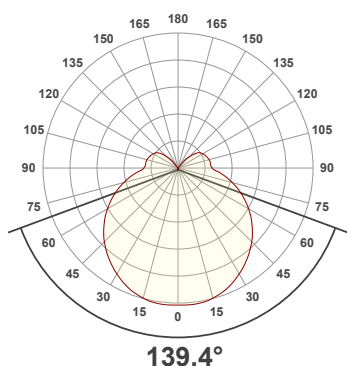




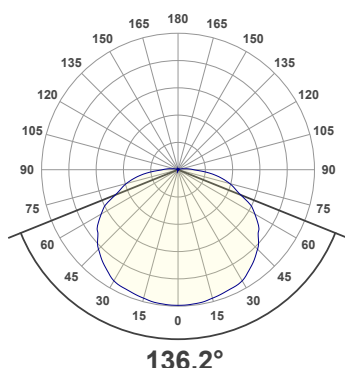
### PRODUCT INFORMATION

|                                 |                                                                                                                                                                        |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MEASUREMENT SERIAL NUMBER:      | VFR-230907-1386-MS                                                                                                                                                     |
| DATE OF MEASUREMENT:            | 9/7/2023                                                                                                                                                               |
| MANUFACTURER:                   | GVA LIGHTING, INC.                                                                                                                                                     |
| PRODUCT NAME:                   | HIGHLIGHTER SERIES, HL-GEN4                                                                                                                                            |
| SIZE (width x length x height): | 48 mm x 300 mm x 60 mm                                                                                                                                                 |
| LOT:                            | GP-5-G/HR-4-L/RO-4-L/U73GY1                                                                                                                                            |
| PROFILE LEGEND:                 | DLN – NICHE, DL – CLAMPING,<br>CM – CLEAR MATTE,<br>BM – BLACK MATTE,<br>COVE-F – COVE FIXED,<br>COVE-OD – COVE OUTDOOR,<br>INF – INFINITY 380 V DC, ELV – 48 V DC,    |
|                                 | DLN – NICHE, DL – CLAMPING,<br>F – FLAT, R – ROUND,<br>SW – SATIN WHITE, B – BLACK,<br>(RGBW) – ALL CHANNELS ON,<br>(R) – RED, (G) – GREEN,<br>(B) – BLUE, (W) – WHITE |

### ANGULAR DISTRIBUTION AT C0/180



### ANGULAR DISTRIBUTION AT C90/270



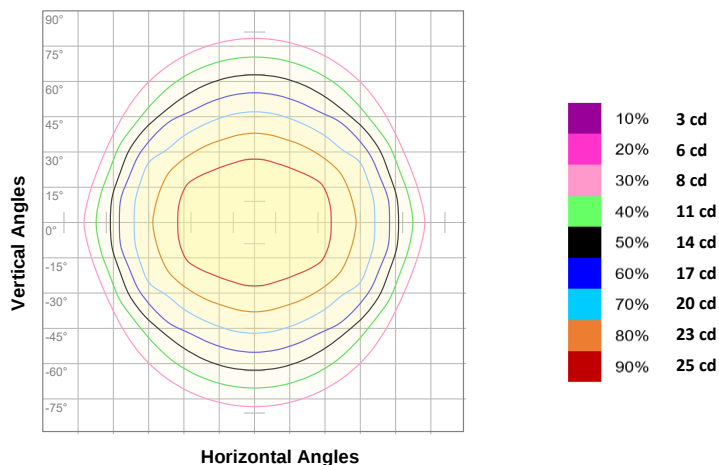
### LIGHT OUTPUT DATA

|                              |         |
|------------------------------|---------|
| TOTAL LUMEN OUTPUT:          | 128 lm  |
| EFFICACY:                    | 27 lm/W |
| PEAK INTENSITY:              | 28.2 cd |
| COLOR RENDERING INDEX (CRI): | 0.0     |
| COLOR TEMPERATURE (CCT):     | 0K      |
| FIDELITY INDEX (TM30Rf):     | 0.0     |
| GAMUT INDEX (TM30Rg):        | 0.0     |

### BEAM OUTPUT DATA

|                              |        |
|------------------------------|--------|
| BEAM ANGLE (FWHM)   C0/180:  | 139.4° |
| BEAM ANGLE (FWHM)   C90/270: | 136.2° |
| FIELD ANGLE (10%)   C0/180:  | 285.8° |
| FIELD ANGLE (10%)   C90/270: | 183.8° |
| NUMBER OF PLANES MEASURED:   | 18     |

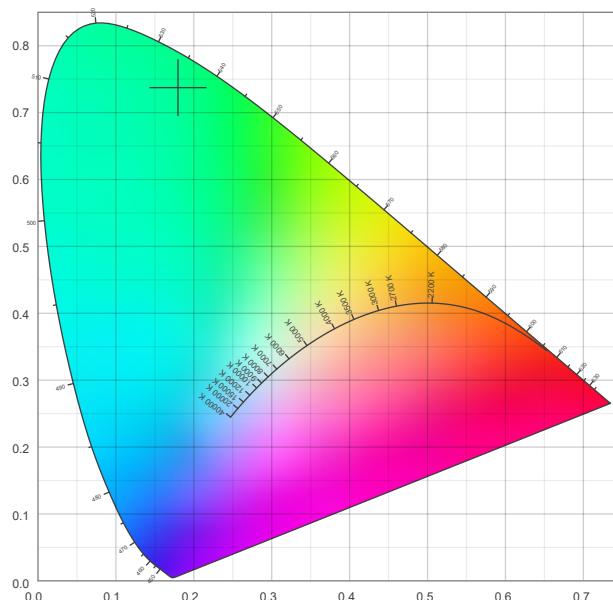
### ISOCANDELA DIAGRAM



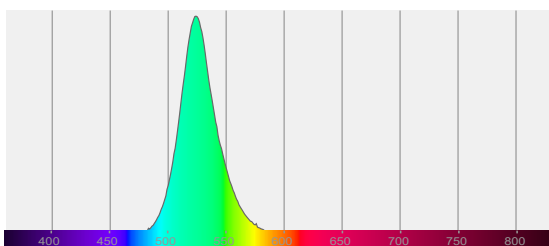
### POWER OUTPUT DATA

|                      |          |
|----------------------|----------|
| INPUT POWER:         | 4.8 W    |
| INPUT VOLTAGE:       | 380 V DC |
| INPUT CURRENT:       | 0.013 A  |
| POWER FACTOR:        | 1.0      |
| OPTICAL POWER:       | 0.249 mW |
| PEAK WAVELENGTH:     | 524 nm   |
| DOMINANT WAVELENGTH: | 530 nm   |

### CIE 1931



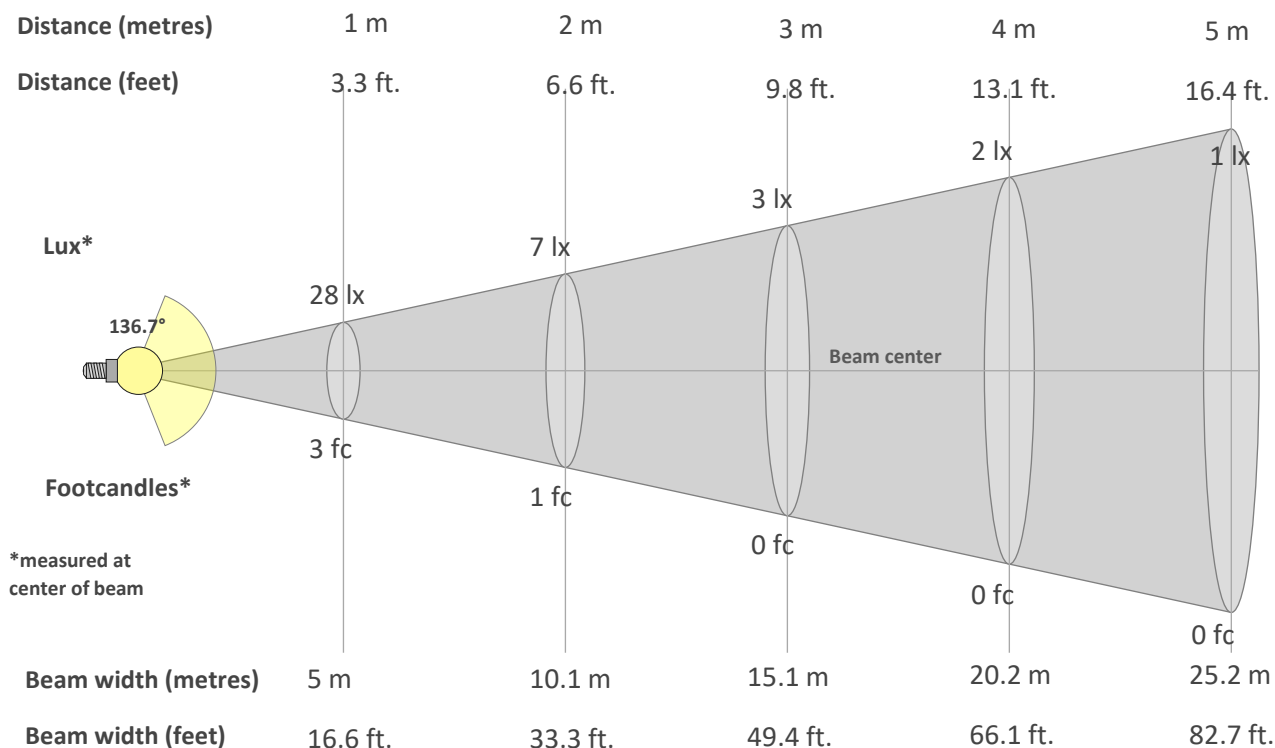
### SPECTRAL DISTRIBUTION



### CIE 1931 ZOOM

x: 0.180  
y: 0.737  
u: 0.063  
v: 0.385  
 $\Delta uv$ :  
n/a

### BEAM DETAILS



### Beam intensity from 1-20m

| 1m    | 2m    | 3m    | 4m     | 5m     | 6m     | 7m    | 8m     | 9m     | 10m    | 11m    | 12m    | 13m    | 14m    | 15m    | 16m    | 17m    | 18m    | 19m    | 20m    |
|-------|-------|-------|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 3.3ft | 6.6ft | 9.8ft | 13.1ft | 16.4ft | 19.7ft | 23ft  | 26.2ft | 29.5ft | 32.8ft | 36.1ft | 39.4ft | 42.7ft | 45.9ft | 49.2ft | 52.5ft | 55.8ft | 59.1ft | 62.3ft | 65.6ft |
| 28lx  | 7lx   | 3lx   | 2lx    | 1lx    | 1lx    | 1lx   | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    | 0lx    |
| 2.6fc | 0.7fc | 0.3fc | 0.2fc  | 0.1fc  | 0.1fc  | 0.1fc | 0fc    | 0fc    | 0fc    | 0fc    | 0fc    | 0fc    | 0fc    | 0fc    | 0fc    | 0fc    | 0fc    | 0fc    | 0fc    |

### Intensity in 0° c-plane

| 0°   | 9°   | 18°  | 27°  | 36°  | 45°  | 54°  | 63°  | 72°  | 81°  | 90° | 99° | 108° | 117° | 126° | 135° | 144° | 153° | 162° | 171° |
|------|------|------|------|------|------|------|------|------|------|-----|-----|------|------|------|------|------|------|------|------|
| 28.2 | 28.2 | 27.4 | 26.0 | 24.0 | 21.8 | 19.2 | 16.3 | 13.4 | 10.4 | 7.5 | 6.9 | 6.8  | 6.5  | 5.9  | 4.4  | 2.6  | 1.0  | 0.5  | 0.1  |
| 100% | 100% | 97%  | 92%  | 85%  | 77%  | 68%  | 58%  | 47%  | 37%  | 27% | 25% | 24%  | 23%  | 21%  | 16%  | 9%   | 3%   | 2%   | 0%   |

### Intensity in 90° c-plane

| 0°   | 9°   | 18°  | 27°  | 36°  | 45°  | 54°  | 63°  | 72°  | 81° | 90° | 99° | 108° | 117° | 126° | 135° | 144° | 153° | 162° | 171° |
|------|------|------|------|------|------|------|------|------|-----|-----|-----|------|------|------|------|------|------|------|------|
| 28.2 | 28.0 | 27.4 | 26.9 | 25.4 | 23.3 | 20.8 | 17.2 | 12.3 | 8.2 | 3.3 | 1.2 | 0.1  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 100% | 99%  | 97%  | 96%  | 90%  | 83%  | 74%  | 61%  | 44%  | 29% | 12% | 4%  | 1%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |

### Intensity in 180° c-plane

| 0°   | 9°   | 18°  | 27°  | 36°  | 45°  | 54°  | 63°  | 72°  | 81°  | 90° | 99° | 108° | 117° | 126° | 135° | 144° | 153° | 162° | 171° |
|------|------|------|------|------|------|------|------|------|------|-----|-----|------|------|------|------|------|------|------|------|
| 28.2 | 28.2 | 27.4 | 26.0 | 24.0 | 21.8 | 19.2 | 16.3 | 13.4 | 10.4 | 7.5 | 6.9 | 6.8  | 6.5  | 5.9  | 4.4  | 2.6  | 1.0  | 0.5  | 0.1  |
| 100% | 100% | 97%  | 92%  | 85%  | 77%  | 68%  | 58%  | 47%  | 37%  | 27% | 25% | 24%  | 23%  | 21%  | 16%  | 9%   | 3%   | 2%   | 0%   |

### Intensity in 270° c-plane

| 0°   | 9°   | 18°  | 27°  | 36°  | 45°  | 54°  | 63°  | 72°  | 81° | 90° | 99° | 108° | 117° | 126° | 135° | 144° | 153° | 162° | 171° |
|------|------|------|------|------|------|------|------|------|-----|-----|-----|------|------|------|------|------|------|------|------|
| 28.2 | 28.0 | 27.4 | 26.9 | 25.4 | 23.3 | 20.8 | 17.2 | 12.3 | 8.2 | 3.3 | 1.2 | 0.1  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 100% | 99%  | 97%  | 96%  | 90%  | 83%  | 74%  | 61%  | 44%  | 29% | 12% | 4%  | 1%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |