

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: P243650

Luminaire Tested: **S125DR-H375D935-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243650  
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-H375D935-X4F0-XX-UDD-F-W  
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

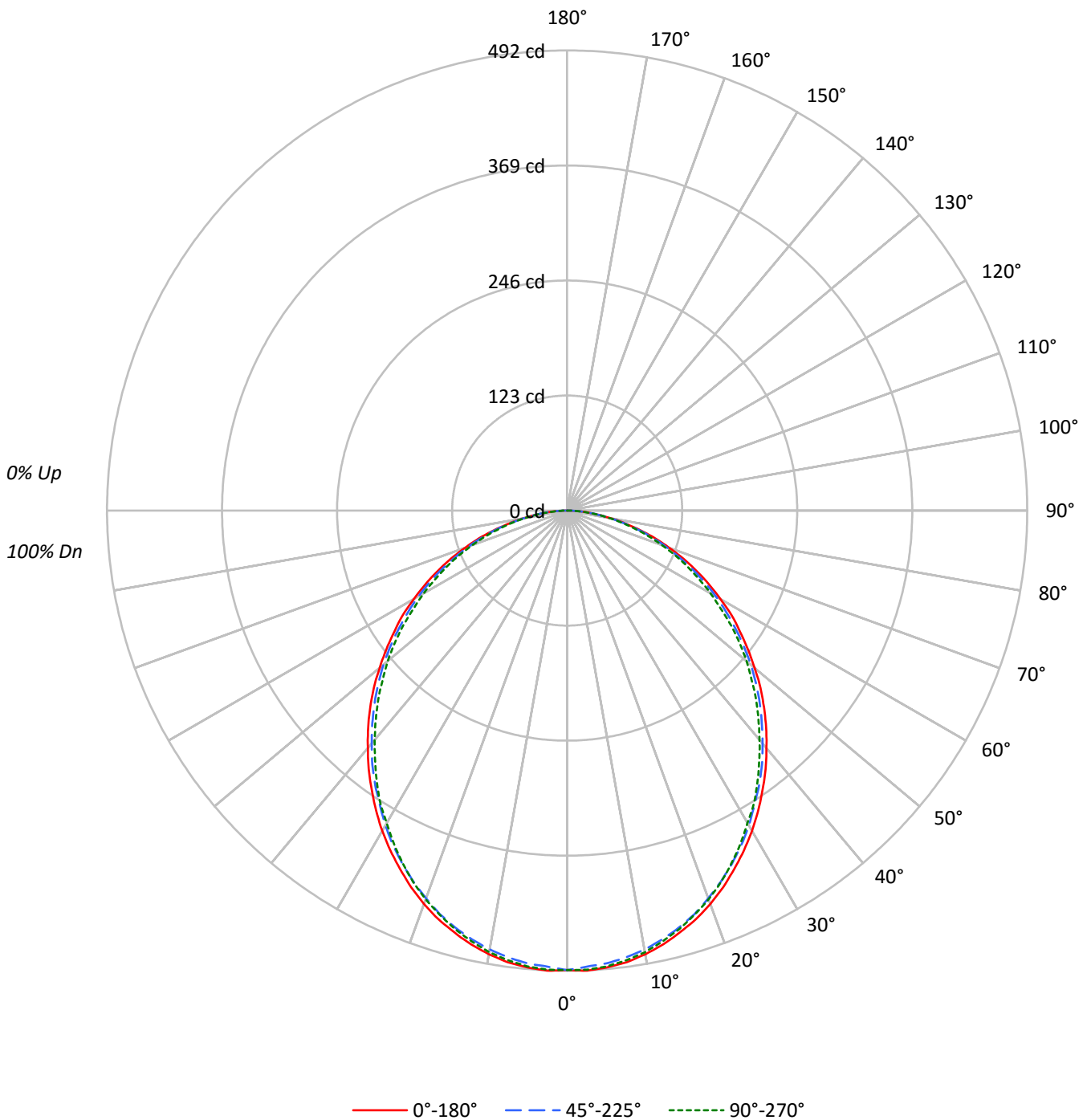
Lumens per Lamp: N/A  
Luminaire Lumens: 1268.1 lumens  
Efficiency: N/A  
Efficacy: 113.2 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3  
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 11.2  
Input Voltage (V): 120  
Input Current (A<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  | 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°  | 3492 | 3492 | 3492 |
| 5°  | 3497 | 3467 | 3489 |
| 10° | 3476 | 3439 | 3460 |
| 15° | 3435 | 3397 | 3408 |
| 20° | 3386 | 3337 | 3345 |
| 25° | 3316 | 3268 | 3262 |
| 30° | 3245 | 3189 | 3165 |
| 35° | 3162 | 3105 | 3078 |
| 40° | 3077 | 3016 | 2970 |
| 45° | 2992 | 2927 | 2873 |
| 50° | 2894 | 2834 | 2770 |
| 55° | 2795 | 2720 | 2648 |
| 60° | 2689 | 2613 | 2520 |
| 65° | 2565 | 2474 | 2388 |
| 70° | 2404 | 2315 | 2240 |
| 75° | 2216 | 2147 | 2049 |
| 80° | 1932 | 1920 | 1875 |
| 85° | 1672 | 1672 | 1590 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 46.3   | 3.7       |
| 10°-20°   | 130.8  | 10.3      |
| 20°-30°   | 192.8  | 15.2      |
| 30°-40°   | 224.5  | 17.7      |
| 40°-50°   | 225.0  | 17.7      |
| 50°-60°   | 196.7  | 15.5      |
| 60°-70°   | 146.0  | 11.5      |
| 70°-80°   | 82.8   | 6.5       |
| 80°-90°   | 23.2   | 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°    | 370.0  | 29.2      |
| 0°-40°    | 594.5  | 46.9      |
| 0°-60°    | 1016.2 | 80.1      |
| 0°-90°    | 1268.1 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1268.1 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 491 | 491   | 491 | 491   | 491 |      |
| 5°  | 490 | 490   | 486 | 490   | 489 | 47   |
| 15° | 467 | 466   | 462 | 464   | 463 | 132  |
| 25° | 423 | 421   | 417 | 418   | 416 | 195  |
| 35° | 364 | 362   | 358 | 356   | 355 | 228  |
| 45° | 298 | 297   | 291 | 287   | 286 | 230  |
| 55° | 226 | 225   | 220 | 215   | 214 | 202  |
| 65° | 152 | 151   | 147 | 144   | 142 | 151  |
| 75° | 81  | 79    | 78  | 77    | 75  | 86   |
| 85° | 20  | 20    | 20  | 20    | 20  | 24   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 491.3 | 491.3 | 491.3 | 491.3 | 491.3 |
| 2.5°  | 492.4 | 491.6 | 488.0 | 491.6 | 491.3 |
| 5°    | 490.2 | 489.5 | 485.9 | 489.5 | 489.1 |
| 7.5°  | 487.0 | 485.9 | 481.9 | 485.5 | 484.8 |
| 10°   | 481.6 | 480.8 | 476.5 | 479.4 | 479.4 |
| 12.5° | 475.1 | 474.0 | 469.7 | 472.2 | 471.8 |
| 15°   | 466.8 | 466.1 | 461.7 | 464.2 | 463.2 |
| 17.5° | 458.1 | 456.3 | 452.4 | 454.5 | 453.1 |
| 20°   | 447.7 | 446.2 | 441.2 | 443.0 | 442.3 |
| 22.5° | 435.8 | 434.0 | 429.3 | 430.4 | 430.0 |
| 25°   | 422.8 | 421.4 | 416.7 | 417.8 | 416.0 |
| 27.5° | 409.5 | 407.7 | 403.3 | 403.3 | 401.5 |
| 30°   | 395.4 | 393.6 | 388.6 | 388.6 | 385.7 |
| 32.5° | 380.3 | 378.8 | 372.7 | 372.3 | 371.6 |
| 35°   | 364.4 | 362.2 | 357.9 | 355.8 | 354.7 |
| 37.5° | 348.5 | 346.7 | 342.1 | 339.2 | 337.4 |
| 40°   | 331.6 | 330.5 | 325.1 | 322.6 | 320.1 |
| 42.5° | 315.0 | 313.9 | 308.2 | 303.9 | 302.8 |
| 45°   | 297.7 | 297.0 | 291.2 | 286.9 | 285.8 |
| 47.5° | 280.4 | 279.7 | 273.9 | 269.3 | 267.4 |
| 50°   | 261.7 | 261.7 | 256.3 | 251.6 | 250.5 |
| 52.5° | 243.7 | 243.3 | 237.9 | 233.2 | 232.1 |
| 55°   | 225.6 | 225.3 | 219.5 | 214.8 | 213.7 |
| 57.5° | 208.7 | 206.5 | 201.5 | 197.9 | 194.3 |
| 60°   | 189.2 | 188.2 | 183.8 | 179.1 | 177.3 |
| 62.5° | 171.2 | 169.8 | 165.4 | 161.5 | 159.0 |
| 65°   | 152.5 | 151.4 | 147.1 | 143.8 | 142.0 |
| 67.5° | 134.8 | 133.4 | 129.0 | 126.5 | 125.1 |
| 70°   | 115.7 | 114.6 | 111.4 | 108.1 | 107.8 |
| 72.5° | 98.8  | 97.3  | 95.5  | 92.6  | 91.2  |
| 75°   | 80.7  | 79.3  | 78.2  | 76.8  | 74.6  |
| 77.5° | 63.4  | 62.7  | 62.0  | 60.9  | 59.8  |
| 80°   | 47.2  | 47.2  | 46.9  | 46.1  | 45.8  |
| 82.5° | 33.5  | 33.9  | 32.8  | 32.1  | 32.1  |
| 85°   | 20.5  | 20.5  | 20.5  | 19.8  | 19.5  |
| 87.5° | 10.1  | 9.0   | 9.0   | 8.3   | 8.3   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)