

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: P243243

Luminaire Tested: **S122RDR-H485D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243243
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-63)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122RDR-H485D940-X4F0-XX-UDD-F-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1413.1 lumens
Efficiency: N/A
Efficacy: 82.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

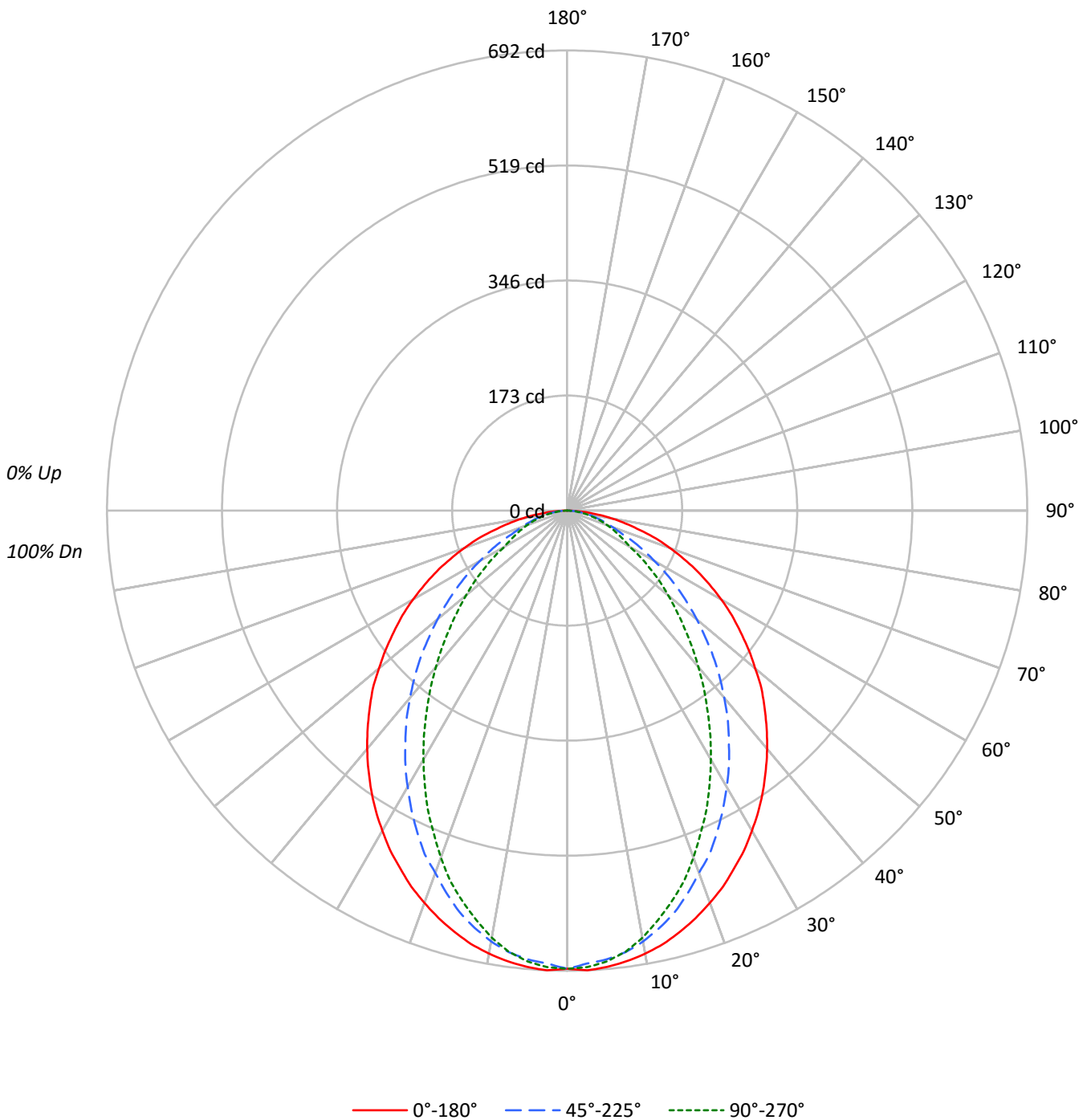
Input Watts (W): 17.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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 | 100 | 100 | 100 | 100 | 100 | 100 | | |
| 1 | 110 | 106 | 102 | 98 | 107 | 103 | 100 | 97 | 99 | 96 | 94 | 95 | 93 | 91 | 92 | 90 | 88 | 86 | 86 | 86 | 86 | 86 | 86 | 86 | | |
| 2 | 101 | 94 | 87 | 82 | 98 | 92 | 86 | 81 | 88 | 83 | 79 | 85 | 81 | 77 | 82 | 79 | 76 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | | |
| 3 | 93 | 83 | 76 | 70 | 90 | 82 | 75 | 69 | 79 | 73 | 68 | 76 | 71 | 67 | 74 | 69 | 66 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | | |
| 4 | 86 | 75 | 66 | 60 | 83 | 73 | 66 | 60 | 71 | 64 | 59 | 69 | 63 | 58 | 66 | 62 | 57 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | | |
| 5 | 79 | 67 | 59 | 53 | 77 | 66 | 58 | 52 | 64 | 57 | 52 | 62 | 56 | 51 | 60 | 55 | 51 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | | |
| 6 | 74 | 61 | 53 | 47 | 72 | 60 | 52 | 46 | 58 | 51 | 46 | 57 | 50 | 46 | 55 | 50 | 45 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | | |
| 7 | 68 | 56 | 47 | 42 | 67 | 55 | 47 | 42 | 53 | 46 | 41 | 52 | 46 | 41 | 51 | 45 | 41 | 39 | 39 | 39 | 39 | 39 | 39 | 39 | | |
| 8 | 64 | 51 | 43 | 38 | 62 | 51 | 43 | 37 | 49 | 42 | 37 | 48 | 42 | 37 | 47 | 41 | 37 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | | |
| 9 | 60 | 47 | 39 | 34 | 59 | 47 | 39 | 34 | 46 | 39 | 34 | 44 | 38 | 34 | 44 | 38 | 34 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | | |
| 10 | 56 | 44 | 36 | 31 | 55 | 43 | 36 | 31 | 42 | 36 | 31 | 41 | 35 | 31 | 41 | 35 | 31 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 13124 | 13124 | 13124 |
| 5° | 13174 | 12958 | 13015 |
| 10° | 13085 | 12729 | 12615 |
| 15° | 12930 | 12333 | 11993 |
| 20° | 12726 | 11749 | 11256 |
| 25° | 12482 | 11219 | 10420 |
| 30° | 12224 | 10553 | 9506 |
| 35° | 11943 | 9857 | 8557 |
| 40° | 11634 | 9135 | 7629 |
| 45° | 11306 | 8375 | 6710 |
| 50° | 10940 | 7539 | 5885 |
| 55° | 10564 | 6711 | 5074 |
| 60° | 10213 | 5775 | 4145 |
| 65° | 9753 | 4877 | 3831 |
| 70° | 9172 | 4038 | 3575 |
| 75° | 8353 | 3672 | 3282 |
| 80° | 7503 | 3258 | 2940 |
| 85° | 6229 | 2732 | 2601 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 64.5 | 4.6 |
| 10°-20° | 176.9 | 12.5 |
| 20°-30° | 248.1 | 17.6 |
| 30°-40° | 270.3 | 19.1 |
| 40°-50° | 248.4 | 17.6 |
| 50°-60° | 194.9 | 13.8 |
| 60°-70° | 127.2 | 9.0 |
| 70°-80° | 65.8 | 4.7 |
| 80°-90° | 17.0 | 1.2 |
| 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° | 489.5 | 34.6 |
| 0°-40° | 759.8 | 53.8 |
| 0°-60° | 1203.1 | 85.1 |
| 0°-90° | 1413.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1413.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 689 | 689 | 689 | 689 | 689 | |
| 5° | 689 | 685 | 678 | 682 | 681 | 65 |
| 15° | 656 | 648 | 625 | 613 | 608 | 185 |
| 25° | 594 | 573 | 534 | 508 | 496 | 274 |
| 35° | 514 | 480 | 424 | 385 | 368 | 321 |
| 45° | 420 | 377 | 311 | 266 | 249 | 324 |
| 55° | 318 | 270 | 202 | 164 | 153 | 285 |
| 65° | 216 | 164 | 108 | 88 | 85 | 214 |
| 75° | 114 | 71 | 50 | 46 | 45 | 121 |
| 85° | 28 | 14 | 12 | 12 | 12 | 33 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P243243

CATALOG NUMBER: S122RDR-H485D940-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 689.0 | 689.0 | 689.0 | 689.0 | 689.0 |
| 2.5° | 692.0 | 689.0 | 681.9 | 688.4 | 687.2 |
| 5° | 689.0 | 685.4 | 677.7 | 682.5 | 680.7 |
| 7.5° | 683.7 | 680.1 | 670.0 | 672.4 | 669.4 |
| 10° | 676.5 | 671.8 | 658.1 | 655.7 | 652.2 |
| 12.5° | 667.6 | 661.1 | 642.6 | 635.5 | 630.8 |
| 15° | 655.7 | 648.0 | 625.4 | 612.9 | 608.2 |
| 17.5° | 642.6 | 631.3 | 603.4 | 589.1 | 584.4 |
| 20° | 627.8 | 614.7 | 579.6 | 564.8 | 555.3 |
| 22.5° | 612.3 | 595.7 | 559.4 | 536.2 | 524.9 |
| 25° | 593.9 | 573.1 | 533.8 | 507.7 | 495.8 |
| 27.5° | 576.1 | 551.7 | 507.1 | 476.8 | 463.7 |
| 30° | 555.8 | 529.1 | 479.8 | 444.7 | 432.2 |
| 32.5° | 535.6 | 504.7 | 453.0 | 415.0 | 400.7 |
| 35° | 513.6 | 479.8 | 423.9 | 384.6 | 368.0 |
| 37.5° | 491.0 | 456.0 | 397.1 | 353.7 | 337.7 |
| 40° | 467.9 | 428.6 | 367.4 | 322.2 | 306.8 |
| 42.5° | 444.1 | 404.3 | 339.5 | 293.1 | 278.2 |
| 45° | 419.7 | 376.9 | 310.9 | 265.7 | 249.1 |
| 47.5° | 396.5 | 350.2 | 281.8 | 239.0 | 222.9 |
| 50° | 369.2 | 323.4 | 254.4 | 211.0 | 198.6 |
| 52.5° | 344.2 | 296.6 | 227.7 | 186.1 | 175.4 |
| 55° | 318.1 | 270.5 | 202.1 | 164.1 | 152.8 |
| 57.5° | 293.7 | 243.1 | 176.6 | 142.1 | 131.4 |
| 60° | 268.1 | 217.0 | 151.6 | 120.1 | 108.8 |
| 62.5° | 241.4 | 190.2 | 129.6 | 99.9 | 96.3 |
| 65° | 216.4 | 164.1 | 108.2 | 88.0 | 85.0 |
| 67.5° | 189.6 | 139.7 | 86.2 | 77.3 | 74.3 |
| 70° | 164.7 | 115.9 | 72.5 | 66.0 | 64.2 |
| 72.5° | 140.3 | 93.3 | 61.2 | 55.9 | 54.1 |
| 75° | 113.5 | 70.7 | 49.9 | 45.8 | 44.6 |
| 77.5° | 90.4 | 49.9 | 39.8 | 36.9 | 35.7 |
| 80° | 68.4 | 36.3 | 29.7 | 27.9 | 26.8 |
| 82.5° | 47.0 | 24.4 | 20.8 | 19.6 | 19.0 |
| 85° | 28.5 | 13.7 | 12.5 | 11.9 | 11.9 |
| 87.5° | 11.3 | 5.4 | 5.4 | 4.8 | 4.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)