

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: P333791

Luminaire Tested: **S122DP-S485D927-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333791
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: S122DP-S485D927-4F0-1E-UDD-D
Description: DEFINE 2 DIRECT LED LUMINAIRE, DROP SATIN WHITE DIFFUSER
PENDANT/SURFACE/WALL MOUNT, 485 LUMENS PER FOOT
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1497.5 lumens
Efficiency: N/A
Efficacy: 79.7 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

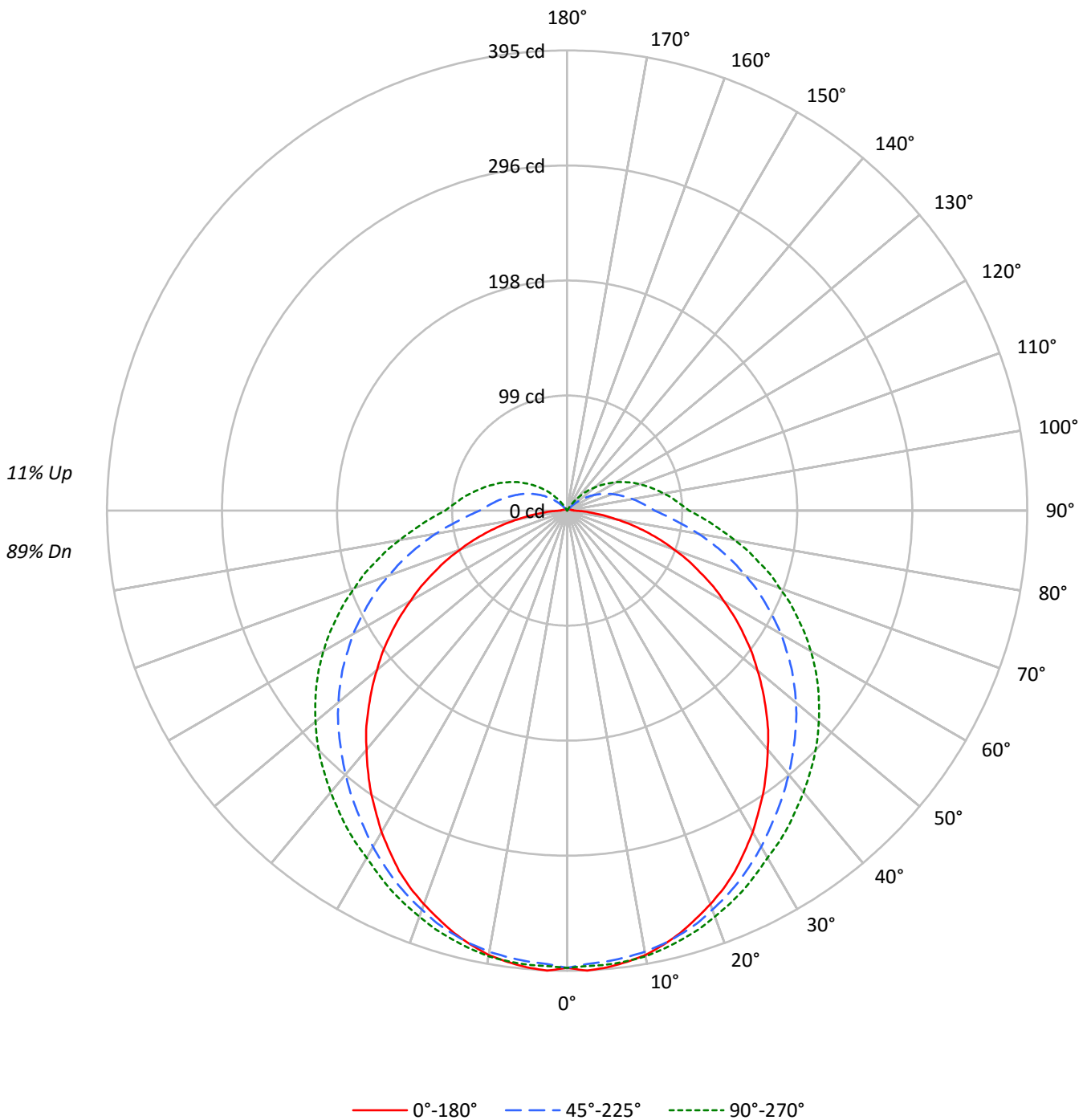
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333791

CATALOG NUMBER: S122DP-S485D927-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P333791

CATALOG NUMBER: S122DP-S485D927-4F0-1E-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° | 6337 | 6337 | 6337 |
| 5° | 6379 | 6297 | 6342 |
| 10° | 6351 | 6304 | 6369 |
| 15° | 6275 | 6295 | 6370 |
| 20° | 6177 | 6265 | 6373 |
| 25° | 6080 | 6242 | 6394 |
| 30° | 5938 | 6214 | 6415 |
| 35° | 5797 | 6201 | 6524 |
| 40° | 5647 | 6235 | 6654 |
| 45° | 5507 | 6311 | 6846 |
| 50° | 5358 | 6443 | 7086 |
| 55° | 5205 | 6612 | 7398 |
| 60° | 5015 | 6852 | 7805 |
| 65° | 4825 | 7171 | 8344 |
| 70° | 4617 | 7681 | 9158 |
| 75° | 4367 | 8621 | 10611 |
| 80° | 3970 | 10628 | 13594 |
| 85° | 3798 | 17062 | 22971 |



TEST NUMBER: P333791

CATALOG NUMBER: S122DP-S485D927-4F0-1E-UDD-D

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 37.2 | 2.5 |
| 10°-20° | 106.7 | 7.1 |
| 20°-30° | 161.7 | 10.8 |
| 30°-40° | 196.9 | 13.1 |
| 40°-50° | 211.8 | 14.1 |
| 50°-60° | 205.7 | 13.7 |
| 60°-70° | 179.7 | 12.0 |
| 70°-80° | 138.3 | 9.2 |
| 80°-90° | 92.6 | 6.2 |
| 90°-100° | 63.9 | 4.3 |
| 100°-110° | 46.7 | 3.1 |
| 110°-120° | 30.8 | 2.1 |
| 120°-130° | 17.2 | 1.1 |
| 130°-140° | 7.2 | 0.5 |
| 140°-150° | 1.2 | 0.1 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 305.6 | 20.4 |
| 0°-40° | 502.5 | 33.6 |
| 0°-60° | 920.1 | 61.4 |
| 0°-90° | 1330.6 | 88.9 |
| 90°-120° | 141.3 | 9.4 |
| 90°-150° | 166.9 | 11.1 |
| 90°-180° | 167.0 | 11.2 |
| 0°-180° | 1497.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0° | 392 | 392 | 392 | 392 | 392 | |
| 5° | 394 | 392 | 388 | 392 | 391 | 37 |
| 15° | 375 | 377 | 377 | 382 | 381 | 106 |
| 25° | 341 | 345 | 350 | 357 | 359 | 157 |
| 35° | 294 | 304 | 315 | 327 | 331 | 184 |
| 45° | 241 | 256 | 276 | 294 | 300 | 186 |
| 55° | 185 | 205 | 235 | 255 | 263 | 165 |
| 65° | 126 | 154 | 188 | 211 | 218 | 125 |
| 75° | 70 | 102 | 138 | 163 | 170 | 74 |
| 85° | 20 | 56 | 92 | 116 | 124 | 22 |
| 90° | 6 | 39 | 75 | 98 | 105 | 4 |
| 95° | 5 | 31 | 65 | 87 | 94 | 4 |
| 105° | 3 | 19 | 49 | 69 | 75 | 3 |
| 115° | 2 | 8 | 34 | 51 | 57 | 2 |
| 125° | 1 | 1 | 19 | 35 | 40 | 1 |
| 135° | 1 | 1 | 6 | 18 | 23 | 1 |
| 145° | 0 | 0 | 0 | 3 | 6 | 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: P333791

CATALOG NUMBER: S122DP-S485D927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 0° | 392.5 | 392.5 | 392.5 | 392.5 | 392.5 |
| 2.5° | 395.3 | 393.6 | 389.6 | 392.5 | 391.3 |
| 5° | 393.6 | 391.9 | 388.5 | 391.9 | 391.3 |
| 7.5° | 390.8 | 389.6 | 386.8 | 390.8 | 390.2 |
| 10° | 387.4 | 386.2 | 384.5 | 389.1 | 388.5 |
| 12.5° | 381.7 | 382.2 | 381.1 | 385.7 | 385.1 |
| 15° | 375.4 | 376.6 | 376.6 | 381.7 | 381.1 |
| 17.5° | 367.4 | 369.7 | 371.4 | 376.6 | 376.6 |
| 20° | 359.5 | 362.3 | 364.6 | 370.9 | 370.9 |
| 22.5° | 351.0 | 354.4 | 357.8 | 364.0 | 365.2 |
| 25° | 341.3 | 345.3 | 350.4 | 357.2 | 358.9 |
| 27.5° | 329.9 | 336.2 | 341.9 | 350.4 | 351.5 |
| 30° | 318.5 | 325.9 | 333.3 | 342.4 | 344.1 |
| 32.5° | 306.0 | 314.6 | 323.7 | 334.5 | 337.9 |
| 35° | 294.1 | 303.7 | 314.6 | 327.1 | 331.0 |
| 37.5° | 281.0 | 291.8 | 305.4 | 319.1 | 323.1 |
| 40° | 267.9 | 280.4 | 295.8 | 310.6 | 315.7 |
| 42.5° | 255.4 | 267.9 | 286.1 | 302.6 | 307.7 |
| 45° | 241.2 | 256.5 | 276.4 | 294.1 | 299.8 |
| 47.5° | 227.5 | 244.0 | 266.8 | 285.0 | 291.2 |
| 50° | 213.3 | 230.9 | 256.5 | 275.9 | 282.1 |
| 52.5° | 199.7 | 218.4 | 245.7 | 265.6 | 272.5 |
| 55° | 184.9 | 205.3 | 234.9 | 255.4 | 262.8 |
| 57.5° | 170.6 | 193.4 | 223.0 | 245.2 | 252.6 |
| 60° | 155.3 | 179.7 | 212.2 | 233.8 | 241.7 |
| 62.5° | 141.6 | 167.2 | 199.7 | 223.0 | 230.4 |
| 65° | 126.3 | 154.1 | 187.7 | 211.0 | 218.4 |
| 67.5° | 112.6 | 141.6 | 175.8 | 199.1 | 207.0 |
| 70° | 97.8 | 127.4 | 162.7 | 187.1 | 194.0 |
| 72.5° | 84.2 | 114.9 | 150.7 | 174.6 | 183.2 |
| 75° | 70.0 | 101.8 | 138.2 | 162.7 | 170.1 |
| 77.5° | 56.3 | 89.3 | 126.3 | 150.7 | 158.7 |
| 80° | 42.7 | 77.4 | 114.3 | 138.2 | 146.2 |
| 82.5° | 31.3 | 65.4 | 103.0 | 126.8 | 134.2 |
| 85° | 20.5 | 55.7 | 92.1 | 116.0 | 124.0 |
| 87.5° | 12.5 | 46.6 | 83.0 | 106.4 | 113.8 |
| 90° | 5.7 | 38.7 | 75.1 | 97.8 | 104.7 |
| 92.5° | 5.1 | 35.3 | 70.0 | 92.1 | 99.0 |
| 95° | 4.6 | 31.3 | 65.4 | 87.0 | 93.9 |
| 97.5° | 4.0 | 28.4 | 61.4 | 82.5 | 89.3 |
| 100° | 4.0 | 25.0 | 56.9 | 77.9 | 84.2 |
| 102.5° | 3.4 | 22.2 | 52.9 | 73.4 | 79.6 |
| 105° | 2.8 | 19.3 | 48.9 | 68.8 | 75.1 |
| 107.5° | 2.8 | 16.5 | 44.9 | 64.3 | 70.5 |
| 110° | 2.3 | 13.7 | 41.5 | 59.7 | 66.0 |



TEST NUMBER: P333791

CATALOG NUMBER: S122DP-S485D927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|------|-------|------|
| 112.5° | 2.3 | 11.4 | 37.5 | 55.7 | 62.0 |
| 115° | 2.3 | 8.5 | 34.1 | 51.2 | 57.4 |
| 117.5° | 1.7 | 6.3 | 30.1 | 47.2 | 52.9 |
| 120° | 1.7 | 4.0 | 26.7 | 42.7 | 48.9 |
| 122.5° | 1.7 | 2.3 | 23.3 | 38.7 | 43.8 |
| 125° | 1.1 | 1.1 | 19.3 | 34.7 | 39.8 |
| 127.5° | 1.1 | 0.6 | 15.9 | 30.1 | 35.3 |
| 130° | 1.1 | 0.6 | 12.5 | 26.2 | 30.7 |
| 132.5° | 1.1 | 0.6 | 9.1 | 22.2 | 26.7 |
| 135° | 0.6 | 0.6 | 6.3 | 18.2 | 22.8 |
| 137.5° | 0.6 | 0.6 | 3.4 | 14.2 | 18.2 |
| 140° | 0.6 | 0.0 | 1.1 | 10.2 | 13.7 |
| 142.5° | 0.6 | 0.0 | 0.0 | 6.8 | 9.7 |
| 145° | 0.0 | 0.0 | 0.0 | 3.4 | 6.3 |
| 147.5° | 0.0 | 0.0 | 0.0 | 0.6 | 2.3 |
| 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)