PRECISION PARAGON
EFFICIENCY, ECONOMY, SUSTAINABILITY.

www.P-2.com

(714) 386-5550 CA
(715) 381-2971 WI
(352) 692-5900 FL

QAL–LED Freezer Hi Bay

Light Up Your Freezer With The State-of-the-Art QAL Fixture.

- Freezers present special challenges when trying to provide energy efficient lighting layouts.
- Extremely cold temperatures cause issues with warm up times for traditional freezer light sources. This usually rules out utilizing sensors as the warm up times create unacceptable light levels after the re-strike.

Instant Re-Strike + Controls = Cost Savings

- The QAL's LED engine re-strikes instantly allowing for control by occupancy sensors with no ill effects.
- The QAL's low wattages combined with occupancy sensors can drastically reduce the energy usage in your freezer and create compelling paybacks.

Optics

- In racked aisles, vertical foot-candles are extremely important in order to provide good visibility of product on the shelves.
- We specifically designed asymmetrical optics to maximize vertical foot-candles and put the light where you need it most.

Adaptive Thermal Technology…

- Patent pending housing has 6.9 ft² of heat sinking surface area per linear foot of housing. This allows the length of the fixture to be increased to reduce component temperature for extreme environments.

Why P2? Simple, Our Experience.

- While many manufacturers promise long life and maintenance free performance from their LED products, it takes a real expert to create a fixture that delivers on that promise.
- Some configurations DLC listed-Consult factory.
- Wash down applications, IP66 rated.

Energy Efficient LED Freezer Hi Bay

Application

QAL – 145W – 277 – 60C – 700 – 50K – AAO – RHB – PQC15 – 10GH

QAL	145W	277	60C	700	50K	AAO	RHB	PQC15	10GH
Model	Input Watts	Voltage	Qty of LED Chips	Driver Current	Color Temp.	Optics	Occupancy Sensor	Cord & Plug	Mounting

Model
QAL = LED Freezer Aisle Fixture

Input Watts (1)
145W = 145 Watt (700 mA)
87W = 87 Watt (700 mA)
60W = 60 Watt (700 mA)

Voltage
UL = 120V through 277V
347 = 347 Volt
480 = 480 Volt

Qty of LED Chips
60C = 60 Chip Board
36C = 36 Chip Board
24C = 24 Chip Board

Drive Current
700 = 700 mA Drive Current

Color Temperature
50K = 5000 Kelvin

Optics
OAO = Open Area Optic
AAO = Asymmetrical Aisle Optic

Occupancy Sensor
RH = Rectangular Aisle View Hi Bay
RL = Rectangular Aisle View Lo Bay
RHB = Rectangular Aisle View Hi Bay Bi Level
RLB = Rectangular Aisle View Lo Bay Bi Level

Cord and Plug
C8 = 8' Cord
PQC15 = 15' Quick Connect
C8/515 = 8' Cord & 120 V Plug

Mounting
10GYSH = 10' Y-Gripple Snap Hook
SM = Surface Mount
QMB = Quick Mount Bracket for Surface Mounting

(1) Fixture rated at 145W in -20 F ambient temperature.

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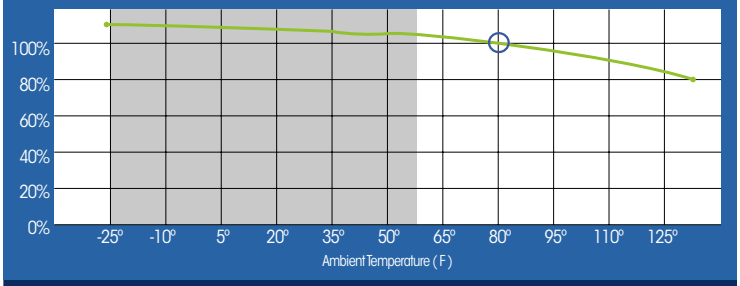
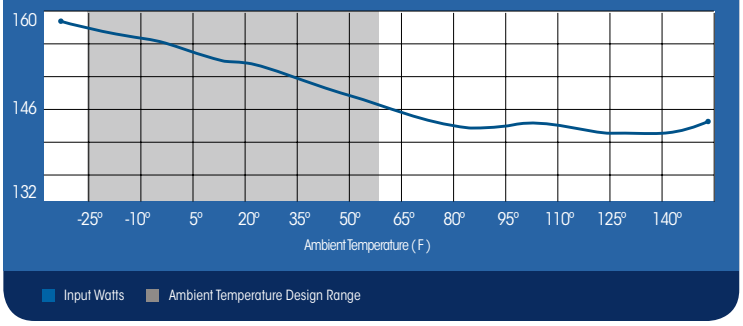
Relative Light Output



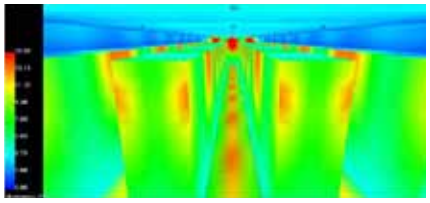
Input Watts



Fixture Construction

- Extruded aluminum body designed for maximum heat dissipation.
- Designed to meet IP66 standards.
- Innovative sealed bezel design.
- Powered by light engines using high quality Cree LED chips.
- Advanced thermal management techniques and components.
- Integral Occupancy Sensor.

Photometric Performance



Photometrics

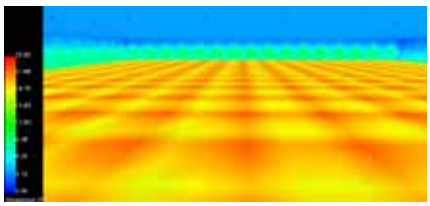
	Avg.	Max	Min	Avg./Min	Max/Min
Vertical Foot-Candles	7.3	13	4	1.83	3.25
Foot-Candles at 36" A.F.F.	13.61	15	13	1.05	1.15

Facility Data

Ceiling Height	Mounting Height	Fixture Spacing	Aisle Height	Ceiling Reflectance	Wall Reflectance	Floor Reflectance	Aisle Reflectance
30'	30'	30' O.C.	25'	0.6	0.4	0.2	0.5

Assumptions:

- The QAL-145W-UL-60C-700-50K-AAO fixture was used in the adjacent layout.
- LLF = 1.0, LDD = 1.0 were used to show initial lighting.
- 12,450 delivered fixture lumens were used based on LM-79 IES file.



Photometrics

	Avg.	Max	Min	Avg./Min	Max/Min
Foot-Candles at 36" A.F.F.	19.93	22.1	13	1.51	1.67

Facility Data

Ceiling Height	Mounting Height	Fixture Spacing	Aisle Height	Ceiling Reflectance	Wall Reflectance	Floor Reflectance	Aisle Reflectance
30'	30'	30' O.C.	25'	0.6	0.4	0.2	0.5

Assumptions:

- The QAL-145W-277-60C-700-50K-OAO fixture was used in the adjacent layout.
- LLF = 1.0, LDD = 1.0 were used to show initial lighting.
- 11,378 delivered fixture lumens were used based on LM-79 IES file.

Luminaire data is obtained according to IES procedures under laboratory conditions. Field results may differ from computer modeling due to factors including but not limited to: Ambient temperature, line voltage variations, installation, reflectances and other site specific conditions.