

West Sylvan Baseball Softball

Portland, OR

Lighting System

Pole / Fixture Summary						
Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
A1-A2	60'	60'	5	TLC-LED-900	4.45 kW	A
		16'	1	TLC-BT-575	0.58 kW	A
A3-A4	60'	60'	3	TLC-LED-900	2.67 kW	A
		16'	1	TLC-BT-575	0.58 kW	A
B1-B2	80'	80'	6	TLC-LED-1200	7.02 kW	A
		16'	2	TLC-BT-575	1.15 kW	A
B3	60'	60'	2	TLC-LED-1200	2.34 kW	A
		60'	1	TLC-LED-900	0.89 kW	A
		16'	1	TLC-BT-575	0.58 kW	A
B4	60'	60'	3	TLC-LED-1200	3.51 kW	A
		60'	1	TLC-LED-900	0.89 kW	A
		16'	1	TLC-BT-575	0.58 kW	A
C1	80'	80'	8	TLC-LED-1500	11.44 kW	A
		16'	2	TLC-BT-575	1.15 kW	A
C2	80'	80'	4	TLC-LED-1200	4.68 kW	A
		80'	8	TLC-LED-1500	11.44 kW	A
		25'	3	TLC-BT-575	1.73 kW	A
C4	60'	60'	2	TLC-LED-1200	2.34 kW	A
		16'	1	TLC-BT-575	0.58 kW	A
11			73		75.01 kW	

Circuit Summary			
Circuit	Description	Load	Fixture Qty
A	Fields	75.01 kW	73

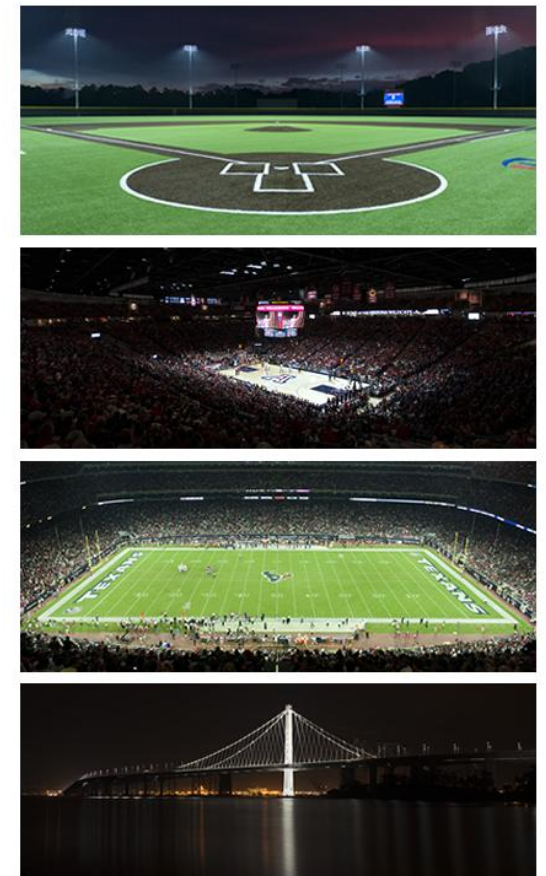
Fixture Type Summary							
Type	Source	Wattage	Lumens	L90	L80	L70	Quantity
TLC-LED-1500	LED 5700K - 75 CRI	1430W	160,000	>81,000	>81,000	>81,000	16
TLC-LED-1200	LED 5700K - 75 CRI	1170W	136,000	>81,000	>81,000	>81,000	23
TLC-BT-575	LED 5700K - 75 CRI	575W	52,000	>81,000	>81,000	>81,000	16
TLC-LED-900	LED 5700K - 75 CRI	890W	89,600	>81,000	>81,000	>81,000	18

Light Level Summary

Calculation Grid Summary								
Grid Name	Calculation Metric	Illumination					Circuits	Fixture Qty
		Ave	Min	Max	Max/Min	Ave/Min		
Baseball (Infield)	Horizontal Illuminance	51.9	36	67	1.88	1.44	A	73
Baseball (Outfield)	Horizontal Illuminance	33.4	23	50	2.19	1.45	A	73
Blanket Grid	Horizontal	35	9	71	8.21	3.88	A	73
Soccer	Horizontal Illuminance	31.5	18	50	2.83	1.75	A	73
Softball (Infield)	Horizontal Illuminance	52.4	34	65	1.91	1.54	A	73
Softball (Outfield)	Horizontal Illuminance	33.8	22	49	2.23	1.54	A	73
Spill @ Property Line	Horizontal	0.14	0	0.58	12655.97		A	73
Spill @ Property Line	Max Vertical Illuminance Metric	0.23	0	0.97	3441.45		A	73

**Received
Planning Division
02/28/2020**

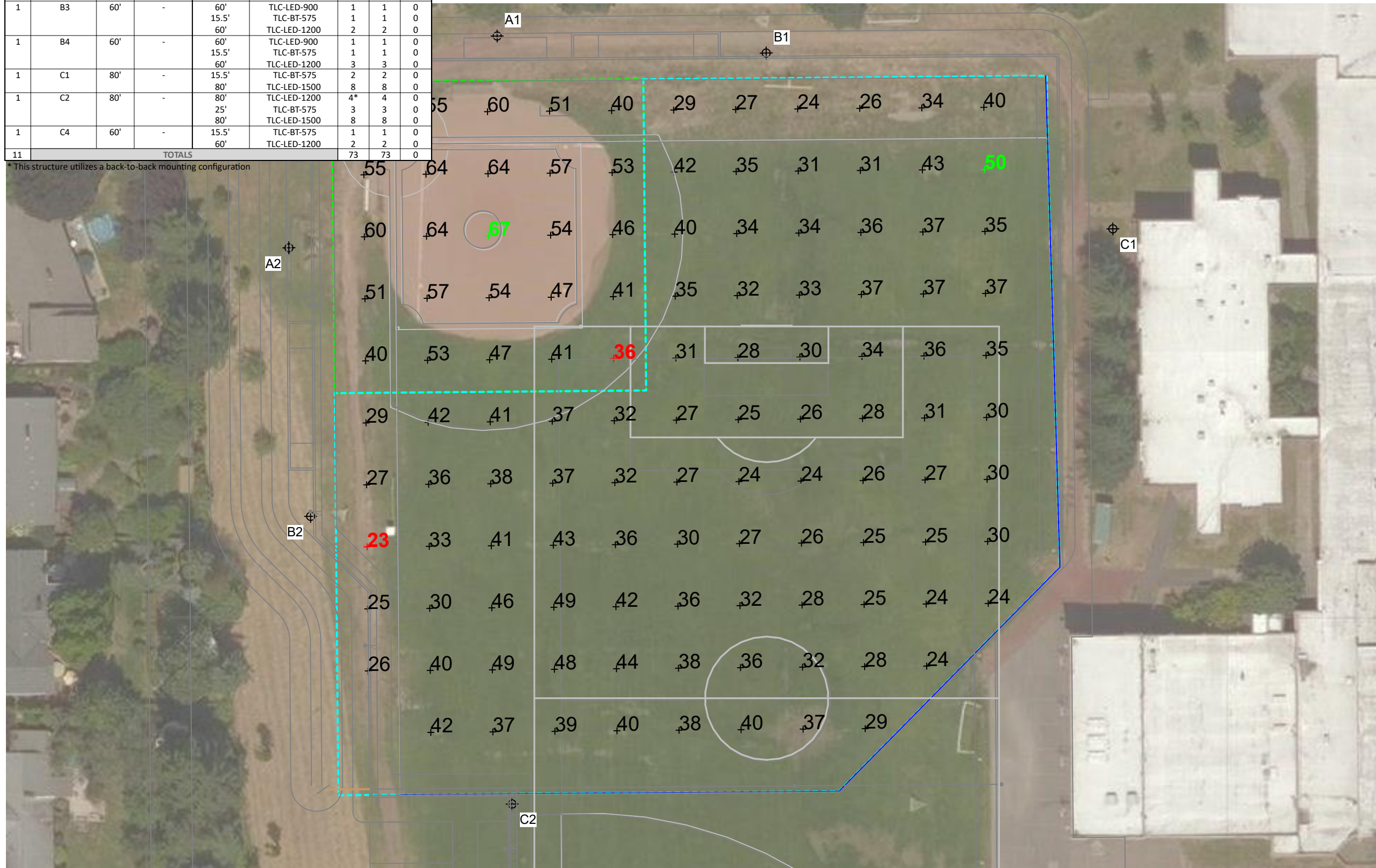
From Hometown to Professional



EQUIPMENT LIST FOR AREAS SHOWN

Pole		Luminaires							
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
2	A1-A2	60'	-	15.5'	TLC-BT-575	1	1	0	
				60'	TLC-LED-900	5	5	0	
2	A3-A4	60'	-	15.5'	TLC-BT-575	1	1	0	
				60'	TLC-LED-900	3	3	0	
2	B1-B2	80'	-	15.5'	TLC-BT-575	2	2	0	
				80'	TLC-LED-1200	6	6	0	
1	B3	60'	-	60'	TLC-LED-900	1	1	0	
				15.5'	TLC-BT-575	1	1	0	
				60'	TLC-LED-1200	2	2	0	
1	B4	60'	-	60'	TLC-LED-900	1	1	0	
				15.5'	TLC-BT-575	1	1	0	
				60'	TLC-LED-1200	3	3	0	
1	C1	80'	-	15.5'	TLC-BT-575	2	2	0	
				80'	TLC-LED-1500	8	8	0	
1	C2	80'	-	80'	TLC-LED-1200	4*	4	0	
				25'	TLC-BT-575	3	3	0	
				80'	TLC-LED-1500	8	8	0	
1	C4	60'	-	15.5'	TLC-BT-575	1	1	0	
				60'	TLC-LED-1200	2	2	0	
11	TOTALS						73	73	0

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



West Sylvan Baseball Softball
Portland, OR

GRID SUMMARY	
Name:	Baseball
Size:	Irregular 316' / 373' / 315'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY		
MAINTAINED HORIZONTAL FOOTCANDLES		
	Infield	Outfield
Scan Average:	51.87	33.43
Maximum:	67	50
Minimum:	36	23
Avg / Min:	1.46	1.46
Max / Min:	1.88	2.19
UG (adjacent pts):	1.34	1.55
CU:	0.50	
No. of Points:	25	92

LUMINAIRE INFORMATION	
Color / CRI:	5700K - 75 CRI
Luminaire Output:	160,000 / 136,000 / 52,000 / 89,600 lumens
No. of Luminaires:	73
Total Load:	75.01 kW

Luminaire Type	Lumen Maintenance		
	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1500	>81,000	>81,000	>81,000
TLC-LED-1200	>81,000	>81,000	>81,000
TLC-BT-575	>81,000	>81,000	>81,000
TLC-LED-900	>81,000	>81,000	>81,000

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.

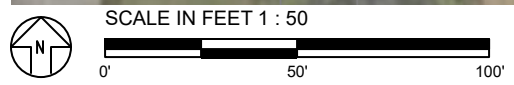
Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

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



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

EQUIPMENT LIST FOR AREAS SHOWN

Pole		Luminaires						
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	A1-A2	60'	-	15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-900	5	5	0
2	A3-A4	60'	-	15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-900	3	3	0
2	B1-B2	80'	-	15.5'	TLC-BT-575	2	2	0
				80'	TLC-LED-1200	6	6	0
1	B3	60'	-	60'	TLC-LED-900	1	1	0
				15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-1200	2	2	0
1	B4	60'	-	60'	TLC-LED-900	1	1	0
				15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-1200	3	3	0
1	C1	80'	-	15.5'	TLC-BT-575	2	2	0
				80'	TLC-LED-1500	8	8	0
1	C2	80'	-	80'	TLC-LED-1200	4*	4	0
				25'	TLC-BT-575	3	3	0
				80'	TLC-LED-1500	8	8	0
1	C4	60'	-	15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-1200	2	2	0
11	TOTALS					73	73	0

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West Sylvan Baseball Softball

Portland, OR

GRID SUMMARY	
Name:	Softball
Size:	200'/208'/210' - basepath 60'
Spacing:	20.0' x 20.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY		
MAINTAINED HORIZONTAL FOOTCANDLES		
	Infield	Outfield
Scan Average:	52.36	33.79
Maximum:	65	49
Minimum:	34	22
Avg / Min:	1.53	1.55
Max / Min:	1.91	2.23
UG (adjacent pts):	1.29	1.36
CU:	0.20	
No. of Points:	25	77

LUMINAIRE INFORMATION	
Color / CRI:	5700K - 75 CRI
Luminaire Output:	160,000 / 136,000 / 52,000 / 89,600 lumens
No. of Luminaires:	73
Total Load:	75.01 kW

Luminaire Type	Lumen Maintenance		
	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1500	>81,000	>81,000	>81,000
TLC-LED-1200	>81,000	>81,000	>81,000
TLC-BT-575	>81,000	>81,000	>81,000
TLC-LED-900	>81,000	>81,000	>81,000

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.

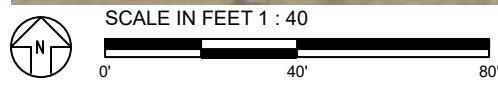
Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

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



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EQUIPMENT LIST FOR AREAS SHOWN

Pole		Luminaires						
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	A1-A2	60'	-	15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-900	5	5	0
2	A3-A4	60'	-	15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-900	3	3	0
2	B1-B2	80'	-	15.5'	TLC-BT-575	2	2	0
				80'	TLC-LED-1200	6	6	0
1	B3	60'	-	60'	TLC-LED-900	1	1	0
				15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-1200	2	2	0
1	B4	60'	-	60'	TLC-LED-900	1	1	0
				15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-1200	3	3	0
1	C1	80'	-	15.5'	TLC-BT-575	2	2	0
				80'	TLC-LED-1500	8	8	0
1	C2	80'	-	80'	TLC-LED-1200	4*	4	0
				25'	TLC-BT-575	3	3	0
				80'	TLC-LED-1500	8	8	0
1	C4	60'	-	15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-1200	2	2	0
11	TOTALS					73	73	0

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West Sylvan Baseball Softball

Portland, OR

GRID SUMMARY	
Name:	Blanket Grid
Size:	200'/208'/210' - basepath 60'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
Entire Grid	
Scan Average:	34.96
Maximum:	71
Minimum:	9
Avg / Min:	4.03
Max / Min:	8.21
UG (adjacent pts):	2.54
CU:	0.82
No. of Points:	205

LUMINAIRE INFORMATION	
Color / CRI:	5700K - 75 CRI
Luminaire Output:	160,000 / 136,000 / 52,000 / 89,600 lumens
No. of Luminaires:	73
Total Load:	75.01 kW

Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1500	>81,000	>81,000	>81,000
TLC-LED-1200	>81,000	>81,000	>81,000
TLC-BT-575	>81,000	>81,000	>81,000
TLC-LED-900	>81,000	>81,000	>81,000

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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.

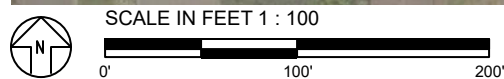
Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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ILLUMINATION SUMMARY

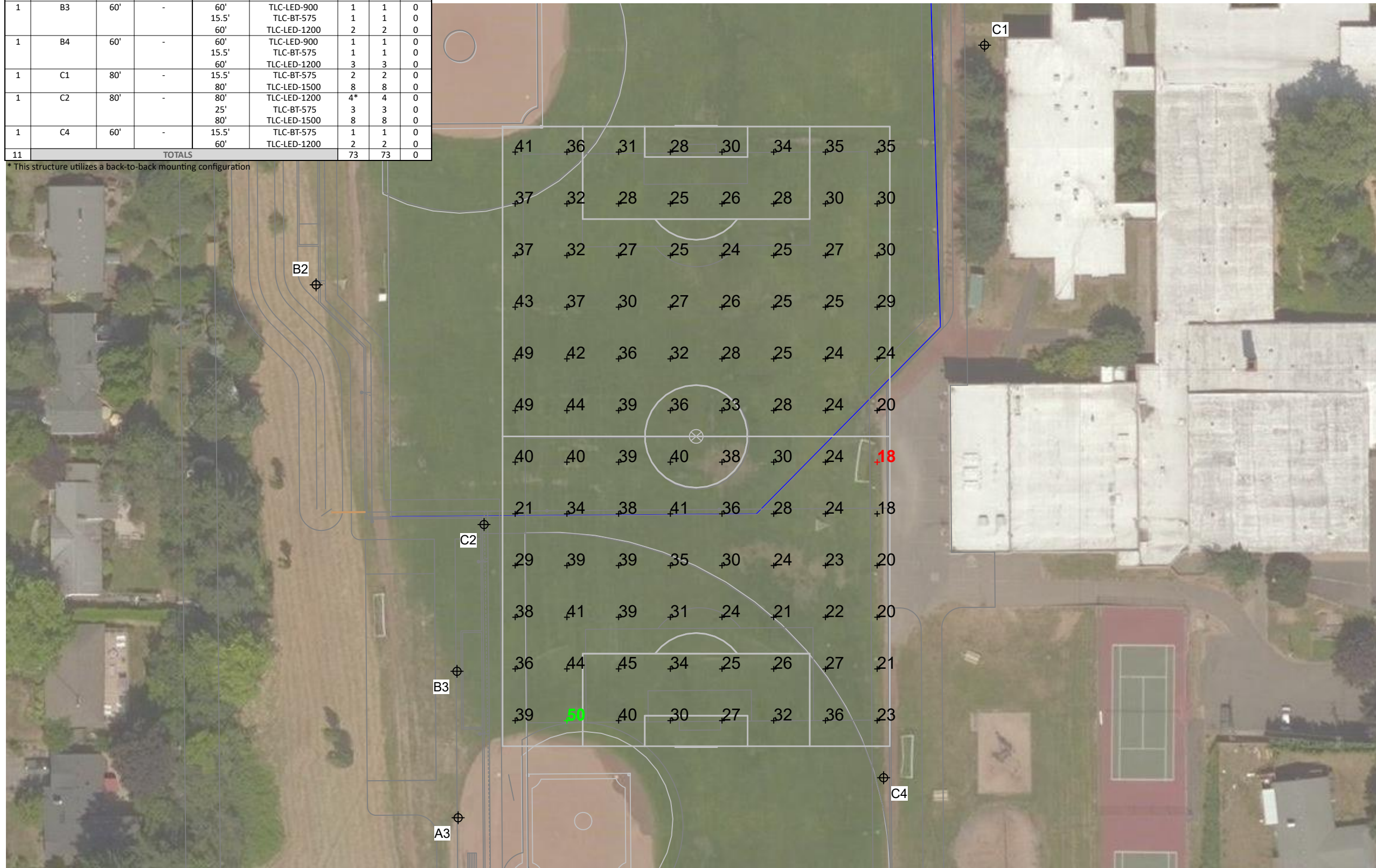


Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗

EQUIPMENT LIST FOR AREAS SHOWN

Pole		Luminaires							
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
2	A1-A2	60'	-	15.5'	TLC-BT-575	1	1	0	
				60'	TLC-LED-900	5	5	0	
2	A3-A4	60'	-	15.5'	TLC-BT-575	1	1	0	
				60'	TLC-LED-900	3	3	0	
2	B1-B2	80'	-	15.5'	TLC-BT-575	2	2	0	
				80'	TLC-LED-1200	6	6	0	
1	B3	60'	-	60'	TLC-LED-900	1	1	0	
				15.5'	TLC-BT-575	1	1	0	
				60'	TLC-LED-1200	2	2	0	
1	B4	60'	-	60'	TLC-LED-900	1	1	0	
				15.5'	TLC-BT-575	1	1	0	
				60'	TLC-LED-1200	3	3	0	
1	C1	80'	-	15.5'	TLC-BT-575	2	2	0	
				80'	TLC-LED-1500	8	8	0	
1	C2	80'	-	80'	TLC-LED-1200	4*	4	0	
				25'	TLC-BT-575	3	3	0	
				80'	TLC-LED-1500	8	8	0	
1	C4	60'	-	15.5'	TLC-BT-575	1	1	0	
				60'	TLC-LED-1200	2	2	0	
11	TOTALS						73	73	0

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



West Sylvan Baseball Softball

Portland, OR

GRID SUMMARY	
Name:	Soccer
Size:	360' x 225'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
Entire Grid	
Scan Average:	31.54
Maximum:	50
Minimum:	18
Avg / Min:	1.80
Max / Min:	2.83
UG (adjacent pts):	1.87
CU:	0.34
No. of Points:	96

LUMINAIRE INFORMATION	
Color / CRI:	5700K - 75 CRI
Luminaire Output:	160,000 / 136,000 / 52,000 / 89,600 lumens
No. of Luminaires:	73
Total Load:	75.01 kW

Luminaire Type	Lumen Maintenance		
	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1500	>81,000	>81,000	>81,000
TLC-LED-1200	>81,000	>81,000	>81,000
TLC-BT-575	>81,000	>81,000	>81,000
TLC-LED-900	>81,000	>81,000	>81,000

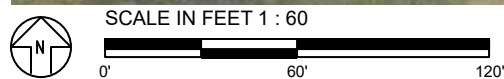
Reported per TM-21-11. See luminaire datasheet for details.

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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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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN

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QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
2	A1-A2	60'	-	15.5'	TLC-BT-575	1	1	0	
				60'	TLC-LED-900	5	5	0	
2	A3-A4	60'	-	15.5'	TLC-BT-575	1	1	0	
				60'	TLC-LED-900	3	3	0	
2	B1-B2	80'	-	15.5'	TLC-BT-575	2	2	0	
				80'	TLC-LED-1200	6	6	0	
1	B3	60'	-	60'	TLC-LED-900	1	1	0	
				15.5'	TLC-BT-575	1	1	0	
				60'	TLC-LED-1200	2	2	0	
1	B4	60'	-	60'	TLC-LED-900	1	1	0	
				15.5'	TLC-BT-575	1	1	0	
				60'	TLC-LED-1200	3	3	0	
1	C1	80'	-	15.5'	TLC-BT-575	2	2	0	
				80'	TLC-LED-1500	8	8	0	
1	C2	80'	-	80'	TLC-LED-1200	4*	4	0	
				25'	TLC-BT-575	3	3	0	
				80'	TLC-LED-1500	8	8	0	
1	C4	60'	-	15.5'	TLC-BT-575	1	1	0	
				60'	TLC-LED-1200	2	2	0	
11	TOTALS						73	73	0

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West Sylvan Baseball Softball

Portland, OR

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

ILLUMINATION SUMMARY	
HORIZONTAL FOOTCANDLES	
Entire Grid	0.1387
Scan Average:	0.1387
Maximum:	0.58
Minimum:	0.00
No. of Points:	40

LUMINAIRE INFORMATION	
Color / CRI:	5700K - 75 CRI
Luminaire Output:	160,000 / 136,000 / 52,000 / 89,600 lumens
No. of Luminaires:	73
Total Load:	75.01 kW

Luminaire Type	Lumen Maintenance		
	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1500	>81,000	>81,000	>81,000
TLC-LED-1200	>81,000	>81,000	>81,000
TLC-BT-575	>81,000	>81,000	>81,000
TLC-LED-900	>81,000	>81,000	>81,000

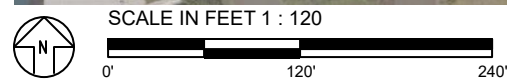
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ENGINEERED DESIGN By: • File #200751C • 08-Oct-19

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



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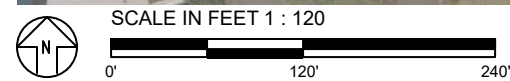
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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN

Pole		Luminaires							
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
2	A1-A2	60'	-	15.5'	TLC-BT-575	1	1	0	
				60'	TLC-LED-900	5	5	0	
2	A3-A4	60'	-	15.5'	TLC-BT-575	1	1	0	
				60'	TLC-LED-900	3	3	0	
2	B1-B2	80'	-	15.5'	TLC-BT-575	2	2	0	
				80'	TLC-LED-1200	6	6	0	
1	B3	60'	-	60'	TLC-LED-900	1	1	0	
				15.5'	TLC-BT-575	1	1	0	
				60'	TLC-LED-1200	2	2	0	
1	B4	60'	-	60'	TLC-LED-900	1	1	0	
				15.5'	TLC-BT-575	1	1	0	
				60'	TLC-LED-1200	3	3	0	
1	C1	80'	-	15.5'	TLC-BT-575	2	2	0	
				80'	TLC-LED-1500	8	8	0	
1	C2	80'	-	80'	TLC-LED-1200	4*	4	0	
				25'	TLC-BT-575	3	3	0	
				80'	TLC-LED-1500	8	8	0	
1	C4	60'	-	15.5'	TLC-BT-575	1	1	0	
				60'	TLC-LED-1200	2	2	0	
11	TOTALS						73	73	0

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



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

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Portland, OR

GRID SUMMARY

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

ILLUMINATION SUMMARY

MAX VERTICAL FOOTCANDLES	
Entire Grid	0.2348
Scan Average:	0.2348
Maximum:	0.97
Minimum:	0.00
No. of Points:	40

LUMINAIRE INFORMATION	
Color / CRI:	5700K - 75 CRI
Luminaire Output:	160,000 / 136,000 / 52,000 / 89,600 lumens
No. of Luminaires:	73
Total Load:	75.01 kW

Luminaire Type	Lumen Maintenance		
	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1500	>81,000	>81,000	>81,000
TLC-LED-1200	>81,000	>81,000	>81,000
TLC-BT-575	>81,000	>81,000	>81,000
TLC-LED-900	>81,000	>81,000	>81,000

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

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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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN

Pole		Luminaires							
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
2	A1-A2	60'	-	15.5'	TLC-BT-575	1	1	0	
				60'	TLC-LED-900	5	5	0	
2	A3-A4	60'	-	15.5'	TLC-BT-575	1	1	0	
				60'	TLC-LED-900	3	3	0	
2	B1-B2	80'	-	15.5'	TLC-BT-575	2	2	0	
				80'	TLC-LED-1200	6	6	0	
1	B3	60'	-	60'	TLC-LED-900	1	1	0	
				15.5'	TLC-BT-575	1	1	0	
				60'	TLC-LED-1200	2	2	0	
1	B4	60'	-	60'	TLC-LED-900	1	1	0	
				15.5'	TLC-BT-575	1	1	0	
				60'	TLC-LED-1200	3	3	0	
1	C1	80'	-	15.5'	TLC-BT-575	2	2	0	
				80'	TLC-LED-1500	8	8	0	
1	C2	80'	-	80'	TLC-LED-1200	4*	4	0	
				25'	TLC-BT-575	3	3	0	
				80'	TLC-LED-1500	8	8	0	
1	C4	60'	-	15.5'	TLC-BT-575	1	1	0	
				60'	TLC-LED-1200	2	2	0	
11	TOTALS						73	73	0

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



West Sylvan Baseball Softball

Portland, OR

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

ILLUMINATION SUMMARY	
MAX VERTICAL FOOTCANDLES	
Entire Grid	0.2348
Scan Average:	0.2348
Maximum:	0.97
Minimum:	0.00
No. of Points:	40

LUMINAIRE INFORMATION	
Color / CRI:	5700K - 75 CRI
Luminaire Output:	160,000 / 136,000 / 52,000 / 89,600 lumens
No. of Luminaires:	73
Total Load:	75.01 kW

Luminaire Type	Lumen Maintenance		
	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1500	>81,000	>81,000	>81,000
TLC-LED-1200	>81,000	>81,000	>81,000
TLC-BT-575	>81,000	>81,000	>81,000
TLC-LED-900	>81,000	>81,000	>81,000

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

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.

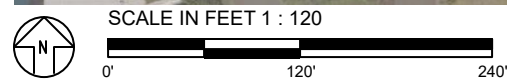
Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

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

West Sylvan Baseball Softball

Portland, OR

EQUIPMENT LAYOUT

INCLUDES:

- Baseball
- Soccer
- Softball

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.

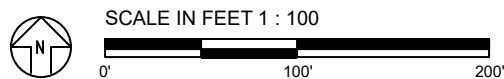
EQUIPMENT LIST FOR AREAS SHOWN

QTY	LOCATION	Pole		Luminaires		QTY / POLE	
		SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE		
2	A1-A2	60'	-	15.5' 60'	TLC-BT-575 TLC-LED-900	1 5	
2	A3-A4	60'	-	15.5' 60'	TLC-BT-575 TLC-LED-900	1 3	
2	B1-B2	80'	-	15.5' 80'	TLC-BT-575 TLC-LED-1200	2 6	
1	B3	60'	-	60' 15.5' 60'	TLC-LED-900 TLC-BT-575 TLC-LED-1200	1 1 2	
1	B4	60'	-	60' 15.5' 60'	TLC-LED-900 TLC-BT-575 TLC-LED-1200	1 1 3	
1	C1	80'	-	15.5' 80'	TLC-BT-575 TLC-LED-1500	2 8	
1	C2	80'	-	80' 25' 80'	TLC-LED-1200 TLC-BT-575 TLC-LED-1500	4* 3 8	
1	C4	60'	-	15.5' 60'	TLC-BT-575 TLC-LED-1200	1 2	
11	TOTALS						73

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

SINGLE LUMINAIRE AMPERAGE DRAW CHART

Ballast Specifications (.90 min power factor)	Line Amperage Per Luminaire (max draw)					
	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	480 (60)
Single Phase Voltage	8.5	8.1	7.4	6.4	5.1	4.7
TLC-LED-1500	7.0	6.6	6.1	5.2	4.2	3.8
TLC-LED-1200	3.4	3.2	2.9	2.5	2.0	1.8
TLC-BT-575	5.3	5.0	4.6	4.0	3.2	2.9
TLC-LED-900-A						



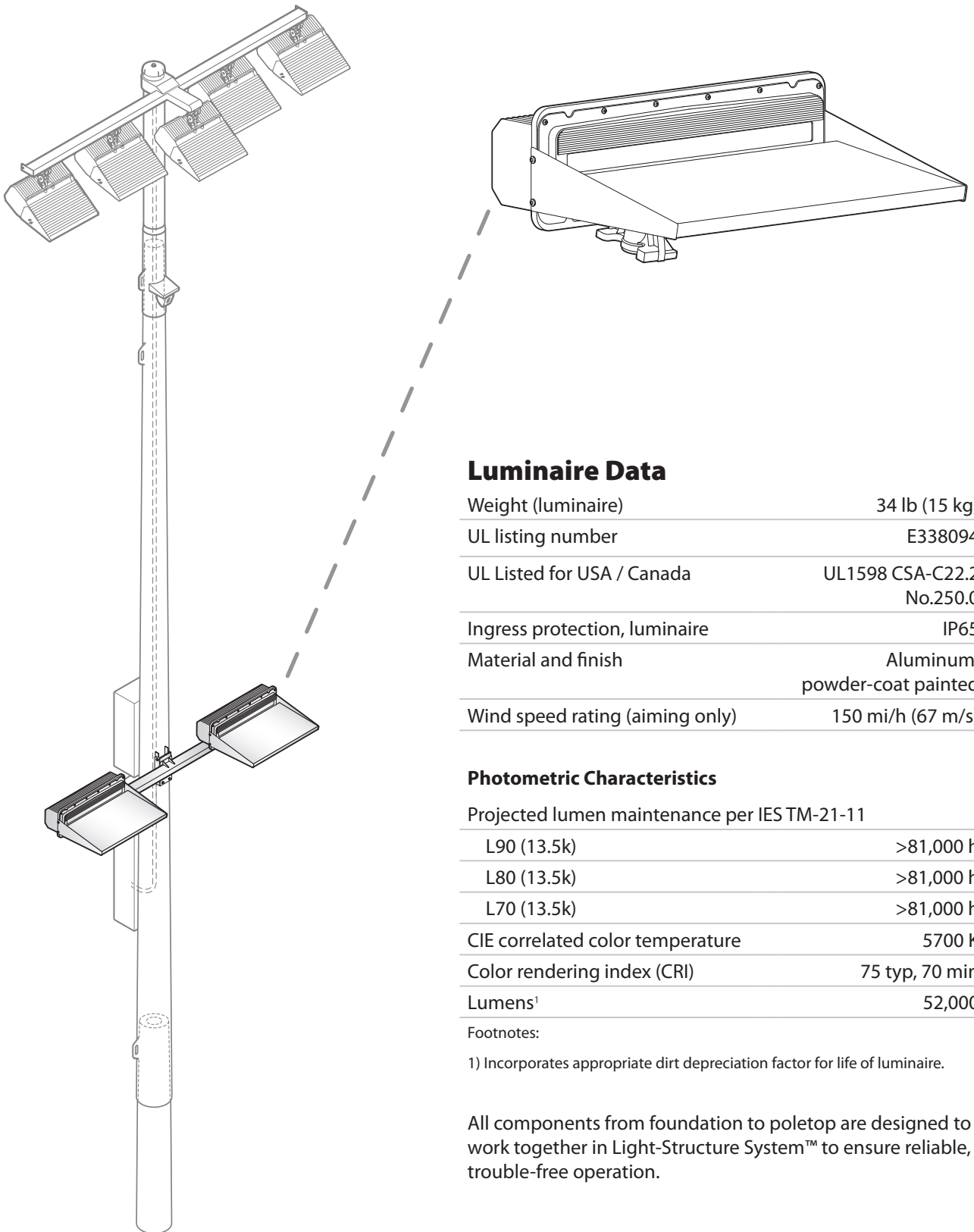
Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗



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Luminaire and Driver Components – TLC-BT-575



Luminaire Data

Weight (luminaire)	34 lb (15 kg)
UL listing number	E338094
UL Listed for USA / Canada	UL1598 CSA-C22.2 No.250.0
Ingress protection, luminaire	IP65
Material and finish	Aluminum, powder-coat painted
Wind speed rating (aiming only)	150 mi/h (67 m/s)

Photometric Characteristics

Projected lumen maintenance per IES TM-21-11	
L90 (13.5k)	>81,000 h
L80 (13.5k)	>81,000 h
L70 (13.5k)	>81,000 h
CIE correlated color temperature	5700 K
Color rendering index (CRI)	75 typ, 70 min
Lumens ¹	52,000

Footnotes:

1) Incorporates appropriate dirt depreciation factor for life of luminaire.

All components from foundation to poletop are designed to work together in Light-Structure System™ to ensure reliable, trouble-free operation.

Luminaire and Driver Components – TLC-BT-575

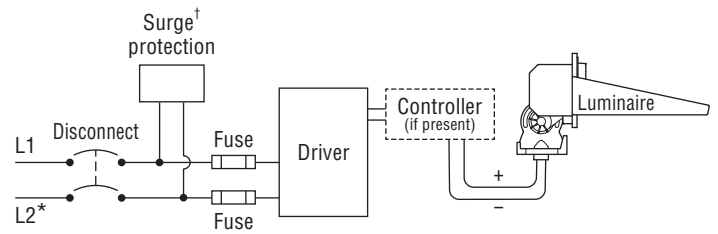
Driver Data

Electrical Data

Rated wattage¹

Per driver	575 W
Per luminaire	575 W
Number of luminaires per driver	1
Starting (inrush) current	<40 A, 256 μs
Fuse rating	15 A
UL, IEC ambient temperature rating, electrical components enclosure	50°C (122°F)
Ingress protection, electrical components enclosure	IP54
Efficiency	95%

Typical Wiring



* If L2 (com) is neutral then not switched or fused.
 † Not present if indoor installation.

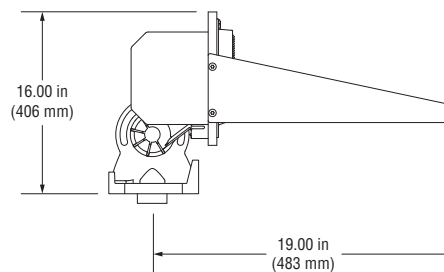
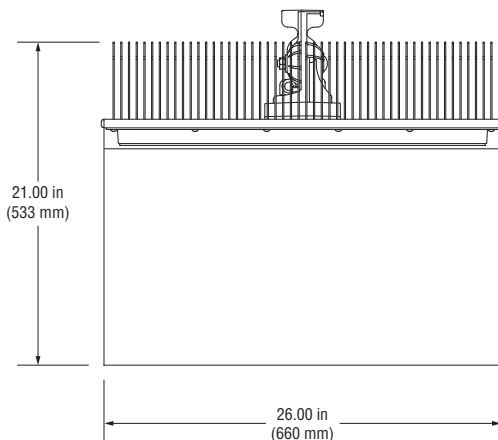
	200 Vac 50/60 Hz	208 Vac 60 Hz	220 Vac 50/60 Hz	230 Vac 50 Hz	240 Vac 50/60 Hz	277 Vac 60 Hz	347 Vac 60 Hz	380 Vac 50/60 Hz	400 Vac 50 Hz	415 Vac 50 Hz	480 Vac 60 Hz
Max operating current² per luminaire	3.48 A	3.35 A	3.16 A	3.03 A	2.90 A	2.51 A	2.01 A	1.83 A	1.74 A	1.68 A	1.45 A

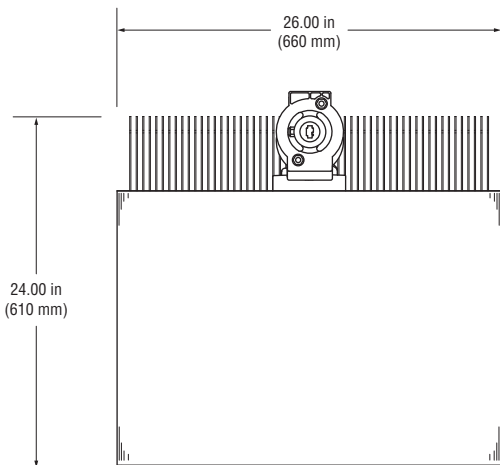
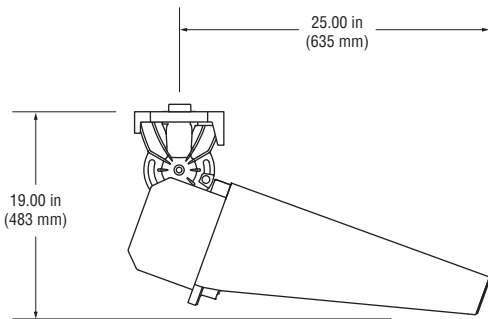
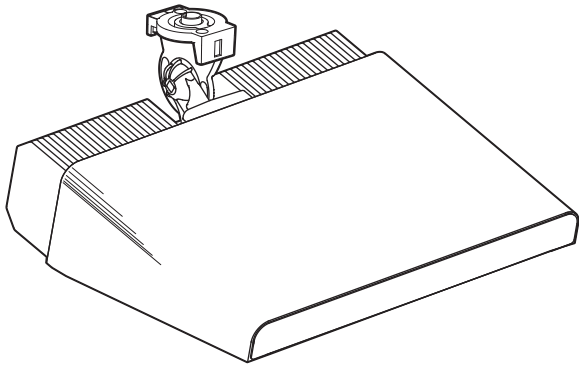
Footnotes:

- 1) Rated wattage is the power consumption, including driver efficiency losses, at stabilized operation in 25°C ambient temperature environment.
- 2) Operating current includes allowance for 0.90 minimum power factor, operating temperature, and LED light source manufacturing tolerances.

Notes

1. Use thermal magnetic HID-rated or D-curve circuit breakers.
2. See *Musco Control System Summary* for circuit information.





Luminaire Data

Weight (luminaire)	45 lb (20 kg)
UL listing number	E338094
UL listed for USA / Canada	UL1598 CSA-C22.2 No.250.0
CE Declaration	LVD, EMC, RoHS
Ingress protection, luminaire	IP65
Material and finish	Aluminum, powder-coat painted
Wind speed rating (aiming only)	150 mi/h (67 m/s)
UL, IEC ambient temperature rating, luminaire	50°C (122°F)

Photometric Characteristics

Projected lumen maintenance per IES TM-21-11

L90 (13.5k)	>81,000 h
L80 (13.5k)	>81,000 h
L70 (13.5k)	>81,000 h
CIE correlated color temperature	5700 K
Color rendering index (CRI)	75 typ, 70 min
Lumens ¹	136,000

Footnotes:

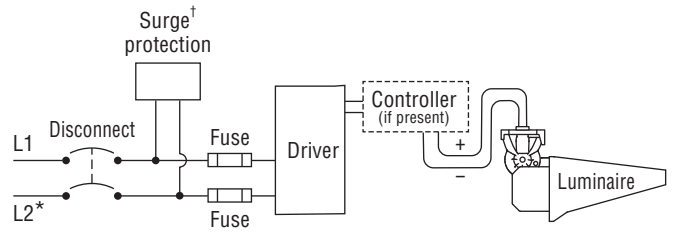
1) Incorporates appropriate dirt depreciation factor for life of luminaire.

Driver Data

Electrical Data

Rated wattage ¹	
Per driver	1170 W
Per luminaire	1170 W
Number of luminaires per driver	1
Starting (inrush) current	<40 A, 256 μ s
Fuse rating	15 A
UL, IEC ambient temperature rating, electrical components enclosure	50°C (122°F)
Ingress protection, electrical components enclosure	IP54
Efficiency	95%
Dimming mode	optional
Range, energy consumption	14 – 100%
Range, light output	19 – 100%

Typical Wiring



* If L2 (com) is neutral then not switched or fused.
 † Not present if indoor installation.

	200 Vac 50/60 Hz	208 Vac 60 Hz	220 Vac 50/60 Hz	230 Vac 50 Hz	240 Vac 50/60 Hz	277 Vac 60 Hz	347 Vac 60 Hz	380 Vac 50/60 Hz	400 Vac 50 Hz	415 Vac 50 Hz	480 Vac 60 Hz
Max operating current per luminaire²	7.26 A	6.98 A	6.60 A	6.31 A	6.05 A	5.24 A	4.18 A	3.82 A	3.63 A	3.50 A	3.03 A

Footnotes:

- 1) Rated wattage is the power consumption, including driver efficiency losses, at stabilized operation in 25°C ambient temperature environment.
- 2) Operating current includes allowance for 0.90 minimum power factor, operating temperature, and LED light source manufacturing tolerances.

Notes

1. Use thermal magnetic HID-rated or D-curve circuit breakers.
2. See *Musco Control System Summary* for circuit information.



Luminaire Data

Weight (luminaire)	67 lb (30 kg)
UL listing number	E338094
UL listed for USA / Canada	UL1598 CSA-C22.2 No.250.0
CE Declaration	LVD, EMC, RoHS
Ingress protection, luminaire	IP65
Material and finish	Aluminum, powder-coat painted
Wind speed rating (aiming only)	150 mi/h (67 m/s)
UL, IEC ambient temperature rating, luminaire	50°C (122°F)

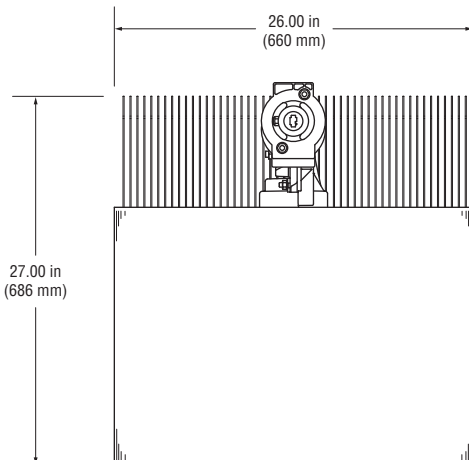
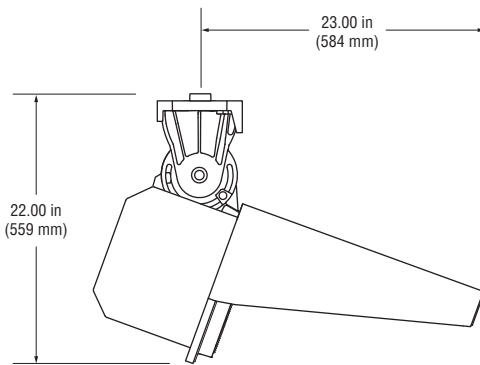
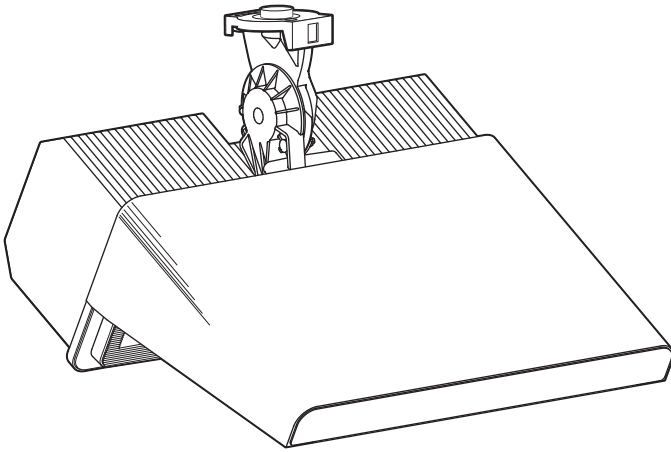
Photometric Characteristics

Projected lumen maintenance per IES TM-21-11

L90 (13.5k)	>81,000 h
L80 (13.5k)	>81,000 h
L70 (13.5k)	>81,000 h
CIE correlated color temperature	5700 K
Color rendering index (CRI)	75 typ, 70 min
Lumens ¹	160,000

Footnotes:

1) Incorporates appropriate dirt depreciation factor for life of luminaire.

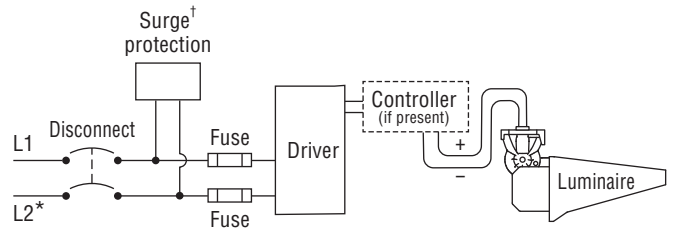


Driver Data

Electrical Data

Rated wattage ¹	
Per driver	1430 W
Per luminaire	1430 W
Number of luminaires per driver	1
Starting (inrush) current	<40 A, 256 μ s
Fuse rating	15 A
UL, IEC ambient temperature rating, electrical components enclosure	50°C (122°F)
Ingress protection, electrical components enclosure	IP54
Efficiency	95%
Dimming mode	optional
Range, energy consumption	12 – 100%
Range, light output	17 – 100%

Typical Wiring



* If L2 (com) is neutral then not switched or fused.
 † Not present if indoor installation.

	200 Vac 50/60 Hz	208 Vac 60 Hz	220 Vac 50/60 Hz	230 Vac 50 Hz	240 Vac 50/60 Hz	277 Vac 60 Hz	347 Vac 60 Hz	380 Vac 50/60 Hz	400 Vac 50 Hz	415 Vac 50 Hz	480 Vac 60 Hz
Max operating current per luminaire²	8.86 A	8.52 A	8.06 A	7.71 A	7.39 A	6.40 A	5.11 A	4.67 A	4.43 A	4.27 A	3.70 A

Footnotes:

- 1) Rated wattage is the power consumption, including driver efficiency losses, at stabilized operation in 25°C ambient temperature environment.
- 2) Operating current includes allowance for 0.90 minimum power factor, operating temperature, and LED light source manufacturing tolerances.

Notes

1. Use thermal magnetic HID-rated or D-curve circuit breakers.
2. See *Musco Control System Summary* for circuit information.



Luminaire Data

Weight (luminaire)	40 lb (18 kg)
UL listing number	E338094
UL listed for USA / Canada	UL1598 CSA-C22.2 No.250.0
CE Declaration	LVD, EMC, RoHS
Ingress protection, luminaire	IP65
Material and finish	Aluminum, powder-coat painted
Wind speed rating (aiming only)	150 mi/h (67 m/s)
UL, IEC ambient temperature rating, luminaire	50°C (122°F)

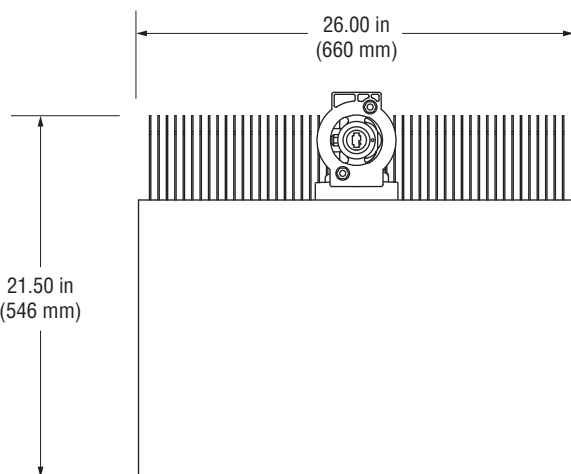
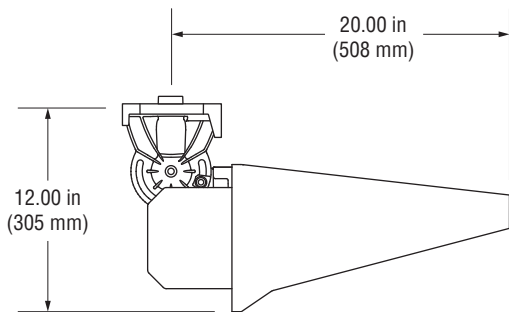
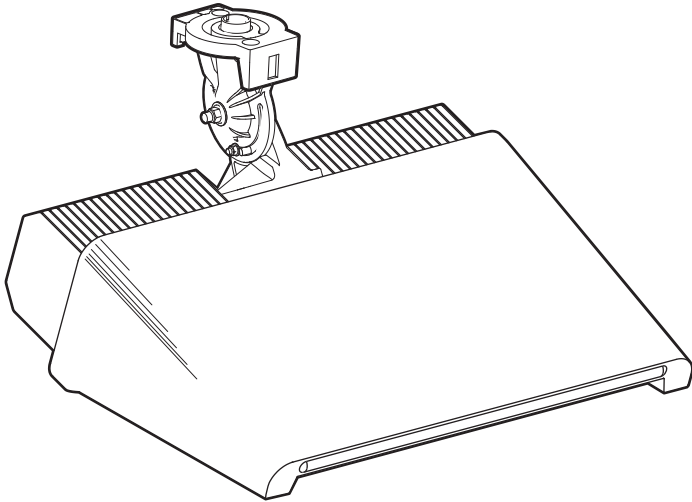
Photometric Characteristics

Projected lumen maintenance per IES TM-21-11

L90 (13.5k)	>81,000 h
L80 (13.5k)	>81,000 h
L70 (13.5k)	>81,000 h
CIE correlated color temperature	5700 K
Color rendering index (CRI)	75 typ, 70 min
Lumens ¹	89,600

Footnotes:

1) Incorporates appropriate dirt depreciation factor for life of luminaire.



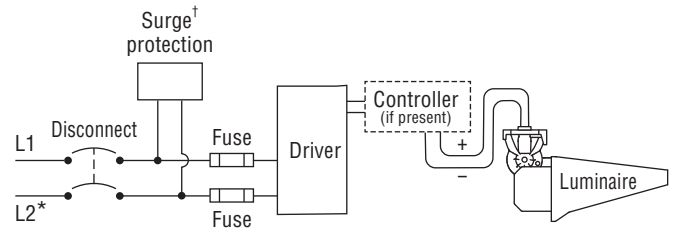
Datasheet: TLC-LED-900 Luminaire and Driver

Driver Data

Electrical Data

Rated wattage ¹	
Per driver	890 W
Per luminaire	890 W
Number of luminaires per driver	1
Starting (inrush) current	<40 A, 256 μ s
Fuse rating	15 A
UL, IEC ambient temperature rating, electrical components enclosure	50°C (122°F)
Ingress protection, electrical components enclosure	IP54
Efficiency	95%
Dimming mode	optional
Range, energy consumption	25 – 100%
Range, light output	30 – 100%

Typical Wiring



* If L2 (com) is neutral then not switched or fused.
 † Not present if indoor installation.

	200 Vac 50/60 Hz	208 Vac 60 Hz	220 Vac 50/60 Hz	230 Vac 50 Hz	240 Vac 50/60 Hz	277 Vac 60 Hz	347 Vac 60 Hz	380 Vac 50/60 Hz	400 Vac 50 Hz	415 Vac 50 Hz	480 Vac 60 Hz
Max operating current per luminaire²	5.50 A	5.29 A	5.00 A	4.78 A	4.58 A	3.97 A	3.17 A	2.90 A	2.75 A	2.65 A	2.29 A

Footnotes:

- 1) Rated wattage is the power consumption, including driver efficiency losses, at stabilized operation in 25°C ambient temperature environment.
- 2) Operating current includes allowance for 0.90 minimum power factor, operating temperature, and LED light source manufacturing tolerances.

Notes

1. Use thermal magnetic HID-rated or D-curve circuit breakers.
2. See *Musco Control System Summary* for circuit information.



ULD-30021

Lador 7 Surface



Construction

Aluminum

Less than 0.1% copper content - Marine Grade 6060 extruded & LM6 Aluminum High Pressure die casting provides excellent mechanical strength, clean detailed product lines and excellent heat dissipation.

Pre paint

8 step degrease and phosphate process that includes deoxidizing and etching as well as a zinc and nickel phosphate process before product painting.

Memory Retentive -Silicon Gasket

Provided with special injection molded "fit for purpose" long life high temperature memory retentive silicon gaskets. Maintains the gaskets exact profile and seal over years of use and compression.

Thermal management

LM6 Aluminum is used for its excellent mechanical strength and thermal dissipation properties in low and high ambient temperatures. The superior thermal heat sink design by Ligman used in conjunction with the driver, controls thermals below critical temperature range to ensure maximum luminous flux output, as well as providing long LED service life and ensuring less than 10% lumen depreciation at 50,000 hours.

Surge Suppression

Standard 10kv surge suppressor provided with all fixtures.

BUG Rating

B2 - U1 - G0

Finishing

All Ligman products go through an extensive finishing process that includes fettling to improve paint adherence.

Paint

UV Stabilized 4.9Mil thick powder coat paint and baked at 200 Deg C. This process ensures that Ligman products can withstand harsh environments. Rated for use in natoriums.

Hardware

Provided Hardware is Marine grade 316 Stainless steel.

Anti Seize Screw Holes

Tapped holes are infused with a special anti seize compound designed to prevent seizure of threaded connections, due to electrolysis from heat, corrosive atmospheres and moisture.

Crystal Clear Low Iron Glass Lens

Provided with tempered, impact resistant crystal clear low iron glass ensuring no green glass tinge.

Optics & LED

Precise optic design provides exceptional light control and precise distribution of light. LED CRI > 80

Lumen - Maintenance Life

L80 /B10 at 50,000 hours (This means that at least 90% of the LED still achieve 80% of their original flux)

Square surface wall-mounted architectural range. Four sizes of square artistic precision with wide range of beam distributions.

A range of square outdoor IP66 wall sconce that meets both aesthetic and functional applications. This cubic wall sconce range is available with 4 different sizes, starting with a small 2.4" square profile at 3w, and increases proportionately to 3" at 11w, 4.5" at 21w and 5.5" square at 40w. This glare free luminaire is available in Narrow beam, Medium, Wide, Very Wide and Elliptical beam patterns.

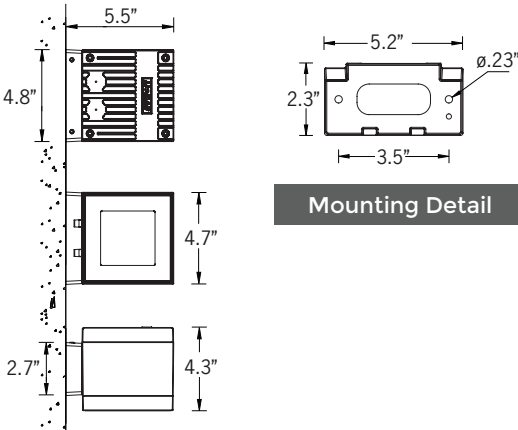
This luminaire is engineered to meet harsh outdoor environments, as well as being able to be used as a decorative indoor product.

The Lador is provided with an integral driver and has accessories that include; dichroic color filters, linear spread lens, honeycomb louvres and anti-glare visors.

The Lador product family consists of; floodlights, wall sconces, ceiling mounted squares and cluster column event poles.

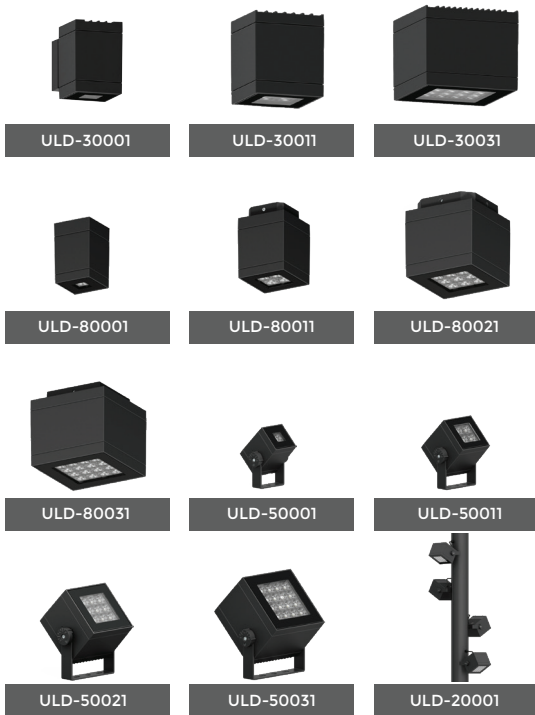
This luminaire is available with a natorium rated coating.

22w LED 1791 Lumens
IP66 • Suitable For Wet Locations
IK07 • Impact Resistant
Weight 4.4 lbs

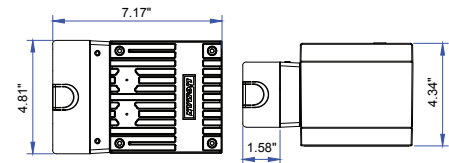


Mounting Detail

Lador Product Family



Additional Options (Consult Factory For Pricing)



SCE Surface Conduit Decorative Trim

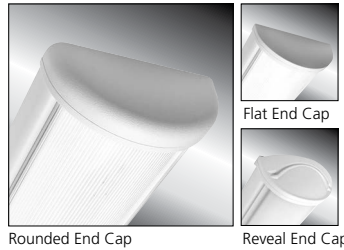


MILLENIUM STRETCH™

MLHA8 SERIES

PRODUCT FEATURES:

- » Surface mount – wall or ceiling; nominal 8"×24", 8"×36" 8"×48", 8"×72", 8"×96"
- » Extruded aluminum housing with decorative end caps
- » Peace of Mind Guarantee® against breakage
- » ADA compliant



PROJECT INFORMATION

Job Name _____

Fixture Type _____

Catalog Number _____

Approved by _____

SPECIFICATIONS

HOUSING: Marine grade aluminum. Extruded body with die-cast end caps. Housing, with end caps, post assembly TGIC polyester powder coat finished – 5-step pre-treatment. See Ordering Information for standard, optional, architectural and custom finishes.

REFLECTOR: Full reflector/wire cover – 92% reflectivity.

LENS: UV-stabilized, high impact extruded clear or pearlescent polycarbonate. Smooth exterior, linear prismatic interior. Nominal thickness .156". Lens securely positioned in body channels and end caps. Lens locked in place with tamper-resistant stainless steel Torx® with center pin fasteners and sealed with closed cell gaskets.

END CAPS: Marine grade die-cast aluminum. Three styles available: Flat, Rounded and Reveal. Conduit and "Wiremold™" ready" knockouts visible only from interior of end cap (Flat and Rounded styles only).

SOCKETS: Shock-resistant sockets with internal locking collar to ensure positive lamp retention.

HARDWARE: Stainless steel, tamper-resistant Torx fasteners secure lens in housing body's lens channel (four on 24", 36", and 48" housings; eight on 72" and 96" housings).

ELECTRICAL: LED: Available 3500K, 4000K and 5000K color temperatures, 82 CRI. 120-277VAC and 347VAC, 50/60Hz electrical input with serviceable high power factor electronic, constant-current driver (<20% THD, >0.95 PF). Standard 0-10V dimming with 1-100% range and dim-to-dark capabilities, maximum driver source of 330µA. Optional embedded microwave motion sensor (MS) has factory default settings of 20 minute time out, dims down to 30%. LE: Class P ballasts. Fluorescent electronic 120/277/347 and dual voltage ballasts high power factor.

INSTALLATION: Standard four-point (24" housing), six-point (36" and 48" housing) and twelve-point (72" and 96" housing) mounting required for Peace of Mind Guarantee®. LED product ambient temperature is -30°C to 40°C, unless otherwise noted.

TEKLINK™ TL50: An independent lighting control system embedded in the luminaire, featuring its own occupancy sensor, daylight harvesting and adjustable time-out/dimming settings.

TEKLINK™ TL100: Centralized, wired zonal occupancy and closed-loop daylight harvesting control system. TL100 controllers are standalone devices and ordered separately for luminaire. [Click here for specifications.](#)

PHOTOMETRICS: Photometry tested to the IESNA LM-79-08 standard by an ILAC/ISO17025 accredited laboratory. For additional photometric information, go to www.kenall.com.

WARRANTY: Limited ten (10) year warranty for LED Lamps.

LISTINGS: Luminaire is certified to UL standards by Intertek Testing Laboratories for non-IC and Wet Location installations. IP64 rating per IEC60598 – ceiling mount. Corner, horizontal wall and pendant mount installation – damp location only. ADA compliant.



ORDERING INFORMATION (Ex: MLHA8-48-F-MB-PP-45L40K-DCC-DV-FS-9500)

Model	Length	End Cap	Finish	Lens	Lamp Qty	Lamp Type	Ballast/Driver	Circuit Qty	Voltage	Options	Accessories	TekLink	Controls Kit
MLHA8													
Length	Lamp Type	Circuit Quantity (n/a with LED)	Accessories										
24 2'	2' Lengths	1 One	CMB† Corner Mount Bracket (Must be ordered with DL Option)										
36 3'	25L35K 25 Watt 3500K LED	2† Two (2 Ballast minimum)	9500 Torx® Screwdriver										
48 4'	25L40K 25 Watt 4000K LED		D-0552 Torx Driver Bit (Required for CMB Option)										
72 Two 3' (factory connected)	25L50K 25 Watt 5000K LED	Voltage	TekLink										
96 Two 4' (factory connected)	14 F14T5 (rapid start only)	120 120 Volts	TL50▲ TL50 Control System (Click here for specifications)										
	17 F17T8	277 277 Volts	TL100 TL100 Control System (Click here for specifications)										
End Caps	24▲ F24T5HO (rapid start only)	347 347 Volts											
F Flat		DV 120-277 Volts											
R Rounded	3' Lengths	Options											
RV Reveal	21 F21T5 (rapid start only)	EL▲•§ 500 Minimum Lumen Battery Pack (90 Minutes; 32°F Starting Temp)											
	25 F25T8	PEL▲•§ 1100 Minimum Lumen Battery Pack (90 Minutes; 32°F Starting Temp)											
Finish	39 F39T5HO (rapid start only)	LEL Integral 8.4W Emergency Battery Backup (4' length only, 45L max, 0°C minimum operating temperature, n/a with 347V)											
LG Light Gray		CDF Captive Diffuser Fasteners											
MB Matte Black	4' Lengths	DL Damp Location (Interior use NO gasketing)											
MW Matte White	45L35K 45 Watt 3500K LED	FS Single Fuse & Holder (one per circuit)											
CC Custom Color (Consult Factory)	45L40K 45 Watt 4000K LED	NAT§ Natatorium Environment Option											
	45L50K 45 Watt 5000K LED	PH Phillips Head Fasteners											
Lens	67L35K 67 Watt 3500K LED	PM§‡ Pendant Mount (stems by others; damp only)											
CP• Clear Polycarbonate	67L40K 67 Watt 4000K LED	TN§ • Twin Tube Night Light – 5/7/9 watts (120V only)											
PP Pearlescent Polycarbonate	67L50K 67 Watt 5000K LED	UC§ • Uplight Component (Pendant Mount only; stems by others; damp only)											
Lamp Quantity (Cross Section)•	90L35K 90 Watt 3500K LED	MS Motion Sensor (2' and 4' LED only) (n/a with 347 Voltage Option)											
1 One	90L40K 90 Watt 4000K LED												
2 Two	90L50K 90 Watt 5000K LED												
3 Three (T8 or T5 only)	28 F28T5 (rapid start only)												
	32 F32T8												
	54 F54T5HO (rapid start only)												
	54A F54T5HO amalgam (rapid start only)												
	Ballast/Driver Type												
	IS Instant Start Electronic <10% THD (T8)												
	RS Rapid Start Electronic <10% THD (T8,T5,T5HO)												
	SB Specified Ballast												
	DCC Dimming Constant Current (LED)												

Please consult Kenall Applications when ordering controls. Mounting heights above 14' may require alternate sensing technology.

Controls Kit
< > Factory Assigned Internal Code

- + n/a on 2' T5/T5HO or 3' T5HO fixtures with EL, PEL or TN options
- ▲ n/a with 347V
- ‡ 2' Fixtures have minimum 350-450 lumen battery pack
- n/a on 2' fixtures
- § n/a with 3 lamps
- n/a with LED Lamp Type
- † PM and CMB not available in conjunction
- ▲ LED only. N/A with with PM or CMB options. N/A with 72" or 96" length.



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MILLENNIUM STRETCH™

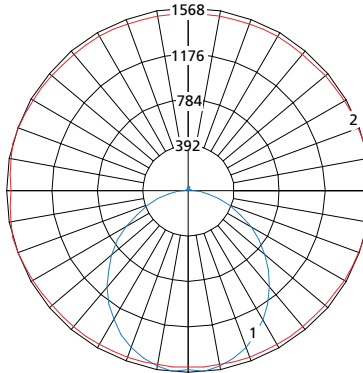
MLHA8 SERIES

PERFORMANCE

Length	Lamp Type	Initial Delivered Lumens		Input Power (W)	Drive Current (mA)	Estd. L70 LED Life (Hrs)
		@ 25°C	Efficacy (lm/W)			
2'	25L35K	2,379	95	25	100	150,000
	25L40K	2,536	101	25	100	150,000
	25L50K	2,536	101	25	100	150,000
4'	45L35K	4,758	97	49	100	150,000
	45L40K	5,072	104	49	100	150,000
	45L50K	5,072	104	49	100	150,000
	67L35K	7,284	100	73	75	150,000
	67L40K	7,765	106	73	75	150,000
	67L50K	7,765	106	73	75	150,000
	90L35K	9,252	94	98	100	150,000
	90L40K	9,864	101	98	100	150,000
	90L50K	9,864	101	98	100	150,000

Information above is valid for the recommended Type PP lens type and is subject to change without notice. Visit www.kenall.com for IES files and additional information.

Model: MLHA8-48-F-MW-PP-45L40K-DCC-DV

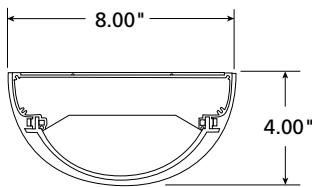


Maximum Candela = 1568 Located At Horizontal Angle = 15, Vertical Angle = 5

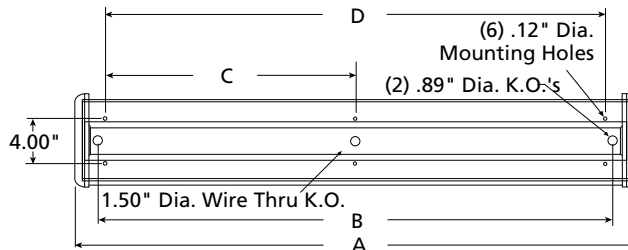
- 1 - Vertical Plane Through Horizontal Angles (15-195) (Through Max. Cd.)
- 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)

DIMENSIONAL DATA

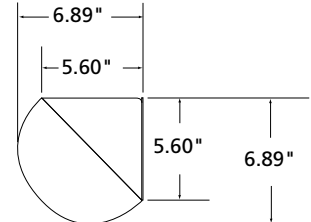
CROSS SECTION/DETAILS



MOUNTING HOLES



CORNER MOUNT BRACKET



Nominal Two Foot Fixture Legend

LMP End Cap	A	B	C	D
T8 R	26.524	22.312	N/A	21.000
T8 F	25.308	22.312	N/A	21.000
T8 RV	28.632	22.312	N/A	21.000
T5 R	24.940	20.728	N/A	20.875
T5 F	23.724	20.728	N/A	20.875
T5 RV	27.048	20.728	N/A	20.875

Nominal Three Foot Fixture Legend

LMP End Cap	A	B	C	D
T8 R	38.524	34.312	16.500	33.000
T8 F	34.312	34.312	16.500	33.000
T8 RV	40.632	34.312	16.500	33.000
T5 R	36.751	32.540	16.344	32.688
T5 F	35.535	32.540	16.344	32.688
T5 RV	38.859	32.540	16.344	32.688

Nominal Four Foot Fixture Legend

LMP End Cap	A	B	C	D
T8/LED R	50.524	46.312	22.500	45.000
T8/LED F	49.308	46.312	22.500	45.000
T8/LED RV	52.632	46.312	22.500	45.000
T5 R	48.562	44.350	22.250	44.500
T5 F	47.346	44.350	22.250	44.500
T5 RV	50.670	44.350	22.250	44.500



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FEATURES & SPECIFICATIONS

INTENDED USE — The CLX is a linear lighting solution that is available in multiple lengths, lumen packages and distributions. Designed for versatility, the CLX can address virtually any indoor lighting need. The CLX is also offered in standard and high efficacy configurations and capable of being continuous row mounted or installed as a stand-alone fixture. Ideal for uplight and downlight in commercial, retail, manufacturing, warehouse, and display applications. **Certain airborne contaminants can diminish the integrity of acrylic and/or polycarbonate.** [Click here for Acrylic-Polycarbonate Compatibility table for suitable uses.](#)

CONSTRUCTION — Channel and cover are formed from code-gauge cold-rolled steel. Housing and lens endcaps are injection molded plastic to provide a more architectural look and feel. The endcaps come standard with a 7/8" knock out for continuous mounting but can be ordered without.

Finish: Paint options include high-gloss, baked white polyester (WH), galvanized (GALV), matte black (MB) and smoke gray (SKGY). Five-stage iron phosphate pre-treatment ensures superior paint adhesion and rust resistance.

OPTICS — Offered with acrylic lens and less lens configurations. Provides a choice of optical distributions including, wide, narrow, and aisle.

ELECTRICAL — Utilizes high-output LEDs integrated on a two-layer circuit board, ensuring cool-running operation. Optional internal pluggable wiring harness for reduced labor cost in row mounting applications. (See PLR_ordering information on page 15.) Electronic LED driver is multi-volt input and 0-10V dimming standard (see Operational Data on page 12 for actual wattage consumption). This fixture is designed to withstand a maximum line surge of 2.5kV at 0.75kA combination wave for indoor locations, for applications requiring higher level of protection additional surge protection must be provided.

L70>100,000 hours at 25° C.

LEDs provide nominal 80 CRI or 90CRI at 3000 K, 3500 K, 4000 K, or 5000 K.

Lumen output up to 2,500 lumens per foot.

INSTALLATION — Fixture may be ceiling or wall mounted (with or without THCLX hanger or angle mounted with CLXANGBRT), pendant or stem mounted with appropriate mounting options.

WARNING — Removing the lens and opening the fixture during installation exposes the LEDs, putting them at risk for damage.

If you plan to surface mount the fixture, we recommend using the THCLX. This eliminates the need to open the fixture.

If you plan to continuous row mount, we recommend using the PLR wiring harness option. This eliminates the need to open the fixture.

Damage to the LEDs caused during installation will not be covered under the warranty.

LISTINGS — CSA certified to US and Canadian safety standards. For use in damp locations between -4°F (-20°C) and 104°F (40°C). Optional High Ambient (HA) ranging to 122°F(50°C) available on certain lumen packages (See ambient temperature chart for additional information).

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

WARRANTY — 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/resources/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25° C. Specifications subject to change without notice.

Stock configurations are offered for shorter lead times:

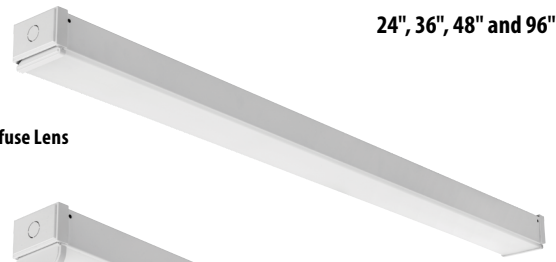
Stock Part Number	UPC	DLC QPL Product ID	DLC Premium
CLX L48 3000LM SEF FDL MVOLT GZ10 40K 80CRI WH	00191723525816	PJANKZR4	Yes
CLX L48 3000LM SEF FDL MVOLT GZ10 50K 80CRI WH	00191723525885	PKW32VKL	Yes
CLX L48 5000LM SEF FDL MVOLT GZ10 40K 80CRI WH	00191723525939	P77I8Z20	Yes
CLX L48 5000LM SEF FDL MVOLT GZ10 50K 80CRI WH	00191723525908	P8A42C1H	Yes
CLX L96 6000LM SEF FDL MVOLT GZ10 40K 80CRI WH	00191723525861	PPFTGRBV	Yes
CLX L96 6000LM SEF FDL MVOLT GZ10 50K 80CRI WH	00191723525915	PW6250TE	Yes
CLX L96 10000LM SEF FDL MVOLT GZ10 40K 80CRI WH	00191723525922	PYKOC7EW	Yes
CLX L96 10000LM SEF FDL MVOLT GZ10 50K 80CRI WH	00191723525830	PKYPL35K	Yes
CLX L48 3000LM SEF RDL MVOLT GZ10 40K 80CRI WH	00191723525960	PJANKZR4	Yes
CLX L48 3000LM SEF RDL MVOLT GZ10 50K 80CRI WH	00191723525892	PKW32VKL	Yes
CLX L48 5000LM SEF RDL MVOLT GZ10 40K 80CRI WH	00191723525854	P77I8Z20	Yes
CLX L48 5000LM SEF RDL MVOLT GZ10 50K 80CRI WH	00191723525946	P8A42C1H	Yes
CLX L96 6000LM SEF RDL MVOLT GZ10 40K 80CRI WH	00191723525878	PPFTGRBV	Yes
CLX L96 6000LM SEF RDL MVOLT GZ10 50K 80CRI WH	00191723525823	PD0SSIAD	Yes
CLX L96 10000LM SEF RDL MVOLT GZ10 40K 80CRI WH	00191723525953	PYKOC7EW	Yes
CLX L96 10000LM SEF RDL MVOLT GZ10 50K 80CRI WH	00191723525847	PKYPL35K	Yes

Catalog Number
Notes
Type

LED Linear

CLX

24", 36", 48" and 96" Lengths



Flat Diffuse Lens



Round Diffuse Lens



Wide Diffuse Lens



A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® or XPoint™ Wireless control networks marked by a [shaded background*](#)

To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details

CLX LED Linear

ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

Example: CLX L48 5000LM SEF WDL MVOLT GZ10 40K 80CRI WH

Series	Length	Nominal lumens	Performance package	Louver	Lens
CLX LED linear	L24 24" ^{1,2}	1500LM 1,500 lumens	SEF Standard efficiency ⁵	(Blank) Less louver	L/Lens Less lens
		2000LM 2,000 lumens	HEF Premium efficiency	SBLW Straight blade louver, white ⁶	FDL Flat diffuse ^{7,8}
		2500LM 2,500 lumens		SBLMB Straight blade louver, matte black ⁶	RDL Round diffuse ^{7,8}
		3500LM 3,500 lumens		SBLGV Straight blade louver, galvanized ⁶	WDL Wide diffuse ^{7,8}
		4500LM 4,500 lumens		SBLSKGY Straight blade louver, smoke gray ⁶	
	L36 36" ²	2250LM 2,250 lumens			
		3000LM 3,000 lumens			
		3750LM 3,750 lumens			
		5250LM 5,250 lumens			
		6750LM 6,750 lumens			
	L48 48"	7500LM 7,500 lumens ^{3,4}			
		3000LM 3,000 lumens			
		4000LM 4,000 lumens			
		5000LM 5,000 lumens			
		7000LM 7,000 lumens ²			
	L96 96"	9000LM 9,000 lumens ²			
10000LM 10,000 lumens ^{2,4}					
6000LM 6,000 lumens					
8000LM 8,000 lumens					
10000LM 10,000 lumens					
		14000LM 14,000 lumens ^{2,4}			
		18000LM 18,000 lumens ^{2,4}			
		20000LM 20,000 lumens ^{2,4}			

Distribution	Voltage	Driver ¹⁴	Color temperature	Coloring rendering index
(Blank) General	MVOLT 120-277V ¹⁰	277 277V	30K 3000 K	80CRI 80 CRI
ND Narrow ^{8,9}	120 120V	347 347V ^{12,13}	35K 3500 K	90CRI 90 CRI
WD Wide ^{8,9}	208 208V ¹¹	480 480V ^{12,13}	40K 4000 K	
AD2 Aisle, 24° off center ^{8,9}	240 240V ¹¹		50K 5000 K	

Options	Finish
PS1050 Emergency battery pack, 10W, CA Title 20 Noncompliant ^{2,11,13,16,17}	WH White
E10WLCP Emergency battery pack, 10W Linear Constant Power, Certified in CA Title 20 MAEDBS ^{2,11,13,16,17}	GALVW Galvanized with white lens end caps
BGTD Generator transfer device, not available with PS1050 ^{13,16,18}	GALVB Galvanized with black lens end caps
OCS 5', 18/3 Reloc selectable One Pass cable ¹⁶	MB Matte black
HA High ambient, for use in ambient temperatures up to 50°C ¹¹	SKGYW Smoke gray with white lens end caps
EPNKO Decorative endplate, no knock out ¹⁹	SKGYB Smoke gray with black lens end caps
OUTCTR Wiring leads pulled through back center of fixture ²⁰	
OUTEND Wiring leads pulled through end of fixture ²¹	
Cord Sets:	
CS1W Straight blade plug, 120V ^{10,16}	
CS3W NEMA twist-lock plug, 120V ^{10,16}	
CS7W Straight blade plug, 277V ^{10,16}	
CS11W NEMA twist-lock plug, 277V ^{10,16}	
CS25W NEMA twist-lock plug, 347V ^{10,16}	
CS97W NEMA twist-lock plug, 480V ^{10,16}	
CS93W 600V SEOW white cord, no plug (no voltage required)	
CS6WG16STOWD5D 6' white cord, 16/5, no plug, includes low voltage dimming wires (no voltage required) ¹⁵	
PLR___ Plug-in wiring, see page 16 for ordering information	nLight® Wired: ^{23,25}
PLR1LVG Plug-in wiring, low voltage dimming ²²	N100 nLight® without lumen management
RRL___ RELOC®-ready luminaire. See page 15 for ordering information	NES7 nLight® nES 7 PIR integral occupancy sensor ²⁶
SPD Surge protection device, provides up to 6kV protection ^{16,20}	NESPDT7 nLight® nES PDT 7 dual technology integral occupancy control ²⁶
USPOM Assembled in the United States	NES7ADCX nLight® nES 7 ADCX PIR integral occupancy sensor with automatic dimming photocell ²⁶
	NESPDT7ADCX nLight® nES PDT 7 dual technology integral occupancy sensor with automatic dimming photocell ²⁶
nLight® Wireless: ^{23,24}	Individual controls: ^{23,25}
NLTAIR2 RES7 nLight® Generation 2 enabled PIR integral occupancy sensor with automatic dimming photocell	MSD7 PIR integral occupancy sensor
NLTAIR2 RES7PDT nLight AIR Generation 2 enabled dual technology integral occupancy sensor with automatic dimming photocell	MSDPDT7 PDT 7 dual technology integral occupancy control
NLTAIR2 RIO No sensor control	MSD7ADC PIR integral occupancy sensor with automatic dimming control photocell
	MSDPDT7ADC PDT integral occupancy sensor with automatic dimming control photocell

See Accessories and footnotes on next page

CLX LED Linear

Accessories: Order as separate catalog number.		
Mounting:		
ZACVH	Aircraft cable 120" (one pair)	THCLX ___ Tong hanger (Must specify color) (one pair) ²⁸
ZAC120	One adjustable aircraft cable with canopy 120" ²⁷	CLXANGBKT ___ Angle bracket, (Must specify color) (one pair) ²⁸
ZACFP120	One adjustable aircraft cable with feed (3 conductor) and canopy, 120" ²⁷	HC36 Hanger chain, 36" (one pair)
ZACFPD120	One adjustable aircraft cable with feed (5 conductor) and canopy 120" ²⁷	Sensors & Controls:
ZAC240	One adjustable aircraft cable with canopy 240" ²⁷	LSXR Sensor Switch ® LSXR occupancy sensor ²⁹
ZACFP240	One adjustable aircraft cable with feed (3 conductor) and canopy, 240" ²⁷	NPP16D nLight® switching/dimming module
ZACFPD240	One adjustable aircraft cable with feed (5 conductor) and canopy 240" ²⁷	NPP16DER nLight® switching/dimming module with emergency relay
SQ_	Stem kit, 2" increments up to 48" ²⁷	rPP20D nLight® air dimming/switching module
		XPA CMRBO XPoint™ Wireless 0-10V relay, external, 55°C max ambient
		Reflectors:
		CLXRW24 ___ Wide decorative 24" reflector, (Must specify color) ³⁰
		CLXRW36 ___ Wide decorative 36" reflector, (Must specify color) ³⁰
		CLXRW48 ___ Wide decorative 48" reflector, (Must specify color) ³⁰
		CLXRW96 ___ Two wide decorative 48" reflectors, (Must specify color) ³⁰
		CLXRWU24 ___ Wide decorative 24" reflector with uplight, (Must specify color) ³⁰
		CLXRWU36 ___ Wide decorative 36" reflector with uplight, (Must specify color) ³⁰
		CLXRWU48 ___ Wide decorative 48" reflector with uplight, (Must specify color) ³⁰
		CLXRWU96 ___ Two wide decorative 48" reflectors with uplight, (Must specify color) ³⁰
		CLXRN24 Narrow 24" reflector, (Must specify color) ³¹
		CLXRN36 Narrow 36" reflector, (Must specify color) ³¹
		CLXRN48 Narrow 48" reflector, (Must specify color) ³¹
		CLXRN96 ___ Two narrow 48" reflectors, (Must specify color) ³¹
		Wireguards:
		WGCLX24 ___ 24" wireguard, (Must specify color) ³²
		WGCLX36 ___ 36" wireguard, (Must specify color) ³²
		WGCLX48 ___ 48" wireguard, XX, (Must specify color) 96" fixture requires two ³²

Notes

- Not available with OUTCTR option.
- Not available with HA option.
- Not available with SEF when ordered in combination with EZ1.
- Not available with NLTAIR2 RES7, NLTAIR2 RES7PDT, or NLTAIR2 RIO.
- Not available with EZ1 when ordered with L24 with 5000LM or L36 with 7500LM.
- When ordered with L24 only available with 1500LM or 2000LM in combination with GZ10 driver. Not for use with THCLX, CLXANGBKT, CLX reflectors or WGCLX accessories. Not available with RDL lens options.
- Only available with general distribution.
- Not available with CLXRN accessories.
- Available L/LENS only.
- Not available with PS1050, E10WLCP, or BGTD.
- Not available with BGTD option.
- Voltage selected utilizes a step-down transformer. Not available with L24 when ordered with N100. Not available with PS1050, E10WLCP or BGTD option.
- Requires SPD option.
- When continuous row mounting, fixtures must all have the same driver selection.
- Not available with Individual controls, nLight wired networking, nLight wireless networking, nLight wireless zone control options.
- Must specify voltage.
- Not available with L24 or L36. Not available with L48 in combination with N100.
- Available with L48 or L96 only. 20 Not available with PS1050 or E10WLCP options. Not available with 208 or 240V. Not available individual controls, nLight Wired, or nLight Wireless options.
- Not available OUTEND.
- Required with PS1050, E10WLCP, BGTD, XAD, or XAD924.
- Not available with PLR options.
- Not available with XPoint, Individual controls, nLight Wired, or nLight Wireless options.
- Sensor housing will be the same color as lens end caps.
- Not available with L24 in combination with 5000LM, not available with L36 in combination with 7500LM, not available with L48 in combination with 10000LM, and not available with L96 in combination with 14000LM, 18000LM, or 20000LM. Not available with PLRs containing low voltage dimming wires.
- Not available with any other control option. Requires EZ1.
- Requires N100 option.
- Ships standard as white.
- Not available with louver, wireguards, wide reflectors.
- More configurations on [LSXR Specification Sheet](#).
- L24 reflector is 22.65", L36 reflector is 34.01", L48 reflector is 46.80", L96 comes with two L48 reflectors.
- For use with L/LENS fixtures only. L24 reflector is 22.75", L36 reflector is 34.20", L48 reflector is 46.85", L96 comes with two L48 reflectors.
- Not for use with CLX wide reflector accessories.

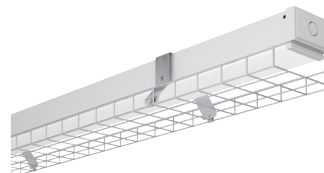
OPTIONS AND ACCESSORIES



Narrow reflector
Ships separately from fixture.
Order as:
CLXRN24 ___
CLXRN36 ___
CLXRN48 ___
CLXRN96 ___



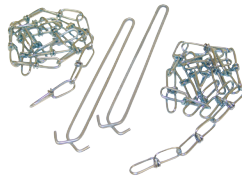
Wide decorative reflector
Ships separately from fixture.
Order as:
CLXRW24 ___
CLXRW36 ___
CLXRW48 ___
CLXRW96 ___



Wireguard
Ships separately from fixture:
96" fixture requires two WGCLX48.
Order as:
WGCLX24 ___
WGCLX36 ___
WGCLX48 ___



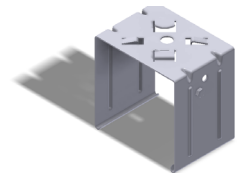
Aircraft Cable with Canopy
Available in 120" or 240"
Order as:
ZAC120
ZAC240



HANGER CHAIN
36" chain with Y hanger. ships as a pair
Order as:
HC36



ZACVH HANGER
10' Aircraft cable with Y hanger.
Order as:
ZACVH



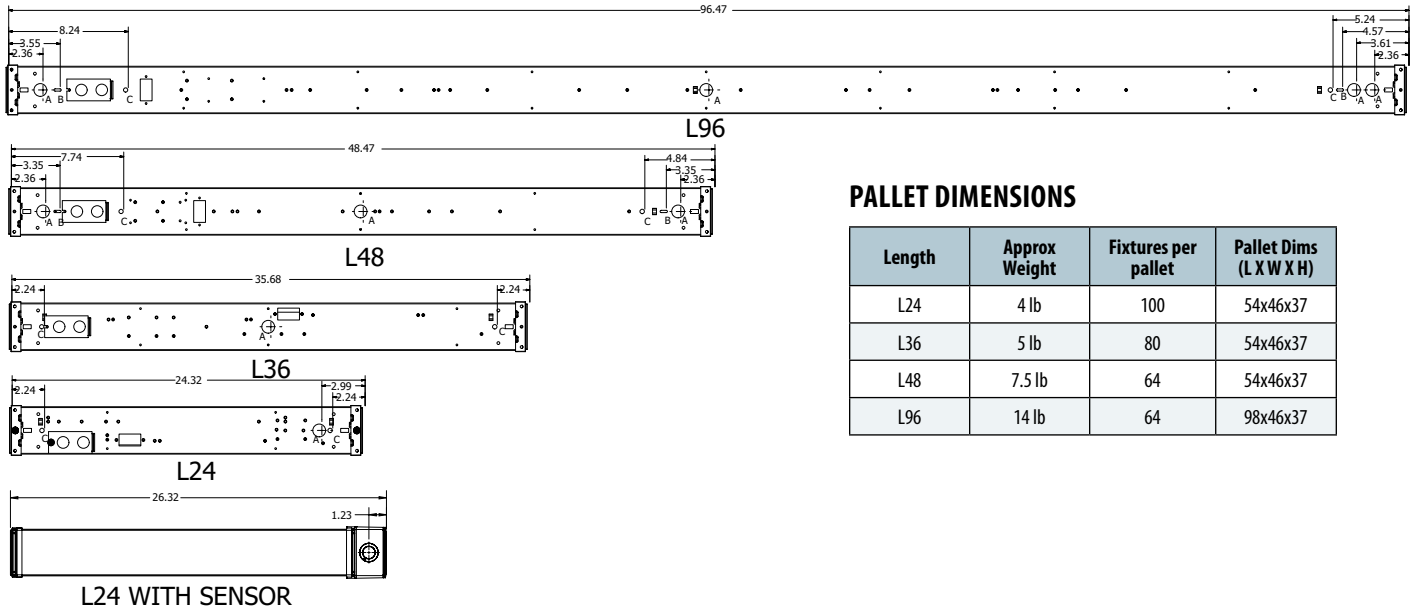
Tong hanger
Ships as a pair
Order As:
THCLX ___

DIMENSIONS

All dimensions are in inches (centimeters) unless otherwise indicated.
Dimensions may vary with options or accessories.

INTEGRATED SENSOR ADDS 2.0 INCHES TO STANDALONE FIXTURE LENGTH
HOUSING END CAP ADDS 0.236 INCHES TO FIXTURE LENGTH PER SIDE. DIMENSIONS BELOW INCLUDE ENDCAPS.

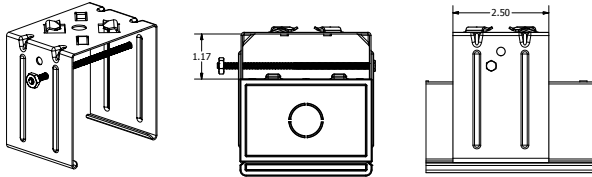
A - 7/8" KNOCK OUT
B - 0.5" by 0.16" SLOT
C - 0.3" DIA HOLE



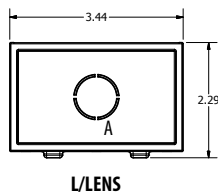
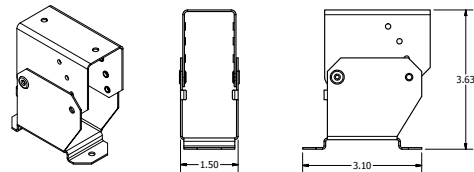
PALLET DIMENSIONS

Length	Approx Weight	Fixtures per pallet	Pallet Dims (L X W X H)
L24	4 lb	100	54x46x37
L36	5 lb	80	54x46x37
L48	7.5 lb	64	54x46x37
L96	14 lb	64	98x46x37

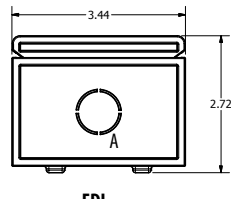
THCLX - SHIPS TWO PER ORDER,
UTILIZES A #8 HEX HEAD SCREW AND NUT
FIXTURE SITS 1.3 INCHES FROM STRUCTURE WHEN MOUNTED



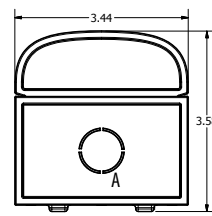
CLXANGBKT - SHIPS TWO PER ORDER
HOLES TO MOUNTING STRUCTURE ARE 0.175" DIA, 2.5" APART
FIXTURE SITS APPROXIMATELY 3.5" FROM STRUCTURE
WHEN MOUNTED HORIZONTAL TO STRUCTURE



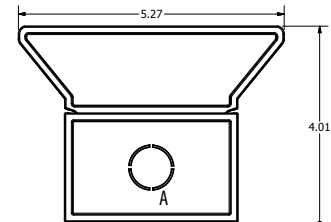
L/LENS



FDL



RDL



WDL

PHOTOMETRICS

See www.lithonia.com.

POWER SENTRY EMERGENCY BATTERY PACKS

		SEF Emergency Lumens	HEF Emergency Lumens
PS1050	Factory installable	1400	1500
E10WLCP	Factory installable	1400	1500
PS1555LCP	Field installable, remote mount only	2000	2100

Note: For emergency lumen output of specific model, please consult factory. One board will be illuminated during emergency operation.

CLX CHARACTERISTICS

Nominal Lumen Package	Length	Wattage								Length	Width	Depth	Comparable Light Source
		Standard efficiency				High efficiency							
		120V	277V	347V	480V	120V	277V	347V	480V				
Dimensions are shown in inches													
2500LM	24"	19.9	19.9	25.9	25.9	18.5	18.5	24.5	24.5	24	3.5	3.75	1-lamp 32WT8, 1-lamp 54W T5HO, 50W HID
5000LM	24"	41.9	41.9	47.9	47.9	37.9	37.9	43.9	43.9	24	3.5	3.75	2-lamp 32WT8, 1-lamp 54W T5HO, 70W HID
3750LM	36"	28.1	28.1	34.1	34.1	27.0	27.0	33.0	33.0	36	3.5	3.75	1-lamp 32WT8, 1-lamp 54W T5HO, 50W HID
7500LM	36"	62.9	62.9	68.9	68.9	56.8	56.8	62.8	62.8	36	3.5	3.75	2-lamp 32WT8, 1-lamp 54W T5HO, 70W HID
5000LM	48"	35.4	35.4	41.4	41.4	32.9	32.9	38.9	38.9	48	3.5	3.75	2-lamp 32WT8, 1-lamp 54W T5HO, 70W HID
10000LM	48"	77.1	77.1	83.1	83.1	70.4	70.4	76.4	76.4	48	3.5	3.75	3-lamp 32WT8, 2-lamp 54W T5HO, 100W HID
10000LM	96"	70.8	70.8	76.8	76.8	65.8	65.8	71.8	71.8	96	3.5	3.75	3-lamp 32WT8, 2-lamp 54W T5HO, 100W HID
20000LM	96"	154.2	154.2	160.2	160.2	140.8	140.8	146.8	146.8	96	3.5	3.75	6-lamp 32WT8, 4-lamp 54W T5HO, 200W HID

AMBIENT TEMPERATURE RATINGS

Driver Package		GZ10			EZ1 or EOHN			Any Driver	
Length	Lumen package	Direct Surface	THCLX/Suspended	HA Option (Direct or Suspended)	Direct Surface	THCLX	Suspended 18"	Xpoint/BGTD Direct Surface	PS1050 Suspended
L24	1500LM	40C	40C	N/A	35C	35C	35C	N/A	N/A
	2000LM	40C	40C		35C	35C	35C		
	2500LM	40C	40C		35C	35C	35C		
	3000LM	40C	40C		40C	40C	40C		
	4500LM	40C	40C		35C	35C	40C		
	5000LM	40C	40C		25C	30C	35C		
L36	2250LM	40C	40C		40C	40C	40C		
	3000LM	40C	40C		40C	40C	40C		
	3750LM	40C	40C		40C	40C	40C		
	5250LM	40C	40C		35C	35C	40C		
	6750LM	30C	40C		35C	35C	40C		
	7500LM	30C	40C		25C	30C	35C		
L48	3000LM	40C	40C	50C	40C	40C	40C	35C	25C
	4000LM	40C	40C	50C	40C	40C	40C		
	5000LM	40C	40C	50C	35C	35C	40C		
	7000LM	30C	40C	N/A	35C	35C	40C		
	9000LM	30C	40C		25C	30C	35C		
	10000LM	30C	40C		25C	30C	35C		
L96	6000LM	40C	40C		50C	35C	35C		
	8000LM	30C	40C	50C	35C	35C	40C		
	10000LM	30C	40C	50C	25C	30C	35C		
	14000LM	40C	40C	N/A	35C	35C	40C		
	18000LM	30C	40C		25C	30C	35C		
	20000LM	30C	40C		25C	30C	35C		

CLX OPERATIONAL DATA

	Length	Nominal lumen package	Performance package	CRI	Delivered Lumens				Wattage	
					Color Temperature					
					3000K	3500K	4000K	5000K		
L/Lens	L24	1500LM	SEF	80	1497	1540	1582	1619	10.85	
				90	1305	1333	1371	1441	10.85	
			HEF	80	1493	1514	1582	1586	10.39	
				90	1220	1237	1301	1301	10.39	
		2000LM	SEF	80	2066	2125	2183	2235	14.48	
				90	1801	1840	1892	1989	14.48	
			HEF	80	2060	2089	2183	2189	13.46	
				90	1684	1708	1796	1796	13.46	
		2500LM	SEF	80	2616	2689	2763	2829	18.41	
				90	2279	2329	2394	2517	18.41	
			HEF	80	2607	2644	2763	2771	17.42	
				90	2132	2161	2273	2273	17.42	
		3500LM	SEF	80	3518	3617	3716	3804	25.83	
				90	3065	3132	3220	3385	25.83	
			HEF	80	3506	3556	3716	3726	25.04	
				90	2867	2907	3057	3057	25.04	
		4500LM	SEF	80	5040	5182	5325	5451	38.7	
				90	4392	4487	4614	4851	38.7	
			HEF	80	5024	5096	5325	5339	34.8	
				90	4108	4165	4380	4380	34.8	
		5000LM	SEF	80	5355	5506	5657	5791	41.48	
				90	4667	4767	4902	5153	41.48	
			HEF	80	5338	5414	5657	5672	38.11	
				90	4364	4425	4653	4653	38.11	
	L36	2250LM	SEF	80	2411	2547	2101	2207	16.36	
				90	2479	2607	2146	2320	16.36	
			HEF	80	2437	2554	1965	2095	15.47	
				90	2547	2403	1992	2095	15.47	
			3000LM	SEF	80	3221	3388	2730	2868	20.8
					90	3310	3133	2789	3015	20.8
		HEF		80	3167	3319	2553	2722	19.98	
			90	3310	3123	2589	2722	19.98		
		3750LM	SEF	80	4123	4337	3495	3671	26.47	
				90	4236	4010	3570	3859	26.47	
			HEF	80	4054	4248	3268	3485	25.09	
		90		4236	3997	3314	3485	25.09		
		5250LM	SEF	80	5545	5833	4700	4937	39.9	
				90	5698	5393	4801	5190	39.9	
			HEF	80	5452	5713	4396	4687	34.3	
		90		5698	5376	4457	4687	34.3		
		6750LM	SEF	80	7081	7448	6001	6303	54.85	
				90	7275	6886	6131	6627	54.85	
			HEF	80	6962	7294	5613	5984	47.97	
		90		7275	6864	5691	5984	47.97		
		7500LM	SEF	80	7756	8158	6574	6905	62.6	
				90	7969	7543	6716	7260	62.6	
			HEF	80	7626	7991	6148	6555	54.02	
		90		7969	7519	6234	6555	54.02		

CLX OPERATIONAL DATA (continued)

	Length	Nominal lumen package	Performance package	CRI	Delivered Lumens				Wattage
					Color Temperature				
					3000K	3500K	4000K	5000K	
L/Lens	L48	3000LM	SEF	80	3019	3104	3190	3265	20.32
				90	2631	2688	2764.	2906.	20.32
			HEF	80	3010	3052	3190	3198	19.01
				90	2461	2495	2624	2624	19.01
		4000LM	SEF	80	4034	4148	4262	4363	27.58
				90	3515	3591	3693	3882	27.58
			HEF	80	4021	4078	4262	4273	24.75
				90	3288	3334	3505	3505	24.75
		5000LM	SEF	80	5047	5189	5332	5458	34.8
				90	4398	4493	4620	4857	34.8
			HEF	80	5031	5102	5332	5346	31.77
				90	4113	4171	4386	4386	31.77
		7000LM	SEF	80	7311	7517	7724	7907	49.05
				90	6371	6509	6692	7036	49.05
			HEF	80	7288	7391	7724	7744	44.67
				90	5959	6042	6353	6353	44.67
		9000LM	SEF	80	9215	9475	9735	9967	63.99
				90	8031	8204	8435	8869	63.99
			HEF	80	9186	9317	9735	9762	58.58
				90	7511	7615	8008	8008	58.58
		10000LM	SEF	80	10299	10590	10880	11139	73.37
				90	8975	9169	9427	9912	73.37
			HEF	80	10266	10412	10880	10910	66.27
				90	8394	8511	8950	8950	66.27
	L96	6000LM	SEF	80	5942	6110	6278	6427	38.15
				90	5178	5290	5439	5719	38.15
			HEF	80	5923	6008	6278	6294	35.54
				90	4843	4911	5164	5164	35.54
		8000LM	SEF	80	7929	8153	8376	8575	52.32
				90	6910	7059	7258	7631	52.32
			HEF	80	7903	8016	8376	8399	48.5
				90	6462	6552	6890	6890	48.5
		10000LM	SEF	80	9808	10085	10362	10608	66.47
				90	8548	8732	8978	9439	66.47
			HEF	80	9777	9916	10362	10390	60.89
				90	7994	8106	8523	8523	60.89
		14000LM	SEF	80	14323	14727	15131	15491	94.78
				90	12482	12752	13111	13784	94.78
			HEF	80	14277	14480	15131	15172	85.96
				90	11674	11836	12447	12447	85.96
		18000LM	SEF	80	18458	18979	19500	19963	128.98
				90	16086	16433	16896	17764	128.98
			HEF	80	18399	18661	19500	19552	116.92
				90	15044	15254	16040	16040	116.92
		20000LM	SEF	80	20386	20962	21537	22048	146.83
				90	17766	18150	18661	19619	146.83
			HEF	80	20321	20610	21537	21595	131.6
				90	16616	16847	17716	17716	131.6

CLX OPERATIONAL DATA (continued)

	Length	Nominal lumen package	Performance package	CRI	Delivered Lumens				Wattage	
					Color Temperature					
					3000K	3500K	4000K	5000K		
RDL	L24	1500LM	SEF	80	1359	1397	1436	1470	10.85	
				90	1184	1210	1244	1308	10.85	
			HEF	80	1355	1374	1436	1439	10.39	
				90	1107	1123	1181	1181	10.39	
		2000LM	SEF	80	1875	1928	1981	2028	14.48	
				90	1634	1670	1717	1805	14.48	
			HEF	80	1869	1896	1981	1987	13.46	
				90	1528	1550	1630	1630	13.46	
		2500LM	SEF	80	2374	2441	2508	2567	18.41	
				90	2069	2113	2173	2284	18.41	
			HEF	80	2366	2400	2508	2514	17.42	
				90	1935	1962	2063	2063	17.42	
		3500LM	SEF	80	3192	3282	3372	3452	25.83	
				90	2782	2842	2922	3072	25.83	
			HEF	80	3182	3227	3372	3381	25.04	
				90	2602	2638	2774	2774	25.04	
		4500LM	SEF	80	4574	4703	4832	4947	38.7	
				90	3986	4072	4187	4402	38.7	
			HEF	80	4560	4624	4832	4845	34.8	
				90	3728	3780	3975	3975	34.8	
		5000LM	SEF	80	4860	4997	5134	5256	41.48	
				90	4235	4327	4448	4677	41.48	
			HEF	80	4844	4913	5134	5148	38.11	
				90	3961	4016	4223	4223	38.11	
	L36	2250LM	SEF	80	2188	2250	2311	2366	16.36	
				90	1907	1948	2003	2106	16.36	
			HEF	80	2181	2212	2311	2318	15.47	
				90	1783	1808	1901	1901	15.47	
			3000LM	SEF	80	2843	2924	3004	3075	20.8
					90	2478	2531	2603	2736	20.8
		HEF		80	2834	2875	3004	3012	19.98	
				90	2317	2350	2471	2471	19.98	
		3750LM	SEF	80	3639	3742	3845	3936	26.47	
				90	3171	3240	3331	3502	26.47	
			HEF	80	3628	3679	3845	3855	25.09	
		90		2966	3007	3162	3162	25.09		
		5250LM	SEF	80	4895	5033	5171	5294	39.9	
				90	4265	4357	4480	4710	39.9	
			HEF	80	4879	4948	5171	5185	34.3	
		90		3989	4045	4253	4253	34.3		
		6750LM	SEF	80	6250	6426	6602	6759	54.85	
				90	5446	5564	5721	6014	54.85	
			HEF	80	6230	6318	6602	6620	47.97	
				90	5094	5165	5431	5431	47.97	
		7500LM	SEF	80	6846	7039	7232	7404	62.6	
				90	5966	6095	6266	6588	62.6	
			HEF	80	6824	6921	7232	7252	54.02	
				90	5580	5657	5949	5949	54.02	

CLX OPERATIONAL DATA (continued)

	Length	Nominal lumen package	Performance package	CRI	Delivered Lumens				Wattage	
					Color Temperature					
					3000K	3500K	4000K	5000K		
RDL	L48	3000LM	SEF	80	2740	2817	2895	2963	20.32	
				90	2388	2439	2508	2637	20.32	
			HEF	80	2731	2770	2895	2902	19.01	
				90	2233	2264	2381	2381	19.01	
		4000LM	SEF	80	3661	3764	3868	3959	27.58	
				90	3190	3259	3351	3523	27.58	
			HEF	80	3649	3701	3868	3878	24.75	
				90	2984	3025	3181	3181	24.75	
		5000LM	SEF	80	4580	4710	4839	4954	34.8	
				90	3992	4078	4193	4408	34.8	
			HEF	80	4566	4631	4839	4852	31.77	
				90	3733	3785	3980	3980	31.77	
		7000LM	SEF	80	6635	6822	7009	7176	49.05	
				90	5782	5907	6073	6385	49.05	
			HEF	80	6614	6708	7009	7028	44.67	
				90	5408	5483	5766	5766	44.67	
		9000LM	SEF	80	8363	8599	8835	9045	63.99	
				90	7288	7446	7655	8049	63.99	
			HEF	80	8336	8455	8835	8859	58.58	
				90	6816	6911	7268	7268	58.58	
		10000LM	SEF	80	9347	9611	9874	10109	73.37	
				90	8145	8321	8556	8995	73.37	
			HEF	80	9317	9450	9874	9901	66.27	
				90	7618	7724	8122	8122	66.27	
	L96	6000LM	SEF	80	5393	5545	5697	5832	38.15	
				90	4700	4801	4936	5190	38.15	
			HEF	80	5375	5452	5697	5712	35.54	
				90	4395	4457	4686	4686	35.54	
			8000LM	SEF	80	7196	7399	7602	7782	52.32
					90	6271	6406	6587	6925	52.32
		HEF		80	7173	7275	7602	7622	48.5	
			90	5865	5946	6253	6253	48.5		
		10000LM	SEF	80	8902	9153	9404	9627	66.47	
				90	7757	7925	8148	8567	66.47	
			HEF	80	8873	8999	9404	9429	60.89	
		90		7255	7356	7735	7735	60.89		
		14000LM	SEF	80	12999	13366	13732	14058	94.78	
				90	11328	11573	11899	12510	94.78	
			HEF	80	12957	13142	13732	13769	85.96	
		90		10594	10742	11296	11296	85.96		
		18000LM	SEF	80	16751	17224	17697	18117	128.98	
				90	14598	14913	15334	16121	128.98	
			HEF	80	16698	16936	17697	17744	116.92	
		90		13653	13843	14557	14557	116.92		
		20000LM	SEF	80	18501	19023	19545	20009	146.83	
				90	16123	16471	16935	17805	146.83	
			HEF	80	18442	18705	19545	19598	131.6	
		90		15079	15290	16078	16078	131.6		

CLX OPERATIONAL DATA (continued)

	Length	Nominal lumen package	Performance package	CRI	Delivered Lumens				Wattage	
					Color Temperature					
					3000K	3500K	4000K	5000K		
FDL	L24	1500LM	SEF	80	1320	1358	1395	1428	10.85	
				90	1151	1175	1208	1271	10.85	
			HEF	80	1316	1335	1395	1399	10.39	
				90	1076	1091	1147	1147	10.39	
		2000LM	SEF	80	1822	1874	1925	1971	14.48	
				90	1588	1622	1668	1754	14.48	
			HEF	80	1816	1842	1925	1930	13.46	
				90	1485	1506	1583	1583	13.46	
		2500LM	SEF	80	2306	2371	2436	2494	18.41	
				90	2010	2053	2111	2219	18.41	
			HEF	80	2299	2332	2436	2443	17.42	
				90	1880	1906	2004	2004	17.42	
		3500LM	SEF	80	3102	3189	3277	3354	25.83	
				90	2703	2761	2839	2985	25.83	
			HEF	80	3092	3136	3277	3285	25.04	
				90	2528	2563	2695	2695	25.04	
		4500LM	SEF	80	4444	4570	4695	4807	38.7	
				90	3873	3957	4068	4277	38.7	
			HEF	80	4430	4493	4695	4708	34.8	
				90	3622	3673	3862	3862	34.8	
		5000LM	SEF	80	4722	4855	4988	5107	41.48	
				90	4115	4204	4322	4544	41.48	
			HEF	80	4707	4774	4988	5002	38.11	
				90	3848	3902	4103	4103	38.11	
	L36	2250LM	SEF	80	2126	2186	2246	2299	16.36	
				90	1852	1892	1946	2046	16.36	
			HEF	80	2119	2149	2246	2252	15.47	
				90	1732	1757	1847	1847	15.47	
			3000LM	SEF	80	2762	2840	2918	2988	20.8
					90	2407	2459	2529	2659	20.8
		HEF		80	2754	2793	2918	2926	19.98	
			90	2251	2283	2401	2401	19.98		
		3750LM	SEF	80	3536	3636	3735	3824	26.47	
				90	3081	3148	3237	3403	26.47	
			HEF	80	3525	3575	3735	3745	25.09	
		90		2882	2922	3073	3073	25.09		
		5250LM	SEF	80	4755	4890	5024	5143	39.9	
				90	4144	4234	4353	4577	39.9	
			HEF	80	4740	4808	5024	5037	34.3	
		90		3876	3930	4132	4132	34.3		
		6750LM	SEF	80	6072	6243	6415	6567	54.85	
				90	5292	5406	5558	5844	54.85	
			HEF	80	6053	6139	6415	6432	47.97	
		90		4949	5018	5276	5276	47.97		
		7500LM	SEF	80	6651	6839	7027	7194	62.6	
				90	5796	5922	6088	6401	62.6	
			HEF	80	6630	6725	7027	7046	54.02	
		90		5421	5497	5780	5780	54.02		

CLX OPERATIONAL DATA (continued)

	Length	Nominal lumen package	Performance package	CRI	Delivered Lumens				Wattage
					Color Temperature				
					3000K	3500K	4000K	5000K	
FDL	L48	3000LM	SEF	80	2662	2737	2812	2879	20.32
				90	2320	2370	2437	2562	20.32
			HEF	80	2654	2691	2812	2820	19.01
				90	2170	2200	2313	2313	19.01
		4000LM	SEF	80	3557	3657	3758	3847	27.58
				90	3100	3167	3256	3423	27.58
			HEF	80	3546	3596	3758	3768	24.75
				90	2899	2939	3091	3091	24.75
		5000LM	SEF	80	4450	4576	4701	4813	34.8
				90	3878	3962	4073	4283	34.8
			HEF	80	4436	4499	4701	4714	31.77
				90	3627	3678	3867	3867	31.77
		7000LM	SEF	80	6446	6628	6810	6972	49.05
				90	5618	5739	5901	6204	49.05
			HEF	80	6426	6517	6810	6829	44.67
				90	5254	5327	5602	5602	44.67
		9000LM	SEF	80	8126	8355	8584	8788	63.99
				90	7081	7234	7438	7820	63.99
			HEF	80	8100	8215	8584	8607	58.58
				90	6623	6715	7061	7061	58.58
		10000LM	SEF	80	9081	9338	9594	9822	73.37
				90	7914	8085	8313	8740	73.37
			HEF	80	9052	9181	9594	9620	66.27
				90	7402	7505	7892	7892	66.27
	L96	6000LM	SEF	80	5240	5387	5535	5667	38.15
				90	4566	4665	4796	5042	38.15
			HEF	80	5223	5297	5535	5550	35.54
				90	4270	4330	4553	4553	35.54
		8000LM	SEF	80	6991	7189	7386	7561	52.32
				90	6093	6224	6400	6728	52.32
			HEF	80	6969	7068	7386	7406	48.5
				90	5698	5778	6075	6075	48.5
		10000LM	SEF	80	8649	8893	9137	9354	66.47
				90	7537	7700	7917	8323	66.47
			HEF	80	8621	8744	9137	9161	60.89
				90	7049	7147	7516	7516	60.89
		14000LM	SEF	80	12630	12986	13342	13659	94.78
				90	11006	11244	11561	12154	94.78
			HEF	80	12589	12768	13342	13378	85.96
				90	10293	10437	10975	10975	85.96
		18000LM	SEF	80	16276	16735	17194	17602	128.98
				90	14184	14490	14898	15663	128.98
			HEF	80	16223	16454	17194	17240	116.92
				90	13265	13450	14143	14143	116.92
		20000LM	SEF	80	17976	18483	18990	19441	146.83
				90	15665	16004	16454	17300	146.83
			HEF	80	17918	18173	18990	19041	131.6
				90	14651	14855	15621	15621	131.6

CLX OPERATIONAL DATA (continued)

	Length	Nominal lumen package	Performance package	CRI	Delivered Lumens				Wattage	
					Color Temperature					
					3000K	3500K	4000K	5000K		
WDL	L24	1500LM	SEF	80	1377	1415	1454	1489	10.85	
				90	1200	1226	1260	1325	10.85	
			HEF	80	1372	1392	1454	1458	10.39	
				90	1122	1138	1196	1196	10.39	
		2000LM	SEF	80	1900	1953	2007	2055	14.48	
				90	1656	1691	1739	1828	14.48	
			HEF	80	1894	1921	2007	2012	13.46	
				90	1548	1570	1651	1651	13.46	
		2500LM	SEF	80	2405	2472	2540	2601	18.41	
				90	2095	2141	2201	2314	18.41	
			HEF	80	2397	2431	2540	2547	17.42	
				90	1960	1987	2090	2090	17.42	
		3500LM	SEF	80	3234	3325	3416	3497	25.83	
				90	2818	2879	2960	3112	25.83	
			HEF	80	3223	3269	3416	3426	25.04	
				90	2636	2672	2810	2810	25.04	
		4500LM	SEF	80	4634	4765	4895	5012	38.7	
				90	4038	4125	4242	4459	38.7	
			HEF	80	4619	4685	4895	4908	34.8	
				90	3777	3829	4027	4027	34.8	
		5000LM	SEF	80	4923	5062	5201	5324	41.48	
				90	4290	4383	4506	4738	41.48	
			HEF	80	4907	4977	5201	5215	38.11	
				90	4012	4068	4278	4278	38.11	
	L36	2250LM	SEF	80	2216	2279	2341	2397	16.36	
				90	1931	1973	2029	2133	16.36	
			HEF	80	2209	2241	2341	2348	15.47	
				90	1806	1832	1926	1926	15.47	
			3000LM	SEF	80	2880	2962	3043	3115	20.8
					90	2510	2564	2636	2772	20.8
		HEF		80	2871	2912	3043	3051	19.98	
			90	2347	2380	2503	2503	19.98		
		3750LM	SEF	80	3687	3791	3895	3987	26.47	
				90	3213	3282	3375	3548	26.47	
			HEF	80	3675	3727	3895	3905	25.09	
		90		3005	3047	3204	3204	25.09		
		5250LM	SEF	80	4958	5098	5238	5362	39.9	
				90	4321	4414	4539	4772	39.9	
			HEF	80	4942	5013	5238	5252	34.3	
		90		4041	4097	4309	4309	34.3		
		6750LM	SEF	80	6331	6510	6688	6847	54.85	
				90	5517	5636	5795	6093	54.85	
			HEF	80	6311	6401	6688	6706	47.97	
		90		5160	5232	5502	5502	47.97		
		7500LM	SEF	80	6935	7131	7326	7500	62.6	
				90	6044	6174	6348	6674	62.6	
			HEF	80	6913	7011	7326	7346	54.02	
		90		5652	5731	6027	6027	54.02		

CLX OPERATIONAL DATA (continued)

	Length	Nominal lumen package	Performance package	CRI	Delivered Lumens				Wattage
					Color Temperature				
					3000K	3500K	4000K	5000K	
WDL	L48	3000LM	SEF	80	2776	2854	2932	3002	20.32
				90	2419	2471	2541	2671	20.32
			HEF	80	2767	2806	2932	2940	19.01
				90	2262	2294	2412	2412	19.01
		4000LM	SEF	80	3709	3813	3918	4011	27.58
				90	3232	3302	3395	3569	27.58
			HEF	80	3697	3749	3918	3929	24.75
				90	3023	3065	3223	3223	24.75
		5000LM	SEF	80	4640	4771	4902	5018	34.8
				90	4044	4131	4247	4465	34.8
			HEF	80	4625	4691	4902	4915	31.77
				90	3782	3834	4032	4032	31.77
		7000LM	SEF	80	6721	6911	7101	7269	49.05
				90	5857	5984	6152	6469	49.05
			HEF	80	6700	6795	7101	7120	44.67
				90	5478	5554	5841	5841	44.67
		9000LM	SEF	80	8472	8711	8950	9163	63.99
				90	7383	7543	7755	8154	63.99
			HEF	80	8445	8565	8950	8974	58.58
				90	6905	7001	7362	7362	58.58
		10000LM	SEF	80	9469	9736	10003	10240	73.37
				90	8252	8430	8667	9112	73.37
			HEF	80	9438	9573	10003	10030	66.27
				90	7717	7825	8228	8228	66.27
	L96	6000LM	SEF	80	5463	5617	5771	5908	38.15
				90	4761	4864	5001	5258	38.15
			HEF	80	5445	5523	5771	5787	35.54
				90	4452	4515	4747	4747	35.54
		8000LM	SEF	80	7289	7495	7701	7884	52.32
				90	6353	6490	6672	7015	52.32
			HEF	80	7266	7370	7701	7722	48.5
				90	5941	6024	6334	6334	48.5
		10000LM	SEF	80	9017	9272	9526	9752	66.47
				90	7858	8028	8254	8678	66.47
			HEF	80	8988	9117	9526	9552	60.89
				90	7349	7452	7836	7836	60.89
		14000LM	SEF	80	13168	13540	13911	14241	94.78
				90	11476	11723	12054	12673	94.78
			HEF	80	13126	13313	13911	13949	85.96
				90	10732	10882	11443	11443	85.96
		18000LM	SEF	80	16970	17448	17927	18353	128.98
				90	14788	15108	15533	16331	128.98
			HEF	80	16915	17156	17927	17975	116.92
				90	13831	14024	14746	14746	116.92
		20000LM	SEF	80	18742	19271	19800	20270	146.83
				90	16333	16686	17156	18037	146.83
			HEF	80	18682	18948	19800	19853	131.6
				90	15276	15489	16287	16287	131.6

RRL - RELOC®-Ready Luminaire

- RRL connectors can be used with Quick-Flex®, System 820 and OnePass® systems.
- Load side of connector factory installed to luminaire.
- 4-pole mating connector with push-in terminations allows for simple installation.
- Touch-safe design on both halves meets UL/CSA requirement.
- Wiping contact design allows safe disconnect under load.



ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

Example: RRLA

Series	Wiring instructions
RRL RELOC®-ready luminaire	A Hot conductor wired to position #1 (phase A) B Hot conductor wired to position #2 (phase B) C Hot conductor wired to position #3 (phase C) ¹

Compatible RELOC® Cables for Industrial Luminaires (ordered and shipped separately)



Notes

¹ C, ABE, and C12S options are not used with Quick-Flex QFC, QSFC, QPT, and QD.

PRODUCT INFORMATION

Advanced plug-in system with two-circuit capability. Available on industrial and strip products and a variety of architectural products mounted in continuous rows. 1, 2, 3 and 4-lamp fixtures. PLR22 (2-circuit) and crossover harness switches hot circuit serving next fixture in row. Reduces fixture types on job for alternating circuit applications (see example below.)

Easy one-step installation, saves up to 35% on labor costs. Expanded switching flexibility helps save energy.

Rows can be 50% longer with two-circuit systems. Polarized, lock-together nylon connectors prevent miswiring in the field. #12 THHN conductor, rated 600V, 90°C. White neutral wire included. Grounding accomplished by fixture in-row connectors.

CSA certified systems available with up to 2 circuits. G ground required.

Note: Specifications subject to change without notice.



Wiring

PLR

Advanced 1 or 2-Circuit Plug-In

ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

Series	Number of hot wires	Branch circuits	Dimming	Ground
PLR	(blank) Not required for 22	<u>Circuits to which ballast is connected</u>	LV Low-voltage dimming	G Ground
PLR22	1 Black	(blank) Not required for 22		
	2 Black and red	A Black wire		
		B Red wire		
		<u>Emergency circuit connected</u>		
		(blank) No emergency circuit		
		ELA Emergency circuit wired to black wire		
		ELB Emergency circuit wired to red wire		

Typical Applications

- Multiple-circuit and single-circuit for longer continuous rows
- Multiple-circuit with alternating fixtures on separate circuits and 2-circuit (PLR 22)
- Multiple circuit with night-lights located along row as desired