

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: P334570

Luminaire Tested: **S122IP-S330U935-4F0-1E-UDD**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334570  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122IP-S330U935-4F0-1E-UDD  
Description: DEFINE 2 INDIRECT LED LUMINAIRE, NO LENS  
PENDANT MOUNT, 330 LUMENS PER FOOT  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1128.6 lumens  
Efficiency: N/A  
Efficacy: 99.0 lumens/watt  
Spacing Criteria (0/90/45): - / - / -  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Indirect

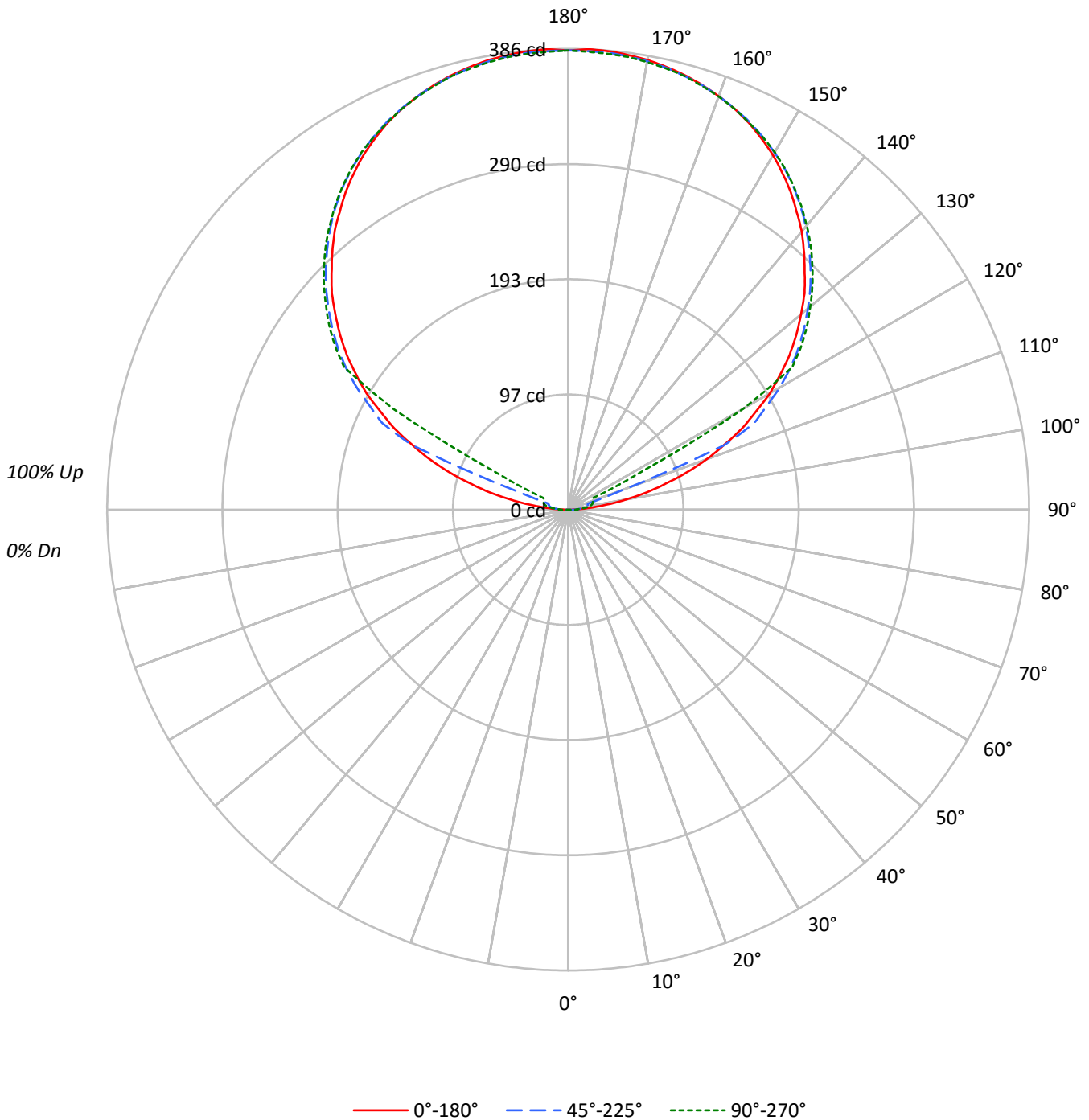
Input Watts (W): 11.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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   | 95 | 95 | 95 | 95 | 81 | 81 | 81 | 81 | 56 | 56 | 56 | 32 | 32 | 32 | 10 | 10 | 10 | 0 |
| 1   | 87 | 83 | 79 | 76 | 74 | 71 | 68 | 65 | 48 | 47 | 45 | 28 | 27 | 26 | 9  | 9  | 8  | 0 |
| 2   | 79 | 72 | 66 | 62 | 67 | 62 | 57 | 53 | 42 | 40 | 37 | 24 | 23 | 22 | 8  | 7  | 7  | 0 |
| 3   | 72 | 63 | 56 | 51 | 61 | 54 | 49 | 44 | 37 | 34 | 31 | 21 | 20 | 18 | 7  | 6  | 6  | 0 |
| 4   | 65 | 56 | 48 | 43 | 56 | 48 | 42 | 37 | 33 | 29 | 26 | 19 | 17 | 16 | 6  | 6  | 5  | 0 |
| 5   | 60 | 49 | 42 | 36 | 51 | 42 | 36 | 32 | 29 | 25 | 22 | 17 | 15 | 13 | 5  | 5  | 4  | 0 |
| 6   | 55 | 44 | 36 | 31 | 47 | 38 | 32 | 27 | 26 | 22 | 19 | 15 | 13 | 11 | 5  | 4  | 4  | 0 |
| 7   | 50 | 39 | 32 | 27 | 43 | 34 | 28 | 23 | 23 | 19 | 17 | 14 | 11 | 10 | 4  | 4  | 3  | 0 |
| 8   | 47 | 35 | 28 | 23 | 40 | 30 | 24 | 20 | 21 | 17 | 14 | 12 | 10 | 9  | 4  | 3  | 3  | 0 |
| 9   | 43 | 32 | 25 | 20 | 37 | 27 | 22 | 18 | 19 | 15 | 13 | 11 | 9  | 8  | 4  | 3  | 3  | 0 |
| 10  | 40 | 29 | 22 | 18 | 34 | 25 | 19 | 16 | 17 | 14 | 11 | 10 | 8  | 7  | 3  | 3  | 2  | 0 |

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

|     | 0° | 45° | 90° |
|-----|----|-----|-----|
| 0°  | 0  | 0   | 0   |
| 5°  | 0  | 0   | 0   |
| 10° | 0  | 0   | 0   |
| 15° | 0  | 0   | 0   |
| 20° | 0  | 0   | 0   |
| 25° | 0  | 0   | 0   |
| 30° | 0  | 0   | 0   |
| 35° | 0  | 0   | 0   |
| 40° | 0  | 0   | 0   |
| 45° | 0  | 0   | 0   |
| 50° | 0  | 0   | 0   |
| 55° | 0  | 0   | 0   |
| 60° | 0  | 0   | 0   |
| 65° | 0  | 0   | 0   |
| 70° | 0  | 0   | 0   |
| 75° | 0  | 0   | 0   |
| 80° | 0  | 0   | 0   |
| 85° | 0  | 0   | 0   |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 0.0    | 0.0       |
| 10°-20°   | 0.0    | 0.0       |
| 20°-30°   | 0.0    | 0.0       |
| 30°-40°   | 0.0    | 0.0       |
| 40°-50°   | 0.0    | 0.0       |
| 50°-60°   | 0.0    | 0.0       |
| 60°-70°   | 0.0    | 0.0       |
| 70°-80°   | 0.0    | 0.0       |
| 80°-90°   | 0.7    | 0.1       |
| 90°-100°  | 12.7   | 1.1       |
| 100°-110° | 47.3   | 4.2       |
| 110°-120° | 125.4  | 11.1      |
| 120°-130° | 208.0  | 18.4      |
| 130°-140° | 221.0  | 19.6      |
| 140°-150° | 205.4  | 18.2      |
| 150°-160° | 165.1  | 14.6      |
| 160°-170° | 106.4  | 9.4       |
| 170°-180° | 36.6   | 3.2       |
| 0°-30°    | 0.0    | 0.0       |
| 0°-40°    | 0.0    | 0.0       |
| 0°-60°    | 0.0    | 0.0       |
| 0°-90°    | 0.7    | 0.1       |
| 90°-120°  | 185.4  | 16.4      |
| 90°-150°  | 819.8  | 72.6      |
| 90°-180°  | 1128.0 | 99.9      |
| 0°-180°   | 1128.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 0   | 0     | 0   | 0     | 0   |      |
| 5°   | 0   | 0     | 0   | 0     | 0   | 0    |
| 15°  | 0   | 0     | 0   | 0     | 0   | 0    |
| 25°  | 0   | 0     | 0   | 0     | 0   | 0    |
| 35°  | 0   | 0     | 0   | 0     | 0   | 0    |
| 45°  | 0   | 0     | 0   | 0     | 0   | 0    |
| 55°  | 0   | 0     | 0   | 0     | 0   | 0    |
| 65°  | 0   | 0     | 0   | 0     | 0   | 0    |
| 75°  | 0   | 0     | 0   | 0     | 0   | 0    |
| 85°  | 0   | 0     | 0   | 0     | 0   | 0    |
| 90°  | 0   | 3     | 6   | 7     | 8   | 1    |
| 95°  | 18  | 9     | 11  | 12    | 12  | 21   |
| 105° | 85  | 93    | 17  | 20    | 21  | 90   |
| 115° | 160 | 165   | 172 | 43    | 23  | 158  |
| 125° | 226 | 230   | 235 | 237   | 238 | 202  |
| 135° | 280 | 284   | 287 | 290   | 289 | 216  |
| 145° | 325 | 325   | 329 | 331   | 330 | 203  |
| 155° | 358 | 355   | 359 | 360   | 358 | 165  |
| 165° | 377 | 375   | 376 | 378   | 376 | 106  |
| 175° | 386 | 384   | 384 | 386   | 383 | 37   |
| 180° | 385 | 385   | 385 | 385   | 385 |      |



TEST NUMBER: P334570

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°  | 67.5° | 90°  |
|--------|-------|-------|------|-------|------|
| 0°     | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 2.5°   | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 5°     | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 7.5°   | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 10°    | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 12.5°  | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 15°    | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 17.5°  | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 20°    | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 22.5°  | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 25°    | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 27.5°  | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 30°    | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 32.5°  | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 35°    | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 37.5°  | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 40°    | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 42.5°  | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 45°    | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 47.5°  | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 50°    | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 52.5°  | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 55°    | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 57.5°  | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 60°    | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 62.5°  | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 65°    | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 67.5°  | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 70°    | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 72.5°  | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 75°    | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 77.5°  | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 80°    | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 82.5°  | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 85°    | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 87.5°  | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  |
| 90°    | 0.3   | 3.3   | 5.6  | 7.0   | 7.5  |
| 92.5°  | 7.0   | 5.8   | 6.7  | 7.2   | 7.5  |
| 95°    | 18.1  | 8.9   | 10.9 | 12.2  | 12.0 |
| 97.5°  | 32.6  | 9.7   | 14.2 | 15.0  | 15.3 |
| 100°   | 49.3  | 11.1  | 15.9 | 18.1  | 18.7 |
| 102.5° | 67.6  | 67.1  | 16.4 | 19.5  | 20.3 |
| 105°   | 84.6  | 93.0  | 17.0 | 20.0  | 21.2 |
| 107.5° | 104.4 | 111.4 | 17.5 | 20.6  | 21.7 |
| 110°   | 123.3 | 129.2 | 48.7 | 20.9  | 22.0 |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 141.1 | 146.2 | 141.4 | 21.4  | 22.3  |
| 115°   | 160.1 | 164.8 | 171.8 | 42.9  | 22.8  |
| 117.5° | 176.5 | 182.1 | 186.8 | 147.0 | 74.1  |
| 120°   | 194.9 | 199.0 | 204.1 | 207.4 | 169.8 |
| 122.5° | 210.5 | 214.9 | 220.5 | 222.2 | 222.4 |
| 125°   | 226.3 | 229.9 | 235.2 | 237.2 | 238.0 |
| 127.5° | 240.8 | 244.7 | 248.9 | 251.7 | 251.9 |
| 130°   | 254.4 | 258.9 | 262.0 | 265.0 | 264.7 |
| 132.5° | 268.4 | 272.0 | 275.0 | 277.6 | 277.3 |
| 135°   | 280.1 | 284.5 | 287.0 | 289.8 | 289.2 |
| 137.5° | 292.3 | 295.6 | 298.4 | 301.2 | 300.4 |
| 140°   | 304.3 | 306.5 | 309.6 | 312.1 | 310.7 |
| 142.5° | 314.3 | 316.2 | 319.9 | 322.1 | 320.7 |
| 145°   | 324.9 | 324.6 | 329.3 | 331.3 | 329.9 |
| 147.5° | 334.1 | 333.2 | 338.0 | 339.4 | 338.2 |
| 150°   | 343.0 | 341.0 | 345.5 | 347.1 | 345.8 |
| 152.5° | 350.5 | 348.3 | 352.4 | 354.1 | 352.2 |
| 155°   | 357.7 | 355.2 | 358.6 | 360.2 | 358.0 |
| 157.5° | 363.6 | 361.3 | 363.9 | 365.8 | 363.6 |
| 160°   | 368.6 | 366.9 | 368.6 | 370.3 | 368.3 |
| 162.5° | 373.0 | 371.4 | 372.8 | 374.7 | 372.2 |
| 165°   | 376.9 | 375.3 | 376.1 | 378.0 | 376.1 |
| 167.5° | 380.0 | 378.3 | 379.2 | 381.1 | 378.6 |
| 170°   | 382.5 | 380.8 | 381.4 | 383.3 | 380.8 |
| 172.5° | 384.2 | 382.5 | 383.1 | 385.0 | 382.5 |
| 175°   | 385.6 | 383.6 | 384.2 | 386.1 | 383.3 |
| 177.5° | 386.1 | 384.2 | 384.5 | 386.4 | 383.9 |
| 180°   | 384.7 | 384.7 | 384.7 | 384.7 | 384.7 |

(END OF REPORT)