



UL LLC  
1075 W Lambert Rd Suite B  
Brea, CA 92821

## Indoor Distribution Test Report

Relevant Standards  
IES LM-79-2008, ANSI C82.77-2002

Prepared For  
**B-K LIGHTING INC**

DANIEL CARREJO  
40429 BRICKYARD DR.  
MADERA, CA 93636-9515  
UNITED STATES

Catalog Number  
**AP-LED-C26-SP-12-4000K, SM-AP-LED-C26-SP-12-4000K**

Order Number  
12627577  
Test Number  
12627577.01

Test Date

2018-11-30

Prepared By

Austin Duff, Technician

Approved By

Eric Gaudreau, Engineering Leader

The results contained in this report pertain only to the tested sample.  
This report shall not be reproduced, except in full, without written approval of Underwriters Laboratories.  
This report must not be used by the client to claim product certification, approval, or endorsement by  
NVLAP, NIST, or any agency of the Federal Government.



**Luminaire Description:** White cylindrical metal housing with metal mounting plate; specular prismatic reflector and glass prismatic lens  
**Lamp:** One (1) Luminetix CTM1C19 16-80K 2000L 35W 24V module with diffuse lens and specular reflector  
**Mounting:** Surface – Wall  
**Ballast/Driver:** One (1) Efore Strato RSLP070-24

**Luminaire**



**Luminaire Characteristics**  
Luminous Diameter: 4.50 in.

**Summary of Results**

|                         |              |
|-------------------------|--------------|
| Total Luminaire Output: | 1345 Lumens  |
| Luminaire Efficacy:     | 33.6 lm/w    |
| Maximum Candela:        | 9393 Candela |

**Test Conditions**

|                   |           |
|-------------------|-----------|
| Test Temperature: | 24.5 °C   |
| Voltage:          | 120.0 VAC |
| Current:          | 0.3410 A  |
| Power:            | 40.06 W   |
| Power Factor:     | 0.979     |
| Frequency:        | 60 Hz     |
| Current THD:      | 15.4 %    |

Laboratory results may not be representative of field performance  
Ballast factors have not been applied



## Distribution - Goniophotometer

### Distribution Test Conditions

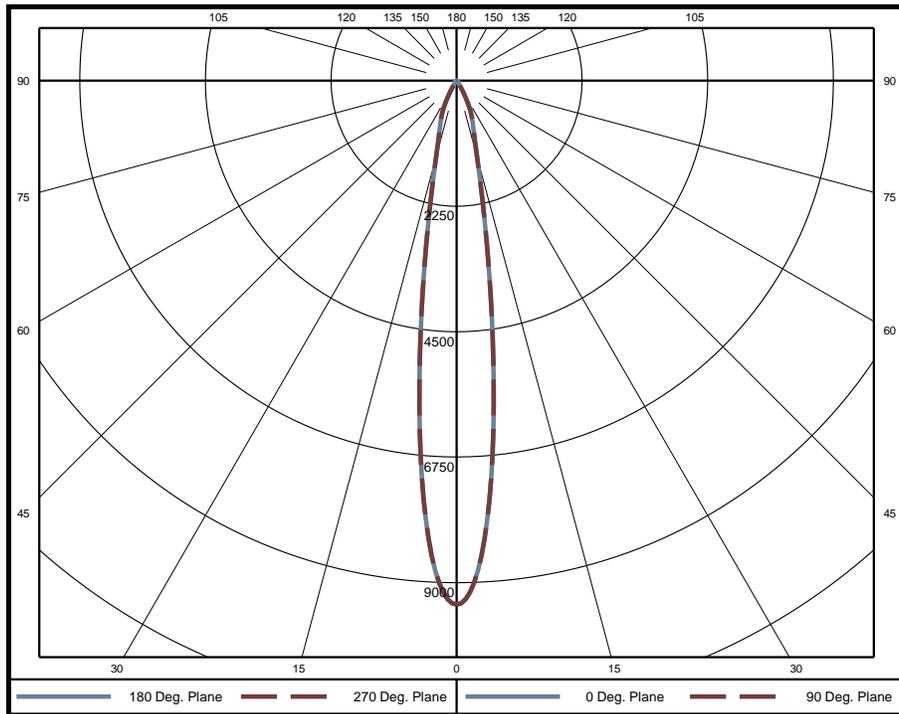
| Temperature | Voltage   | Current  | Power   | Power Factor | Frequency | Current THD |
|-------------|-----------|----------|---------|--------------|-----------|-------------|
| 24.5 °C     | 120.0 VAC | 0.3410 A | 40.06 W | 0.979        | 60 Hz     | 15.4 %      |

### Summary of Results

**Spacing Criteria**  
 0-180: 0.27  
 90-270: 0.27

**Total Lumen Output:** 1345 Lumens  
**Luminaire Efficacy:** 33.6 lm/w  
**Maximum Candela:** 9393 Candela

### Polar Plot



### Zonal Lumen Summary

| Zone  | Lumens | % of Luminaire | Zone    | Lumens | % of Luminaire | Zone    | Lumens | % of Luminaire |
|-------|--------|----------------|---------|--------|----------------|---------|--------|----------------|
| 0-5   | 197.1  | 14.7%          | 60-65   | 7.7    | 0.6%           | 120-125 | 0      | 0.0%           |
| 5-10  | 349.5  | 26.0%          | 65-70   | 6.7    | 0.5%           | 125-130 | 0      | 0.0%           |
| 10-15 | 250.0  | 18.6%          | 70-75   | 5.6    | 0.4%           | 130-135 | 0      | 0.0%           |
| 15-20 | 177.2  | 13.2%          | 75-80   | 4.2    | 0.3%           | 135-140 | 0      | 0.0%           |
| 20-25 | 149.0  | 11.1%          | 80-85   | 2.9    | 0.2%           | 140-145 | 0      | 0.0%           |
| 25-30 | 96.6   | 7.2%           | 85-90   | 1.5    | 0.1%           | 145-150 | 0      | 0.0%           |
| 30-35 | 36.2   | 2.7%           | 90-95   | 0.3    | 0.0%           | 150-155 | 0      | 0.0%           |
| 35-40 | 15.7   | 1.2%           | 95-100  | 0.2    | 0.0%           | 155-160 | 0      | 0.0%           |
| 40-45 | 13.4   | 1.0%           | 100-105 | 0      | 0.0%           | 160-165 | 0      | 0.0%           |
| 45-50 | 12.2   | 0.9%           | 105-110 | 0      | 0.0%           | 165-170 | 0      | 0.0%           |
| 50-55 | 10.2   | 0.8%           | 110-115 | 0      | 0.0%           | 170-175 | 0      | 0.0%           |
| 55-60 | 8.7    | 0.6%           | 115-120 | 0      | 0.0%           | 175-180 | 0      | 0.0%           |

| Zone   | Lumens | % of Luminaire |
|--------|--------|----------------|
| 0-40   | 1271   | 94.5%          |
| 0-60   | 1316   | 97.8%          |
| 0-90   | 1344   | 100.0%         |
| 90-180 | 1      | 0.0%           |



**Candela Tabulation**  
Horizontal Angle (Degrees)

|     | 0    | 22.5 | 45   | 67.5 | 90   | 112.5 | 135  | 157.5 | 180  | 202.5 | 225  | 247.5 | 270  | 292.5 | 315  | 337.5 |
|-----|------|------|------|------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
| 0   | 9393 | 9393 | 9393 | 9393 | 9393 | 9393  | 9393 | 9393  | 9393 | 9393  | 9393 | 9393  | 9393 | 9393  | 9393 | 9393  |
| 5   | 7134 | 7134 | 7134 | 7134 | 7134 | 7134  | 7134 | 7134  | 7134 | 7134  | 7134 | 7134  | 7134 | 7134  | 7134 | 7134  |
| 10  | 3256 | 3256 | 3256 | 3256 | 3256 | 3256  | 3256 | 3256  | 3256 | 3256  | 3256 | 3256  | 3256 | 3256  | 3256 | 3256  |
| 15  | 1417 | 1417 | 1417 | 1417 | 1417 | 1417  | 1417 | 1417  | 1417 | 1417  | 1417 | 1417  | 1417 | 1417  | 1417 | 1417  |
| 20  | 863  | 863  | 863  | 863  | 863  | 863   | 863  | 863   | 863  | 863   | 863  | 863   | 863  | 863   | 863  | 863   |
| 25  | 562  | 562  | 562  | 562  | 562  | 562   | 562  | 562   | 562  | 562   | 562  | 562   | 562  | 562   | 562  | 562   |
| 30  | 222  | 222  | 222  | 222  | 222  | 222   | 222  | 222   | 222  | 222   | 222  | 222   | 222  | 222   | 222  | 222   |
| 35  | 64   | 64   | 64   | 64   | 64   | 64    | 64   | 64    | 64   | 64    | 64   | 64    | 64   | 64    | 64   | 64    |
| 40  | 39   | 39   | 39   | 39   | 39   | 39    | 39   | 39    | 39   | 39    | 39   | 39    | 39   | 39    | 39   | 39    |
| 45  | 33   | 33   | 33   | 33   | 33   | 33    | 33   | 33    | 33   | 33    | 33   | 33    | 33   | 33    | 33   | 33    |
| 50  | 27   | 27   | 27   | 27   | 27   | 27    | 27   | 27    | 27   | 27    | 27   | 27    | 27   | 27    | 27   | 27    |
| 55  | 21   | 21   | 21   | 21   | 21   | 21    | 21   | 21    | 21   | 21    | 21   | 21    | 21   | 21    | 21   | 21    |
| 60  | 17   | 17   | 17   | 17   | 17   | 17    | 17   | 17    | 17   | 17    | 17   | 17    | 17   | 17    | 17   | 17    |
| 65  | 15   | 15   | 15   | 15   | 15   | 15    | 15   | 15    | 15   | 15    | 15   | 15    | 15   | 15    | 15   | 15    |
| 70  | 12   | 12   | 12   | 12   | 12   | 12    | 12   | 12    | 12   | 12    | 12   | 12    | 12   | 12    | 12   | 12    |
| 75  | 9    | 9    | 9    | 9    | 9    | 9     | 9    | 9     | 9    | 9     | 9    | 9     | 9    | 9     | 9    | 9     |
| 80  | 7    | 7    | 7    | 7    | 7    | 7     | 7    | 7     | 7    | 7     | 7    | 7     | 7    | 7     | 7    | 7     |
| 85  | 4    | 4    | 4    | 4    | 4    | 4     | 4    | 4     | 4    | 4     | 4    | 4     | 4    | 4     | 4    | 4     |
| 90  | 1    | 1    | 1    | 1    | 1    | 1     | 1    | 1     | 1    | 1     | 1    | 1     | 1    | 1     | 1    | 1     |
| 95  | 1    | 1    | 1    | 1    | 1    | 1     | 1    | 1     | 1    | 1     | 1    | 1     | 1    | 1     | 1    | 1     |
| 100 | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     |
| 105 | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     |
| 110 | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     |
| 115 | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     |
| 120 | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     |
| 125 | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     |
| 130 | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     |
| 135 | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     |
| 140 | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     |
| 145 | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     |
| 150 | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     |
| 155 | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     |
| 160 | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     |
| 165 | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     |
| 170 | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     |
| 175 | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     |
| 180 | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     |

Vertical Angle (Degrees)

**Average Luminance (cd/m<sup>2</sup>)**  
Horizontal Angle (Degrees)

|    | 0      | 45     | 90     |
|----|--------|--------|--------|
| 0  | 915400 | 915400 | 915400 |
| 45 | 4610   | 4610   | 4610   |
| 55 | 3542   | 3542   | 3542   |
| 65 | 3357   | 3357   | 3357   |
| 75 | 3532   | 3532   | 3532   |
| 85 | 4740   | 4740   | 4740   |

Vertical Angle (Degrees)

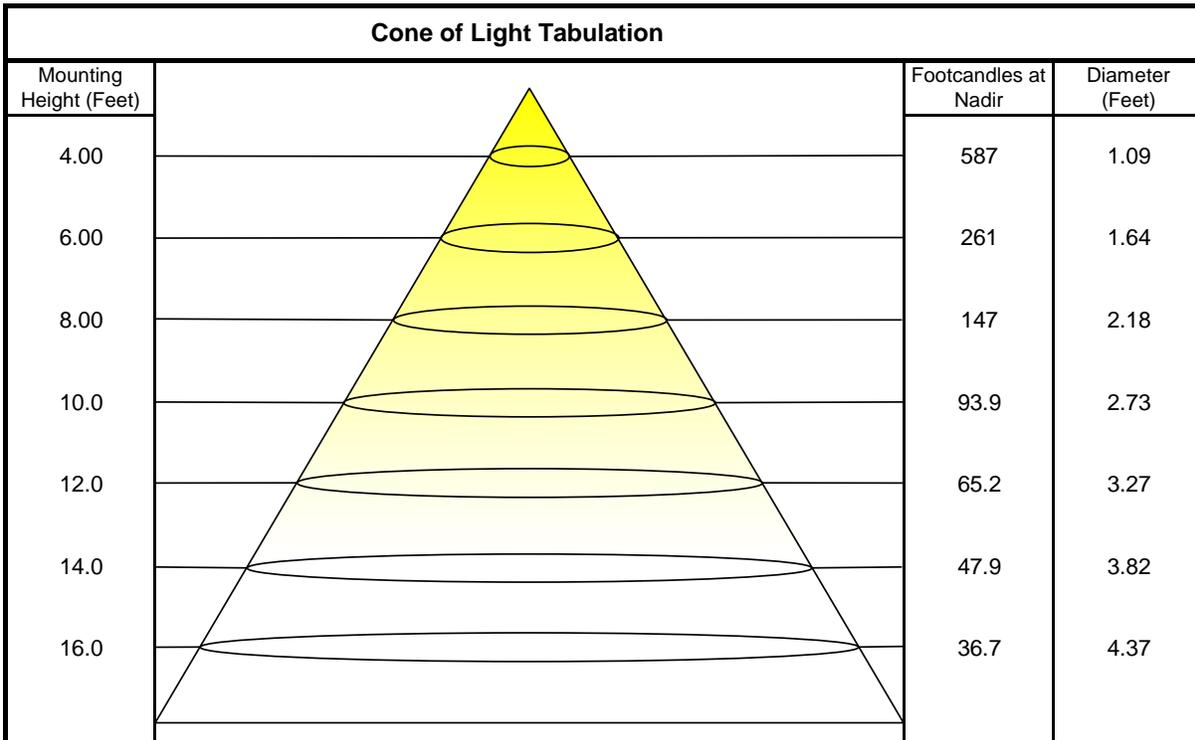


### Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 20%

| Ceiling Cavity Reflectance | 80  |     |     |     | 70  |     |     |     | 50  |     |     | 30  |     |     | 10  |     |     | 0   |
|----------------------------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Wall Reflectance           | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 0   |
| Room Cavity Ratio (RCR)    | ** Values are expressed as percent of total lumen output delivered to the task surface ** |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0                          | 119   | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1                          | 115   | 112 | 110 | 108 | 112 | 110 | 108 | 107 | 106 | 105 | 103 | 102 | 101 | 100 | 99  | 98  | 97  | 96  |
| 2                          | 110   | 107 | 103 | 101 | 108 | 105 | 102 | 99  | 102 | 99  | 97  | 99  | 97  | 95  | 96  | 95  | 93  | 92  |
| 3                          | 107   | 102 | 98  | 95  | 105 | 100 | 97  | 94  | 98  | 95  | 93  | 96  | 93  | 91  | 93  | 91  | 90  | 88  |
| 4                          | 103   | 97  | 93  | 90  | 102 | 96  | 93  | 90  | 94  | 91  | 89  | 93  | 90  | 88  | 91  | 88  | 87  | 85  |
| 5                          | 100   | 94  | 89  | 86  | 99  | 93  | 89  | 86  | 91  | 88  | 85  | 90  | 87  | 84  | 88  | 86  | 84  | 83  |
| 6                          | 97  | 90  | 86  | 83  | 96  | 90  | 86  | 83  | 88  | 85  | 82  | 87  | 84  | 82  | 86  | 83  | 81  | 80  |
| 7                          | 94  | 88  | 83  | 80  | 93  | 87  | 83  | 80  | 86  | 82  | 80  | 85  | 82  | 79  | 84  | 81  | 79  | 78  |
| 8                          | 92  | 85  | 81  | 78  | 91  | 84  | 80  | 77  | 83  | 80  | 77  | 83  | 79  | 77  | 82  | 79  | 77  | 76  |
| 9                          | 89  | 82  | 78  | 75  | 88  | 82  | 78  | 75  | 81  | 78  | 75  | 80  | 77  | 75  | 80  | 77  | 75  | 74  |
| 10                         | 87  | 80  | 76  | 73  | 86  | 80  | 76  | 73  | 79  | 76  | 73  | 78  | 75  | 73  | 78  | 75  | 73  | 72  |

| Beam and Field Information |              |
|----------------------------|--------------|
| CIE Type:                  | Direct       |
| Center Beam Intensity:     | 9393 Candela |
| Central Cone Intensity:    | 8575 Candela |
| Beam Flux:                 | 408.5 Lumens |
| Beam Angle (0-180):        | 15.9 Degrees |
| Beam Angle (90-270):       | 15.9 Degrees |
| Field Angle (0-180):       | 37.8 Degrees |
| Field Angle (90-270):      | 37.8 Degrees |





# ISOFootcandle Plot

Mounting Height - 8 Feet

