

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: P242627

Luminaire Tested: **S124DR-S1195D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242627
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-5)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DR-S1195D940-X4F0-XX-UDD-F-W
Description: DEFINE 4 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4233.3 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')
CIE Type: Direct

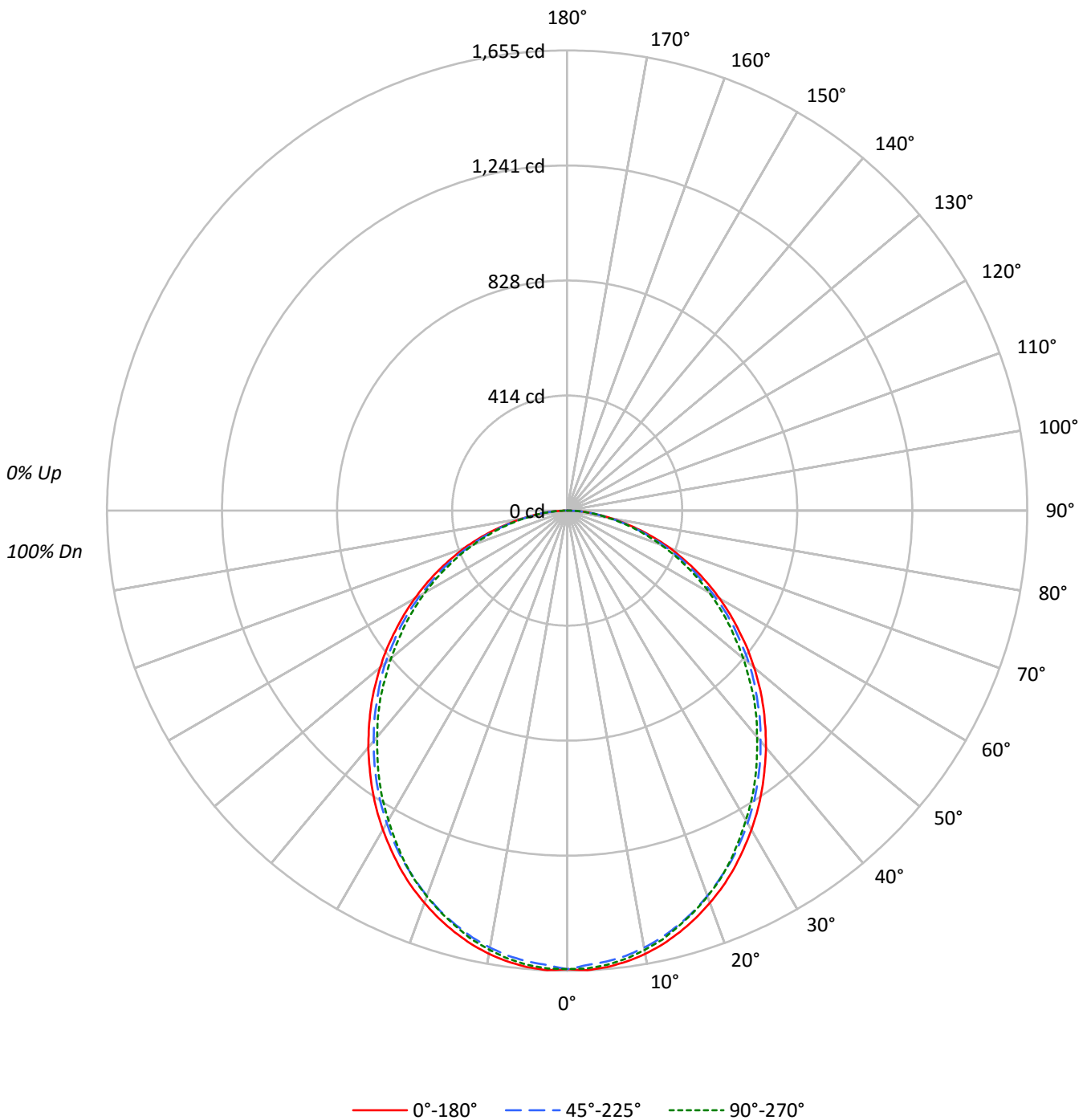
Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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 | 109 | 104 | 100 | 96 | 106 | 102 | 98 | 95 | 98 | 95 | 92 | 94 | 91 | 89 | 90 | 88 | 86 | 84 |
| 2 | 99 | 91 | 84 | 79 | 97 | 89 | 83 | 78 | 86 | 80 | 76 | 82 | 78 | 74 | 79 | 76 | 73 | 70 |
| 3 | 91 | 80 | 72 | 66 | 88 | 79 | 71 | 65 | 76 | 69 | 64 | 73 | 67 | 63 | 70 | 66 | 62 | 60 |
| 4 | 83 | 71 | 63 | 56 | 81 | 70 | 62 | 56 | 67 | 60 | 55 | 65 | 59 | 54 | 63 | 58 | 53 | 51 |
| 5 | 77 | 64 | 55 | 48 | 74 | 63 | 54 | 48 | 61 | 53 | 48 | 59 | 52 | 47 | 57 | 51 | 47 | 44 |
| 6 | 71 | 58 | 49 | 42 | 69 | 57 | 48 | 42 | 55 | 47 | 42 | 53 | 47 | 41 | 52 | 46 | 41 | 39 |
| 7 | 66 | 52 | 44 | 38 | 64 | 52 | 43 | 37 | 50 | 43 | 37 | 49 | 42 | 37 | 47 | 41 | 37 | 35 |
| 8 | 61 | 48 | 39 | 34 | 60 | 47 | 39 | 34 | 46 | 39 | 33 | 45 | 38 | 33 | 43 | 37 | 33 | 31 |
| 9 | 57 | 44 | 36 | 30 | 56 | 43 | 36 | 30 | 42 | 35 | 30 | 41 | 35 | 30 | 40 | 34 | 30 | 28 |
| 10 | 54 | 41 | 33 | 28 | 52 | 40 | 33 | 28 | 39 | 32 | 27 | 38 | 32 | 27 | 37 | 31 | 27 | 25 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 14660 | 14660 | 14660 |
| 5° | 14705 | 14528 | 14634 |
| 10° | 14612 | 14410 | 14481 |
| 15° | 14436 | 14205 | 14242 |
| 20° | 14201 | 13952 | 13964 |
| 25° | 13934 | 13662 | 13623 |
| 30° | 13606 | 13321 | 13199 |
| 35° | 13266 | 12964 | 12793 |
| 40° | 12913 | 12560 | 12330 |
| 45° | 12543 | 12161 | 11928 |
| 50° | 12135 | 11806 | 11440 |
| 55° | 11694 | 11347 | 10978 |
| 60° | 11253 | 10832 | 10501 |
| 65° | 10758 | 10340 | 9923 |
| 70° | 10201 | 9686 | 9307 |
| 75° | 9348 | 8895 | 8668 |
| 80° | 8323 | 7980 | 7781 |
| 85° | 7282 | 7007 | 6874 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 155.5 | 3.7 |
| 10°-20° | 438.0 | 10.3 |
| 20°-30° | 644.6 | 15.2 |
| 30°-40° | 749.3 | 17.7 |
| 40°-50° | 749.2 | 17.7 |
| 50°-60° | 655.3 | 15.5 |
| 60°-70° | 486.5 | 11.5 |
| 70°-80° | 276.0 | 6.5 |
| 80°-90° | 79.0 | 1.9 |
| 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° | 1238.0 | 29.2 |
| 0°-40° | 1987.3 | 46.9 |
| 0°-60° | 3391.8 | 80.1 |
| 0°-90° | 4233.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4233.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1649 | 1649 | 1649 | 1649 | 1649 | |
| 5° | 1648 | 1643 | 1628 | 1643 | 1640 | 156 |
| 15° | 1569 | 1563 | 1544 | 1552 | 1548 | 442 |
| 25° | 1421 | 1412 | 1393 | 1394 | 1389 | 654 |
| 35° | 1222 | 1213 | 1195 | 1186 | 1179 | 764 |
| 45° | 998 | 988 | 967 | 953 | 949 | 769 |
| 55° | 755 | 751 | 732 | 716 | 708 | 676 |
| 65° | 512 | 505 | 492 | 478 | 472 | 506 |
| 75° | 272 | 266 | 259 | 254 | 252 | 289 |
| 85° | 71 | 71 | 69 | 69 | 67 | 81 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P242627

CATALOG NUMBER: S124DR-S1195D940-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1649.3 | 1649.3 | 1649.3 | 1649.3 | 1649.3 |
| 2.5° | 1654.6 | 1650.7 | 1636.1 | 1649.3 | 1648.0 |
| 5° | 1648.0 | 1642.7 | 1628.2 | 1642.7 | 1640.1 |
| 7.5° | 1636.1 | 1630.8 | 1615.0 | 1626.9 | 1625.6 |
| 10° | 1618.9 | 1613.7 | 1596.5 | 1607.0 | 1604.4 |
| 12.5° | 1596.5 | 1591.2 | 1572.7 | 1584.6 | 1580.6 |
| 15° | 1568.7 | 1563.4 | 1543.6 | 1551.5 | 1547.6 |
| 17.5° | 1537.0 | 1530.4 | 1511.9 | 1517.2 | 1514.5 |
| 20° | 1501.3 | 1494.7 | 1474.9 | 1478.9 | 1476.2 |
| 22.5° | 1463.0 | 1453.7 | 1433.9 | 1441.9 | 1436.6 |
| 25° | 1420.7 | 1411.5 | 1393.0 | 1394.3 | 1389.0 |
| 27.5° | 1373.1 | 1363.9 | 1346.7 | 1344.1 | 1337.4 |
| 30° | 1325.6 | 1315.0 | 1297.8 | 1292.5 | 1285.9 |
| 32.5° | 1275.3 | 1266.1 | 1247.6 | 1241.0 | 1234.4 |
| 35° | 1222.5 | 1213.2 | 1194.7 | 1185.5 | 1178.9 |
| 37.5° | 1167.0 | 1159.0 | 1139.2 | 1130.0 | 1120.7 |
| 40° | 1112.8 | 1102.2 | 1082.4 | 1069.2 | 1062.6 |
| 42.5° | 1054.6 | 1049.3 | 1026.9 | 1011.0 | 1007.0 |
| 45° | 997.8 | 988.5 | 967.4 | 952.9 | 948.9 |
| 47.5° | 938.3 | 931.7 | 911.9 | 896.0 | 885.5 |
| 50° | 877.5 | 872.2 | 853.7 | 835.2 | 827.3 |
| 52.5° | 818.1 | 811.5 | 791.6 | 775.8 | 765.2 |
| 55° | 754.6 | 750.7 | 732.2 | 716.3 | 708.4 |
| 57.5° | 695.2 | 691.2 | 672.7 | 656.8 | 648.9 |
| 60° | 633.0 | 626.4 | 609.3 | 597.4 | 590.7 |
| 62.5° | 572.2 | 567.0 | 548.5 | 537.9 | 531.3 |
| 65° | 511.5 | 504.8 | 491.6 | 478.4 | 471.8 |
| 67.5° | 449.3 | 444.1 | 430.8 | 417.6 | 416.3 |
| 70° | 392.5 | 383.3 | 372.7 | 362.1 | 358.1 |
| 72.5° | 331.7 | 322.5 | 314.5 | 306.6 | 302.6 |
| 75° | 272.2 | 265.6 | 259.0 | 253.7 | 252.4 |
| 77.5° | 214.1 | 211.5 | 204.8 | 203.5 | 199.6 |
| 80° | 162.6 | 158.6 | 155.9 | 153.3 | 152.0 |
| 82.5° | 112.3 | 111.0 | 111.0 | 109.7 | 108.4 |
| 85° | 71.4 | 71.4 | 68.7 | 68.7 | 67.4 |
| 87.5° | 34.4 | 33.0 | 31.7 | 31.7 | 31.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)