

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: P334141

Luminaire Tested: **S124DS-S575D927-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334141  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124DS-S575D927-4F0-1E-UDD-D  
Description: DEFINE 4 DIRECT LED LUMINAIRE, DROP SATIN WHITE DIFFUSER  
PENDANT/SURFACE/WALL MOUNT, 575 LUMENS PER FOOT  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1731.8 lumens  
Efficiency: N/A  
Efficacy: 92.1 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Direct

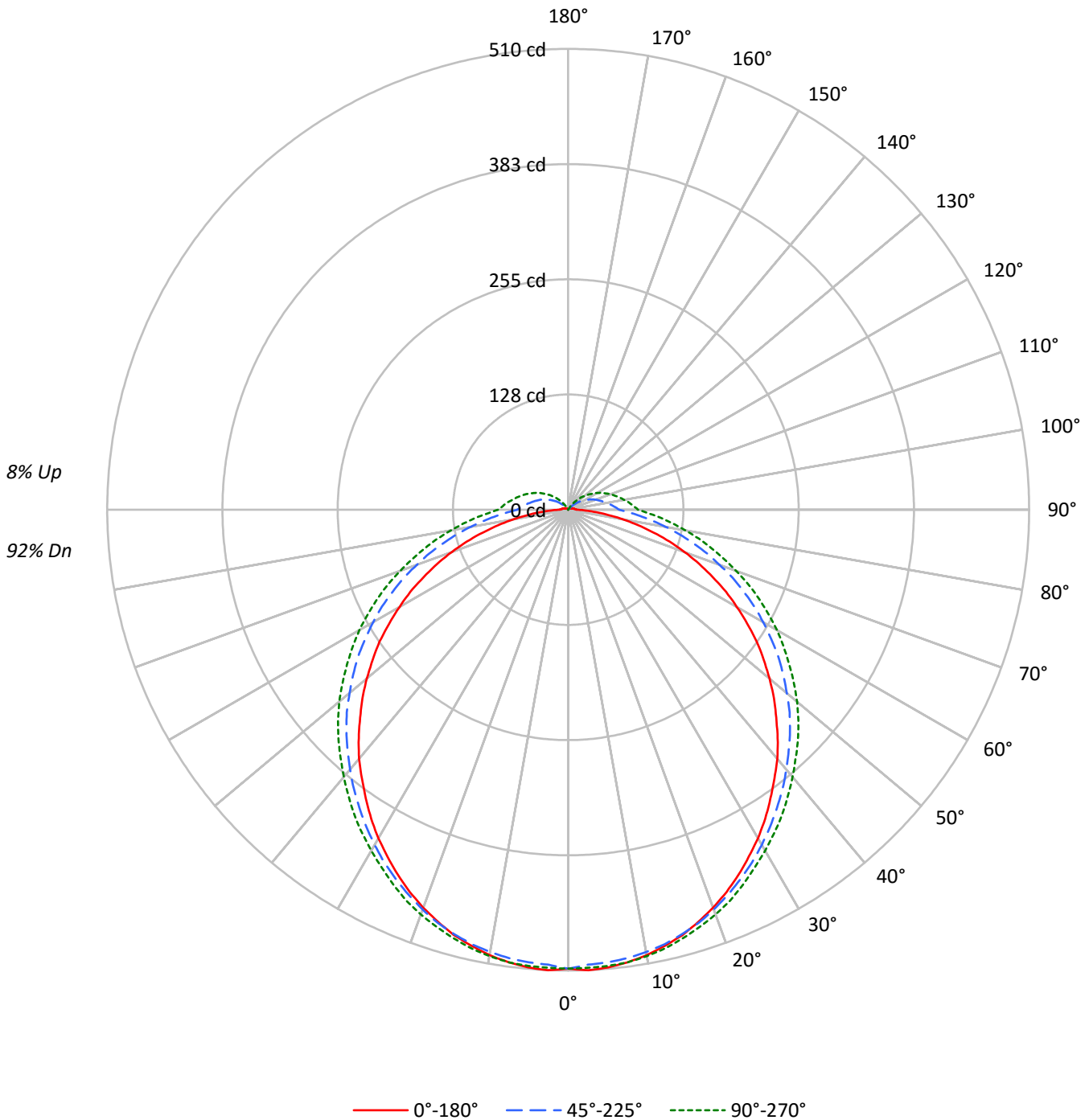
Input Watts (W): 18.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





TEST NUMBER: P334141

CATALOG NUMBER: S124DS-S575D927-4F0-1E-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   | 117 | 117 | 117 | 117 | 114 | 114 | 114 | 114 | 107 | 107 | 107 | 101 | 101 | 101 | 95 | 95 | 95 | 92 |
| 1   | 105 | 100 | 95  | 91  | 102 | 97  | 93  | 89  | 91  | 88  | 84  | 86  | 83  | 80  | 81 | 79 | 77 | 74 |
| 2   | 95  | 86  | 79  | 73  | 92  | 84  | 77  | 71  | 79  | 73  | 68  | 74  | 70  | 66  | 70 | 67 | 63 | 60 |
| 3   | 87  | 75  | 67  | 60  | 83  | 73  | 65  | 59  | 69  | 62  | 57  | 65  | 60  | 55  | 62 | 57 | 53 | 50 |
| 4   | 79  | 66  | 57  | 50  | 76  | 65  | 56  | 49  | 61  | 54  | 48  | 58  | 52  | 47  | 55 | 49 | 45 | 43 |
| 5   | 73  | 59  | 50  | 43  | 70  | 58  | 49  | 42  | 55  | 47  | 41  | 52  | 45  | 40  | 49 | 44 | 39 | 37 |
| 6   | 67  | 53  | 44  | 37  | 64  | 52  | 43  | 37  | 49  | 42  | 36  | 47  | 40  | 35  | 45 | 39 | 34 | 32 |
| 7   | 62  | 48  | 39  | 33  | 60  | 47  | 38  | 32  | 45  | 37  | 32  | 43  | 36  | 31  | 41 | 35 | 30 | 28 |
| 8   | 58  | 44  | 35  | 29  | 56  | 43  | 35  | 29  | 41  | 33  | 28  | 39  | 32  | 28  | 37 | 31 | 27 | 25 |
| 9   | 54  | 40  | 32  | 26  | 52  | 39  | 31  | 26  | 38  | 30  | 25  | 36  | 29  | 25  | 34 | 29 | 24 | 22 |
| 10  | 50  | 37  | 29  | 24  | 49  | 36  | 29  | 23  | 35  | 28  | 23  | 33  | 27  | 23  | 32 | 26 | 22 | 20 |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4100 | 4100 | 4100 |
| 5°  | 4121 | 4075 | 4107 |
| 10° | 4104 | 4075 | 4113 |
| 15° | 4074 | 4064 | 4103 |
| 20° | 4027 | 4046 | 4095 |
| 25° | 3972 | 4018 | 4079 |
| 30° | 3913 | 3993 | 4062 |
| 35° | 3846 | 3969 | 4064 |
| 40° | 3795 | 3956 | 4070 |
| 45° | 3715 | 3962 | 4104 |
| 50° | 3651 | 3965 | 4151 |
| 55° | 3586 | 3994 | 4203 |
| 60° | 3481 | 4022 | 4308 |
| 65° | 3368 | 4086 | 4443 |
| 70° | 3236 | 4201 | 4659 |
| 75° | 3051 | 4454 | 5109 |
| 80° | 2882 | 5105 | 6109 |
| 85° | 2788 | 7373 | 9485 |



TEST NUMBER: P334141

CATALOG NUMBER: S124DS-S575D927-4F0-1E-UDD-D

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 48.1   | 2.8       |
| 10°-20°   | 137.9  | 8.0       |
| 20°-30°   | 208.5  | 12.0      |
| 30°-40°   | 252.2  | 14.6      |
| 40°-50°   | 266.7  | 15.4      |
| 50°-60°   | 251.0  | 14.5      |
| 60°-70°   | 208.3  | 12.0      |
| 70°-80°   | 146.2  | 8.4       |
| 80°-90°   | 82.4   | 4.8       |
| 90°-100°  | 49.0   | 2.8       |
| 100°-110° | 36.3   | 2.1       |
| 110°-120° | 24.4   | 1.4       |
| 120°-130° | 13.7   | 0.8       |
| 130°-140° | 5.9    | 0.3       |
| 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°    | 394.5  | 22.8      |
| 0°-40°    | 646.8  | 37.3      |
| 0°-60°    | 1164.4 | 67.2      |
| 0°-90°    | 1601.2 | 92.5      |
| 90°-120°  | 109.7  | 6.3       |
| 90°-150°  | 130.6  | 7.5       |
| 90°-180°  | 131.0  | 7.6       |
| 0°-180°   | 1731.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 508 | 508   | 508 | 508   | 508 |      |
| 5°   | 508 | 507   | 503 | 507   | 507 | 48   |
| 15°  | 488 | 488   | 486 | 491   | 491 | 137  |
| 25°  | 446 | 449   | 451 | 457   | 458 | 205  |
| 35°  | 390 | 397   | 403 | 411   | 412 | 244  |
| 45°  | 325 | 336   | 347 | 357   | 360 | 251  |
| 55°  | 255 | 267   | 284 | 295   | 299 | 227  |
| 65°  | 176 | 194   | 214 | 228   | 233 | 175  |
| 75°  | 98  | 119   | 143 | 159   | 164 | 104  |
| 85°  | 30  | 54    | 80  | 97    | 102 | 31   |
| 90°  | 9   | 32    | 56  | 73    | 77  | 6    |
| 95°  | 7   | 26    | 50  | 65    | 70  | 6    |
| 105° | 5   | 16    | 38  | 52    | 56  | 6    |
| 115° | 3   | 8     | 27  | 39    | 43  | 4    |
| 125° | 2   | 2     | 16  | 27    | 30  | 2    |
| 135° | 1   | 1     | 5   | 14    | 18  | 1    |
| 145° | 1   | 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: P334141

CATALOG NUMBER: S124DS-S575D927-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 507.9 | 507.9 | 507.9 | 507.9 | 507.9 |
| 2.5°   | 510.2 | 508.5 | 504.0 | 507.9 | 507.4 |
| 5°     | 508.5 | 506.8 | 502.8 | 507.4 | 506.8 |
| 7.5°   | 505.1 | 504.0 | 500.6 | 505.7 | 505.1 |
| 10°    | 500.6 | 500.0 | 497.1 | 502.3 | 501.7 |
| 12.5°  | 494.3 | 494.3 | 492.6 | 497.1 | 497.1 |
| 15°    | 487.5 | 488.0 | 486.3 | 491.4 | 490.9 |
| 17.5°  | 478.4 | 480.1 | 479.5 | 484.6 | 484.1 |
| 20°    | 468.7 | 470.4 | 471.0 | 476.7 | 476.7 |
| 22.5°  | 457.9 | 460.2 | 461.3 | 467.0 | 468.1 |
| 25°    | 445.9 | 449.4 | 451.1 | 457.3 | 457.9 |
| 27.5°  | 432.9 | 438.0 | 440.3 | 445.9 | 446.5 |
| 30°    | 419.8 | 424.3 | 428.3 | 434.6 | 435.7 |
| 32.5°  | 405.6 | 411.2 | 415.8 | 423.2 | 424.3 |
| 35°    | 390.2 | 397.0 | 402.7 | 410.7 | 412.4 |
| 37.5°  | 374.8 | 382.8 | 389.6 | 397.6 | 399.3 |
| 40°    | 360.1 | 367.4 | 375.4 | 383.9 | 386.2 |
| 42.5°  | 343.0 | 351.5 | 361.2 | 370.9 | 372.6 |
| 45°    | 325.4 | 336.2 | 347.0 | 356.6 | 359.5 |
| 47.5°  | 308.9 | 319.7 | 332.2 | 341.9 | 345.3 |
| 50°    | 290.7 | 303.2 | 315.7 | 327.1 | 330.5 |
| 52.5°  | 272.5 | 285.0 | 299.8 | 311.1 | 314.6 |
| 55°    | 254.8 | 266.8 | 283.8 | 295.2 | 298.6 |
| 57.5°  | 234.9 | 249.7 | 266.2 | 279.9 | 282.7 |
| 60°    | 215.6 | 230.4 | 249.1 | 262.2 | 266.8 |
| 62.5°  | 196.8 | 213.3 | 232.1 | 245.2 | 249.7 |
| 65°    | 176.3 | 194.5 | 213.9 | 228.1 | 232.6 |
| 67.5°  | 157.0 | 176.3 | 196.8 | 211.0 | 215.6 |
| 70°    | 137.1 | 156.4 | 178.0 | 193.4 | 197.4 |
| 72.5°  | 117.7 | 137.7 | 161.0 | 175.8 | 180.3 |
| 75°    | 97.8  | 118.9 | 142.8 | 158.7 | 163.8 |
| 77.5°  | 79.1  | 101.2 | 126.3 | 142.2 | 147.9 |
| 80°    | 62.0  | 84.8  | 109.8 | 126.8 | 131.4 |
| 82.5°  | 44.9  | 68.8  | 93.9  | 111.5 | 116.6 |
| 85°    | 30.1  | 54.0  | 79.6  | 96.7  | 102.4 |
| 87.5°  | 18.8  | 42.1  | 67.1  | 83.6  | 88.7  |
| 90°    | 9.1   | 31.9  | 56.3  | 72.8  | 77.4  |
| 92.5°  | 8.5   | 28.4  | 52.9  | 68.8  | 73.4  |
| 95°    | 7.4   | 26.2  | 49.5  | 64.8  | 70.0  |
| 97.5°  | 6.8   | 23.3  | 46.6  | 61.4  | 66.6  |
| 100°   | 6.3   | 21.0  | 43.2  | 58.6  | 62.6  |
| 102.5° | 6.3   | 18.8  | 40.4  | 55.2  | 59.7  |
| 105°   | 5.1   | 16.5  | 37.5  | 51.8  | 56.3  |
| 107.5° | 5.1   | 14.8  | 34.7  | 48.9  | 52.9  |
| 110°   | 4.6   | 12.5  | 32.4  | 45.5  | 50.1  |



TEST NUMBER: P334141

CATALOG NUMBER: S124DS-S575D927-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45°  | 67.5° | 90°  |
|--------|-----|-------|------|-------|------|
| 112.5° | 4.0 | 10.8  | 29.6 | 42.1  | 46.6 |
| 115°   | 3.4 | 8.5   | 26.7 | 39.2  | 43.2 |
| 117.5° | 3.4 | 6.8   | 23.9 | 35.8  | 40.4 |
| 120°   | 2.8 | 4.6   | 21.0 | 32.4  | 37.0 |
| 122.5° | 2.8 | 2.8   | 18.2 | 29.6  | 33.6 |
| 125°   | 2.3 | 1.7   | 15.9 | 26.7  | 30.1 |
| 127.5° | 2.3 | 1.7   | 13.1 | 23.3  | 27.3 |
| 130°   | 1.7 | 1.1   | 10.2 | 20.5  | 23.9 |
| 132.5° | 1.7 | 1.1   | 8.0  | 17.6  | 21.0 |
| 135°   | 1.1 | 1.1   | 5.1  | 14.2  | 17.6 |
| 137.5° | 1.1 | 0.6   | 2.8  | 11.4  | 14.2 |
| 140°   | 1.1 | 0.6   | 1.1  | 8.5   | 11.4 |
| 142.5° | 0.6 | 0.6   | 0.0  | 6.3   | 8.5  |
| 145°   | 0.6 | 0.0   | 0.0  | 3.4   | 5.7  |
| 147.5° | 0.6 | 0.0   | 0.0  | 0.6   | 2.8  |
| 150°   | 0.6 | 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)