

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: P242795

Luminaire Tested: **S125DR-S375D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242795  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DR-S375D940-X4F0-XX-UDD-F-W  
Description: DEFINE 5 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: 1280.9 lumens  
Efficiency: N/A  
Efficacy: 110.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.3  
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')  
CIE Type: Direct

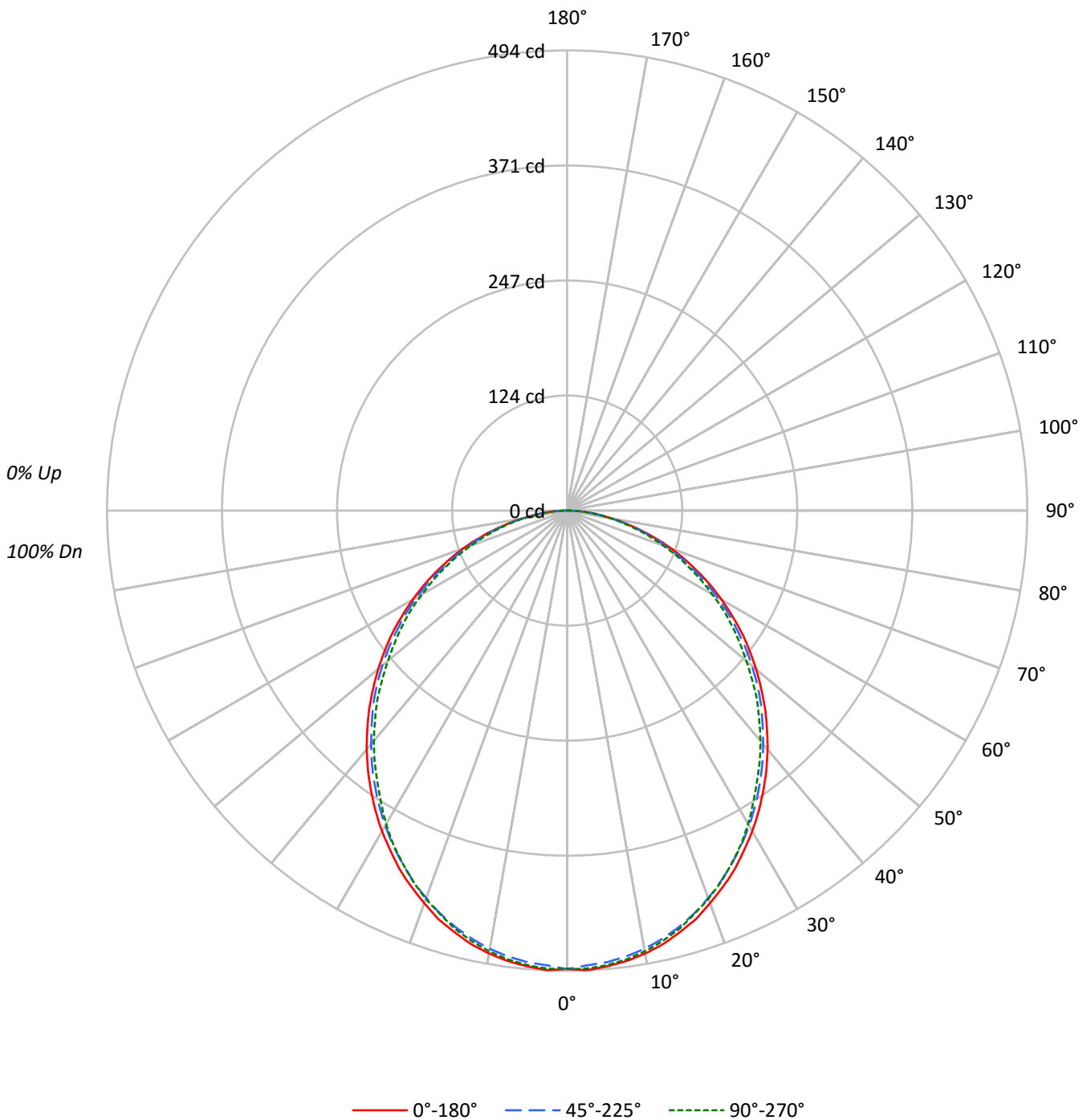
Input Watts (W): 11.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  | 94  | 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  | 72  | 70  |
| 3   | 91  | 80  | 72  | 66  | 88  | 79  | 71  | 65  | 76  | 69  | 64  | 73  | 67  | 63  | 70  | 66  | 62  | 59  |
| 4   | 83  | 71  | 62  | 56  | 81  | 70  | 62  | 55  | 67  | 60  | 55  | 65  | 59  | 54  | 63  | 58  | 53  | 51  |
| 5   | 76  | 64  | 55  | 48  | 74  | 63  | 54  | 48  | 60  | 53  | 47  | 58  | 52  | 47  | 57  | 51  | 46  | 44  |
| 6   | 71  | 57  | 49  | 42  | 69  | 56  | 48  | 42  | 55  | 47  | 42  | 53  | 46  | 41  | 51  | 46  | 41  | 39  |
| 7   | 66  | 52  | 43  | 37  | 64  | 51  | 43  | 37  | 50  | 42  | 37  | 48  | 42  | 37  | 47  | 41  | 36  | 34  |
| 8   | 61  | 48  | 39  | 33  | 60  | 47  | 39  | 33  | 46  | 38  | 33  | 44  | 38  | 33  | 43  | 37  | 33  | 31  |
| 9   | 57  | 44  | 36  | 30  | 56  | 43  | 35  | 30  | 42  | 35  | 30  | 41  | 34  | 30  | 40  | 34  | 30  | 28  |
| 10  | 54  | 40  | 33  | 27  | 52  | 40  | 32  | 27  | 39  | 32  | 27  | 38  | 32  | 27  | 37  | 31  | 27  | 25  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 3498 | 3498 | 3498 |
| 5°  | 3505 | 3472 | 3494 |
| 10° | 3484 | 3448 | 3467 |
| 15° | 3447 | 3406 | 3421 |
| 20° | 3392 | 3348 | 3354 |
| 25° | 3334 | 3280 | 3276 |
| 30° | 3262 | 3205 | 3189 |
| 35° | 3185 | 3124 | 3081 |
| 40° | 3106 | 3038 | 2995 |
| 45° | 3021 | 2958 | 2900 |
| 50° | 2928 | 2863 | 2776 |
| 55° | 2836 | 2755 | 2678 |
| 60° | 2728 | 2645 | 2552 |
| 65° | 2600 | 2514 | 2428 |
| 70° | 2475 | 2363 | 2282 |
| 75° | 2257 | 2180 | 2106 |
| 80° | 2010 | 1977 | 1928 |
| 85° | 1745 | 1778 | 1680 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 46.4   | 3.6       |
| 10°-20°   | 131.2  | 10.2      |
| 20°-30°   | 193.7  | 15.1      |
| 30°-40°   | 225.9  | 17.6      |
| 40°-50°   | 226.9  | 17.7      |
| 50°-60°   | 199.2  | 15.6      |
| 60°-70°   | 148.4  | 11.6      |
| 70°-80°   | 84.8   | 6.6       |
| 80°-90°   | 24.5   | 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°    | 371.3  | 29.0      |
| 0°-40°    | 597.2  | 46.6      |
| 0°-60°    | 1023.3 | 79.9      |
| 0°-90°    | 1280.9 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1280.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 492 | 492   | 492 | 492   | 492 |      |
| 5°  | 491 | 491   | 487 | 490   | 490 | 47   |
| 15° | 468 | 467   | 463 | 465   | 465 | 132  |
| 25° | 425 | 423   | 418 | 419   | 418 | 196  |
| 35° | 367 | 366   | 360 | 358   | 355 | 230  |
| 45° | 301 | 299   | 294 | 290   | 288 | 232  |
| 55° | 229 | 228   | 222 | 219   | 216 | 204  |
| 65° | 155 | 154   | 150 | 146   | 144 | 153  |
| 75° | 82  | 81    | 79  | 78    | 77  | 87   |
| 85° | 21  | 22    | 22  | 21    | 21  | 25   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 492.1 | 492.1 | 492.1 | 492.1 | 492.1 |
| 2.5°  | 493.7 | 492.5 | 488.6 | 492.5 | 492.1 |
| 5°    | 491.3 | 490.6 | 486.7 | 490.2 | 489.8 |
| 7.5°  | 487.8 | 487.1 | 482.8 | 486.3 | 485.9 |
| 10°   | 482.8 | 482.0 | 477.7 | 480.8 | 480.4 |
| 12.5° | 476.6 | 475.0 | 471.1 | 473.4 | 473.4 |
| 15°   | 468.4 | 467.2 | 462.9 | 464.9 | 464.9 |
| 17.5° | 459.8 | 457.9 | 453.6 | 455.9 | 454.0 |
| 20°   | 448.5 | 447.7 | 442.7 | 445.4 | 443.5 |
| 22.5° | 437.2 | 435.7 | 431.0 | 432.6 | 431.4 |
| 25°   | 425.2 | 423.2 | 418.2 | 418.9 | 417.8 |
| 27.5° | 411.1 | 410.0 | 404.9 | 405.3 | 404.1 |
| 30°   | 397.5 | 396.3 | 390.5 | 389.7 | 388.6 |
| 32.5° | 382.7 | 380.8 | 375.7 | 374.2 | 371.8 |
| 35°   | 367.1 | 365.6 | 360.1 | 358.2 | 355.1 |
| 37.5° | 351.2 | 349.2 | 344.2 | 341.5 | 339.5 |
| 40°   | 334.8 | 332.9 | 327.4 | 323.9 | 322.8 |
| 42.5° | 317.3 | 315.8 | 310.3 | 307.2 | 305.2 |
| 45°   | 300.6 | 299.0 | 294.3 | 289.7 | 288.5 |
| 47.5° | 282.3 | 282.7 | 276.8 | 272.1 | 269.4 |
| 50°   | 264.8 | 263.6 | 258.9 | 253.9 | 251.1 |
| 52.5° | 246.8 | 246.1 | 241.0 | 236.7 | 233.6 |
| 55°   | 228.9 | 227.8 | 222.3 | 218.8 | 216.1 |
| 57.5° | 209.9 | 209.5 | 204.8 | 200.1 | 199.0 |
| 60°   | 191.9 | 190.4 | 186.1 | 182.2 | 179.5 |
| 62.5° | 173.3 | 172.1 | 168.6 | 164.3 | 162.4 |
| 65°   | 154.6 | 153.8 | 149.5 | 146.0 | 144.4 |
| 67.5° | 136.3 | 134.7 | 131.6 | 128.5 | 127.7 |
| 70°   | 119.1 | 117.2 | 113.7 | 111.4 | 109.8 |
| 72.5° | 100.5 | 99.3  | 97.3  | 94.6  | 93.1  |
| 75°   | 82.2  | 81.4  | 79.4  | 78.3  | 76.7  |
| 77.5° | 65.0  | 64.6  | 63.5  | 62.7  | 61.5  |
| 80°   | 49.1  | 49.1  | 48.3  | 47.9  | 47.1  |
| 82.5° | 35.0  | 34.3  | 34.3  | 33.5  | 33.5  |
| 85°   | 21.4  | 21.8  | 21.8  | 21.4  | 20.6  |
| 87.5° | 10.5  | 10.5  | 10.1  | 10.1  | 9.3   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)