

City of Madison
Planning Division
Madison Municipal Building, Suite 017
215 Martin Luther King, Jr. Blvd.
P.O. Box 2985
Madison, WI 53701-2985

RE: Letter of Intent – Conditional Use Application for Installation of Outdoor Lighting

Applicant

Edgewood High School of the Sacred Heart ("we, us or our")

Name of Project

Goodman Athletic Complex - Conditional Use Permit for Outdoor Lighting

Project Schedule

Construction beginning summer 2020 for completion by fall 2020.

Description of Existing Conditions and Zoning

The Goodman Athletic Complex is an outdoor athletic and recreation area located at 2219 Monroe Street and depicted in the photographs attached as Exhibit A (the "Field"). We have a long history of using the Field to host activities related to our mission. Our sister organizations (Edgewood College and Edgewood Campus School), as well as many other community and school organizations, have also used the Field for their benefit. The most recent improvements to the Field were installed in 2015 and include upgraded field turf and track and field facilities. Parking for activities at the Field are provided at immediately adjacent on-site surface parking lots containing approximately 561 surface parking stalls with additional on-site parking also available. The seating capacity at the Field is 450.

The Field is located in the Campus Institutional District (CI). Among other uses, the CI District allows as permitted secondary uses both "indoor and outdoor sports and recreational facilities" and "other uses related to the institution's primary mission."

Project Team

Property Owner
and Applicant: Edgewood High School of the Sacred Heart, Inc.
Attn: Michael Elliott, President
2219 Monroe St.
Madison, WI 53711

Contractor: Musco Lighting
100 1st Ave. W

Oskaloosa, IA 52577

Conditional Use Permit Request for Installation of Outdoor LightingSpecific Request:

We are proposing the construction and installation at the Field of either, (x) four (4) eighty (80) foot light poles, or (y) four (4) sixty-eight (68) foot light poles, each utilizing LED lighting fixtures as more fully described in the photometrics attached as Exhibit B (the "Field Lighting").

The Field Lighting would allow the Field to be safely utilized into the evening hours during times of the year when natural light is insufficient. The existing permitted uses described above are often already conducted during the evening hours in late spring, summer and early fall when natural light is sufficient. The Field Lighting would also create flexibility by allowing activities currently held before school hours to take place later in the day. No new uses are being requested. No changes to the existing grading or landscaping are being proposed.

We have worked closely with Musco Lighting to design the Field Lighting to comply with the requirements of the City's Outdoor Lighting Ordinance (Chapter 10.085 of the Madison Municipal Code). The Field Lighting consists of the same LED lighting and technology that has been recently approved by the City of Madison at Burr Jones Park in 2019 (8, 70' poles), Madison Memorial High School in 2018 (12, 80' poles), and the UW Tennis facilities in 2018 (10, 60' poles). As noted as part of the City's press release for Burr Jones Park, this type of LED lighting and technology minimizes light spread, glare, and sky glow, is designed to be dark sky compliant, and focuses the light on the facility and away from adjoining streets.

While both the 80' and 68' foot light pole options comply with the requirements of Madison's Outdoor Lighting Ordinance, the 80' poles allow lighting to have a more direct downward angle resulting in the least light spill while the reduced height of the 68' poles allow a more visually obstructed view of the physical improvements from adjacent properties. We do not have a preference between the two options.

Existing Condition:

Currently, the Field does not contain outdoor field lighting. See Exhibit A for photographs of Field.

- Existing screening and adjacent traffic activity:
 - The Field is framed on two sides by our campus and Woodrow Street and Monroe Street on the other two sides.
 - The Field has significant screening along Woodrow Street and Monroe Street in the form of both a wall of Evergreen trees and an earthen embankment.
 - Monroe Street, a commercial corridor averaging approximately 15,000 cars a day with approximately 1,700 cars between the hours of 7 pm and 10 pm, also acts as an additional natural barrier with neighboring properties. Peak volumes are between 4 pm and 6 pm with approximately 1,200 to 1,300 cars per hour.
 - See 2015 Traffic Volume Report:
<https://www.cityofmadison.com/trafficEngineering/documents/2015TrafficVolumeReport.pdf>

Proposed Utilization of Lights and Hours of Operation

This application is for the installation and operation of the Field Lighting. As noted above, no new uses of the Field are being proposed or requested. The Field Lighting will allow existing permitted uses to safely extend into the evening hours. These permitted uses currently take place during both daytime and evening hours when natural light is sufficient. These permitted uses are as allowed in the CI District and include a broad range of activities related to our mission and the missions of Edgewood College, Edgewood Campus School, their sister parochial schools, our historical practice of allowing athletic teams affiliated with the Madison Metropolitan School District and the University of Wisconsin, particularly West High School, and other area youth teams to use the Field at no cost. We do not intend to lease the use of the Field Lighting to adult leagues or rent the use of the Field Lighting to generate profits.

We will moderate the use of the Field Lighting by the time of year, time of sunset,¹ and on-field light conditions. Only our authorized personnel will have access to the master control panel to operate the Field Lighting. The Field Lighting technology will allow automatic turn-off at 10:00 pm (Sunday thru Thursday) and 11:00 pm (Friday and Saturday) unless manually turned-off sooner to eliminate the Field Lighting being accidentally left on. We anticipate Field Lighting will be turned-off sooner than the automatic turn-off on most nights and intend to do so immediately following the completion of practices or other activities on the Field. Field Lighting use may exceed the turn-off times to accommodate specially scheduled activities including, but not limited to, playoff games, games requiring overtime periods, weather delays, or health and safety delays.

The Field Lighting will contain multiple pole power switches to allow independent turn-off of lighting facing Woodrow Street immediately after competitions are complete. The Field Lighting facing our campus would remain on to allow safe exiting from the Field for attendees. Similar to other schools, the Field Lighting will also incorporate separate switches to limit the use of "punt lighting" only during football competitions.²

Additional Items for Consideration

Please note that this application does not include any request for sound upgrades, bathrooms, concessions, enhanced bleacher seating, changes to the existing grade or landscaping, and therefore these items are not relevant to the request for Field Lighting. Nevertheless, below please find some additional detail for your consideration:

- The Field Lighting will not create additional noise, however, we will continue to comply with all City ordinances including noise ordinances.
- As noted above, ample parking for both day and night events is located on our campus.
- No adverse impact to the environment is anticipated to result from the Field Lighting. See examples of outdoor lighting throughout the City including the Duane F. Bowman Park athletic fields immediately adjacent to UW Arboretum and the Vilas Park ice rinks immediately adjacent to Lake Wingra.
- We have reestablished communication with our Alder and are committed to a long-term, good faith dialogue to address opportunities and concerns raised by our neighbors and related to

¹ Note: Annual approximate sunset times: April 1st 7:23 pm, May 1st 7:58 pm, June 1st 8: 30 pm, September 1st 7:32 pm, October 1st 6:38 pm, November 1st 5:49 pm.

² Note: Attached photometrics include "punt lighting" but such lighting will be utilized during football games only further reducing any light spill shown on the photometrics.

future use of the Field Lighting.

Conditional Use Standards and Conclusion

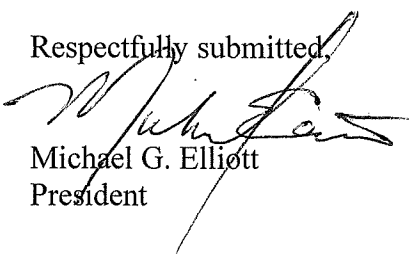
The recent rezoning of the Field to the CI District was based on the public health, safety and welfare³ and memorialized that the existing uses of the Field are permitted regardless of the time of day or night, these uses include both "indoor and outdoor sports and recreational facilities" and "other uses related to the institution's primary mission." These permitted uses, combined with the attached photometrics demonstrating compliance with the objective criteria of the City's Outdoor Lighting Ordinance, provides substantial evidence that the establishment, maintenance or operation of the Field Lighting will also not be detrimental to or endanger the public health, safety, or general welfare.⁴

Similarly, the multiple examples of unrestricted facilities within the City, often with less screening, more light poles, and with fewer technological enhancements to minimize impacts on adjacent properties, provides substantial evidence that the uses, values and enjoyment of other property in the neighborhood for purposes already established will not be substantially impaired or diminished in any foreseeable manner by the approval of the Field Lighting.⁵

While we believe the Field Lighting will be a great asset to our community, we understand that some may have reservations about this change and have worked hard to design the Field Lighting to address concerns currently known to us. We are also very committed to having a regular and on-going dialogue with our neighborhood to address new concerns as they may arise and welcome community feedback on additional opportunities.

Based on the above, we believe our application meets the standards for a conditional use permit to install Field Lighting. While the conditions we propose for use of our Field Lighting may exceed existing restrictions placed on outdoor lighting at other comparable locations in the City, we feel they still treat us equally and provide us the opportunity to fulfill our mission to educate the whole student, teach personal responsibility, and instill and promote the Sinsinawa Dominican values. It is our sincere hope that the Field Lighting will also enhance the tremendous community asset the Goodman Athletic Complex has become to our neighborhood and the greater Madison community.

Respectfully submitted,



Michael G. Elliott
President

³ See Rezoning Approval Standards: Madison Ordinance 28.182(6).

⁴ See Conditional Use Approval Standards: Madison Ordinance 28.183(6)(a)1.

⁵ See Conditional Use Approval Standards: Madison Ordinance 28.183(6)(a)3.

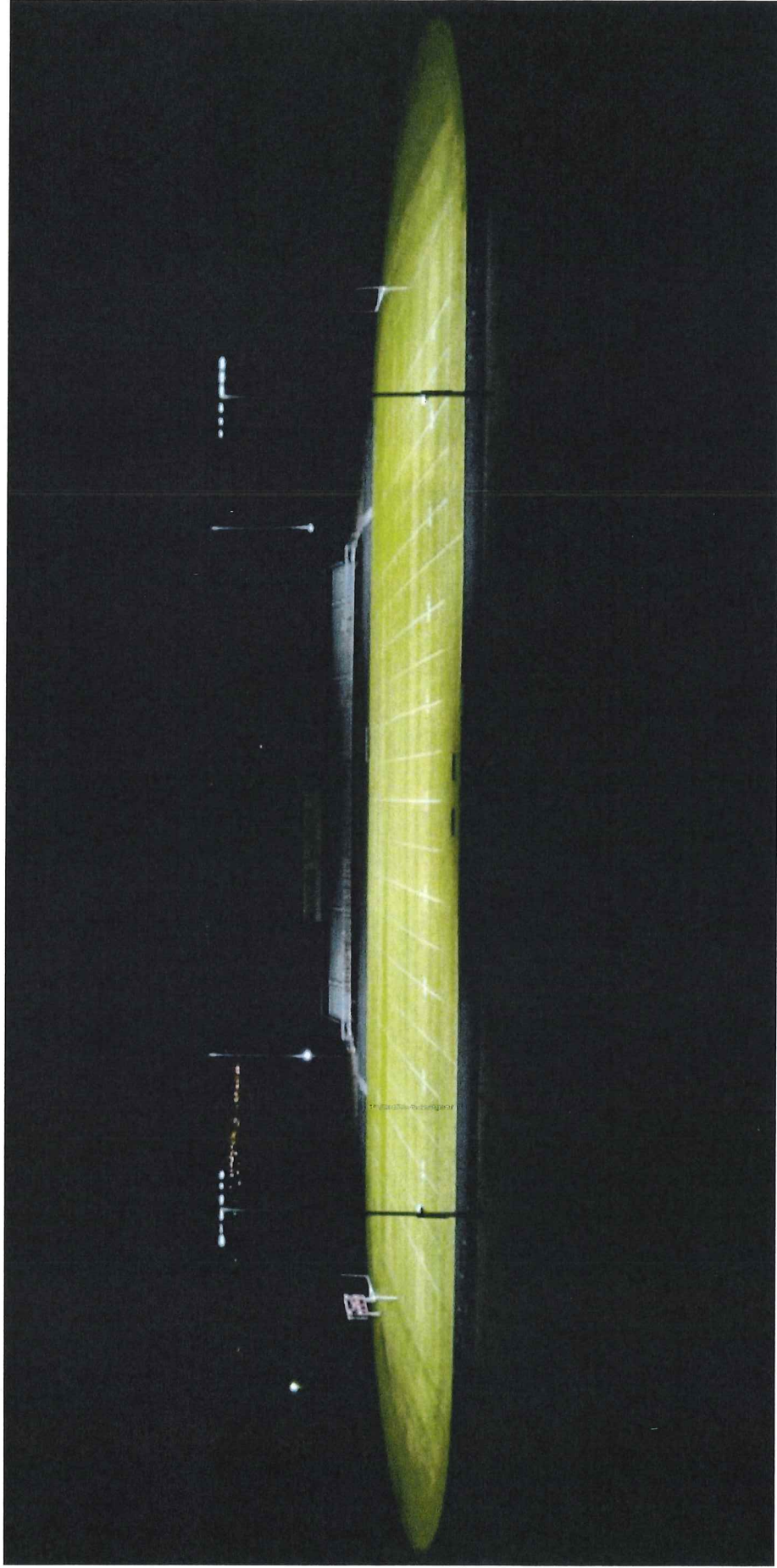




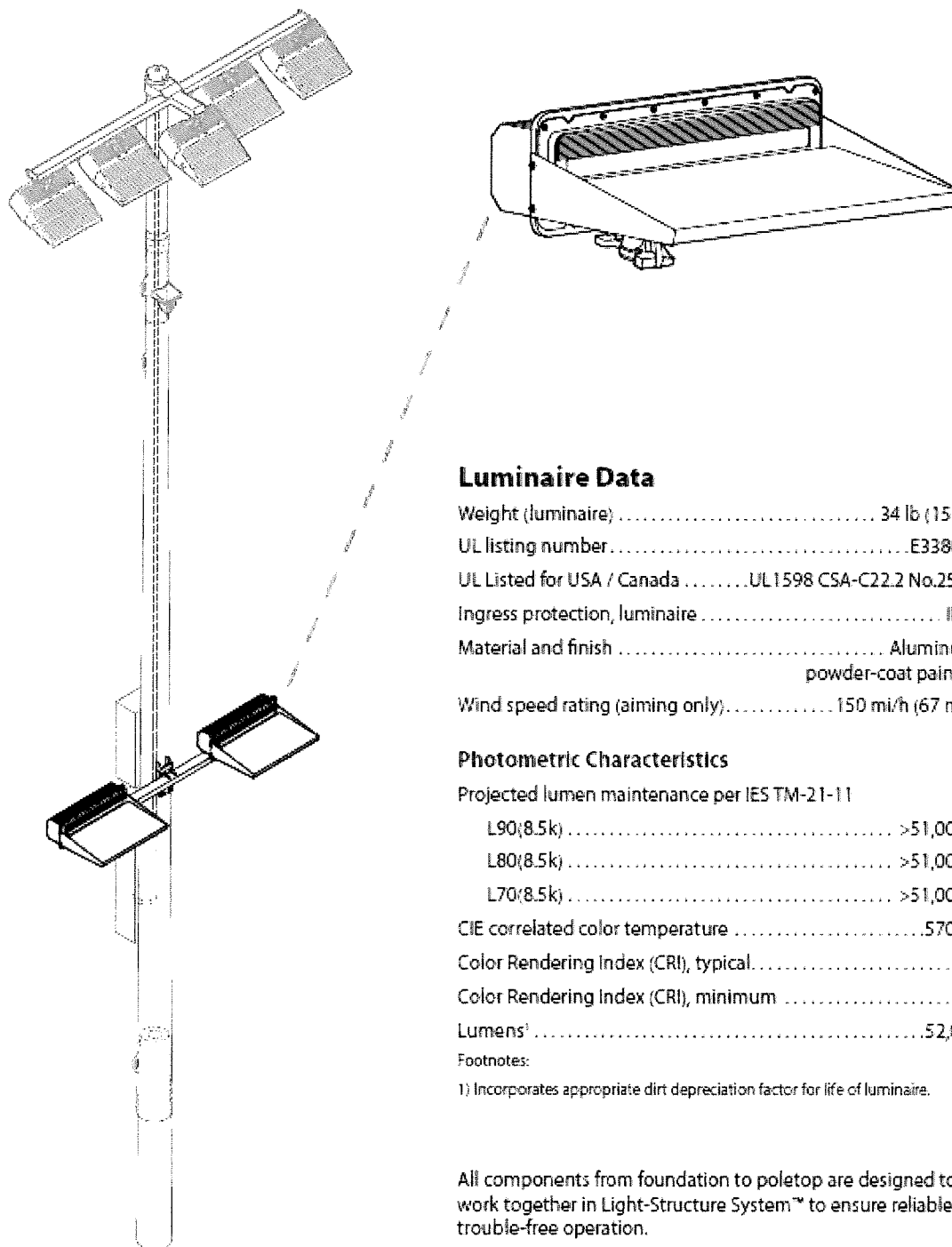


Exhibit B

Photometrics for 80' and 68' options and Example Photo of the
Field Lighting



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(8.5k)	>51,000 h
L80(8.5k)	>51,000 h
L70(8.5k)	>51,000 h
CIE correlated color temperature	5700 K
Color Rendering Index (CRI), typical	75
Color Rendering Index (CRI), minimum	70
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.

Datasheet: Light-Structure System™

Luminaire and Driver Components – TLC-BT-575

Driver Data

Electrical Data

Rated wattage†

Per driver..... 575 W

Per luminaire..... 575 W

Number of luminaires per driver..... 1

Starting (inrush) current..... <40 A, 256 μ

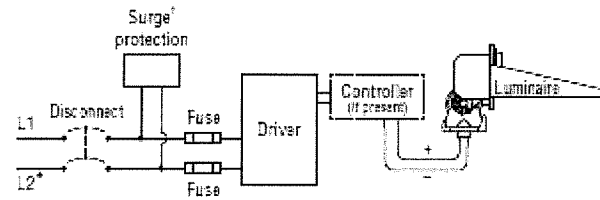
Fuse rating..... 15 A

UL ambient temperature rating,
 electrical components enclosure 50°C (122°F)

Ingress protection,
 electrical components enclosure IP54

Efficiency 95%

Typical Wiring



* If L2 (poor) is neutral then not switched or fused.

† Not present if indoor installation.

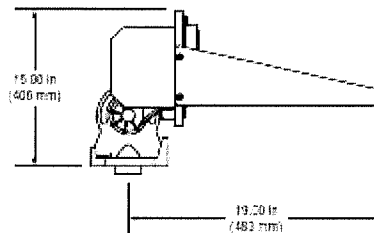
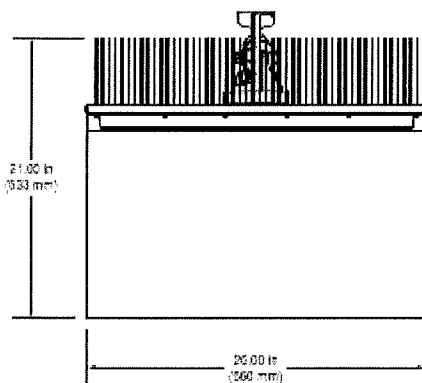
	200 Vac 50/60 Hz	208 Vac 60 Hz	220 Vac 50/60 Hz	230 Vac 50 Hz	240 Vac 50/60 Hz	277 Vac 60 Hz	347 Vac 60 Hz	380 Vac 50/60 Hz	480 Vac 50 Hz	415 Vac 50 Hz	480 Vac 60 Hz
Max operating current*	3.30 A	3.17 A	3.00 A	2.87 A	2.75 A	2.38 A	1.90 A	1.74 A	1.65 A	1.59 A	1.38 A

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.

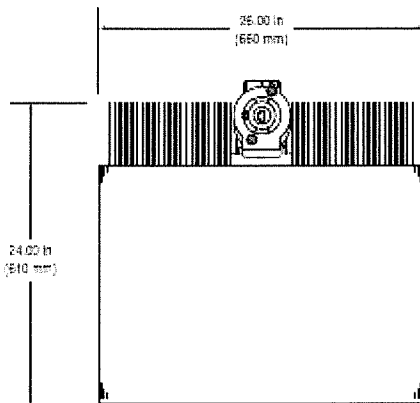
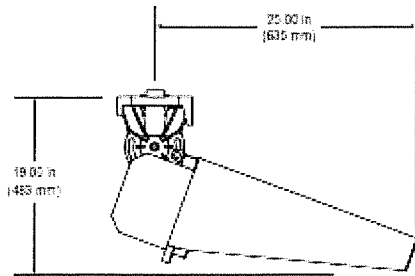
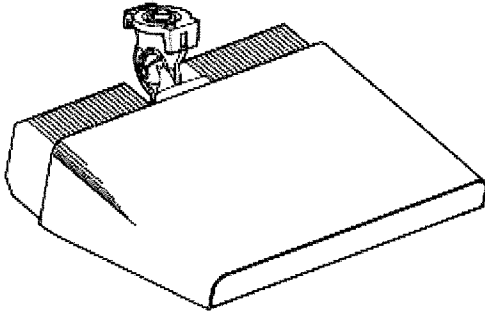
Notes

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



U.S. and foreign patent(s) issued and pending - ©2017 Musco Sports Lighting, LLC - TLC-BT-575 S/DCK 75CRI - M-2477-en04-1

www.musco.com - lighting@musco.com

Datasheet: TLC-LED-1200 Luminaire and Driver**Luminaire Data**

Weight (luminaire)	45 lb (20 kg)
UL listing number	E338094 (pending)
UL listed for USA / Canada	UL1598 CSA-C22.2 No.250.0 (pending)
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	132,300

Footnotes:

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

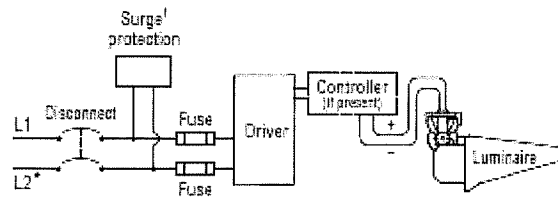
Datasheet: TLC-LED-1200 Luminaire and Driver

Driver Data

Typical Wiring

Electrical Data

Rated wattage ¹	
Per driver	1230 W
Per luminaire	1230 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%
Dimming mode	optional
Range, energy consumption	13 – 100%
Range, light output	18 – 100%



* 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 luminaire ²	7.60 A	7.30 A	6.91 A	6.61 A	6.33 A	5.49 A	4.38 A	4.00 A	3.80 A	3.66 A	3.17 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.



Datasheet: TLC-LED-1500 Luminaire and Driver**Luminaire Data**

Weight (luminaire)	67 lb (30 kg)
UL listing number	E338094 (pending)
UL listed for USA / Canada	UL1598 CSA-C22.2 No.250.0 (pending)
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)

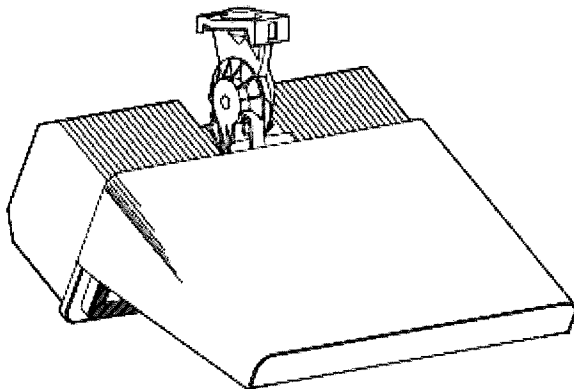
Photometric Characteristics

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	156,100

Footnotes:

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



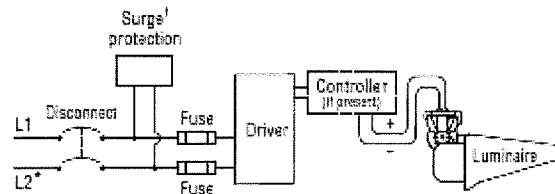
Datasheet: TLC-LED-1500 Luminaire and Driver

Driver Data

Electrical Data

Rated wattage ¹	
Per driver	1500 W
Per luminaire	1500 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	45°C (113°F) - pending
Ingress protection, electrical components enclosure	IP54
Efficiency	95%
Dimming mode	optional
Range, energy consumption	11 – 100%
Range, light output	16 – 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 luminaire ²	9.30 A	8.95 A	8.46 A	8.09 A	7.75 A	6.72 A	5.36 A	4.90 A	4.65 A	4.49 A	3.88 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.

