

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: METALUX

Report Number: P830124

Luminaire Tested: **OHBL-24SE-MFL-UNV-L935-CD**

Issue Date: 5/3/2024



Test Information

Test Method: LM-79-08
Report Number: P830124
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-285-1)
Test Lab: INNOVATION CENTER
Issue Date: 5/3/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: OHBL-24SE-MFL-UNV-L935-CD
Description: 24000 LUMEN OHBL SE LED LUMINAIRE WITH 90CRI, 3500K LEDS AND MEDIUM FROSTED LENS
Light Source: -
Ballast/Driver: -

Summary

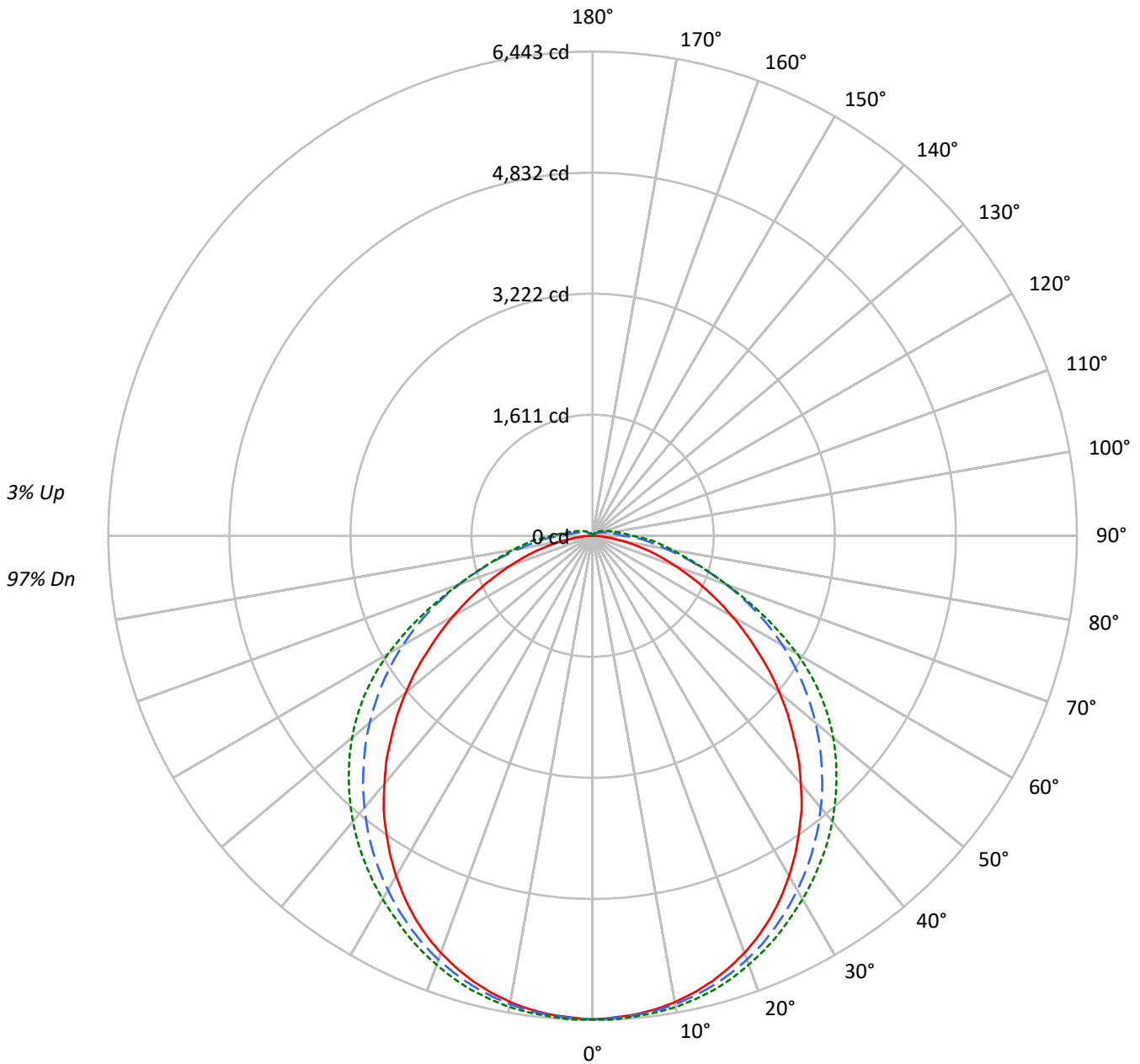
Lumens per Lamp: N/A
Luminaire Lumens: 19264.0 lumens
Efficiency: N/A
Efficacy: 139.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 1.67' x L: 3.78' x H: 0.17')
CIE Type: Direct

Input Watts (W): 138
Input Voltage (V): NR
Input Current (A_{in}): 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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CATALOG NUMBER: OHBL-24SE-MFL-UNV-L935-CD

Luminous Intensity Polar Plot





TEST NUMBER: P830124

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|---|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | |
| RC | 80 | | | | | | | | | 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 | 118 | 118 | 118 | 118 | 115 | 115 | 115 | 115 | 109 | 109 | 109 | 104 | 104 | 104 | 99 | 99 | 99 | 99 | 99 | 97 | | | | | | | | | | | | | | | | | |
| 1 | 107 | 102 | 98 | 94 | 104 | 100 | 96 | 92 | 95 | 91 | 88 | 90 | 88 | 85 | 86 | 84 | 82 | 82 | 82 | 80 | | | | | | | | | | | | | | | | | |
| 2 | 98 | 89 | 82 | 76 | 95 | 87 | 80 | 75 | 83 | 77 | 73 | 79 | 74 | 71 | 75 | 72 | 68 | 68 | 68 | 66 | | | | | | | | | | | | | | | | | |
| 3 | 89 | 78 | 70 | 63 | 86 | 76 | 69 | 62 | 73 | 66 | 61 | 70 | 64 | 59 | 67 | 62 | 58 | 58 | 58 | 56 | | | | | | | | | | | | | | | | | |
| 4 | 81 | 69 | 60 | 53 | 79 | 68 | 59 | 53 | 65 | 57 | 52 | 62 | 56 | 51 | 59 | 54 | 50 | 50 | 50 | 47 | | | | | | | | | | | | | | | | | |
| 5 | 75 | 62 | 53 | 46 | 72 | 60 | 52 | 46 | 58 | 50 | 45 | 56 | 49 | 44 | 53 | 48 | 43 | 43 | 43 | 41 | | | | | | | | | | | | | | | | | |
| 6 | 69 | 56 | 47 | 40 | 67 | 54 | 46 | 40 | 52 | 45 | 39 | 50 | 44 | 39 | 48 | 43 | 38 | 38 | 38 | 36 | | | | | | | | | | | | | | | | | |
| 7 | 64 | 50 | 42 | 35 | 62 | 49 | 41 | 35 | 48 | 40 | 35 | 46 | 39 | 34 | 44 | 38 | 34 | 34 | 34 | 32 | | | | | | | | | | | | | | | | | |
| 8 | 60 | 46 | 37 | 31 | 58 | 45 | 37 | 31 | 43 | 36 | 31 | 42 | 35 | 31 | 41 | 35 | 30 | 30 | 30 | 28 | | | | | | | | | | | | | | | | | |
| 9 | 56 | 42 | 34 | 28 | 54 | 41 | 34 | 28 | 40 | 33 | 28 | 39 | 32 | 28 | 37 | 32 | 27 | 27 | 27 | 25 | | | | | | | | | | | | | | | | | |
| 10 | 52 | 39 | 31 | 26 | 51 | 38 | 31 | 26 | 37 | 30 | 25 | 36 | 29 | 25 | 35 | 29 | 25 | 25 | 25 | 23 | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 10994 | 10994 | 10994 |
| 5° | 10924 | 10885 | 10916 |
| 10° | 10847 | 10784 | 10852 |
| 15° | 10726 | 10664 | 10770 |
| 20° | 10565 | 10519 | 10653 |
| 25° | 10350 | 10339 | 10535 |
| 30° | 10053 | 10144 | 10415 |
| 35° | 9693 | 9937 | 10311 |
| 40° | 9260 | 9697 | 10207 |
| 45° | 8750 | 9438 | 10076 |
| 50° | 8192 | 9175 | 9919 |
| 55° | 7507 | 8853 | 9658 |
| 60° | 6804 | 8475 | 9150 |
| 65° | 6038 | 7994 | 8325 |
| 70° | 5207 | 7381 | 7430 |
| 75° | 4365 | 6673 | 6813 |
| 80° | 3310 | 6147 | 6713 |
| 85° | 2094 | 6332 | 7404 |



TEST NUMBER: P830124

CATALOG NUMBER: OHBL-24SE-MFL-UNV-L935-CD

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 609.9 | 3.2 |
| 10°-20° | 1749.8 | 9.1 |
| 20°-30° | 2646.2 | 13.7 |
| 30°-40° | 3176.8 | 16.5 |
| 40°-50° | 3281.1 | 17.0 |
| 50°-60° | 2952.0 | 15.3 |
| 60°-70° | 2223.7 | 11.5 |
| 70°-80° | 1342.7 | 7.0 |
| 80°-90° | 656.7 | 3.4 |
| 90°-100° | 276.4 | 1.4 |
| 100°-110° | 157.8 | 0.8 |
| 110°-120° | 92.6 | 0.5 |
| 120°-130° | 52.4 | 0.3 |
| 130°-140° | 27.6 | 0.1 |
| 140°-150° | 13.4 | 0.1 |
| 150°-160° | 5.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 5005.9 | 26.0 |
| 0°-40° | 8182.6 | 42.5 |
| 0°-60° | 14415.7 | 74.8 |
| 0°-90° | 18638.8 | 96.8 |
| 90°-120° | 526.8 | 2.7 |
| 90°-150° | 620.2 | 3.2 |
| 90°-180° | 625.0 | 3.2 |
| 0°-180° | 19264.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 6437 | 6437 | 6437 | 6437 | 6437 | |
| 5° | 6396 | 6413 | 6405 | 6430 | 6422 | 608 |
| 15° | 6137 | 6167 | 6196 | 6248 | 6254 | 1730 |
| 25° | 5605 | 5666 | 5747 | 5836 | 5851 | 2578 |
| 35° | 4792 | 4904 | 5106 | 5260 | 5292 | 2996 |
| 45° | 3782 | 3973 | 4305 | 4540 | 4589 | 2920 |
| 55° | 2680 | 2957 | 3406 | 3663 | 3707 | 2402 |
| 65° | 1635 | 1969 | 2410 | 2530 | 2502 | 1625 |
| 75° | 770 | 1106 | 1396 | 1432 | 1418 | 822 |
| 85° | 161 | 424 | 699 | 796 | 810 | 186 |
| 90° | 0 | 165 | 400 | 504 | 525 | 10 |
| 95° | 8 | 112 | 299 | 381 | 395 | 7 |
| 105° | 11 | 65 | 173 | 227 | 236 | 11 |
| 115° | 13 | 36 | 107 | 143 | 150 | 13 |
| 125° | 13 | 17 | 65 | 93 | 98 | 11 |
| 135° | 11 | 14 | 33 | 57 | 63 | 9 |
| 145° | 16 | 14 | 16 | 28 | 33 | 9 |
| 155° | 16 | 17 | 16 | 14 | 16 | 5 |
| 165° | 0 | 0 | 0 | 0 | 0 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P830124

CATALOG NUMBER: OHBL-24SE-MFL-UNV-L935-CD

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 6436.7 | 6436.7 | 6436.7 | 6436.7 | 6436.7 |
| 2.5° | 6417.8 | 6433.6 | 6424.1 | 6444.6 | 6443.0 |
| 5° | 6395.8 | 6413.1 | 6405.2 | 6430.4 | 6422.5 |
| 7.5° | 6357.9 | 6376.9 | 6375.3 | 6403.6 | 6400.5 |
| 10° | 6302.8 | 6323.3 | 6329.6 | 6367.4 | 6367.4 |
| 12.5° | 6227.2 | 6254.0 | 6269.7 | 6315.4 | 6317.0 |
| 15° | 6137.4 | 6167.3 | 6195.7 | 6247.7 | 6254.0 |
| 17.5° | 6028.7 | 6066.5 | 6105.9 | 6165.8 | 6173.6 |
| 20° | 5905.8 | 5948.4 | 6001.9 | 6064.9 | 6074.4 |
| 22.5° | 5764.1 | 5814.5 | 5883.8 | 5957.8 | 5968.8 |
| 25° | 5605.0 | 5666.4 | 5746.7 | 5836.5 | 5850.7 |
| 27.5° | 5423.8 | 5494.7 | 5603.4 | 5704.2 | 5716.8 |
| 30° | 5226.9 | 5310.4 | 5445.8 | 5565.6 | 5586.0 |
| 32.5° | 5018.9 | 5115.0 | 5282.0 | 5415.9 | 5444.3 |
| 35° | 4792.1 | 4903.9 | 5105.6 | 5260.0 | 5291.5 |
| 37.5° | 4568.4 | 4691.3 | 4919.7 | 5096.1 | 5133.9 |
| 40° | 4306.9 | 4459.7 | 4721.2 | 4916.5 | 4962.2 |
| 42.5° | 4061.1 | 4226.6 | 4522.7 | 4735.4 | 4779.5 |
| 45° | 3782.3 | 3972.9 | 4305.3 | 4540.0 | 4588.9 |
| 47.5° | 3520.8 | 3727.2 | 4095.8 | 4338.4 | 4388.8 |
| 50° | 3245.1 | 3472.0 | 3872.1 | 4125.7 | 4177.7 |
| 52.5° | 2969.5 | 3213.6 | 3640.5 | 3903.6 | 3952.5 |
| 55° | 2679.6 | 2956.9 | 3405.8 | 3662.6 | 3706.7 |
| 57.5° | 2410.2 | 2703.2 | 3164.8 | 3409.0 | 3435.8 |
| 60° | 2144.0 | 2448.0 | 2919.0 | 3133.3 | 3142.7 |
| 62.5° | 1884.1 | 2203.9 | 2667.0 | 2837.1 | 2824.5 |
| 65° | 1635.2 | 1969.1 | 2410.2 | 2529.9 | 2501.6 |
| 67.5° | 1395.7 | 1740.7 | 2147.1 | 2224.3 | 2186.5 |
| 70° | 1168.9 | 1518.6 | 1891.9 | 1931.3 | 1896.7 |
| 72.5° | 968.8 | 1307.5 | 1633.6 | 1666.7 | 1641.5 |
| 75° | 770.3 | 1105.9 | 1395.7 | 1432.0 | 1417.8 |
| 77.5° | 584.4 | 910.5 | 1176.8 | 1224.0 | 1227.2 |
| 80° | 420.6 | 732.5 | 986.1 | 1060.2 | 1069.6 |
| 82.5° | 277.3 | 568.7 | 827.0 | 921.6 | 935.7 |
| 85° | 160.7 | 423.8 | 699.4 | 795.5 | 809.7 |
| 87.5° | 69.3 | 305.6 | 562.4 | 649.0 | 666.4 |
| 90° | 0.0 | 165.4 | 400.1 | 504.1 | 524.6 |
| 92.5° | 4.7 | 137.1 | 343.4 | 437.9 | 455.3 |
| 95° | 7.9 | 111.8 | 299.3 | 381.2 | 395.4 |
| 97.5° | 9.5 | 94.5 | 259.9 | 332.4 | 346.6 |
| 100° | 9.5 | 81.9 | 225.3 | 291.4 | 304.0 |
| 102.5° | 9.5 | 72.5 | 196.9 | 255.2 | 266.2 |
| 105° | 11.0 | 64.6 | 173.3 | 226.8 | 236.3 |



TEST NUMBER: P830124

CATALOG NUMBER: OHBL-24SE-MFL-UNV-L935-CD

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|------|-------|-------|-------|-------|
| 112.5° | 12.6 | 42.5 | 119.7 | 160.7 | 167.0 |
| 115° | 12.6 | 36.2 | 107.1 | 143.4 | 149.7 |
| 117.5° | 14.2 | 31.5 | 94.5 | 129.2 | 133.9 |
| 120° | 14.2 | 26.8 | 83.5 | 115.0 | 121.3 |
| 122.5° | 14.2 | 22.1 | 74.0 | 104.0 | 108.7 |
| 125° | 12.6 | 17.3 | 64.6 | 92.9 | 97.7 |
| 127.5° | 11.0 | 14.2 | 55.1 | 83.5 | 88.2 |
| 130° | 11.0 | 12.6 | 47.3 | 74.0 | 78.8 |
| 132.5° | 11.0 | 14.2 | 39.4 | 64.6 | 70.9 |
| 135° | 11.0 | 14.2 | 33.1 | 56.7 | 63.0 |
| 137.5° | 11.0 | 14.2 | 26.8 | 48.8 | 55.1 |
| 140° | 12.6 | 14.2 | 22.1 | 41.0 | 47.3 |
| 142.5° | 14.2 | 14.2 | 17.3 | 34.7 | 39.4 |
| 145° | 15.8 | 14.2 | 15.8 | 28.4 | 33.1 |
| 147.5° | 15.8 | 15.8 | 15.8 | 22.1 | 26.8 |
| 150° | 15.8 | 17.3 | 15.8 | 17.3 | 22.1 |
| 152.5° | 15.8 | 17.3 | 15.8 | 14.2 | 17.3 |
| 155° | 15.8 | 17.3 | 15.8 | 14.2 | 15.8 |
| 157.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 160° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 162.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 165° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 167.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 170° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 172.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 175° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 177.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - - 90°-270°







| | | | | | |
|--------|------|------|-------|-------|-------|
| 107.5° | 11.0 | 56.7 | 152.8 | 201.6 | 209.5 |
| 110° | 11.0 | 50.4 | 135.5 | 179.6 | 187.5 |



(END OF REPORT)