### **Appendices**

### **Appendix C** Lighting Plans

### **Appendices**

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### **Lighting System**

|         | Summary     |            |             |                |           |         |
|---------|-------------|------------|-------------|----------------|-----------|---------|
| Pole ID | Pole Height | Mtg Height | Fixture Qty | Luminaire Type | Load      | Circuit |
| A1-A2   | 70'         | 70'        | 3           | TLC-LED-1200   | 3.51 kW   | Α       |
|         |             | 70'        | 2           | TLC-LED-900    | 1.78 kW   | Α       |
|         |             | 16'        | 1           | TLC-BT-575     | 0.58 kW   | Α       |
| A3-A4   | 60'         | 60'        | 3           | TLC-LED-1200   | 3.51 kW   | В       |
|         |             | 16'        | 1           | TLC-BT-575     | 0.58 kW   | В       |
| B1      | 70'         | 70'        | 4           | TLC-LED-1500   | 5.72 kW   | Α       |
|         |             | 70'        | 2           | TLC-LED-900    | 1.78 kW   | Α       |
|         |             | 16'        | 1           | TLC-BT-575     | 0.58 kW   | Α       |
| B2      | 80'         | 80'        | 10          | TLC-LED-1500   | 14.30 kW  | С       |
|         |             | 80'        | 5           | TLC-LED-1500   | 7.15 kW   | Α       |
|         |             | 80'        | 1           | TLC-LED-900    | 0.89 kW   | Α       |
|         |             | 80'        | 1           | TLC-LED-900    | 0.89 kW   | С       |
|         |             | 16'        | 2           | TLC-BT-575     | 1.15 kW   | С       |
|         |             | 16'        | 1           | TLC-BT-575     | 0.58 kW   | Α       |
| В3      | 70'         | 70'        | 5           | TLC-LED-1500   | 7.15 kW   | В       |
|         |             | 16'        | 1           | TLC-BT-575     | 0.58 kW   | В       |
| B4      | 90'         | 90'        | 5           | TLC-LED-1500   | 7.15 kW   | В       |
|         |             | 16'        | 1           | TLC-BT-575     | 0.58 kW   | В       |
|         |             | 90'        | 5           | TLC-LED-1500   | 7.15 kW   | D       |
| C1-C2   | 70'         | 70'        | 5           | TLC-LED-1500   | 7.15 kW   | Α       |
|         |             | 16'        | 2           | TLC-BT-575     | 1.15 kW   | Α       |
| F2-F4   | 80'         | 80'        | 10          | TLC-LED-1500   | 14.30 kW  | С       |
|         |             | 80'        | 1           | TLC-LED-900    | 0.89 kW   | С       |
|         |             | 16'        | 2           | TLC-BT-575     | 1.15 kW   | С       |
| S1      | 90'         | 90'        | 5           | TLC-LED-1500   | 7.15 kW   | D       |
| S3-S4   | 70'         | 70'        | 4           | TLC-LED-1500   | 5.72 kW   | D       |
|         |             | 70'        | 1           | TLC-LED-900    | 0.89 kW   | D       |
| T1-T2   | 50'         | 50'        | 1           | TLC-LED-600    | 0.58 kW   | Е       |
|         |             | 50'        | 2           | TLC-LED-900    | 1.78 kW   | E       |
| T3      | 50'         | 50'        | 1           | TLC-LED-600    | 0.58 kW   | E       |
|         |             | 50'        | 1           | TLC-LED-600    | 0.58 kW   | F       |
|         |             | 50'        | 2           | TLC-LED-900    | 1.78 kW   | E       |
|         |             | 50'        | 2           | TLC-LED-900    | 1.78 kW   | F       |
| T4      | 50'         | 50'        | 1           | TLC-LED-600    | 0.58 kW   | F       |
|         | 0.0         | 50'        | 1           | TLC-LED-600    | 0.58 kW   | <br>E   |
|         |             | 50'        | 2           | TLC-LED-900    | 1.78 kW   | F       |
|         |             | 50'        | 2           | TLC-LED-900    | 1.78 kW   | E       |
| T5-T6   | 50'         | 50'        | 1           | TLC-LED-600    | 0.58 kW   | F       |
| 10-10   | 30          | 50'        | 2           | TLC-LED-900    | 1.78 kW   | F       |
| 22      |             |            | 156         | 120-220-900    | 180.40 kW | '       |

| Circuit Summ | nary         |          |             |
|--------------|--------------|----------|-------------|
| Circuit      | Description  | Load     | Fixture Qty |
| A            | Baseball     | 45.02 kW | 40          |
| В            | Softball     | 23.62 kW | 20          |
| С            | Football     | 65.36 kW | 52          |
| D            | Soccer       | 27.52 kW | 20          |
| E            | North Tennis | 9.44 kW  | 12          |
| F            | South Tennis | 9.44 kW  | 12          |

| Fixture Type Summary |                    |         |         |          |          |          |          |
|----------------------|--------------------|---------|---------|----------|----------|----------|----------|
| Type                 | Source             | Wattage | Lumens  | L90      | L80      | L70      | Quantity |
| TLC-LED-900          | LED 5700K - 75 CRI | 890W    | 89,600  | >120,000 | >120,000 | >120,000 | 29       |
| TLC-LED-1200         | LED 5700K - 75 CRI | 1170W   | 136,000 | >120,000 | >120,000 | >120,000 | 12       |
| TLC-LED-1500         | LED 5700K - 75 CRI | 1430W   | 160,000 | >120,000 | >120,000 | >120,000 | 87       |
| TLC-BT-575           | LED 5700K - 75 CRI | 575W    | 52,000  | >120,000 | >120,000 | >120,000 | 20       |
| TLC-LED-600          | LED 5700K - 75 CRI | 580W    | 65,600  | >120,000 | >120,000 | >120,000 | 8        |

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### From Hometown to Professional











### **Light Level Summary**

| alculation Grid Summar | У                               |      |     | Illumination |          |             |              |                |
|------------------------|---------------------------------|------|-----|--------------|----------|-------------|--------------|----------------|
| Grid Name              | Calculation Metric              |      |     |              | Circuits | Fixture Qty |              |                |
| Ona namo               |                                 | Ave  | Min | Max          | Max/Min  | Ave/Min     |              | · intaile dity |
| Baseball (Infield)     | Horizontal Illuminance          | 50.7 | 36  | 63           | 1.78     | 1.41        | Α            | 40             |
| Baseball (Outfield)    | Horizontal Illuminance          | 31.9 | 19  | 47           | 2.44     | 1.68        | Α            | 40             |
| Football               | Horizontal Illuminance          | 52.3 | 41  | 60           | 1.44     | 1.28        | С            | 52             |
| North Tennis           | Horizontal Illuminance          | 54.3 | 46  | 63           | 1.35     | 1.18        | E            | 12             |
| Property Line Spill    | Horizontal                      | 0.67 | 0   | 6.13         | 0.00     |             | A,B,C,D,E, F | 156            |
| Property Line Spill    | Max Candela (by Fixture)        | 6562 | 0   | 35535        | 0.00     |             | A,B,C,D,E, F | 156            |
| Property Line Spill    | Max Vertical Illuminance Metric | 0.84 | 0   | 6.91         | 0.00     |             | A,B,C,D,E, F | 156            |
| SB LF Bull Pen         | Horizontal                      | 31.7 | 28  | 36           | 1.30     | 1.13        | В            | 20             |
| SB RF Bull Pen         | Horizontal                      | 32.2 | 26  | 35           | 1.31     | 1.24        | В            | 20             |
| Soccer                 | Horizontal Illuminance          | 31.3 | 25  | 36           | 1.44     | 1.25        | D            | 20             |
| Softball (Infield)     | Horizontal Illuminance          | 52.7 | 38  | 63           | 1.66     | 1.39        | В            | 20             |
| Softball (Outfield)    | Horizontal Illuminance          | 30.2 | 18  | 43           | 2.42     | 1.68        | В            | 20             |
| South Tennis           | Horizontal Illuminance          | 54.9 | 46  | 64           | 1.39     | 1.19        | F            | 12             |
| Track                  | Horizontal Illuminance          | 25.8 | 2   | 48           | 20.31    | 12.89       | С            | 52             |

### From Hometown to Professional











### **EQUIPMENT LIST FOR AREAS SHOWN** LOCATION SIZE ELEVATION TYPE TLC-LED-1200 A1-A2 15.5' TLC-BT-575 TLC-LED-900 TLC-LED-900 В1 70' 15.5' TLC-BT-575 TLC-LED-1500 TLC-LED-1500 80' 5/10° 10 B2 15.5' TLC-BT-575 2/1\* TLC-LED-900 1/1\* 80' TLC-BT-575 C1-C2 70' 15.5' 70' TLC-LED-1500 \* This structure utilizes a back-to-back mounting configuration $\otimes$ 33 33 35 35 25 29 32 33 34 33 33 27 27 25 30 32 34 34 31 27 33 37 39 38 36 32 30 36 42 33 39 33 29 52 56 38 37 38 32 60 56 36 35 39 51 58 36 33 33 63 29 30 35 38 53 52 57 57 24 23 31 40 39 22 SCALE IN FEET 1:60 to 0,0 reference point(s) $\otimes$

**ENGINEERED DESIGN** By: Vashon Alexander · File #216616B · 03-May-22

La Quinta High School Athletic Fields Westminster,CA

**GRID SUMMARY** Name: Baseball Size: Irregular 315' / 353' / 313' Spacing: 30.0' x 30.0' Height: 3.0' above grade

**ILLUMINATION SUMMARY** Infield Outfield **Guaranteed Average:** Scan Average: 31.86 50.70 Maximum: 63 47 19 Minimum: 36 Avg / Min: 1.42 1.66 Guaranteed Max / Min: 2.5 Max / Min: 1.78 2.44 1.47 1.52 UG (adjacent pts): CU: 0.74 87 No. of Points: 25 Applied Circuits: A

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

No. of Luminaires: 40

Total Load: 45.02 kW

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.



### LOCATION SIZE TLC-LED-1200 15.5' 70' TLC-BT-575 TLC-LED-1500 15.5' 90' TLC-BT-575 90' TLC-LED-1500 25 20 5 This structure utilizes a back-to-back mounting configuration 53 36 35 36 29 55 57 52 34 37 35 60 52 39 31 30 32 35 37 35 28 28 30 33 35 54 27 28 30 49 46 38 31 27 31 37 32 28 27 27 27 28 32 29 27 26 27 26 25 31 34 34 31 29 27 26 25 24 27 32 30 27 24 22 20 21 22 31 28 25 27 26 SCALE IN FEET 1:40

La Quinta High School Athletic Fields Westminster,CA

**GRID SUMMARY** Name: Softball Size: Irregular 214' / 224' / 202' Spacing: 20.0' x 20.0' Height: 3.0' above grade

**ILLUMINATION SUMMARY** Infield Outfield **Guaranteed Average:** Scan Average: 30.17 52.66 Maximum: 63 43 18 Minimum: 38 Avg / Min: 1.71 1.40 Guaranteed Max / Min: 2.5 Max / Min: 1.66 2.42 UG (adjacent pts): 1.22 1.58 CU: 0.60 No. of Points: 25 84 Applied Circuits: B No. of Luminaires: 20

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

Total Load: 23.62 kW

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.



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to 0,0 reference point(s)  $\otimes$ 

**EQUIPMENT LIST FOR AREAS SHOWN** 

## LOCATION TLC-LED-1200 15.5' 70' TLC-BT-575 TLC-LED-1500 TLC-BT-575 15.5' 90' 90' TLC-LED-1500 TOTALS \* This structure utilizes a back-to-back mounting configurati

**EQUIPMENT LIST FOR AREAS SHOWN** 

SCALE IN FEET 1:30

**ENGINEERED DESIGN** By: Vashon Alexander · File #216616B · 03-May-22

### La Quinta High School Athletic Fields Westminster,CA

RID SUMMARY

Name: SB LF Bull Pen
Size: Irregular 214' / 224' / 202'
Spacing: 10.0' x 10.0'
Height: 3.0' above grade

### ILLUMINATION SUMMARY Entire Grid Scan Average: Maximum: Minimum: 28 Avg / Min: 1.14 Max / Min: UG (adjacent pts): 1.08 CU: 0.01 No. of Points: 6 LUMINAIRE INFORMATION Applied Circuits: B No. of Luminaires: 20 Total Load: 23.62 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-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.



to 0,0 reference point(s)  $\otimes$ 

### **EQUIPMENT LIST FOR AREAS SHOWN** LOCATION TLC-LED-1200 TLC-BT-575 15.5' 70' TLC-LED-1500 TLC-BT-575 TLC-LED-1500 15.5' 90' \* This structure utilizes a back-to-back mounting configuration 34 33

Pole location(s)  $\bigoplus$  dimensions are relative to 0,0 reference point(s)  $\bigotimes$ 

### La Quinta High School Athletic Fields Westminster,CA

Rame: SB RF Bull Pen
Size: Irregular 214' / 224' / 202'
Spacing: 10.0' x 10.0'
Height: 3.0' above grade

| ILLUMINATION S       | UMMARY         |
|----------------------|----------------|
| MAINTAINED HORIZONTA | AL FOOTCANDLES |
|                      | Entire Grid    |
| Scan Average:        | 32.21          |
| Maximum:             | 35             |
| Minimum:             | 26             |
| Avg / Min:           | 1.22           |
| Max / Min:           | 1.31           |
| UG (adjacent pts):   | 1.16           |
| CU:                  | 0.01           |
| No. of Points:       | 6              |
| LUMINAIRE INFORMATIO | N              |
| Applied Circuits:    | В              |
| No. of Luminaires:   | 20             |
| Total Load:          | 23.62 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-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.



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### TLC-BT-575 2/1\* 15.48' TLC-LED-900 TLC-LED-900 F2-F4 80' TLC-BT-575 15.5' 10 10 0 59 52 7 TLC-LED-1500 \* This structure utilizes a back-to-back mounting configuration 52 52 55 53 52 56 55 51 55 56 53 51 53 57 54 52 51 53 56 52 51 53 52 54 59 56 52 57 59 55 53 54 50 45 SCALE IN FEET 1:60

**EQUIPMENT LIST FOR AREAS SHOWN** 

**ENGINEERED DESIGN** By: Vashon Alexander · File #216616B · 03-May-22

LOCATION

La Quinta High School Athletic Fields Westminster,CA

**GRID SUMMARY** Name: Football Size: 360' x 160' Spacing: 30.0' x 30.0' Height: 3.0' above grade

### **ILLUMINATION SUMMARY** Guaranteed Average: Scan Average: 52.34 Maximum: Minimum: Avg / Min: 1.26 Guaranteed Max / Min: Max / Min: 1.44 1.17 UG (adjacent pts): CU: 0.49 No. of Points: 72 Applied Circuits: C No. of Luminaires: 52 Total Load: 65.36 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-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.



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to 0,0 reference point(s)  $\otimes$ 

### LOCATION 15.5' TLC-BT-575 TLC-LED-900 TLC-LED-900 F2-F4 80' TLC-BT-575 15.52' 80' TLC-LED-1500 \* This structure utilizes a back-to-back mounting configuration 25 37 27 42 30 37 30 32 30 26 29 28 30 26 29 26 36 30 29 44 B2 41 26 24 46 SCALE IN FEET 1:80

**EQUIPMENT LIST FOR AREAS SHOWN** 

**ENGINEERED DESIGN** By: Vashon Alexander · File #216616B · 03-May-22

La Quinta High School Athletic Fields Westminster,CA

**GRID SUMMARY** Name: Track Size: Irregular Spacing: 30.0' x 30.0' Height: 3.0' above grade

### **ILLUMINATION SUMMARY Entire Grid** Scan Average: Maximum: Minimum: Avg / Min: 10.90 Max / Min: UG (adjacent pts): 0.00 CU: 0.16 No. of Points: 48 LUMINAIRE INFORMATION Applied Circuits: C No. of Luminaires: 52 Total Load: 65.36 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-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.



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to 0,0 reference point(s)  $\otimes$ 

### LOCATION TLC-LED-1500 TLC-LED-1500 TLC-LED-1500 90' 70' TLC-LED-900 TLC-LED-900 70' 70' TLC-LED-1500 \* This structure utilizes a back-to-back mounting configuration 27 33 35 30 33 30 29 36 29 33 26 33 32 29 29 30 32 33 33 28 32 28 25 29 33 33 30 29 30 32 33 34 30 31 30 31 32 33 28 31 32 33 33 35 35 33 35 34 28 32 29 31 33 26 31 33 29 SCALE IN FEET 1:60

La Quinta High School Athletic Fields Westminster,CA

Rame:
Size:
Size:
Spacing:
Height:
3.0' above grade

**ILLUMINATION SUMMARY Entire Grid** Guaranteed Average: Scan Average: 31.26 Maximum: 25 Minimum: Avg / Min: 1.24 Guaranteed Max / Min: Max / Min: 1.44 1.26 UG (adjacent pts): CU: 0.73 No. of Points: 77 Applied Circuits: D No. of Luminaires: 20 Total Load: 27.52 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-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.



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to 0,0 reference point(s)  $\otimes$ 

**EQUIPMENT LIST FOR AREAS SHOWN** 

| EQI | JIPMENT LI | ST FOR | AREAS SH           | IOWN               |                   |               |              |                |
|-----|------------|--------|--------------------|--------------------|-------------------|---------------|--------------|----------------|
|     | P          | ole    |                    |                    | Luminaires        |               |              |                |
| QTY | LOCATION   | SIZE   | GRADE<br>ELEVATION | MOUNTING<br>HEIGHT | LUMINAIRE<br>Type | QTY /<br>POLE | THIS<br>GRID | OTHER<br>GRIDS |
| 2   | T1-T2      | 50'    | -                  | 50'                | TLC-LED-600       | 1             | 1            | 0              |
|     |            |        |                    | 50'                | TLC-LED-900       | 2             | 2            | 0              |
| 2   | T3-T4      | 50'    | -                  | 50'                | TLC-LED-600       | 2             | 1            | 1              |
|     |            |        |                    | 50'                | TLC-LED-900       | 4             | 2            | 2              |
| 4   |            |        | TOTALS             |                    |                   | 18            | 12           | 6              |



### Westminster,CA

RRID SUMMARY

Name: North Tennis
Size: 4 Court - 24' Spacing
Spacing: 20.0' x 20.0'
Height: 3.0' above grade

La Quinta High School Athletic Fields

| ILLUMINATION S        | UMMARY         |
|-----------------------|----------------|
| MAINTAINED HORIZONTA  | AL FOOTCANDLES |
|                       | Entire Grid    |
| Guaranteed Average:   | 50             |
| Scan Average:         | 54.31          |
| Maximum:              | 63             |
| Minimum:              | 46             |
| Avg / Min:            | 1.17           |
| Guaranteed Max / Min: | 2              |
| Max / Min:            | 1.35           |
| UG (adjacent pts):    | 0.00           |
| CU:                   | 0.69           |
| No. of Points:        | 30             |
| LUMINAIRE INFORMATIO  | N              |
| Applied Circuits:     | E              |
| No. of Luminaires:    | 12             |
| Total Load:           | 9.44 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-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.



| EQI | JIPMENT LI | ST FOR | AREAS SH           | IOWN               |                   |               |              |                |
|-----|------------|--------|--------------------|--------------------|-------------------|---------------|--------------|----------------|
|     | P          | ole    |                    |                    | Luminaires        |               |              |                |
| QTY | LOCATION   | SIZE   | GRADE<br>ELEVATION | MOUNTING<br>HEIGHT | LUMINAIRE<br>Type | QTY /<br>POLE | THIS<br>GRID | OTHER<br>GRIDS |
| 2   | T3-T4      | 50'    | -                  | 50'                | TLC-LED-600       | 2             | 1            | 1              |
|     |            |        |                    | 50'                | TLC-LED-900       | 4             | 2            | 2              |
| 2   | T5-T6      | 50'    | -                  | 50'                | TLC-LED-600       | 1             | 1            | 0              |
|     |            |        |                    | 50'                | TLC-LED-900       | 2             | 2            | 0              |
| 4   |            |        | TOTALS             |                    |                   | 18            | 12           | 6              |



### GRID SUMMARY Name: South Tennis Size: 4 Court - 24' Spacing Spacing: 20.0' x 20.0' Height: 3.0' above grade

| ILLUMINATION S        | UMMARY         |
|-----------------------|----------------|
| MAINTAINED HORIZONTA  | AL FOOTCANDLES |
|                       | Entire Grid    |
| Guaranteed Average:   | 50             |
| Scan Average:         | 54.90          |
| Maximum:              | 64             |
| Minimum:              | 46             |
| Avg / Min:            | 1.19           |
| Guaranteed Max / Min: | 2              |
| Max / Min:            | 1.39           |
| UG (adjacent pts):    | 0.00           |
| CU:                   | 0.70           |
| No. of Points:        | 30             |
| LUMINAIRE INFORMATIO  | N              |
| Applied Circuits:     | F              |
| No. of Luminaires:    | 12             |
| Total Load:           | 9.44 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-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.



# F2 F3 B4

### Pole location(s) $\oplus$ dimensions are relative to 0,0 reference point(s) $\otimes$

### La Quinta High School Athletic Fields Westminster,CA

### **GRID SUMMARY**

Name: Property Line Spill

Spacing: 30.0' Height: 3.0' above grade

### **ILLUMINATION SUMMARY**

Entire Grid

 Scan Average:
 0.6734

 Maximum:
 6.13

 Minimum:
 0.00

 No. of Points:
 133

UMINAIRE INFORMATION

Applied Circuits: A, B, C, D, E, F

No. of Luminaires: 156

Total Load: 180.4 kW

**Guaranteed Performance:** The ILLUMINATION described above is guaranteed per your Musco Warranty

**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.



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## T2 F2 F3 B4 po p2 p5 ,1.5 30 43 50 32 41 50 31 29 50 . # 53 53 40 20 p7 p4 p6 p8 ,11 ,1 B1 5 21 33 30 29 46 57 48 39 ,17 p9 p5 p3 p2 p2 p2 p2 p2 p2 p1 S3

### La Quinta High School Athletic Fields Westminster,CA

### **GRID SUMMARY**

Name: Property Line Spill

Spacing: 30.0' Height: 3.0' above grade

### **ILLUMINATION SUMMARY**

MAX VERTICAL FOOTCANDLES

Entire Grid

Scan Average: 0.8418
Maximum: 6.91
Minimum: 0.00
No. of Points: 133

UMINAIRE INFORMATION

Applied Circuits: A, B, C, D, E, F

No. of Luminaires: 156
Total Load: 180.4 kW

**Guaranteed Performance:** The ILLUMINATION described above is guaranteed per your Musco Warranty document

**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.



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# F2 F3 B4

La Quinta High School Athletic Fields Westminster,CA

**GRID SUMMARY** 

Name: Property Line Spill

Spacing: 30.0' Height: 3.0' above grade

**ILLUMINATION SUMMARY** 

CANDELA (PER FIXTURE)

Scan Average: Entire Grid 6561.7583
Maximum: 35534.53
Minimum: 0.00

No. of Points:

Applied Circuits: A, B, C, D, E, F
No. of Luminaires: 156
Total Load: 180.4 kW

**Guaranteed Performance:** The ILLUMINATION described above is guaranteed per your Musco Warranty

133

**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.

We Make It Happen.

Pole location(s)  $\bigoplus$  dimensions are relative to 0,0 reference point(s)  $\bigotimes$ 

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### **EQUIPMENT LAYOUT**

### INCLUDES:

· Baseball

· Football

· Soccer · Softball

· Tenni

· Tennis · Track

**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.

| EQ  | UIPMEN'  | T LIST | FOR AR             | EAS SHO            | OWN               |               |
|-----|----------|--------|--------------------|--------------------|-------------------|---------------|
|     | Po       | ole    |                    |                    | Luminaires        |               |
| QTY | LOCATION | SIZE   | GRADE<br>ELEVATION | MOUNTING<br>HEIGHT | LUMINAIRE<br>Type | QTY /<br>POLE |
| 2   | A1-A2    | 70'    | -                  | 70'                | TLC-LED-1200      | 3             |
|     |          |        |                    | 15.5'              | TLC-BT-575        | 1             |
|     |          |        |                    | 70'                | TLC-LED-900       | 2             |
| 2   | A3-A4    | 60'    | -                  | 15.5'              | TLC-BT-575        | 1             |
|     |          |        |                    | 60'                | TLC-LED-1200      | 3             |
| 1   | B1       | 70'    | -                  | 70'                | TLC-LED-900       | 2             |
|     |          |        |                    | 15.5'              | TLC-BT-575        | 1             |
|     |          |        |                    | 70'                | TLC-LED-1500      | 4             |
| 1   | B2       | 80'    | -                  | 80'                | TLC-LED-1500      | 5/10*         |
|     |          |        |                    | 15.5'              | TLC-BT-575        | 2/1*          |
|     |          |        |                    | 80'                | TLC-LED-900       | 1/1*          |
| 1   | В3       | 70'    | -                  | 15.5'              | TLC-BT-575        | 1             |
|     |          |        |                    | 70'                | TLC-LED-1500      | 5             |
| 1   | B4       | 90'    | -                  | 15.5'              | TLC-BT-575        | 1             |
|     |          |        |                    | 90'                | TLC-LED-1500      | 5/5*          |
| 2   | C1-C2    | 70'    | -                  | 15.5'              | TLC-BT-575        | 2             |
|     |          |        |                    | 70'                | TLC-LED-1500      | 5             |
| 3   | F2-F4    | 80'    | -                  | 80'                | TLC-LED-900       | 1             |
|     |          |        |                    | 15.5'              | TLC-BT-575        | 2             |
|     |          |        |                    | 80'                | TLC-LED-1500      | 10            |
| 1   | S1       | 90'    | -                  | 90'                | TLC-LED-1500      | 5             |
| 1   | S3       | 70'    | -                  | 70'                | TLC-LED-1500      | 4             |
|     |          |        |                    | 70'                | TLC-LED-900       | 1             |
| 1   | S4       | 70'    | -                  | 70'                | TLC-LED-900       | 1             |
|     |          |        |                    | 70'                | TLC-LED-1500      | 4             |
| 4   | T1-T2    | 50'    | -                  | 50'                | TLC-LED-900       | 2             |
|     | T5-T6    |        |                    | 50'                | TLC-LED-600       | 1             |
| 2   | T3-T4    | 50'    | -                  | 50'                | TLC-LED-600       | 2             |
|     |          |        |                    | 50'                | TLC-LED-900       | 4             |
| 22  |          |        | TOTAL              | S                  |                   | 156           |

\* This structure utilizes a back-to-back mounting configuration

| SINGLE LUMINAIRE AMPERAGE DRAW CHART             |   |     |             |             |             |     |             |  |
|--|---|-----|-------------|-------------|-------------|-----|-------------|--|
| Ballast Specifications<br>(.90 min power factor) | Line Amperage Per Luminaire<br>(max draw) |     |             |             |             | 9   |             |  |
| Single Phase Voltage                             | 208                                       | 220 | 240<br>(60) | 277<br>(60) | 347<br>(60) | 380 | 480<br>(60) |  |
| TLC-LED-900                                      | 5.3                                       | 5.0 | 4.6         | 4.0         | 3.2         | 2.9 | 2.3         |  |
| TLC-LED-1200                                     | 7.0                                       | 6.6 | 6.1         | 5.2         | 4.2         | 4.0 | 3.0         |  |
| TLC-LED-1500                                     | 8.5                                       | 8.1 | 7.4         | 6.4         | 5.1         | 4.7 | 3.7         |  |
| TLC-BT-575                                       | 3.4                                       | 3.2 | 2.9         | 2.5         | 2.0         | 1.8 | 1.5         |  |
| TLC-LED-600                                      | 3.4                                       | 3.2 | 3.0         | 2.6         | 2.0         | 1.9 | 1.5         |  |



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Pole location(s)  $\bigoplus$  dimensions are relative to 0,0 reference point(s)  $\bigotimes$ 

### **Appendices**

### **Modified Tennis Court Lighting Plan**





| Calculation Summary  |             |       |       |      |      |         |         |
|----------------------|-------------|-------|-------|------|------|---------|---------|
| Label                | CalcType    | Units | Avg   | Max  | Min  | Avg/Min | Max/Min |
| Calc Points @ 3' AFF | Illuminance | Fc    | 29.57 | 81.4 | 0.2  | 147.85  | 407.00  |
| Spill                | Illuminance | Fc    | 0.00  | 0.0  | 0.0  | N.A.    | N.A.    |
| Court 10             | Illuminance | Fc    | 57.72 | 71.6 | 40.5 | 1.43    | 1.77    |
| Court 4              | Illuminance | Fc    | 61.05 | 81.2 | 47.6 | 1.28    | 1.71    |
| Court 6              | Illuminance | Fc    | 62.77 | 81.2 | 48.6 | 1.29    | 1.67    |
| PPA Court 10         | Illuminance | Fc    | 57.33 | 78.9 | 35.7 | 1.61    | 2.21    |
| PPA Court 4          | Illuminance | Fc    | 57.83 | 81.2 | 27.2 | 2.13    | 2.99    |
| PPA Court 6          | Illuminance | Fc    | 59.80 | 81 2 | 27.2 | 2 20    | 2 99    |

| Luminaire Schedule |  |
|--------------------|--|
|--------------------|--|

BUG Rating LLF Description Lum. Watts Arr. Lum. Lumens Arrangement 0.950 | VISIONAIRE BLX-II\_8\_T4T\_256LC\_10\_5K-VOLT-KM SINGLE @ 24' MTG. HT. 10° TILT (N) 105925 884 SINGLE B5-U0-G5 0.950 VISIONAIRE BLX-II\_8\_T4T\_256LC\_10\_5K\_HS-VOLT-KM SINGLE @ 24' MTG. HT. 4' TNS ARM (N) B5-U1-G5 SINGLE 91120 2 @ 180 DEGREES | 0.950 | VISIONAIRE BLX-II\_8\_T4T\_256LC\_10\_5K-VOLT-KM SINGLE @ 24' MTG. HT. 10° TILT (N) B5-U0-G5 211850

\*\*\*DISCLAIMER\*\*\*\*
BASED ON THE INFORMATION PROVIDED, ALL DIMENSIONS AND LUMINAIRE LOCATIONS SHOWN REPRESENT RECOMMENDED POSITIONS. THE PROJECT ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO EXISTING OR FUTURE FIELD REPRESENTS ILLUMINATION LEVELS TAKEN FROM A LABORATORY SETTING UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA)
APPROVED METHODS. ACTUAL PERFORMANCE MAY VARY DUE TO VARIATIONS IN ELECTRICAL VOLTAGE, INSTALLATION, TOLERANCE LEVELS, BUILDINGS, OTHER LIGHTING, AND OTHER VARIABLES THAT WERE NOT CONSIDERED WHEN THIS PHOTOMETRIC REPORT VARIABLES AND IT CANNOT BE USED.

DRAWING NUMBER: LS011322PLS-LAQUINTA HIGH SCHOOL TENNIS COURTS-03

LAYOUT DESIGNER: LS

DESIGNER EMAIL: Lsalgado@visionairelighting.com

PROJECT DATE: 01/13/22

REVISION DATE: 04/28/22

REP: PERFORMANCE LIGHTING

NOTE/S:

512-6486 Jez, CA. 90220