

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: P827182

Luminaire Tested: **OHBL-30SE-N-UNV-L840-CD-UPL30**

Issue Date: 5/3/2024



Test Information

Test Method: LM-79-08
Report Number: P827182
REPORT IS A COMBINATION OF REPORTS P826284 AND G3-2310-221-4
Test Lab: INNOVATION CENTER
Issue Date: 5/3/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: OHBL-30SE-N-UNV-L840-CD-UPL30
Description: 30000 LUMEN OHBL SE LED LUMINAIRE WITH 80CRI, 4000K LEDS AND NARROW LENS AND 3000 LUMEN UPLIGHT MODULE
Light Source: -
Ballast/Driver: -

Summary

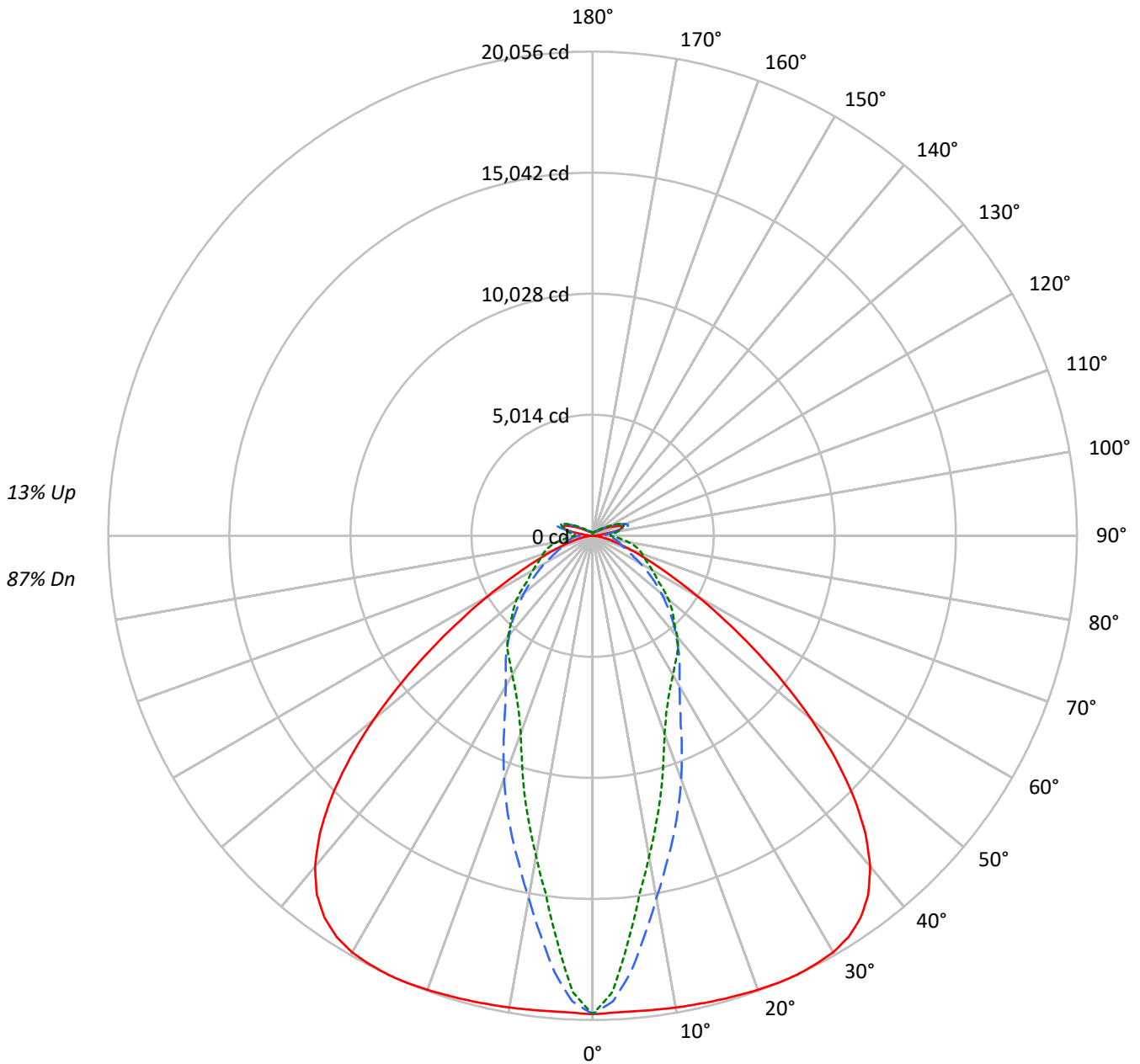
Lumens per Lamp: N/A
Luminaire Lumens: 32305.0 lumens
Efficiency: N/A
Efficacy: 163.8 lumens/watt
Spacing Criteria (0/90/45): 1.47 / 0.53 / 0.78
Luminous Opening: Rectangular w/ Sides (W: 3.78' x L: 1.67' x H: 0.17')
CIE Type: Semi-Direct

Input Watts (W): 197.2
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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Luminous Intensity Polar Plot





TEST NUMBER: P827182

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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 | 116 | 116 | 116 | 116 | 112 | 112 | 112 | 112 | 104 | 104 | 104 | 97 | 97 | 97 | 91 | 91 | 91 | 87 | | | | 87 | | | | | | | | | | | | | | | |
| 1 | 107 | 102 | 98 | 95 | 103 | 99 | 95 | 92 | 92 | 89 | 87 | 86 | 84 | 82 | 81 | 79 | 77 | 75 | | | | 75 | | | | | | | | | | | | | | | |
| 2 | 98 | 91 | 84 | 79 | 94 | 88 | 82 | 77 | 82 | 78 | 74 | 77 | 73 | 70 | 72 | 70 | 67 | 64 | | | | 64 | | | | | | | | | | | | | | | |
| 3 | 90 | 81 | 74 | 68 | 87 | 78 | 72 | 66 | 74 | 68 | 64 | 69 | 65 | 61 | 65 | 62 | 58 | 56 | | | | 56 | | | | | | | | | | | | | | | |
| 4 | 83 | 73 | 65 | 59 | 80 | 71 | 63 | 58 | 67 | 60 | 56 | 63 | 58 | 54 | 59 | 55 | 52 | 49 | | | | 49 | | | | | | | | | | | | | | | |
| 5 | 77 | 66 | 58 | 52 | 75 | 64 | 56 | 51 | 60 | 54 | 49 | 57 | 52 | 47 | 54 | 50 | 46 | 44 | | | | 44 | | | | | | | | | | | | | | | |
| 6 | 72 | 60 | 52 | 46 | 69 | 58 | 51 | 45 | 55 | 49 | 44 | 52 | 47 | 43 | 50 | 45 | 41 | 39 | | | | 39 | | | | | | | | | | | | | | | |
| 7 | 67 | 55 | 47 | 41 | 65 | 53 | 46 | 41 | 51 | 44 | 40 | 48 | 43 | 38 | 46 | 41 | 37 | 35 | | | | 35 | | | | | | | | | | | | | | | |
| 8 | 63 | 50 | 43 | 37 | 61 | 49 | 42 | 37 | 47 | 40 | 36 | 45 | 39 | 35 | 43 | 38 | 34 | 32 | | | | 32 | | | | | | | | | | | | | | | |
| 9 | 59 | 47 | 39 | 34 | 57 | 46 | 38 | 34 | 44 | 37 | 33 | 42 | 36 | 32 | 40 | 35 | 31 | 29 | | | | 29 | | | | | | | | | | | | | | | |
| 10 | 55 | 43 | 36 | 31 | 54 | 42 | 35 | 31 | 41 | 34 | 30 | 39 | 33 | 29 | 37 | 32 | 29 | 27 | | | | 27 | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 33840 | 33840 | 33840 |
| 5° | 33608 | 30817 | 28792 |
| 10° | 33822 | 25959 | 23200 |
| 15° | 34311 | 22201 | 19137 |
| 20° | 35094 | 18772 | 15558 |
| 25° | 36113 | 15538 | 13706 |
| 30° | 37146 | 13386 | 12806 |
| 35° | 37682 | 12199 | 12278 |
| 40° | 36779 | 11019 | 11729 |
| 45° | 33568 | 9958 | 10945 |
| 50° | 28061 | 8797 | 10368 |
| 55° | 21088 | 7706 | 9329 |
| 60° | 14577 | 6608 | 9055 |
| 65° | 9632 | 5691 | 9024 |
| 70° | 6419 | 5341 | 9701 |
| 75° | 4295 | 5509 | 10750 |
| 80° | 2781 | 6101 | 11767 |
| 85° | 1431 | 7631 | 14030 |



TEST NUMBER: P827182

CATALOG NUMBER: OHBL-30SE-N-UNV-L840-CD-UPL30

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 1667.8 | 5.2 |
| 10°-20° | 3923.5 | 12.1 |
| 20°-30° | 4918.1 | 15.2 |
| 30°-40° | 5218.6 | 16.2 |
| 40°-50° | 4718.4 | 14.6 |
| 50°-60° | 3421.2 | 10.6 |
| 60°-70° | 2147.0 | 6.6 |
| 70°-80° | 1420.8 | 4.4 |
| 80°-90° | 825.0 | 2.6 |
| 90°-100° | 633.3 | 2.0 |
| 100°-110° | 1343.9 | 4.2 |
| 110°-120° | 1050.0 | 3.3 |
| 120°-130° | 497.6 | 1.5 |
| 130°-140° | 247.2 | 0.8 |
| 140°-150° | 143.1 | 0.4 |
| 150°-160° | 80.8 | 0.2 |
| 160°-170° | 37.3 | 0.1 |
| 170°-180° | 11.4 | 0.0 |
| 0°-30° | 10509.4 | 32.5 |
| 0°-40° | 15728.0 | 48.7 |
| 0°-60° | 23867.6 | 73.9 |
| 0°-90° | 28260.4 | 87.5 |
| 90°-120° | 3027.2 | 9.4 |
| 90°-150° | 3915.1 | 12.1 |
| 90°-180° | 4045.0 | 12.5 |
| 0°-180° | 32305.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-------|-------|-------|-------|-------|-------|
| 0° | 19813 | 19813 | 19813 | 19813 | 19813 | |
| 5° | 19773 | 19266 | 18135 | 17294 | 16858 | ### |
| 15° | 19924 | 16240 | 12898 | 11471 | 10950 | 5650 |
| 25° | 20056 | 12557 | 8636 | 7665 | 7422 | 9266 |
| 35° | 19338 | 8348 | 6268 | 6072 | 6070 | 12021 |
| 45° | 15287 | 5288 | 4543 | 4652 | 4731 | 11646 |
| 55° | 8093 | 3277 | 2964 | 3215 | 3330 | 7313 |
| 65° | 2894 | 1901 | 1716 | 2199 | 2444 | 3012 |
| 75° | 894 | 1024 | 1152 | 1790 | 1897 | 996 |
| 85° | 156 | 424 | 843 | 1173 | 1077 | 188 |
| 90° | 7 | 218 | 542 | 749 | 755 | 15 |
| 95° | 64 | 240 | 570 | 762 | 801 | 213 |
| 105° | 1292 | 1370 | 1501 | 1307 | 1211 | 1221 |
| 115° | 903 | 940 | 1092 | 1149 | 1137 | 904 |
| 125° | 457 | 477 | 566 | 583 | 575 | 425 |
| 135° | 274 | 283 | 313 | 344 | 344 | 216 |
| 145° | 209 | 214 | 222 | 239 | 238 | 132 |
| 155° | 172 | 180 | 184 | 188 | 184 | 77 |
| 165° | 128 | 129 | 130 | 132 | 132 | 37 |
| 175° | 116 | 117 | 117 | 118 | 118 | 11 |
| 180° | 115 | 115 | 115 | 115 | 115 | |



TEST NUMBER: P827182

CATALOG NUMBER: OHBL-30SE-N-UNV-L840-CD-UPL30

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|---------|---------|---------|---------|---------|
| 0° | 19813.0 | 19813.0 | 19813.0 | 19813.0 | 19813.0 |
| 2.5° | 19771.5 | 19658.4 | 19305.8 | 19090.8 | 18909.8 |
| 5° | 19773.4 | 19266.2 | 18134.7 | 17293.7 | 16858.1 |
| 7.5° | 19801.7 | 18674.1 | 16635.6 | 15408.0 | 14929.1 |
| 10° | 19845.1 | 17940.5 | 15236.4 | 13927.8 | 13480.8 |
| 12.5° | 19877.1 | 17114.6 | 14005.1 | 12660.6 | 12170.3 |
| 15° | 19924.3 | 16239.6 | 12898.2 | 11470.7 | 10950.2 |
| 17.5° | 19967.6 | 15415.6 | 11804.5 | 10312.9 | 9734.0 |
| 20° | 20011.0 | 14527.4 | 10710.8 | 9173.9 | 8696.8 |
| 22.5° | 20052.5 | 13590.2 | 9643.5 | 8289.5 | 7963.3 |
| 25° | 20056.3 | 12556.9 | 8636.5 | 7665.4 | 7422.1 |
| 27.5° | 20007.2 | 11485.8 | 7820.0 | 7143.0 | 6992.2 |
| 30° | 19922.4 | 10446.8 | 7186.4 | 6765.9 | 6658.4 |
| 32.5° | 19711.2 | 9387.0 | 6696.1 | 6401.9 | 6339.7 |
| 35° | 19337.8 | 8348.0 | 6268.1 | 6071.9 | 6070.1 |
| 37.5° | 18749.5 | 7425.9 | 5804.2 | 5770.2 | 5811.7 |
| 40° | 17880.2 | 6618.8 | 5364.8 | 5455.3 | 5455.3 |
| 42.5° | 16720.5 | 5917.3 | 4966.9 | 5059.3 | 5034.8 |
| 45° | 15287.3 | 5287.5 | 4542.6 | 4652.0 | 4731.2 |
| 47.5° | 13626.0 | 4733.1 | 4108.9 | 4320.1 | 4429.5 |
| 50° | 11819.5 | 4205.1 | 3712.9 | 3982.6 | 4107.0 |
| 52.5° | 9926.3 | 3716.7 | 3326.4 | 3635.6 | 3735.6 |
| 55° | 8093.4 | 3277.3 | 2964.3 | 3215.1 | 3330.1 |
| 57.5° | 6434.0 | 2858.7 | 2609.8 | 2847.4 | 3085.0 |
| 60° | 5006.5 | 2498.5 | 2276.0 | 2615.5 | 2853.1 |
| 62.5° | 3824.2 | 2178.0 | 1963.0 | 2398.6 | 2636.2 |
| 65° | 2894.5 | 1900.8 | 1716.0 | 2198.7 | 2443.9 |
| 67.5° | 2181.8 | 1661.3 | 1523.6 | 2053.5 | 2293.0 |
| 70° | 1638.7 | 1429.4 | 1369.0 | 1963.0 | 2178.0 |
| 72.5° | 1210.6 | 1216.3 | 1246.4 | 1883.8 | 2047.9 |
| 75° | 893.8 | 1023.9 | 1152.2 | 1789.5 | 1897.0 |
| 77.5° | 639.3 | 848.6 | 1067.3 | 1676.4 | 1714.1 |
| 80° | 443.1 | 692.1 | 978.7 | 1527.4 | 1495.4 |
| 82.5° | 277.2 | 554.4 | 899.5 | 1363.4 | 1274.7 |
| 85° | 156.5 | 424.3 | 842.9 | 1172.9 | 1076.7 |
| 87.5° | 69.8 | 316.8 | 737.3 | 914.6 | 854.2 |
| 90° | 7.0 | 218.3 | 542.4 | 749.3 | 754.9 |
| 92.5° | 24.8 | 198.1 | 516.7 | 710.8 | 731.7 |
| 95° | 64.5 | 239.5 | 569.9 | 761.6 | 801.0 |
| 97.5° | 357.4 | 455.4 | 703.5 | 892.1 | 953.7 |
| 100° | 698.3 | 824.1 | 912.5 | 1049.7 | 1073.6 |
| 102.5° | 1097.2 | 1194.5 | 1203.3 | 1168.5 | 1153.5 |
| 105° | 1292.1 | 1370.0 | 1501.0 | 1306.9 | 1211.2 |



TEST NUMBER: P827182

CATALOG NUMBER: OHBL-30SE-N-UNV-L840-CD-UPL30

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 1042.9 | 1096.1 | 1268.7 | 1317.9 | 1303.4 |
| 115° | 902.7 | 940.5 | 1092.2 | 1149.0 | 1136.7 |
| 117.5° | 766.6 | 799.9 | 935.8 | 974.9 | 968.8 |
| 120° | 648.6 | 680.3 | 791.4 | 825.0 | 817.0 |
| 122.5° | 545.6 | 575.7 | 675.0 | 696.1 | 685.2 |
| 125° | 456.6 | 477.2 | 566.5 | 582.8 | 574.9 |
| 127.5° | 388.7 | 401.5 | 472.7 | 498.1 | 491.3 |
| 130° | 337.7 | 349.5 | 404.8 | 433.2 | 432.2 |
| 132.5° | 300.9 | 311.6 | 352.6 | 382.0 | 381.0 |
| 135° | 273.9 | 282.6 | 313.1 | 344.5 | 344.5 |
| 137.5° | 249.9 | 262.5 | 282.6 | 311.1 | 311.1 |
| 140° | 232.9 | 241.6 | 257.9 | 282.6 | 283.6 |
| 142.5° | 219.7 | 225.6 | 238.2 | 259.0 | 260.0 |
| 145° | 208.6 | 213.5 | 222.3 | 239.4 | 237.5 |
| 147.5° | 196.6 | 204.4 | 210.3 | 221.7 | 219.8 |
| 150° | 187.6 | 196.3 | 200.3 | 206.9 | 206.1 |
| 152.5° | 179.6 | 187.3 | 190.3 | 196.1 | 194.2 |
| 155° | 171.6 | 180.3 | 184.2 | 188.1 | 184.3 |
| 157.5° | 143.0 | 145.0 | 147.0 | 148.0 | 149.0 |
| 160° | 138.0 | 139.0 | 141.0 | 142.0 | 143.0 |
| 162.5° | 132.0 | 134.0 | 135.0 | 136.0 | 137.0 |
| 165° | 128.0 | 129.0 | 130.0 | 132.0 | 132.0 |
| 167.5° | 124.0 | 125.0 | 126.0 | 127.0 | 127.0 |
| 170° | 121.0 | 122.0 | 123.0 | 123.0 | 123.0 |
| 172.5° | 118.0 | 119.0 | 120.0 | 120.0 | 120.0 |
| 175° | 116.0 | 117.0 | 117.0 | 118.0 | 118.0 |
| 177.5° | 115.0 | 116.0 | 116.0 | 116.0 | 117.0 |
| 180° | 115.0 | 115.0 | 115.0 | 115.0 | 115.0 |



Report Generated By 670246072 / DESKTOP-50001EG





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







| | | | | | |
|--------|--------|--------|--------|--------|--------|
| 107.5° | 1291.1 | 1371.3 | 1533.6 | 1463.5 | 1336.7 |
| 110° | 1187.0 | 1260.8 | 1428.1 | 1446.9 | 1390.1 |



(END OF REPORT)