

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: P333776

Luminaire Tested: **S122DW-S485D830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333776
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-14)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DW-S485D830-4F0-1E-UDD-D
Description: DEFINE 2 DIRECT LED LUMINAIRE, DROP SATIN WHITE DIFFUSER
PENDANT/SURFACE/WALL MOUNT, 485 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1781.8 lumens
Efficiency: N/A
Efficacy: 94.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

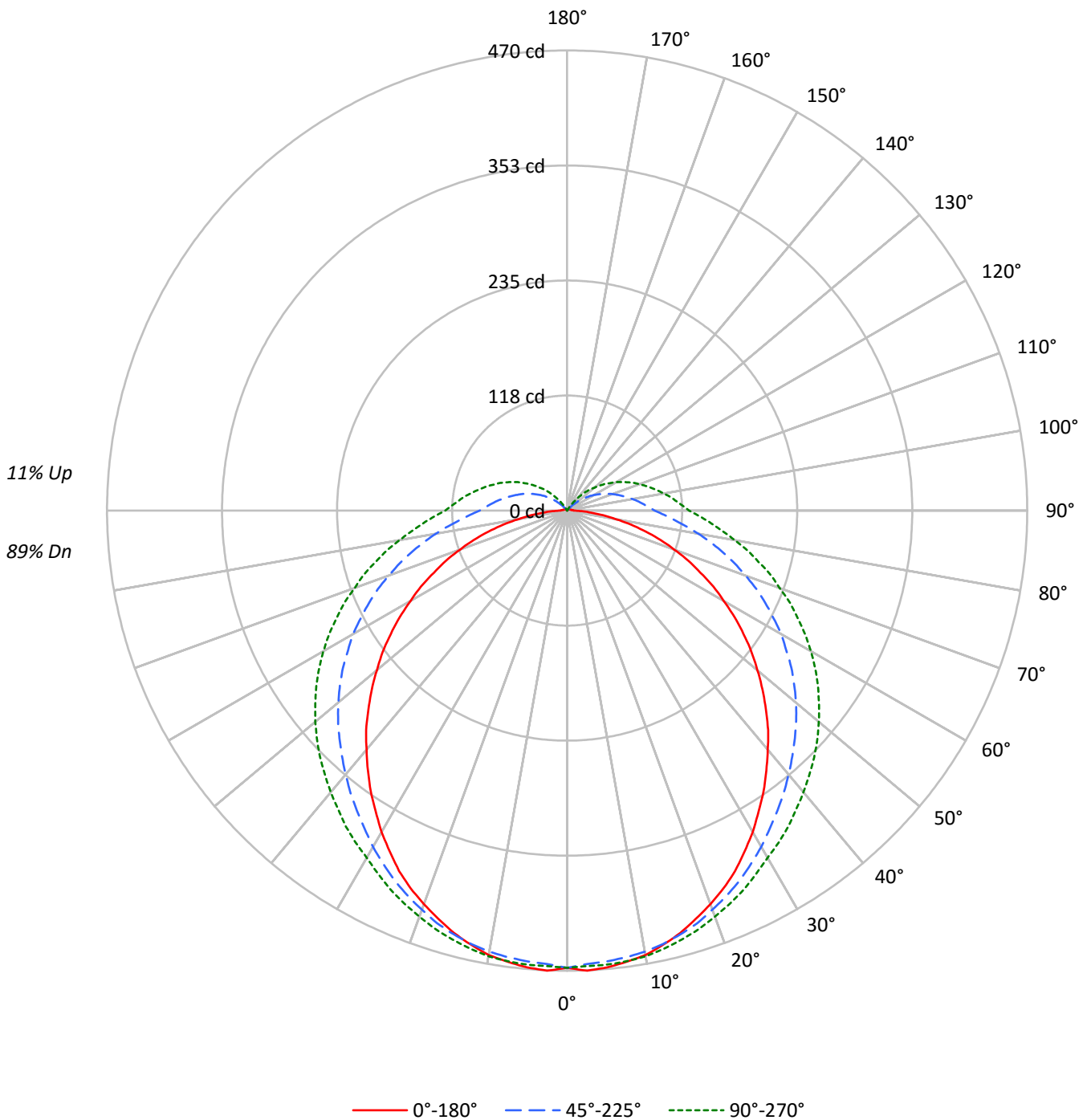
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333776

CATALOG NUMBER: S122DW-S485D830-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P333776

CATALOG NUMBER: S122DW-S485D830-4F0-1E-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 | 116 | 116 | 116 | 116 | 112 | 112 | 112 | 112 | 105 | 105 | 105 | 98 | 98 | 98 | 92 | 92 | 92 | 89 |
| 1 | 104 | 98 | 93 | 88 | 100 | 95 | 90 | 86 | 88 | 85 | 81 | 82 | 79 | 77 | 77 | 75 | 72 | 69 |
| 2 | 94 | 84 | 77 | 70 | 90 | 81 | 74 | 68 | 76 | 70 | 65 | 71 | 66 | 62 | 66 | 62 | 59 | 56 |
| 3 | 85 | 73 | 64 | 57 | 81 | 71 | 63 | 56 | 66 | 59 | 54 | 62 | 56 | 51 | 58 | 53 | 49 | 46 |
| 4 | 77 | 64 | 55 | 48 | 74 | 62 | 54 | 47 | 58 | 51 | 45 | 55 | 48 | 43 | 51 | 46 | 42 | 39 |
| 5 | 71 | 57 | 48 | 41 | 68 | 56 | 47 | 40 | 52 | 44 | 39 | 49 | 42 | 37 | 46 | 40 | 36 | 33 |
| 6 | 65 | 51 | 42 | 35 | 63 | 50 | 41 | 35 | 47 | 39 | 34 | 44 | 37 | 32 | 42 | 36 | 31 | 29 |
| 7 | 60 | 46 | 37 | 31 | 58 | 45 | 37 | 31 | 43 | 35 | 30 | 40 | 34 | 29 | 38 | 32 | 28 | 25 |
| 8 | 56 | 42 | 34 | 28 | 54 | 41 | 33 | 27 | 39 | 32 | 26 | 37 | 30 | 25 | 35 | 29 | 25 | 23 |
| 9 | 52 | 39 | 30 | 25 | 50 | 38 | 30 | 24 | 36 | 29 | 24 | 34 | 27 | 23 | 32 | 26 | 22 | 20 |
| 10 | 49 | 36 | 28 | 22 | 47 | 35 | 27 | 22 | 33 | 26 | 21 | 31 | 25 | 21 | 30 | 24 | 20 | 18 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|-------|-------|
| 0° | 7540 | 7540 | 7540 |
| 5° | 7590 | 7491 | 7546 |
| 10° | 7556 | 7501 | 7578 |
| 15° | 7467 | 7489 | 7579 |
| 20° | 7349 | 7454 | 7582 |
| 25° | 7235 | 7427 | 7607 |
| 30° | 7066 | 7394 | 7633 |
| 35° | 6897 | 7378 | 7764 |
| 40° | 6719 | 7417 | 7916 |
| 45° | 6553 | 7510 | 8145 |
| 50° | 6375 | 7666 | 8432 |
| 55° | 6193 | 7868 | 8802 |
| 60° | 5968 | 8150 | 9287 |
| 65° | 5738 | 8531 | 9929 |
| 70° | 5495 | 9139 | 10895 |
| 75° | 5190 | 10262 | 12626 |
| 80° | 4723 | 12645 | 16169 |
| 85° | 4520 | 20304 | 27325 |



TEST NUMBER: P333776

CATALOG NUMBER: S122DW-S485D830-4F0-1E-UDD-D

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 44.3 | 2.5 |
| 10°-20° | 127.0 | 7.1 |
| 20°-30° | 192.4 | 10.8 |
| 30°-40° | 234.3 | 13.1 |
| 40°-50° | 252.0 | 14.1 |
| 50°-60° | 244.8 | 13.7 |
| 60°-70° | 213.8 | 12.0 |
| 70°-80° | 164.5 | 9.2 |
| 80°-90° | 110.2 | 6.2 |
| 90°-100° | 76.0 | 4.3 |
| 100°-110° | 55.5 | 3.1 |
| 110°-120° | 36.7 | 2.1 |
| 120°-130° | 20.4 | 1.1 |
| 130°-140° | 8.6 | 0.5 |
| 140°-150° | 1.4 | 0.1 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 363.6 | 20.4 |
| 0°-40° | 597.9 | 33.6 |
| 0°-60° | 1094.7 | 61.4 |
| 0°-90° | 1583.2 | 88.9 |
| 90°-120° | 168.2 | 9.4 |
| 90°-150° | 198.6 | 11.1 |
| 90°-180° | 199.0 | 11.2 |
| 0°-180° | 1781.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0° | 467 | 467 | 467 | 467 | 467 | |
| 5° | 468 | 466 | 462 | 466 | 466 | 44 |
| 15° | 447 | 448 | 448 | 454 | 453 | 126 |
| 25° | 406 | 411 | 417 | 425 | 427 | 187 |
| 35° | 350 | 361 | 374 | 389 | 394 | 219 |
| 45° | 287 | 305 | 329 | 350 | 357 | 222 |
| 55° | 220 | 244 | 280 | 304 | 313 | 197 |
| 65° | 150 | 183 | 223 | 251 | 260 | 149 |
| 75° | 83 | 121 | 164 | 194 | 202 | 88 |
| 85° | 24 | 66 | 110 | 138 | 148 | 26 |
| 90° | 7 | 46 | 89 | 116 | 124 | 5 |
| 95° | 5 | 37 | 78 | 104 | 112 | 4 |
| 105° | 3 | 23 | 58 | 82 | 89 | 4 |
| 115° | 3 | 10 | 41 | 61 | 68 | 2 |
| 125° | 1 | 1 | 23 | 41 | 47 | 1 |
| 135° | 1 | 1 | 7 | 22 | 27 | 1 |
| 145° | 0 | 0 | 0 | 4 | 7 | 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: P333776

CATALOG NUMBER: S122DW-S485D830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 0° | 467.0 | 467.0 | 467.0 | 467.0 | 467.0 |
| 2.5° | 470.4 | 468.3 | 463.6 | 467.0 | 465.6 |
| 5° | 468.3 | 466.3 | 462.2 | 466.3 | 465.6 |
| 7.5° | 464.9 | 463.6 | 460.2 | 464.9 | 464.3 |
| 10° | 460.9 | 459.5 | 457.5 | 462.9 | 462.2 |
| 12.5° | 454.1 | 454.8 | 453.4 | 458.9 | 458.2 |
| 15° | 446.7 | 448.0 | 448.0 | 454.1 | 453.4 |
| 17.5° | 437.2 | 439.9 | 441.9 | 448.0 | 448.0 |
| 20° | 427.7 | 431.1 | 433.8 | 441.3 | 441.3 |
| 22.5° | 417.6 | 421.6 | 425.7 | 433.1 | 434.5 |
| 25° | 406.1 | 410.8 | 416.9 | 425.0 | 427.0 |
| 27.5° | 392.5 | 400.0 | 406.7 | 416.9 | 418.2 |
| 30° | 379.0 | 387.8 | 396.6 | 407.4 | 409.4 |
| 32.5° | 364.1 | 374.3 | 385.1 | 397.9 | 402.0 |
| 35° | 349.9 | 361.4 | 374.3 | 389.1 | 393.9 |
| 37.5° | 334.3 | 347.2 | 363.4 | 379.7 | 384.4 |
| 40° | 318.8 | 333.6 | 351.9 | 369.5 | 375.6 |
| 42.5° | 303.9 | 318.8 | 340.4 | 360.0 | 366.1 |
| 45° | 287.0 | 305.2 | 328.9 | 349.9 | 356.7 |
| 47.5° | 270.7 | 290.3 | 317.4 | 339.1 | 346.5 |
| 50° | 253.8 | 274.8 | 305.2 | 328.2 | 335.7 |
| 52.5° | 237.5 | 259.9 | 292.4 | 316.1 | 324.2 |
| 55° | 220.0 | 244.3 | 279.5 | 303.9 | 312.7 |
| 57.5° | 203.0 | 230.1 | 265.3 | 291.7 | 300.5 |
| 60° | 184.8 | 213.9 | 252.4 | 278.2 | 287.6 |
| 62.5° | 168.5 | 199.0 | 237.5 | 265.3 | 274.1 |
| 65° | 150.2 | 183.4 | 223.3 | 251.1 | 259.9 |
| 67.5° | 134.0 | 168.5 | 209.1 | 236.9 | 246.3 |
| 70° | 116.4 | 151.6 | 193.6 | 222.7 | 230.8 |
| 72.5° | 100.2 | 136.7 | 179.3 | 207.8 | 217.9 |
| 75° | 83.2 | 121.1 | 164.5 | 193.6 | 202.4 |
| 77.5° | 67.0 | 106.3 | 150.2 | 179.3 | 188.8 |
| 80° | 50.8 | 92.0 | 136.0 | 164.5 | 173.9 |
| 82.5° | 37.2 | 77.8 | 122.5 | 150.9 | 159.7 |
| 85° | 24.4 | 66.3 | 109.6 | 138.1 | 147.5 |
| 87.5° | 14.9 | 55.5 | 98.8 | 126.6 | 135.4 |
| 90° | 6.8 | 46.0 | 89.3 | 116.4 | 124.5 |
| 92.5° | 6.1 | 42.0 | 83.2 | 109.6 | 117.8 |
| 95° | 5.4 | 37.2 | 77.8 | 103.5 | 111.7 |
| 97.5° | 4.7 | 33.8 | 73.1 | 98.1 | 106.3 |
| 100° | 4.7 | 29.8 | 67.7 | 92.7 | 100.2 |
| 102.5° | 4.1 | 26.4 | 62.9 | 87.3 | 94.7 |
| 105° | 3.4 | 23.0 | 58.2 | 81.9 | 89.3 |
| 107.5° | 3.4 | 19.6 | 53.5 | 76.5 | 83.9 |
| 110° | 2.7 | 16.2 | 49.4 | 71.1 | 78.5 |



TEST NUMBER: P333776

CATALOG NUMBER: S122DW-S485D830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|------|-------|------|
| 112.5° | 2.7 | 13.5 | 44.7 | 66.3 | 73.8 |
| 115° | 2.7 | 10.2 | 40.6 | 60.9 | 68.4 |
| 117.5° | 2.0 | 7.4 | 35.9 | 56.2 | 62.9 |
| 120° | 2.0 | 4.7 | 31.8 | 50.8 | 58.2 |
| 122.5° | 2.0 | 2.7 | 27.7 | 46.0 | 52.1 |
| 125° | 1.4 | 1.4 | 23.0 | 41.3 | 47.4 |
| 127.5° | 1.4 | 0.7 | 18.9 | 35.9 | 42.0 |
| 130° | 1.4 | 0.7 | 14.9 | 31.1 | 36.5 |
| 132.5° | 1.4 | 0.7 | 10.8 | 26.4 | 31.8 |
| 135° | 0.7 | 0.7 | 7.4 | 21.7 | 27.1 |
| 137.5° | 0.7 | 0.7 | 4.1 | 16.9 | 21.7 |
| 140° | 0.7 | 0.0 | 1.4 | 12.2 | 16.2 |
| 142.5° | 0.7 | 0.0 | 0.0 | 8.1 | 11.5 |
| 145° | 0.0 | 0.0 | 0.0 | 4.1 | 7.4 |
| 147.5° | 0.0 | 0.0 | 0.0 | 0.7 | 2.7 |
| 150° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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)