

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: P334929

Luminaire Tested: **S124IP-S1205U940-4F0-1E-UDD**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334929  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124IP-S1205U940-4F0-1E-UDD  
Description: DEFINE 4 INDIRECT LED LUMINAIRE, NO LENS  
PENDANT MOUNT, 1205 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4289.5 lumens  
Efficiency: N/A  
Efficacy: 102.4 lumens/watt  
Spacing Criteria (0/90/45): - / - / -  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Indirect

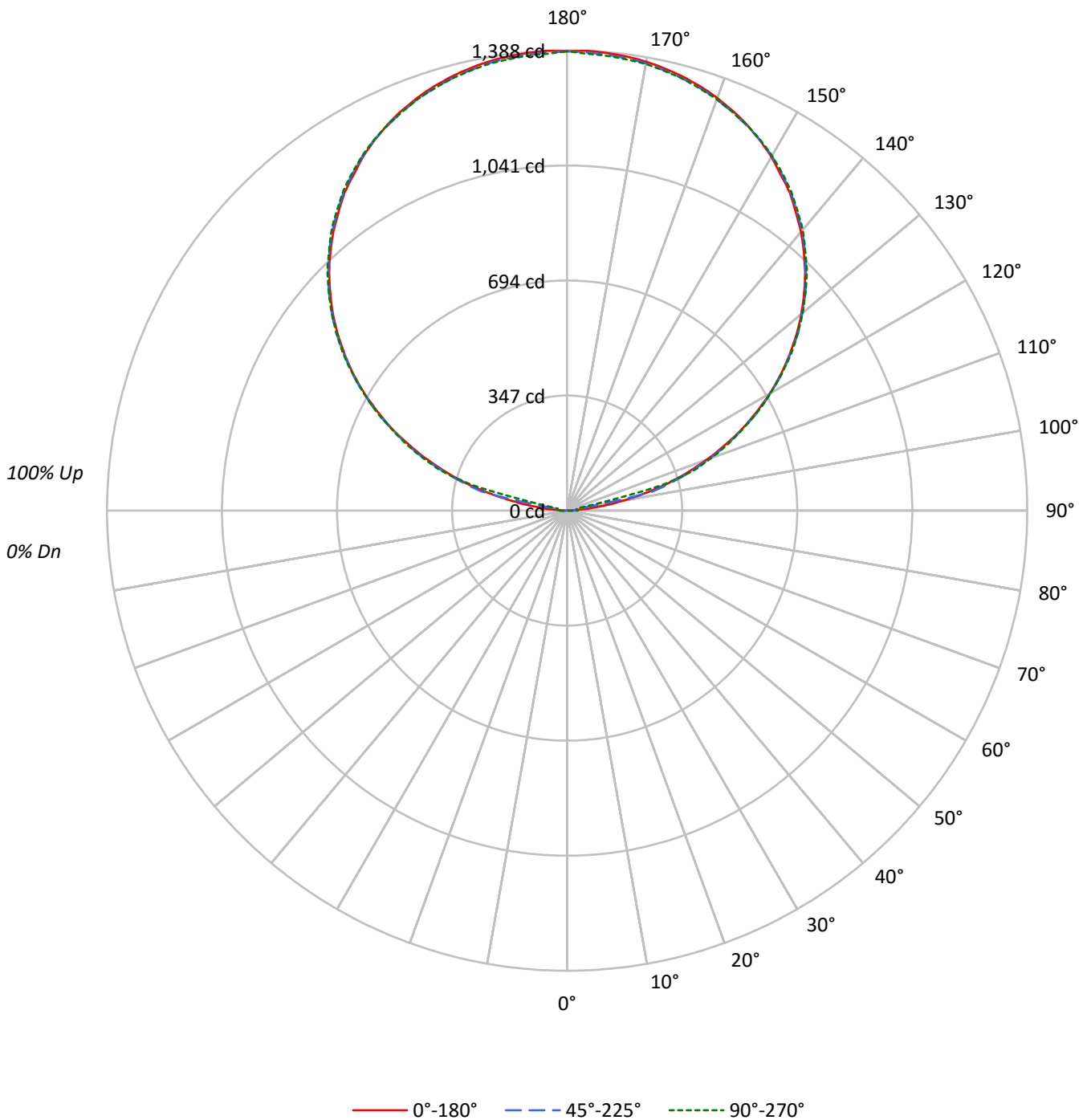
Input Watts (W): 41.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°   | 2.9    | 0.1       |
| 90°-100°  | 46.0   | 1.1       |
| 100°-110° | 302.8  | 7.1       |
| 110°-120° | 578.3  | 13.5      |
| 120°-130° | 734.1  | 17.1      |
| 130°-140° | 785.3  | 18.3      |
| 140°-150° | 734.4  | 17.1      |
| 150°-160° | 592.2  | 13.8      |
| 160°-170° | 381.9  | 8.9       |
| 170°-180° | 131.6  | 3.1       |
| 0°-30°    | 0.0    | 0.0       |
| 0°-40°    | 0.0    | 0.0       |
| 0°-60°    | 0.0    | 0.0       |
| 0°-90°    | 2.9    | 0.1       |
| 90°-120°  | 927.1  | 21.6      |
| 90°-150°  | 3180.9 | 74.2      |
| 90°-180°  | 4287.0 | 99.9      |
| 0°-180°   | 4289.5 | 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°  | 3    | 14    | 23   | 29    | 31   | 3    |
| 95°  | 57   | 22    | 23   | 29    | 30   | 70   |
| 105° | 312  | 318   | 323  | 333   | 295  | 326  |
| 115° | 582  | 585   | 584  | 586   | 586  | 573  |
| 125° | 818  | 823   | 821  | 824   | 825  | 731  |
| 135° | 1015 | 1014  | 1018 | 1021  | 1023 | 782  |
| 145° | 1171 | 1174  | 1174 | 1175  | 1177 | 732  |
| 155° | 1284 | 1285  | 1282 | 1286  | 1283 | 592  |
| 165° | 1354 | 1349  | 1349 | 1357  | 1348 | 383  |
| 175° | 1385 | 1379  | 1380 | 1389  | 1377 | 132  |
| 180° | 1385 | 1385  | 1385 | 1385  | 1385 |      |



TEST NUMBER: P334929

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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°    | 3.1   | 14.5  | 22.8  | 29.0  | 31.1  |
| 92.5°  | 15.5  | 13.5  | 21.8  | 28.0  | 28.0  |
| 95°    | 57.0  | 21.8  | 22.8  | 29.0  | 30.0  |
| 97.5°  | 108.8 | 131.6 | 22.8  | 28.0  | 29.0  |
| 100°   | 169.9 | 188.6 | 45.6  | 28.0  | 29.0  |
| 102.5° | 238.3 | 250.7 | 263.2 | 30.0  | 30.0  |
| 105°   | 311.9 | 318.1 | 323.3 | 332.6 | 295.3 |
| 107.5° | 379.2 | 382.3 | 389.6 | 394.8 | 398.9 |
| 110°   | 447.6 | 450.7 | 456.9 | 459.0 | 462.1 |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 513.9  | 520.1  | 522.2  | 521.2  | 525.3  |
| 115°   | 582.3  | 585.4  | 584.4  | 586.4  | 586.4  |
| 117.5° | 643.4  | 647.6  | 650.7  | 649.7  | 649.7  |
| 120°   | 705.6  | 709.7  | 708.7  | 710.8  | 708.7  |
| 122.5° | 763.6  | 765.7  | 767.8  | 768.8  | 766.7  |
| 125°   | 818.5  | 822.7  | 820.6  | 823.7  | 824.8  |
| 127.5° | 871.4  | 872.4  | 877.6  | 876.6  | 875.5  |
| 130°   | 922.2  | 923.2  | 926.3  | 927.3  | 927.3  |
| 132.5° | 968.8  | 970.9  | 975.0  | 976.0  | 975.0  |
| 135°   | 1015.4 | 1014.4 | 1018.5 | 1020.6 | 1022.7 |
| 137.5° | 1056.8 | 1056.8 | 1062.0 | 1064.1 | 1063.1 |
| 140°   | 1097.3 | 1099.3 | 1101.4 | 1104.5 | 1105.5 |
| 142.5° | 1133.5 | 1137.7 | 1138.7 | 1140.8 | 1140.8 |
| 145°   | 1170.8 | 1173.9 | 1173.9 | 1175.0 | 1177.0 |
| 147.5° | 1199.8 | 1206.1 | 1205.0 | 1206.1 | 1207.1 |
| 150°   | 1232.0 | 1236.1 | 1235.1 | 1235.1 | 1236.1 |
| 152.5° | 1258.9 | 1262.0 | 1259.9 | 1262.0 | 1261.0 |
| 155°   | 1283.8 | 1284.8 | 1281.7 | 1285.8 | 1282.7 |
| 157.5° | 1305.5 | 1305.5 | 1301.4 | 1306.6 | 1301.4 |
| 160°   | 1324.2 | 1321.1 | 1320.0 | 1326.2 | 1320.0 |
| 162.5° | 1340.7 | 1336.6 | 1335.6 | 1341.8 | 1334.5 |
| 165°   | 1354.2 | 1349.0 | 1349.0 | 1357.3 | 1348.0 |
| 167.5° | 1365.6 | 1360.4 | 1359.4 | 1368.7 | 1358.4 |
| 170°   | 1374.9 | 1368.7 | 1369.8 | 1378.0 | 1367.7 |
| 172.5° | 1381.2 | 1374.9 | 1376.0 | 1384.3 | 1372.9 |
| 175°   | 1385.3 | 1379.1 | 1380.1 | 1389.4 | 1377.0 |
| 177.5° | 1388.4 | 1381.2 | 1383.2 | 1391.5 | 1379.1 |
| 180°   | 1385.3 | 1385.3 | 1385.3 | 1385.3 | 1385.3 |

(END OF REPORT)