



MEMORANDUM

TO: Sunfish Lake Mayor and City Council

FROM: Michelle Barness, City Planner

DATE: February 25, 2015

RE: Sunfish Lake – Recreational Facilities and Safety Lighting

FILE: 211.02

3/3/15 CC Mtg.
**Agenda
Item
6a**

BACKGROUND

Section 1241.04.F. of the Sunfish Lake Zoning Ordinance prohibits the lighting, of either a temporary or permanent nature, of private recreational facilities, including tennis courts, swimming pools, sport activity areas, and similar facilities. The City regularly reviews requests from residents to construct such recreational facilities and has in the past enforced this prohibition. Residents have, however, been permitted to request the minimal safety lighting necessary to allow such recreational facilities to function at different times of the day. The City Council requested that planning staff provide additional information on what safety lighting is and what is permitted as safety lighting. The following analysis attempts to address these issues.

ANALYSIS

The Zoning Ordinance does not specifically define types of lighting. However Section 1216.06 of the Zoning Ordinance reviews the City's goals with regards to the degree of exterior illumination permitted on a property. To summarize, with regards to exterior lighting, the Ordinance states that:

- Exterior lighting is discouraged, with the exception of lighting necessary for safety purposes, unless the lighting is fully screened from abutting properties.
- Lighting must be in keeping with the natural atmosphere of the City.

- Lighting should be deflected away from adjoining properties, public right-of-ways and public waters.
- Direct or sky reflected glare may not be directed into an adjoining property or public waters.
- The source of lighting must be hooded or controlled.
- Bare, incandescent light bulbs are not permitted in view of adjoining properties, public right-of-ways or public waters.
- Illumination from lighting fixtures may not exceed one foot candle at property lines, public streets, or the edge of public water.

As minimal lighting for safety purposes is referred to in the Ordinance, but a specific definition of safety lighting is not provided, we may deduct that at a minimum safety lighting should be required to meet all general lighting standards described in Section 1216.06, as listed above.

The question of what lighting should be permitted for safety purposes, once it is determined that the basic standards in Section 1216.06 have been met, is not addressed by the Sunfish Lake Ordinance. As the Ordinance does not provide additional detail, planning staff discussed the issue with fellow planners at NAC, Inc. and reviewed precedent zoning ordinance from several other metro communities. It was determined that the communities such as Albertville, Delano, Monticello, Buffalo, Little Canada, and New Hope Minnesota do not provide specific standards for safety type lighting. Planning staff also reviewed Ordinances from smaller metro communities similar in character to Sunfish Lake, including Minnetonka, Deephaven, Woodland, and Gem Lake Minnesota, and was likewise unable to identify safety lighting related standards. Further, it appears that many communities do not differentiate lighting standards for recreational facilities from the lighting of residential properties in general. If a community has an illumination limitation for residential zoned properties, the illumination limitation would apply to the entire property.

SUMMARY AND CONCLUSION

The Sunfish Lake Zoning Ordinance suggests that minimal lighting for safety purposes should be permitted on residential properties, but with regards to the lighting of recreational facilities states that lighting is prohibited. It has been planning staff's practice to apply the lighting limitations from Section 1216.06 of the Zoning Ordinance as a base standard for permitting safety type lighting of recreational facilities, with the understanding that the City does not wish to prevent the use of recreational facilities in evening hours altogether, but rather wishes to prevent these large facilities from being lit so as to be visible from adjacent properties or public ways. As recently as 2012 the City reviewed and approved minimal safety lighting for pool facilities including below water

lighting, LED step lights concealed within walls or structures, low scale path lighting with concealed light sources, subtle landscape lighting, and lighting concealed in accessory structures. All of these lighting fixtures are low profile or concealed, and were not anticipated to be visible to surrounding properties. Several examples have been provided as an attachment to this memo for consideration.

In moving ahead, planning staff requests that City discuss and provide guidance on the following issues pertaining to the lighting of recreational facilities and the use of minimal lighting for safety purposes:

- 1) Does the City wish to prohibit all lighting for recreational facilities, including minimal safety type lighting to permit movement around recreational facilities at night (e.g. in-pool, path or step lighting)?
- 2) If the City wishes to permit some degree of minimal safety lighting in association with recreational facilities, does the City feel the standards in Section 1216.06 of the Zoning Ordinance are sufficient to limit the design and appearance of lighting for safety purposes?
- 3) If the City wishes to permit some degree of low profile safety lighting for recreational facilities in moving ahead, but believes the general standards in Section 1216.06 are not sufficient to limit the appearance of such lighting, what additional standards would the City like to apply?

cc. Cathy Iago, City Clerk
Tim Kuntz, City Attorney
Mike Andrejka, Building Inspector
Don Sterna & Eric Eckman, City Engineers
Jim Naves, City Forester
Ron Wasmund, Septic System Inspector



15773 AZT

LED BRICK LIGHT

Designed to be integrated into brick wall during construction. LED version is also usable in vertical risers. Casts a low, even spread of energy efficient LED light. Available with or without louvers.

Housing Aluminum with a fully sealed heat-resistant glass lens

Finish Textured Architectural Bronze

Light Source Integrated LED and Driver

Power Usage at 12V AC Input

VA Total: 4.8

Watts Total: 3.8

Multiply fixture VA by the number of fixtures used to determine size of transformer

Wiring Wire connection must be made inside fixture

Driver included. Use with any Kichler low voltage landscape lighting transformer. Can be combined with other non-LED fixtures.

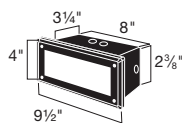
15773 – Fixture Photometric (fc)

Mounting Height	0'	0.5'	1'	1.5'	2'	2.5'	3'	4'
12"	0.22	2.08	1.87	1.85	1.3	0.85	–	–
24"	0.12	0.16	0.29	0.72	0.77	0.68	0.52	–
36"	0.04	0.05	0.09	0.12	0.16	.026	.026	–


15773
Louver face

15774 – Fixture Photometric (fc)

Mounting Height	0'	0.5'	1'	1.5'	2'	2.5'	3'	4'
12"	2.02	4.17	3.0	2.0	1.0	0.68	0.48	–
24"	0.23	0.61	0.96	0.9	0.75	0.62	0.51	–
36"	0.05	0.16	0.27	0.38	0.38	0.35	0.31	–


15774
Heat-resistant glass lens


15782 AZT

15782 WHT

LED ACRYLIC LENS STEP LIGHT/ LED LOUVERED FACE STEP LIGHT

Designed to be integrated into outdoor steps. Casts a low, even spread of energy efficient LED light. Available with louvered or white acrylic faceplate.

Housing Aluminum with white reflector. Zinc plated steel housing. White acrylic diffuser on 15780.

Finish Textured Architectural Bronze or Textured White

Light Source Integrated LED and Driver

Power Usage at 12V AC Input

VA Total: 2.4

Watts Total: 1.9

Multiply fixture VA by the number of fixtures used to determine size of transformer

Wiring Wire connection must be made inside fixture

Ordering Guide

15780 AZT	Acrylic Lens, Textured Architectural Bronze
15782 AZT	Louvered Lens, Textured Architectural Bronze
5782 WHT	Louvered Lens, Textured White

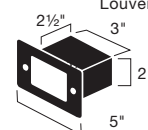
For recessed installation. For outdoor use only. Driver included. Use with any Kichler low voltage landscape lighting transformer. Can be combined with other non-LED fixtures.

15780 – Fixture Photometric (fc)

Mounting Height	0'	0.5'	1'	1.5'	2'	2.5'	3'	4'
6"	2.9	3.6	1.63	0.8	0.4	0.26	0.17	–
12"	0.45	1.03	1.03	0.69	0.45	0.32	0.23	–

15782 – Fixture Photometric (fc)

Mounting Height	0'	0.5'	1'	1.5'	2'	2.5'	3'	4'
6"	1.2	1.96	0.9	0.4	0.16	0.07	0.04	–
12"	0.26	0.55	0.15	0.46	0.23	–	–	–


15782
Louver face

15780
White acrylic lens



LED SIDE MOUNT

LED technology is combined with a side mount design for more directional lighting, without glare. Coordinates with matching LED deck light 15765 on page 11.

Housing Aluminum

Finish Textured Architectural Bronze, Beach or Textured Black

Light Source Integrated LEDs and Driver

Power Usage at 12V AC Input

VA Total: 5.8 High, 4.0 Low

Watts Total: 4.1 High, 2.5 Low

Multiply fixture VA by the number of fixtures used to determine size of transformer

Wiring 50" of usable #18-2, SPT-1-W leads.
Cable connector supplied.

Mounting Accessories Included

8" In-ground stake

Optional Mounting Accessories

15601 – Surface Mounting Flange

15607 – Tree/Surface Mounting Bracket

Optional Lens Accessories

15695 CLR – Lens

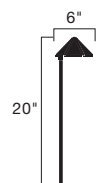
Driver included. Use with any Kichler low voltage landscape lighting transformer. Can be combined with other non-LED fixtures.

Fixture Photometric (fc) – Hi Setting

Distance from Light	0'	1'	2'	3'	4'	5'	6'	7'	8'
Footcandles	31.5	17.2	6.7	2.5	1.2	0.5	–	–	–

Fixture Photometric (fc) – Low Setting

Distance from Light	0'	1'	2'	3'	4'	5'	6'	7'	8'
Footcandles	21.3	12	4.1	1.7	0.7	0.2	–	–	–

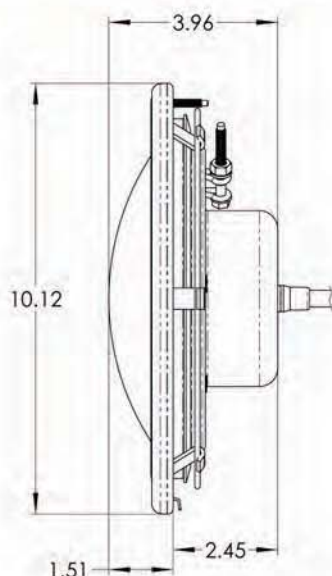




White LED Lights

Enjoy brighter, whiter light the most efficient way. IntelliBrite® 5g white LED pool and spa lights deliver:

- Pure, white light using 86% less wattage than incandescent lights.
- Superior light intensity and distribution—no hot spots or glare.
- Long lasting durability.
- The most efficient lighting technology available—an Eco Select brand product.



AquaLumin® III nicheless light is the third generation of the industry's first and only nicheless light for swimming pools offering luminous, double-contact halogen quartz lighting. With its revolutionary and innovative design, AquaLumin III mounts directly on the pool wall for simple installation in vinyl pools. Plus, it's the perfect choice for adding nighttime brilliance to new or existing pools.



Light Selection Guide

	White LED		Incandescent Light		Halogen Light		
	IntelliBrite 5g	IntelliBrite 5g Spa	Amerlite	SpaBrite	AquaLight	AquaLumin III	SpaBrite
Size of Light	Large	Small	Large	Small	Small	Small	Small
120V Wattage	70W (equivalent to 500W)	18W	300W 400W 500W	N/A	100W 250W	250W	60W
12V Wattage	70W (equivalent to 500W)	18W	100W 300W	100W	75W	100W	N/A

2400 DELAWARE LIGHTING TYPE E



15710 BK
(shown with optional
flange mount)

15710 BK

LED DETAIL ACCENT LIGHT

Low profile fixture can be used with or without stake. Comes with cowl and stake (except multi-pack which only comes with cowl). Fully accessorized options for varying application needs. Up or down lighting versatility.

Housing Aluminum with clear tempered glass lens

Finish Hard-coat anodized with black powder coat finish

Light Source Integrated LEDs

LED Remote Driver Required (sold separately)

15760BK – 40-W DC LED Driver, direct burial

Power Usage at 12V AC Input

15700/705/710/715 Underwater and Accent fixtures Watt and VA calculations using 15760BK driver

Load on 15760BK Driver (40W Max.)	No. of fixtures	1	2	3	4	5	6	7	8	9	10
Light load (W)		3.5	7.0	10.5	14.0	17.5	21.0	24.5	28.0	31.5	35.0
Total Load on Transformer*	VA	11.3	17.5	23.4	29.5	35.5	41.5	48.1	54.4	60.4	66.7
	WATT	6.84	11.73	15.8	20.9	26.3	31.6	37.6	43.3	48.8	55.0

*For explanation of Watts vs. VA see page 106

Wiring 25 ft. of usable #18-2 direct burial wire

Mounting Accessories Included in 15710 BK

6" adjustable in-ground stake, Cowl Accessory

Optional Mounting Accessories

15771BK5 – Adjustable mounting flange, bulk packed only

Optional Lens Accessories

15740 RD10 – Red colored snap on lens, bulk packed only

15740 BL10 – Blue colored snap on lens, bulk packed only

15740 GRN10 – Green colored snap on lens, bulk packed only

15740 AMB10 – Amber colored snap on lens, bulk packed only

Patent Pending in U.S. and Canada

