

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: P243634

Luminaire Tested: **S125DR-H1090D830-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243634
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-51)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DR-H1090D830-X4F0-XX-UDD-F-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3993.0 lumens
Efficiency: N/A
Efficacy: 126.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

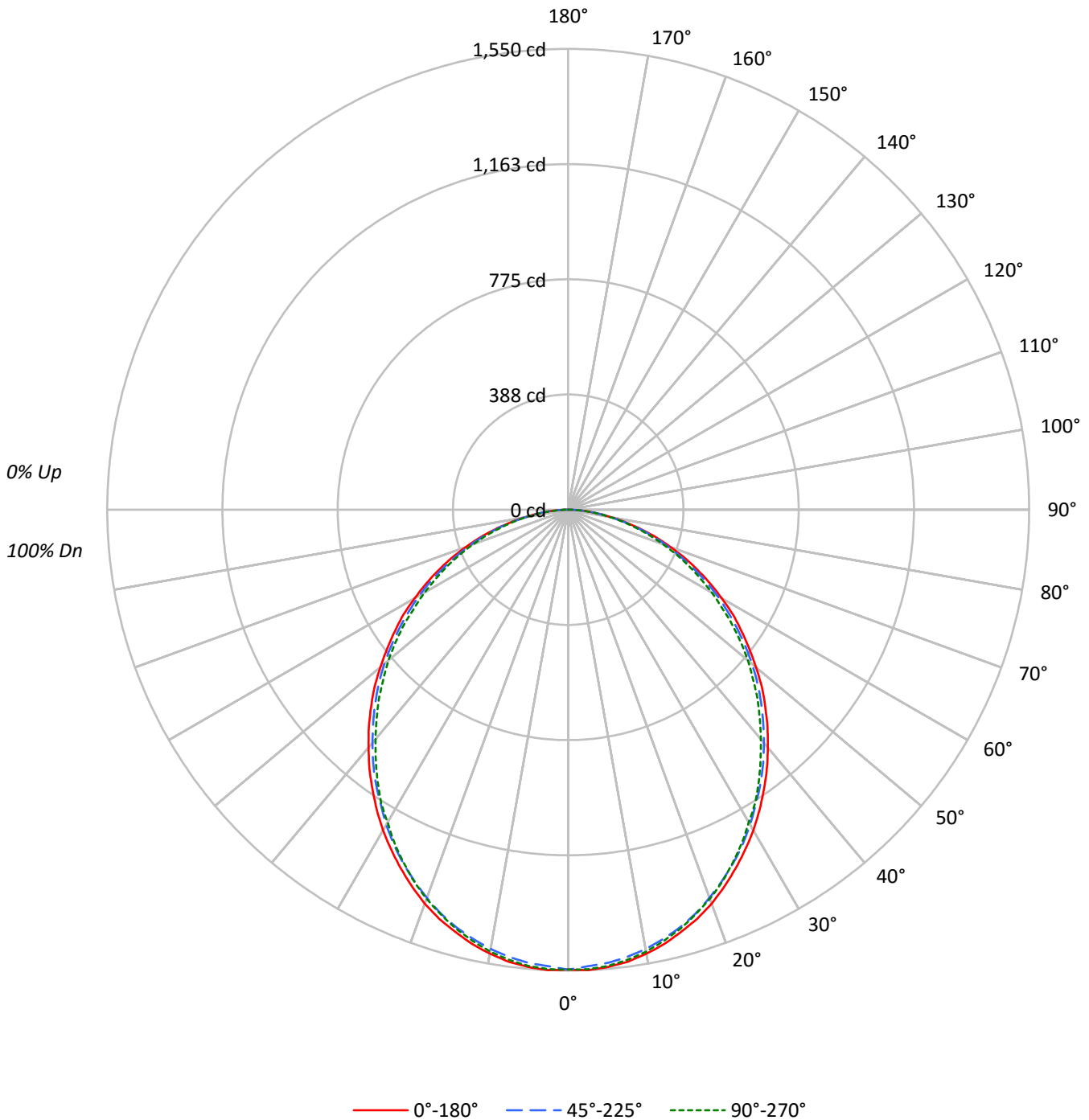
Input Watts (W): 31.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 46 | 41 | 52 | 46 | 41 | 39 |
| 7 | 66 | 52 | 44 | 38 | 64 | 51 | 43 | 37 | 50 | 43 | 37 | 49 | 42 | 37 | 47 | 41 | 37 | 35 |
| 8 | 61 | 48 | 39 | 34 | 60 | 47 | 39 | 33 | 46 | 38 | 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 | 27 | 39 | 32 | 27 | 38 | 32 | 27 | 37 | 31 | 27 | 25 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 10994 | 10994 | 10994 |
| 5° | 11012 | 10915 | 10988 |
| 10° | 10942 | 10828 | 10893 |
| 15° | 10814 | 10697 | 10731 |
| 20° | 10661 | 10506 | 10532 |
| 25° | 10440 | 10289 | 10271 |
| 30° | 10218 | 10040 | 9966 |
| 35° | 9955 | 9778 | 9690 |
| 40° | 9687 | 9498 | 9350 |
| 45° | 9422 | 9217 | 9046 |
| 50° | 9110 | 8922 | 8722 |
| 55° | 8804 | 8565 | 8339 |
| 60° | 8469 | 8227 | 7937 |
| 65° | 8074 | 7786 | 7521 |
| 70° | 7570 | 7288 | 7051 |
| 75° | 6981 | 6764 | 6451 |
| 80° | 6086 | 6037 | 5898 |
| 85° | 5276 | 5276 | 4999 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 145.9 | 3.7 |
| 10°-20° | 411.8 | 10.3 |
| 20°-30° | 607.1 | 15.2 |
| 30°-40° | 707.0 | 17.7 |
| 40°-50° | 708.4 | 17.7 |
| 50°-60° | 619.3 | 15.5 |
| 60°-70° | 459.6 | 11.5 |
| 70°-80° | 260.7 | 6.5 |
| 80°-90° | 73.1 | 1.8 |
| 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° | 1164.8 | 29.2 |
| 0°-40° | 1871.8 | 46.9 |
| 0°-60° | 3199.6 | 80.1 |
| 0°-90° | 3993.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3993.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1547 | 1547 | 1547 | 1547 | 1547 | |
| 5° | 1544 | 1541 | 1530 | 1541 | 1540 | 146 |
| 15° | 1470 | 1467 | 1454 | 1462 | 1458 | 415 |
| 25° | 1331 | 1327 | 1312 | 1315 | 1310 | 613 |
| 35° | 1147 | 1141 | 1127 | 1120 | 1117 | 718 |
| 45° | 937 | 935 | 917 | 903 | 900 | 723 |
| 55° | 710 | 709 | 691 | 676 | 673 | 636 |
| 65° | 480 | 477 | 463 | 453 | 447 | 476 |
| 75° | 254 | 250 | 246 | 242 | 235 | 269 |
| 85° | 65 | 65 | 65 | 62 | 61 | 75 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1546.9 | 1546.9 | 1546.9 | 1546.9 | 1546.9 |
| 2.5° | 1550.3 | 1548.0 | 1536.7 | 1548.0 | 1546.9 |
| 5° | 1543.5 | 1541.2 | 1529.9 | 1541.2 | 1540.1 |
| 7.5° | 1533.3 | 1529.9 | 1517.4 | 1528.7 | 1526.5 |
| 10° | 1516.2 | 1514.0 | 1500.4 | 1509.4 | 1509.4 |
| 12.5° | 1495.8 | 1492.4 | 1478.8 | 1486.7 | 1485.6 |
| 15° | 1469.7 | 1467.4 | 1453.8 | 1461.8 | 1458.4 |
| 17.5° | 1442.5 | 1436.8 | 1424.3 | 1431.1 | 1426.6 |
| 20° | 1409.6 | 1405.0 | 1389.1 | 1394.8 | 1392.5 |
| 22.5° | 1372.1 | 1366.4 | 1351.7 | 1355.1 | 1354.0 |
| 25° | 1331.3 | 1326.7 | 1312.0 | 1315.4 | 1309.7 |
| 27.5° | 1289.3 | 1283.6 | 1270.0 | 1270.0 | 1264.3 |
| 30° | 1245.0 | 1239.3 | 1223.4 | 1223.4 | 1214.4 |
| 32.5° | 1197.3 | 1192.8 | 1173.5 | 1172.4 | 1170.1 |
| 35° | 1147.4 | 1140.6 | 1127.0 | 1120.2 | 1116.8 |
| 37.5° | 1097.5 | 1091.8 | 1077.0 | 1068.0 | 1062.3 |
| 40° | 1044.1 | 1040.7 | 1023.7 | 1015.8 | 1007.8 |
| 42.5° | 991.9 | 988.5 | 970.4 | 956.7 | 953.3 |
| 45° | 937.4 | 935.2 | 917.0 | 903.4 | 900.0 |
| 47.5° | 883.0 | 880.7 | 862.5 | 847.8 | 842.1 |
| 50° | 823.9 | 823.9 | 806.9 | 792.2 | 788.8 |
| 52.5° | 767.2 | 766.1 | 749.0 | 734.3 | 730.9 |
| 55° | 710.5 | 709.3 | 691.2 | 676.4 | 673.0 |
| 57.5° | 657.1 | 650.3 | 634.4 | 623.1 | 611.7 |
| 60° | 595.8 | 592.4 | 578.8 | 564.1 | 558.4 |
| 62.5° | 539.1 | 534.5 | 520.9 | 508.4 | 500.5 |
| 65° | 480.1 | 476.7 | 463.0 | 452.8 | 447.2 |
| 67.5° | 424.5 | 419.9 | 406.3 | 398.4 | 393.8 |
| 70° | 364.3 | 360.9 | 350.7 | 340.5 | 339.3 |
| 72.5° | 311.0 | 306.4 | 300.8 | 291.7 | 287.1 |
| 75° | 254.2 | 249.7 | 246.3 | 241.7 | 234.9 |
| 77.5° | 199.7 | 197.5 | 195.2 | 191.8 | 188.4 |
| 80° | 148.7 | 148.7 | 147.5 | 145.3 | 144.1 |
| 82.5° | 105.5 | 106.7 | 103.3 | 101.0 | 101.0 |
| 85° | 64.7 | 64.7 | 64.7 | 62.4 | 61.3 |
| 87.5° | 31.8 | 28.4 | 28.4 | 26.1 | 26.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)