

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: P563293

Luminaire Tested: **VHB-30-N-UNV-L940-CD**

Issue Date: 6/3/2022



Test Information

Test Method: LM-79-08
Report Number: P563293
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P364424)
Test Lab: INNOVATION CENTER
Issue Date: 6/3/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: VHB-30-N-UNV-L940-CD
Description: 30000 LUMEN, VHB LED LUMINAIRE WITH, NARROW LENS AND 90CRI, 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

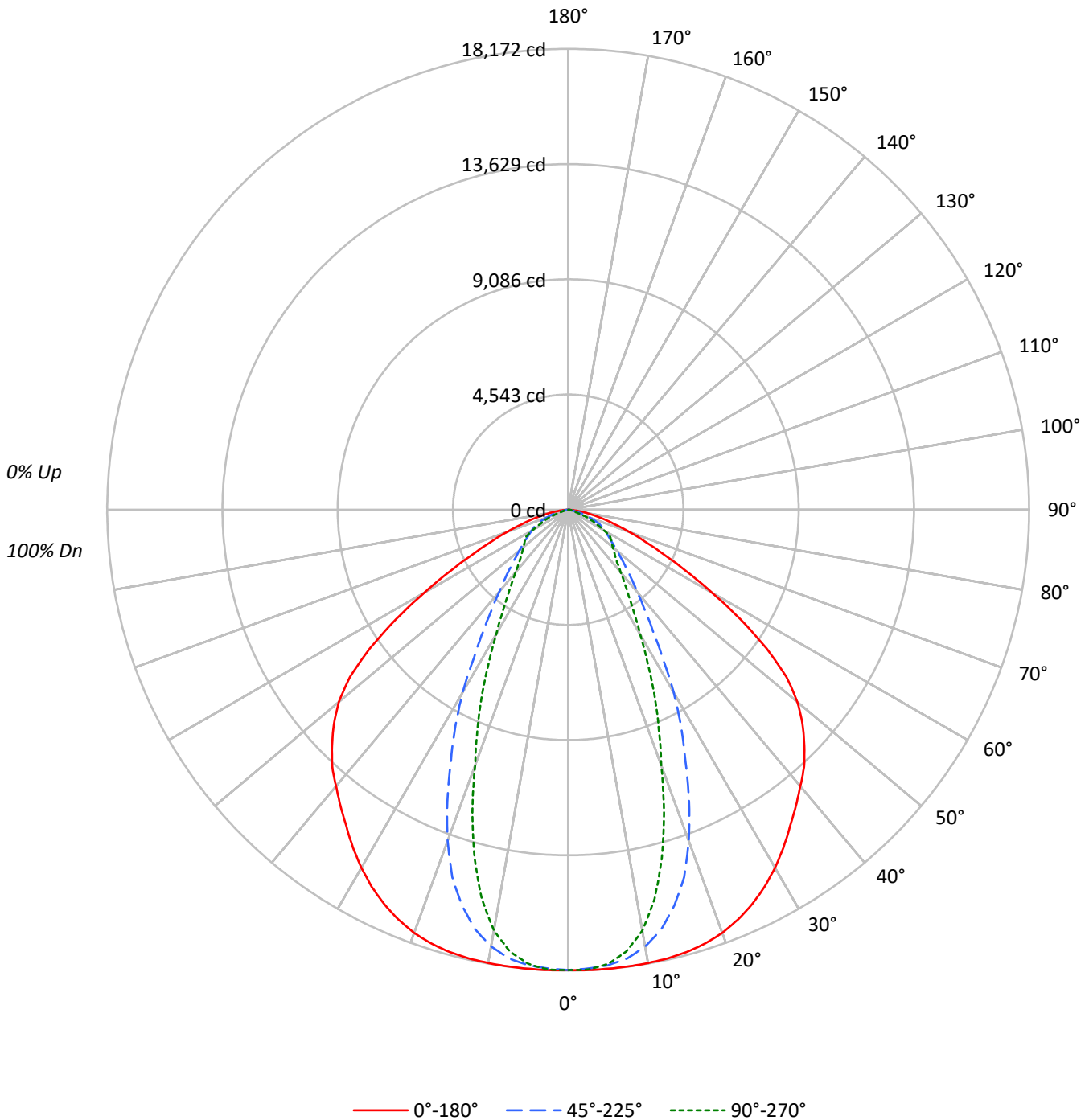
Lumens per Lamp: N/A
Luminaire Lumens: 25604.0 lumens
Efficiency: N/A
Efficacy: 125.5 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 0.72 / 0.86
Luminous Opening: Rectangular (W 1.75' x L: 1.58' x H: 0')
CIE Type: Direct

Input Watts (W): 204
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

TEST NUMBER: P563293

CATALOG NUMBER: VHB-30-N-UNV-L940-CD

Luminous Intensity Polar Plot





TEST NUMBER: P563293

CATALOG NUMBER: VHB-30-N-UNV-L940-CD

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 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 111 | 108 | 104 | 101 | 109 | 105 | 102 | 100 | 101 | 99 | 96 | 97 | 95 | 94 | 94 | 92 | 91 | 89 |
| 2 | 103 | 97 | 91 | 87 | 101 | 95 | 90 | 86 | 91 | 87 | 84 | 88 | 85 | 82 | 85 | 83 | 80 | 78 |
| 3 | 96 | 87 | 81 | 75 | 94 | 86 | 80 | 75 | 83 | 78 | 73 | 80 | 76 | 72 | 78 | 74 | 71 | 69 |
| 4 | 89 | 79 | 72 | 66 | 87 | 78 | 71 | 66 | 76 | 70 | 65 | 74 | 68 | 64 | 71 | 67 | 64 | 62 |
| 5 | 83 | 72 | 65 | 59 | 81 | 71 | 64 | 59 | 69 | 63 | 58 | 68 | 62 | 58 | 66 | 61 | 57 | 55 |
| 6 | 78 | 66 | 59 | 53 | 76 | 66 | 58 | 53 | 64 | 57 | 53 | 62 | 57 | 52 | 61 | 56 | 52 | 50 |
| 7 | 73 | 61 | 54 | 48 | 71 | 61 | 53 | 48 | 59 | 53 | 48 | 58 | 52 | 48 | 57 | 51 | 47 | 46 |
| 8 | 69 | 57 | 49 | 44 | 67 | 56 | 49 | 44 | 55 | 49 | 44 | 54 | 48 | 44 | 53 | 47 | 44 | 42 |
| 9 | 65 | 53 | 46 | 41 | 63 | 52 | 45 | 41 | 51 | 45 | 41 | 50 | 44 | 40 | 49 | 44 | 40 | 39 |
| 10 | 61 | 49 | 42 | 38 | 60 | 49 | 42 | 38 | 48 | 42 | 38 | 47 | 41 | 37 | 46 | 41 | 37 | 36 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 70529 | 70529 | 70529 |
| 5° | 70860 | 70323 | 70119 |
| 10° | 71605 | 68974 | 66455 |
| 15° | 72626 | 64987 | 57300 |
| 20° | 73409 | 57412 | 44364 |
| 25° | 73556 | 46881 | 34375 |
| 30° | 73143 | 37234 | 25442 |
| 35° | 72308 | 27591 | 19784 |
| 40° | 72195 | 21426 | 16328 |
| 45° | 72347 | 17632 | 14505 |
| 50° | 71320 | 15250 | 13834 |
| 55° | 64745 | 13594 | 13979 |
| 60° | 50903 | 12992 | 12737 |
| 65° | 37808 | 12592 | 9586 |
| 70° | 28997 | 10081 | 5852 |
| 75° | 22072 | 7190 | 3229 |
| 80° | 16206 | 3345 | 2606 |
| 85° | 10140 | 2875 | 2322 |



TEST NUMBER: P563293

CATALOG NUMBER: VHB-30-N-UNV-L940-CD

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 1705.7 | 6.7 |
| 10°-20° | 4490.2 | 17.5 |
| 20°-30° | 5422.4 | 21.2 |
| 30°-40° | 4848.3 | 18.9 |
| 40°-50° | 3796.5 | 14.8 |
| 50°-60° | 2868.6 | 11.2 |
| 60°-70° | 1703.8 | 6.7 |
| 70°-80° | 654.8 | 2.6 |
| 80°-90° | 113.8 | 0.4 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 11618.3 | 45.4 |
| 0°-40° | 16466.6 | 64.3 |
| 0°-60° | 23131.7 | 90.3 |
| 0°-90° | 25604.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 25604.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-------|-------|-------|-------|-------|-------|
| 0° | 18155 | 18155 | 18155 | 18155 | 18155 | |
| 5° | 18171 | 18092 | 18033 | 18009 | 17981 | ### |
| 15° | 18058 | 17462 | 16158 | 14808 | 14247 | 5102 |
| 25° | 17160 | 15142 | 10937 | 8623 | 8020 | 7901 |
| 35° | 15247 | 10850 | 5818 | 4536 | 4172 | 9561 |
| 45° | 13168 | 5611 | 3209 | 2711 | 2640 | 10136 |
| 55° | 9559 | 3044 | 2007 | 1999 | 2064 | 8395 |
| 65° | 4113 | 1709 | 1370 | 1142 | 1043 | 4238 |
| 75° | 1470 | 822 | 479 | 237 | 215 | 1610 |
| 85° | 228 | 79 | 64 | 57 | 52 | 303 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P563293

CATALOG NUMBER: VHB-30-N-UNV-L940-CD

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|---------|---------|---------|---------|---------|
| 0° | 18155.2 | 18155.2 | 18155.2 | 18155.2 | 18155.2 |
| 2.5° | 18172.3 | 18112.4 | 18107.6 | 18146.2 | 18152.0 |
| 5° | 18171.0 | 18091.8 | 18033.1 | 18009.3 | 17980.8 |
| 7.5° | 18165.5 | 18045.5 | 17847.4 | 17657.2 | 17568.9 |
| 10° | 18152.0 | 17939.1 | 17485.2 | 17052.7 | 16846.6 |
| 12.5° | 18122.4 | 17748.8 | 16947.3 | 16152.6 | 15720.1 |
| 15° | 18057.9 | 17462.5 | 16158.4 | 14807.6 | 14247.2 |
| 17.5° | 17941.2 | 17067.2 | 15191.5 | 13285.0 | 12563.8 |
| 20° | 17756.8 | 16564.7 | 13887.4 | 11548.5 | 10731.1 |
| 22.5° | 17491.8 | 15908.2 | 12450.7 | 9985.0 | 9331.9 |
| 25° | 17160.2 | 15141.8 | 10937.1 | 8623.1 | 8019.6 |
| 27.5° | 16766.3 | 14247.2 | 9632.8 | 7355.2 | 6760.8 |
| 30° | 16305.5 | 13202.3 | 8300.5 | 6157.3 | 5671.7 |
| 32.5° | 15790.4 | 12102.0 | 6909.2 | 5243.7 | 4844.3 |
| 35° | 15246.9 | 10849.9 | 5817.8 | 4536.2 | 4171.7 |
| 37.5° | 14735.2 | 9509.4 | 4926.9 | 3910.3 | 3654.3 |
| 40° | 14236.1 | 8101.3 | 4225.0 | 3415.5 | 3219.7 |
| 42.5° | 13765.1 | 6754.1 | 3688.4 | 3001.2 | 2873.1 |
| 45° | 13168.5 | 5610.7 | 3209.4 | 2711.4 | 2640.1 |
| 47.5° | 12535.5 | 4735.4 | 2829.0 | 2475.8 | 2450.9 |
| 50° | 11800.8 | 4033.7 | 2523.3 | 2271.0 | 2289.0 |
| 52.5° | 10847.6 | 3478.9 | 2233.5 | 2126.0 | 2179.3 |
| 55° | 9559.3 | 3044.3 | 2007.1 | 1999.2 | 2063.9 |
| 57.5° | 8050.3 | 2628.7 | 1828.2 | 1878.2 | 1950.6 |
| 60° | 6551.5 | 2294.8 | 1672.1 | 1744.5 | 1639.3 |
| 62.5° | 5233.7 | 1988.0 | 1523.9 | 1391.3 | 1300.9 |
| 65° | 4113.0 | 1709.4 | 1369.8 | 1142.4 | 1042.8 |
| 67.5° | 3279.7 | 1450.2 | 1152.4 | 909.1 | 826.4 |
| 70° | 2552.9 | 1219.3 | 887.5 | 682.7 | 515.2 |
| 72.5° | 1956.3 | 1019.0 | 692.7 | 388.4 | 293.2 |
| 75° | 1470.5 | 821.9 | 479.0 | 236.7 | 215.1 |
| 77.5° | 1048.3 | 610.3 | 255.8 | 170.9 | 158.5 |
| 80° | 724.4 | 391.8 | 149.5 | 123.4 | 116.5 |
| 82.5° | 449.4 | 189.1 | 102.0 | 88.3 | 82.7 |
| 85° | 227.5 | 79.3 | 64.5 | 56.6 | 52.1 |
| 87.5° | 75.8 | 38.6 | 29.3 | 27.2 | 24.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)