

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: P333952

Luminaire Tested: **S123DS-S775D830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333952
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: S123DS-S775D830-4F0-1E-UDD-D
Description: DEFINE 3 DIRECT LED LUMINAIRE, DROP SATIN WHITE DIFFUSER
PENDANT/SURFACE/WALL MOUNT, 775 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2907.9 lumens
Efficiency: N/A
Efficacy: 110.6 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

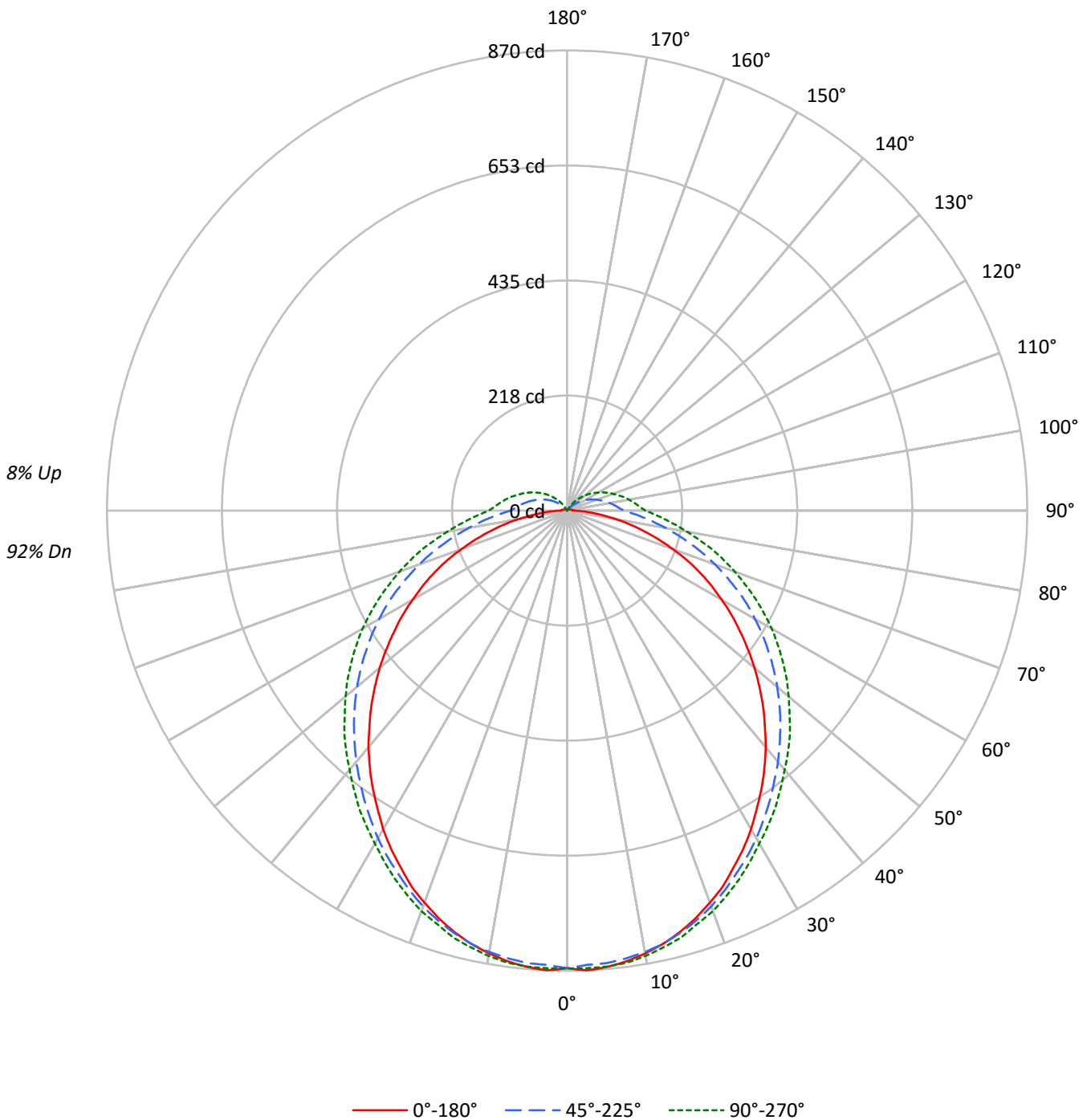
Input Watts (W): 26.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P333952

CATALOG NUMBER: S123DS-S775D830-4F0-1E-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° | 9314 | 9314 | 9314 |
| 5° | 9359 | 9278 | 9350 |
| 10° | 9293 | 9261 | 9344 |
| 15° | 9190 | 9211 | 9306 |
| 20° | 9037 | 9123 | 9231 |
| 25° | 8843 | 8989 | 9134 |
| 30° | 8646 | 8892 | 9032 |
| 35° | 8422 | 8782 | 9017 |
| 40° | 8212 | 8715 | 8993 |
| 45° | 7978 | 8680 | 9068 |
| 50° | 7750 | 8681 | 9155 |
| 55° | 7499 | 8721 | 9340 |
| 60° | 7263 | 8826 | 9619 |
| 65° | 7035 | 9026 | 9987 |
| 70° | 6675 | 9372 | 10619 |
| 75° | 6234 | 10035 | 11799 |
| 80° | 5783 | 11685 | 14257 |
| 85° | 5706 | 17698 | 22811 |



TEST NUMBER: P333952

CATALOG NUMBER: S123DS-S775D830-4F0-1E-UDD-D

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 82.1 | 2.8 |
| 10°-20° | 234.0 | 8.0 |
| 20°-30° | 349.9 | 12.0 |
| 30°-40° | 417.8 | 14.4 |
| 40°-50° | 437.1 | 15.0 |
| 50°-60° | 410.2 | 14.1 |
| 60°-70° | 342.6 | 11.8 |
| 70°-80° | 245.0 | 8.4 |
| 80°-90° | 145.8 | 5.0 |
| 90°-100° | 91.6 | 3.2 |
| 100°-110° | 67.3 | 2.3 |
| 110°-120° | 45.0 | 1.5 |
| 120°-130° | 25.7 | 0.9 |
| 130°-140° | 11.5 | 0.4 |
| 140°-150° | 2.4 | 0.1 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 666.0 | 22.9 |
| 0°-40° | 1083.8 | 37.3 |
| 0°-60° | 1931.1 | 66.4 |
| 0°-90° | 2664.5 | 91.6 |
| 90°-120° | 203.9 | 7.0 |
| 90°-150° | 243.5 | 8.4 |
| 90°-180° | 243.0 | 8.4 |
| 0°-180° | 2907.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0° | 865 | 865 | 865 | 865 | 865 | |
| 5° | 866 | 864 | 859 | 866 | 865 | 82 |
| 15° | 825 | 828 | 827 | 836 | 835 | 232 |
| 25° | 745 | 754 | 757 | 769 | 769 | 343 |
| 35° | 641 | 656 | 668 | 682 | 686 | 401 |
| 45° | 524 | 547 | 570 | 588 | 596 | 404 |
| 55° | 400 | 431 | 465 | 490 | 498 | 358 |
| 65° | 276 | 313 | 354 | 383 | 392 | 273 |
| 75° | 150 | 194 | 241 | 272 | 284 | 160 |
| 85° | 46 | 93 | 143 | 175 | 185 | 48 |
| 90° | 12 | 58 | 106 | 139 | 148 | 9 |
| 95° | 10 | 47 | 93 | 122 | 132 | 8 |
| 105° | 8 | 30 | 71 | 97 | 106 | 8 |
| 115° | 5 | 16 | 50 | 73 | 80 | 5 |
| 125° | 3 | 3 | 30 | 50 | 57 | 3 |
| 135° | 2 | 1 | 11 | 28 | 33 | 1 |
| 145° | 1 | 0 | 0 | 8 | 11 | 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: P333952

CATALOG NUMBER: S123DS-S775D830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 0° | 865.3 | 865.3 | 865.3 | 865.3 | 865.3 |
| 2.5° | 870.0 | 867.1 | 859.6 | 867.1 | 866.2 |
| 5° | 866.2 | 864.3 | 858.7 | 866.2 | 865.3 |
| 7.5° | 859.6 | 859.6 | 853.9 | 863.4 | 862.4 |
| 10° | 850.2 | 852.1 | 847.3 | 856.8 | 854.9 |
| 12.5° | 838.9 | 841.7 | 838.9 | 847.3 | 845.5 |
| 15° | 824.7 | 827.6 | 826.6 | 836.0 | 835.1 |
| 17.5° | 807.8 | 813.4 | 812.5 | 821.0 | 819.1 |
| 20° | 788.9 | 794.6 | 796.4 | 804.9 | 805.9 |
| 22.5° | 769.1 | 774.8 | 777.6 | 788.9 | 788.0 |
| 25° | 744.6 | 754.0 | 756.9 | 769.1 | 769.1 |
| 27.5° | 721.0 | 731.4 | 737.1 | 747.4 | 748.4 |
| 30° | 695.6 | 707.8 | 715.4 | 726.7 | 726.7 |
| 32.5° | 667.3 | 681.5 | 691.8 | 704.1 | 706.9 |
| 35° | 640.9 | 656.0 | 668.3 | 682.4 | 686.2 |
| 37.5° | 612.7 | 629.6 | 643.8 | 659.8 | 662.6 |
| 40° | 584.4 | 601.3 | 620.2 | 636.2 | 640.0 |
| 42.5° | 553.3 | 575.0 | 594.7 | 612.7 | 618.3 |
| 45° | 524.1 | 546.7 | 570.2 | 588.1 | 595.7 |
| 47.5° | 492.9 | 518.4 | 544.8 | 564.6 | 570.2 |
| 50° | 462.8 | 489.2 | 518.4 | 540.1 | 546.7 |
| 52.5° | 430.7 | 459.0 | 492.0 | 514.6 | 523.1 |
| 55° | 399.6 | 430.7 | 464.7 | 490.1 | 497.7 |
| 57.5° | 369.5 | 401.5 | 438.3 | 463.7 | 472.2 |
| 60° | 337.4 | 371.4 | 410.0 | 436.4 | 446.8 |
| 62.5° | 307.3 | 342.1 | 383.6 | 410.0 | 419.4 |
| 65° | 276.2 | 312.9 | 354.4 | 382.7 | 392.1 |
| 67.5° | 245.1 | 283.7 | 325.2 | 356.3 | 363.8 |
| 70° | 212.1 | 252.6 | 297.8 | 328.0 | 337.4 |
| 72.5° | 181.9 | 222.4 | 269.6 | 300.7 | 310.1 |
| 75° | 149.9 | 194.2 | 241.3 | 272.4 | 283.7 |
| 77.5° | 122.5 | 166.8 | 214.0 | 246.9 | 255.4 |
| 80° | 93.3 | 139.5 | 188.5 | 220.6 | 230.0 |
| 82.5° | 67.9 | 115.0 | 164.9 | 197.0 | 206.4 |
| 85° | 46.2 | 93.3 | 143.3 | 175.3 | 184.7 |
| 87.5° | 28.3 | 75.4 | 123.5 | 155.5 | 164.9 |
| 90° | 12.3 | 58.4 | 106.5 | 138.6 | 148.0 |
| 92.5° | 11.3 | 51.8 | 99.0 | 130.1 | 138.6 |
| 95° | 10.4 | 47.1 | 93.3 | 122.5 | 132.0 |
| 97.5° | 9.4 | 43.4 | 87.7 | 115.9 | 125.4 |
| 100° | 8.5 | 38.6 | 82.0 | 109.3 | 118.8 |
| 102.5° | 7.5 | 33.9 | 76.3 | 102.7 | 112.2 |
| 105° | 7.5 | 30.2 | 70.7 | 97.1 | 105.6 |
| 107.5° | 6.6 | 26.4 | 65.0 | 90.5 | 99.0 |
| 110° | 5.7 | 22.6 | 60.3 | 84.8 | 92.4 |



TEST NUMBER: P333952

CATALOG NUMBER: S123DS-S775D830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|------|-------|------|
| 112.5° | 5.7 | 18.9 | 54.7 | 78.2 | 86.7 |
| 115° | 4.7 | 16.0 | 50.0 | 72.6 | 80.1 |
| 117.5° | 4.7 | 12.3 | 44.3 | 66.9 | 74.5 |
| 120° | 3.8 | 8.5 | 39.6 | 61.3 | 67.9 |
| 122.5° | 3.8 | 5.7 | 34.9 | 55.6 | 62.2 |
| 125° | 2.8 | 2.8 | 30.2 | 50.0 | 56.6 |
| 127.5° | 2.8 | 1.9 | 25.4 | 44.3 | 50.9 |
| 130° | 2.8 | 1.9 | 20.7 | 38.6 | 44.3 |
| 132.5° | 1.9 | 1.9 | 16.0 | 33.0 | 39.6 |
| 135° | 1.9 | 0.9 | 11.3 | 28.3 | 33.0 |
| 137.5° | 1.9 | 0.9 | 7.5 | 22.6 | 27.3 |
| 140° | 0.9 | 0.9 | 3.8 | 17.9 | 22.6 |
| 142.5° | 0.9 | 0.0 | 0.0 | 12.3 | 17.0 |
| 145° | 0.9 | 0.0 | 0.0 | 7.5 | 11.3 |
| 147.5° | 0.0 | 0.0 | 0.0 | 2.8 | 6.6 |
| 150° | 0.0 | 0.0 | 0.0 | 0.0 | 1.9 |
| 152.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 155° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 157.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 160° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 162.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 165° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 167.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 170° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 172.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 175° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 177.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)