

Photometrics Pro

Luminaire Photometric Report

Filename: BL14 - 1x4 Backlit Panel - 40W -IES

Manufacturer: SARIN Energy Solutions

Luminaire: 1x4 Luminaires for Ambient Lighting of Interior Commercial Spaces

Lamp Output: 1 lamp, rated Lumens/lamp: 4355

Max Candela: 1,573.9 at Horizontal: 0°, Vertical: 0°

Input Wattage: 34.47

Luminous Opening: Rectangle (L: 47.24", W: 22.05")

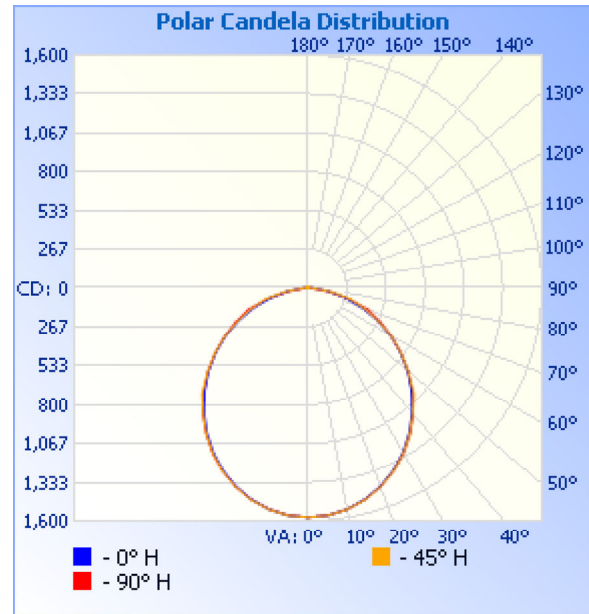
Test: LCZP20040200

Test Date: 2020/7/25

Test Lab: LCTECH 200604111003

Photometry : Type C

Nema Type: 7 X 7



Roadway Summary

| | |
|------------------------|---------------|
| Cutoff Classification: | CUTOFF |
| Distribution: | Type VS |
| Max Cd, 90 Deg Vert: | 10.5 |
| Max Cd, 80 to <90 Deg: | 172.9 |
| | Lumens % Lamp |
| Downward Street Side: | 2,165.6 49.7% |
| Downward House Side: | 2,165.6 49.7% |
| Downward Total: | 4,331.2 99.5% |
| Upward Street Side: | 10.2 0.2% |
| Upward House Side: | 10.2 0.2% |
| Upward Total: | 20.4 0.5% |
| Total Lumens: | 4,351.6 99.9% |

Flood Summary

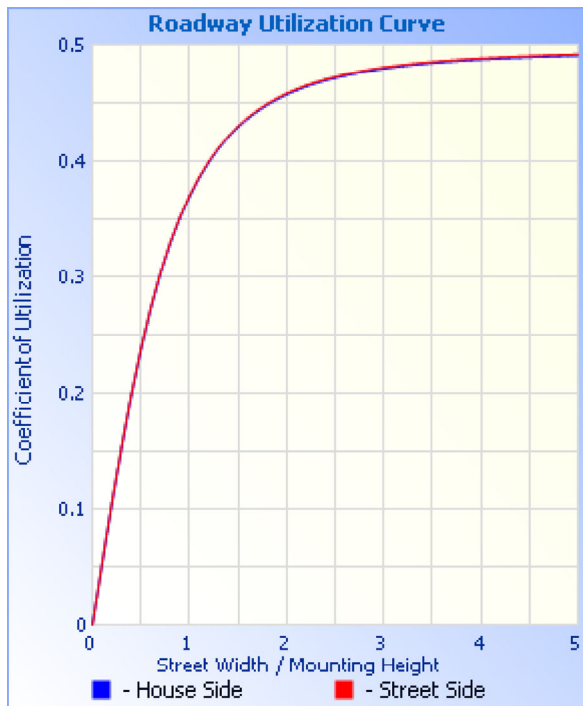
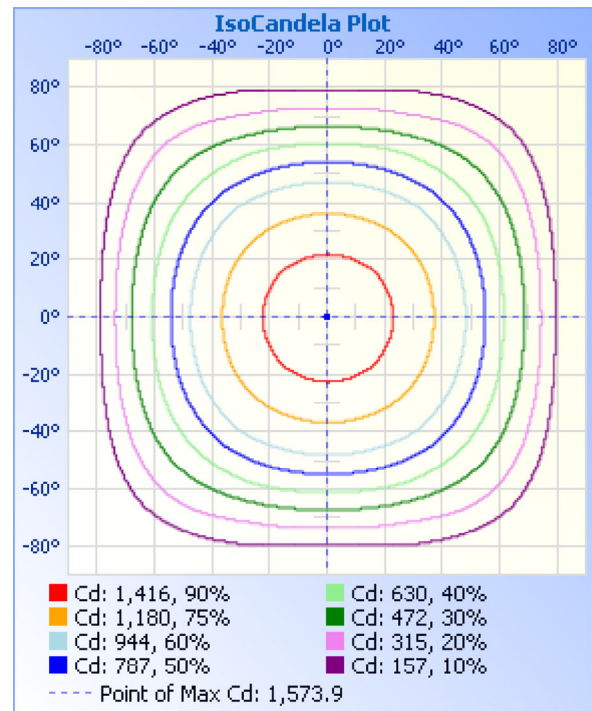
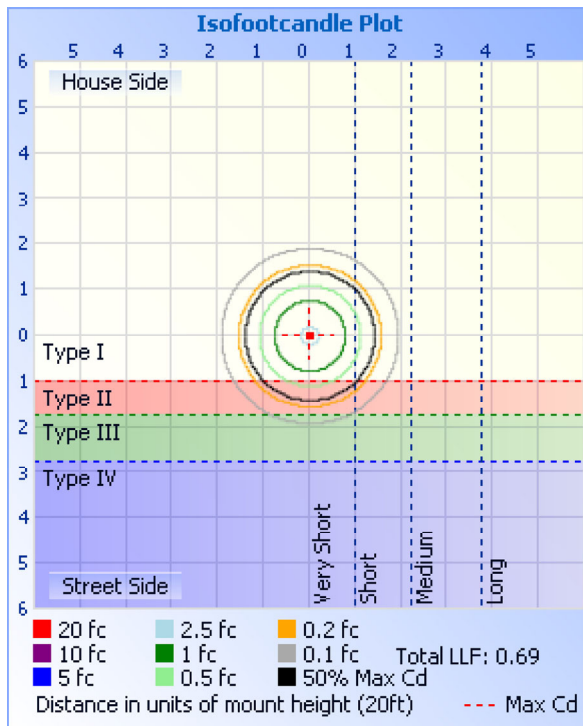
| | Efficiency | Lumens | Horizontal Spread | Vertical Spread |
|--------------|------------|---------|-------------------|-----------------|
| Field (10%): | 97.9% | 4,265.7 | 158.3 | 159 |
| Beam (50%): | 70.8% | 3,082.7 | 109.1 | 108.9 |
| Total: | 99.9% | 4,349.5 | | |

Zonal Lumen Summary

| Zone | Lumens | % Lamp | % Luminaire |
|--------|---------|--------|-------------|
| 0-30 | 1,207.6 | 27.7% | 27.8% |
| 0-40 | 1,966.1 | 45.1% | 45.2% |
| 0-60 | 3,438.4 | 79% | 79% |
| 60-90 | 890.9 | 20.5% | 20.5% |
| 70-100 | 367.2 | 8.4% | 8.4% |
| 90-120 | 7.8 | 0.2% | 0.2% |
| 0-90 | 4,329.3 | 99.4% | 99.5% |
| 90-180 | 20.4 | 0.5% | 0.5% |
| 0-180 | 4,349.7 | 99.9% | 100% |

Lumens Per Zone

| Zone | Lumens | % Total | Zone | Lumens | % Total |
|-------|--------|---------|---------|--------|---------|
| 0-10 | 148.5 | 3.4% | 90-100 | 3.2 | 0.1% |
| 10-20 | 423.2 | 9.7% | 100-110 | 2.3 | 0.1% |
| 20-30 | 635.9 | 14.6% | 110-120 | 2.3 | 0.1% |
| 30-40 | 758.5 | 17.4% | 120-130 | 2.5 | 0.1% |
| 40-50 | 778.0 | 17.9% | 130-140 | 2.4 | 0.1% |
| 50-60 | 694.2 | 16.0% | 140-150 | 2.6 | 0.1% |
| 60-70 | 526.8 | 12.1% | 150-160 | 2.5 | 0.1% |
| 70-80 | 300.1 | 6.9% | 160-170 | 1.9 | 0% |
| 80-90 | 63.9 | 1.5% | 170-180 | 0.7 | 0% |



Illuminance at a Distance

| | Center Beam fc | Beam Width | |
|-------|----------------|------------|---------|
| 1.7R | 545 fc | 4.8 ft | 4.8 ft |
| 3.3R | 145 fc | 9.2 ft | 9.3 ft |
| 5.0R | 63.0 fc | 14.0 ft | 14.0 ft |
| 6.7R | 35.1 fc | 18.7 ft | 18.8 ft |
| 8.3R | 22.8 fc | 23.2 ft | 23.3 ft |
| 10.0R | 15.7 fc | 28.0 ft | 28.1 ft |

■ Vert. Spread: 108.9°
■ Horiz. Spread: 109.1°

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

| RCC %: | 80 | | | | 70 | | | | 50 | | | | 30 | | | | 10 | | | | 0 |
|--------|------|------|------|------|------|------|------|-----|------|------|------|------|------|------|------|------|------|------|------|-----|---|
| RW %: | 70 | 50 | 30 | 0 | 70 | 50 | 30 | 0 | 50 | 30 | 20 | 0 | 50 | 30 | 20 | 0 | 50 | 30 | 20 | 0 | 0 |
| RCR: 0 | 1.19 | 1.19 | 1.19 | 1.19 | 1.16 | 1.16 | 1.16 | .99 | 1.11 | 1.11 | 1.11 | 1.06 | 1.06 | 1.06 | 1.06 | 1.01 | 1.01 | 1.01 | 1.01 | .99 | |
| 1 | 1.09 | 1.04 | 1.00 | .96 | 1.06 | 1.02 | .98 | .84 | .97 | .94 | .91 | .93 | .91 | .88 | .90 | .88 | .86 | .86 | .86 | .84 | |
| 2 | .99 | .91 | .84 | .78 | .96 | .89 | .82 | .71 | .85 | .80 | .75 | .82 | .77 | .74 | .79 | .75 | .72 | .70 | .70 | .70 | |
| 3 | .90 | .80 | .71 | .65 | .88 | .78 | .70 | .60 | .75 | .68 | .63 | .72 | .67 | .62 | .69 | .65 | .61 | .61 | .61 | .59 | |

| | | | | | | | | | | | | | | | | | | |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 4 | .82 | .71 | .62 | .55 | .80 | .69 | .61 | .52 | .67 | .59 | .54 | .64 | .58 | .53 | .62 | .57 | .52 | .50 |
| 5 | .76 | .63 | .54 | .47 | .74 | .62 | .53 | .45 | .60 | .52 | .47 | .58 | .51 | .46 | .56 | .50 | .45 | .43 |
| 6 | .70 | .57 | .48 | .41 | .68 | .56 | .47 | .40 | .54 | .46 | .41 | .52 | .45 | .40 | .51 | .45 | .40 | .38 |
| 7 | .65 | .51 | .43 | .37 | .63 | .51 | .42 | .35 | .49 | .42 | .36 | .48 | .41 | .36 | .46 | .40 | .36 | .34 |
| 8 | .60 | .47 | .38 | .33 | .59 | .46 | .38 | .32 | .45 | .38 | .32 | .44 | .37 | .32 | .42 | .36 | .32 | .30 |
| 9 | .57 | .43 | .35 | .29 | .55 | .42 | .35 | .29 | .41 | .34 | .29 | .40 | .34 | .29 | .39 | .33 | .29 | .27 |
| 10 | .53 | .40 | .32 | .27 | .52 | .39 | .32 | .26 | .38 | .31 | .26 | .37 | .31 | .26 | .36 | .30 | .26 | .24 |

Candela Table - Type C

| | 0 | 15 | 30 | 45 | 60 | 75 | 90 |
|-----|------|------|------|------|------|------|------|
| 0 | 1574 | 1574 | 1574 | 1574 | 1574 | 1574 | 1574 |
| 5 | 1567 | 1565 | 1566 | 1567 | 1565 | 1566 | 1565 |
| 10 | 1542 | 1541 | 1541 | 1543 | 1542 | 1542 | 1542 |
| 15 | 1500 | 1500 | 1501 | 1504 | 1503 | 1503 | 1503 |
| 20 | 1446 | 1446 | 1446 | 1451 | 1450 | 1450 | 1450 |
| 25 | 1377 | 1377 | 1378 | 1384 | 1383 | 1385 | 1384 |
| 30 | 1299 | 1298 | 1298 | 1306 | 1316 | 1306 | 1307 |
| 35 | 1208 | 1208 | 1210 | 1216 | 1217 | 1217 | 1218 |
| 40 | 1109 | 1111 | 1111 | 1119 | 1118 | 1119 | 1120 |
| 45 | 1003 | 1004 | 1006 | 1027 | 1011 | 1011 | 1012 |
| 50 | 892 | 893 | 893 | 899 | 896 | 897 | 896 |
| 55 | 774 | 776 | 775 | 779 | 777 | 780 | 776 |
| 60 | 650 | 652 | 666 | 654 | 655 | 659 | 657 |
| 65 | 521 | 524 | 524 | 529 | 533 | 542 | 545 |
| 70 | 391 | 394 | 398 | 409 | 423 | 433 | 439 |
| 75 | 265 | 282 | 278 | 300 | 299 | 292 | 287 |
| 80 | 146 | 153 | 173 | 165 | 148 | 135 | 130 |
| 85 | 53 | 61 | 49 | 38 | 30 | 25 | 12 |
| 90 | 10 | 4 | 4 | 4 | 4 | 3 | 3 |
| 95 | 3 | 3 | 3 | 2 | 2 | 3 | 2 |
| 100 | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
| 105 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 110 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 115 | 3 | 2 | 2 | 2 | 2 | 2 | 2 |
| 120 | 3 | 3 | 2 | 2 | 2 | 2 | 2 |
| 125 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 130 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 135 | 4 | 4 | 3 | 3 | 3 | 3 | 3 |
| 140 | 4 | 4 | 4 | 3 | 3 | 3 | 3 |
| 145 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 150 | 5 | 5 | 5 | 5 | 5 | 5 | 4 |
| 155 | 5 | 5 | 5 | 6 | 6 | 6 | 5 |
| 160 | 6 | 7 | 6 | 6 | 6 | 6 | 6 |
| 165 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 170 | 7 | 8 | 7 | 7 | 7 | 7 | 7 |
| 175 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| 180 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |

Luminaire Report Summary

IESNA:LM-63-2002
[TEST] LCZP20040200
[TESTDATE] 2020/7/25
[TESTLAB] LCTECH 200604111003
[ISSUE DATE] 2020/7/25
[MANUFAC] SARIN Energy Solutions
[LUMINAIRE] 1x4 Luminaires for Ambient Lighting of Interior Commercial Spaces
[_TOTALLUMINAIRELUMENS] 4349.7
[LUMELE] 120.04 0.289 34.47 0.994
FILE: CANDELA MULTIPLIER: 1
FILE: VERTICAL ANGLES: 37, HORIZONTAL ANGLES: 7
FILE: COORDINATE SYSTEM: TYPE C
FILE: UNIT OF MEASURE: METRIC
FILE: BALLAST FACTOR: 1

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Reported data calculated from manufacturer's data file, based on IES recommended methods.