

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: P334088

Luminaire Tested: **S123RDS-S1000D940-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P334088
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-25)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123RDS-S1000D940-4F0-1E-UDD-F
Description: DEFINE 3 REGRESSED DIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER
PENDANT/SURFACE/WALL MOUNT, 1000 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3167.6 lumens
Efficiency: N/A
Efficacy: 91.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.07 / 1.22
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

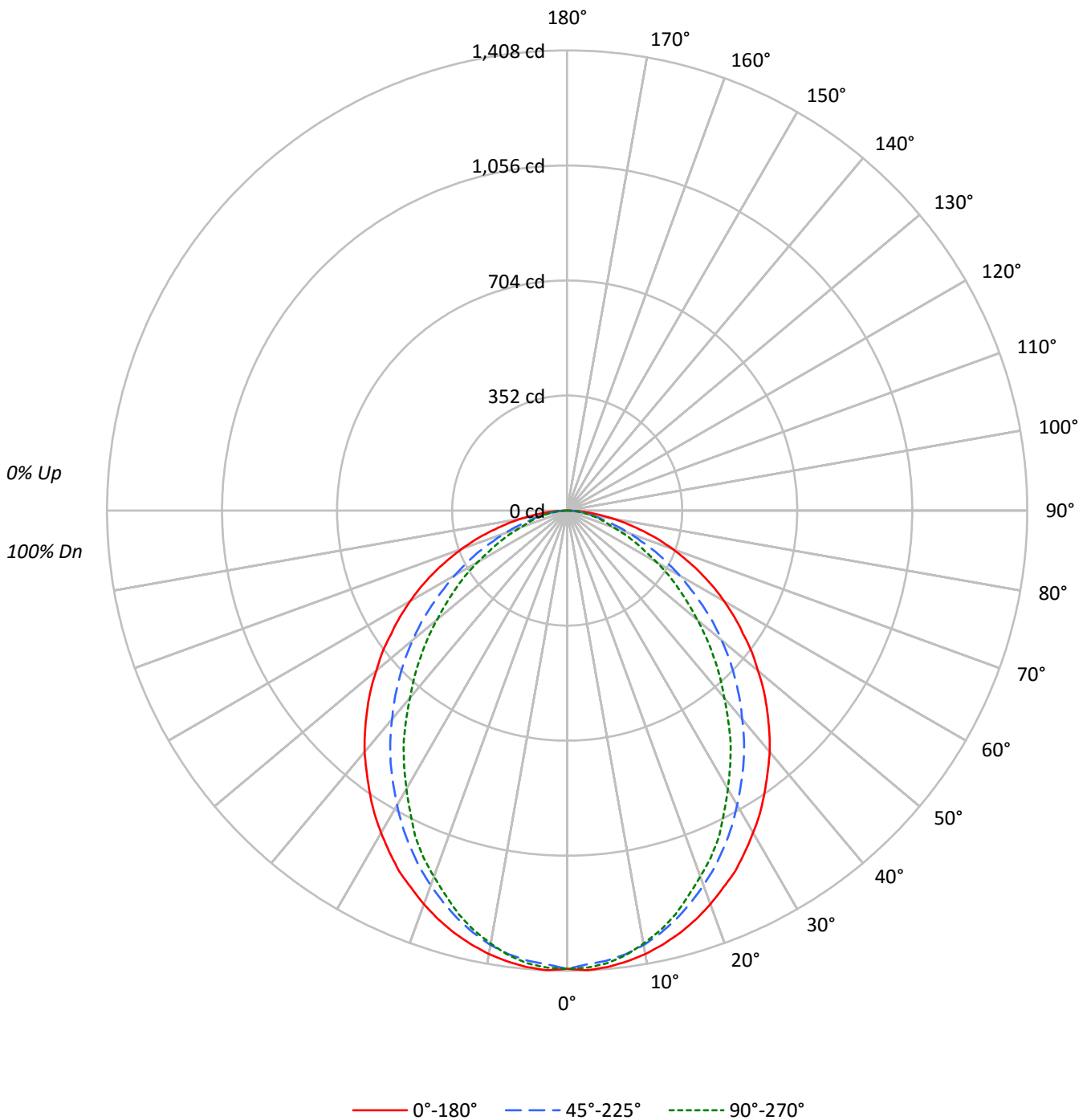
Input Watts (W): 34.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P334088

CATALOG NUMBER: S123RDS-S1000D940-4F0-1E-UDD-F

Luminous Intensity Polar Plot





TEST NUMBER: P334088

CATALOG NUMBER: S123RDS-S1000D940-4F0-1E-UDD-F

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 | 110 | 105 | 101 | 98 | 107 | 103 | 99 | 96 | 99 | 96 | 93 | 95 | 93 | 90 | 91 | 89 | 88 | 86 |
| 2 | 100 | 93 | 86 | 81 | 98 | 91 | 85 | 80 | 87 | 83 | 78 | 84 | 80 | 77 | 81 | 78 | 75 | 73 |
| 3 | 92 | 82 | 75 | 68 | 90 | 81 | 74 | 68 | 78 | 72 | 67 | 75 | 70 | 66 | 73 | 68 | 64 | 62 |
| 4 | 85 | 73 | 65 | 59 | 83 | 72 | 64 | 58 | 70 | 63 | 58 | 67 | 62 | 57 | 65 | 60 | 56 | 54 |
| 5 | 78 | 66 | 57 | 51 | 76 | 65 | 57 | 51 | 63 | 56 | 50 | 61 | 55 | 50 | 59 | 54 | 49 | 47 |
| 6 | 73 | 60 | 51 | 45 | 71 | 59 | 51 | 45 | 57 | 50 | 45 | 55 | 49 | 44 | 54 | 48 | 44 | 42 |
| 7 | 67 | 54 | 46 | 40 | 66 | 54 | 46 | 40 | 52 | 45 | 40 | 51 | 44 | 39 | 49 | 44 | 39 | 37 |
| 8 | 63 | 50 | 42 | 36 | 61 | 49 | 41 | 36 | 48 | 41 | 36 | 47 | 40 | 36 | 46 | 40 | 35 | 34 |
| 9 | 59 | 46 | 38 | 33 | 58 | 45 | 38 | 33 | 44 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | 30 |
| 10 | 55 | 43 | 35 | 30 | 54 | 42 | 35 | 30 | 41 | 34 | 30 | 40 | 34 | 29 | 39 | 34 | 29 | 28 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 15092 | 15092 | 15092 |
| 5° | 15150 | 14941 | 15027 |
| 10° | 15064 | 14753 | 14704 |
| 15° | 14902 | 14408 | 14256 |
| 20° | 14680 | 13977 | 13651 |
| 25° | 14452 | 13492 | 13060 |
| 30° | 14148 | 12932 | 12225 |
| 35° | 13837 | 12373 | 11461 |
| 40° | 13550 | 11712 | 10513 |
| 45° | 13174 | 11061 | 9659 |
| 50° | 12759 | 10320 | 8703 |
| 55° | 12335 | 9475 | 7811 |
| 60° | 11946 | 8568 | 6831 |
| 65° | 11441 | 7587 | 5850 |
| 70° | 10807 | 6370 | 4724 |
| 75° | 9886 | 5011 | 4446 |
| 80° | 8808 | 4438 | 4091 |
| 85° | 7447 | 3927 | 3656 |



TEST NUMBER: P334088

CATALOG NUMBER: S123RDS-S1000D940-4F0-1E-UDD-F

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 131.8 | 4.2 |
| 10°-20° | 366.7 | 11.6 |
| 20°-30° | 527.9 | 16.7 |
| 30°-40° | 594.5 | 18.8 |
| 40°-50° | 568.7 | 18.0 |
| 50°-60° | 465.5 | 14.7 |
| 60°-70° | 313.9 | 9.9 |
| 70°-80° | 157.4 | 5.0 |
| 80°-90° | 41.2 | 1.3 |
| 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° | 1026.4 | 32.4 |
| 0°-40° | 1620.9 | 51.2 |
| 0°-60° | 2655.2 | 83.8 |
| 0°-90° | 3167.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3167.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1402 | 1402 | 1402 | 1402 | 1402 | |
| 5° | 1402 | 1396 | 1383 | 1393 | 1391 | 133 |
| 15° | 1337 | 1325 | 1293 | 1287 | 1279 | 377 |
| 25° | 1217 | 1188 | 1136 | 1112 | 1100 | 560 |
| 35° | 1053 | 1012 | 942 | 893 | 872 | 659 |
| 45° | 865 | 814 | 727 | 662 | 634 | 668 |
| 55° | 657 | 602 | 505 | 439 | 416 | 589 |
| 65° | 449 | 387 | 298 | 242 | 230 | 445 |
| 75° | 238 | 183 | 120 | 109 | 107 | 253 |
| 85° | 60 | 35 | 32 | 30 | 30 | 70 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P334088

CATALOG NUMBER: S123RDS-S1000D940-4F0-1E-UDD-F

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1402.1 | 1402.1 | 1402.1 | 1402.1 | 1402.1 |
| 2.5° | 1407.8 | 1403.2 | 1389.6 | 1402.1 | 1399.8 |
| 5° | 1402.1 | 1396.4 | 1382.8 | 1393.0 | 1390.7 |
| 7.5° | 1391.9 | 1386.2 | 1369.1 | 1376.0 | 1372.5 |
| 10° | 1378.2 | 1370.3 | 1349.8 | 1350.9 | 1345.3 |
| 12.5° | 1358.9 | 1349.8 | 1323.6 | 1322.5 | 1315.7 |
| 15° | 1337.3 | 1324.8 | 1292.9 | 1287.3 | 1279.3 |
| 17.5° | 1311.1 | 1297.5 | 1257.7 | 1246.3 | 1234.9 |
| 20° | 1281.6 | 1263.4 | 1220.2 | 1205.4 | 1191.7 |
| 22.5° | 1248.6 | 1227.0 | 1180.4 | 1161.0 | 1148.5 |
| 25° | 1216.8 | 1188.3 | 1136.0 | 1112.1 | 1099.6 |
| 27.5° | 1178.1 | 1147.4 | 1090.5 | 1058.7 | 1039.4 |
| 30° | 1138.3 | 1104.2 | 1040.5 | 1001.8 | 983.6 |
| 32.5° | 1098.5 | 1058.7 | 990.5 | 947.2 | 927.9 |
| 35° | 1053.0 | 1012.1 | 941.6 | 892.7 | 872.2 |
| 37.5° | 1007.5 | 963.2 | 889.3 | 834.7 | 809.7 |
| 40° | 964.3 | 914.3 | 833.5 | 774.4 | 748.2 |
| 42.5° | 915.4 | 865.4 | 781.2 | 715.3 | 692.5 |
| 45° | 865.4 | 814.2 | 726.6 | 661.8 | 634.5 |
| 47.5° | 816.5 | 759.6 | 673.2 | 602.7 | 578.8 |
| 50° | 761.9 | 708.4 | 616.3 | 545.8 | 519.7 |
| 52.5° | 713.0 | 653.9 | 562.9 | 489.0 | 466.2 |
| 55° | 657.3 | 601.6 | 504.9 | 438.9 | 416.2 |
| 57.5° | 607.2 | 547.0 | 449.2 | 386.6 | 367.3 |
| 60° | 554.9 | 492.4 | 398.0 | 336.6 | 317.3 |
| 62.5° | 502.6 | 440.1 | 345.7 | 288.8 | 268.4 |
| 65° | 449.2 | 386.6 | 297.9 | 242.2 | 229.7 |
| 67.5° | 395.7 | 332.0 | 245.6 | 203.6 | 189.9 |
| 70° | 343.4 | 282.0 | 202.4 | 162.6 | 150.1 |
| 72.5° | 291.1 | 230.8 | 160.3 | 129.6 | 126.2 |
| 75° | 237.7 | 183.1 | 120.5 | 109.2 | 106.9 |
| 77.5° | 188.8 | 138.7 | 94.4 | 87.6 | 85.3 |
| 80° | 142.1 | 95.5 | 71.6 | 68.2 | 66.0 |
| 82.5° | 97.8 | 59.1 | 51.2 | 47.8 | 47.8 |
| 85° | 60.3 | 35.3 | 31.8 | 29.6 | 29.6 |
| 87.5° | 27.3 | 14.8 | 14.8 | 13.6 | 12.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)