

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: BAL 11779

Luminaire Tested: **S242-2BX50W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: BAL 11779
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S242-2BX50W
Description: 2/50W BIAX 2x2'RECESSED GRID MNT LUMINAIRE w/WHITE REFL
Light Source: -
FT50W/2G11/835/RS
Ballast/Driver: ADVANCE BALLAST #REL-2TT50 WATTS=100 REFL=95%

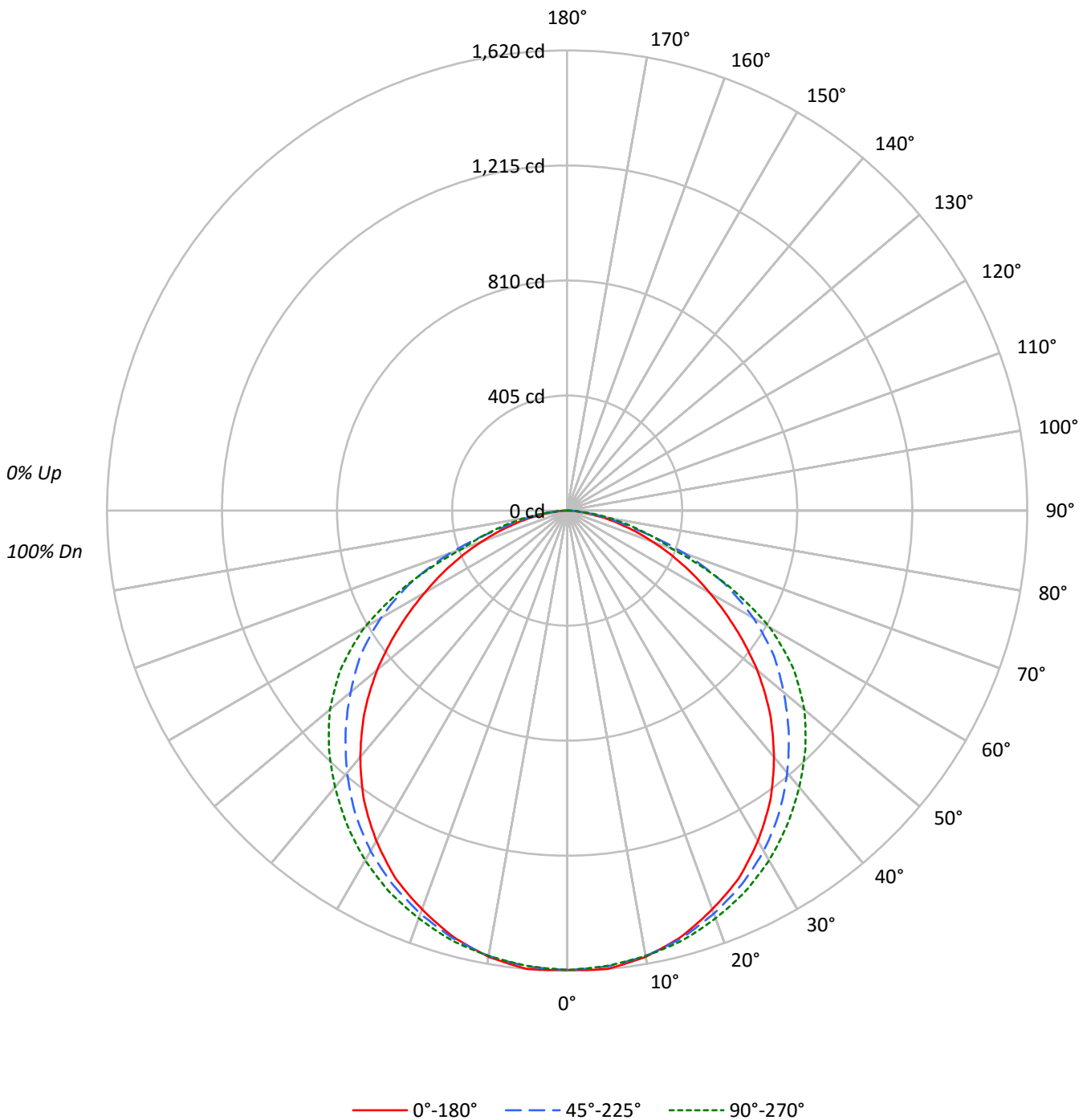
Summary

Lumens per Lamp: 4300 (2 lamps)
Luminaire Lumens: 4583.2 lumens
Efficiency: 53.3%
Efficacy: 45.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.31 / 1.39
Luminous Opening: Rectangular (W 1.92' x L: 1.92' x H: 0')
CIE Type: Direct

Input Watts (W): 100
Input Voltage (V): NR
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





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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 | 50 | 30 | 10 | 0 | |
| RCR | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 63 | 63 | 63 | 63 | 62 | 62 | 62 | 62 | 59 | 59 | 59 | 57 | 57 | 57 | 54 | 54 | 54 | 53 | | | | 53 |
| 1 | 58 | 56 | 53 | 51 | 57 | 54 | 52 | 51 | 52 | 51 | 49 | 50 | 49 | 48 | 48 | 47 | 46 | 45 | | | | 45 |
| 2 | 53 | 49 | 45 | 42 | 52 | 48 | 44 | 42 | 46 | 43 | 41 | 44 | 42 | 40 | 42 | 40 | 39 | 38 | | | | 38 |
| 3 | 48 | 43 | 38 | 35 | 47 | 42 | 38 | 35 | 40 | 37 | 34 | 39 | 36 | 33 | 37 | 35 | 33 | 32 | | | | 32 |
| 4 | 44 | 38 | 33 | 30 | 43 | 37 | 33 | 29 | 36 | 32 | 29 | 35 | 31 | 29 | 33 | 31 | 28 | 27 | | | | 27 |
| 5 | 41 | 34 | 29 | 25 | 39 | 33 | 29 | 25 | 32 | 28 | 25 | 31 | 28 | 25 | 30 | 27 | 25 | 23 | | | | 23 |
| 6 | 37 | 30 | 26 | 22 | 36 | 30 | 25 | 22 | 29 | 25 | 22 | 28 | 24 | 22 | 27 | 24 | 22 | 20 | | | | 20 |
| 7 | 35 | 28 | 23 | 20 | 34 | 27 | 23 | 20 | 26 | 22 | 19 | 25 | 22 | 19 | 25 | 22 | 19 | 18 | | | | 18 |
| 8 | 32 | 25 | 21 | 17 | 31 | 25 | 20 | 17 | 24 | 20 | 17 | 23 | 20 | 17 | 23 | 19 | 17 | 16 | | | | 16 |
| 9 | 30 | 23 | 19 | 16 | 29 | 23 | 19 | 16 | 22 | 18 | 16 | 22 | 18 | 15 | 21 | 18 | 15 | 14 | | | | 14 |
| 10 | 28 | 21 | 17 | 14 | 28 | 21 | 17 | 14 | 20 | 17 | 14 | 20 | 16 | 14 | 19 | 16 | 14 | 13 | | | | 13 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 4736 | 4736 | 4736 |
| 5° | 4763 | 4737 | 4731 |
| 10° | 4744 | 4735 | 4735 |
| 15° | 4709 | 4724 | 4752 |
| 20° | 4657 | 4707 | 4763 |
| 25° | 4618 | 4696 | 4786 |
| 30° | 4542 | 4681 | 4809 |
| 35° | 4459 | 4652 | 4831 |
| 40° | 4332 | 4607 | 4860 |
| 45° | 4184 | 4569 | 4913 |
| 50° | 3978 | 4534 | 4967 |
| 55° | 3697 | 4530 | 4969 |
| 60° | 3392 | 4440 | 4833 |
| 65° | 3098 | 4249 | 4332 |
| 70° | 2740 | 3760 | 3366 |
| 75° | 2320 | 2739 | 2999 |
| 80° | 1839 | 2159 | 2530 |
| 85° | 1243 | 1613 | 1613 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture | % Lamp |
|-----------|--------|-----------|--------|
| 0°-10° | 153.3 | 3.3 | 1.8 |
| 10°-20° | 440.0 | 9.6 | 5.1 |
| 20°-30° | 670.1 | 14.6 | 7.8 |
| 30°-40° | 812.4 | 17.7 | 9.4 |
| 40°-50° | 849.4 | 18.5 | 9.9 |
| 50°-60° | 771.9 | 16.8 | 9.0 |
| 60°-70° | 561.1 | 12.2 | 6.5 |
| 70°-80° | 266.3 | 5.8 | 3.1 |
| 80°-90° | 58.8 | 1.3 | 0.7 |
| 90°-100° | 0.0 | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 | 0.0 |
| 0°-30° | 1263.4 | 27.6 | 14.7 |
| 0°-40° | 2075.8 | 45.3 | 24.1 |
| 0°-60° | 3697.0 | 80.7 | 43.0 |
| 0°-90° | 4583.2 | 100.0 | 53.3 |
| 90°-120° | 0.0 | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 | 0.0 |
| 0°-180° | 4583.2 | 100.0 | 53.3 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1617 | 1617 | 1617 | 1617 | 1617 | |
| 5° | 1620 | 1614 | 1611 | 1611 | 1609 | 154 |
| 15° | 1553 | 1554 | 1558 | 1565 | 1567 | 438 |
| 25° | 1429 | 1435 | 1453 | 1474 | 1481 | 657 |
| 35° | 1247 | 1258 | 1301 | 1336 | 1351 | 778 |
| 45° | 1010 | 1043 | 1103 | 1163 | 1186 | 777 |
| 55° | 724 | 784 | 887 | 945 | 973 | 648 |
| 65° | 447 | 514 | 613 | 631 | 625 | 444 |
| 75° | 205 | 245 | 242 | 255 | 265 | 221 |
| 85° | 37 | 39 | 48 | 45 | 48 | 50 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CATALOG NUMBER: S242-2BX50W

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-----|------|-------|------|-------|------|
| 0° | 1617 | 1617 | 1617 | 1617 | 1617 |
| 5° | 1620 | 1614 | 1611 | 1611 | 1609 |
| 10° | 1595 | 1592 | 1592 | 1594 | 1592 |
| 15° | 1553 | 1554 | 1558 | 1565 | 1567 |
| 20° | 1494 | 1499 | 1510 | 1525 | 1528 |
| 25° | 1429 | 1435 | 1453 | 1474 | 1481 |
| 30° | 1343 | 1354 | 1384 | 1411 | 1422 |
| 35° | 1247 | 1258 | 1301 | 1336 | 1351 |
| 40° | 1133 | 1156 | 1205 | 1253 | 1271 |
| 45° | 1010 | 1043 | 1103 | 1163 | 1186 |
| 50° | 873 | 917 | 995 | 1062 | 1090 |
| 55° | 724 | 784 | 887 | 945 | 973 |
| 60° | 579 | 647 | 758 | 806 | 825 |
| 65° | 447 | 514 | 613 | 631 | 625 |
| 70° | 320 | 378 | 439 | 397 | 393 |
| 75° | 205 | 245 | 242 | 255 | 265 |
| 80° | 109 | 116 | 128 | 142 | 150 |
| 85° | 37 | 39 | 48 | 45 | 48 |
| 90° | 0 | 0 | 0 | 0 | 0 |

(END OF REPORT)