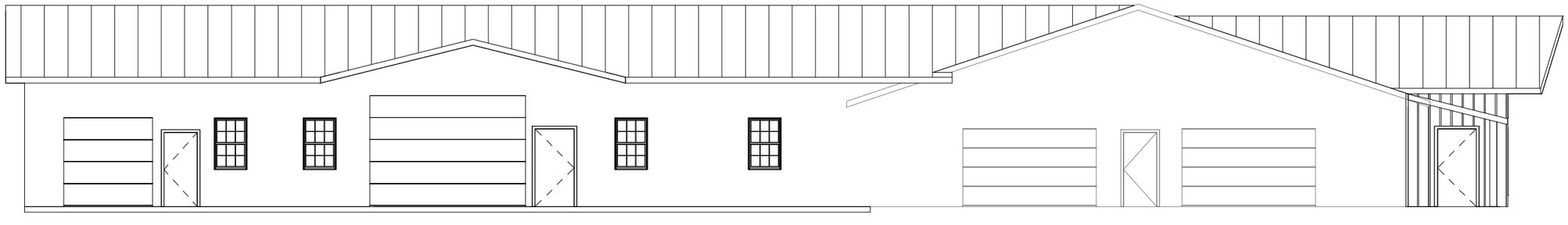
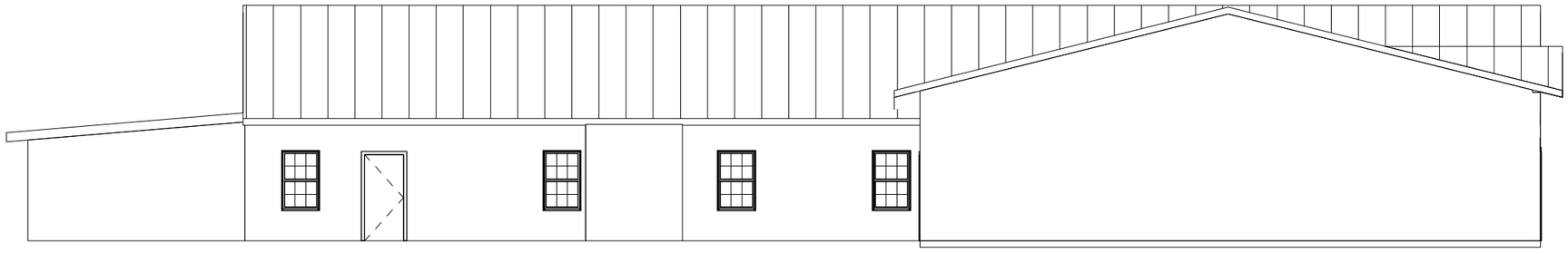
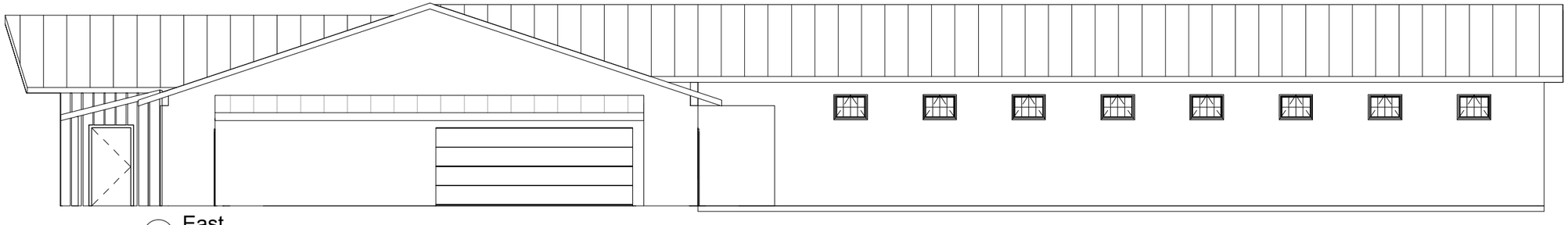
1 South
3/32" = 1'-0"



2 West
3/32" = 1'-0"



3 North
3/32" = 1'-0"



4 East
3/32" = 1'-0"

Proposed Development for:
Hygear Motorspports, LLC
308 Peruville Road, Freeville, NY 13068

The Architects Drew
10 Lewis Street, P.O. Box 243
Dryden, New York 13053
(607) 844-3738

A6
Elevations

March 15, 2022,

The Architects Drew

James K. Drew, AIA
10 Lewis Street
P.O. Box 243
Dryden, New York 13053

Phone: 607-844-3738
Cellular: 607-227-2712
Email: architectsdrew@gmail.com

Mr. Ross Benson
HyGear Suspension
863 Peruville, Road
Freeville, NY 13068

RE: Energy requests from Lansing Planning Board

Dear Ross,

The intention of the design of this building is to meet or exceed Item number 4 on the Tompkins County Energy Recommendations for New Construction (2018) regarding the energy envelope to exceed code minimum for insulation and glazing.

Items 1, 2 and 3 on this list are not conducive to expanding or integration with the existing utilities for the existing structure and as such will not be able to be fully conformed with as part of the project. We will be deigning with Warm white LED lighting fixtures wherever feasible and utilizing energy efficient equipment in our approach to conserve energy throughout the project.

Exterior lighting will be wall mounted downlights with cut-off shields (where applicable) to reduce lilght pollution and will be in the 2700 K LED lighting range. Interior lighting will be LED and conform to all electrical and energy codes.

Respectfully submitted,

James K. Drew, AIA

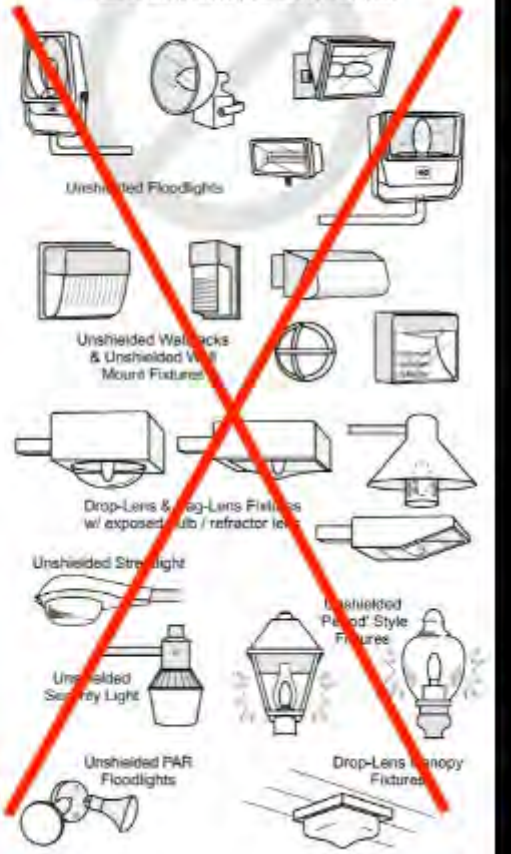
Examples of Acceptable / Unacceptable Lighting Fixtures

Acceptable

Fixtures that shield the light source to minimize glare and light trespass and to facilitate better vision at night

Unacceptable / Discouraged

Fixtures that produce glare and light trespass




DARK SKY
COMPLIANT LIGHTING

RAB

FIELD ADJUSTABLE

Ultra-economy wall packs.

SLIM17 — The options you want at the price you need.

Field-adjustable control.

The SLIM17 comes with a field-adjustable CCT switch inside the fixture that allows you to choose between 3000, 4000 and 5000K color temperatures.

On at dusk, off at dawn...

Both models come standard with an integrated photocell that will automatically control when the wall packs turn on for even greater energy savings.

FIELD ADJ.

100,000 HOUR LED LIFESPAN

INTEGRATED PHOTOCELL

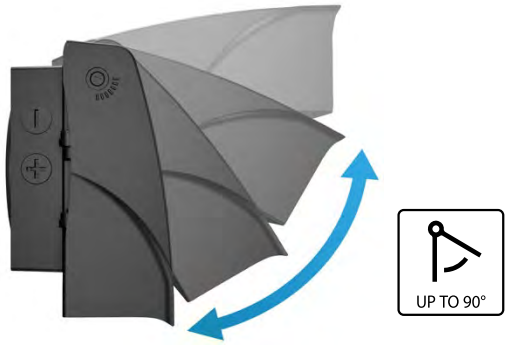
EASY INSTALL

DLC QPL LISTED PREMIUM

IP65 RATING

5-YEAR, LIMITED WARRANTY

RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty

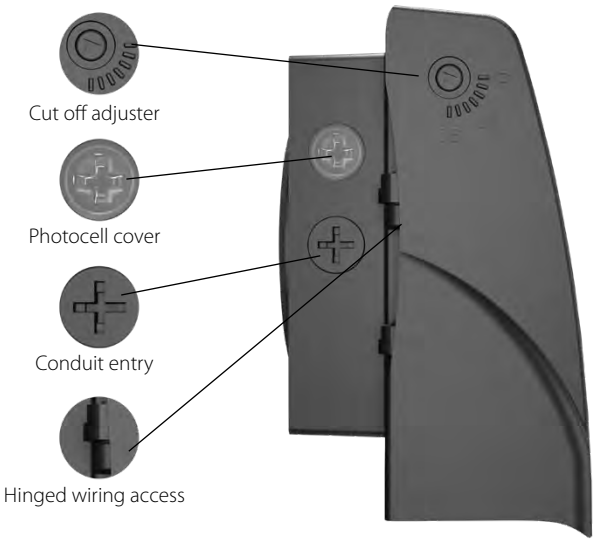


Control where light goes.

The SLIM17 comes in 15W and 30W models and has fully adjustable cut off, from full cutoff up to 90° in 15° increments, so you can put the light where you need it.

The proof is in the performance.

Tight budgets don't mean having to sacrifice on performance. The SLIM17 delivers 70+ CRI and a high efficacy of up to 130 lm/W, all with 0-10V dimming. Its diffuse, uniform output comes without the flickering or humming often found in ultra-economy lighting.



Easy installation.

Hinged wiring access and conduit entries on the back, sides, top and bottom make installation a snap.

Ordering Matrix

Family	Wattage	Style	Color Temp	Finish	Driver/Voltage	Options
SLIM17FA		ADJ				
	15 15W **30** 30W	**ADJ** Angle Adjustable	**Blank** 5000K/4000K/3000K selectable	**Blank** Bronze	**Blank** 120-277V	**Blank** Integrated button photocell

INSTRUCTIONS

SLIM® 17 FA 15-30W

FIELD-ADJUSTABLE WALL PACK INSTALLATION

RAB Lighting is committed to creating high-quality, affordable, well-designed and energy-efficient LED lighting and controls that make it easy for electricians to install and end users to save energy. We'd love to hear your comments. Please call the Marketing Department at 888-RAB-1000 or email: marketing@rablighting.com

SLIM17 FA 15-30W

IMPORTANT

READ CAREFULLY BEFORE INSTALLING FIXTURE. RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE.
RAB fixtures must be wired in accordance with the National Electrical Code and all applicable local codes. Proper grounding is required for safety. THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE INSTALLATION CODE BY A PERSON FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE PRODUCT AND THE HAZARDS INVOLVED.

Min 90 °C SUPPLY CONDUCTORS.

WARNING: Make certain power is OFF before installing or maintaining fixture. No user serviceable parts inside.

WARNING: Do not use an electric generator to test LED fixtures.

CAUTION: For proper weatherproofing function, all gaskets must be seated properly and all screws inserted and tightened. This is important with an uneven wall surface. Silicone all plugs and unused conduit entries.

For wet location compliance, fixture must be properly sealed. For moisture seal, apply silicone caulking between the mounting surface and back housing, as well as around the sides of the housing. This is important with uneven wall surface.

WALL MOUNT

Suitable for outdoor applications.

1. Using an Allen Wrench loosen (*1*) **Screw** on **Housing** side as shown in **Fig. 1**.
2. Open **Housing Cover** and rotate to a 90° angle as shown in **Fig. 2**.
3. Using a screwdriver loosen (*1*) **Screw t**o remove **Housing Back Plate** from **Housing** as shown in **Fig. 3, 4**.
4. Using a drill open holes in **Housing Back Plate** as shown in **Fig. 5**.
5. Apply **Foam Gasket** *(provided)* to external surface of the **Housing Back Plate** by removing yellow plastic film and adhering to **Housing Back Plate** as shown in **Fig. 6**.
6. Feed supply wires through **Housing Back Plate** as shown in **Fig. 7** and secure to junction box. Secure **Housing Back Plate** to surface or junction box *(supplied by others)* with **Screws** *(supplied by others)*.
7. Wire the **Housing** leads to supply wires using UL listed wire connectors according to NEC and local codes (***Fig. 13***). Push all wires into the housing.
8. Mount the **Housing** over the **Housing Back Plate** and secure with **Screw** *(provided)* as shown in **Fig. 8.**
9. Lower **Housing Cover** and secure with (*1*) **Screw** using an Allen Wrench as shown in **Fig. 1**.
10. For **Conduit** wiring, remove **Side Conduit Cap** using a screwdriver as shown in **Fig. 2**. Feed supply wires through conduit opening with a suitable connector. Wire the **Housing** leads to supply wires using UL listed wire connectors according to NEC and local codes (***Fig. 13***). Push all wires into the housing. Follow mounting instructions.

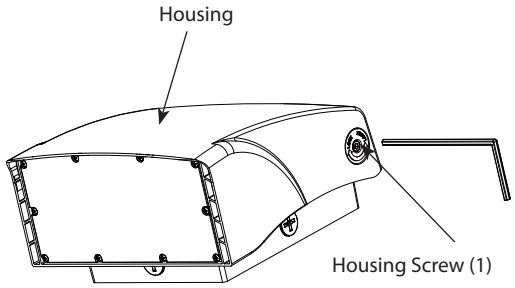


Fig: 1

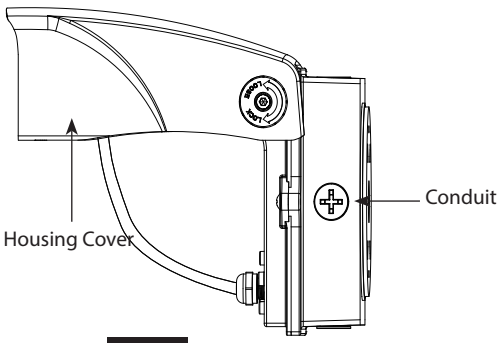


Fig: 2

INSTRUCTIONS

SLIM® 17 FA 15-30W

FIELD-ADJUSTABLE WALL PACK INSTALLATION

RAB Lighting is committed to creating high-quality, affordable, well-designed and energy-efficient LED lighting and controls that make it easy for electricians to install and end users to save energy. We'd love to hear your comments. Please call the Marketing Department at 888-RAB-1000 or email: marketing@rablighting.com

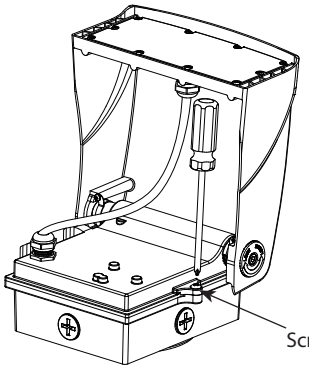


Fig: 3

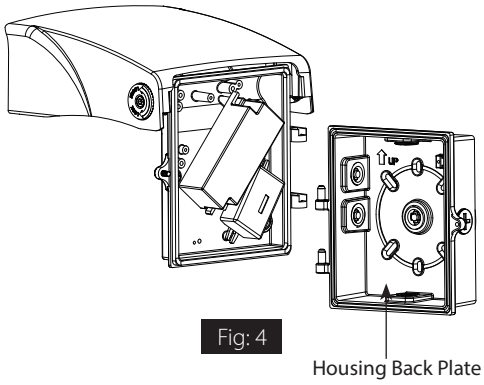


Fig: 4

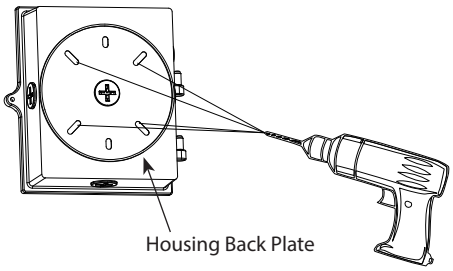


Fig: 5

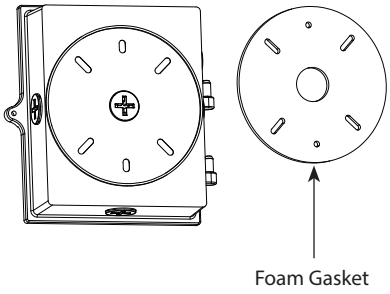


Fig: 6

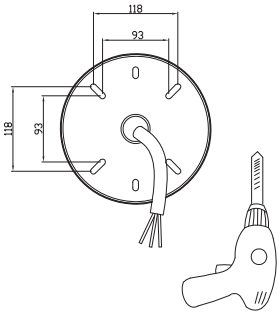


Fig: 7

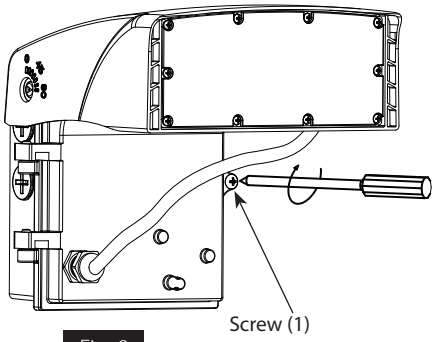


Fig: 8

0° - 90° ANGLE ADJUSTMENT

1. Using an Allen Wrench loosen (*1*) **Screw** on **Housing** side as shown in **Fig. 9**.
2. Fixture angle is adjustable from 0° (*Full Cutoff*) to 90°.
3. Adjust **Housing Cover** to desired angle as shown in Fig. 10. 7 settings at 15° each. Secure with (*1*) **Screw** using an Allen Wrench.

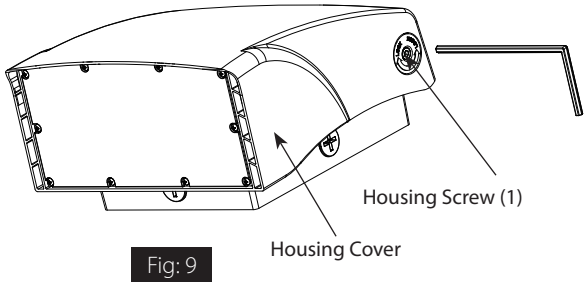


Fig: 9

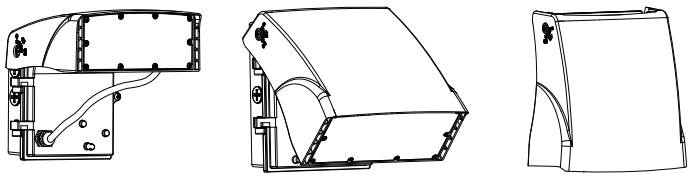


Fig: 10

INSTRUCTIONS

SLIM® 17 FA 15-30W

FIELD-ADJUSTABLE WALL PACK INSTALLATION

RAB Lighting is committed to creating high-quality, affordable, well-designed and energy-efficient LED lighting and controls that make it easy for electricians to install and end users to save energy. We'd love to hear your comments. Please call the Marketing Department at 888-RAB-1000 or email: marketing@rablighting.com

FIELD ADJUSTMENT

Follow instructions below to change fixture **Color Temperature** (*CCT*) from the factory settings.

Factory Settings: 4000K

1. Using an Allen Wrench loosen (*1*) **Screw** on **Housing** side as shown in **Fig. 11**.
2. Lift **Housing** cover and locate **CCT Selector Switch** in **Housing** as shown in **Fig. 12**.
3. Select **Color Temperature** (*CCT*) by sliding the **CCT Selector Switch** to the desired value.
4. Lower **Housing Cover** and secure with (*1*) **Screw** using an Allen Wrench as shown in F**ig. 11**.

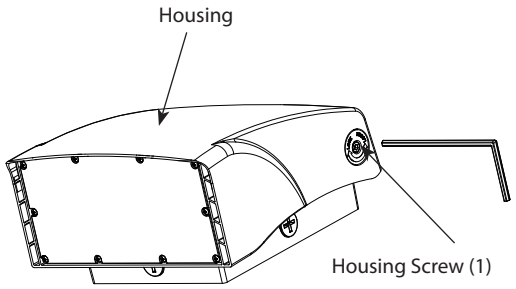


Fig: 11

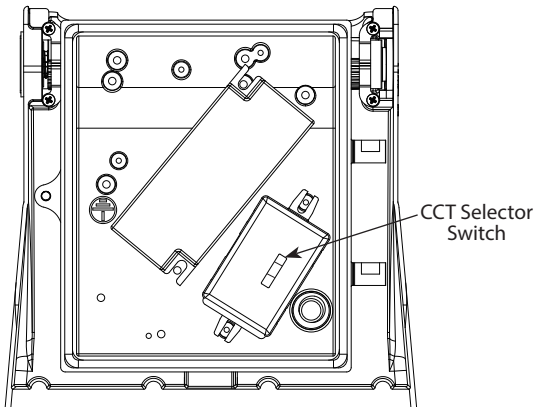


Fig: 12

0-10V DIMMABLE WIRING

Universal voltage driver permits operation at 120V thru 277V, 50 or 60 Hz. For 0-10 Dimming, follow the wiring directions as in **Fig. 13**.

1. Connect the Black/Brown fixture lead to the LINE supply lead.
2. Connect the White/Blue fixture lead to the COMMON supply lead.
3. Connect the Green/Yellow wire from the fixture to supply ground. Do NOT connect GROUND of the dimming fixture to the output.
4. Connect the purple fixture lead to the DIM V+ lead.
5. Connect the gray fixture lead to the DIM V- lead.
6. Cap the yellow fixture lead, if present. Do NOT connect.

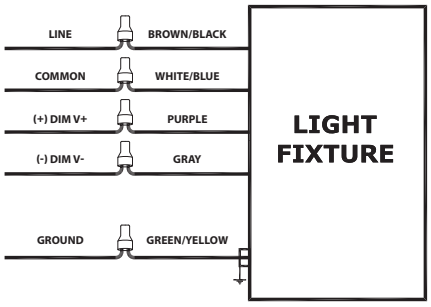


Fig: 13

CLEANING & MAINTENANCE

CAUTION: Be sure fixture temperature is cool enough to touch. Do not clean or maintain while fixture is energized.

1. Clean polycarbonate lens with non-abrasive glass cleaning solution.
2. Do not open the fixture to clean the LED. Do not touch the LED.

TROUBLESHOOTING

1. Is the fixture grounded properly?
2. It is recommended to wear gloves to avoid injury during installation.
3. If any smoke or spark, please turn off the power immediately.

Note: *These instructions do not cover all details or variations in equipment nor do they provide for every possible situation during installation, operation or maintenance.*

Easy Answers

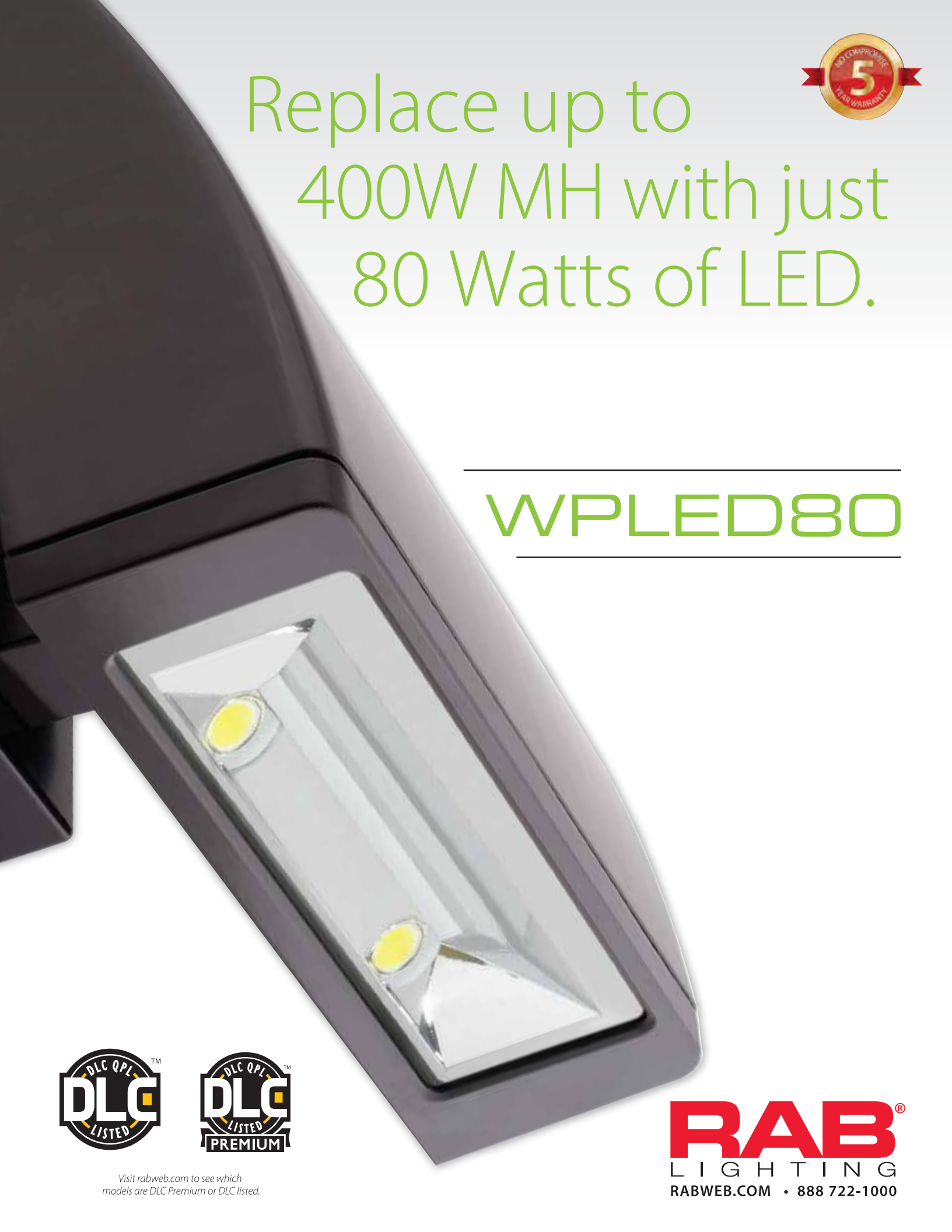
rablighting.com
Visit our website for product info

Tech Help Line
Call our experts: 888 722-1000

e-mail
Answered promptly - sales@rablighting.com

Free Lighting Layouts
Answered online or by request

SLIM17 FA 15W 30W -IN-0821
73718-RAB



Replace up to 400W MH with just 80 Watts of LED.

WPLED80

DLC QPL LISTED

DLC QPL LISTED PREMIUM

Visit rabweb.com to see which models are DLC Premium or DLC listed.

RAB® LIGHTING

RABWEB.COM • 888 722-1000

WPLED80

- **Ultra efficient 100 lm/W**
- **Reduces energy costs by 78%**
- **3 Cutoff options**
- **Bi-level and 0 - 10V dimming options**
- **Swivel photocell available**
- **Area light version also available (ALED80)**
- **100,000-Hour LED lifespan**
- **5-Year Warranty**

Vertical fins for maximum heat dissipation

No visible gaskets or hardware

Side access panel for wiring and inspection

Wiring plug gasket seals out moisture

Mounting Bracket with tether for easy wiring

WPLED® 80W Specifications

UL Listing: Suitable for wet locations.

LEDs: Multi-chip, high-output, long-life LEDs

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

Drivers: Constant current, Class 2, 100 - 277V and 480V, 50/60 Hz, 120V: 0.71A, 208V: 0.41A, 240V: 0.36A, 277V: 0.31A, 480V: 0.18A, 4 kV surge protection

Color Temperature	3000K	4000K	5000K
Input Watts	83	83	84
Output Lumens	9201	9588	9437
Lumens Per Watt	111	115	113
Color Accuracy (CRI)	71	72	73

Ambient Temperature: Suitable for use in 40°C ambient temperatures.

Cold Weather Starting: The minimum starting temperature is -40°C.

Thermal Management: Superior thermal management with external Air-Flow fins

Housing: Die-cast aluminum housing, door frame, arm and wall bracket

Mounting: Die-cast aluminum wall bracket with (5) 1/2" conduit openings with plugs. Two-piece bracket with tether for ease of installation and wiring.

Arm: Die-cast aluminum with wiring access plate

Cutoff Options: Full Cutoff (0°), Cutoff (7.5° uptilt), Standard (15° uptilt)

Reflector: Polycarbonate vacuum metalized specular reflector

Gaskets: High-temperature silicone gaskets, including a wiring plug gasket, seal out moisture

Color Stability: LED color temperature is warrantied 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.

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

Green Technology: Mercury and UV free. RoHS-compliant components.

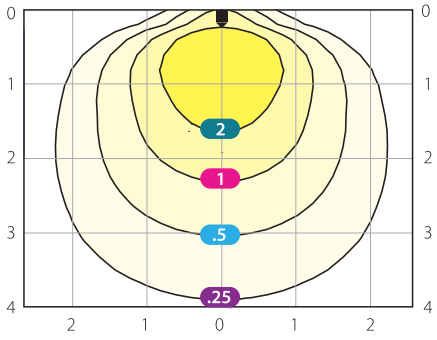
IESNA LM-79 & LM-80 Testing: RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80, and have received the Department of Energy "Lighting Facts" label.

California Title 24: WPLED80 configured with bi-level or 0-10V dimming and a compatible photo and/or motion sensor complies with 2013 California Title 24 building and electrical codes as a commercial outdoor pole-mounted fixture >30 Watts mounted at height greater than 24 feet.

Photometrics

WPLED 80W

80W at 20' Mounting Height, 15° tilt

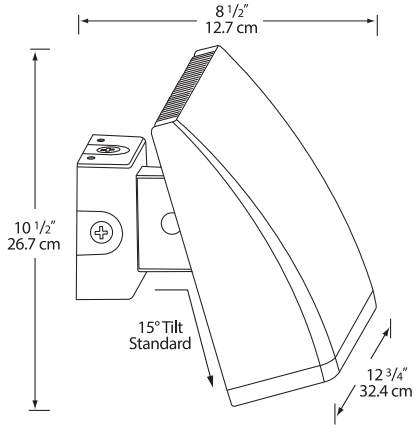


Mounting Height	20	22	25	28	30
Multiplier	1.0	0.8	0.6	0.5	0.4

Grid scale: Multiples of mounting height • Values shown in footcandles
Photometric Report #RAB02587MOD50

Dimensions

Weight: 17.5 lbs.



Ordering information

Product Family	Cutoff	Wattage	Color Temp	Color	Driver Options	Photocell Options
WPLED						
	Blank 15°	**52** 52W	**Blank** 5000K	**Blank** Bronze	**/480** 480V	**/PCS** 120V Swivel Photocell
	C 7.5°	**80** 80W	**N** 4000K	**W** White	**/BL** Bi-Level	**/PCS2** 277V Swivel Photocell
	FC 0°		**Y** 3000K		**/D10** 0-10V Dimming	**/PCS4** 480V Swivel Photocell

WPLED20/PC

JOB NAME: _____

DATE: _____

TYPE: _____

DESCRIPTION

LED 20 Watt Wallpacks

SPECIFICATIONS

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

Finish:
Chip and fade resistant polyester powder coat finish.

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

Gaskets:
High Temperature Silicone

IESNA LM-79:
RAB LED luminaires comply with the IESNA LM-79 testing procedure, which measures performance qualities of LED luminaires to allow for a true comparison of luminaires regardless of the light source.

Patents:
The WPLED20 design is protected under patents pending in the U.S., Canada, China, Taiwan and Mexico.

UL Listing:
Suitable for wet locations. Suitable for mounting within 4' of the ground.

Warranty:
RAB LED fixtures give you peace of mind because both the fixture and light engine components are backed by RAB's 5 Year Warranty. For more information,

Color Accuracy:
70 CRI

Driver Reliability:
MIL Spec 217F results based on UL certified testing lab results in 122F ambient temperatures indicate mean time between failures of greater than 90,000 hrs

Driver:
Automatic Voltage Sensing Driver for 120 – 277 volts

Fixture Efficacy:
46 Lumens per Watt

Green Technology:
RAB LEDs are Mercury and UV free.

Heatsink:
Integral cast aluminum mounting pad and external fins for optimal heat sinking to ensure cool operation with maximum LED life and light output.

Housing:
Precision die cast aluminum housing, lens frame and moutning plate.

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.

LED Light Engine:
Two Multi-chip 10W high output long life LED Driver: Constant Current, Class 2

Light Color:
5584 K (Daylight)

Photocell:
Button Photocell installed and wired for 120V

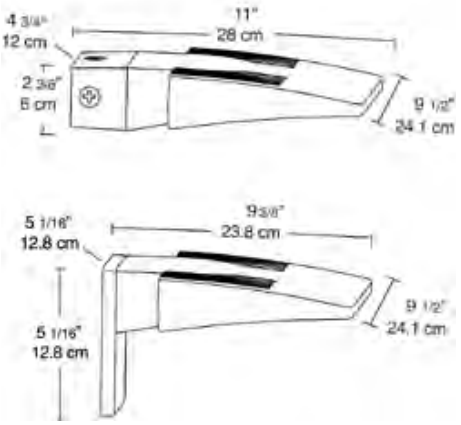
Total Harmonic Distortion:
THD = 8.4%

Two Mounting Options:
Junction Box with 5 Conduit Entry Points and Threaded Plugs for surface mounting plus Cover Plate for mounting over 4" recessed junction box included with WPLED20

Color:
Bronze

Weight:
6.1

DIMENSIONS



ORDERING INFORMATION

LED Lamp supplied with fixture	Total Watts	Lamp Type	Lamp Base	Ballast	Starting Amps/ Operating Amps 120V	208V	240V	277V	Input Watts	LAMP ANSI	Initial Lumens	Lamp Hours
	20	Light Emitting Diode	Thermal Heatsink	Constant Current	0.5	0.5	0.5	0.125	22	N/A	1030	50000
Factory Installed Options Add suffix to Catalog Number	Photocontrol for 277V (/PC2)				Photocontrol for 120V (/PC)							

Note: Specifications may change without notice

RAB Lighting, Inc. • 170 Ludlow Ave• Northvale, NJ 07647 • Tel: 888 RAB-1000 • Fax: 888 RAB-1232 • www.rabweb.com

Photometric Test Report

Relevant Standards

☑IES LM-79-2008

☑ANSI C82.77:2017

Prepared For

RAB Lighting Inc.

Room 6A33, No.1388, Wuzhong road,Shanghai ,China

Xiao Xiang,15921313292,Gary.Xiao@rabweb.com

Prepared By

Deliver Co.， Ltd.

Block 11, 78 Keling Road, SSTP, Suzhou, China

0512-66801950,kevin.jia@szdeliver.com

Project Number

DLF2101101

Report Number

DLF2101101-8a

Test Date

2021/1/6

Issue Date

2021/1/13

Prepared By	**Approved By**
Wangzun Zhu	Kevin Jia

1.0 Test Summary

DLC Technical Requirements v5.1

Outdoor - Pole/Arm-Mounted Area and Roadway Luminaires Full-Cutoff Wall-Mounted Area Luminaires				
Requirement Category	**Test Method**	**Requirements**		**Test value**
Luminaire Output (lm) (Goniophotometer - Section 4.2)	IES LM-79-2008	1000		3851
Minimum Luminaire Efficacy (lm/W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Standard 105	Premium 120	134.4
Power (Input Wattage) (W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Wrost Case		28.7
Total Harmonic Distortion (A%) (THD & PF - section 4.3)	ANSI C82.77:2014	20.00%	120V	10.18%
		20.00%	277V	10.68%
Power Factor (THD & PF - section 4.3)	ANSI C82.77:2014	0.9	120V	0.983
		0.9	277V	0.954
Allowable CCTs* (K) (Integrating Sphere - Section 4.1)	IES LM-79-2008	7 step	5029±355	4761
		4 step	5029±220	
Minimum CRI (Integrating Sphere - Section 4.1)	IES LM-79-2008 CIE 13.3-1995	⩾70		70
Minimum R9 (Integrating Sphere - Section 4.1)	IES LM-79-2008 CIE 13.3-1995	⩾-40		-27
Minimum Rf (Integrating Sphere - Section 4.1)	ANSI/IES TM-30-18	⩾70		71
Minimum Rg (Integrating Sphere - Section 4.1)	ANSI/IES TM-30-18	⩾89		96
Minimum IES Rcs,h1 (Integrating Sphere - Section 4.1)	ANSI/IES TM-30-18	-18%⩽IES Rcs,h1⩽+23%		-17%
Zonal Lumen Requirement (0°-90°) (Goniophotometer - Section 4.2)	IES LM-79-2008	100%		100.00%
Zonal Lumen Requirement (80°-90°) (Goniophotometer - Section 4.2)	IES LM-79-2008	⩽10%		0.04%
Input Voltage (V)				
(Goniophotometer - Section 4.2)	IES LM-79-2008	Wrost Case		277
(Goniophotometer - Section 4.2)		Non-Wrost Case		120
Input Current (A)				
(Goniophotometer - Section 4.2)	IES LM-79-2008	Wrost Case		0.109
(Goniophotometer - Section 4.2)		Non-Wrost Case		0.234
Power (Input Wattage - W)				
(Goniophotometer - Section 4.2)	IES LM-79-2008	Wrost Case		28.7
(Goniophotometer - Section 4.2)		Non-Wrost Case		27.6

2.0 Test List

Test Item	Test	Test Date	Model Number	Sample No.
1	Integrating Sphere Test	2021/1/6	[WP, A]LED26	H1
2	Goniophotometer Test	2021/1/6	[WP, A]LED26	H1
3	THD and PF Test	2021/1/6	[WP, A]LED26	H1

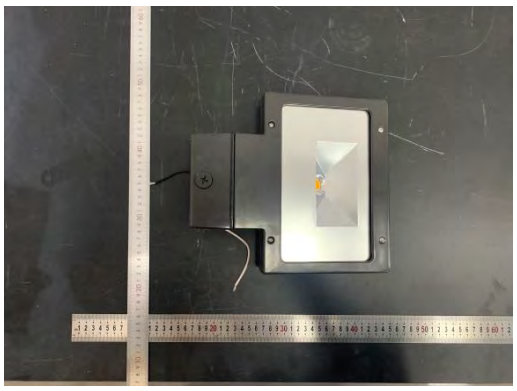
Remark(If any)
1、This report shall not be used by the client to claim product endorsement by NVLAP, NIST or any agency of the US government.
2、The results reported herein have been performed in accordance with the laboratory's terms of accreditation. This report shall not be reproduced except in full without the written approval of the Laboratory. The results in this report apply to the test sample(s) mentioned above at the time of the testing period only and are not to be used to indicate applicability to other similar products. This report does not imply that the product(s) has met the criteria for certification.

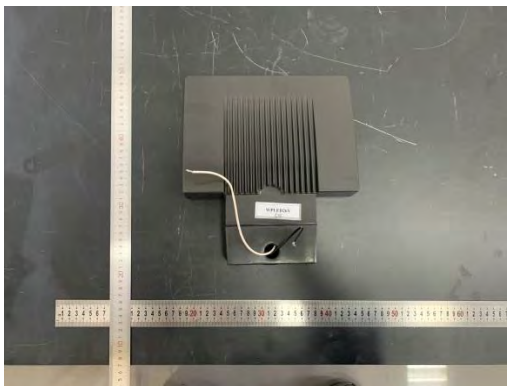
3.0 Production Description

Luminaire Description: [WP, A]LED26

Electrical Specification: 120V-277V,50/60HZ

Photos of Luminaire Characteristics





4.0 LM-79 Measurement and Test Results

4.1 Integrating Sphere Test

Model No.	[WP, A]LED26	Sample ID.	H1
Opreate time (Min.)	90	Stabilization time (Min.)	45
Temperature (°C)	25.3	Humidity (%RH)	56.0

Test Method
The samples were tested according to the IES LM-79-2008.
Photometric paramters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25º C ± 1º C.
The sample measurements were made using a spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere.
The voltage of an AC power supply (RMS voltage) or DC power supply (instantaneous voltage) applied to the device under test shall be regulated to within ±0.2 percent under load.
The sample was measured using 4π geometry and operated at rated voltage and was stabilized before measurement. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral radiant flux measurements taken at 1 nm intervals over the range of 380 to 780 nm.

Test Result

Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
120.04	60	0.231	27.3	0.983
276.98	60	0.109	28.7	0.954

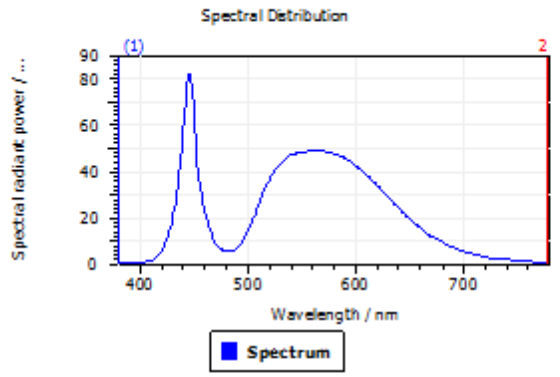
Test Result

CCT (K)	CRI	R9	Duv
4761	70	-27	0.0051

Rf	Rg	IES Rcs,h1
71	96	-17%

4.1 Integrating Sphere Test

Results



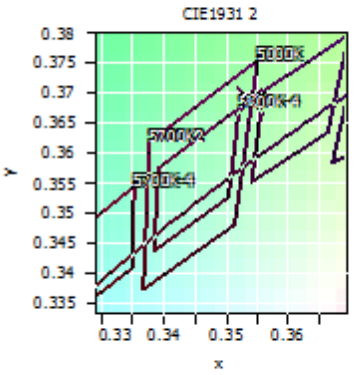
Spectral Distribution

Spectral values

DominantWavelength	571.51 nm
Purity	0.168
PeakWavelength	445.47 nm
Radiant Power	8.588 W
Width50%:	

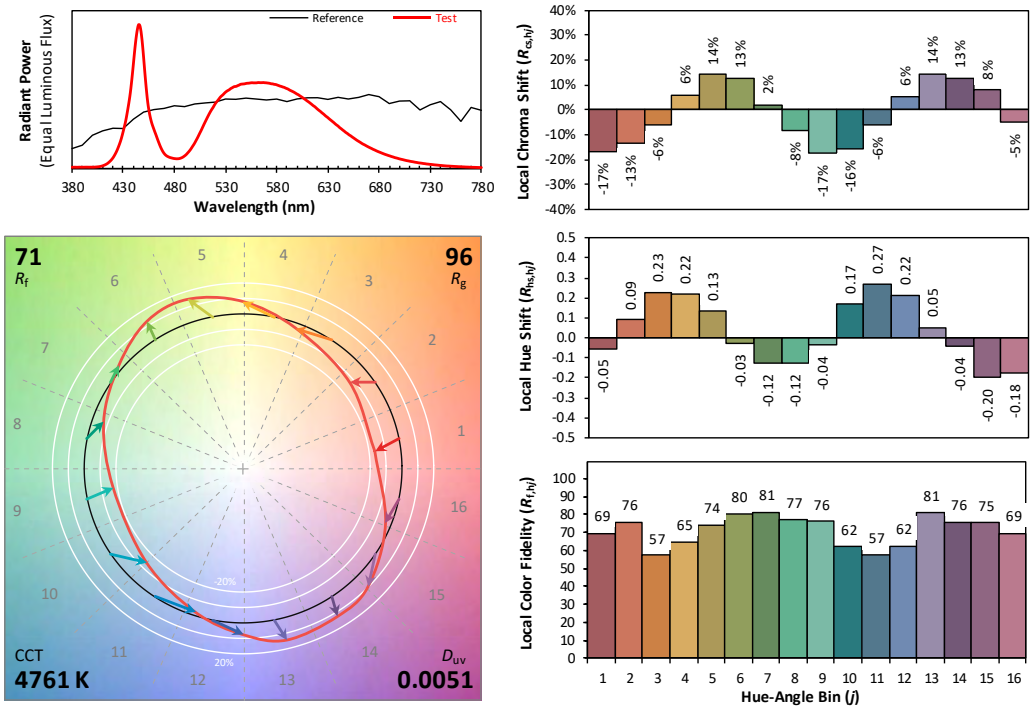
Color Coordinates

Correlated Color Temperatu		4761 K			
x:	0.3537	u:	0.2106	u':	0.2106
y:	0.3688	v:	0.3294	v':	0.4940
CRI01		67.7	CRI09		-26.7
CRI02		73.1	CRI10		35.8
CRI03		76.6	CRI11		68.1
CRI04		71.6	CRI12		35.0
CRI05		67.7	CRI13		67.5
CRI06		62.8	CRI14		86.7
CRI07		79.7	CRI15		61.5
CRI08		58.3	CRI16		65.3
ResultsCRI		69.7			



PlanckDistance 5.1E-003

4.1 Integrating Sphere Test



Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x	0.3537
y	0.3688
u'	0.2106
v'	0.4940

CIE 13.3-1995 (CRI)

R_a	70
R_9	-28

lors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.0

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	[WP, A]LED26	Sample ID.	H1
Opreate time (Min.)	90	Stabilization time (Min.)	45
Temperature (°C)	25.3	Humidity (%RH)	54.0

Test Method
The samples were tested according to the IES LM-79-2008.
Photometric paramters were measured using a type C goniophotometer and software.
The ambient temperature shall be maintained at 25° C ± 1° C, measured at a point not more than 1 m from the sample and at the same height as the sample.
The voltage of an AC power supply (RMS voltage)or DC power supply (instantaneous voltage) applied to the device under test shall be regulated to within ±0.2 percent under load.
The samples were operated at rated voltage and was stabilized before measurement. Luminous flux, luminaire efficacy, zonal lumen were calculated from the software taken at 0.5^{o} vertical intervals and 10^{o} horizontal intervals.

Test Conditions

Condition	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
WROST CASE	276.91	60	0.109	28.7	0.949
NON-WROST CASE	120.04	60	0.234	27.6	0.981

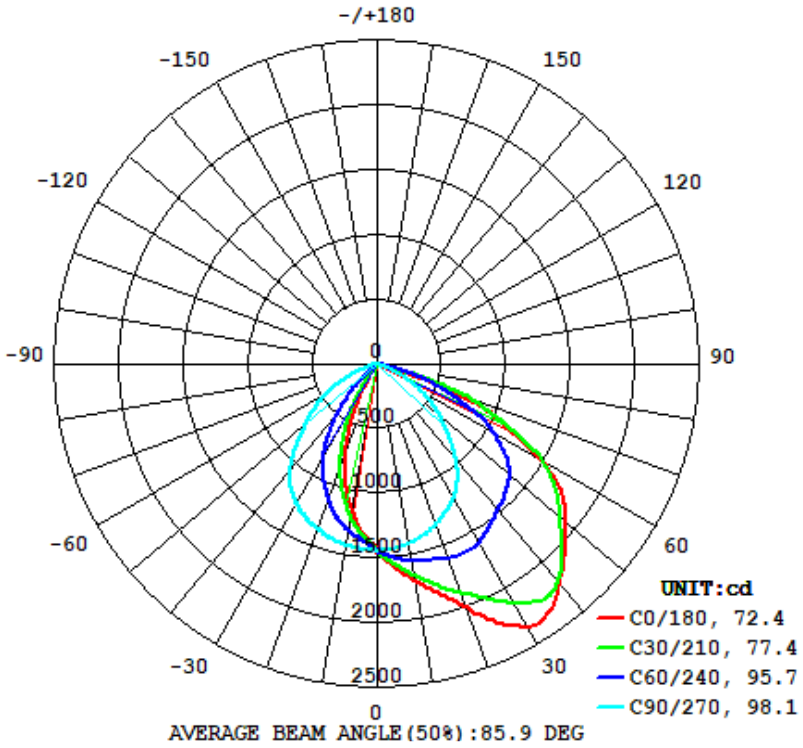
Test Result

Flux (lm)	Field Angle(10%)		Beam Angle(50%)		Luminous Efficacy (lm/W)
	C0-180	C90-270	C0-180	C90-270	
3851	102.9	138.0	72.4	98.1	134.4

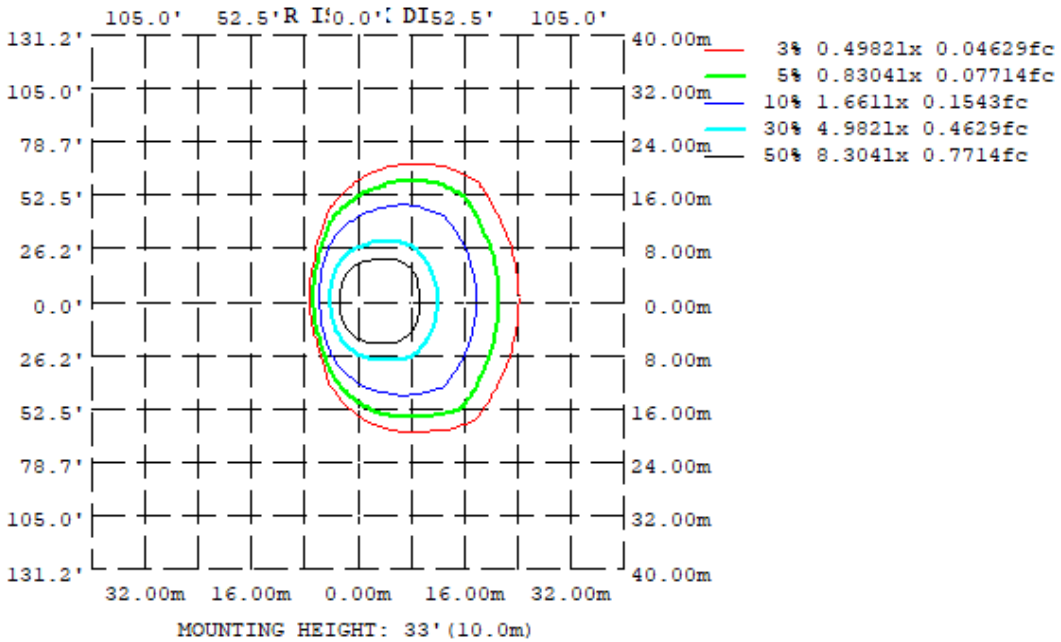
Zonal Lumen Requirement (0°-90°)	Zonal Lumen Requirement (80°-90°)	BUG rating
100.00%	0.04%	B1-U0-G0

4.2 Goniophotometer Test

Light Distrubtion Curve



Isolux Plot



4.2 Goniophotometer Test

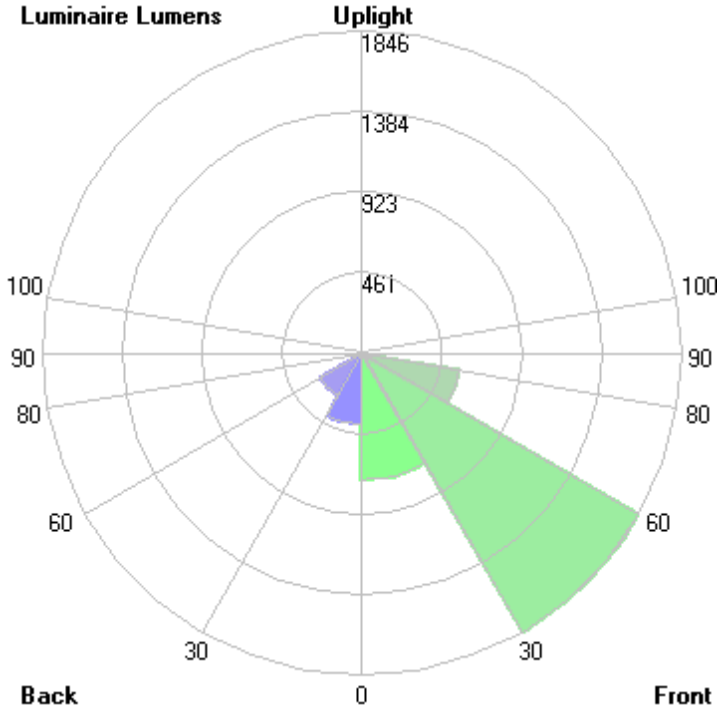
Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315
10	1699	1603	1411	1228	1146	1255	1423	1606
20	1993	1758	1325	920.8	729.6	970.4	1356	1775
30	2344	1843	1195	536.6	246.8	612.5	1251	1903
40	2202	1852	960.7	112.7	58.37	186.0	1050	1960
50	1910	1721	654.0	14.88	15.81	16.74	736.7	1757
60	1449	1489	365.1	5.837	10.40	6.650	460.2	1521
70	604.3	744.0	78.08	2.600	5.276	3.005	160.6	849.9
80	1.177	6.064	1.613	1.564	3.085	1.971	2.662	39.28
90	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0
130	0	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0
160	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0
DEG	LUMINOUS INTENSITY:cd							

	Zonal (lm)		Total (lm)	Percent
0-10	136.74	0 - 10	136.74	3.55%
10-20	392.97	0 - 20	529.71	13.76%
20-30	602.04	0 - 30	1131.75	29.39%
30-40	724.99	0 - 40	1856.74	48.22%
40-50	731.68	0 - 50	2588.42	67.22%
50-60	667.91	0 - 60	3256.33	84.56%
60-70	468.36	0 - 70	3724.69	96.72%
70-80	124.47	0 - 80	3849.16	99.96%
80-90	1.72	0 - 90	3850.88	100.00%
90-100	0.00	0 - 100	3850.88	100.00%
100-110	0.00	0 - 110	3850.88	100.00%
110-120	0.00	0 - 120	3850.88	100.00%
120-130	0.00	0 - 130	3850.88	100.00%
130-140	0.00	0 - 140	3850.88	100.00%
140-150	0.00	0 - 150	3850.88	100.00%
150-160	0.00	0 - 160	3850.88	100.00%
160-170	0.00	0 - 170	3850.88	100.00%
170-180	0.00	0 - 180	3850.88	100.00%

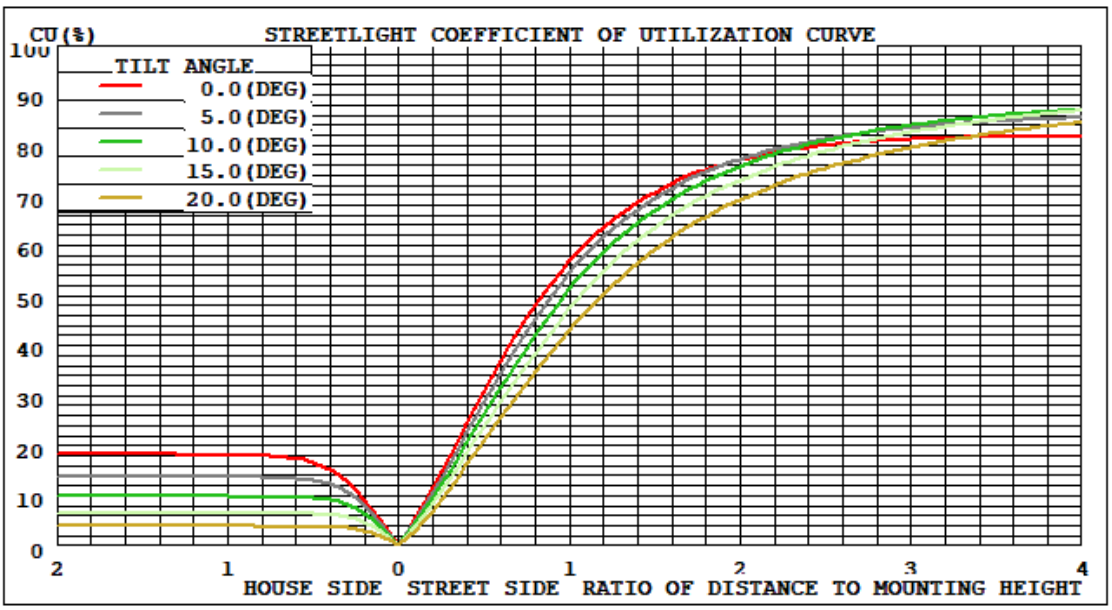
4.2 Goniophotometer Test

LCS/BUG

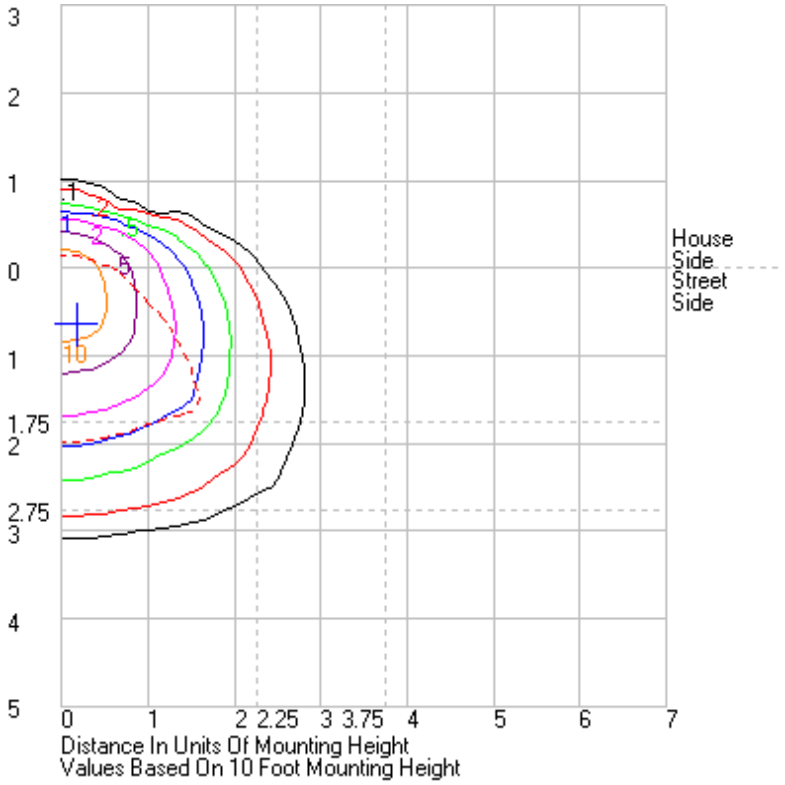


	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	726.0	N.A.	18.9
FM - Front-Medium (30-60)	1845.9	N.A.	47.9
FH - Front-High (60-80)	572.7	N.A.	14.9
FVH - Front-Very High (80-90)	0.9	N.A.	0.0
BL - Back-Low (0-30)	405.7	N.A.	10.5
BM - Back-Medium (30-60)	278.6	N.A.	7.2
BH - Back-High (60-80)	20.1	N.A.	0.5
BVH - Back-Very High (80-90)	0.8	N.A.	0.0
UL - Uplight-Low (90-100)	0.0	N.A.	0.0
UH - Uplight-High (100-180)	0.0	N.A.	0.0
Total	3850.7	N.A.	100.0
BUG Rating	B1-U0-G0		

Coefficients of Utilization



Isolines



Vert. Angles	Horizontal Angles									
	0	15	30	45	60	75	90	105	120	135
0	1442.707	1442.707	1442.707	1442.707	1442.707	1442.707	1442.707	1442.707	1442.707	1442.707
1	1470.260	1470.310	1466.160	1462.220	1458.220	1447.400	1439.830	1433.420	1424.580	1418.600
2	1496.990	1496.880	1490.120	1482.640	1471.500	1454.090	1438.290	1423.770	1409.450	1398.000
3	1521.870	1516.710	1509.530	1498.730	1482.670	1460.020	1438.200	1413.730	1393.650	1378.410
4	1543.030	1539.660	1530.260	1514.820	1492.790	1465.210	1437.130	1404.560	1379.370	1355.170
5	1569.850	1564.190	1549.500	1529.790	1505.250	1469.930	1434.900	1395.260	1364.680	1339.450
6	1594.540	1588.650	1567.130	1544.670	1510.870	1473.560	1430.590	1385.980	1350.020	1319.800
7	1620.400	1611.100	1591.550	1560.670	1521.100	1476.530	1424.570	1375.760	1333.870	1300.290
8	1649.110	1636.930	1612.660	1574.470	1529.950	1480.010	1422.900	1363.450	1319.280	1278.600
9	1674.670	1663.810	1632.050	1588.950	1537.250	1481.650	1416.630	1352.830	1303.310	1254.110
10	1699.390	1689.170	1654.310	1603.310	1543.360	1481.960	1411.330	1344.150	1286.610	1227.750
11	1722.500	1713.760	1676.400	1616.980	1550.260	1481.310	1406.440	1332.100	1269.020	1200.470
12	1749.840	1736.970	1696.930	1632.260	1556.200	1481.030	1399.800	1320.340	1249.970	1170.750
13	1777.200	1765.490	1716.060	1647.510	1560.850	1479.330	1392.130	1308.100	1229.130	1141.540
14	1804.450	1793.210	1740.730	1661.380	1562.920	1477.930	1383.890	1294.550	1207.410	1110.640
15	1829.890	1819.360	1764.560	1677.590	1568.750	1471.130	1373.420	1283.120	1184.060	1079.900
16	1858.100	1845.700	1792.590	1690.790	1575.050	1464.640	1367.670	1270.720	1159.100	1051.480
17	1890.450	1870.840	1818.950	1706.840	1580.910	1461.240	1357.430	1256.960	1134.570	1021.880
18	1921.400	1901.430	1842.200	1723.520	1585.700	1454.950	1347.610	1240.990	1108.380	989.010
19	1953.730	1931.530	1863.820	1740.030	1592.350	1449.600	1332.720	1225.700	1082.910	955.370
20	1993.080	1963.660	1883.770	1757.750	1596.550	1443.890	1325.220	1208.780	1059.020	920.770
21	2028.630	1998.230	1904.480	1770.160	1601.850	1435.810	1312.880	1191.800	1035.310	887.460
22	2080.320	2034.620	1924.270	1781.330	1604.070	1427.950	1303.460	1173.680	1010.870	853.740
23	2123.340	2075.660	1946.050	1793.120	1603.900	1422.940	1289.460	1155.650	985.470	816.620
24	2164.160	2111.100	1971.940	1801.230	1606.510	1414.080	1276.740	1138.110	957.240	777.510
25	2196.980	2148.990	2001.290	1807.220	1607.430	1407.990	1264.440	1117.230	927.860	738.750
26	2236.440	2183.890	2028.670	1810.500	1605.280	1399.020	1251.610	1098.530	898.140	697.830
27	2271.730	2220.570	2055.720	1814.220	1608.070	1390.050	1239.330	1076.710	865.430	665.210
28	2294.070	2258.280	2082.850	1819.830	1602.240	1381.410	1225.420	1053.600	832.970	622.610
29	2320.090	2287.480	2114.370	1830.300	1596.200	1370.440	1210.310	1030.510	802.160	579.850
30	2343.670	2314.800	2131.060	1842.960	1588.370	1361.050	1195.020	1004.390	767.280	536.600
31	2355.440	2338.470	2156.670	1850.300	1576.440	1348.330	1177.740	976.910	729.720	491.450
32	2358.840	2354.640	2180.580	1864.750	1564.150	1338.670	1159.280	949.950	691.290	447.690
33	2354.240	2365.750	2194.910	1874.110	1550.080	1326.340	1139.300	920.390	650.590	400.500
34	2344.050	2359.370	2211.880	1877.090	1537.550	1314.900	1117.080	890.930	612.250	357.880
35	2333.920	2348.940	2228.560	1879.410	1527.110	1302.080	1096.070	859.580	573.900	311.950
36	2315.520	2333.880	2233.460	1872.830	1514.720	1286.680	1071.600	826.420	533.360	265.290
37	2297.020	2314.550	2231.760	1873.140	1501.460	1272.270	1046.930	792.580	489.670	227.080
38	2267.970	2292.140	2221.660	1867.830	1488.040	1256.970	1019.500	755.860	444.180	184.430
39	2234.360	2261.390	2206.500	1863.020	1475.210	1238.240	989.230	718.840	402.710	147.050
40	2201.540	2227.950	2186.720	1852.440	1462.070	1217.150	960.680	680.730	358.960	112.720
41	2176.540	2194.690	2164.460	1842.880	1456.090	1194.030	927.160	641.350	316.870	81.430
42	2148.840	2161.250	2143.480	1836.280	1447.940	1172.080	895.290	608.520	277.840	62.490
43	2123.690	2123.880	2109.510	1823.640	1438.450	1143.030	860.340	574.390	242.080	50.070
44	2091.520	2092.530	2071.810	1807.630	1431.350	1117.180	829.730	542.640	206.160	37.650
45	2065.370	2057.200	2038.480	1786.440	1413.250	1087.510	798.420	509.770	170.860	29.460
46	2030.400	2022.440	2002.680	1765.180	1397.170	1058.710	766.780	478.870	141.530	24.440
47	2002.110	1987.510	1965.160	1758.080	1386.120	1030.020	738.560	448.260	112.380	20.850
48	1973.110	1954.120	1925.850	1749.780	1373.590	997.610	708.150	416.690	84.340	18.380
49	1943.870	1924.680	1887.880	1737.010	1360.880	966.310	680.380	386.110	62.620	16.490
50	1909.770	1895.540	1852.540	1721.370	1345.140	934.310	654.020	354.480	44.380	14.880
51	1881.140	1858.130	1824.200	1701.370	1328.590	907.030	628.090	324.290	26.250	13.710
52	1853.920	1825.660	1795.980	1676.620	1306.100	882.610	601.500	294.220	18.180	12.610
53	1826.020	1791.180	1767.470	1651.510	1282.800	859.120	572.560	264.710	14.310	11.530
54	1790.480	1755.980	1734.810	1631.960	1253.920	836.770	546.890	235.850	11.090	10.640
55	1758.520	1721.700	1698.370	1613.540	1218.280	812.280	517.300	207.090	9.600	9.630
56	1714.920	1684.900	1659.130	1600.300	1178.590	790.610	488.950	179.720	8.270	8.790

57	1658.310	1635.790	1617.030	1577.160	1142.490	765.860	459.340	151.930	7.070	7.930
58	1593.360	1578.260	1574.790	1551.080	1109.120	740.950	428.440	126.730	6.450	7.150
59	1522.920	1511.830	1531.100	1519.900	1074.520	715.180	397.870	103.400	5.830	6.490
60	1449.490	1440.570	1479.350	1488.890	1038.860	683.770	365.090	80.870	5.330	5.840
61	1364.980	1366.190	1413.660	1449.040	1007.360	643.390	333.750	60.240	4.890	5.320
62	1286.800	1285.580	1342.110	1411.310	964.850	598.680	303.010	43.230	4.470	4.780
63	1205.360	1204.810	1262.620	1369.490	911.240	553.970	271.520	30.570	4.100	4.360
64	1127.680	1124.620	1178.800	1323.120	841.860	506.270	241.750	17.930	3.740	3.970
65	1059.640	1049.040	1096.480	1274.930	771.360	461.230	210.760	11.040	3.420	3.650
66	999.730	981.440	1014.840	1192.100	701.020	422.250	182.390	8.070	3.140	3.370
67	929.350	920.800	939.860	1082.530	645.990	384.950	154.290	6.340	2.900	3.120
68	833.650	837.290	874.020	964.150	596.120	350.160	127.510	4.770	2.700	2.920
69	727.880	739.500	818.880	843.910	546.260	315.560	102.190	3.550	2.500	2.740
70	604.280	622.240	746.630	744.010	502.190	283.000	78.080	2.990	2.320	2.600
71	467.920	499.380	649.290	665.850	464.040	247.170	58.900	2.720	2.150	2.470
72	331.560	376.520	541.210	608.090	425.000	197.530	41.660	2.480	2.000	2.350
73	191.830	230.450	432.910	550.460	364.810	147.730	24.430	2.260	1.870	2.250
74	84.130	109.380	308.340	477.680	284.650	98.070	12.990	2.060	1.750	2.130
75	35.550	53.310	168.860	393.040	205.260	57.250	8.160	1.880	1.640	2.040
76	18.770	30.940	65.100	295.860	127.200	32.680	5.470	1.710	1.530	1.950
77	7.870	8.560	41.800	197.020	58.750	8.420	3.380	1.550	1.430	1.850
78	5.310	5.640	20.320	92.320	32.890	4.920	2.140	1.410	1.350	1.760
79	2.780	3.000	7.700	36.900	7.980	4.050	1.860	1.280	1.280	1.650
80	1.180	1.290	4.410	6.060	5.710	3.210	1.610	1.170	1.200	1.560
81	0.640	0.720	1.130	3.370	3.940	2.510	1.390	1.050	1.120	1.470
82	0.290	0.320	0.550	1.550	2.950	2.030	1.190	0.950	1.030	1.380
83	0.080	0.100	0.210	0.790	2.040	1.590	1.000	0.860	0.950	1.290
84	0.030	0.030	0.040	0.270	1.290	1.180	0.820	0.760	0.870	1.200
85	0.030	0.030	0.030	0.050	0.710	0.820	0.650	0.660	0.790	1.110
86	0.020	0.030	0.030	0.030	0.200	0.450	0.480	0.560	0.700	0.980
87	0.020	0.020	0.020	0.030	0.050	0.170	0.280	0.450	0.610	0.860
88	0.020	0.020	0.020	0.030	0.050	0.090	0.170	0.310	0.470	0.710
89	0.020	0.020	0.020	0.030	0.050	0.090	0.160	0.290	0.430	0.630
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
91	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
93	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
94	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
96	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
98	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
99	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
101	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
102	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
103	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
104	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
106	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
107	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
108	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
109	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
111	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
113	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
114	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
116	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

117	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
118	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
119	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
121	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
122	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
123	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
124	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
126	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
127	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
128	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
129	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
131	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
132	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
133	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
134	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
135	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
136	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
137	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
138	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
139	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
141	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
142	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
143	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
144	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
146	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
147	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
148	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
149	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
151	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
152	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
153	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
154	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
156	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
157	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
158	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
159	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
161	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
162	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
163	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
164	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
166	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
167	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
168	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
169	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
171	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
172	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
173	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
174	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
176	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

177	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
178	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
179	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Vert. Angles	Horizontal Angles									
	150	165	180	195	210	225	240	255	270	285
0	1442.707	1442.707	1442.707	1442.707	1442.707	1442.707	1442.707	1442.707	1442.707	1442.707
1	1415.240	1411.680	1412.820	1414.590	1417.190	1422.150	1428.910	1434.370	1442.950	1450.060
2	1390.750	1384.110	1387.450	1389.220	1392.890	1402.320	1413.060	1426.730	1442.010	1456.390
3	1367.460	1359.520	1363.200	1364.330	1371.220	1383.600	1397.770	1417.020	1440.930	1462.720
4	1344.450	1335.650	1341.620	1343.050	1353.210	1367.540	1385.220	1408.870	1439.100	1467.440
5	1323.140	1310.770	1319.880	1321.760	1335.210	1352.020	1371.000	1400.790	1437.710	1473.260
6	1297.760	1281.880	1289.530	1296.750	1313.600	1336.500	1358.220	1392.370	1436.180	1477.970
7	1269.800	1250.680	1256.150	1265.900	1287.980	1319.220	1345.890	1383.590	1434.970	1481.860
8	1242.490	1216.090	1220.940	1234.490	1262.000	1298.260	1335.070	1374.150	1432.510	1486.110
9	1211.160	1178.990	1183.480	1198.920	1230.860	1277.250	1324.290	1365.740	1427.360	1487.010
10	1176.360	1140.930	1146.170	1163.960	1201.440	1254.960	1309.710	1356.650	1423.070	1489.010
11	1141.010	1104.180	1110.470	1125.700	1168.850	1232.010	1296.510	1348.190	1419.930	1490.120
12	1106.110	1069.840	1074.590	1092.260	1137.490	1206.790	1281.250	1342.040	1415.640	1490.730
13	1074.230	1034.590	1038.050	1059.490	1104.700	1178.970	1264.790	1335.880	1411.310	1489.920
14	1040.040	996.150	997.590	1021.490	1072.880	1151.750	1246.520	1328.700	1405.070	1488.320
15	1005.930	954.050	955.640	980.460	1036.860	1119.900	1227.950	1317.240	1398.160	1486.320
16	967.780	913.730	914.540	939.310	1002.160	1092.400	1206.450	1303.330	1390.790	1485.170
17	929.660	872.940	872.900	900.480	965.930	1062.710	1182.390	1291.420	1382.930	1484.050
18	890.880	828.150	826.850	859.380	928.030	1032.320	1160.210	1278.380	1373.350	1481.780
19	853.340	782.960	778.310	813.810	890.720	1003.330	1136.510	1263.710	1364.980	1478.090
20	809.950	733.390	729.600	765.470	853.170	970.410	1110.890	1250.520	1356.360	1474.790
21	764.940	688.080	682.220	719.610	810.930	939.110	1087.790	1234.830	1347.870	1474.160
22	720.990	636.950	632.480	673.360	767.240	905.550	1062.220	1218.160	1341.550	1468.470
23	676.660	590.830	581.070	624.750	723.900	873.510	1038.330	1202.770	1335.140	1465.250
24	631.890	544.220	531.170	576.380	681.890	840.540	1014.640	1187.190	1325.720	1460.580
25	587.130	492.650	478.470	527.260	638.610	805.520	988.390	1172.210	1314.570	1455.410
26	542.800	445.000	431.790	477.310	593.160	767.180	963.460	1152.090	1302.560	1449.200
27	495.570	400.000	384.630	431.270	550.470	728.490	936.130	1135.420	1292.320	1442.900
28	448.290	350.940	333.910	385.470	505.300	690.420	906.760	1118.480	1278.990	1435.000
29	407.320	304.910	289.830	336.600	460.600	652.930	875.520	1097.840	1265.400	1427.170
30	360.800	263.170	246.800	293.620	417.370	612.520	842.460	1075.790	1251.190	1417.310
31	314.290	219.630	205.480	251.130	374.270	570.000	810.290	1053.090	1237.440	1406.590
32	273.710	183.820	172.870	209.180	326.360	526.060	778.470	1028.020	1221.730	1395.480
33	229.710	149.930	140.270	175.670	283.690	484.130	744.350	1000.680	1205.760	1382.830
34	191.050	123.120	114.630	143.250	242.130	439.980	708.230	973.620	1188.010	1372.340
35	155.810	107.980	102.840	116.640	200.080	396.250	669.920	945.210	1169.080	1362.380
36	123.800	99.130	94.030	103.380	166.100	353.280	629.300	915.980	1148.710	1349.710
37	101.730	87.840	82.100	94.050	132.120	309.410	589.630	884.850	1125.000	1340.990
38	89.520	76.270	71.340	82.550	103.180	263.730	550.820	852.850	1101.490	1332.160
39	79.860	67.110	64.480	70.540	86.060	223.910	511.350	818.110	1076.230	1319.290
40	68.700	60.670	58.370	62.060	76.850	185.980	472.440	784.900	1050.110	1305.970
41	60.320	54.260	52.430	55.800	66.180	148.660	431.850	750.550	1021.220	1290.320
42	52.160	48.140	46.760	49.110	55.950	111.430	390.630	717.790	991.940	1270.860
43	44.960	42.170	41.210	43.050	46.580	79.940	352.830	683.310	960.340	1251.330
44	39.090	36.710	36.060	37.290	40.240	54.600	315.630	650.330	927.300	1228.380
45	33.920	31.590	31.100	32.040	34.490	38.950	281.010	619.250	893.910	1203.690
46	29.410	26.740	26.610	27.250	29.340	32.180	248.110	588.400	860.960	1176.780
47	25.400	23.070	22.460	23.400	25.270	26.760	217.040	557.320	827.440	1148.040
48	22.340	20.420	19.430	20.700	22.350	22.390	185.830	526.290	795.720	1118.160
49	20.090	18.590	17.470	18.850	20.370	19.090	157.130	496.050	765.940	1086.830
50	18.310	16.690	15.810	17.210	18.780	16.740	128.480	466.010	736.730	1055.800
51	16.600	15.020	14.550	15.410	17.220	15.160	101.790	436.960	707.850	1025.690

52	14.880	14.040	13.910	14.330	15.640	13.800	76.480	408.670	680.410	998.300
53	13.550	13.320	13.270	13.570	14.460	12.450	56.520	381.220	654.430	972.430
54	12.480	12.740	12.640	12.820	13.360	11.490	36.930	352.520	629.360	947.330
55	11.630	12.240	12.200	12.360	12.270	10.560	22.620	323.250	602.420	922.070
56	10.890	11.790	11.800	11.950	11.440	9.680	17.600	294.320	573.900	895.920
57	10.190	11.390	11.430	11.570	10.660	8.850	12.580	265.390	546.740	872.280
58	9.550	11.040	11.070	11.230	9.950	8.060	9.150	237.570	517.880	847.020
59	8.910	10.690	10.740	10.920	9.300	7.330	7.880	209.560	488.740	822.770
60	8.320	10.370	10.400	10.610	8.690	6.650	6.780	184.210	460.170	798.660
61	7.730	10.030	10.070	10.320	8.110	6.040	5.790	158.470	431.960	772.900
62	7.160	9.650	9.720	10.000	7.590	5.490	5.250	132.740	404.590	743.030
63	6.660	9.230	9.300	9.640	7.080	5.000	4.830	108.610	376.030	703.830
64	6.150	8.710	8.790	9.220	6.600	4.580	4.440	86.120	345.180	653.420
65	5.670	8.080	8.190	8.700	6.160	4.210	4.080	65.660	312.090	600.390
66	5.210	7.410	7.540	8.120	5.760	3.890	3.740	47.350	279.110	543.790
67	4.800	6.800	6.860	7.500	5.400	3.620	3.430	32.800	247.440	491.480
68	4.420	6.190	6.260	6.890	5.080	3.380	3.150	22.770	217.190	444.960
69	4.080	5.630	5.720	6.320	4.810	3.180	2.910	15.690	188.260	410.300
70	3.790	5.210	5.280	5.830	4.580	3.010	2.690	8.640	160.580	375.920
71	3.540	4.840	4.900	5.440	4.380	2.850	2.490	6.930	132.900	343.280
72	3.320	4.490	4.530	5.130	4.220	2.710	2.310	5.250	107.650	309.360
73	3.140	4.170	4.190	4.840	4.090	2.580	2.150	3.690	85.690	274.140
74	2.970	3.890	3.890	4.580	4.020	2.460	2.010	3.130	63.420	228.360
75	2.820	3.680	3.660	4.370	3.960	2.350	1.880	2.500	41.590	176.540
76	2.680	3.510	3.470	4.200	3.900	2.260	1.750	2.240	27.870	124.720
77	2.560	3.380	3.320	4.060	3.850	2.190	1.640	2.030	14.140	75.110
78	2.430	3.270	3.200	3.940	3.790	2.120	1.530	1.830	5.450	45.160
79	2.320	3.180	3.100	3.830	3.700	2.050	1.430	1.660	3.340	25.280
80	2.220	3.140	3.080	3.740	3.600	1.970	1.340	1.500	2.660	5.460
81	2.130	3.140	3.040	3.660	3.490	1.880	1.250	1.350	2.290	4.290
82	2.050	3.070	3.030	3.620	3.390	1.770	1.180	1.210	1.970	3.530
83	1.990	3.040	2.980	3.580	3.290	1.650	1.100	1.090	1.680	2.890
84	1.950	2.860	2.770	3.600	3.180	1.520	1.010	0.970	1.410	2.330
85	1.810	2.670	2.590	3.470	3.050	1.410	0.920	0.860	1.160	1.820
86	1.420	2.020	2.150	3.180	2.820	1.290	0.820	0.740	0.930	1.360
87	1.240	1.780	1.710	2.360	2.480	1.170	0.730	0.630	0.700	0.930
88	1.070	1.580	1.490	2.120	2.200	1.060	0.640	0.500	0.470	0.460
89	0.970	1.420	1.310	1.890	1.890	0.940	0.540	0.350	0.210	0.110
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
91	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
93	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
94	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
96	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
98	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
99	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
101	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
102	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
103	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
104	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
106	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
107	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
108	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
109	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
111	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

112	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
113	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
114	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
116	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
117	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
118	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
119	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
121	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
122	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
123	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
124	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
126	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
127	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
128	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
129	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
131	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
132	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
133	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
134	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
135	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
136	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
137	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
138	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
139	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
141	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
142	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
143	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
144	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
146	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
147	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
148	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
149	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
151	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
152	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
153	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
154	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
156	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
157	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
158	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
159	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
161	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
162	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
163	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
164	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
166	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
167	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
168	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
169	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
171	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

172	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
173	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
174	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
176	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
177	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
178	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
179	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Vert. Angles	Horizontal Angles				
	300	315	330	345	360
0	1442.707	1442.707	1442.707	1442.707	1442.707
1	1457.600	1462.080	1465.970	1468.470	1470.260
2	1472.080	1483.260	1489.520	1494.430	1496.990
3	1483.340	1498.230	1511.290	1516.840	1521.870
4	1493.870	1514.480	1532.100	1538.800	1543.030
5	1504.620	1528.130	1550.180	1562.520	1569.850
6	1513.280	1544.990	1572.610	1586.450	1594.540
7	1521.150	1560.150	1593.020	1611.950	1620.400
8	1532.300	1573.620	1614.410	1637.990	1649.110
9	1540.170	1592.210	1636.170	1662.330	1674.670
10	1547.610	1605.760	1659.670	1688.720	1699.390
11	1557.010	1621.930	1680.230	1711.870	1722.500
12	1565.690	1640.390	1700.630	1735.810	1749.840
13	1573.280	1658.130	1721.980	1760.180	1777.200
14	1582.550	1670.910	1743.410	1787.400	1804.450
15	1589.820	1689.000	1766.020	1813.570	1829.890
16	1598.610	1704.490	1790.760	1839.460	1858.100
17	1606.520	1723.640	1814.970	1863.990	1890.450
18	1614.620	1740.760	1837.560	1896.200	1921.400
19	1623.780	1758.640	1858.820	1924.860	1953.730
20	1630.390	1775.220	1884.480	1957.010	1993.080
21	1636.890	1793.290	1909.220	1994.180	2028.630
22	1642.020	1803.900	1933.480	2034.360	2080.320
23	1648.330	1817.320	1958.620	2077.040	2123.340
24	1655.440	1828.770	1986.180	2116.430	2164.160
25	1659.180	1839.800	2018.080	2157.200	2196.980
26	1662.120	1845.410	2050.030	2194.520	2236.440
27	1662.310	1855.950	2083.840	2232.460	2271.730
28	1660.380	1867.690	2115.630	2266.760	2294.070
29	1653.290	1884.700	2144.960	2290.980	2320.090
30	1648.670	1902.960	2174.000	2316.970	2343.670
31	1641.560	1921.470	2198.660	2335.430	2355.440
32	1633.850	1937.210	2219.210	2350.930	2358.840
33	1623.870	1952.190	2240.450	2358.280	2354.240
34	1611.390	1960.010	2257.990	2353.610	2344.050
35	1598.200	1965.290	2276.420	2341.030	2333.920
36	1585.690	1966.570	2286.600	2330.820	2315.520
37	1573.490	1967.850	2281.200	2312.330	2297.020
38	1561.060	1965.940	2271.060	2293.650	2267.970
39	1555.260	1962.370	2262.620	2263.030	2234.360
40	1548.040	1959.840	2245.980	2236.030	2201.540
41	1539.320	1953.350	2228.810	2205.720	2176.540
42	1532.750	1935.440	2203.020	2172.390	2148.840
43	1524.370	1915.030	2172.120	2139.260	2123.690
44	1516.200	1888.650	2139.120	2111.210	2091.520
45	1506.370	1865.640	2102.890	2077.240	2065.370
46	1497.150	1844.480	2060.390	2045.800	2030.400

47	1485.890	1823.090	2019.420	2011.660	2002.110
48	1472.260	1797.850	1977.820	1977.680	1973.110
49	1464.910	1774.140	1934.120	1949.350	1943.870
50	1455.080	1756.710	1894.320	1917.010	1909.770
51	1445.540	1738.110	1855.350	1885.940	1881.140
52	1435.570	1719.930	1822.990	1853.220	1853.920
53	1414.950	1698.240	1789.530	1822.200	1826.020
54	1383.570	1677.750	1761.730	1791.510	1790.480
55	1350.510	1660.010	1732.940	1755.790	1758.520
56	1317.460	1643.300	1702.980	1719.090	1714.920
57	1282.350	1614.280	1668.390	1672.060	1658.310
58	1245.620	1586.930	1625.530	1616.580	1593.360
59	1209.780	1555.280	1586.450	1547.550	1522.920
60	1173.950	1521.000	1528.010	1474.910	1449.490
61	1135.620	1486.040	1463.260	1398.260	1364.980
62	1103.150	1444.500	1388.290	1321.120	1286.800
63	1066.350	1400.650	1313.320	1240.490	1205.360
64	1033.980	1349.530	1232.650	1158.480	1127.680
65	983.280	1298.400	1148.190	1082.090	1059.640
66	914.110	1226.350	1061.370	1008.860	999.730
67	839.250	1139.990	985.820	948.150	929.350
68	765.990	1051.360	914.220	874.530	833.650
69	694.750	950.470	861.160	781.680	727.880
70	632.080	849.940	804.750	677.370	604.280
71	579.110	751.890	722.090	566.520	467.920
72	530.800	672.110	627.610	447.550	331.560
73	481.440	613.890	522.740	310.720	191.830
74	434.170	555.280	399.980	188.810	84.130
75	374.830	478.180	260.900	68.480	35.550
76	298.050	391.920	136.840	31.390	18.770
77	217.300	298.810	39.800	19.330	7.870
78	138.640	198.330	21.910	7.480	5.310
79	70.090	97.850	14.380	3.360	2.780
80	45.280	39.280	6.860	1.640	1.180
81	20.470	22.590	2.000	0.930	0.640
82	7.110	6.180	0.890	0.460	0.290
83	5.350	2.230	0.430	0.190	0.080
84	3.900	0.790	0.160	0.040	0.030
85	2.470	0.320	0.030	0.030	0.030
86	1.110	0.080	0.030	0.020	0.020
87	0.380	0.030	0.020	0.020	0.020
88	0.050	0.020	0.020	0.020	0.020
89	0.020	0.020	0.020	0.020	0.020
90	0.000	0.000	0.000	0.000	0.000
91	0.000	0.000	0.000	0.000	0.000
92	0.000	0.000	0.000	0.000	0.000
93	0.000	0.000	0.000	0.000	0.000
94	0.000	0.000	0.000	0.000	0.000
95	0.000	0.000	0.000	0.000	0.000
96	0.000	0.000	0.000	0.000	0.000
97	0.000	0.000	0.000	0.000	0.000
98	0.000	0.000	0.000	0.000	0.000
99	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000
101	0.000	0.000	0.000	0.000	0.000
102	0.000	0.000	0.000	0.000	0.000
103	0.000	0.000	0.000	0.000	0.000
104	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000
106	0.000	0.000	0.000	0.000	0.000

107	0.000	0.000	0.000	0.000	0.000
108	0.000	0.000	0.000	0.000	0.000
109	0.000	0.000	0.000	0.000	0.000
110	0.000	0.000	0.000	0.000	0.000
111	0.000	0.000	0.000	0.000	0.000
112	0.000	0.000	0.000	0.000	0.000
113	0.000	0.000	0.000	0.000	0.000
114	0.000	0.000	0.000	0.000	0.000
115	0.000	0.000	0.000	0.000	0.000
116	0.000	0.000	0.000	0.000	0.000
117	0.000	0.000	0.000	0.000	0.000
118	0.000	0.000	0.000	0.000	0.000
119	0.000	0.000	0.000	0.000	0.000
120	0.000	0.000	0.000	0.000	0.000
121	0.000	0.000	0.000	0.000	0.000
122	0.000	0.000	0.000	0.000	0.000
123	0.000	0.000	0.000	0.000	0.000
124	0.000	0.000	0.000	0.000	0.000
125	0.000	0.000	0.000	0.000	0.000
126	0.000	0.000	0.000	0.000	0.000
127	0.000	0.000	0.000	0.000	0.000
128	0.000	0.000	0.000	0.000	0.000
129	0.000	0.000	0.000	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000
131	0.000	0.000	0.000	0.000	0.000
132	0.000	0.000	0.000	0.000	0.000
133	0.000	0.000	0.000	0.000	0.000
134	0.000	0.000	0.000	0.000	0.000
135	0.000	0.000	0.000	0.000	0.000
136	0.000	0.000	0.000	0.000	0.000
137	0.000	0.000	0.000	0.000	0.000
138	0.000	0.000	0.000	0.000	0.000
139	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
141	0.000	0.000	0.000	0.000	0.000
142	0.000	0.000	0.000	0.000	0.000
143	0.000	0.000	0.000	0.000	0.000
144	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
146	0.000	0.000	0.000	0.000	0.000
147	0.000	0.000	0.000	0.000	0.000
148	0.000	0.000	0.000	0.000	0.000
149	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000
151	0.000	0.000	0.000	0.000	0.000
152	0.000	0.000	0.000	0.000	0.000
153	0.000	0.000	0.000	0.000	0.000
154	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000
156	0.000	0.000	0.000	0.000	0.000
157	0.000	0.000	0.000	0.000	0.000
158	0.000	0.000	0.000	0.000	0.000
159	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
161	0.000	0.000	0.000	0.000	0.000
162	0.000	0.000	0.000	0.000	0.000
163	0.000	0.000	0.000	0.000	0.000
164	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
166	0.000	0.000	0.000	0.000	0.000

167	0.000	0.000	0.000	0.000	0.000
168	0.000	0.000	0.000	0.000	0.000
169	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000
171	0.000	0.000	0.000	0.000	0.000
172	0.000	0.000	0.000	0.000	0.000
173	0.000	0.000	0.000	0.000	0.000
174	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000
176	0.000	0.000	0.000	0.000	0.000
177	0.000	0.000	0.000	0.000	0.000
178	0.000	0.000	0.000	0.000	0.000
179	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	[WP, A]LED26	Sample ID.	H1
Temperature (°C)	25.3	Humidity (%RH)	56.0

Test Method
The samples were tested according to the ANSI C82.77:2002. The total harmonic distortion shall be measured to the 40th order. The ambient temperature condition was maintained at 25º C ± 1º C. The sample measurements were made using a digital power meter and power supply. The sample was operated at rated voltage and was stabilized before measurement. The total harmonic distortion were calculated.

Test Results					
Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD
120.04	60	0.231	27.3	0.983	10.18%
276.98	60	0.109	28.7	0.954	10.68%

5.0 Equipment Information

Test Equipment			
Equipment ID	Equipment Name	Last Calibration Date	Calibration Due Date
DLF107	Integrating Sphere System	2020/12/26	2021/12/25
DLF108	Auxiliary Lamp	2020/12/26	2021/12/25
DLF122	Measurement Standard Lamp Standard Lamp Type: 220 V, 0.4720 A, Tungsten, Omni-derectional	2020/12/26	2021/12/25
DLF116	AC Power Source	2020/12/26	2021/12/25
DLF113	Power Meter	2020/12/26	2021/12/25
DLF112	Temperature Recorder	2020/12/26	2021/12/25
DLF114	Temperature & Humidity Datalogger	2020/12/26	2021/12/25
DLF101	Goniophotometer	2020/12/26	2021/12/25
DLF125	Standard Lamp Standard Lamp Type: 76.58 V, 6.7875 A, Tungsten, Omni-derectional	2020/12/26	2021/12/25
DLF104	AC Power Source	2020/12/26	2021/12/25
DLF507	DC Power Source	2020/12/26	2021/12/25
DLF102	Power Meter	2020/12/26	2021/12/25
DLF111	Temperature & Humidity Datalogger	2020/12/26	2021/12/25
DLF119	Power Meter	2020/12/26	2021/12/25
DLF031	Temperature data logger	2020/12/26	2021/12/25
DLF022	Digital power meter	2020/12/26	2021/12/25
DLF003	Temperature & Humidity Datalogger	2020/12/26	2021/12/25

********** End of Test Report**********