Specification Sheet - LED High Bay

Project Name:

Date:

Product/Type:

US Series
LED High Bay

US Series fixtures provide a combination of superior quality, high reliability, and unmatched lumen maintenance and efficacy performance.

The fixtures are designed for outstanding thermal management at up to 149°F (65°C) ambient temperatures

Applications: Commercial and Industrial Facilities, Distribution Centers, Indoor Sports Facilities/Gymnasiums, Manufacturing Facilities, and Warehouses

Features & Specifications

Environment: UL Dry & Damp Rated

Ambient Temperature: -40 to 140°F (-40 to 60°C) [29, 30]

High Ambient Option Range: -40 to 149°F (-40 to 65°C) [1, 2, 12]

LED Driver Access: LED Driver / raceway is enclosed and hinged, opening over 100° for hands-free operation, easy access, and quick wiring.

Lenses: Clear or Frosted acrylic standard. Polycarbonate option available upon request [1, 2]

Warranty: Standard: 10 year
High Ambient: 5 year

CCT: 4000K/5000K standard [3, 4]

Other CCT options available upon request [1, 2]

CRI: 80 CRI [1, 2]

Wire Guards: Optional factory installed wire guards for fixture protection. [1, 2]

Housing: Combination aluminum and galvanized steel. [32]

Mounting: Fixture is cable ready (CRM) for suspension mounting or 3/4" conduit knockout on top side for pendant mount. Fixture has two cable ready holes on each end of fixture. [18]

Wiring: Flying leads inside raceway standard with spring-lock connectors.

Cord & Plug: Optional [1, 2, 17]

Packaging: Fixtures individually boxed.

Power & Control

Power Input: 100-277VAC @50/60Hz. 480VAC option available upon request. [1, 2, 15, 27]

Dimming: 0-10VDC Standard. Capable of dimming down to 10%.

System Power Factor: Greater than 0.9% (0.96-0.99 Typical)

Total Harmonic Distortion: < 20% (10% typical)

Surge Protection: Standard 6kV drivers. Additional surge protection available. [1, 2, 5, 8, 17]

Occupancy Sensors: Optional - Factory installed [1, 2, 16, 17, 19]

Bluetooth Mesh: Optional - Factory installed. [1, 2, 17, 20]

Occupancy sensor controls individual or groups of selected fixtures via mesh network

Emergency Backup: 20 watt backup with LiFePO4 batteries offers at least 10% of fixture output for 90 minutes [1, 2, 6, 7, 9, 12, 13, 14, 17, 26, 27, 31, 33]

Listings and Certifications

UL Damp & Dry

CSA Safety Certification

RoHS Compliant

Project Name:

Date:

Product/Type:

Performance Tables

US Series: Highest efficacy and longest life. Up to 149°F (65°C)

Model	Lumens	Watts	Efficacy (lm/Wt)
US14000-4K-F	14350	97	148
US14000-5K-F	14870	97	153
US18000-4K-F	19650	134	147
US18000-5K-F	20370	134	151
US24000-4K-F	25089	155	162
US24000-5K-F	26000	155	168
US30000-4K-F	29915	205	146
US30000-5K-F	31000	205	151
US36000-4K-F	35700	255	144
US36000-5K-F	37000	255	149
US48000-4K-F	50180	310	162
US48000-5K-F	52000	310	168
US60000-4K-F	58300	362	168
US60000-5K-F	60900	362	167

TM-21 @ 25°C	TM-21 @ 65°C
315,000 Hours	250,000 Hours

Ambient	Year 1	Year 5	Year 10
25°C	99.71%	96.01%	90.89%
45°C	99.62%	94.98%	88.77%
55°C	99.48%	94.33%	87.36%
65°C	99.17%	93.82%	86.44%

Ambient	25°C	35°C	45°C	55°C	65°C
Lumen Multiplier	1.00	0.99	0.98	0.98	0.98

Recommended Mounting Heights

Model	Mounting Height	Comparable Output
BAL/US14000	10-20 feet	6-Lamp T8; 250W MH
BAL/US18000	15-35 feet	4-Lamp T5HO; 400W MH
BAL/US24000, BAL/US30000, US36000	20-40 feet	6-Lamp T5HO; 8-Lamp T8
BAL/US48000, BAL/US60000	25-45 feet	1000W MH

LM-79 and LM80 tests and reports performed to IESNA standards. TM-21 information derived from that using engineering calculations

USI Technologies

Specification Sheet - LED High Bay
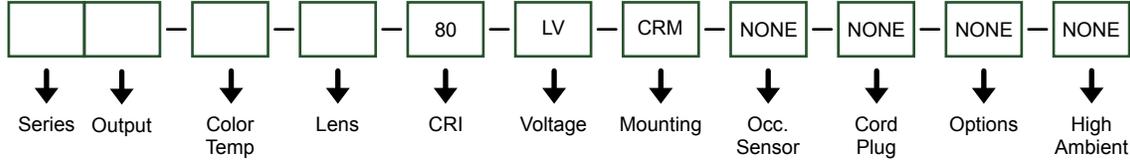
Project Name: _____

Date: _____

Product/Type: _____

Ordering Guide

To order a standard stocked product all that is needed are the first four options and it will be built to the default configuration. For example, if a US24000-5K-F were ordered then: CRI = 80, Voltage = LV, Mounting = CRM, No occupancy sensor, No cord or plug, and no other options would be included. All other options are there to allow full customization required for the project. For convenience the default options are included in the boxes below.

Example part number for non-standard fixture: US14000 - 5K - F - 80 - LV - CRM - 10CN

				80	LV	CRM	NONE	NONE	NONE	NONE
↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
Series	Output	Color Temp	Lens	CRI	Voltage	Mounting	Occ. Sensor	Cord Plug	Options	High Ambient

Series
(Select One)

US [3, 4]
Premium

Output
(Select One)

14000
18000
24000
30000
36000♦
48000
60000

♦ Standard to US series only

Color Temp
(Select One)

4K
4000K

5K
5000K

Other CCT options available upon request [1, 2, 3, 4]

Lens
(Select One)

F
Frosted Acrylic

C
Clear Acrylic

P
Clear Polycarbonate

Other lens options available upon request [1, 2]

CRI
(Select One)

80
Standard

Other CRI options available upon request [1, 2]

Input Voltage
(Select One)

LV
120-277 VAC

HV [1, 2, 15, 24, 27]
347-480 VAC
14000/18000/24000/30000/36000 models

HV1 [1, 2, 15, 25, 27]
347-480 VAC
48000/60000 model

Mounting
(Select One)

CRM [18]
No Mounting

PEN1 [22]
Pendant mount for 14000/18000/24000/30000/36000

PEN2 [23]
Pendant mount for 48000/60000

Occupancy Sensors
(Select One if applicable, if none, leave blank and go to Cord & Plug)

OCC10 [1, 2, 17, 21]
Wattstopper, PRI OCC Sensor
Dimming via manual set
10' mounting height

OCCPROG10 [1, 2, 16, 17, 19, 21]
Wattstopper, PRI OCC Sensor
Dimming via Program Commission Tool
10' mounting height

OCCBLE10 [1, 2, 17, 20, 21]
Wattstopper, PRI OCC Sensor
Dimming via Bluetooth App
10' mounting height

OCC20 [1, 2, 17, 21]
Wattstopper, PRI OCC Sensor
Dimming via manual set
20' mounting height

OCCPROG20 [1, 2, 16, 17, 19, 21]
Wattstopper, PRI OCC Sensor
Dimming via Program Commission Tool
20' mounting height

OCCBLE20 [1, 2, 17, 20, 21]
Wattstopper, PRI OCC Sensor
Dimming via Bluetooth App
20' mounting height

OCC40 [1, 2, 17, 21]
Wattstopper, PRI OCC Sensor
Dimming via manual set
40' mounting height

OCCPROG40 [1, 2, 16, 17, 19, 21]
Wattstopper, PRI OCC Sensor
Dimming via Program Commission Tool
40' mounting height

OCCBLE40 [1, 2, 17, 20, 21]
Wattstopper, PRI OCC Sensor
Dimming via Bluetooth App
40' mounting height

Cord & Plug
(Select One if applicable, if none, leave blank and go to Options)

Type of Plug	Cord Length (Black 18/3 AWG)		
	6'	10'	15'
None - Cord only	CN	10CN	15CN
300V, 10A 3-Prong Plug	P110-6	P110-10	P110-15
120V, 15A Straight Plug (5-15P)	C515	10C515	15C515
120V, 15A Twist Lock (LS-15P)	CL515	10CL515	15CL515
277V, 15A Twist Lock (L7-15P)	CL715	10CL715	15CL715
277V, 20A Twist Lock (L7-20P)	CL720	10CL720	15CL720
347V, 20A Twist Lock (L24-20P)	CL2420	10CL2420	15CL2420
480V, 20A Twist Lock (L8-20P)	CL820	10CL820	15CL820

Other cord and plug options available upon request [1, 2, 17]

Note: Dimming is a standard feature on all models. Separate option not necessary.

Options
(Select One if applicable, if none, leave blank and go to High Ambient)

EMB [1, 2, 6, 7, 9, 13, 14, 17]
Emergency Backup for 120-277 VAC

EMB4 [1, 2, 6, 7, 9, 13, 14, 17, 26, 27]
Emergency Backup for 347-480 VAC

SRG [1, 2, 5, 8, 17]
20kA surge protector, fails to off, 120-277 VAC

SRG4 [1, 2, 5, 8, 17]
20kA surge protector, fails to off, 347-480 VAC

WG [1, 2]
Fixture wire guard

HK [1, 2]
Kit includes two 60" airplane cables and two 36" cross-cable grippers with paddle ends

High Ambient
(Select One if applicable, if none, leave blank)

HA [1, 2, 12]
Offers -40°F to 149°F
(-40°C to 65°C)

Accessories

Replacement Lenses

Part Number	Model	Description
EM0075	14000/18000/24000	18" Long Frosted Acrylic Lens
EM0076	18000HA/24000HA, 30000, 36000	24" Long Frosted Acrylic Lens
EM0077	48000/60000	48" Long Frosted Acrylic Lens
EM0125	14000/18000/24000	18" Long Clear Acrylic Lens
EM0126	18000HA/24000HA, 30000, 36000	24" Long Clear Acrylic Lens
EM0127	48000/60000	48" Long Clear Acrylic Lens
EM0085	14000/18000/24000	18" Long Clear Polycarbonate Lens
EM0086	18000HA/24000HA, 30000, 36000	24" Long Clear Polycarbonate Lens
EM0087	48000/60000	48" Long Clear Polycarbonate Lens

Wire Guards

Part Number	Model	Description
EM0129	18000/24000/24000	18" Long Wire Guard
EM0083	18000HA/24000HA, 30000, 36000	24" Long Wire Guard
EM0130	48000/60000	48" Long Wire Guard

Replacement LED Drivers

Part Number	Model	Description
GS0011	14000	95W, 120-277 VAC LED Driver
GS0024	14000	95W, 480 VAC LED Driver
GS0003	18000/24000/30000/36000/ 48000/60000	150W, 120-277 VAC LED Driver
GS0023	18000/24000/30000/36000/ 48000/60000	150W, 480 VAC LED Driver

Commissioning Tool

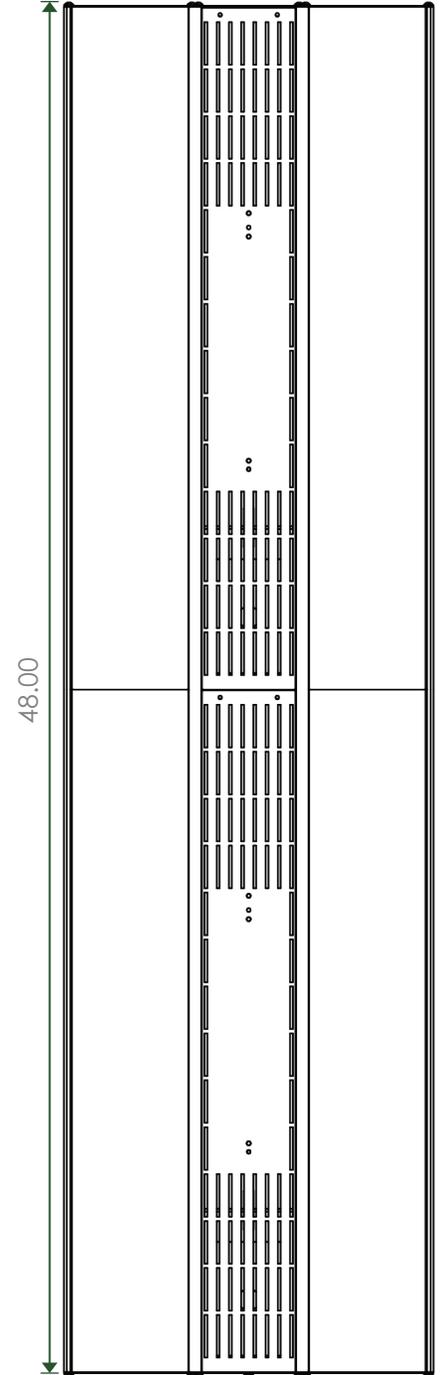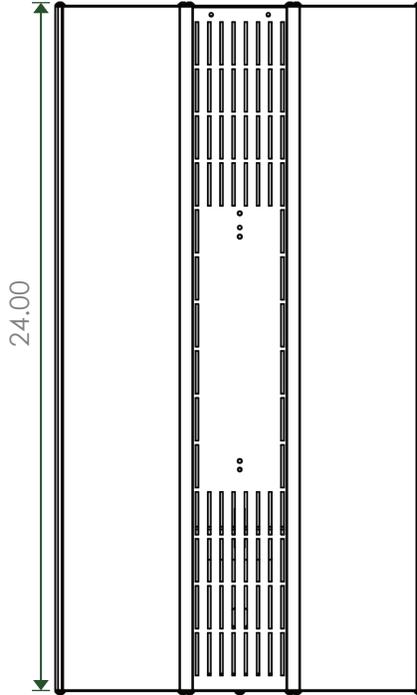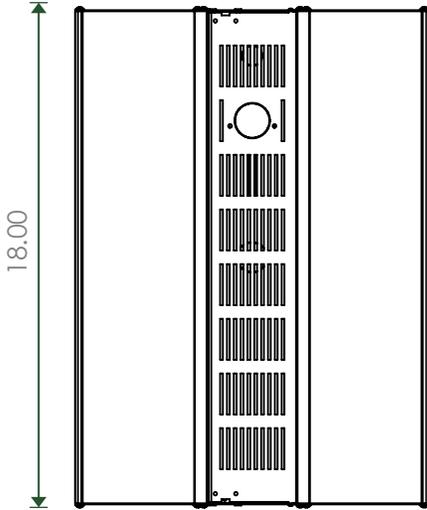| Part Number	BAL/US Model	Description
IRTOOL [1,2]	All with OCCPROG	IR Configuration tool for commissioning fixtures outfitted with OCCPROG

Physical Dimensions

US14000, US18000, US24000

High Ambient: US18000, US24000
Standard: US30000, US36000

US48000, US60000

18.00

24.00

48.00

2.20

12.92

Standard Model

4.10

12.92

With PEN100 Pendant Mount

6.20

12.92

With PEN200 Pendant Mount
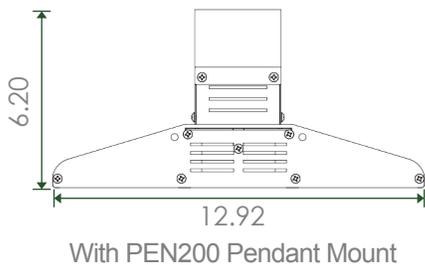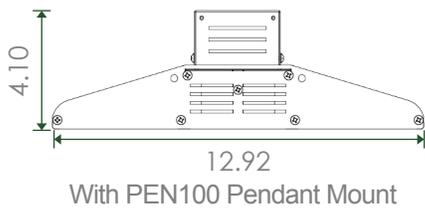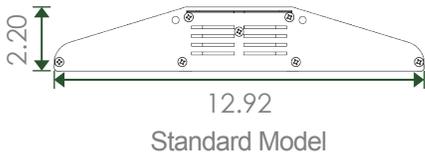
Top Side
1/2" Conduit Opening

2.60
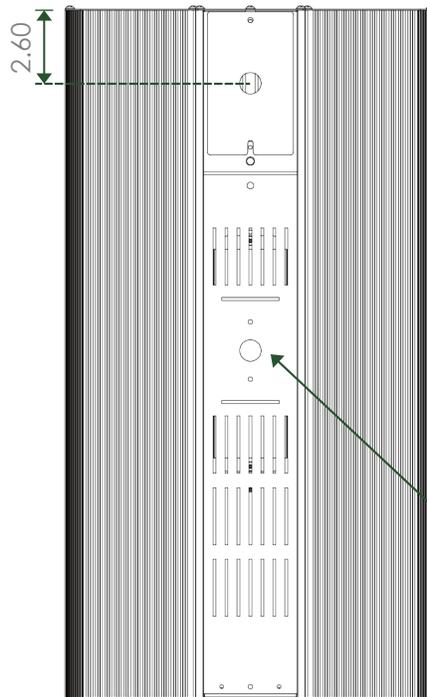
3/4" Conduit
Knockout
(Centered in Length
and Width)
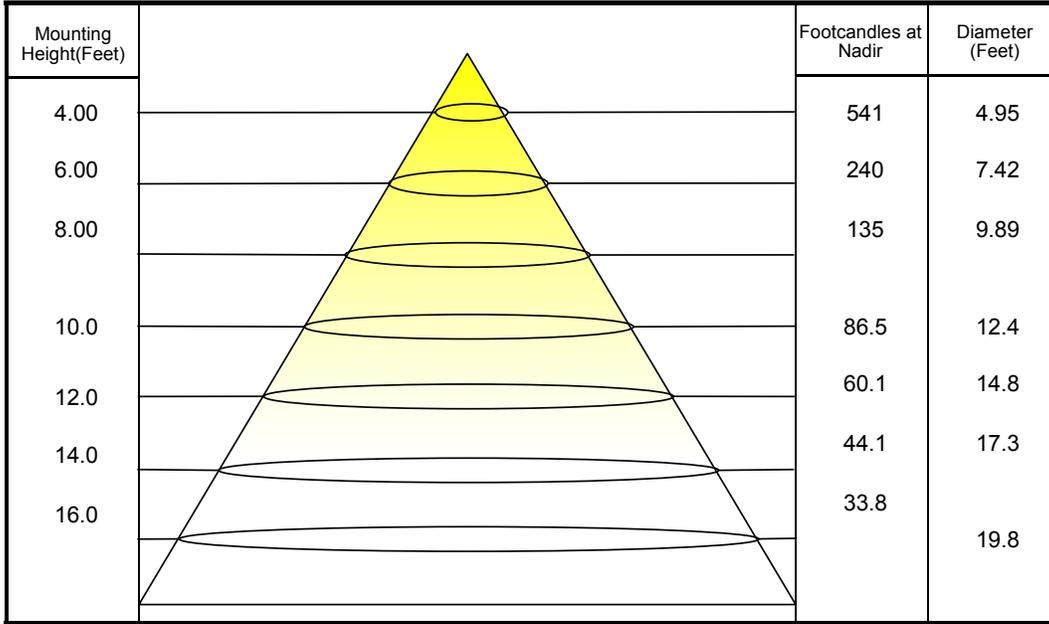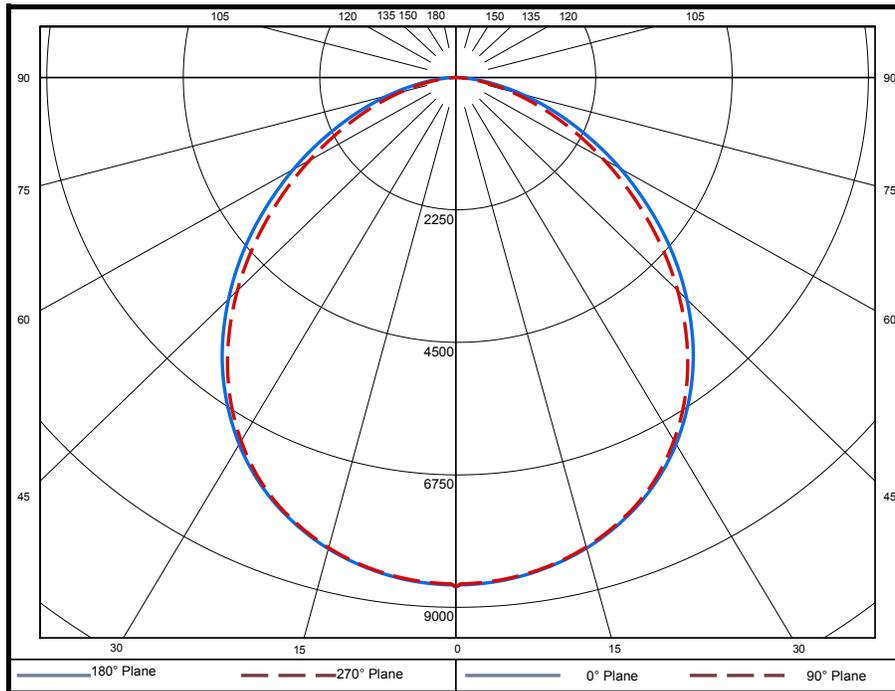
Candela Plots

These images depict the luminous intensity distribution characteristics of the 24000 model of the luminaire. Higher/Lower ouput models will show linear change in the output.

Cone of Light Tabulation

Mounting Height(Feet)	Footcandles at Nadir	Diameter (Feet)
4.00	541	4.95
6.00	240	7.42
8.00	135	9.89
10.0	86.5	12.4
12.0	60.1	14.8
14.0	44.1	17.3
16.0	33.8	19.8

Polar Plot

180° Plane ——— 270° Plane ——— 0° Plane ——— 90° Plane

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Footnotes:

1. Optional add-on. See price list for pricing.

2. Consult factory for lead times.

3. Consult factory for other CCT options.

4. ~~4000K CCT is not DLC and IES qualified for BAL or US Series.~~

5. SRG (20kA protection) is an option for 120-277 VAC fixtures for Fail to OFF. SRG4 (20kA protection) is an option for 347-480 VAC fixtures for Fail to OFF.

6. 20W power supply, 15-55 VDC, 380mA output for 90 minutes LiFePO4 battery. LiFePO4 batteries have a lifespan up to 10 times longer than traditional lead acid batteries. This is due to lower resistance and they charge at a faster rate.

7. 5-year warranty on Emergency Backup Batteries (EMB and EMB4)

8. SRG and SRG4 surge protection product compliant to IEEE C62.41.2 Location C high and US Department of Energy MSS:C Model Specification.

9. Emergency Backup Battery (EMB and EMB4) comes with LED indication and Test Switch for self-diagnostic test.

10. LM80 tests and reports are performed in accordance to IESNA standards.

11. All cords are 18/3 AWG, 600V, black. Consult factory for other options.

12. Consult factory for additional product specifications on High Ambient fixtures. The dimensions for the High Ambient fixtures are as follows:
    - US14000 - 13" W x 18" L x 2.15" H
    - US18000 - 13" W x 24" L x 2.15" H
    - US24000 - 13" W x 24" L x 2.15" H
    - US48000 - 13" W x 48" L x 2.15" H

13. Weight changes when Emergency Backup Battery (EMB and EMB4) is added.

14. EMB and EMB4 has ambient temperature range between 0°C to 55°C (32°F to 131°F).

15. US14000, US18000, US24000 with 480 VAC input require 250 watt transformer. US48000 & US60000 with 480 VAC input require two 250 watt transformers.

16. IR Configuration Tool not required.

17. Consult factory for orders requiring OCC, cable + plugs, EMB, EMB4, SRG, SRG4 and HA may have extended lead times.

18. Optional Cable Hanging Kit ordered separately. Refer to Accessories.

19. IR Configuration Tool required for field set-up from up to 40 ft. away. Refer to Accessories.

20. Field set-up from iOS or Android device from up to 400 ft. away.

21. 120-277 VAC only.

22. PEN100 adds 1.90" to the height of fixtures.

23. PEN200 adds 4.00" to the height of fixture.

24. HV is standard option for 347-480 VAC on BAL/US14000, BAL/US18000, BAL/US24000.

25. HV1 is standard option for 347-480 VAC on BAL/US48000, US60000.

26. EMB4 requires additional enclosure mounted to top of fixture to contain the necessary transformers.

27. EMB and EMB4 will only light one side of a BAL/US48000 fixture, other models will have both sides lit.

28. US14000, US48000, and US60000 are unlisted in the DLC QPL as of this document revision.

29. US18000 and US24000 Model Dimensions are 13"W x 18"L x 2.15"H

30. US24000 ambient range is between -40°C to 55°C (-40°F to 131°F)

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