



# Spectra Lux

2750 Sabourin, Saint-Laurent (Quebec) H4S 1M2 Canada  
Tel.: (514) 332-0082 Fax: (514) 332-3590 [www.spectralux.ca](http://www.spectralux.ca)



Lab Code: 200899-0

## Moving Mirror Goniophotometer Test Report

**Standard(s):** IES LM-63, IES LM-79, ANSI C82.77

**Customer** ANDlight, 1951 Franklin St., Vancouver, British Columbia , Canada, V5L 0C7

| General Information |                  | Lamp Details: CY4418    |                     | Driver Details: CY2018     |                  |
|---------------------|------------------|-------------------------|---------------------|----------------------------|------------------|
| <b>DUT Lab ID</b>   | SRIS 3021-6      | <b>Seasoning</b>        | 0 Hour              | <b>Type</b>                | LED Power Supply |
| <b>Lamp Type</b>    | LED/SSL          | <b>Test Product</b>     | VAL-P-30            | <b>Manufacturer</b>        | Meanwell         |
| <b>Current Mode</b> | AC               | <b>Manufacturer</b>     | EPISTAR             | <b>Catalog No.</b>         | IDLV-45-24       |
| <b>Test Report</b>  | S2008251-R1      | <b>Lamp Catalog No.</b> | 3000K               | <b>Maximum Power</b>       | 45 W             |
| <b>Test Date</b>    | 25 August 2020   | <b>Drive Current</b>    | 18 mA               | <b>Input Voltage</b>       | 120.00 V         |
| <b>Report Date</b>  | 23 November 2020 | <b>Nominal Color</b>    | 3000 K              | <b>Operating Frequency</b> | 60 Hz            |
| <b>Ambient</b>      | 24.9 °C          | <b>Burning Position</b> | Junction Horizontal | <b>Input Power</b>         | 22.60 W          |

### Luminaire Data

| General Information |          | Optics           |                                      | Aperture (feet) |        |
|---------------------|----------|------------------|--------------------------------------|-----------------|--------|
| <b>Manufacturer</b> | AndLight | <b>Reflector</b> | None                                 | <b>X</b>        | 0.6875 |
| <b>Name</b>         | VALE     | <b>Housing</b>   | Aluminum Frame                       | <b>Y</b>        | 3.3333 |
| <b>Catalog No.</b>  | VAL-P-30 | <b>Lens</b>      | Up & Down Prismatic Acrylic Diffuser | <b>Z</b>        | 0.5000 |

Stabilization Time: 1 hour

**Approved Signatory: Chrisnel Blot**

**Signature:**



### Luminaire Test Method

Precise installation and alignment of the luminaire to the rotation axis of the photometer is governed by a servomotor controlled via a microcontroller. A laser is used to validate the luminaire positioning. Before photometric measurements are taken, luminaire is operated long enough to reach stabilization and temperature equilibrium.

All movement commands issued to the photometer axes are mediated by the software to ensure the motion is within the limits of operation. The photometric detector used is a silicon detector corrected to closely match the spectral luminous efficiency photopic curve with a quality index less than 1.5%. Proper shielding is incorporated to the photometric test bench such that only the light from the unit under test is measured.

Luminous intensity measurements are performed at a distance great enough so that the inverse-square law applies. During each measurement the computer records the luminous intensity associated to the corresponding angles of radiation, as well as input electrical operational parameters and temperature measurements. Candela values are reported in IES format as per LM-63.

Equipment, reference standards are traceable to National Institute of Standards and Technology (NIST) and National Research Council of Canada (NRC).





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### Electrical Equipment

| Equipment          | Manufacturer | Model     | Serial Number | Calibration Date | Calibration Due Date |
|--------------------|--------------|-----------|---------------|------------------|----------------------|
| Power Supply       | iRDC         | CIF-3000A | 974998        | N.P.C.R.         | N.P.C.R.             |
| Input Power Meter  | Yokogawa     | WT210     | 27E116584     | 2020/07/22       | 2021/09/22           |
| Output Power Meter | N/A          | N/A       | N/A           | N.P.C.R.         | N.P.C.R.             |

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### Photometric Equipment

| Equipment     | Manufacturer | Model       | Serial Number | Calibration Date | Calibration Due Date |
|---------------|--------------|-------------|---------------|------------------|----------------------|
| Photometer    | N/A          | N/A         | N/A           | N.P.C.R.         | N.P.C.R.             |
| Photodetector | INPHORA      | IPR-PDET 19 | 110802        | 2019/09/05       | 2020/09/05           |

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### Environment Equipment

| Equipment                   | Manufacturer | Model | Serial Number | Calibration Date | Calibration Due Date |
|-----------------------------|--------------|-------|---------------|------------------|----------------------|
| Temperature Humidity Sensor | Omega        | HH311 | 120504176     | 2020/07/16       | 2021/07/16           |

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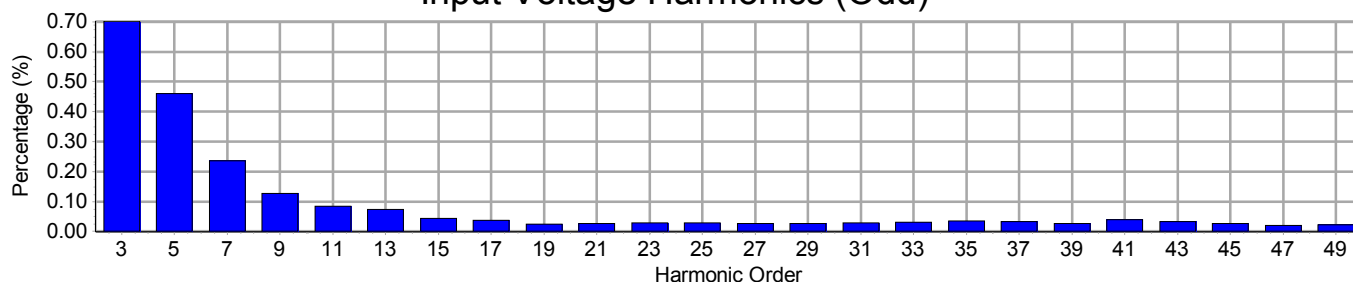


## Electrical Measurements

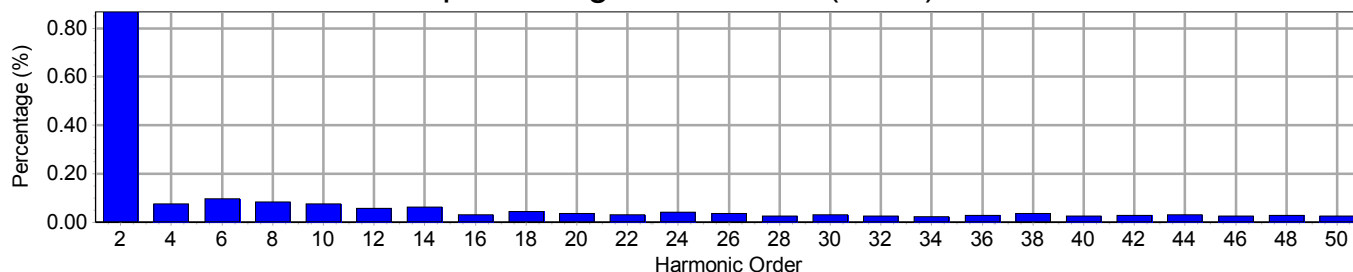
### Input

|           |               |                |          |                  |           |
|-----------|---------------|----------------|----------|------------------|-----------|
| Frequency | 60 Hz         | Active Power   | 22.60 W  | THDV [ANSI]      | 1.27 %    |
| Voltage   | 120.9 V(rms)  | Apparent Power | 23.39 VA | THDA [ANSI]      | 8.69 %    |
| Current   | 0.1935 A(rms) | Power Factor   | 0.966    | Max. Harmonic At | 3rd order |

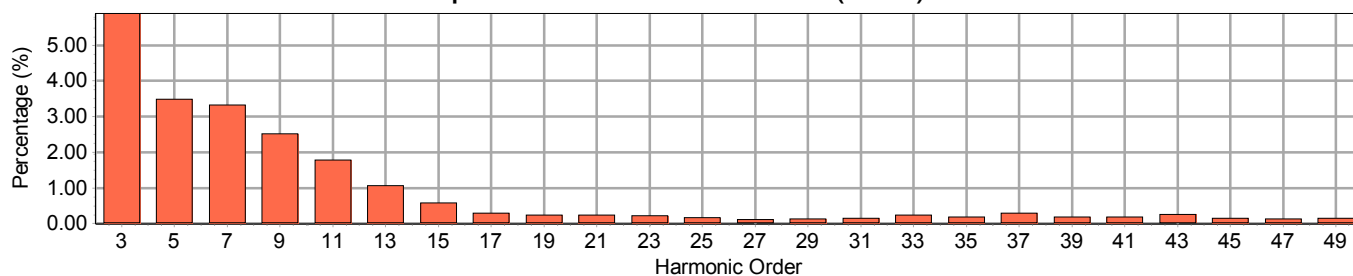
### Input Voltage Harmonics (Odd)



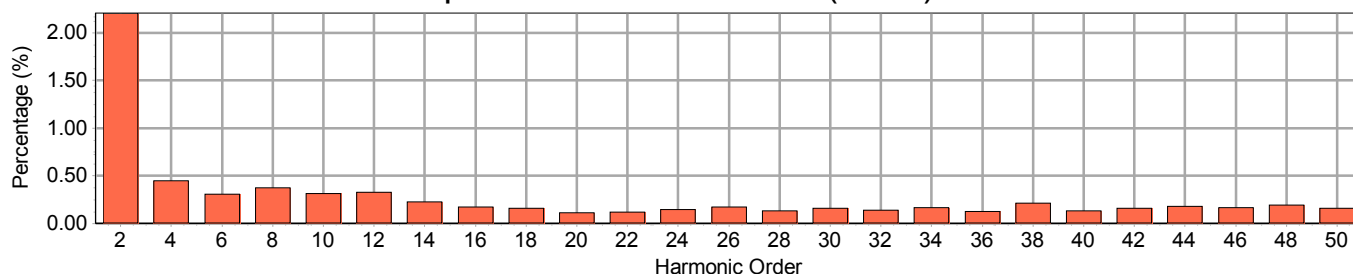
### Input Voltage Harmonics (Even)



### Input Current Harmonics (Odd)



### Input Current Harmonics (Even)





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## Harmonic Measurements

| Odd Harmonics  |                |                       |                       | Even Harmonics |                |                       |                       |
|----------------|----------------|-----------------------|-----------------------|----------------|----------------|-----------------------|-----------------------|
| Harmonic Order | Frequency (HZ) | Voltage Harmonics (%) | Current Harmonics (%) | Harmonic Order | Frequency (HZ) | Voltage Harmonics (%) | Current Harmonics (%) |
| 1              | 60             | 100.000               | 100.000               | 2              | 120            | 0.869                 | 2.211                 |
| 3              | 180            | 0.703                 | 5.901                 | 4              | 240            | 0.076                 | 0.450                 |
| 5              | 300            | 0.460                 | 3.490                 | 6              | 360            | 0.097                 | 0.303                 |
| 7              | 420            | 0.237                 | 3.327                 | 8              | 480            | 0.084                 | 0.375                 |
| 9              | 540            | 0.126                 | 2.525                 | 10             | 600            | 0.076                 | 0.311                 |
| 11             | 660            | 0.085                 | 1.790                 | 12             | 720            | 0.057                 | 0.329                 |
| 13             | 780            | 0.073                 | 1.069                 | 14             | 840            | 0.062                 | 0.222                 |
| 15             | 900            | 0.045                 | 0.584                 | 16             | 960            | 0.031                 | 0.174                 |
| 17             | 1020           | 0.036                 | 0.294                 | 18             | 1080           | 0.044                 | 0.159                 |
| 19             | 1140           | 0.025                 | 0.249                 | 20             | 1200           | 0.035                 | 0.109                 |
| 21             | 1260           | 0.027                 | 0.235                 | 22             | 1320           | 0.032                 | 0.120                 |
| 23             | 1380           | 0.029                 | 0.230                 | 24             | 1440           | 0.041                 | 0.144                 |
| 25             | 1500           | 0.028                 | 0.179                 | 26             | 1560           | 0.034                 | 0.169                 |
| 27             | 1620           | 0.026                 | 0.121                 | 28             | 1680           | 0.025                 | 0.134                 |
| 29             | 1740           | 0.026                 | 0.126                 | 30             | 1800           | 0.029                 | 0.160                 |
| 31             | 1860           | 0.029                 | 0.152                 | 32             | 1920           | 0.026                 | 0.137                 |
| 33             | 1980           | 0.031                 | 0.237                 | 34             | 2040           | 0.022                 | 0.167                 |
| 35             | 2100           | 0.034                 | 0.182                 | 36             | 2160           | 0.028                 | 0.122                 |
| 37             | 2220           | 0.034                 | 0.301                 | 38             | 2280           | 0.036                 | 0.212                 |
| 39             | 2340           | 0.028                 | 0.181                 | 40             | 2400           | 0.025                 | 0.133                 |
| 41             | 2460           | 0.039                 | 0.191                 | 42             | 2520           | 0.027                 | 0.155                 |
| 43             | 2580           | 0.034                 | 0.253                 | 44             | 2640           | 0.031                 | 0.179                 |
| 45             | 2700           | 0.027                 | 0.159                 | 46             | 2760           | 0.025                 | 0.166                 |
| 47             | 2820           | 0.021                 | 0.136                 | 48             | 2880           | 0.028                 | 0.190                 |
| 49             | 2940           | 0.022                 | 0.150                 | 50             | 3000           | 0.024                 | 0.160                 |



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## Photometric Report: S2008251-R1

Prepared for: ANDlight · Test Date: 25 August 2020

Luminaire: VALE · Lumcat: VAL-P-30

### Coefficients of Utilization - Zonal Cavity Method

| RCR | RC |     |     |     | 0.9 |     |     |     | 0.8 |     |     |     | 0.7 |     |     |     | 0.5 |     |     | 0.1 |     |     | 0  |
|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
|     | RW | 0.7 | 0.5 | 0.3 | 0.1 | 0.7 | 0.5 | 0.3 | 0.1 | 0.7 | 0.5 | 0.3 | 0.1 | 0.5 | 0.3 | 0.1 | 0.5 | 0.3 | 0.1 | 0.5 | 0.3 | 0.1 | 0  |
| 0   |    | 116 | 116 | 116 | 116 | 107 | 107 | 107 | 107 | 99  | 99  | 99  | 99  | 83  | 83  | 83  | 56  | 56  | 56  | 50  | 50  | 50  | 50 |
| 1   |    | 105 | 99  | 94  | 90  | 97  | 92  | 87  | 84  | 89  | 85  | 81  | 78  | 71  | 69  | 66  | 48  | 46  | 45  | 40  | 40  | 40  | 40 |
| 2   |    | 95  | 86  | 78  | 72  | 88  | 80  | 73  | 67  | 80  | 73  | 68  | 63  | 62  | 58  | 54  | 41  | 39  | 37  | 32  | 32  | 32  | 32 |
| 3   |    | 87  | 75  | 66  | 59  | 80  | 70  | 62  | 56  | 73  | 64  | 58  | 52  | 54  | 49  | 45  | 36  | 34  | 31  | 27  | 27  | 27  | 27 |
| 4   |    | 79  | 66  | 57  | 50  | 73  | 61  | 53  | 47  | 67  | 57  | 49  | 44  | 48  | 42  | 38  | 32  | 29  | 27  | 23  | 23  | 23  | 23 |
| 5   |    | 73  | 59  | 49  | 42  | 67  | 55  | 46  | 40  | 61  | 51  | 43  | 37  | 43  | 37  | 33  | 29  | 26  | 23  | 20  | 20  | 20  | 20 |
| 6   |    | 67  | 53  | 43  | 37  | 61  | 49  | 40  | 34  | 56  | 45  | 38  | 32  | 39  | 33  | 28  | 26  | 23  | 20  | 17  | 17  | 17  | 17 |
| 7   |    | 62  | 47  | 38  | 32  | 57  | 44  | 36  | 30  | 52  | 41  | 34  | 28  | 35  | 29  | 25  | 24  | 20  | 18  | 15  | 15  | 15  | 15 |
| 8   |    | 57  | 43  | 34  | 28  | 53  | 40  | 32  | 27  | 48  | 37  | 30  | 25  | 32  | 26  | 22  | 22  | 18  | 16  | 13  | 13  | 13  | 13 |
| 9   |    | 53  | 39  | 31  | 25  | 49  | 36  | 29  | 24  | 45  | 34  | 27  | 22  | 29  | 23  | 20  | 20  | 17  | 14  | 12  | 12  | 12  | 12 |
| 10  |    | 49  | 36  | 28  | 22  | 46  | 33  | 26  | 21  | 42  | 31  | 24  | 20  | 27  | 21  | 18  | 19  | 15  | 13  | 11  | 11  | 11  | 11 |

### Zonal Lumen Summary

| Zone     | Lumens | % Lamp | % Luminaire |
|----------|--------|--------|-------------|
| 0 - 10   | 16     | 1.52   | 1.52        |
| 10 - 20  | 46     | 4.30   | 4.30        |
| 20 - 30  | 69     | 6.49   | 6.49        |
| 30 - 40  | 84     | 7.90   | 7.90        |
| 40 - 50  | 89     | 8.35   | 8.35        |
| 50 - 60  | 82     | 7.69   | 7.69        |
| 60 - 70  | 66     | 6.19   | 6.19        |
| 70 - 80  | 47     | 4.41   | 4.41        |
| 80 - 90  | 34     | 3.14   | 3.14        |
| 90 - 120 | 147    | 13.74  | 13.74       |
| 90 - 130 | 229    | 21.43  | 21.43       |
| 90 - 150 | 402    | 37.69  | 37.69       |
| 90 - 180 | 533    | 50.00  | 50.00       |
| 0 - 180  | 1066   | 100.00 | 100.00      |

### Average Luminance (Cd/m<sup>2</sup>)

| Angle | 0 Degree | 45 Degree | 90 Degree |
|-------|----------|-----------|-----------|
| 45.0  | 211      | 199       | 204       |
| 55.0  | 229      | 190       | 188       |
| 65.0  | 264      | 174       | 175       |
| 75.0  | 282      | 186       | 204       |
| 85.0  | 237      | 429       | 477       |

Luminaire Luminous Flux: 1066

Measured Input Power: 22.60 W

Total Luminaire Efficiency: N/A

Luminaire Luminous Efficacy: 47.2 lm/W

Luminaire Spacing Criterion (0 Degree): 1.2343

Luminaire Spacing Criterion (90 Degree): 1.2717

Category: Up and Down

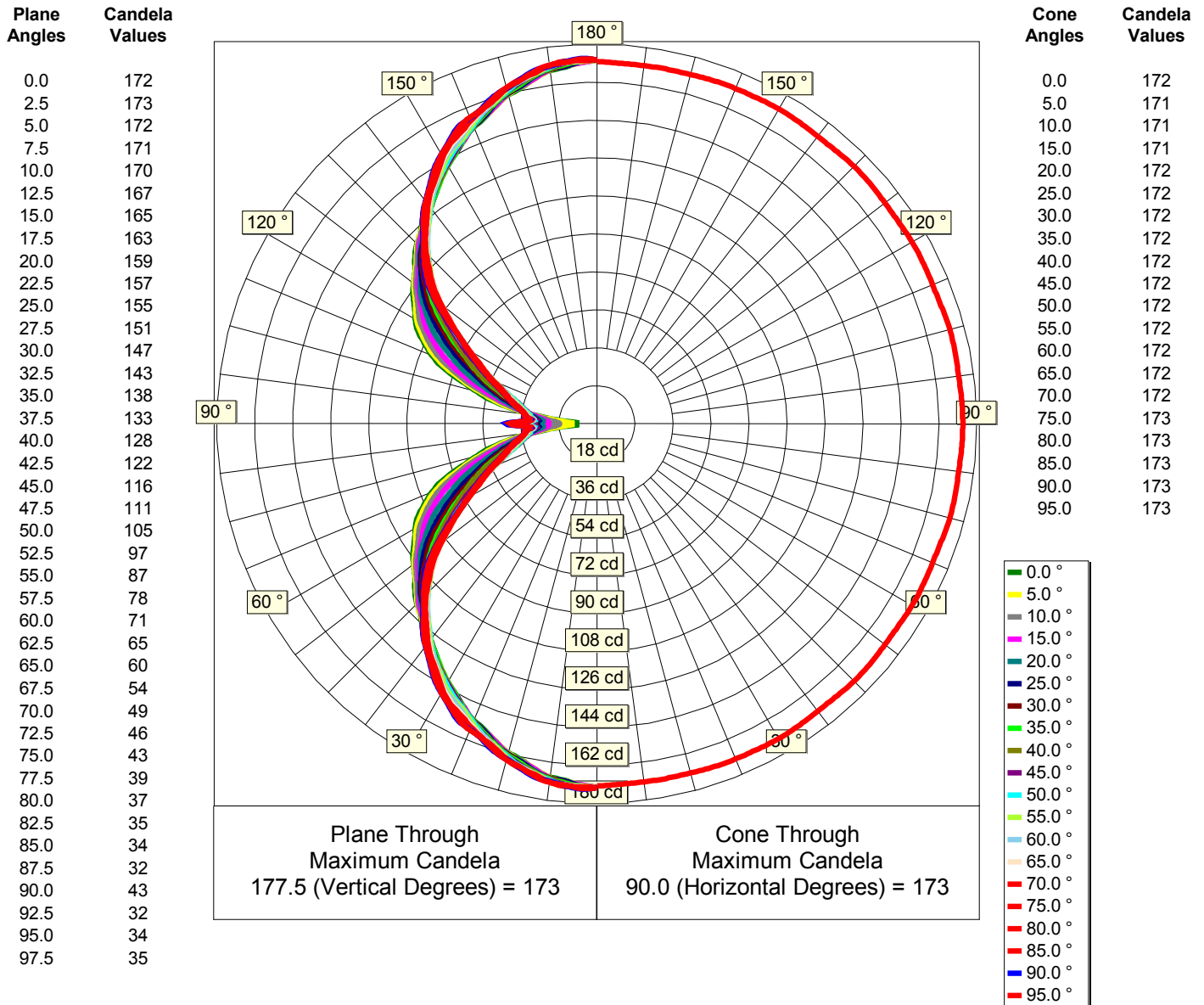


## Photometric Report: S2008251-R1

Prepared for: ANDlight · Test Date: 25 August 2020

Luminaire: VALE · Lumcat: VAL-P-30

### Luminous Intensity - Polar Curve for each Plane(1)





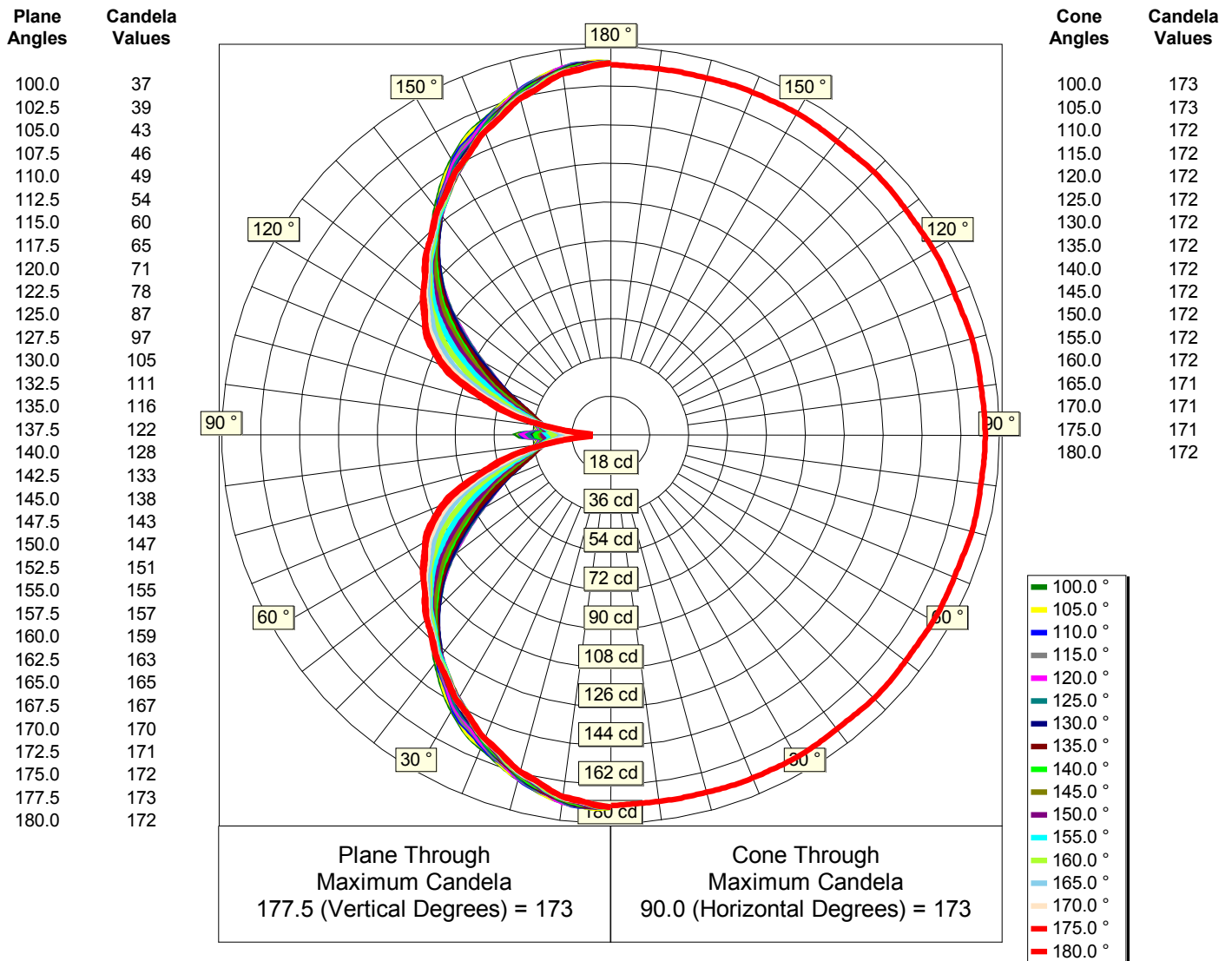


## Photometric Report: S2008251-R1

Prepared for: ANDlight · Test Date: 25 August 2020

Luminaire: VALE · Lumcat: VAL-P-30

### Luminous Intensity - Polar Curve for each Plane(2)







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Lab Code: 200899-0

## IES File Headers

```
IESNA:LM-63
[ISSUEDATE]      25 August 2020
[TESTLAB]        Spectra Lux
[TEST]           S2008251-R1
[MANUFAC]        AndLight
[LUMCAT]          VAL-P-30
[LUMINAIRE]       VALE
[LAMP]           Clusters of EPISTAR 3000K LEDs c/w Meanwell Driver IDLV-45-24 @ 120.00V
[_BURNING]        Horizontal (1,066 Luminaire Lumens)
[_REFLECTOR]      None
[_LENS]           Up & Down Prismatic Acrylic Diffuser
[_HOUSING]        Aluminum Frame
[_NOMINAL COLOR]  3000 K
[_DRIVE CURRENT] 18 mA
```

## Candela Table

### Lateral Angles

|                                      |      | 0.0 | 5.0 | 10.0 | 15.0 | 20.0 | 25.0 | 30.0 | 35.0 | 40.0 | 45.0 |
|--------------------------------------|------|-----|-----|------|------|------|------|------|------|------|------|
| V<br>e<br>r<br>t<br>i<br>c<br>a<br>l | 0.0  | 172 | 172 | 172  | 172  | 172  | 172  | 172  | 172  | 172  | 172  |
|                                      | 2.5  | 172 | 171 | 171  | 171  | 172  | 172  | 172  | 172  | 172  | 172  |
|                                      | 5.0  | 170 | 170 | 170  | 170  | 170  | 170  | 171  | 171  | 171  | 172  |
|                                      | 7.5  | 169 | 169 | 169  | 169  | 169  | 170  | 169  | 170  | 170  | 170  |
|                                      | 10.0 | 167 | 166 | 166  | 167  | 167  | 167  | 168  | 168  | 168  | 169  |
|                                      | 12.5 | 163 | 164 | 164  | 164  | 164  | 164  | 165  | 165  | 166  | 166  |
|                                      | 15.0 | 161 | 162 | 162  | 162  | 162  | 162  | 162  | 163  | 163  | 163  |
|                                      | 17.5 | 158 | 158 | 158  | 158  | 159  | 159  | 160  | 159  | 160  | 160  |
|                                      | 20.0 | 155 | 155 | 155  | 155  | 155  | 155  | 156  | 156  | 157  | 157  |
|                                      | 22.5 | 152 | 152 | 152  | 153  | 153  | 153  | 152  | 153  | 153  | 153  |
|                                      | 25.0 | 149 | 148 | 148  | 148  | 149  | 149  | 149  | 149  | 149  | 149  |
|                                      | 27.5 | 145 | 145 | 145  | 145  | 145  | 145  | 145  | 145  | 145  | 145  |
|                                      | 30.0 | 142 | 142 | 142  | 142  | 142  | 142  | 141  | 141  | 141  | 142  |
|                                      | 32.5 | 139 | 138 | 138  | 138  | 138  | 138  | 138  | 137  | 137  | 138  |
|                                      | 35.0 | 134 | 134 | 134  | 134  | 133  | 133  | 133  | 133  | 134  | 134  |
|                                      | 37.5 | 131 | 131 | 131  | 131  | 130  | 130  | 129  | 129  | 130  | 129  |
|                                      | 40.0 | 128 | 127 | 127  | 126  | 126  | 126  | 126  | 125  | 125  | 125  |
|                                      | 42.5 | 124 | 123 | 123  | 122  | 122  | 121  | 121  | 121  | 120  | 119  |
|                                      | 45.0 | 120 | 120 | 120  | 119  | 118  | 117  | 117  | 116  | 115  | 114  |
| A<br>n<br>g<br>l<br>e<br>s           | 47.5 | 117 | 116 | 115  | 114  | 114  | 113  | 113  | 110  | 109  | 108  |
|                                      | 50.0 | 112 | 112 | 111  | 110  | 109  | 108  | 107  | 105  | 104  | 102  |
|                                      | 52.5 | 109 | 109 | 108  | 107  | 105  | 104  | 101  | 99   | 97   | 95   |
|                                      | 55.0 | 106 | 105 | 104  | 102  | 101  | 98   | 95   | 92   | 90   | 88   |
|                                      | 57.5 | 102 | 102 | 100  | 98   | 95   | 92   | 88   | 85   | 83   | 81   |
|                                      | 60.0 | 99  | 99  | 97   | 94   | 90   | 85   | 81   | 78   | 76   | 73   |
|                                      | 62.5 | 96  | 94  | 91   | 88   | 84   | 78   | 74   | 71   | 70   | 66   |
|                                      | 65.0 | 90  | 89  | 86   | 82   | 77   | 71   | 67   | 65   | 65   | 59   |
|                                      | 67.5 | 84  | 83  | 80   | 76   | 70   | 64   | 61   | 59   | 59   | 53   |
|                                      | 70.0 | 77  | 74  | 71   | 67   | 62   | 57   | 55   | 53   | 52   | 48   |
|                                      | 72.5 | 67  | 65  | 63   | 59   | 55   | 51   | 49   | 47   | 47   | 43   |
|                                      | 75.0 | 59  | 56  | 54   | 51   | 48   | 46   | 44   | 42   | 42   | 39   |
|                                      | 77.5 | 50  | 48  | 45   | 43   | 41   | 40   | 39   | 38   | 38   | 36   |
|                                      | 80.0 | 40  | 39  | 38   | 36   | 35   | 35   | 35   | 35   | 35   | 33   |
|                                      | 82.5 | 28  | 29  | 30   | 30   | 31   | 32   | 32   | 32   | 33   | 31   |
|                                      | 85.0 | 17  | 19  | 23   | 26   | 27   | 29   | 30   | 31   | 31   | 30   |
|                                      | 87.5 | 8   | 13  | 19   | 23   | 25   | 28   | 29   | 29   | 30   | 29   |
|                                      | 90.0 | 13  | 12  | 18   | 23   | 27   | 29   | 31   | 32   | 35   | 34   |



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## Lateral Angles

|  | 0.0   | 5.0 | 10.0 | 15.0 | 20.0 | 25.0 | 30.0 | 35.0 | 40.0 | 45.0 |     |
|--|-------|-----|------|------|------|------|------|------|------|------|-----|
| V<br>e<br>r<br>t<br>i<br>c<br>a<br>l<br><br>A<br>n<br>g<br>l<br>e<br>s | 92.5  | 8   | 13   | 19   | 23   | 25   | 28   | 29   | 29   | 30   | 29  |
|  | 95.0  | 17  | 19   | 23   | 26   | 27   | 29   | 30   | 31   | 31   | 30  |
|  | 97.5  | 28  | 29   | 30   | 30   | 31   | 32   | 32   | 32   | 33   | 31  |
|  | 100.0 | 40  | 39   | 38   | 36   | 35   | 35   | 35   | 35   | 35   | 33  |
|  | 102.5 | 50  | 48   | 45   | 43   | 41   | 40   | 39   | 38   | 38   | 36  |
|  | 105.0 | 59  | 56   | 54   | 51   | 48   | 46   | 44   | 42   | 42   | 39  |
|  | 107.5 | 67  | 65   | 63   | 59   | 55   | 51   | 49   | 47   | 47   | 43  |
|  | 110.0 | 77  | 74   | 71   | 67   | 62   | 57   | 55   | 53   | 52   | 48  |
|  | 112.5 | 84  | 83   | 80   | 76   | 70   | 64   | 61   | 59   | 59   | 53  |
|  | 115.0 | 90  | 89   | 86   | 82   | 77   | 71   | 67   | 65   | 65   | 59  |
|  | 117.5 | 96  | 94   | 91   | 88   | 84   | 78   | 74   | 71   | 70   | 66  |
|  | 120.0 | 99  | 99   | 97   | 94   | 90   | 85   | 81   | 78   | 76   | 73  |
|  | 122.5 | 102 | 102  | 100  | 98   | 95   | 92   | 88   | 85   | 83   | 81  |
|  | 125.0 | 106 | 105  | 104  | 102  | 101  | 98   | 95   | 92   | 90   | 88  |
|  | 127.5 | 109 | 109  | 108  | 107  | 105  | 104  | 101  | 99   | 97   | 95  |
|  | 130.0 | 112 | 112  | 111  | 110  | 109  | 108  | 107  | 105  | 104  | 102 |
|  | 132.5 | 117 | 116  | 115  | 114  | 114  | 113  | 113  | 110  | 109  | 108 |
|  | 135.0 | 120 | 120  | 120  | 119  | 118  | 117  | 117  | 116  | 115  | 114 |
|  | 137.5 | 124 | 123  | 123  | 122  | 122  | 121  | 121  | 121  | 120  | 119 |
|  | 140.0 | 128 | 127  | 127  | 126  | 126  | 126  | 126  | 125  | 125  | 125 |
|  | 142.5 | 131 | 131  | 131  | 131  | 130  | 130  | 129  | 129  | 130  | 129 |
|  | 145.0 | 134 | 134  | 134  | 134  | 133  | 133  | 133  | 133  | 134  | 134 |
|  | 147.5 | 139 | 138  | 138  | 138  | 138  | 138  | 138  | 137  | 137  | 138 |
|  | 150.0 | 142 | 142  | 142  | 142  | 142  | 142  | 141  | 141  | 141  | 142 |
|  | 152.5 | 145 | 145  | 145  | 145  | 145  | 145  | 145  | 145  | 145  | 145 |
|  | 155.0 | 149 | 148  | 148  | 148  | 149  | 149  | 149  | 149  | 149  | 149 |
|  | 157.5 | 152 | 152  | 152  | 153  | 153  | 153  | 152  | 153  | 153  | 153 |
|  | 160.0 | 155 | 155  | 155  | 155  | 155  | 155  | 156  | 156  | 157  | 157 |
|  | 162.5 | 158 | 158  | 158  | 158  | 159  | 159  | 160  | 159  | 160  | 160 |
|  | 165.0 | 161 | 162  | 162  | 162  | 162  | 162  | 162  | 163  | 163  | 163 |
|  | 167.5 | 163 | 164  | 164  | 164  | 164  | 164  | 165  | 165  | 166  | 166 |
|  | 170.0 | 167 | 166  | 166  | 167  | 167  | 167  | 168  | 168  | 168  | 169 |
|  | 172.5 | 169 | 169  | 169  | 169  | 169  | 170  | 169  | 170  | 170  | 170 |
|  | 175.0 | 170 | 170  | 170  | 170  | 170  | 170  | 171  | 171  | 171  | 172 |
|  | 177.5 | 172 | 171  | 171  | 171  | 172  | 172  | 172  | 172  | 172  | 172 |
|  | 180.0 | 172 | 172  | 172  | 172  | 172  | 172  | 172  | 172  | 172  | 172 |



# Spectra Lux

2750 Sabourin, Saint-Laurent (Quebec) H4S 1M2 Canada  
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Lab Code: 200899-0

## Lateral Angles

|                                      | 50.0  | 55.0 | 60.0 | 65.0 | 70.0 | 75.0 | 80.0 | 85.0 | 90.0 | 95.0 |
|--------------------------------------|-------|------|------|------|------|------|------|------|------|------|
| V<br>e<br>r<br>t<br>i<br>c<br>a<br>l | 0.0   | 172  | 172  | 172  | 172  | 172  | 172  | 172  | 172  | 172  |
|                                      | 2.5   | 172  | 172  | 172  | 172  | 172  | 173  | 173  | 173  | 173  |
|                                      | 5.0   | 172  | 172  | 172  | 172  | 172  | 172  | 172  | 172  | 172  |
|                                      | 7.5   | 170  | 171  | 171  | 171  | 171  | 171  | 171  | 171  | 171  |
|                                      | 10.0  | 168  | 168  | 169  | 169  | 169  | 170  | 170  | 170  | 170  |
|                                      | 12.5  | 166  | 167  | 166  | 167  | 167  | 167  | 167  | 167  | 167  |
|                                      | 15.0  | 163  | 164  | 165  | 164  | 165  | 164  | 165  | 165  | 165  |
|                                      | 17.5  | 160  | 160  | 161  | 161  | 161  | 162  | 162  | 163  | 162  |
|                                      | 20.0  | 157  | 157  | 157  | 158  | 159  | 158  | 159  | 159  | 159  |
|                                      | 22.5  | 153  | 154  | 155  | 155  | 156  | 156  | 157  | 157  | 157  |
|                                      | 25.0  | 149  | 150  | 151  | 152  | 152  | 154  | 155  | 155  | 155  |
|                                      | 27.5  | 146  | 147  | 148  | 149  | 150  | 151  | 151  | 151  | 151  |
|                                      | 30.0  | 142  | 144  | 145  | 145  | 146  | 147  | 147  | 147  | 147  |
|                                      | 32.5  | 138  | 139  | 140  | 140  | 141  | 142  | 143  | 143  | 143  |
|                                      | 35.0  | 134  | 135  | 135  | 136  | 136  | 137  | 138  | 138  | 137  |
|                                      | 37.5  | 129  | 130  | 130  | 130  | 131  | 132  | 133  | 133  | 133  |
|                                      | 40.0  | 124  | 124  | 124  | 125  | 125  | 127  | 127  | 128  | 128  |
|                                      | 42.5  | 119  | 119  | 119  | 119  | 120  | 120  | 121  | 122  | 121  |
|                                      | 45.0  | 113  | 113  | 114  | 113  | 114  | 114  | 115  | 116  | 116  |
| A<br>n<br>g<br>l<br>e<br>s           | 47.5  | 107  | 107  | 107  | 107  | 107  | 108  | 109  | 110  | 110  |
|                                      | 50.0  | 101  | 100  | 100  | 100  | 101  | 102  | 103  | 104  | 105  |
|                                      | 52.5  | 94   | 93   | 93   | 92   | 93   | 93   | 95   | 96   | 97   |
|                                      | 55.0  | 86   | 85   | 84   | 84   | 85   | 86   | 86   | 87   | 86   |
|                                      | 57.5  | 79   | 77   | 77   | 77   | 77   | 77   | 78   | 77   | 78   |
|                                      | 60.0  | 71   | 70   | 70   | 70   | 70   | 70   | 71   | 71   | 71   |
|                                      | 62.5  | 64   | 63   | 63   | 63   | 63   | 64   | 65   | 65   | 65   |
|                                      | 65.0  | 58   | 58   | 57   | 58   | 58   | 58   | 59   | 59   | 60   |
|                                      | 67.5  | 52   | 52   | 52   | 52   | 53   | 53   | 54   | 54   | 54   |
|                                      | 70.0  | 47   | 47   | 47   | 48   | 48   | 49   | 49   | 49   | 49   |
|                                      | 72.5  | 43   | 43   | 43   | 44   | 45   | 45   | 45   | 45   | 46   |
|                                      | 75.0  | 39   | 40   | 40   | 41   | 42   | 42   | 42   | 42   | 43   |
|                                      | 77.5  | 36   | 37   | 38   | 38   | 38   | 39   | 39   | 39   | 39   |
|                                      | 80.0  | 34   | 35   | 35   | 36   | 36   | 36   | 36   | 36   | 37   |
|                                      | 82.5  | 32   | 32   | 33   | 34   | 34   | 34   | 35   | 35   | 35   |
|                                      | 85.0  | 31   | 31   | 32   | 32   | 32   | 33   | 33   | 34   | 34   |
|                                      | 87.5  | 30   | 31   | 31   | 32   | 32   | 32   | 32   | 32   | 32   |
|                                      | 90.0  | 35   | 38   | 40   | 40   | 41   | 41   | 43   | 41   | 43   |
|                                      | 92.5  | 30   | 31   | 31   | 32   | 32   | 32   | 32   | 32   | 32   |
|                                      | 95.0  | 31   | 31   | 32   | 32   | 32   | 33   | 33   | 34   | 34   |
|                                      | 97.5  | 32   | 32   | 33   | 34   | 34   | 34   | 35   | 35   | 35   |
|                                      | 100.0 | 34   | 35   | 35   | 36   | 36   | 36   | 36   | 36   | 37   |
|                                      | 102.5 | 36   | 37   | 38   | 38   | 38   | 39   | 39   | 39   | 39   |
|                                      | 105.0 | 39   | 40   | 40   | 41   | 42   | 42   | 42   | 42   | 43   |
|                                      | 107.5 | 43   | 43   | 43   | 44   | 45   | 45   | 45   | 45   | 46   |
|                                      | 110.0 | 47   | 47   | 47   | 48   | 48   | 49   | 49   | 49   | 49   |
|                                      | 112.5 | 52   | 52   | 52   | 52   | 53   | 53   | 54   | 54   | 54   |
|                                      | 115.0 | 58   | 58   | 57   | 58   | 58   | 58   | 59   | 59   | 60   |
|                                      | 117.5 | 64   | 63   | 63   | 63   | 63   | 64   | 65   | 65   | 65   |
|                                      | 120.0 | 71   | 70   | 70   | 70   | 70   | 70   | 71   | 71   | 71   |
|                                      | 122.5 | 79   | 77   | 77   | 77   | 77   | 77   | 78   | 77   | 78   |
|                                      | 125.0 | 86   | 85   | 84   | 84   | 85   | 86   | 86   | 86   | 87   |
|                                      | 127.5 | 94   | 93   | 93   | 92   | 93   | 93   | 95   | 96   | 97   |
|                                      | 130.0 | 101  | 100  | 100  | 100  | 101  | 102  | 103  | 104  | 105  |
|                                      | 132.5 | 107  | 107  | 107  | 107  | 107  | 108  | 109  | 110  | 111  |



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## Lateral Angles

|                                      | 50.0  | 55.0 | 60.0 | 65.0 | 70.0 | 75.0 | 80.0 | 85.0 | 90.0 | 95.0 |     |
|--------------------------------------|-------|------|------|------|------|------|------|------|------|------|-----|
| V<br>e<br>r<br>t<br>i<br>c<br>a<br>l | 135.0 | 113  | 113  | 114  | 113  | 114  | 114  | 115  | 116  | 116  | 116 |
|                                      | 137.5 | 119  | 119  | 119  | 119  | 120  | 120  | 121  | 121  | 122  | 121 |
|                                      | 140.0 | 124  | 124  | 124  | 125  | 125  | 127  | 127  | 128  | 128  | 128 |
|                                      | 142.5 | 129  | 130  | 130  | 130  | 131  | 132  | 133  | 133  | 133  | 133 |
|                                      | 145.0 | 134  | 135  | 135  | 136  | 136  | 137  | 138  | 137  | 138  | 137 |
|                                      | 147.5 | 138  | 139  | 140  | 140  | 141  | 142  | 142  | 143  | 143  | 143 |
|                                      | 150.0 | 142  | 144  | 145  | 145  | 146  | 146  | 147  | 147  | 147  | 147 |
|                                      | 152.5 | 146  | 147  | 148  | 149  | 150  | 150  | 151  | 151  | 151  | 151 |
|                                      | 155.0 | 149  | 150  | 151  | 152  | 152  | 154  | 154  | 155  | 155  | 155 |
|                                      | 157.5 | 153  | 154  | 155  | 155  | 156  | 156  | 157  | 157  | 157  | 157 |
|                                      | 160.0 | 157  | 157  | 157  | 158  | 159  | 158  | 159  | 159  | 159  | 159 |
|                                      | 162.5 | 160  | 160  | 161  | 161  | 161  | 162  | 162  | 162  | 163  | 162 |
|                                      | 165.0 | 163  | 164  | 165  | 164  | 165  | 164  | 165  | 165  | 165  | 165 |
|                                      | 167.5 | 166  | 167  | 166  | 167  | 167  | 167  | 167  | 167  | 167  | 167 |
|                                      | 170.0 | 168  | 168  | 169  | 169  | 169  | 170  | 170  | 170  | 170  | 170 |
|                                      | 172.5 | 170  | 171  | 171  | 171  | 171  | 171  | 171  | 171  | 171  | 171 |
|                                      | 175.0 | 172  | 172  | 172  | 172  | 172  | 172  | 172  | 172  | 172  | 172 |
|                                      | 177.5 | 172  | 172  | 172  | 172  | 172  | 173  | 173  | 173  | 173  | 173 |
|                                      | 180.0 | 172  | 172  | 172  | 172  | 172  | 172  | 172  | 172  | 172  | 172 |
| A<br>n<br>g<br>l<br>e<br>s           |       |      |      |      |      |      |      |      |      |      |     |



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Lab Code: 200899-0

## Lateral Angles

|                                      | 100.0 | 105.0 | 110.0 | 115.0 | 120.0 | 125.0 | 130.0 | 135.0 | 140.0 | 145.0 |
|--------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| V<br>e<br>r<br>t<br>i<br>c<br>a<br>l | 0.0   | 172   | 172   | 172   | 172   | 172   | 172   | 172   | 172   | 172   |
|                                      | 2.5   | 173   | 173   | 172   | 172   | 172   | 172   | 172   | 172   | 172   |
|                                      | 5.0   | 172   | 172   | 172   | 172   | 172   | 172   | 172   | 171   | 171   |
|                                      | 7.5   | 171   | 171   | 171   | 171   | 171   | 170   | 170   | 170   | 170   |
|                                      | 10.0  | 170   | 170   | 169   | 169   | 169   | 168   | 169   | 168   | 168   |
|                                      | 12.5  | 167   | 167   | 167   | 167   | 166   | 166   | 166   | 166   | 165   |
|                                      | 15.0  | 165   | 164   | 165   | 164   | 165   | 164   | 163   | 163   | 163   |
|                                      | 17.5  | 162   | 162   | 161   | 161   | 161   | 160   | 160   | 160   | 159   |
|                                      | 20.0  | 159   | 158   | 159   | 158   | 157   | 157   | 157   | 157   | 156   |
|                                      | 22.5  | 157   | 156   | 156   | 155   | 155   | 154   | 153   | 153   | 153   |
|                                      | 25.0  | 154   | 154   | 152   | 152   | 151   | 150   | 149   | 149   | 149   |
|                                      | 27.5  | 151   | 150   | 150   | 149   | 148   | 147   | 146   | 145   | 145   |
|                                      | 30.0  | 147   | 146   | 146   | 145   | 145   | 144   | 142   | 141   | 141   |
|                                      | 32.5  | 142   | 142   | 141   | 140   | 140   | 139   | 138   | 137   | 137   |
|                                      | 35.0  | 138   | 137   | 136   | 136   | 135   | 135   | 134   | 134   | 133   |
|                                      | 37.5  | 133   | 132   | 131   | 130   | 130   | 129   | 129   | 130   | 129   |
|                                      | 40.0  | 127   | 127   | 125   | 125   | 124   | 124   | 124   | 125   | 125   |
|                                      | 42.5  | 121   | 120   | 120   | 119   | 119   | 119   | 119   | 120   | 121   |
|                                      | 45.0  | 115   | 114   | 114   | 113   | 114   | 113   | 113   | 114   | 116   |
| A<br>n<br>g<br>l<br>e<br>s           | 47.5  | 109   | 108   | 107   | 107   | 107   | 107   | 107   | 108   | 109   |
|                                      | 50.0  | 103   | 102   | 101   | 100   | 100   | 100   | 101   | 102   | 104   |
|                                      | 52.5  | 95    | 93    | 93    | 92    | 93    | 93    | 94    | 95    | 97    |
|                                      | 55.0  | 86    | 86    | 85    | 84    | 84    | 85    | 86    | 88    | 90    |
|                                      | 57.5  | 78    | 77    | 77    | 77    | 77    | 77    | 79    | 81    | 83    |
|                                      | 60.0  | 71    | 70    | 70    | 70    | 70    | 70    | 71    | 73    | 76    |
|                                      | 62.5  | 65    | 64    | 63    | 63    | 63    | 63    | 64    | 66    | 70    |
|                                      | 65.0  | 59    | 58    | 58    | 58    | 57    | 58    | 58    | 59    | 65    |
|                                      | 67.5  | 54    | 53    | 53    | 52    | 52    | 52    | 52    | 53    | 59    |
|                                      | 70.0  | 49    | 49    | 48    | 48    | 47    | 47    | 47    | 48    | 52    |
|                                      | 72.5  | 45    | 45    | 45    | 44    | 43    | 43    | 43    | 43    | 47    |
|                                      | 75.0  | 42    | 42    | 42    | 41    | 40    | 40    | 39    | 39    | 42    |
|                                      | 77.5  | 39    | 39    | 38    | 38    | 38    | 37    | 36    | 36    | 38    |
|                                      | 80.0  | 36    | 36    | 36    | 36    | 35    | 35    | 34    | 33    | 35    |
|                                      | 82.5  | 35    | 34    | 34    | 34    | 33    | 32    | 32    | 31    | 33    |
|                                      | 85.0  | 33    | 33    | 32    | 32    | 32    | 31    | 31    | 30    | 31    |
|                                      | 87.5  | 32    | 32    | 32    | 32    | 31    | 31    | 30    | 29    | 30    |
|                                      | 90.0  | 43    | 41    | 41    | 40    | 40    | 38    | 35    | 34    | 35    |
|                                      | 92.5  | 32    | 32    | 32    | 32    | 31    | 31    | 30    | 29    | 30    |
|                                      | 95.0  | 33    | 33    | 32    | 32    | 32    | 31    | 31    | 30    | 31    |
|                                      | 97.5  | 35    | 34    | 34    | 34    | 33    | 32    | 32    | 31    | 33    |
|                                      | 100.0 | 36    | 36    | 36    | 36    | 35    | 35    | 34    | 33    | 35    |
|                                      | 102.5 | 39    | 39    | 38    | 38    | 38    | 37    | 36    | 36    | 38    |
|                                      | 105.0 | 42    | 42    | 42    | 41    | 40    | 40    | 39    | 39    | 42    |
|                                      | 107.5 | 45    | 45    | 45    | 44    | 43    | 43    | 43    | 43    | 47    |
|                                      | 110.0 | 49    | 49    | 48    | 48    | 47    | 47    | 47    | 48    | 52    |
|                                      | 112.5 | 54    | 53    | 53    | 52    | 52    | 52    | 52    | 53    | 59    |
|                                      | 115.0 | 59    | 58    | 58    | 58    | 57    | 58    | 58    | 59    | 65    |
|                                      | 117.5 | 65    | 64    | 63    | 63    | 63    | 63    | 64    | 66    | 70    |
|                                      | 120.0 | 71    | 70    | 70    | 70    | 70    | 70    | 71    | 73    | 76    |
|                                      | 122.5 | 78    | 77    | 77    | 77    | 77    | 77    | 79    | 81    | 83    |
|                                      | 125.0 | 86    | 86    | 85    | 84    | 84    | 85    | 86    | 88    | 90    |
|                                      | 127.5 | 95    | 93    | 93    | 92    | 93    | 93    | 94    | 95    | 97    |
|                                      | 130.0 | 103   | 102   | 101   | 100   | 100   | 100   | 101   | 102   | 104   |
|                                      | 132.5 | 109   | 108   | 107   | 107   | 107   | 107   | 107   | 108   | 109   |



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## Lateral Angles

|                                      | 100.0 | 105.0 | 110.0 | 115.0 | 120.0 | 125.0 | 130.0 | 135.0 | 140.0 | 145.0 |     |
|--------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| V<br>e<br>r<br>t<br>i<br>c<br>a<br>l | 135.0 | 115   | 114   | 114   | 113   | 114   | 113   | 113   | 114   | 115   | 116 |
|                                      | 137.5 | 121   | 120   | 120   | 119   | 119   | 119   | 119   | 119   | 120   | 121 |
|                                      | 140.0 | 127   | 127   | 125   | 125   | 124   | 124   | 124   | 125   | 125   | 125 |
|                                      | 142.5 | 133   | 132   | 131   | 130   | 130   | 130   | 129   | 129   | 130   | 129 |
|                                      | 145.0 | 138   | 137   | 136   | 136   | 135   | 135   | 134   | 134   | 134   | 133 |
|                                      | 147.5 | 142   | 142   | 141   | 140   | 140   | 139   | 138   | 138   | 137   | 137 |
|                                      | 150.0 | 147   | 146   | 146   | 145   | 145   | 144   | 142   | 142   | 141   | 141 |
|                                      | 152.5 | 151   | 150   | 150   | 149   | 148   | 147   | 146   | 145   | 145   | 145 |
|                                      | 155.0 | 154   | 154   | 152   | 152   | 151   | 150   | 149   | 149   | 149   | 149 |
|                                      | 157.5 | 157   | 156   | 156   | 155   | 155   | 154   | 153   | 153   | 153   | 153 |
|                                      | 160.0 | 159   | 158   | 159   | 158   | 157   | 157   | 157   | 157   | 157   | 156 |
|                                      | 162.5 | 162   | 162   | 161   | 161   | 161   | 160   | 160   | 160   | 160   | 159 |
|                                      | 165.0 | 165   | 164   | 165   | 164   | 165   | 164   | 163   | 163   | 163   | 163 |
|                                      | 167.5 | 167   | 167   | 167   | 167   | 166   | 167   | 166   | 166   | 166   | 165 |
|                                      | 170.0 | 170   | 170   | 169   | 169   | 169   | 168   | 168   | 169   | 168   | 168 |
|                                      | 172.5 | 171   | 171   | 171   | 171   | 171   | 171   | 170   | 170   | 170   | 170 |
|                                      | 175.0 | 172   | 172   | 172   | 172   | 172   | 172   | 172   | 172   | 171   | 171 |
|                                      | 177.5 | 173   | 173   | 172   | 172   | 172   | 172   | 172   | 172   | 172   | 172 |
|                                      | 180.0 | 172   | 172   | 172   | 172   | 172   | 172   | 172   | 172   | 172   | 172 |
| A<br>n<br>g<br>l<br>e<br>s           |       |       |       |       |       |       |       |       |       |       |     |



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Lab Code: 200899-0

## Lateral Angles

|                                      | 150.0 | 155.0 | 160.0 | 165.0 | 170.0 | 175.0 | 180.0 |
|--------------------------------------|-------|-------|-------|-------|-------|-------|-------|
| V<br>e<br>r<br>t<br>i<br>c<br>a<br>l | 0.0   | 172   | 172   | 172   | 172   | 172   | 172   |
|                                      | 2.5   | 172   | 172   | 172   | 171   | 171   | 172   |
|                                      | 5.0   | 171   | 170   | 170   | 170   | 170   | 170   |
|                                      | 7.5   | 169   | 170   | 169   | 169   | 169   | 169   |
|                                      | 10.0  | 168   | 167   | 167   | 167   | 166   | 167   |
|                                      | 12.5  | 165   | 164   | 164   | 164   | 164   | 163   |
|                                      | 15.0  | 162   | 162   | 162   | 162   | 162   | 161   |
|                                      | 17.5  | 160   | 159   | 159   | 158   | 158   | 158   |
|                                      | 20.0  | 156   | 155   | 155   | 155   | 155   | 155   |
|                                      | 22.5  | 152   | 153   | 153   | 153   | 152   | 152   |
|                                      | 25.0  | 149   | 149   | 149   | 148   | 148   | 149   |
|                                      | 27.5  | 145   | 145   | 145   | 145   | 145   | 145   |
|                                      | 30.0  | 141   | 142   | 142   | 142   | 142   | 142   |
|                                      | 32.5  | 138   | 138   | 138   | 138   | 138   | 139   |
|                                      | 35.0  | 133   | 133   | 133   | 134   | 134   | 134   |
|                                      | 37.5  | 129   | 130   | 130   | 131   | 131   | 131   |
|                                      | 40.0  | 126   | 126   | 126   | 127   | 127   | 128   |
|                                      | 42.5  | 121   | 121   | 122   | 122   | 123   | 124   |
|                                      | 45.0  | 117   | 117   | 118   | 119   | 120   | 120   |
|                                      | 47.5  | 113   | 113   | 114   | 114   | 115   | 117   |
| A<br>n<br>g<br>l<br>e<br>s           | 50.0  | 107   | 108   | 109   | 110   | 111   | 112   |
|                                      | 52.5  | 101   | 104   | 105   | 107   | 108   | 109   |
|                                      | 55.0  | 95    | 98    | 101   | 102   | 104   | 106   |
|                                      | 57.5  | 88    | 92    | 95    | 98    | 100   | 102   |
|                                      | 60.0  | 81    | 85    | 90    | 94    | 97    | 99    |
|                                      | 62.5  | 74    | 78    | 84    | 88    | 91    | 96    |
|                                      | 65.0  | 67    | 71    | 77    | 82    | 86    | 89    |
|                                      | 67.5  | 61    | 64    | 70    | 76    | 80    | 83    |
|                                      | 70.0  | 55    | 57    | 62    | 67    | 71    | 74    |
|                                      | 72.5  | 49    | 51    | 55    | 59    | 63    | 65    |
|                                      | 75.0  | 44    | 46    | 48    | 51    | 54    | 56    |
|                                      | 77.5  | 39    | 40    | 41    | 43    | 45    | 48    |
|                                      | 80.0  | 35    | 35    | 35    | 36    | 38    | 39    |
|                                      | 82.5  | 32    | 32    | 31    | 30    | 30    | 29    |
|                                      | 85.0  | 30    | 29    | 27    | 26    | 23    | 19    |
|                                      | 87.5  | 29    | 28    | 25    | 23    | 19    | 13    |
|                                      | 90.0  | 31    | 29    | 27    | 23    | 18    | 12    |
|                                      | 92.5  | 29    | 28    | 25    | 23    | 19    | 13    |
|                                      | 95.0  | 30    | 29    | 27    | 26    | 23    | 19    |
|                                      | 97.5  | 32    | 32    | 31    | 30    | 30    | 29    |
|                                      | 100.0 | 35    | 35    | 35    | 36    | 38    | 39    |
|                                      | 102.5 | 39    | 40    | 41    | 43    | 45    | 48    |
|                                      | 105.0 | 44    | 46    | 48    | 51    | 54    | 56    |
|                                      | 107.5 | 49    | 51    | 55    | 59    | 63    | 65    |
|                                      | 110.0 | 55    | 57    | 62    | 67    | 71    | 74    |
|                                      | 112.5 | 61    | 64    | 70    | 76    | 80    | 83    |
|                                      | 115.0 | 67    | 71    | 77    | 82    | 86    | 89    |
|                                      | 117.5 | 74    | 78    | 84    | 88    | 91    | 94    |
|                                      | 120.0 | 81    | 85    | 90    | 94    | 97    | 99    |
|                                      | 122.5 | 88    | 92    | 95    | 98    | 100   | 102   |
|                                      | 125.0 | 95    | 98    | 101   | 102   | 104   | 105   |
|                                      | 127.5 | 101   | 104   | 105   | 107   | 108   | 109   |
|                                      | 130.0 | 107   | 108   | 109   | 110   | 111   | 112   |
|                                      | 132.5 | 113   | 113   | 114   | 114   | 115   | 116   |





# Spectra Lux

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## Lateral Angles

|              | 150.0 | 155.0 | 160.0 | 165.0 | 170.0 | 175.0 | 180.0 |
|--------------|-------|-------|-------|-------|-------|-------|-------|
| <b>135.0</b> | 117   | 117   | 118   | 119   | 120   | 120   | 120   |
| <b>137.5</b> | 121   | 121   | 122   | 122   | 123   | 123   | 124   |
| <b>140.0</b> | 126   | 126   | 126   | 126   | 127   | 127   | 128   |
| <b>142.5</b> | 129   | 130   | 130   | 131   | 131   | 131   | 131   |
| <b>145.0</b> | 133   | 133   | 133   | 134   | 134   | 134   | 134   |
| <b>147.5</b> | 138   | 138   | 138   | 138   | 138   | 138   | 139   |
| <b>150.0</b> | 141   | 142   | 142   | 142   | 142   | 142   | 142   |
| <b>152.5</b> | 145   | 145   | 145   | 145   | 145   | 145   | 145   |
| <b>155.0</b> | 149   | 149   | 149   | 148   | 148   | 148   | 149   |
| <b>157.5</b> | 152   | 153   | 153   | 153   | 152   | 152   | 152   |
| <b>160.0</b> | 156   | 155   | 155   | 155   | 155   | 155   | 155   |
| <b>162.5</b> | 160   | 159   | 159   | 158   | 158   | 158   | 158   |
| <b>165.0</b> | 162   | 162   | 162   | 162   | 162   | 162   | 161   |
| <b>167.5</b> | 165   | 164   | 164   | 164   | 164   | 164   | 163   |
| <b>170.0</b> | 168   | 167   | 167   | 167   | 166   | 166   | 167   |
| <b>172.5</b> | 169   | 170   | 169   | 169   | 169   | 169   | 169   |
| <b>175.0</b> | 171   | 170   | 170   | 170   | 170   | 170   | 170   |
| <b>177.5</b> | 172   | 172   | 172   | 171   | 171   | 171   | 172   |
| <b>180.0</b> | 172   | 172   | 172   | 172   | 172   | 172   | 172   |

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