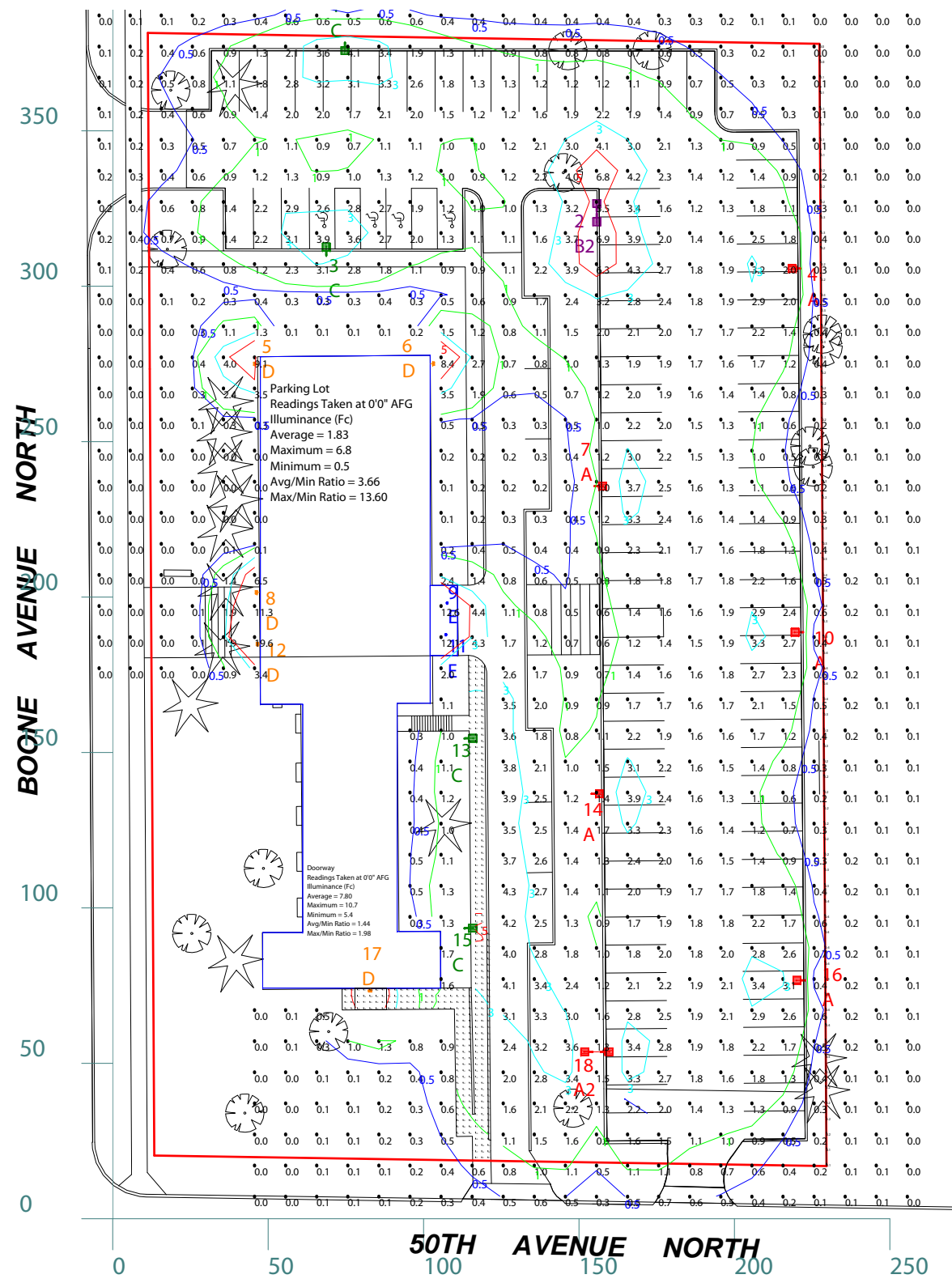


51st AVENUE NORTH



Scale: 1 inch= 50 Ft.



Prepared For:
ROUZER GROUP
2738 Winnetka Ave No
New Hope, MN 55427
763-544-3145

Job Name:
Northwest Church
New Hope, MN
Lighting Layout
Version D

Scale: as noted

Date: 5/12/2016 CASE # : 00040530

Filename: Northwest Church Lighting Layout 00040530D.AGI

Drawn By: Margaret Callan

Filename: Z:\Job Files\Rouzer Group\J. H. Larson\Golden Valley 101623\Northwest Church\Working Files\AGI\Northwest Church Lighting Layout 00040530D.AGI

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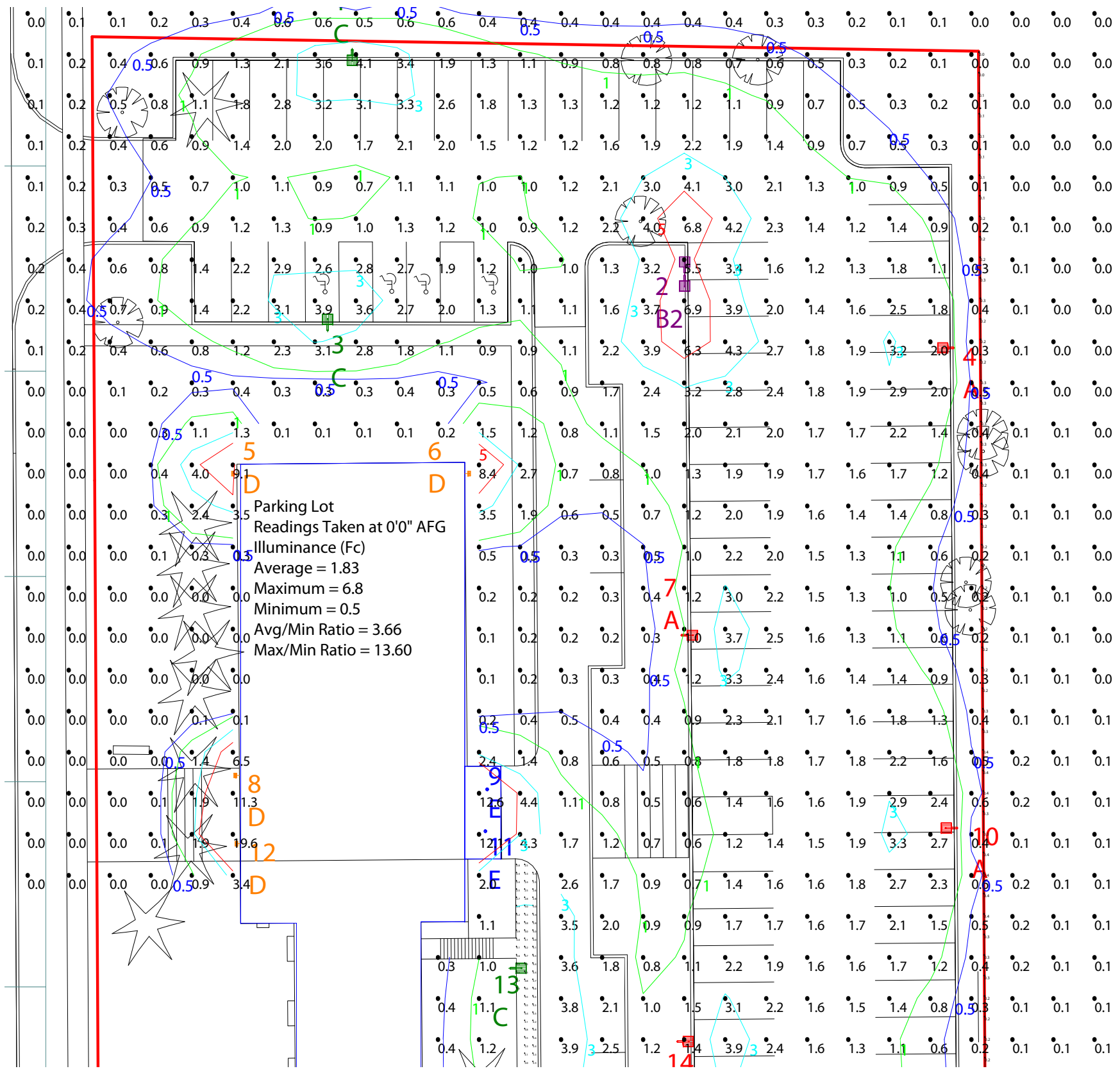
RAB neither warranties, either implied or stated with regard to actual measured light levels or energy consumption levels as compared to those illustrated by the Lighting Design. RAB neither warranties, either implied or stated, nor represents the appropriateness, completeness or suitability of the Lighting Design intent as compliant with any applicable regulatory code requirements with the exception of those specifically stated on drawings created and submitted by RAB. The Lighting design is issued, in whole or in part, as advisory documents for informational purposes and is not intended for construction nor as being part of a project's construction documentation package.

7

350

300

BOONE AVENUE NORTH



Scale: 1 inch=30 Ft.



Prepared For:
 ROUZER GROUP
 2738 Winnetka Ave No
 New Hope, MN 55427
 763-544-3145

Job Name:
 Northwest Church
 New Hope, MN
 Lighting Layout
 Version D

Scale: as noted

Date:5/12/2016

CASE # : 00040530

Filename: Northwest Church Lighting Layout 00040530D.AGI

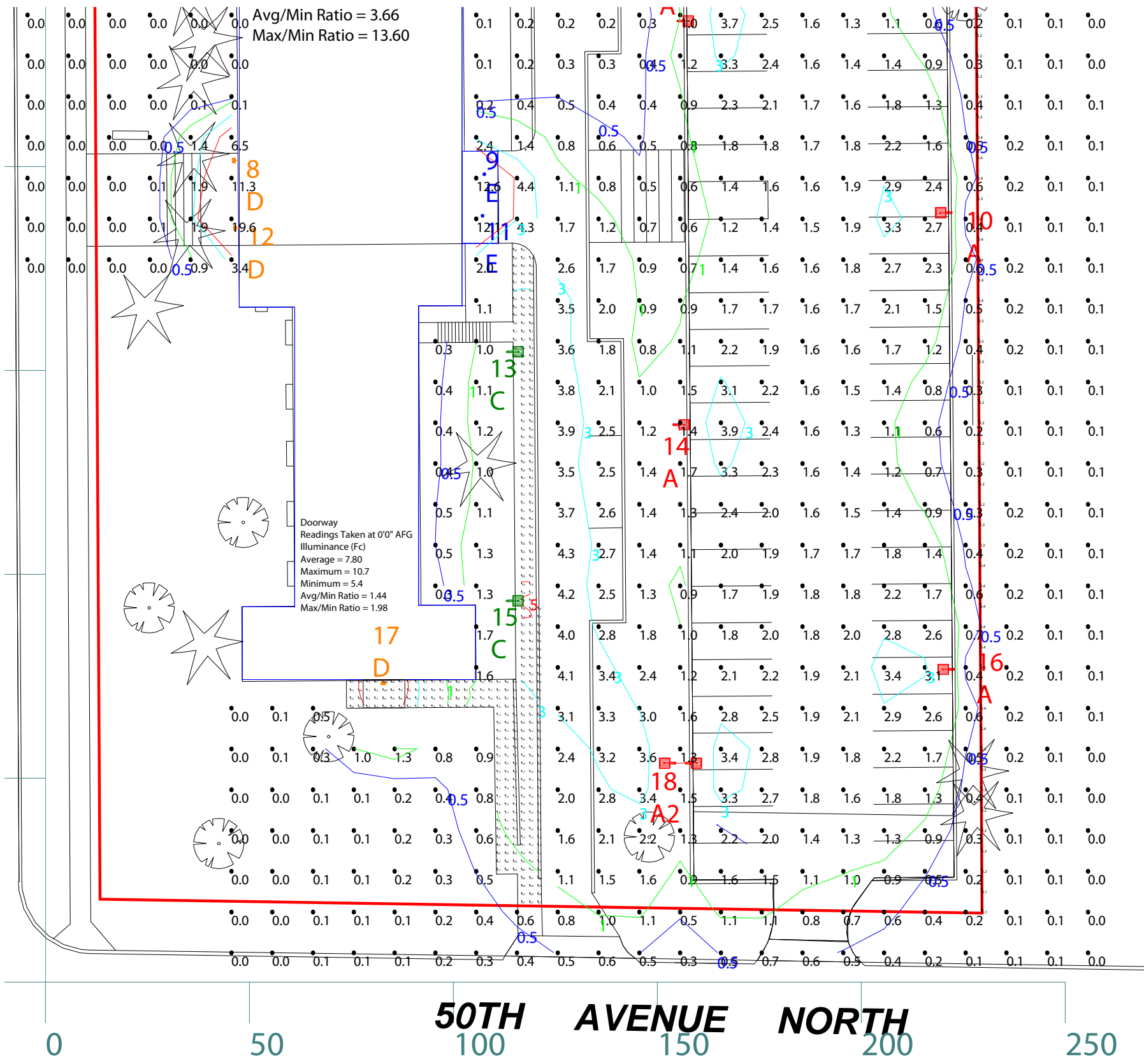
Drawn By: Margaret Callan

Filename: Z:\Job Files\Rouzer Group\J. H. Larson\Golden Valley 101623\Northwest Church\Working Files\AGI\Northwest Church Lighting Layout 00040530D.AGI

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BOONE AVENUE N



Scale: 1 inch= 30 Ft.



Prepared For:
ROUZER GROUP
2738 Winnetka Ave No
New Hope, MN 55427
763-544-3145

Job Name:
Northwest Church
New Hope, MN
Lighting Layout
Version D

Scale: as noted
Date: 5/12/2016 CASE # : 00040530
Filename: Northwest Church Lighting Layout 00040530D.AGI
Drawn By: Margaret Callan

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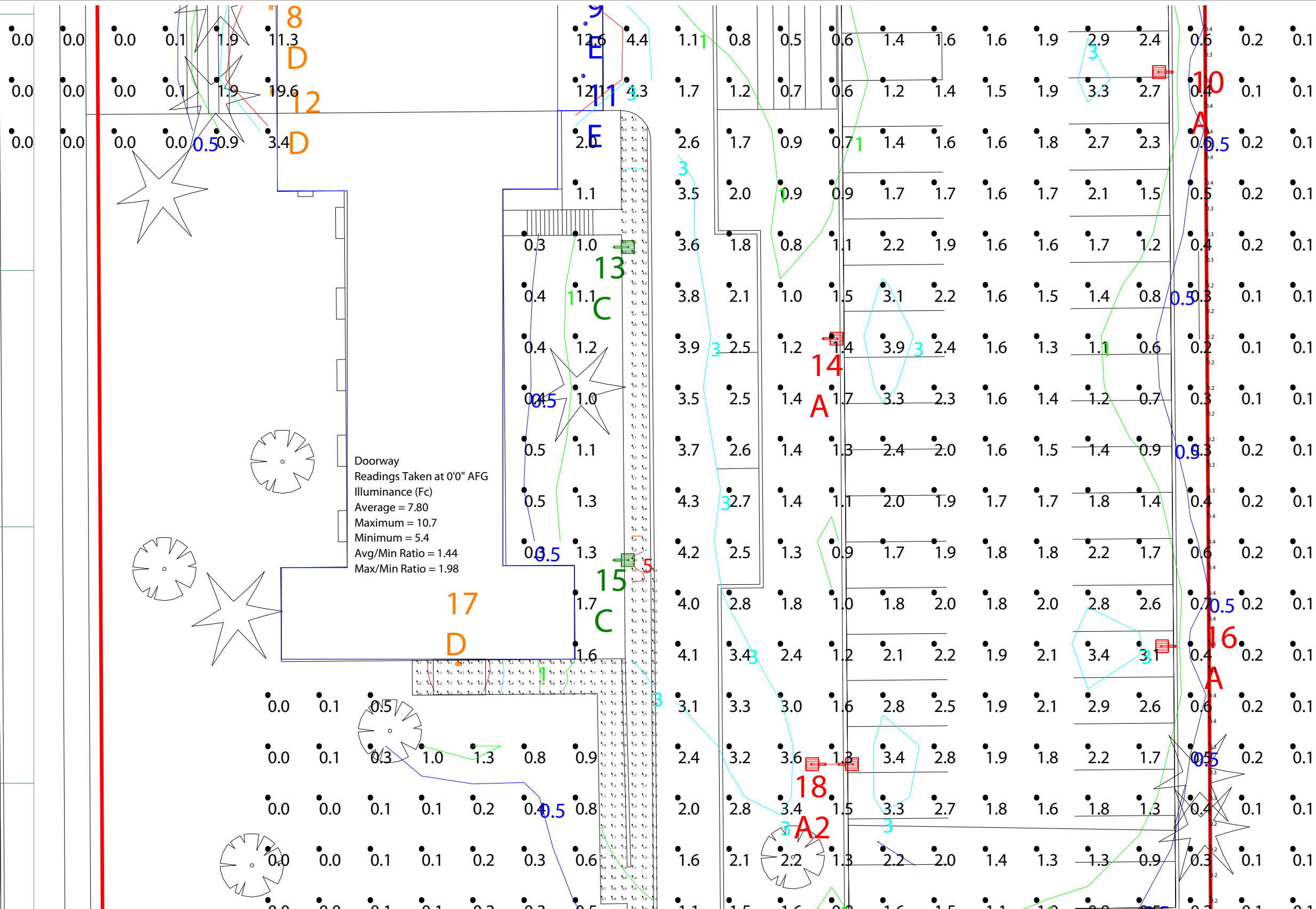
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Filename: Z:\Job Files\Rouzer Group\J. H. Larson\Golden Valley 101623\Northwest Church\Working Files\AGI\Northwest Church Lighting Layout 00040530D.AGI

BOONE AVE

100

50



Scale: 1 inch= 20 Ft.



Prepared For:
ROUZER GROUP
2738 Winnetka Ave No
New Hope, MN 55427
763-544-3145

Job Name:
Northwest Church
New Hope, MN
Lighting Layout
Version D

Scale: as noted
Date: 5/12/2016 CASE #: 00040530
Filename: Northwest Church Lighting Layout 00040530D.AGI
Drawn By: Margaret Callan

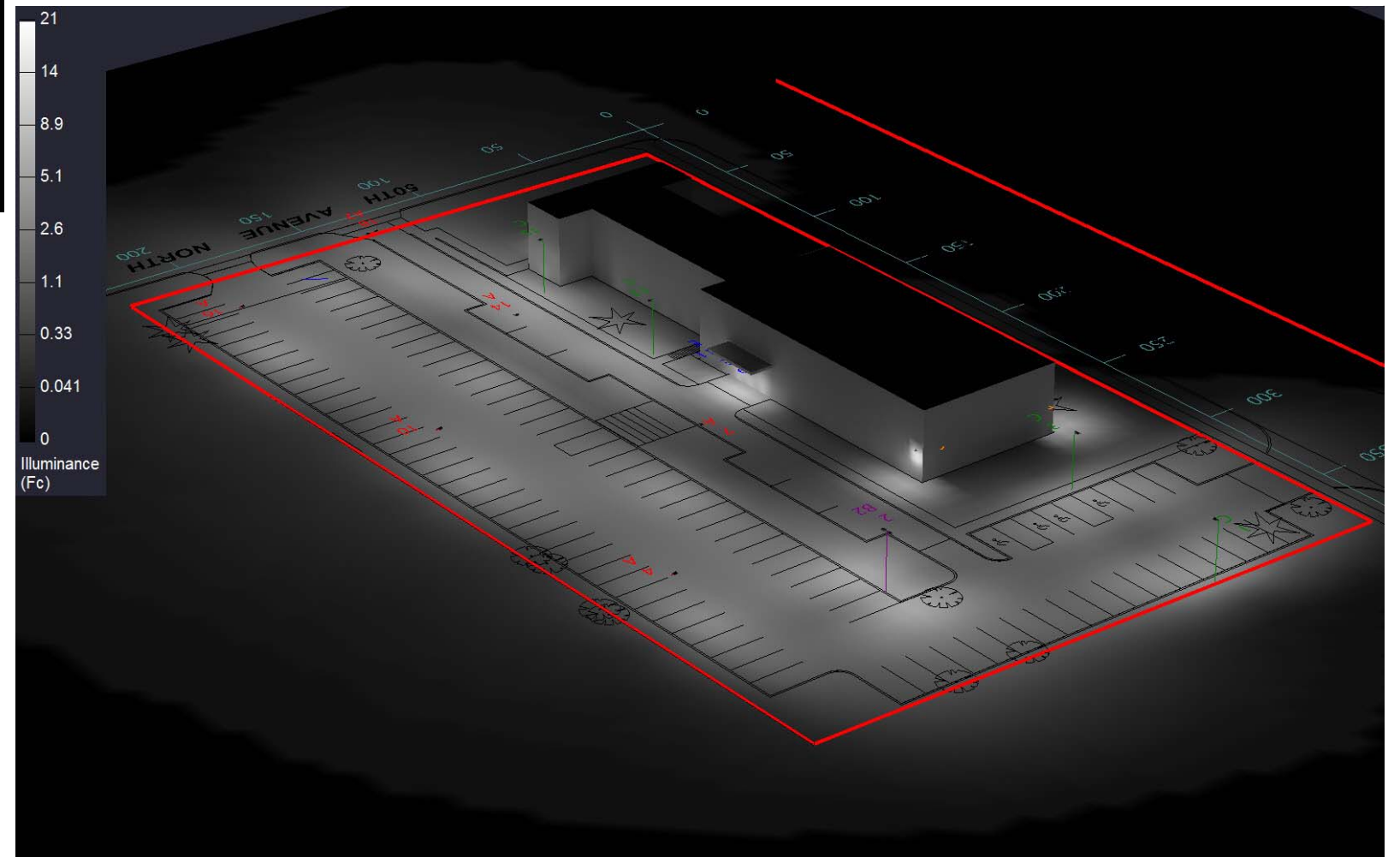
Filename: Z:\Job Files\Rouzer Group\J. H. Larson\Golden Valley 101623\Northwest Church\Working Files\AGI\Northwest Church Lighting Layout 00040530D.AGI

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Plan View



Iso View



Prepared For:
 ROUZER GROUP
 2738 Winnetka Ave No
 New Hope, MN 55427
 763-544-3145

Job Name:
 Northwest Church
 New Hope, MN
 Lighting Layout
 Version D

Scale: as noted

Date: 5/12/2016

CASE # : 00040530

Filename: Northwest Church Lighting Layout 00040530D.AGI

Drawn By: Margaret Callan

Filename: Z:\Job Files\Rouzer Group\U. H. Larson\Golden Valley 101623\Northwest Church\Working Files\AGI\Northwest Church Lightng Layout 00040530D.AGI

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Luminaire Schedule												
Symbol	Qty	Tag	Label	Arrangement	Lum. Lumens	Arr. Lum. Lumens	LLF	Description	Lum. Watts	Arr. Watts	Total Watts	Filename
	5	A	ALED3T78SF	SINGLE	6911	6911	1.000	LED Area Light 78W	78.4	78.4	392	ALED3T78SF - Cool - ITL79605.IES
	1	A2	ALED3T78SF x2	BACK-BACK	6911	13822	1.000	LED Area Light 78W	78.4	156.8	156.8	ALED3T78SF - Cool - ITL79605.IES
	1	B2	ALED4T78 x2	BACK-BACK	7564	15128	1.000	LED Area Light 78W	79.1	158.2	158.2	ALED4T78 - Cool - ITL79611.IES
	4	C	ALED2T78	SINGLE	7716	7716	1.000	LED Area Light 78W	79.3	79.3	317.2	ALED2T78 - Cool - ITL79599.IES
	5	D	SLIM18	SINGLE	2096	2096	1.000	LED SLIM Wallpack	19.9	19.9	99.5	SLIM18 - Cool - ITL81607.IES
	2	E	RDLED4R20-80NHC-S-W	SINGLE	1694	1694	1.000	LED Remolder Down Light 20W	20.3	20.3	40.6	RDLED4R20-80NHC-S-W - Neutral - RAB01168S.IES

Calculation Summary											
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Description	PtSpcLr	PtSpcTb	Meter Type
CalcPts_1	Illuminance	Fc	1.14	19.6	0.0	N.A.	N.A.	Readings Taken at 0'0" AFG	10	10	Horizontal
Property Line	Illuminance	Fc	0.25	0.4	0.0	N.A.	N.A.		5	N.A.	Horizontal
Walkway	Illuminance	Fc	2.86	10.7	0.7	4.09	15.29	Readings Taken at 0'0" AFG	2	2	Horizontal
Doorway	Illuminance	Fc	7.80	10.7	5.4	1.44	1.98	Readings Taken at 0'0" AFG			
Parking Lot	Illuminance	Fc	1.83	6.8	0.5	3.66	13.60	Readings Taken at 0'0" AFG			

Expanded Luminaire Location Summary						
LumNo	Label	Tag	X	Y	MTG HT	Orient
1	ALED2T78	C	74.709	377.202	20	270
2	ALED4T78 x2	B2	155.709	325.202	20	90
2	ALED4T78 x2	B2	155.709	322.202	20	270
3	ALED2T78	C	68.709	311.202	20	90
4	ALED3T78SF	A	220.012	305.702	20	180
5	SLIM18	D	46.128	275.064	10	180
6	SLIM18	D	102.711	275.064	10	0
7	ALED3T78SF	A	156.209	235.688	20	0
8	SLIM18	D	46.674	201.532	6	180
9	RDLED4R20-80NHC-S-W	E	107.595	198.162	10	0
10	ALED3T78SF	A	220.893	188.702	20	180
11	RDLED4R20-80NHC-S-W	E	107.162	187.972	10	0
12	SLIM18	D	46.964	184.912	6	180
13	ALED2T78	C	114.405	154.574	20	0
14	ALED3T78SF	A	155.209	136.702	20	0
15	ALED2T78	C	114.391	93.522	20	0
16	ALED3T78SF	A	221.473	76.702	20	180
17	SLIM18	D	82.814	73.752	10	270
18	ALED3T78SF x2	A2	157.709	53.702	20	0
18	ALED3T78SF x2	A2	153.709	53.702	20	180
Total Quantity: 20						



A : ALED3T78SF



A2 : ALED3T78SF x2



B2 : ALED4T78 x2



C : ALED2T78



D : SLIM18



E : RDLED4R20-80NHC-S-W



BULL2



PS4-11-20WT



PS4-11-20D2

NOTES:

- * The light loss factor (LLF) is a product of many variables, only lamp lumen depreciation (LLD) has been applied to the calculated results unless otherwise noted. The LLD is the result (quotient) of mean lumens / initial lumens per lamp manufacturers' specifications.
- * Illumination values shown (in footcandles) are the predicted results for planes of calculation either horizontal, vertical or inclined as designated in the calculation summary. Meter orientation is normal to the plane of calculation.
- * The calculated results of this lighting simulation represent an anticipated prediction of system performance. Actual measured results may vary from the anticipated performance and are subject to means and methods which are beyond the control of RAB Lighting Inc.
- * Mounting height determination is job site specific, our lighting simulations assume a mounting height (insertion point of the luminaire symbol) to be taken at the top of the symbol for ceiling mounted luminaires and at the bottom of the symbol for all other luminaire mounting configurations.
- * RAB Lighting Inc. luminaire and product designs are protected under U.S. and International intellectual property laws. Patents issued or pending apply.



Prepared For:
ROUZER GROUP
2738 Winnetka Ave No
New Hope, MN 55427
763-544-3145

Job Name:
Northwest Church
New Hope, MN
Lighting Layout
Version D

Scale: as noted
Date: 5/12/2016 CASE # : 00040530
Filename: Northwest Church Lighting Layout 00040530D.AGI
Drawn By: Margaret Callan

The Lighting Analysis, ezLayout, Energy Analysis and/or Visual Simulation ("Lighting Design") provided by the RAB Lighting Inc. ("RAB") represent an anticipated prediction of lighting system performance based upon design parameters and information supplied by others. These design parameters and information provided by others have not been field verified by RAB and therefore actual measured results may vary from the actual field conditions. RAB recommends that design parameters and other information be field verified to reduce variation.

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Filename: Z:\Job Files\Rouzer Group\J. H. Larson\Golden Valley 101623\Northwest Church\Working Files\AGI\Northwest Church Lighting Layout 00040530D.AGI



Specification grade area lights available with IES Type III distribution. For use for roadway, general parking and other area lighting applications where a larger pool of lighting is required. Replaces up to 1000W HID fixtures. Patent pending thermal management system. 5 Year Warranty.

Color: Bronze

Weight: 32.0 lbs

Project:
Northwest Church

Type:
A, A2

Prepared By:
Margaret Callan

Date:
5/12/2016

Driver Info

Type: Constant Current
120V: 0.66A
208V: 0.41A
240V: 0.35A
277V: 0.30A
Input Watts: 78W
Efficiency: 99%

LED Info

Watts: 78W
Color Temp: 5100K (Cool)
Color Accuracy: 67 CRI
L70 Lifespan: 100000
Lumens: 6,911
Efficacy: 88 LPW

Technical Specifications

Listings

UL Listing:

Suitable for wet locations as a downlight.

IESNA LM-79 & IESNA LM-80 Testing:

RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and 80, and have received the Department of Energy "Lighting Facts" label.

Dark Sky Approved:

The International Dark Sky Association has approved this product as a full cutoff, fully shielded luminaire.

Optical

Lumen Maintenance:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

Replacement:

The ALED78 replaces 250W Metal Halide Area Lights.

BUG Rating:

B1 U0 G2

Construction

IP Rating:

Ingress Protection rating of IP66 for dust and water.

IES Classification:

The Type III distribution is ideal for roadway, general parking, and other area lighting applications where a larger pool of lighting is required. It is intended to be located near the side of the area, allowing the light to project outward and fill the area.

Ambient Temperature:

Suitable for use in 40°C ambient temperatures.

Cold Weather Starting:

The minimum starting temperature is -40°F/-40°C.

Thermal Management:

Superior heat sinking with external Air-Flow fins.

Effective Projected Area:

EPA = 2.2

Housing:

Die cast aluminum housing, lens frame and mounting arm.

Mounting:

Slipfitter with 180° pivot available for mounting on 2 3/8" tenon.

Reflector:

Specular vacuum-metallized polycarbonate

Gaskets:

High temperature silicone gaskets.

Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contains no VOC or toxic heavy metals.

Green Technology:

Mercury and UV free.

For use on LEED Buildings:

IDA Dark Sky Approval means that this fixture can be used to achieve LEED Credits for Light Pollution Reduction.

LED Characteristics

LEDs:

Six (6) multi-chip, 13W, high-output, long-life LEDs.

Color Consistency:

7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

Color Stability:

LED color temperature is warranted to shift no more than 200K in CCT over a 5 year period.

Color Uniformity:

RAB's range of CCT (Correlated color temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2015.

Electrical

Driver:

Constant Current, Class 2, 2000mA, 100-277V, 50-60Hz, 1.1A, Power Factor 99%

THD:

5.3% at 120V, 13.3% at 277V

Surge Protection:

4kV

Technical Specifications (continued)

Electrical

Surge Protector:

ALED78 is available with a 6kV surge protector (SP6). SP6 available .

Other

California Title 24:

See ALED3T78/D10, ALED3T78/BL, ALED3T78/PCS, ALED3T78/PCS2, or ALED3T78/PCT for a 2013 California Title 24 compliant product. Any additional component requirements will be listed in the Title 24 section under technical specifications on the product page.

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish.

Patents:

The ALED design is protected by patents in the U.S. Pat. 668,370, Canada Pat. 144956, China ZL201230100154.X, and Mexico Pat. 38423. Pending patents in Taiwan.

Country of Origin:

Designed by RAB in New Jersey and assembled in the USA by RAB's IBEW Local 3 workers.

Buy American Act Compliant:

This product is a COTS item manufactured in the United States, and is compliant with the Buy American Act.

Recovery Act (ARRA) Compliant:

This product complies with the 52.225-21 "Required Use of American Iron, Steel, and Manufactured Goods-- Buy American Act-- Construction Materials (October 2010).

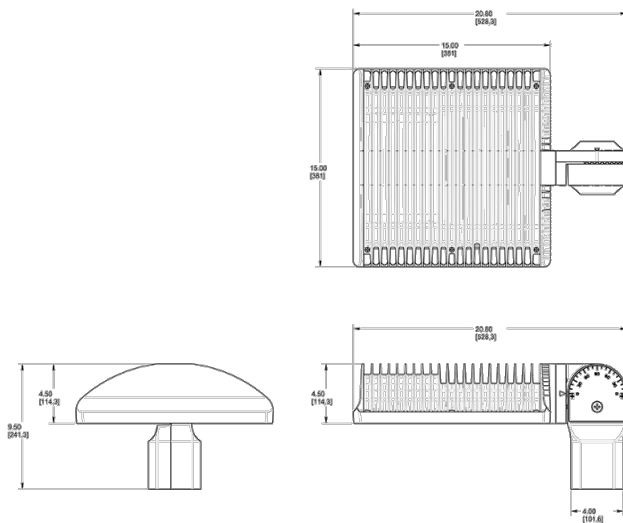
Trade Agreements Act Compliant:

This product is a COTS item manufactured in the United States, and is compliant with the Trade Agreements Act.

GSA Schedule:

Suitable in accordance with FAR Subpart 25.4.

Dimensions



Features

- 66% energy cost savings vs. HID
- 100,000-hour LED lifespan
- Type III distribution
- 5-year warranty

Ordering Matrix

Family	Distribution	Watts	Mount	Color Temp	Finish	Voltage	Photocell	Dimming	Bi-Level
ALED									
	2T = Type II	360 = 360W	= Arm	= 5000K (Cool)	= Bronze	= 120-277V	= No Photocell	= No Dimming	= No Bi-Level
	3T = Type III	260 = 260W	SF = Slipfitter	Y = 3000K (Warm)	W = White	/480 = 480V	/PC = 120V Button	/D10 = Dimmable	/BL = Bi-Level
	4T = Type IV	150 = 150W		N = 4000K (Neutral)	RG = Gray		/PC2 = 277V Button		
		125 = 125W					/PCS = 120V Swivel		
		105 = 105W					/PCS2 = 277V Swivel		
		78 = 78W					/PCT = 120-277V Twistlock		
							/PCS4 = 480V Swivel		
							/PCT4 = 480V Twistlock		



Specification grade area lights available with IES Type IV distribution. Suited for mounting on the sides of buildings and walls, and for illuminating the perimeter of parking areas. Replaces up to 1000W HID fixtures. Patent pending management system. 5 Year Warranty.

Color: Bronze

Weight: 31.0 lbs

Project:
Northwest Church

Type:
B2

Prepared By:
Margaret Callan

Date:
5/12/2016

Driver Info

Type: Constant Current
120V: 0.66A
208V: 0.41A
240V: 0.35A
277V: 0.30A
Input Watts: 79W
Efficiency: 99%

LED Info

Watts: 78W
Color Temp: 5100K (Cool)
Color Accuracy: 67 CRI
L70 Lifespan: 100000
Lumens: 7,564
Efficacy: 96 LPW

Technical Specifications

Listings

UL Listing:

Suitable for wet locations as a downlight.

IESNA LM-79 & IESNA LM-80 Testing:

RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and 80, and have received the Department of Energy "Lighting Facts" label.

Dark Sky Approved:

The International Dark Sky Association has approved this product as a full cutoff, fully shielded luminaire.

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.
DLC Product Code: P0000170X

Optical

Lumen Maintenance:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

Replacement:

The ALED78 replaces 250W Metal Halide Area Lights.

BUG Rating:

B1 U0 G2

Construction

IES Classification:

The Type IV distribution (also known as a Forward Throw) is especially suited for mounting on the sides of buildings and walls, and for illuminating the perimeter of parking areas. It produces a semiCircular distribution with essentially the same candlepower at lateral angles from 90° to 270°.

Effective Projected Area:

EPA = 0.75

Ambient Temperature:

Suitable for use in 40°C ambient temperatures.

Cold Weather Starting:

The minimum starting temperature is -40°F/-40°C.

Thermal Management:

Superior heat sinking with external Air-Flow fins.

Housing:

Die cast aluminum housing, lens frame and mounting arm.

IP Rating:

Ingress Protection rating of IP66 for dust and water.

Reflector:

Specular vacuum-metallized polycarbonate

Gaskets:

High temperature silicone gaskets.

Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contains no VOC or toxic heavy metals.

Green Technology:

Mercury and UV free.

For use on LEED Buildings:

IDA Dark Sky Approval means that this fixture can be used to achieve LEED Credits for Light Pollution Reduction.

LED Characteristics

LEDs:

Six (6) multi-chip, 13W, high-output, long-life LEDs.

Color Consistency:

3-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

Color Stability:

LED color temperature is warranted to shift no more than 200K in CCT over a 5 year period.

Color Uniformity:

RAB's range of CCT (Correlated color temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2015.

Electrical

Driver:

Constant Current, Class 2, 2000mA, 100-277V, 50-60Hz, 1.1A, Power Factor 99%

THD:

5.1% at 120V, 13.2% at 277V

Surge Protection:

4kV

Technical Specifications (continued)

Electrical

Surge Protector:

ALED78 is available with a 6kV surge protector (SP6). SP6 available .

Other

California Title 24:

See ALED4T78/D10, ALED4T78/BL, ALED4T78/PCS, ALED4T78/PCS2, or ALED4T78/PCT for a 2013 California Title 24 compliant product. Any additional component requirements will be listed in the Title 24 section under technical specifications on the product page.

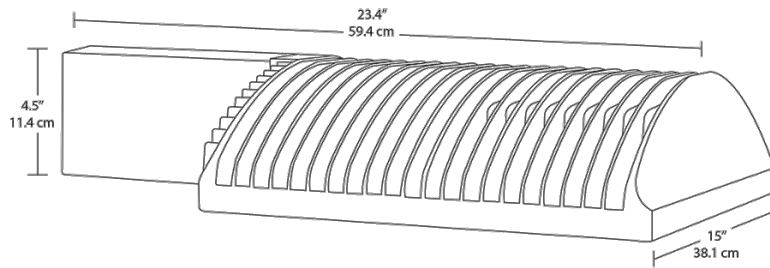
Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish.

Patents:

The ALED design is protected by patents in the U.S. Pat. 668,370, Canada Pat. 144956, China ZL201230100154.X, and Mexico Pat. 38423. Pending patents in Taiwan.

Dimensions



Features

- 66% energy cost savings vs. HID
- 100,000-hour LED lifespan
- Type IV distribution
- 5-year warranty

Ordering Matrix

Family	Distribution	Watts	Mount	Color Temp	Finish	Voltage	Photocell	Dimming	Bi-Level
ALED									
	2T = Type II	360 = 360W	= Arm	= 5000K (Cool)	= Bronze	= 120-277V	= No Photocell	= No Dimming	= No Bi-Level
	3T = Type III	260 = 260W	SF = Slipfitter	Y = 3000K (Warm)	W = White	/480 = 480V	/PC = 120V Button	/D10 = Dimmable	/BL = Bi-Level
	4T = Type IV	150 = 150W		N = 4000K (Neutral)	RG = Gray		/PC2 = 277V Button		
		125 = 125W					/PCS = 120V Swivel		
		105 = 105W					/PCS2 = 277V Swivel		
		78 = 78W					/PCT = 120-277V Twistlock		
							/PCS4 = 480V Swivel		
							/PCT4 = 480V Twistlock		



Project:
Northwest Church

Type:
C

Prepared By:
Margaret Callan

Date:
5/12/2016

Driver Info

Type: Constant Current
120V: 0.66A
208V: 0.41A
240V: 0.35A
277V: 0.30A
Input Watts: 79W
Efficiency: 98%

LED Info

Watts: 78W
Color Temp: 5100K (Cool)
Color Accuracy: 67 CRI
L70 Lifespan: 100000
Lumens: 7,716
Efficacy: 97 LPW

Specification grade area lights available with IES Type II distribution. For use in parking lots, roadways, pathways and general area lighting. Replaces up to 1000W HID fixtures. Patent pending thermal management system. 5 Year Warranty.

Color: Bronze

Weight: 32.0 lbs

Technical Specifications

Listings

UL Listing:

Suitable for wet locations as a downlight.

IESNA LM-79 & IESNA LM-80 Testing:

RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and 80, and have received the Department of Energy "Lighting Facts" label.

Dark Sky Approved:

The International Dark Sky Association has approved this product as a full cutoff, fully shielded luminaire.

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.
DLC Product Code: P0000179P

Optical

Lumen Maintenance:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

Replacement:

The ALED78 replaces 250W Metal Halide Area Lights.

BUG Rating:

B1 U0 G2

Construction

IES Classification:

The Type II distribution is ideal for wide walkways, on ramps and entrance roadways, bike paths and other long and narrow lighting applications. This type is meant for lighting larger areas and usually is located near the roadside. This type of lighting is commonly found on smaller side streets or jogging paths.

Effective Projected Area:

EPA = 0.75

Ambient Temperature:

Suitable for use in 40°C ambient temperatures.

Cold Weather Starting:

The minimum starting temperature is -40°F/-40°C.

Thermal Management:

Superior heat sinking with external Air-Flow fins.

Housing:

Die cast aluminum housing, lens frame and mounting arm.

IP Rating:

Ingress Protection rating of IP66 for dust and water.

Reflector:

Specular vacuum-metallized polycarbonate

Gaskets:

High temperature silicone gaskets.

Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contains no VOC or toxic heavy metals.

Green Technology:

Mercury and UV free.

For use on LEED Buildings:

IDA Dark Sky Approval means that this fixture can be used to achieve LEED Credits for Light Pollution Reduction.

LED Characteristics

LEDs:

Six (6) multi-chip, 13W, high-output, long-life LEDs.

Color Consistency:

3-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

Color Stability:

LED color temperature is warranted to shift no more than 200K in CCT over a 5 year period.

Color Uniformity:

RAB's range of CCT (Correlated color temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2015.

Electrical

Driver:

Constant Current, Class 2, 2000mA, 100-277V, 50-60Hz, 1.1A, Power Factor 99%

THD:

5.0% at 120V, 12.3% at 277V

Surge Protection:

4kV

Technical Specifications (continued)

Electrical

Surge Protector:

ALED78 is available with a 6kV surge protector (SP6). SP6 available .

Other

California Title 24:

See ALED2T78/D10, ALED2T78/BL, ALED2T78/PCS, ALED2T78/PCS2, or ALED2T78/PCT for a 2013 California Title 24 compliant product. Any additional component requirements will be listed in the Title 24 section under technical specifications on the product page.

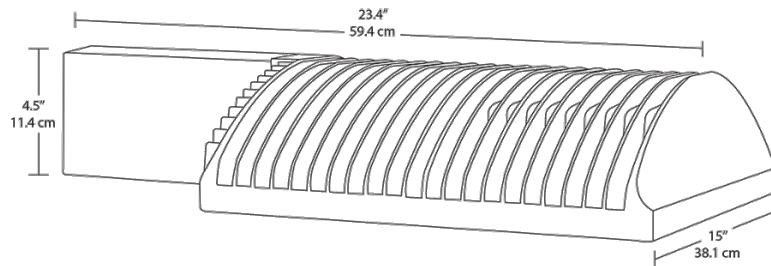
Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish.

Patents:

The ALED design is protected by patents in the U.S. Pat. 668,370, Canada Pat. 144956, China ZL201230100154.X, and Mexico Pat. 38423. Pending patents in Taiwan.

Dimensions



Features

- 66% energy cost savings vs. HID
- 100,000-hour LED lifespan
- Type II distribution
- 5-year warranty

Ordering Matrix

Family	Distribution	Watts	Mount	Color Temp	Finish	Voltage	Photocell	Dimming	Bi-Level
ALED									
	2T = Type II	360 = 360W	= Arm	= 5000K (Cool)	= Bronze	= 120-277V	= No Photocell	= No Dimming	= No Bi-Level
	3T = Type III	260 = 260W	SF = Slipfitter	Y = 3000K (Warm)	W = White	/480 = 480V	/PC = 120V Button	/D10 = Dimmable	/BL = Bi-Level
	4T = Type IV	150 = 150W		N = 4000K (Neutral)	RG = Gray		/PC2 = 277V Button		
		125 = 125W					/PCS = 120V Swivel		
		105 = 105W					/PCS2 = 277V Swivel		
		78 = 78W					/PCT = 120-277V Twistlock		
							/PCS4 = 480V Swivel		
							/PCT4 = 480V Twistlock		



12, 18 and 26 Watt SLIM wallpacks are ultra efficient and deliver impressive light distribution with a compact low-profile design that's super easy to install as a downlight or uplight.

Color: Bronze

Weight: 4.5 lbs

Project:
Northwest Church

Type:
D

Prepared By:
Margaret Callan

Date:
5/12/2016

Driver Info

Type: Constant Current
120V: 0.18A
208V: 0.11A
240V: 0.09A
277V: 0.08A
Input Watts: 20W
Efficiency: 90%

LED Info

Watts: 18W
Color Temp: 5100K (Cool)
Color Accuracy: 67 CRI
L70 Lifespan: 100000
Lumens: 2,096
Efficacy: 105 LPW

Technical Specifications

Listings

UL Listing:

Suitable for wet locations. Suitable for mounting within 1.2m (4ft) of the ground.

ADA Compliant:

SLIM™ is ADA Compliant.

Dark Sky Approved:

The International Dark Sky Association has approved this product as a full cutoff, fully shielded luminaire.

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80, and have received the Department of Energy "Lighting Facts" label.

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.
DLC Product Code: P0000171Q

Construction

IP Rating:

Ingress Protection rating of IP66 for dust and water.

Cold Weather Starting:

The minimum starting temperature is -40°F/-40°C.

Ambient Temperature:

Suitable for use in 40°C (104°F) ambient temperatures.

Thermal Management:

Superior heat sinking with internal Air-Flow fins.

Housing:

Precision die-cast aluminum housing.

Mounting:

Heavy-duty mounting bracket with hinged housing for easy installation.

Recommended Mounting Height:

Up to 14 ft.

Lens:

Tempered glass lens.

Reflector:

Specular thermoplastic.

Gaskets:

High-temperature silicone.

Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contains no VOC or toxic heavy metals.

Green Technology:

Mercury and UV free, and RoHS compliant.

LED Characteristics

LED:

Multi-chip, long-life LED.

Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

Color Consistency:

7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

Color Stability:

LED color temperature is warranted to shift no more than 200K in CCT over a 5 year period.

Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines for the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2011.

Electrical

Driver:

Constant Current, Class 2, 100-277V, 50/60 Hz., 4KV surge protection, 500mA, 100-240VAC 0.3-0.15 Amps, 277VAC 0.15 Amps, Power Factor 99%.

THD:

9.8% at 120V

Other

HID Replacement Range:

The SLIM18 can be used to replace 100W MH based on delivered lumens.

California Title 24:

SLIM18 complies with 2013 California Title 24 building and electrical codes as a residential outdoor fixture. See SLIM18/PC for a model that complies as a commercial outdoor non-pole-mounted fixture__≤__30 Watts.

Technical Specifications (continued)

Other

Patents:

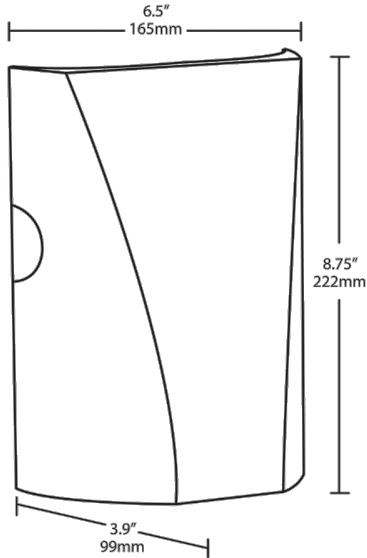
The design of the SLIM™ is protected by patents in U.S. Pat D681,864, and pending patents in Canada, China, Taiwan and Mexico.

Optical

BUG Rating:

B1 U0 G0

Dimensions



Features

- Full cutoff, fully shielded LED wallpack
- Can be used as a downlight or uplight
- Contractor friendly features for easy installation
- 100,000-hour LED Life
- 5-Year Warranty

Ordering Matrix

Family	Watts	Color Temp	Finish	Photocell	Dimming
SLIM	26 = 26W 18 = 18W 12 = 12W	= 5000K (Cool) Y = 3000K (Warm) N = 4000K (Neutral)	= Bronze W = White	= No Photocell /PC = 120V Button /PC2 = 277V Button	= No Dimming /D10 = Dimmable

RDLED4R20D-80NHC-S-W



Remodeler Round 4" & 6" White Trim with Specular Silver Cone downlights provide an ultra performance, high-end solution for adding recessed lighting to existing ceilings. 90 CRI.

Color: Specular silver cone white trim

Weight: 2.5 lbs

Project:
Northwest Church

Type:
E

Prepared By:
Margaret Callan

Date:
5/12/2016

Driver Info

Type: Constant Current
120V: 0.17A
208V: 0.11A
240V: 0.10A
277V: 0.09A
Input Watts: 20W
Efficiency: 99%

LED Info

Watts: 20W
Color Temp: 4000K (Neutral)
Color Accuracy: 92 CRI
L70 Lifespan: 100000
Lumens: 1,694
Efficacy: 83 LPW

Technical Specifications

Listings

UL Listed:

Suitable for wet locations covered ceiling.

ENERGY STAR:

This product is ENERGY STAR® qualified.

California CEC Compliance:

Meets CEC's California Quality Spec

Optical

Photometrics:

Photometrics are based on prorated reports. Contact the RAB Lighting Design department for the most up-to-date data.

Optics:

80° beam spread with specular thermoplastic optics and Nanostructure lens technology for smooth light output and high efficiency.

Spacing Criteria:

0-180° (along): 1.03.

Electrical

Driver:

ELV, 0-10V and TRIAC Dimming, Constant Current, Class 2, 120V-277V, 50/60Hz, Power Factor 98%, THD ≤ 20%.

Dimming Driver:

0-10V, TRIAC and ELV dimming driver.

LED Characteristics

LED:

Long-life, high-output LED module. Binned for natural white light to match incandescent and 3-step MacAdam Ellipse consistency.

Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

Correlated Color Temp. (Nominal CCT):

3000 Warm.

Color Consistency:

3-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

Color Stability:

LED color temperature is warranted to shift no more than 200K in CCT over a 5 year period.

Construction

Ambient Temperature:

Suitable for use in 40°C ambient temperatures.

Cold Weather Starting:

The minimum starting temperature is -40°F/-40°C.

Trim Ring:

White powder coated die cast trim ring.

Trim Cone:

Specular silver round trim cone.

Lens:

Nanostructure lens eliminates "hot spots", and helps provide smooth, uniform light and higher efficiency.

Junction Box:

Integral junction box with wiring capacity for Min 90°C supply conductors
2 in 2 out

Housing:

Professional-grade, die-cast aluminum construction.

Easy Installation:

Easy installation with ceiling clamps.

Green Technology:

Mercury and UV free.

Other

Equivalency:

RDLED 20W is equivalent to 100W PAR.

Absolute White™:

A unique binning process designed to match incandescent at each color temperature. It's 3-step consistent, very stable over time and looks the way you expect light to look.

California Title 24:

RDLED4R20 complies with 2013 California Title 24 building and electrical codes as a residential indoor fixture. It also complies as a commercial indoor fixture for general spaces when used with a vacancy sensor and TRIAC dimming control. Select a vacancy sensor using catalog number LVS800. TRIAC dimmer provided by others.

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish.

Technical Specifications (continued)

Other

Country of Origin:

Designed by RAB in New Jersey and assembled in the USA by RAB's IBEW Local 3 workers.

Buy American Act Compliant:

This product is a COTS item manufactured in the United States, and is compliant with the Buy American Act.

Recovery Act (ARRA) Compliant:

This product complies with the 52.225-21 "Required Use of American Iron, Steel, and Manufactured Goods-- Buy American Act-- Construction Materials (October 2010).

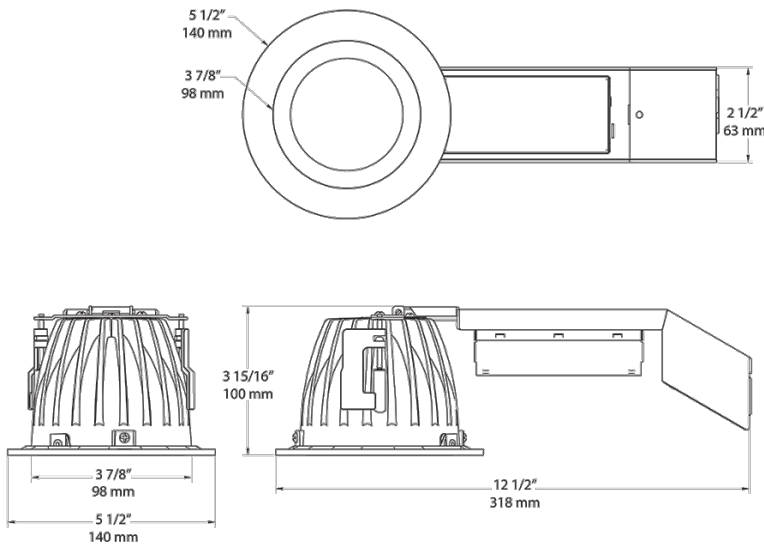
Trade Agreements Act Compliant:

This product is a COTS item manufactured in the United States, and is compliant with the Trade Agreements Act.

GSA Schedule:

Suitable in accordance with FAR Subpart 25.4.

Dimensions



Features

- High performance, high efficiency alternative to incandescent lighting
- Integrated ceiling clamps make installation fast and secure for ceiling up to 1 1/4" thick
- Nanostructure lens eliminates "hot spots" providing smooth and efficient light
- Low-profile design allows for installation in ceilings with limited space
- Absolute White™ natural light output
- 90 CRI

Ordering Matrix

Family	Size	Shape	Watts	Driver Option	Beam Spread	Color Temp	CRI	Cone Color	Trim Color
RDLED									
	6 = 6"	R = Round	12 = 12W (4" only) 20 = 20W 26 = 26W (6" only)	D = Universal Dimming	50 = 50° 80 = 80° W = Wall Washer	YY = 2700K (Residential Warm) Y = 3000K (Warm) YN = 3500K (Warm Neutral)	Blank = 82 CRI HC = 92 CRI	S = Specular Silver	W = White



Project: Northwest Church	Type:
Prepared By: Margaret Callan	Date: 5/12/2016

Technical Specifications

Construction

Finish:

Chip and fade resistant bronze polyester powder coating Weather resistant polyester powder, bronze.

Bullhorns:

2 tenons for slip fitters. Bullhorns fit 2 3/8" (6cm) O.D. tenons and accommodate 2 3/8" (6cm) slip fitters. Steel tubing .150" and .200" thick welded with (4) 3/8" bolts for securing to pole.

Slipfitters & Wall Brackets:

3/16" thick steel with 1/2" nuts and bolts.

Bracket EPA:

1.35.

Weight:

20 lbs.

Maximum Weight Capacity:

100 lbs. per arm.

EPA Maximum Capacity:

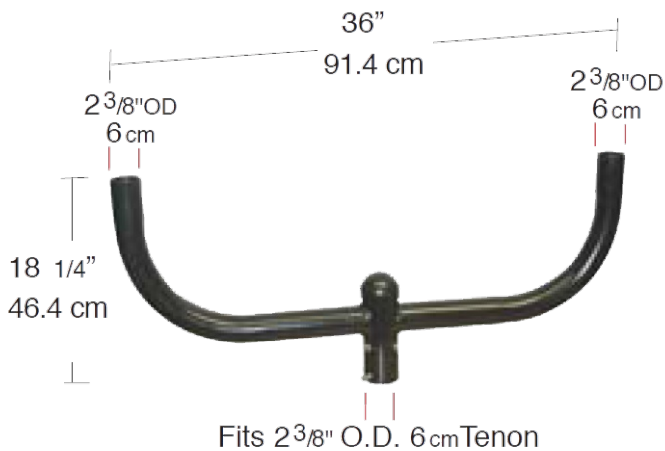
5.0 per arm.

Other

Patents:

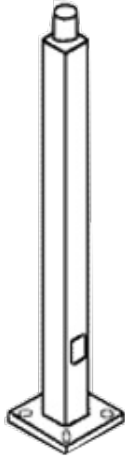
The designs of fixtures are protected under U.S. and international intellectual property laws.

Dimensions



Features

- Easy, secure floodlight mounting
- Double Reinforced weld joints



Square steel poles with welded tenon included for use with floodlights. Designed for ground mounting. Poles are stocked nationwide for quick shipment. Protective packaging ensures poles arrive at the job site good as new.

Color: Bronze

Weight: 138.0 lbs

Project: Northwest Church	Type:
Prepared By: Margaret Callan	Date: 5/12/2016

Lamp Info		Ballast Info	
Type:	N/A	Type:	N/A
Watts:	0W	120V:	N/A
Shape/Size:	N/A	208V:	N/A
Base:	N/A	240V:	N/A
ANSI:	N/A	277V:	N/A
Hours:	N/A	Input Watts:	0W
Lamp Lumens:	N/A		
Efficacy:	N/A		

Technical Specifications

Listings

CSA Listed:

Suitable for wet locations.

Construction

Shaft:

46,000 p.s.i. minimum yield.

Hand Holes:

Reinforced with grounding lug and removable cover.

Base Plates:

Slotted base plates 36,000 p.s.i.

Shipping Protection:

All poles are shipped in individual corrugated cartons to prevent finish damage.

Color:

Bronze powder coating.

Tenon:

Welded 2 3/8" tenon included.

Height:

20 FT.

Gauge:

11

Wall Thickness:

1/8".

Shaft Size:

4".

Hand Hole Dimensions:

3" x 5".

Bolt Circle:

8 1/2".

Base Dimension:

8".

Weight:

138 lbs.

Anchor Bolt:

Galvanized anchor bolts and galvanized hardware and anchor bolt template. All bolts have a 3" hook.

Anchor Bolt Templates:

WARNING Template must be printed on 11" x 17" sheet for actual size. CHECK SCALE BEFORE USING. Templates shipped with anchor bolts and available .

Pre-Shipped Anchor Bolts:

Bolts can be pre-shipped upon request for additional freight charge.

MaxEPA's/Max Weights:

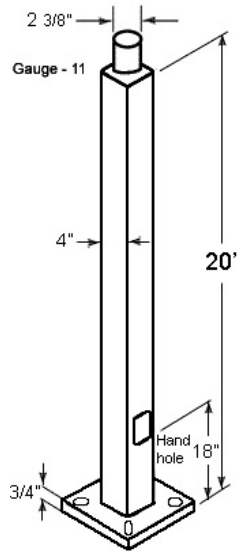
- 70MPH 8.3 ft_/240 lb
- 80MPH 5.6 ft_/165 lb
- 90MPH 3.6 ft_/110 lb
- 100MPH 2.2 ft_/75 lb
- 110MPH 1.0 ft_/45 lb
- 120MPH 0.2 ft_/20 lb.

Other

Terms of Sale:

Pole Terms of Sale is available .

Dimensions



Features

- Designed for ground mounting
- Heavy duty TGIC polyester coating
- Reinforced hand holes with grounding lug and removable cover for easy wiring access
- Anchor Bolt Kit includes pole cap and base cover (sold separately)
- Custom manufactured for each application



Square steel poles drilled for 2 Area Lights at 180°. Designed for ground mounting. Poles are stocked nationwide for quick shipment. Protective packaging ensures poles arrive at the job site good as new.

Color: Bronze

Weight: 137.0 lbs

Project:
Northwest Church

Type:

Prepared By:
MARGA'

Date:
5/12/2016

Lamp Info

Ballast Info

Type:	N/A	Type:	N/A
Watts:	0W	120V:	N/A
Shape/Size:	N/A	208V:	N/A
Base:	N/A	240V:	N/A
ANSI:	N/A	277V:	N/A
Hours:	N/A	Input Watts:	0W
Lamp Lumens:	N/A		
Efficacy:	N/A		

Technical Specifications

Listings

CSA Listed:

Suitable for wet locations.

Construction

Shaft:

46,000 p.s.i. minimum yield.

Hand Holes:

Reinforced with grounding lug and removable cover.

Base Plates:

Slotted base plates 36,000 p.s.i.

Shipping Protection:

All poles are shipped in individual corrugated cartons to prevent finish damage.

Color:

Bronze powder coating.

Height:

20 FT.

Weight:

137 lbs.

Gauge:

11

Wall Thickness:

1/8".

Shaft Size:

4".

Hand Hole Dimensions:

3" x 5".

Bolt Circle:

8 1/2".

Base Dimension:

8".

Anchor Bolt:

Galvanized anchor bolts and galvanized hardware and anchor bolt template. All bolts have a 3" hook.

Anchor Bolt Templates:

WARNING Template must be printed on 11" x 17" sheet for actual size. CHECK SCALE BEFORE USING. Templates shipped with anchor bolts and available .

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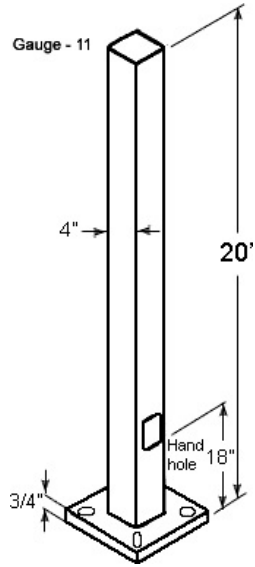
- 70MPH 8.3 ft_/240 lb
- 80MPH 5.6 ft_/165 lb
- 90MPH 3.6 ft_/110 lb
- 100MPH 2.2 ft_/75 lb
- 110MPH 1.0 ft_/45 lb
- 120MPH 0.2 ft_/20 lb.

Other

Terms of Sale:

Pole Terms of Sale is available .

Dimensions



Features

- Designed for ground mounting
- Heavy duty TGIC polyester coating
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