APPENDIX D

FIELD LIGHTING ILLUMINATION SUMMARIES
Burton Park Existing Lighting Plans
**ILLUMINATION SUMMARY**

**Burton Park (existing)**
San Carlos, CA

**GRID SUMMARY**

- **Name:** Property Line Spill
- **Spacing:** 30.0’
- **Height:** 3.0’ above grade

**ILLUMINATION SUMMARY**

**MAINTAINED HORIZONTAL FOOTCANDLES**

- **Scan Average:** 0.289
- **Maximum:** 1.65
- **Minimum:** 0.01
- **No. of Points:** 85

**LUMINAIRE INFORMATION**

- **Color / CRI:** 1500W MZ / XXXX
- **Luminaire Output:** 155,000 / 155,000 lumens
- **Average LLF:** 0.800
- **No. of Luminaires:** 30
- **Total Load:** 48.0 kW

<table>
<thead>
<tr>
<th>Lumen Maintenance</th>
<th>L90 hrs</th>
<th>L80 hrs</th>
<th>L70 hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>LV-8</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>FUTURE</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

Reported per TM-21-11. See luminaire datasheet for details.

**Guaranteed Performance:** The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

**Field Measurements:** Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

**Electrical System Requirements:** Refer to Amperage Draw Chart and/or the “Musco Control System Summary” for electrical sizing.

**Installation Requirements:** Results assume ±3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.
**Burton Park (existing)**
San Carlos, CA

### GRID SUMMARY
- **Name:** Property Line Spill
- **Spacing:** 30.0'
- **Height:** 3.0' above grade

### ILLUMINATION SUMMARY
- **MAINTAINED MAX VERTICAL FOOTCANDLES**
  - **Entire Grid**
    - **Scan Average:** 0.817
    - **Maximum:** 3.41
    - **Minimum:** 0.07
    - **No. of Points:** 85

### LUMINAIRE INFORMATION
- **Color / CRI:** 1500W MZ / XXXX
- **Luminaire Output:** 155,000 / 155,000 lumens
- **Average LLF:** 0.800
- **No. of Luminaires:** 30
- **Total Load:** 48.0 kW

**Lumen Maintenance**
- LV-8 -- -- --
- FUTURE -- -- --

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---

**EQUIPMENT LIST FOR AREAS SHOWN**

<table>
<thead>
<tr>
<th>Pole</th>
<th>LOCATION</th>
<th>QTY</th>
<th>SIZE</th>
<th>LOCATION</th>
<th>MOUNTING HEIGHT</th>
<th>LUMINAIRE TYPE</th>
<th>QTY / POLE</th>
<th>THIS GRID</th>
<th>OTHER GRIDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1-A2</td>
<td>60'</td>
<td>2</td>
<td>60'</td>
<td>LV-8 1500W MZ 4</td>
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<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B1</td>
<td>70'</td>
<td>1</td>
<td>70'</td>
<td>LV-8 1500W MZ 4</td>
<td>5</td>
<td>5</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B2</td>
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<td>1</td>
<td>70'</td>
<td>LV-8 1500W MZ 4</td>
<td>6</td>
<td>6</td>
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<td></td>
</tr>
<tr>
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<td>1</td>
<td>70'</td>
<td>LV-8 1500W MZ 4</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C2</td>
<td>70'</td>
<td>1</td>
<td>70'</td>
<td>LV-8 1500W MZ 4</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>6</td>
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<td></td>
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<td></td>
<td></td>
<td>44</td>
<td>44</td>
</tr>
</tbody>
</table>

---

**SCALE IN FEET 1 : 150**

Pole location(s) ☉ dimensions are relative to 0,0 reference point(s) ☊

---

**ENGINEERED DESIGN** By: Jacob McCrea • File #185750(test) • 16-May-17
**EQUIPMENT LIST FOR AREAS SHOWN**

<table>
<thead>
<tr>
<th>Pole</th>
<th>Location</th>
<th>QTY</th>
<th>Location</th>
<th>Size</th>
<th>Drain Elevation</th>
<th>Mounting Height</th>
<th>Luminaire Type</th>
<th>QTY/Pole</th>
<th>This Grid</th>
<th>Other Grids</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1-A2</td>
<td>2 A1-A2</td>
<td>60'</td>
<td>A1-A2</td>
<td>60'</td>
<td>60' LV-8 1500W MZ 4</td>
<td>60' LV-8 1500W MZ 5</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>B1</td>
<td>1 B1</td>
<td>70'</td>
<td>B1</td>
<td>70'</td>
<td>70' LV-8 1500W MZ 4</td>
<td>70' LV-8 1500W MZ 5</td>
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<td>3</td>
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<td>1</td>
<td>1</td>
</tr>
<tr>
<td>B2</td>
<td>1 B2</td>
<td>70'</td>
<td>B2</td>
<td>70'</td>
<td>70' LV-8 1500W MZ 4</td>
<td>70' LV-8 1500W MZ 5</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>C1</td>
<td>1 C1</td>
<td>70'</td>
<td>C1</td>
<td>70'</td>
<td>70' LV-8 1500W MZ 4</td>
<td>70' LV-8 1500W MZ 5</td>
<td>3</td>
<td>3</td>
<td>0</td>
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<td>1</td>
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<tr>
<td>C2</td>
<td>1 C2</td>
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<td>C2</td>
<td>70'</td>
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<td>70' LV-8 1500W MZ 5</td>
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<td>TOTALS</td>
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<td>44</td>
<td>44</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

**SCALE IN FEET 1 : 150**

**ILLUMINATION SUMMARY**

**Name:** Property Line Spill  
**Spacing:** 30.0'  
**Height:** 3.0' above grade

**Maintained Candela (Per Fixture)**

- **Scan Average:** 19238.604
- **Maximum:** 71539.55
- **Minimum:** 5737.56
- **No. of Points:** 85

**Luminaire Information**

- **Color / CRI:** 1500W MZ / XXXX
- **Luminaire Output:** 155,000 / 155,000 lumens
- **Average LLF:** 0.800
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- **Total Load:** 48.0 kW

**Lumen Maintenance**

<table>
<thead>
<tr>
<th>Luminaire Type</th>
<th>L90 hrs</th>
<th>L80 hrs</th>
<th>L70 hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>LV-8</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>FUTURE</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

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**ENGINEERED DESIGN**  
By: Jacob McCrea  • File #185750(test) • 16-May-17

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<th>L90 hrs</th>
<th>L80 hrs</th>
<th>L70 hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>LV-8</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>FUTURE</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

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Burton Park (existing)
San Carlos, CA

GLARE IMPACT
Summary
Map indicates the maximum candela an observer would see when facing the brightest light source from any direction.

A well-designed lighting system controls light to provide maximum useful on-field illumination with minimal destructive off-site glare.

GLARE
Candela Levels

High Glare: 150,000 or more candela
Should only occur on or very near the lit area where the light source is in direct view. Care must be taken to minimize high glare zones.

Significant Glare: 25,000 to 75,000 candela
Equivalent to high beam headlights of a car.

Minimal to No Glare: 500 or less candela
Equivalent to 100W incandescent light bulb.

Candelas:

<table>
<thead>
<tr>
<th>Candela Levels</th>
<th>150,000</th>
<th>100,000</th>
<th>50,000</th>
<th>10,000</th>
<th>5,000</th>
<th>1,000</th>
<th>250</th>
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</thead>
<tbody>
<tr>
<td>High Glare</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Significant Glare</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Minimal to No Glare</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tbody>
</table>
Burton Park Proposed Lighting Plans
## Lighting System

### Pole / Fixture Summary

<table>
<thead>
<tr>
<th>Pole ID</th>
<th>Pole Height</th>
<th>Mtg Height</th>
<th>Fixture Qty</th>
<th>Luminaire Type</th>
<th>Load</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1-A2</td>
<td>60’</td>
<td>60’</td>
<td>2</td>
<td>TLC-LED-1150</td>
<td>2.30 kW</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>25’</td>
<td></td>
<td>1</td>
<td>TLC-LED-1150</td>
<td>1.15 kW</td>
<td>A</td>
</tr>
<tr>
<td>A3-A4</td>
<td>70’</td>
<td>70’</td>
<td>4</td>
<td>TLC-LED-1150</td>
<td>4.60 kW</td>
<td>C</td>
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<tr>
<td></td>
<td>25’</td>
<td></td>
<td>1</td>
<td>TLC-LED-1150</td>
<td>1.15 kW</td>
<td>C</td>
</tr>
<tr>
<td>B1-B2</td>
<td>70’</td>
<td>70’</td>
<td>5</td>
<td>TLC-LED-1150</td>
<td>5.75 kW</td>
<td>A</td>
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<tr>
<td></td>
<td>25’</td>
<td></td>
<td>1</td>
<td>TLC-LED-1150</td>
<td>1.15 kW</td>
<td>A</td>
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<tr>
<td>B3</td>
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<td>80’</td>
<td>7</td>
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<td>1</td>
<td>TLC-LED-1150</td>
<td>1.15 kW</td>
<td>C</td>
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<td>B4</td>
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<td>4.60 kW</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>25’</td>
<td></td>
<td>1</td>
<td>TLC-LED-1150</td>
<td>1.15 kW</td>
<td>C</td>
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<tr>
<td>C1</td>
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<td>70’</td>
<td>5</td>
<td>TLC-LED-1150</td>
<td>5.75 kW</td>
<td>B</td>
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<tr>
<td>C2</td>
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<td>70’</td>
<td>2</td>
<td>TLC-LED-1150</td>
<td>2.30 kW</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>70’</td>
<td></td>
<td>2</td>
<td>TLC-LED-1150</td>
<td>2.30 kW</td>
<td>A</td>
</tr>
<tr>
<td>C3-C4</td>
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<td>80’</td>
<td>4</td>
<td>TLC-LED-1150</td>
<td>4.60 kW</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>25’</td>
<td></td>
<td>1</td>
<td>TLC-LED-1150</td>
<td>1.15 kW</td>
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#### Group Summary

<table>
<thead>
<tr>
<th>Group</th>
<th>Description</th>
<th>Avg Load</th>
<th>Max Load</th>
<th>Fixture Qty</th>
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<tbody>
<tr>
<td>A</td>
<td>Baseball 1</td>
<td>23.0 kW</td>
<td>23.0 kW</td>
<td>20</td>
</tr>
<tr>
<td>B</td>
<td>Multipurpose</td>
<td>11.5 kW</td>
<td>11.5 kW</td>
<td>10</td>
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<tr>
<td>C</td>
<td>Baseball 2</td>
<td>37.95 kW</td>
<td>37.95 kW</td>
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#### Fixture Type Summary

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<th>Type</th>
<th>Source</th>
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<th>Lumens</th>
<th>L90</th>
<th>L80</th>
<th>L70</th>
<th>Quantity</th>
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<tbody>
<tr>
<td>TLC-LED-1150</td>
<td>LED 5700K - 75 CRI</td>
<td>1150W</td>
<td>121,000</td>
<td>&gt;51,000</td>
<td>&gt;51,000</td>
<td>&gt;51,000</td>
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#### Light Level Summary

### Calculation Grid Summary

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<tr>
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<th>Calculation Metric</th>
<th>Illumination</th>
<th>Ave</th>
<th>Min</th>
<th>Max</th>
<th>Max/Min</th>
<th>Groups</th>
<th>Fixture Qty</th>
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</thead>
<tbody>
<tr>
<td>Baseball 1 (infield)</td>
<td>Horizontal Illuminance</td>
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<td>30</td>
<td>58</td>
<td>1.90</td>
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<td>Baseball 1 (outfield)</td>
<td>Horizontal Illuminance</td>
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<td>31.2</td>
<td>20</td>
<td>46</td>
<td>2.31</td>
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<td>Horizontal Illuminance</td>
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<td>33</td>
<td>62</td>
<td>1.85</td>
<td>B,C</td>
<td>43</td>
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<td>Horizontal Illuminance</td>
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<td>31.1</td>
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<td>45</td>
<td>2.03</td>
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<td>Soccer 1</td>
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<td>38</td>
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<td>B,C</td>
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EQUIPMENT LIST FOR AREAS SHOWN

<table>
<thead>
<tr>
<th>Pole Location</th>
<th>Size</th>
<th>Drainage Elevation</th>
<th>Mounting Height</th>
<th>Luminaire Type</th>
<th>Qty</th>
<th>Pole</th>
<th>Other Grids</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1-A2</td>
<td>60'</td>
<td>-</td>
<td>25'</td>
<td>TLC-LED-1150</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>B1-B2</td>
<td>70'</td>
<td>-</td>
<td>25'</td>
<td>TLC-LED-1150</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>B4</td>
<td>80'</td>
<td>-</td>
<td>25'</td>
<td>TLC-LED-1150</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>B4</td>
<td>70'</td>
<td>-</td>
<td>25'</td>
<td>TLC-LED-1150</td>
<td>5</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>C1</td>
<td>70'</td>
<td>-</td>
<td>25'</td>
<td>TLC-LED-1150</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>C2</td>
<td>70'</td>
<td>-</td>
<td>25'</td>
<td>TLC-LED-1150</td>
<td>1</td>
<td>1</td>
<td>0</td>
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<tr>
<td>TOTALS</td>
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<td></td>
<td></td>
<td></td>
<td>35</td>
<td>30</td>
<td>5</td>
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</table>

Burton Park Multi-Use Field
San Carlos, CA

GRID SUMMARY

<table>
<thead>
<tr>
<th>Name</th>
<th>Baseball 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>260'/260'/260' - basepath 70'</td>
</tr>
<tr>
<td>Spacing</td>
<td>20.0' x 20.0'</td>
</tr>
<tr>
<td>Height</td>
<td>3.0' above grade</td>
</tr>
</tbody>
</table>

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

Scan Average:
<table>
<thead>
<tr>
<th>Infield</th>
<th>Outfield</th>
</tr>
</thead>
<tbody>
<tr>
<td>41.9</td>
<td>31.2</td>
</tr>
</tbody>
</table>

Maximum: 58 46
Minimum: 30 20
Avg / Min: 1.38 1.57
Max / Min: 1.90 2.31
UG (adjacent pts): 1.46 1.50
CU: 0.61
No. of Points: 25 135

LUMINAIRE INFORMATION

| Color / CRI: | 5700K - 75 CRI |
| Luminaire Output: | 121,000 lumens |
| No. of Luminaires: | 30 |
| Total Load: | 34.5 kW |

Lumen Maintenance

<table>
<thead>
<tr>
<th>Type</th>
<th>L90 hrs</th>
<th>L80 hrs</th>
<th>L70 hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLC-LED-1150</td>
<td>&gt;51,000</td>
<td>&gt;51,000</td>
<td>&gt;51,000</td>
</tr>
</tbody>
</table>

Reported per TM-21-11. See luminaire datasheet for details.

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

Entered by Jacob McCrea • File #185750b • 16-May-17

We Make It Happen®
Equipment List for Areas Shown

<table>
<thead>
<tr>
<th>Pole</th>
<th>Luminares</th>
</tr>
</thead>
<tbody>
<tr>
<td>QTY</td>
<td>LOCATION</td>
</tr>
<tr>
<td>2</td>
<td>A3-A4</td>
</tr>
<tr>
<td>2</td>
<td>B3-B4</td>
</tr>
<tr>
<td>1</td>
<td>C1</td>
</tr>
<tr>
<td>1</td>
<td>C2</td>
</tr>
<tr>
<td>2</td>
<td>C3-C4</td>
</tr>
<tr>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

Pole location(s) dimensions are relative to 0,0 reference point(s) ☺

Scale in Feet 1 : 100

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Burton Park Multi-Use Field
San Carlos, CA

**GRID SUMMARY**
Name: Soccer 1
Size: 265' x 150'
Spacing: 30.0' x 30.0'
Height: 3.0' above grade

**ILLUMINATION SUMMARY**

<table>
<thead>
<tr>
<th>MAINTAINED HORIZONTAL FOOTCANDLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire Grid</td>
</tr>
<tr>
<td>Guaranteed Average: 30</td>
</tr>
<tr>
<td>Scan Average: 30.1</td>
</tr>
<tr>
<td>Maximum: 43</td>
</tr>
<tr>
<td>Minimum: 23</td>
</tr>
<tr>
<td>Avg / Min: 1.33</td>
</tr>
<tr>
<td>Guaranteed Max / Min: 2.5</td>
</tr>
<tr>
<td>Max / Min: 1.91</td>
</tr>
<tr>
<td>UG (adjacent pts): 1.51</td>
</tr>
<tr>
<td>CU: 0.31</td>
</tr>
<tr>
<td>No. of Points: 40</td>
</tr>
</tbody>
</table>

**LUMINAIRE INFORMATION**
- Color / CRI: 5700K - 75 CRI
- Luminaires Output: 121,000 lumens
- No. of Luminaires: 30
- Total Load: 34.5 kW

**Lumen Maintenance**
- TLC-LED-1150 >51,000

Reported per TM-21-11. See Luminaire datasheet for details.

**Guaranteed Performance:** The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

**Field Measurements:** Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

**Electrical System Requirements:** Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

**Installation Requirements:** Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

---

**EQUIPMENT LIST FOR AREAS SHOWN**

<table>
<thead>
<tr>
<th>Pole Location</th>
<th>Size</th>
<th>Mounting Height</th>
<th>Luminaire Type</th>
<th>Qty / Pole</th>
<th>This Grid</th>
<th>Other Grids</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1-A2</td>
<td>60'</td>
<td>25'</td>
<td>TLC-LED-1150</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>B1-B2</td>
<td>70'</td>
<td>25'</td>
<td>TLC-LED-1150</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>B4</td>
<td>80'</td>
<td>25'</td>
<td>TLC-LED-1150</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>C1</td>
<td>70'</td>
<td>70'</td>
<td>TLC-LED-1150</td>
<td>5</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>C2</td>
<td>70'</td>
<td>70'</td>
<td>TLC-LED-1150</td>
<td>4</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td></td>
<td></td>
<td></td>
<td>35</td>
<td>30</td>
<td>5</td>
</tr>
</tbody>
</table>
EQUIPMENT LIST FOR AREAS SHOWN

<table>
<thead>
<tr>
<th>Pole</th>
<th>Luminaires</th>
</tr>
</thead>
<tbody>
<tr>
<td>QTY</td>
<td>LOCATION</td>
</tr>
<tr>
<td>2</td>
<td>A3-A4</td>
</tr>
<tr>
<td>2</td>
<td>B3-B4</td>
</tr>
<tr>
<td>1</td>
<td>C1</td>
</tr>
<tr>
<td>1</td>
<td>C2</td>
</tr>
<tr>
<td>2</td>
<td>C3-C4</td>
</tr>
</tbody>
</table>

THTALS: QTY 45, LOCATION 43, OTHER GRIDS 2

GRID SUMMARY

Name: Soccer 2
Size: 250' x 160'
Spacing: 30.0' x 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

<table>
<thead>
<tr>
<th>Grid</th>
<th>Guaranteed Average:</th>
<th>Scan Average:</th>
<th>Maximum:</th>
<th>Minimum:</th>
<th>Avg / Min:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire Grid</td>
<td>30</td>
<td>30.3</td>
<td>38</td>
<td>25</td>
<td>1.23</td>
</tr>
</tbody>
</table>

Guaranteed Max / Min: 2.5
Max / Min: 1.52
UG (adjacent pts): 1.31
CU: 0.22
No. of Points: 40

GUARDIAN INFORMATION

Color / CRI: 5700K - 75 CRI
Luminaire Output: 121,000 lumens
No. of Luminaires: 43
Total Load: 49.45 kW

Lumen Maintenance

Luminaire Type | L90 hrs | L80 hrs | L70 hrs |
---|---|---|---|
TLC-LED-1150 | >51,000 | >51,000 | >51,000 |

Reported per TM-21-11. See luminaire datasheet for details.

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.
EQUIPMENT LIST FOR AREAS SHOWN

<table>
<thead>
<tr>
<th>Pole</th>
<th>Location</th>
<th>Size</th>
<th>Orientation</th>
<th>Mounting Height</th>
<th>Luminaire Type</th>
<th>QTY / POLE</th>
<th>THIS GRID</th>
<th>OTHER GRIDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>A1-A2</td>
<td>60'</td>
<td>-</td>
<td>25'</td>
<td>TLC-LED-1150</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>60'</td>
<td>TLC-LED-1150</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>A3-A4</td>
<td>70'</td>
<td>-</td>
<td>25'</td>
<td>TLC-LED-1150</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>70'</td>
<td>TLC-LED-1150</td>
<td>4</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>B1-B2</td>
<td>70'</td>
<td>-</td>
<td>25'</td>
<td>TLC-LED-1150</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>70'</td>
<td>TLC-LED-1150</td>
<td>5</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>B3-B4</td>
<td>80'</td>
<td>-</td>
<td>25'</td>
<td>TLC-LED-1150</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>80'</td>
<td>TLC-LED-1150</td>
<td>7</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>C1</td>
<td>70'</td>
<td>-</td>
<td>70'</td>
<td>TLC-LED-1150</td>
<td>5</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>C2</td>
<td>70'</td>
<td>-</td>
<td>70'</td>
<td>TLC-LED-1150</td>
<td>4</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>C3-C4</td>
<td>80'</td>
<td>-</td>
<td>25'</td>
<td>TLC-LED-1150</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>80'</td>
<td>TLC-LED-1150</td>
<td>7</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>Totals</td>
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<td></td>
<td>63</td>
<td>63</td>
<td>0</td>
</tr>
</tbody>
</table>

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

<table>
<thead>
<tr>
<th>Entire Grid</th>
<th>Scan Average: 0.010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum:</td>
<td>0.09</td>
</tr>
<tr>
<td>Minimum:</td>
<td>0.00</td>
</tr>
<tr>
<td>No. of Points: 86</td>
<td></td>
</tr>
</tbody>
</table>

LUMINAIRE INFORMATION

- Color / CRI: 5700K - 75 CRI
- Luminaire Output: 121,000 lumens
- No. of Luminaires: 63
- Total Load: 72.45 kW

Lumen Maintenance

<table>
<thead>
<tr>
<th>Luminaire Type</th>
<th>L90 hrs</th>
<th>L80 hrs</th>
<th>L70 hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLC-LED-1150</td>
<td>&gt;51,000</td>
<td>&gt;51,000</td>
<td>&gt;51,000</td>
</tr>
</tbody>
</table>

Reported per TM-21-11. See luminaire datasheet for details.

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Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.
## Equipment List for Areas Shown

<table>
<thead>
<tr>
<th>Pole</th>
<th>Luminaires</th>
<th>QTY</th>
<th>LOCATION</th>
<th>SIZE</th>
<th>DRANE ELEVATION</th>
<th>MOUNTING HEIGHT</th>
<th>LUMINAIRE TYPE</th>
<th>QTY/POLE</th>
<th>THIS GRID</th>
<th>OTHER GRID</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1-A2</td>
<td>TLC-LED-1150</td>
<td>2</td>
<td>A1-A2</td>
<td>60'</td>
<td>60'</td>
<td>25'</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>A3-A4</td>
<td>TLC-LED-1150</td>
<td>2</td>
<td>A3-A4</td>
<td>70'</td>
<td>-</td>
<td>25'</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>B1-B2</td>
<td>TLC-LED-1150</td>
<td>2</td>
<td>B1-B2</td>
<td>70'</td>
<td>-</td>
<td>25'</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>B3-B4</td>
<td>TLC-LED-1150</td>
<td>2</td>
<td>B3-B4</td>
<td>80'</td>
<td>-</td>
<td>25'</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>C1</td>
<td>TLC-LED-1150</td>
<td>1</td>
<td>C1</td>
<td>70'</td>
<td>-</td>
<td>25'</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>C2</td>
<td>TLC-LED-1150</td>
<td>1</td>
<td>C2</td>
<td>70'</td>
<td>-</td>
<td>25'</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>C3-C4</td>
<td>TLC-LED-1150</td>
<td>2</td>
<td>C3-C4</td>
<td>80'</td>
<td>-</td>
<td>25'</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td></td>
<td>22</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>63</td>
<td>63</td>
<td>0</td>
</tr>
</tbody>
</table>

### Burton Park Multi-Use Field
San Carlos, CA

#### Grid Summary
- **Name:** Property Spill Line
- **Spacing:** 30.0'
- **Height:** 3.0' above grade

#### Illumination Summary
- **Scan Average:** 0.017
- **Maximum:** 0.13
- **Minimum:** 0.00
- **No. of Points:** 86

#### Luminaire Information
- **Color / CRI:** 5700K - 75 CRI
- **Luminaire Output:** 121,000 lumens
- **No. of Luminaires:** 63
- **Total Load:** 72.45 kW

#### Lumen Maintenance
- **Luminaire Type L90 hrs:** >51,000
- **Luminaire Type L80 hrs:** >51,000
- **Luminaire Type L70 hrs:** >51,000

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

**SCALE IN FEET 1 : 150**

Pole location(s) + dimensions are relative to the 0,0 reference point(s) 🌡

**ENGINEERED DESIGN** By: Jacob McCrea • File #185750b • 16-May-17
## Equipment List for Areas Shown

| Pole | Luminaire Type       | QTY | Location(s) | Size | Elevation | Mounting Height | Luminaires | QTY / Pole | This Grid | Other Grids |
|------|----------------------|-----|-------------|------|-----------|-----------------|------------|------------|-----------|------------|------------|
| 2    | TLC-LED-1150         | 1   | A1-A2       | 60'  | 60'       | 25'             | 1          | 1          | 2         | 2          | 0          |
| 2    | TLC-LED-1150         | 1   | A3-A4       | 70'  | -         | 25'             | 1          | 1          | 2         | 2          | 0          |
| 2    | TLC-LED-1150         | 1   | B1-B2       | 70'  | 70'       | 25'             | 1          | 1          | 2         | 2          | 0          |
| 2    | TLC-LED-1150         | 1   | B3-B4       | 80'  | 80'       | 25'             | 1          | 1          | 2         | 2          | 0          |
| 1    | TLC-LED-1150         | 5   | C1          | 70'  | -         | 70'             | 5          | 5          | 0          |            |            |
| 1    | TLC-LED-1150         | 4   | C2          | 70'  | -         | 70'             | 4          | 4          | 0          |            |            |
| 2    | TLC-LED-1150         | 4   | C3-C4       | 80'  | 80'       | 25'             | 1          | 1          | 2         | 2          | 0          |

### Grid Summary
- **Name:** Property Spill Line
- **Spacing:** 30.0'  
- **Height:** 3.0' above grade

### Illumination Summary
- **Scan Average:** 513.637
- **Maximum:** 2588.71
- **Minimum:** 0.00
- **No. of Points:** 86

### Luminaire Information
- **Color / CRI:** 5700K - 75 CRI
- **Luminaire Output:** 121,000 lumens
- **No. of Luminaires:** 63
- **Total Load:** 72.45 kW

### Lumen Maintenance

<table>
<thead>
<tr>
<th>luminaire type</th>
<th>L90 hrs</th>
<th>L80 hrs</th>
<th>L70 hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLC-LED-1150</td>
<td>&gt;51,000</td>
<td>&gt;51,000</td>
<td>&gt;51,000</td>
</tr>
</tbody>
</table>

Reported per TM-21-11. See luminaire datasheet for details.

**Guaranteed Performance:** The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

**Field Measurements:** Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

**Electrical System Requirements:** Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

**Installation Requirements:** Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.
**Burton Park Multi-Use Field**
San Carlos, CA

**EQUIPMENT LAYOUT**

**INCLUDES:**
- Baseball 1
- Baseball 2
- Soccer 1
- Soccer 2

**Electrical System Requirements:** Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

**Installation Requirements:** Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

**EQUIPMENT LIST FOR AREAS SHOWN**

<table>
<thead>
<tr>
<th>Pole Luminaires</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pole</strong></td>
</tr>
<tr>
<td><strong>QTY</strong></td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>2</td>
</tr>
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<td>2</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>12</td>
</tr>
</tbody>
</table>

**SINGLE LUMINAIRE AMPERAGE DRAW CHART**

<table>
<thead>
<tr>
<th>Pole luminaires</th>
<th><strong>Ballast Specifications</strong> (max draw)</th>
<th><strong>Line Amperage Per Luminaire</strong> (max draw)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLC-LED-1150</td>
<td>7.0</td>
<td>6.6</td>
</tr>
</tbody>
</table>

**SCALE IN FEET 1: 150**

Pole location(s) + dimensions are relative to 0,0 reference point(s) ☑
Burton Park Multi-Use Field
San Carlos, CA

GLARE IMPACT

Summary
Map indicates the maximum candela an observer would see when facing the brightest light source from any direction.

A well-designed lighting system controls light to provide maximum useful on-field illumination with minimal destructive off-site glare.

GLARE

Candela Levels

High Glare: 150,000 or more candela
Should only occur on or very near the lit area where the light source is in direct view. Care must be taken to minimize high glare zones.

Significant Glare: 25,000 to 75,000 candela
Equivalent to high beam headlights of a car.

Minimal to No Glare: 500 or less candela
Equivalent to 100W incandescent light bulb.

Candelas:

<table>
<thead>
<tr>
<th>Candela Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
</tr>
<tr>
<td>150,000</td>
</tr>
<tr>
<td>100,000</td>
</tr>
<tr>
<td>50,000</td>
</tr>
<tr>
<td>10,000</td>
</tr>
<tr>
<td>5,000</td>
</tr>
<tr>
<td>1,000</td>
</tr>
<tr>
<td>250</td>
</tr>
</tbody>
</table>

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Highlands Park Existing Lighting Plans
### GRID SUMMARY

**Name:** Property Line Spill  
**Spacing:** 30.0'  
**Height:** 3.7' above grade

### ILLUMINATION SUMMARY

**MAINTAINED HORIZONTAL FOOTCANDLES**

<table>
<thead>
<tr>
<th>Area</th>
<th>Scan Average</th>
<th>Maximum</th>
<th>Minimum</th>
<th>No. of Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire Grid</td>
<td>0.5539</td>
<td>3.74</td>
<td>0.05</td>
<td>133</td>
</tr>
</tbody>
</table>

**LUMINAIRE INFORMATION**

- **Color / CRI:** 5700K - 75 CRI / 1500W MH  
- **Luminaire Output:** 121,000 / 155,000 lumens  
- **No. of Luminaires:** 84  
- **Total Load:** 134.4 kW

**Lumen Maintenance**

<table>
<thead>
<tr>
<th>Luminaire Type</th>
<th>L90 hrs</th>
<th>L80 hrs</th>
<th>L70 hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLC-LED-1150</td>
<td>&gt;51,000</td>
<td>&gt;51,000</td>
<td>&gt;51,000</td>
</tr>
</tbody>
</table>

**SPORTSCLUSTER 1**

- Reported per TM-21-11. See luminaire datasheet for details.

**Guaranteed Performance:**

The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

**Field Measurements:**

Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with E32A-2015.

**Electrical System Requirements:**

Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

**Installation Requirements:**

Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

---

**EQUIPMENT LIST FOR AREAS SHOWN**

<table>
<thead>
<tr>
<th>Pole No.</th>
<th>Luminaire</th>
<th>QTY</th>
<th>LOCATION</th>
<th>ELEVATION</th>
<th>GRADE</th>
<th>MOUNTING HEIGHT</th>
<th>LUMINAIRE TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1C2</td>
<td>1C2</td>
<td>1</td>
<td>1C2</td>
<td>70'</td>
<td>-</td>
<td>8</td>
<td>SC-1 MH 1500W MH 4</td>
</tr>
<tr>
<td>3C2</td>
<td>3C2</td>
<td>1</td>
<td>3C2</td>
<td>70'</td>
<td>-</td>
<td>8</td>
<td>SC-1 MH 1500W MH 4</td>
</tr>
<tr>
<td>1C1</td>
<td>1C1</td>
<td>1</td>
<td>1C1</td>
<td>70'</td>
<td>-</td>
<td>11</td>
<td>SC-1 MH 1500W MH 4</td>
</tr>
<tr>
<td>3C1</td>
<td>3C1</td>
<td>1</td>
<td>3C1</td>
<td>70'</td>
<td>-</td>
<td>11</td>
<td>SC-1 MH 1500W MH 4</td>
</tr>
<tr>
<td>1C3</td>
<td>1C3</td>
<td>1</td>
<td>1C3</td>
<td>70'</td>
<td>-</td>
<td>6</td>
<td>SC-1 MH 1500W MH 4</td>
</tr>
<tr>
<td>3C3</td>
<td>3C3</td>
<td>1</td>
<td>3C3</td>
<td>70'</td>
<td>-</td>
<td>6</td>
<td>SC-1 MH 1500W MH 4</td>
</tr>
</tbody>
</table>

---

**Pole Location(s):**

- **dimensions are relative to C3 reference point(s)**

---

**SCALE IN FEET 1:200**

**ENGINEERED DESIGN**

By: Jacob McCrea  
File #185751  
25-May-17

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GRID SUMMARY

Name: Property Line Spill
Spacing: 30.0’
Height: 3.7’ above grade

ILLUMINATION SUMMARY

MAINTAINED MAX VERTICAL FOOTCANDLES

<table>
<thead>
<tr>
<th>Entire Grid</th>
<th>Scan Average</th>
<th>3.54</th>
<th>Maximum</th>
<th>9.76</th>
<th>Minimum</th>
<th>0.63</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Points:</td>
<td>133</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SUMMARY INFORMATION:

<table>
<thead>
<tr>
<th>Color / CRI</th>
<th>Luminaire Output</th>
<th>No. of Luminaires</th>
<th>Total Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>5700K - 75 CRI / 1500W MH</td>
<td>121,000 / 155,000 lumens</td>
<td>84</td>
<td>134.4 kW</td>
</tr>
</tbody>
</table>

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ±3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.
## Equipment List for Areas Shown

<table>
<thead>
<tr>
<th>Pole Location</th>
<th>Pole Location</th>
<th>Size</th>
<th>Grade</th>
<th>Elevation</th>
<th>Mounting Height</th>
<th>Luminaires Type</th>
<th>QTY / Pole</th>
<th>THIS Grid</th>
<th>OTHER Grids</th>
</tr>
</thead>
<tbody>
<tr>
<td>1C2</td>
<td>1C2, 3C2</td>
<td>70'</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>SC-1 MH 1500W MH 4</td>
<td>8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1C1</td>
<td>1C1, 3C1</td>
<td>70'</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>SC-1 MH 1500W MH 4</td>
<td>11</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1C3</td>
<td>1C3</td>
<td>70'</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>SC-1 MH 1500W MH 4</td>
<td>6</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>A1-A2, 3A1</td>
<td>50'</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>SC-1 MH 1500W MH 4</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>B1, 3B1</td>
<td>70'</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>SC-1 MH 1500W MH 4</td>
<td>7</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>B2, 3B2</td>
<td>70'</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>SC-1 MH 1500W MH 4</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### Grid Summary
- **Name:** Property Line Spill
- **Spacing:** 50.0’
- **Height:** 3.0’ above grade

### Illumination Summary
- **Maintained Candela (Per Fixture):**
  - **Scan Average:** 93272.4922
  - **Maximum:** 120836.79
  - **Minimum:** 75794.13
  - **No. of Points:** 133

### Luminaires Information
- **Color / CRI:** 5700K - 75 CRI / 1500W MH
- **Luminaire Output:** 121,000 / 155,000 lumens
- **No. of Luminaires:** 84
- **Total Load:** 134.4 kW

### Lumen Maintenance

<table>
<thead>
<tr>
<th>Luminaires Type</th>
<th>L90 hrs</th>
<th>L80 hrs</th>
<th>L70 hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLC-LED-1150</td>
<td>&gt;51,000</td>
<td>&gt;51,000</td>
<td>&gt;51,000</td>
</tr>
</tbody>
</table>

**Guaranteed Performance:** The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

### Field Measurements:
- Individual field measurements may vary from computer calculated predictions and should be taken in accordance with E3120.RP.15.

### Electrical System Requirements:
- Refer to Amperage Draw Chart and/or the “Musco Control System Summary” for electrical sizing.

### Installation Requirements:
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Map indicates the maximum candela an observer would see when facing the brightest light source from any direction.

A well-designed lighting system controls light to provide maximum useful on-field illumination with minimal destructive off-site glare.

Candela Levels:
- **High Glare**: 150,000 or more candela
  - Should only occur on or very near the lit area where the light source is in direct view. Care must be taken to minimize high glare zones.
- **Significant Glare**: 25,000 to 75,000 candela
  - Equivalent to high beam headlights of a car.
- **Minimal to No Glare**: 500 or less candela
  - Equivalent to 100W incandescent light bulb.
Highlands Park Proposed Lighting Plans
### Light Level Summary

**Calculation Grid Summary**

<table>
<thead>
<tr>
<th>Grid Name</th>
<th>Calculation Metric</th>
<th>Area (A)</th>
<th>Max (B)</th>
<th>Min (C)</th>
<th>Max (D)</th>
<th>Min (E)</th>
<th>Max/W (F)</th>
<th>Groups</th>
<th>Fixture Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property Line Spill</td>
<td>Horizontal Illuminance</td>
<td>0</td>
<td>0</td>
<td>0.07</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>A,B,C,D,E,F,G</td>
<td>94</td>
</tr>
<tr>
<td>Property Line Spill</td>
<td>Max Candela Metric</td>
<td>349.00</td>
<td>0</td>
<td>2223</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>A,B,C,D,E,F,G</td>
<td>94</td>
</tr>
<tr>
<td>Property Line Spill</td>
<td>Max Vertical Illuminance Metric</td>
<td>0.01</td>
<td>0</td>
<td>0.09</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>A,B,C,D,E,F,G,A,B,C,D,E,F,G</td>
<td>94</td>
</tr>
<tr>
<td>Soccer 1</td>
<td>Horizontal Illuminance</td>
<td>30.8</td>
<td>21</td>
<td>29</td>
<td>18.11</td>
<td>18.07</td>
<td>18.11</td>
<td>B</td>
<td>25</td>
</tr>
<tr>
<td>Soccer 2</td>
<td>Horizontal Illuminance</td>
<td>31.5</td>
<td>24</td>
<td>24</td>
<td>1.92</td>
<td>1.80</td>
<td>1.92</td>
<td>C</td>
<td>25</td>
</tr>
<tr>
<td>Softball 1 (Infield)</td>
<td>Horizontal Illuminance</td>
<td>30.7</td>
<td>38</td>
<td>61</td>
<td>1.61</td>
<td>1.61</td>
<td>1.61</td>
<td>A</td>
<td>31</td>
</tr>
<tr>
<td>Softball 1 (Outfield)</td>
<td>Horizontal Illuminance</td>
<td>27.4</td>
<td>24</td>
<td>47</td>
<td>2.02</td>
<td>2.02</td>
<td>2.02</td>
<td>A</td>
<td>31</td>
</tr>
<tr>
<td>Softball 2 (Infield)</td>
<td>Horizontal Illuminance</td>
<td>35.3</td>
<td>24</td>
<td>24</td>
<td>2.24</td>
<td>2.24</td>
<td>2.24</td>
<td>C</td>
<td>25</td>
</tr>
<tr>
<td>Softball 2 (Outfield)</td>
<td>Horizontal Illuminance</td>
<td>30.6</td>
<td>38</td>
<td>61</td>
<td>1.68</td>
<td>1.68</td>
<td>1.68</td>
<td>E,F</td>
<td>35</td>
</tr>
<tr>
<td>Softball 3 (Infield)</td>
<td>Horizontal Illuminance</td>
<td>30.7</td>
<td>21</td>
<td>50</td>
<td>2.35</td>
<td>2.35</td>
<td>2.35</td>
<td>E,F</td>
<td>35</td>
</tr>
</tbody>
</table>
## EQUIPMENT LIST FOR AREAS SHOWN

<table>
<thead>
<tr>
<th>Location</th>
<th>QTY</th>
<th>Grade</th>
<th>Elevation</th>
<th>Mounting Height</th>
<th>Luminaires</th>
<th>QTY/Pole</th>
<th>Others/Gr</th>
<th>Grids</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1-A2</td>
<td>2</td>
<td>60'</td>
<td>60'-60'</td>
<td>TLC-LED-1150</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>B1</td>
<td>1</td>
<td>80'</td>
<td>80'-25'</td>
<td>TLC-LED-1150</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>B2, C2</td>
<td>2</td>
<td>70'</td>
<td>70'-25'</td>
<td>TLC-LED-1150</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>C1</td>
<td>1</td>
<td>80'</td>
<td>80'-25'</td>
<td>TLC-LED-1150</td>
<td>1</td>
<td>7</td>
<td>1</td>
<td>7</td>
</tr>
</tbody>
</table>

## TOTALS

<table>
<thead>
<tr>
<th></th>
<th>QTY</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>B1, B2, C1</td>
<td>5</td>
<td>100'</td>
<td>100'-80'</td>
<td>TLC-LED-1150</td>
<td>1</td>
<td>16</td>
<td>1</td>
<td>16</td>
</tr>
</tbody>
</table>

## GRID SUMMARY

### Name:
Softball 1

### Size:
265'/265'/265' - basepath 60'

### Spacing:
20.0' x 20.0'

### Height:
3.0' above grade

## ILLUMINATION SUMMARY

### Guaranteed Average:
50 30

### Field Average:
50.70 34.17

### Maximum:
61 47

### Minimum:
38 24

### Avg / Min:
1.33 1.45

### Guaranteed Max / Min:
2 2.5

### Max / Min:
1.61 2.01

### UG (adjacent pts): 1.31 1.40

### CL:
0.85 1.17

### No. of Points:
25 137

## LUMINAIRE INFORMATION

<table>
<thead>
<tr>
<th>Color / CRI:</th>
<th>5700K - 75 CRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luminaire Output:</td>
<td>121,000 lumens</td>
</tr>
<tr>
<td>No. of Luminaires:</td>
<td>31</td>
</tr>
<tr>
<td>Total Load:</td>
<td>35.65 kW</td>
</tr>
</tbody>
</table>

## Lumen Maintenance

<table>
<thead>
<tr>
<th>Luminaire Type</th>
<th>L90 hrs</th>
<th>L80 hrs</th>
<th>L70 hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLC-LED-1150</td>
<td>&gt;51,000</td>
<td>&gt;51,000</td>
<td>&gt;51,000</td>
</tr>
</tbody>
</table>

Reported per TM-21-11. See luminaire datasheet for details.

## Guaranteed Performance:
The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

## Field Measurements:
Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

## Electrical System Requirements:
Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

## Installation Requirements:
Results assume ±3% normal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.
**ILLUMINATION SUMMARY**

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**Installation Requirements:** Results assume ±3% normal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.
**Equipment List for Areas Shown**

<table>
<thead>
<tr>
<th>Pole</th>
<th>Location</th>
<th>Pole Elevation</th>
<th>Pole Grade</th>
<th>Pole Elevation Grade</th>
<th>Pole Mounting Height</th>
<th>Pole Luminaires</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>B3</td>
<td>80'</td>
<td>-90'</td>
<td>80'</td>
<td>25'</td>
<td>TLC-LED-1150</td>
</tr>
<tr>
<td>1</td>
<td>B4</td>
<td>70'</td>
<td>-25'</td>
<td>70'</td>
<td>25'</td>
<td>TLC-LED-1150</td>
</tr>
<tr>
<td>1</td>
<td>C3</td>
<td>80'</td>
<td>-25'</td>
<td>80'</td>
<td>25'</td>
<td>TLC-LED-1150</td>
</tr>
</tbody>
</table>

**Grid Summary**

**Name:** Softball 2  
**Size:** 235'/235'/235' - basepath 60'  
**Spacing:** 20.0' x 20.0'  
**Height:** 3.0' above grade

**Illumination Summary**

**Guaranteed Average:** 50 30  
**Scan Average:** 51.76 35.28  
**Maximum:** 62 53  
**Minimum:** 39 24  
**Avg / Min:** 1.32 1.48

**Guaranteed Max / Min:** 2.5 2.5  
**U/G (adjacent pts):** 1.46 1.94  
**CL:** 0.62  
**No. of Points:** 25 106

**Luminaire Information**

**Color / CRI:** 5700K - 75 CRI  
**Luminaire Output:** 121,000 lumens  
**No. of Luminaires:** 28

**Total Load:** 32.2 kW  
**Lumen Maintenance:**  
**Lumen Maintenance:**

**Reported per TM-21-11. See luminaire datasheet for details.**

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**Field Measurements:** Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

**Electrical System Requirements:** Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

**Installation Requirements:** Results assume ±3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.
**GRID SUMMARY**

**Name:** Softball 3  
**Size:** 200’/200’/200’ - baseline 90’  
**Spacing:** 20.0’ x 20.0’  
**Height:** 3.0’ above grade

**ILLUMINATION SUMMARY**

**Guaranteed Average:**
- **Infield:** 50  
- **Outfield:** 30

**Scan Average:**
- **Infield:** 50.78  
- **Outfield:** 30.73

**Maximum:**
- **Infield:** 61  
- **Outfield:** 50

**Minimum:**
- **Infield:** 36  
- **Outfield:** 21

**Avg / Min:**
- **Infield:** 1.40  
- **Outfield:** 1.45

**Guaranteed Max / Min:**
- **Infield:** 2.18  
- **Outfield:** 2.56

**UG (adjacent pts):**
- **Infield:** 1.33  
- **Outfield:** 1.41

**CU:** 0.39

**No. of Points:** 25 / 72

**LUMINAIRE INFORMATION**

- **Color / CRI:** 5700K - 75 CRI
- **Luminaire Output:** 40,600 / 121,000 lumens
- **No. of Luminaires:** 35
- **Total Load:** 37.01 kW

- **Lumen Maintenance:**
  - **L90 hrs:** TLC-LED-1150 >51,000  
  - **L80 hrs:** >51,000  
  - **L70 hrs:** >51,000

Reported per TM-21-11. See luminaire datasheet for details.

**Guaranteed Performance:**
- The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

**Field Measurements:** Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

**Electrical System Requirements:** Refer to Amperage Draw Chart and/or the “Musco Control System Summary” for electrical sizing.

**Installation Requirements:** Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.
**EQUIPMENT LIST FOR AREAS SHOWN**

<table>
<thead>
<tr>
<th>Pole</th>
<th>Luminaires</th>
<th>Location</th>
<th>Size</th>
<th>Grade</th>
<th>Elevation</th>
<th>Mounting</th>
<th>Height</th>
<th>Luminaire</th>
<th>QTY/POLE</th>
<th>THIS GRID</th>
<th>OTHER GRIDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TLC-LED-1150</td>
<td>B5</td>
<td>70'</td>
<td>-</td>
<td>25'</td>
<td>TLC-LED-1150</td>
<td>5</td>
<td>TLC-LED-1150</td>
<td>1</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>TLC-LED-1150</td>
<td>S1, S5</td>
<td>70'</td>
<td>-</td>
<td>70'</td>
<td>TLC-LED-1150</td>
<td>4</td>
<td>TLC-LED-1150</td>
<td>4</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>TLC-LED-1150</td>
<td>S2, S4</td>
<td>70'</td>
<td>-</td>
<td>70'</td>
<td>TLC-LED-1150</td>
<td>3</td>
<td>TLC-LED-1150</td>
<td>3</td>
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<td>0</td>
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<tr>
<td>1</td>
<td>TLC-LED-1150</td>
<td>S3</td>
<td>70'</td>
<td>-</td>
<td>25'</td>
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<td>TLC-LED-1150</td>
<td>6</td>
<td>6</td>
<td>1</td>
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</table>

**TOTALS**

27 25 2

**GRID SUMMARY**

- **Name:** Soccer 2
- **Size:** 300' x 200'
- **Spacing:** 30.0' x 30.0'
- **Height:** 3.0' above grade

**ILLUMINATION SUMMARY**

**MAINTAINED HORIZONTAL FOOTCANDLES**

- **Guaranteed Average:** 30
- **Scan Average:** 31.46
- **Maximum:** 38
- **Minimum:** 24
- **Avg / Min:** 1.32

**Guaranteed Max / Min:** 2.5

**UG (adjacent pts):** 1.39

**CU:** 0.71

**No. of Points:** 70

**LUMINAIRE INFORMATION**

- **Color / CRI:** 5700K - 75 CRI
- **Luminaire Output:** 121,000 lumens
- **No. of Luminaires:** 25
- **Total Load:** 28.75 kW

**Lumen Maintenance**

<table>
<thead>
<tr>
<th>Luminaire Type</th>
<th>L90 hrs</th>
<th>L80 hrs</th>
<th>L70 hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLC-LED-1150</td>
<td>&gt;51,000</td>
<td>&gt;51,000</td>
<td>&gt;51,000</td>
</tr>
</tbody>
</table>

Reported per TM-21-11. See luminaire datasheet for details.

**Guaranteed Performance:** The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

**Field Measurements:** Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

**Electrical System Requirements:** Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

**Installation Requirements:** Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.
GRID SUMMARY

Name: Property Line Spill
Location: San Carlos, CA
Height: 3.0' above grade

ILLUMINATION SUMMARY

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with E90A RP-8-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

Highlands Park Multi-Use Field

San Carlos, CA

LUMINAIRE INFORMATION

No. of Luminaires: 94
Luminaire Output: 121,000 / 40,600 lumens

TLC-LED-1150 >51,000
Luminaire Type L90 hrs
Color / CRI: 5700K - 75 CRI

Total Load: 104.86 kW

Luminaire Type 1000 hrs 1000 hrs 2000 hrs
TLC-LED-1150 +3,000 +3,000 +3,000

Reported per TM-21-11. See luminaire datasheet for details.

MAINTAINED HORIZONTAL FOOTCANDLES

Scan Average: 0.0048
Minimum: 0.00
Maximum: 0.07
No. of Points: 118

ILLUMINATION DESCRIPTION:

Color / CRI: 5700K - 75 CRI
Luminaire Output: 121,000 / 40,600 lumens
No. of Luminaires: 94
Total Load: 104.86 kW

LUMINAIRE INFORMATION

No. of Luminaires: 94
Luminaire Output: 121,000 / 40,600 lumens

TLC-LED-1150 >51,000
Luminaire Type L90 hrs
Color / CRI: 5700K - 75 CRI

Total Load: 104.86 kW

Luminaire Type 1000 hrs 1000 hrs 2000 hrs
TLC-LED-1150 +3,000 +3,000 +3,000

Reported per TM-21-11. See luminaire datasheet for details.

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with E90A RP-8-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

Highlands Park Multi-Use Field
San Carlos, CA

LUMINAIRE INFORMATION

No. of Luminaires: 94
Luminaire Output: 121,000 / 40,600 lumens

TLC-LED-1150 >51,000
Luminaire Type L90 hrs
Color / CRI: 5700K - 75 CRI

Total Load: 104.86 kW

Luminaire Type 1000 hrs 1000 hrs 2000 hrs
TLC-LED-1150 +3,000 +3,000 +3,000

Reported per TM-21-11. See luminaire datasheet for details.

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with E90A RP-8-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.
EQUIPMENT LIST FOR AREAS SHOWN

<table>
<thead>
<tr>
<th>Pole Location</th>
<th>Luminaire Type</th>
<th>Grid Summary</th>
<th>Pole Location</th>
<th>Luminaire Type</th>
<th>Grid Summary</th>
<th>Pole Location</th>
<th>Luminaire Type</th>
<th>Grid Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>TLC-LED-1150</td>
<td>B2, B4, C2</td>
<td>A5</td>
<td>TLC-LED-1150</td>
<td>B3, C1</td>
<td>A1</td>
<td>TLC-LED-1150</td>
<td>B1</td>
</tr>
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<td>TLC-LED-1150</td>
<td>B4, C3</td>
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<td>TLC-LED-1150</td>
<td>B5</td>
<td>A2</td>
<td>TLC-LED-1150</td>
<td>B3</td>
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<td>A5</td>
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<td>A6</td>
<td>TLC-LED-1150</td>
<td>B5, C3</td>
<td>A6</td>
<td>TLC-LED-1150</td>
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<td>A6</td>
<td>TLC-LED-1150</td>
<td>B4</td>
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<td>A7</td>
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<td>B4</td>
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<td>A8</td>
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<td>TLC-LED-1150</td>
<td>B5</td>
<td>A9</td>
<td>TLC-LED-1150</td>
<td>B4</td>
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<td>A10</td>
<td>TLC-LED-1150</td>
<td>B5, C3</td>
<td>A10</td>
<td>TLC-LED-1150</td>
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<td>TLC-LED-1150</td>
<td>B5</td>
<td>A11</td>
<td>TLC-LED-1150</td>
<td>B4</td>
</tr>
<tr>
<td>A12</td>
<td>TLC-LED-1150</td>
<td>B5, C3</td>
<td>A12</td>
<td>TLC-LED-1150</td>
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<td>B5</td>
<td>A13</td>
<td>TLC-LED-1150</td>
<td>B4</td>
</tr>
</tbody>
</table>

GRID SUMMARY

- **Name:** Property Line Spill
- **Height:** 30’
- **Spacing:** 30’

ILLUMINATION SUMMARY

- **Color / CRI:** 5700K - 75 CRI
- **Luminaire Type:** L90 hrs
- **Luminaire Output:** >51,000 / 40,600 lumens
- **No. of Luminaires:** 94
- **Total Load:** 104.86 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-8-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.
ILLUMINATION SUMMARY

Highlands Park Multi-Use Field
San Carlos, CA

GRID SUMMARY
Name: Property Line Spill
Spacing: 30.0’
Height: 3.0’ above grade

ILLUMINATION SUMMARY
MAINTAINED CANDELA (PER FIXTURE)

Entire Grid
Scan Average: 289.041
Maximum: 2233.27
Minimum: 0.00
No. of Points: 138

LUMINAIRE INFORMATION
Color / CRI: 5700K - 75 CRI
Luminaire Output: 121,000 / 40,600 lumens
No. of Luminaires: 94
Total Load: 104.86 kW

Lumen Maintenance
Luminaire Type L90 hrs L80 hrs L70 hrs
TLC-LED-1150 >51,000 >51,000 >51,000


Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

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Electrical System Requirements: Refer to Amperage Draw Chart and/or the “Musco Control System Summary” for electrical sizing.

Installation Requirements: Results assume ±3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.
EQUIPMENT LAYOUT

INCLUDES:
- Soccer 1
- Soccer 2
- Softball 1
- Softball 2
- Softball 3

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ±3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

EQUIPMENT LIST FOR AREAS SHOWN

<table>
<thead>
<tr>
<th>QTY</th>
<th>LOCATION</th>
<th>SIZE</th>
<th>GRADE</th>
<th>ELEVATION</th>
<th>MOUNTING</th>
<th>HEIGHT</th>
<th>LUMINAIRE TYPE</th>
<th>QTY / POLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>A1-A4</td>
<td>60'</td>
<td>-</td>
<td>60'</td>
<td>TLC-1000-1150</td>
<td>3</td>
<td>TLC-LED-1150</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>A5-A6</td>
<td>70'</td>
<td>-</td>
<td>25'</td>
<td>TLC-1000-1150</td>
<td>1</td>
<td>TLC-LED-1150</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>B1</td>
<td>80'</td>
<td>-</td>
<td>25'</td>
<td>TLC-1000-1150</td>
<td>1</td>
<td>TLC-LED-1150</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>B2, B4</td>
<td>70'</td>
<td>-</td>
<td>25'</td>
<td>TLC-1000-1150</td>
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<td>TLC-LED-1150</td>
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</tr>
<tr>
<td>1</td>
<td>B3, C1</td>
<td>80'</td>
<td>-</td>
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<td>TLC-1000-1150</td>
<td>1</td>
<td>TLC-LED-1150</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>B5</td>
<td>70'</td>
<td>-</td>
<td>25'</td>
<td>TLC-1000-1150</td>
<td>1</td>
<td>TLC-LED-1150</td>
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</tr>
<tr>
<td>1</td>
<td>C3</td>
<td>80'</td>
<td>-</td>
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<td>TLC-1000-1150</td>
<td>1</td>
<td>TLC-LED-1150</td>
<td>1</td>
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<tr>
<td>2</td>
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<td>TLC-1000-1150</td>
<td>4</td>
<td>TLC-LED-1150</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>S2, S4</td>
<td>70'</td>
<td>-</td>
<td>70'</td>
<td>TLC-1000-1150</td>
<td>3</td>
<td>TLC-LED-1150</td>
<td>3</td>
</tr>
<tr>
<td>1</td>
<td>S3</td>
<td>70'</td>
<td>-</td>
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<td>TLC-1000-1150</td>
<td>1</td>
<td>TLC-LED-1150</td>
<td>1</td>
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</tbody>
</table>

SINGLE LUMINAIRE AMPERAGE DRAW CHART

<table>
<thead>
<tr>
<th>Ballast Specifications</th>
<th>Line Amperage Per Luminaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Phase Voltage</td>
<td>208V 120W 220V 240V 277V 347V 380V 480V</td>
</tr>
</tbody>
</table>

Pole location(s) and dimensions are relative to (0,0) reference point(s)
ENVIRONMENTAL GLARE IMPACT

Summary:
Map indicates the maximum candela an observer would see when facing the brightest light source from any direction.

A well-designed lighting system controls light to provide maximum useful on-field illumination with minimal destructive off-site glare.

GLARE

Candela Levels:
- **High Glare**: 150,000 or more candela
  Should only occur on or very near the lit area where the light source is in direct view. Care must be taken to minimize high glare zones.
- **Significant Glare**: 25,000 to 75,000 candela
  Equivalent to high beam headlights of a car.
- **Minimal to No Glare**: 500 or less candela
  Equivalent to 100W incandescent light bulb.

Highlands Park Multi-Use Field
San Carlos, CA

Candelas: 150,000 100,000 50,000 10,000 5,000 1,000 250