

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: P563365

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

Issue Date: 6/3/2022



Test Information

Test Method: LM-79-08
Report Number: P563365
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P364417)
Test Lab: INNOVATION CENTER
Issue Date: 6/3/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: VHB-30-W-UNV-L940-CD
Description: 30000 LUMEN, VHB LED LUMINAIRE WITH, WIDE LENS AND 90CRI, 4000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Summary

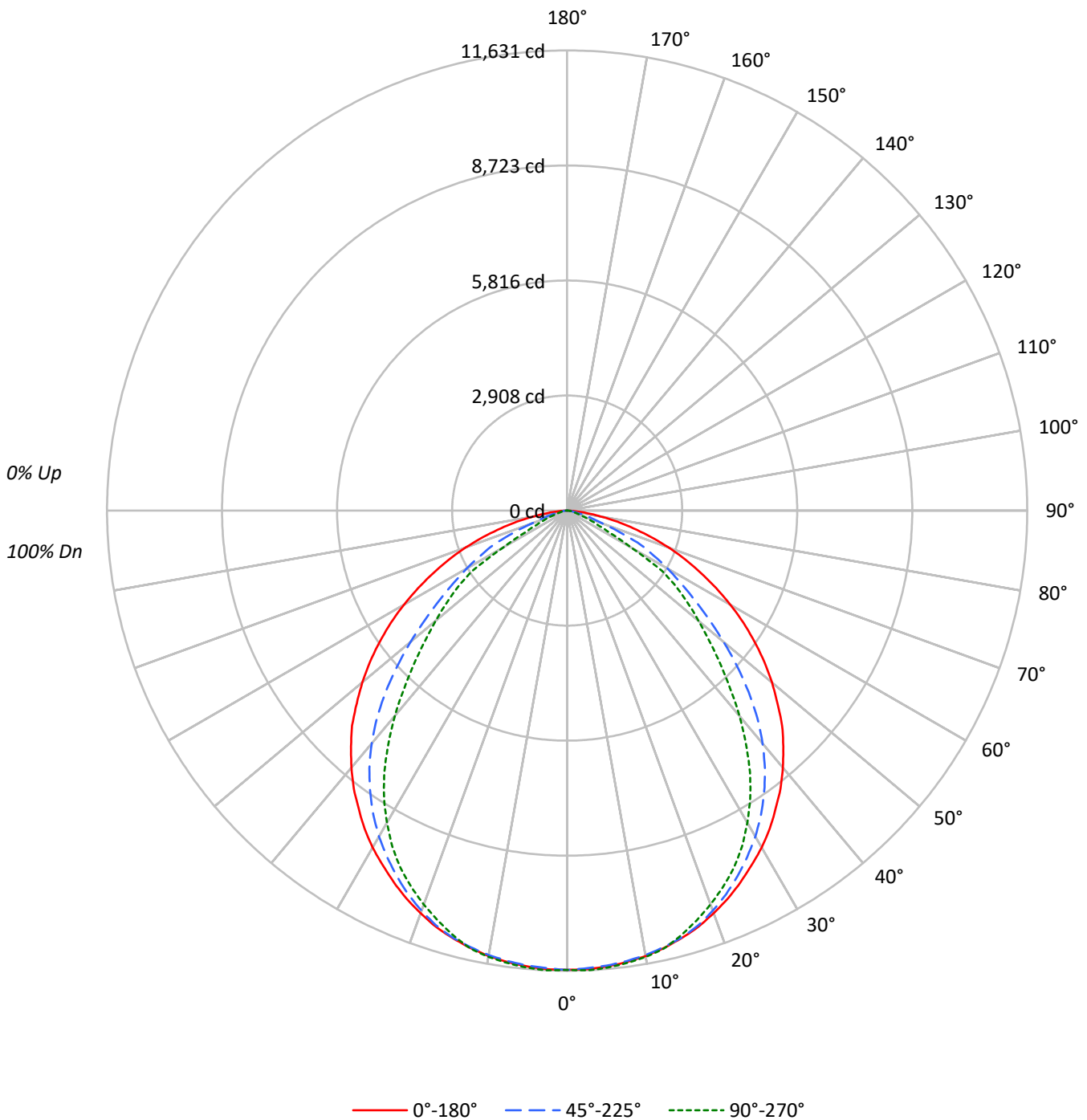
Lumens per Lamp: N/A
Luminaire Lumens: 26114.0 lumens
Efficiency: N/A
Efficacy: 128.0 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.17 / 1.28
Luminous Opening: Rectangular (W 1.75' x L: 1.58' x H: 0')
CIE Type: Direct

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: P563365

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

Luminous Intensity Polar Plot





TEST NUMBER: P563365

CATALOG NUMBER: VHB-30-W-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 | 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 | | | | | 100 | | | |
| 1 | 111 | 107 | 103 | 100 | 108 | 104 | 101 | 98 | 100 | 97 | 95 | 96 | 94 | 92 | 93 | 91 | 89 | | | | | 87 | | | | |
| 2 | 102 | 95 | 89 | 84 | 99 | 93 | 87 | 83 | 89 | 85 | 81 | 86 | 82 | 79 | 83 | 80 | 77 | | | | | 75 | | | | |
| 3 | 94 | 84 | 77 | 71 | 91 | 83 | 76 | 71 | 80 | 74 | 70 | 77 | 72 | 68 | 75 | 71 | 67 | | | | | 65 | | | | |
| 4 | 86 | 76 | 68 | 62 | 84 | 74 | 67 | 61 | 72 | 65 | 60 | 70 | 64 | 60 | 68 | 63 | 59 | | | | | 57 | | | | |
| 5 | 80 | 68 | 60 | 54 | 78 | 67 | 59 | 54 | 65 | 58 | 53 | 63 | 57 | 52 | 61 | 56 | 52 | | | | | 50 | | | | |
| 6 | 74 | 62 | 53 | 48 | 72 | 61 | 53 | 47 | 59 | 52 | 47 | 57 | 51 | 47 | 56 | 50 | 46 | | | | | 44 | | | | |
| 7 | 69 | 56 | 48 | 42 | 67 | 56 | 48 | 42 | 54 | 47 | 42 | 53 | 46 | 42 | 51 | 46 | 41 | | | | | 39 | | | | |
| 8 | 64 | 52 | 44 | 38 | 63 | 51 | 43 | 38 | 50 | 43 | 38 | 48 | 42 | 38 | 47 | 42 | 37 | | | | | 36 | | | | |
| 9 | 60 | 48 | 40 | 34 | 59 | 47 | 39 | 34 | 46 | 39 | 34 | 45 | 39 | 34 | 44 | 38 | 34 | | | | | 32 | | | | |
| 10 | 57 | 44 | 36 | 31 | 55 | 43 | 36 | 31 | 42 | 36 | 31 | 42 | 35 | 31 | 41 | 35 | 31 | | | | | 29 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 45103 | 45103 | 45103 |
| 5° | 45110 | 45019 | 45225 |
| 10° | 45094 | 44996 | 45182 |
| 15° | 44987 | 44940 | 44708 |
| 20° | 44770 | 44493 | 43798 |
| 25° | 44438 | 43682 | 42724 |
| 30° | 44115 | 42676 | 40850 |
| 35° | 43589 | 41180 | 38196 |
| 40° | 43015 | 38966 | 34368 |
| 45° | 42232 | 35636 | 30029 |
| 50° | 40838 | 31200 | 26232 |
| 55° | 39171 | 26578 | 22899 |
| 60° | 37004 | 22796 | 14619 |
| 65° | 34288 | 19014 | 7750 |
| 70° | 30948 | 10805 | 5022 |
| 75° | 26000 | 6619 | 3124 |
| 80° | 19759 | 3342 | 2736 |
| 85° | 12004 | 3035 | 2465 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 1099.2 | 4.2 |
| 10°-20° | 3144.8 | 12.0 |
| 20°-30° | 4687.9 | 18.0 |
| 30°-40° | 5398.8 | 20.7 |
| 40°-50° | 5024.4 | 19.2 |
| 50°-60° | 3823.2 | 14.6 |
| 60°-70° | 2052.2 | 7.9 |
| 70°-80° | 755.0 | 2.9 |
| 80°-90° | 128.4 | 0.5 |
| 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° | 8931.8 | 34.2 |
| 0°-40° | 14330.7 | 54.9 |
| 0°-60° | 23178.3 | 88.8 |
| 0°-90° | 26114.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 26114.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-------|-------|-------|-------|-------|------|
| 0° | 11610 | 11610 | 11610 | 11610 | 11610 | |
| 5° | 11568 | 11535 | 11544 | 11584 | 11597 | ### |
| 15° | 11186 | 11168 | 11174 | 11153 | 11116 | 3157 |
| 25° | 10367 | 10359 | 10191 | 10046 | 9967 | 4779 |
| 35° | 9191 | 9080 | 8683 | 8247 | 8054 | 5754 |
| 45° | 7687 | 7317 | 6486 | 5716 | 5466 | 5907 |
| 55° | 5783 | 5129 | 3924 | 3494 | 3381 | 5166 |
| 65° | 3730 | 2740 | 2068 | 1024 | 843 | 3699 |
| 75° | 1732 | 1135 | 441 | 228 | 208 | 1857 |
| 85° | 269 | 87 | 68 | 59 | 55 | 359 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P563365

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

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|----------------|----------------|----------------|----------------|----------------|
| 0° | 11610.2 | 11610.2 | 11610.2 | 11610.2 | <i>11610.2</i> |
| 2.5° | <i>11601.9</i> | <i>11566.6</i> | <i>11578.5</i> | <i>11616.1</i> | <i>11631.4</i> |
| 5° | 11567.8 | 11534.9 | 11544.3 | 11584.3 | <i>11597.3</i> |
| 7.5° | 11511.4 | 11479.7 | 11486.7 | 11524.4 | <i>11537.3</i> |
| 10° | 11431.4 | 11398.6 | 11406.7 | 11443.1 | <i>11453.8</i> |
| 12.5° | 11323.2 | 11292.7 | 11299.8 | 11325.6 | <i>11337.4</i> |
| 15° | 11185.7 | 11168.0 | 11174.0 | 11152.7 | <i>11116.3</i> |
| 17.5° | 11031.7 | 11005.8 | 10998.7 | 10904.6 | <i>10865.8</i> |
| 20° | 10829.4 | 10820.0 | 10762.3 | 10645.9 | <i>10594.2</i> |
| 22.5° | 10616.5 | 10598.8 | 10498.9 | 10358.9 | <i>10296.6</i> |
| 25° | 10367.2 | 10358.9 | 10190.9 | 10046.1 | <i>9967.3</i> |
| 27.5° | 10099.1 | 10079.1 | 9862.7 | 9681.7 | <i>9574.5</i> |
| 30° | 9834.5 | 9785.1 | 9513.5 | 9259.4 | <i>9106.6</i> |
| 32.5° | 9534.6 | 9441.7 | 9117.1 | 8792.6 | <i>8616.3</i> |
| 35° | 9191.3 | 9079.5 | 8683.2 | 8246.9 | <i>8054.0</i> |
| 37.5° | 8858.4 | 8690.3 | 8212.8 | 7667.2 | <i>7420.3</i> |
| 40° | 8482.1 | 8241.0 | 7683.7 | 7049.8 | <i>6777.0</i> |
| 42.5° | 8085.8 | 7791.8 | 7120.4 | 6383.1 | <i>6103.1</i> |
| 45° | 7687.1 | 7316.8 | 6486.5 | 5716.3 | <i>5465.8</i> |
| 47.5° | 7213.2 | 6820.6 | 5828.1 | 5080.1 | <i>4864.9</i> |
| 50° | 6757.1 | 6298.4 | 5162.4 | 4487.5 | <i>4340.4</i> |
| 52.5° | 6279.6 | 5723.4 | 4515.7 | 3986.5 | <i>3844.2</i> |
| 55° | 5783.4 | 5129.4 | 3924.2 | 3493.8 | <i>3380.9</i> |
| 57.5° | 5284.7 | 4519.2 | 3399.7 | 3045.8 | <i>2843.5</i> |
| 60° | 4762.7 | 3913.6 | 2934.0 | 2475.4 | <i>1881.5</i> |
| 62.5° | 4248.7 | 3283.2 | 2469.5 | 1552.3 | <i>1197.1</i> |
| 65° | 3730.1 | 2739.9 | 2068.5 | 1024.3 | <i>843.1</i> |
| 67.5° | 3235.1 | 2214.4 | 1475.8 | 742.0 | <i>631.5</i> |
| 70° | 2724.7 | 1810.9 | 951.3 | 531.5 | <i>442.1</i> |
| 72.5° | 2213.1 | 1457.0 | 652.7 | 349.3 | <i>283.4</i> |
| 75° | 1732.2 | 1134.8 | 441.0 | 228.2 | <i>208.1</i> |
| 77.5° | 1298.2 | 783.1 | 245.7 | 169.3 | <i>158.8</i> |
| 80° | 883.2 | 469.3 | 149.4 | 129.3 | <i>122.3</i> |
| 82.5° | 529.2 | 224.6 | 108.2 | 95.3 | <i>91.7</i> |
| 85° | 269.3 | 87.0 | 68.1 | 58.7 | <i>55.3</i> |
| 87.5° | 80.0 | 43.5 | 30.5 | 23.6 | <i>22.4</i> |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | <i>0.0</i> |

(END OF REPORT)