 920 | 919 |
| 5° | 919 | 917 | 911 | 919 | 918 |
| 7.5° | 912 | 912 | 906 | 916 | 915 |
| 10° | 902 | 904 | 899 | 909 | 907 |
| 12.5° | 890 | 893 | 890 | 899 | 897 |
| 15° | 875 | 878 | 877 | 887 | 886 |
| 17.5° | 857 | 863 | 862 | 871 | 869 |
| 20° | 837 | 843 | 845 | 854 | 855 |
| 22.5° | 816 | 822 | 825 | 837 | 836 |
| 25° | 790 | 800 | 803 | 816 | 816 |
| 27.5° | 765 | 776 | 782 | 793 | 794 |
| 30° | 738 | 751 | 759 | 771 | 771 |
| 32.5° | 708 | 723 | 734 | 747 | 750 |
| 35° | 680 | 696 | 709 | 724 | 728 |
| 37.5° | 650 | 668 | 683 | 700 | 703 |
| 40° | 620 | 638 | 658 | 675 | 679 |
| 42.5° | 587 | 610 | 631 | 650 | 656 |
| 45° | 556 | 580 | 605 | 624 | 632 |
| 47.5° | 523 | 550 | 578 | 599 | 605 |
| 50° | 491 | 519 | 550 | 573 | 580 |
| 52.5° | 457 | 487 | 522 | 546 | 555 |
| 55° | 424 | 457 | 493 | 520 | 528 |
| 57.5° | 392 | 426 | 465 | 492 | 501 |
| 60° | 358 | 394 | 435 | 463 | 474 |
| 62.5° | 326 | 363 | 407 | 435 | 445 |
| 65° | 293 | 332 | 376 | 406 | 416 |
| 67.5° | 260 | 301 | 345 | 378 | 386 |
| 70° | 225 | 268 | 316 | 348 | 358 |
| 72.5° | 193 | 236 | 286 | 319 | 329 |
| 75° | 159 | 206 | 256 | 289 | 301 |
| 77.5° | 130 | 177 | 227 | 262 | 271 |
| 80° | 99 | 148 | 200 | 234 | 244 |
| 82.5° | 72 | 122 | 175 | 209 | 219 |
| 85° | 49 | 99 | 152 | 186 | 196 |
| 87.5° | 30 | 80 | 131 | 165 | 175 |
| 90° | 13 | 62 | 113 | 147 | 157 |
| 92.5° | 12 | 55 | 105 | 138 | 147 |
| 95° | 11 | 50 | 99 | 130 | 140 |
| 97.5° | 10 | 46 | 93 | 123 | 133 |
| 100° | 9 | 41 | 87 | 116 | 126 |
| 102.5° | 8 | 36 | 81 | 109 | 119 |
| 105° | 8 | 32 | 75 | 103 | 112 |
| 107.5° | 7 | 28 | 69 | 96 | 105 |
| 110° | 6 | 24 | 64 | 90 | 98 |



TEST NUMBER: P333957

CATALOG NUMBER: S123DW-S775D835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|----|-------|-----|-------|-----|
| 112.5° | 6 | 20 | 58 | 83 | 92 |
| 115° | 5 | 17 | 53 | 77 | 85 |
| 117.5° | 5 | 13 | 47 | 71 | 79 |
| 120° | 4 | 9 | 42 | 65 | 72 |
| 122.5° | 4 | 6 | 37 | 59 | 66 |
| 125° | 3 | 3 | 32 | 53 | 60 |
| 127.5° | 3 | 2 | 27 | 47 | 54 |
| 130° | 3 | 2 | 22 | 41 | 47 |
| 132.5° | 2 | 2 | 17 | 35 | 42 |
| 135° | 2 | 1 | 12 | 30 | 35 |
| 137.5° | 2 | 1 | 8 | 24 | 29 |
| 140° | 1 | 1 | 4 | 19 | 24 |
| 142.5° | 1 | 0 | 0 | 13 | 18 |
| 145° | 1 | 0 | 0 | 8 | 12 |
| 147.5° | 0 | 0 | 0 | 3 | 7 |
| 150° | 0 | 0 | 0 | 0 | 2 |
| 152.5° | 0 | 0 | 0 | 0 | 0 |
| 155° | 0 | 0 | 0 | 0 | 0 |
| 157.5° | 0 | 0 | 0 | 0 | 0 |
| 160° | 0 | 0 | 0 | 0 | 0 |
| 162.5° | 0 | 0 | 0 | 0 | 0 |
| 165° | 0 | 0 | 0 | 0 | 0 |
| 167.5° | 0 | 0 | 0 | 0 | 0 |
| 170° | 0 | 0 | 0 | 0 | 0 |
| 172.5° | 0 | 0 | 0 | 0 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 |
| 177.5° | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 |

(END OF REPORT)