

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO

Report Number: P522092

Luminaire Tested: **RLLV4069SE010WHDM-5000K-UNIT**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522092
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A1809075A001)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: RLLV4069SE010WHDM-5000K-UNIT
Description: Surface Mount Downlight Fixture, Single Unit
Light Source: (48) 5000K CCT, 92 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

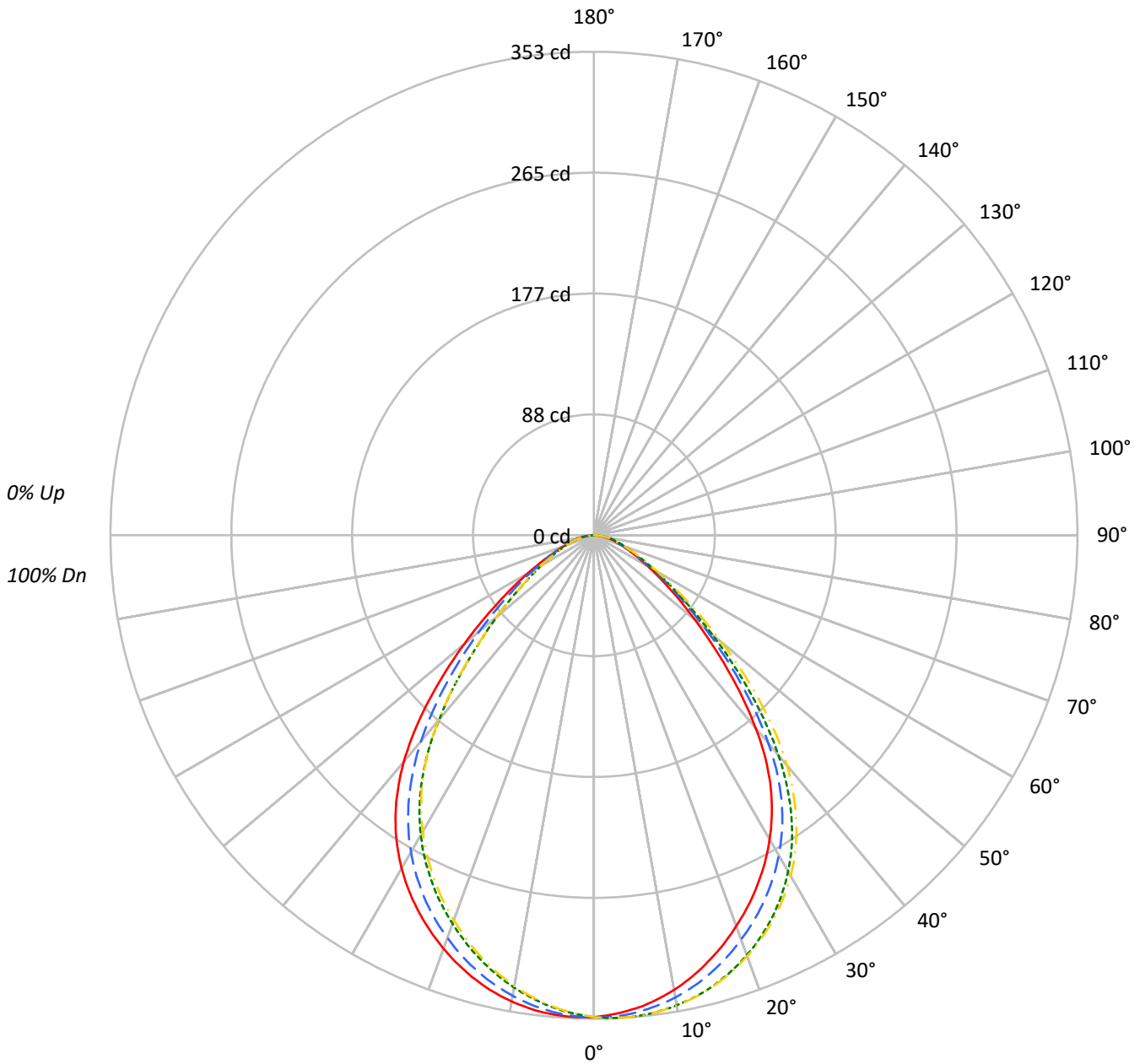
Lumens per Lamp: 644.87 (48 lamps)
Luminaire Lumens: 645.0 lumens
Efficiency: 2.1%
Efficacy: 96.3 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.15 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 6.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P522092
CATALOG NUMBER: RLLV4069SE010WHDM-5000K-UNIT

Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - · - · 90°-270° - · - · 135°-315°



TEST NUMBER: P522092

CATALOG NUMBER: RLLV4069SE010WHDM-5000K-UNIT

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| RF | 20 | | | | 20 | | | | 20 | | | | 20 | | | | 20 | | | | 20 |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| RC | 80 | | | | 70 | | | | 50 | | | | 30 | | | | 10 | | | | 0 |
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| RCR | | | | | | | | | | | | | | | | | | | | | |
| 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 |
| 4 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 5 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 6 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 7 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 8 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 9 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 10 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° | 270° |
|-----|-------|-------|-------|-------|
| 0° | 43492 | 43492 | 43492 | 43492 |
| 5° | 43026 | 43733 | 43547 | 42914 |
| 10° | 42293 | 43736 | 43372 | 42092 |
| 15° | 41239 | 43491 | 42941 | 41022 |
| 20° | 39957 | 42916 | 42232 | 39707 |
| 25° | 38470 | 41988 | 41333 | 38156 |
| 30° | 36591 | 40459 | 40074 | 36092 |
| 35° | 33963 | 37961 | 38127 | 33042 |
| 40° | 29622 | 33800 | 34833 | 28396 |
| 45° | 23981 | 27948 | 29749 | 22827 |
| 50° | 18632 | 21650 | 23785 | 17728 |
| 55° | 14415 | 16376 | 18251 | 13747 |
| 60° | 11321 | 12705 | 13892 | 10926 |
| 65° | 9124 | 10236 | 10733 | 9037 |
| 70° | 7769 | 8673 | 8492 | 7914 |
| 75° | 6924 | 8070 | 7545 | 7449 |
| 80° | 6050 | 7758 | 7189 | 6406 |
| 85° | 3545 | 6523 | 5814 | 3403 |



TEST NUMBER: P522092

CATALOG NUMBER: RLLV4069SE010WHDM-5000K-UNIT

ZONAL LUMENS:

| Zone | Lumens | % Fixture | % Lamp |
|-----------|--------|-----------|--------|
| 0°-10° | 33.1 | 5.1 | 0.1 |
| 10°-20° | 92.8 | 14.4 | 0.3 |
| 20°-30° | 134.8 | 20.9 | 0.4 |
| 30°-40° | 147.2 | 22.8 | 0.5 |
| 40°-50° | 115.8 | 18.0 | 0.4 |
| 50°-60° | 66.6 | 10.3 | 0.2 |
| 60°-70° | 33.9 | 5.3 | 0.1 |
| 70°-80° | 16.7 | 2.6 | 0.1 |
| 80°-90° | 4.1 | 0.6 | 0.0 |
| 90°-100° | 0.0 | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 | 0.0 |
| 0°-30° | 260.7 | 40.4 | 0.8 |
| 0°-40° | 407.9 | 63.2 | 1.3 |
| 0°-60° | 590.3 | 91.5 | 1.9 |
| 0°-90° | 645.0 | 100.0 | 2.1 |
| 90°-120° | 0.0 | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 | 0.0 |
| 0°-180° | 645.0 | 100.0 | 2.1 |

CANDELA DISTRIBUTION:

| | 0° | 90° | 180° | 270° | 360° | Flux |
|-----|-----|-----|------|------|------|------|
| 0° | 352 | 352 | 352 | 352 | 352 | |
| 5° | 347 | 352 | 351 | 346 | 347 | 33 |
| 15° | 322 | 340 | 336 | 321 | 322 | 91 |
| 25° | 282 | 308 | 303 | 280 | 282 | 130 |
| 35° | 225 | 252 | 253 | 219 | 225 | 139 |
| 45° | 137 | 160 | 170 | 131 | 137 | 106 |
| 55° | 67 | 76 | 85 | 64 | 67 | 61 |
| 65° | 31 | 35 | 37 | 31 | 31 | 32 |
| 75° | 14 | 17 | 16 | 16 | 14 | 15 |
| 85° | 2 | 5 | 4 | 2 | 2 | 3 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P522092

CATALOG NUMBER: RLLV4069SE010WHDM-5000K-UNIT

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 0° | 351.9 | 351.9 | 351.9 | 351.9 | 351.9 | 351.9 | 351.9 | 351.9 | 351.9 | 351.9 | 351.9 |
| 0.5° | 351.5 | 351.6 | 352.1 | 353.1 | 352.0 | 352.0 | 352.0 | 351.9 | 351.9 | 351.8 | 352.0 |
| 1° | 351.2 | 351.5 | 352.1 | 353.1 | 352.3 | 352.3 | 352.2 | 352.1 | 352.0 | 351.8 | 351.9 |
| 1.5° | 350.8 | 351.3 | 352.0 | 353.1 | 352.5 | 352.5 | 352.5 | 352.2 | 352.0 | 351.8 | 351.7 |
| 2° | 350.4 | 351.0 | 351.9 | 353.1 | 352.7 | 352.7 | 352.7 | 352.3 | 352.1 | 351.8 | 351.5 |
| 2.5° | 349.9 | 350.7 | 351.7 | 353.0 | 352.8 | 352.8 | 352.8 | 352.4 | 352.0 | 351.6 | 351.2 |
| 3° | 349.4 | 350.3 | 351.4 | 352.9 | 352.8 | 352.9 | 352.8 | 352.4 | 351.9 | 351.3 | 350.9 |
| 3.5° | 348.8 | 349.9 | 351.1 | 352.7 | 352.8 | 352.9 | 352.8 | 352.4 | 351.8 | 351.1 | 350.6 |
| 4° | 348.2 | 349.4 | 350.7 | 352.5 | 352.8 | 352.9 | 352.8 | 352.3 | 351.6 | 350.8 | 350.2 |
| 4.5° | 347.5 | 348.9 | 350.3 | 352.3 | 352.7 | 352.9 | 352.7 | 352.2 | 351.4 | 350.4 | 349.7 |
| 5° | 346.8 | 348.3 | 349.8 | 351.9 | 352.5 | 352.8 | 352.5 | 352.0 | 351.0 | 350.0 | 349.2 |
| 5.5° | 346.1 | 347.7 | 349.3 | 351.6 | 352.4 | 352.6 | 352.4 | 351.7 | 350.7 | 349.5 | 348.6 |
| 6° | 345.4 | 347.0 | 348.7 | 351.1 | 352.1 | 352.4 | 352.2 | 351.4 | 350.4 | 349.0 | 348.0 |
| 6.5° | 344.5 | 346.3 | 348.1 | 350.7 | 351.8 | 352.2 | 351.9 | 351.0 | 349.9 | 348.5 | 347.3 |
| 7° | 343.5 | 345.5 | 347.4 | 350.1 | 351.5 | 351.8 | 351.5 | 350.6 | 349.5 | 347.8 | 346.7 |
| 7.5° | 342.5 | 344.7 | 346.7 | 349.6 | 351.1 | 351.5 | 351.1 | 350.1 | 348.9 | 347.2 | 345.9 |
| 8° | 341.5 | 343.9 | 346.0 | 348.9 | 350.6 | 351.1 | 350.7 | 349.6 | 348.3 | 346.5 | 345.2 |
| 8.5° | 340.4 | 342.9 | 345.3 | 348.3 | 350.1 | 350.6 | 350.3 | 349.1 | 347.7 | 345.8 | 344.3 |
| 9° | 339.3 | 341.9 | 344.4 | 347.6 | 349.6 | 350.1 | 349.8 | 348.5 | 347.0 | 345.1 | 343.5 |
| 9.5° | 338.2 | 340.9 | 343.5 | 346.8 | 349.1 | 349.5 | 349.2 | 347.8 | 346.3 | 344.2 | 342.5 |
| 10° | 337.0 | 339.8 | 342.6 | 346.0 | 348.5 | 348.9 | 348.6 | 347.1 | 345.6 | 343.3 | 341.5 |
| 10.5° | 335.8 | 338.6 | 341.6 | 345.3 | 347.8 | 348.3 | 348.0 | 346.4 | 344.9 | 342.4 | 340.5 |
| 11° | 334.5 | 337.4 | 340.5 | 344.4 | 347.1 | 347.6 | 347.3 | 345.7 | 344.0 | 341.4 | 339.4 |
| 11.5° | 333.1 | 336.2 | 339.4 | 343.4 | 346.4 | 346.9 | 346.6 | 344.9 | 343.2 | 340.3 | 338.2 |
| 12° | 331.7 | 335.0 | 338.3 | 342.4 | 345.6 | 346.1 | 345.8 | 344.1 | 342.2 | 339.3 | 337.1 |
| 12.5° | 330.3 | 333.7 | 337.1 | 341.3 | 344.9 | 345.4 | 345.1 | 343.2 | 341.2 | 338.2 | 336.0 |
| 13° | 328.7 | 332.4 | 336.1 | 340.2 | 344.0 | 344.6 | 344.3 | 342.2 | 340.2 | 337.1 | 334.7 |
| 13.5° | 327.2 | 331.0 | 334.7 | 339.1 | 343.1 | 343.6 | 343.4 | 341.2 | 339.1 | 336.0 | 333.5 |
| 14° | 325.7 | 329.5 | 333.4 | 337.9 | 342.1 | 342.7 | 342.4 | 340.2 | 338.0 | 334.7 | 332.1 |
| 14.5° | 324.0 | 328.0 | 332.0 | 336.7 | 341.0 | 341.7 | 341.4 | 339.1 | 336.8 | 333.4 | 330.7 |
| 15° | 322.3 | 326.6 | 330.6 | 335.5 | 339.9 | 340.6 | 340.3 | 338.0 | 335.6 | 332.1 | 329.3 |
| 15.5° | 320.6 | 325.0 | 329.1 | 334.1 | 338.7 | 339.5 | 339.2 | 336.8 | 334.4 | 330.7 | 327.8 |
| 16° | 318.9 | 323.3 | 327.6 | 332.7 | 337.5 | 338.4 | 338.0 | 335.7 | 333.1 | 329.2 | 326.4 |
| 16.5° | 317.2 | 321.6 | 326.1 | 331.3 | 336.2 | 337.2 | 336.8 | 334.4 | 331.7 | 327.8 | 324.9 |
| 17° | 315.4 | 319.9 | 324.6 | 329.9 | 335.1 | 336.0 | 335.6 | 333.1 | 330.3 | 326.3 | 323.3 |
| 17.5° | 313.5 | 318.2 | 322.9 | 328.3 | 333.7 | 334.6 | 334.3 | 331.7 | 328.9 | 324.8 | 321.7 |
| 18° | 311.6 | 316.5 | 321.2 | 326.9 | 332.3 | 333.2 | 333.0 | 330.3 | 327.4 | 323.1 | 320.0 |
| 18.5° | 309.6 | 314.7 | 319.5 | 325.3 | 330.9 | 331.8 | 331.5 | 328.8 | 325.9 | 321.5 | 318.2 |
| 19° | 307.8 | 312.8 | 317.8 | 323.7 | 329.4 | 330.4 | 330.1 | 327.3 | 324.4 | 319.8 | 316.5 |
| 19.5° | 305.8 | 311.0 | 316.1 | 321.9 | 327.8 | 328.9 | 328.5 | 325.9 | 322.7 | 318.1 | 314.7 |
| 20° | 303.8 | 309.0 | 314.2 | 320.2 | 326.3 | 327.3 | 327.0 | 324.3 | 321.1 | 316.5 | 312.8 |
| 20.5° | 301.8 | 307.2 | 312.4 | 318.4 | 324.7 | 325.8 | 325.6 | 322.7 | 319.4 | 314.7 | 311.0 |
| 21° | 299.7 | 305.3 | 310.5 | 316.8 | 323.0 | 324.1 | 324.0 | 321.0 | 317.8 | 312.8 | 309.1 |
| 21.5° | 297.6 | 303.3 | 308.6 | 314.9 | 321.3 | 322.4 | 322.3 | 319.4 | 316.1 | 311.0 | 307.3 |
| 22° | 295.5 | 301.2 | 306.7 | 313.0 | 319.5 | 320.6 | 320.6 | 317.8 | 314.4 | 309.2 | 305.3 |



TEST NUMBER: P522092

CATALOG NUMBER: RLLV4069SE010WHDM-5000K-UNIT

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 22.5° | 293.3 | 299.3 | 304.7 | 311.2 | 317.8 | 318.8 | 318.8 | 316.1 | 312.5 | 307.4 | 303.3 |
| 23° | 291.2 | 297.2 | 302.7 | 309.2 | 315.9 | 317.1 | 317.2 | 314.3 | 310.7 | 305.5 | 301.1 |
| 23.5° | 289.1 | 295.0 | 300.7 | 307.2 | 313.9 | 315.2 | 315.4 | 312.5 | 308.8 | 303.5 | 299.1 |
| 24° | 286.8 | 292.9 | 298.6 | 305.2 | 312.0 | 313.2 | 313.6 | 310.7 | 307.0 | 301.4 | 297.0 |
| 24.5° | 284.5 | 290.7 | 296.5 | 303.0 | 310.0 | 311.2 | 311.7 | 308.7 | 305.1 | 299.3 | 294.8 |
| 25° | 282.1 | 288.5 | 294.3 | 300.8 | 307.9 | 309.1 | 309.7 | 306.8 | 303.1 | 297.2 | 292.5 |
| 25.5° | 279.8 | 286.1 | 292.0 | 298.7 | 305.7 | 307.1 | 307.8 | 304.8 | 301.0 | 295.0 | 290.2 |
| 26° | 277.3 | 283.7 | 289.8 | 296.4 | 303.4 | 304.9 | 305.7 | 302.8 | 299.0 | 292.8 | 287.8 |
| 26.5° | 274.9 | 281.3 | 287.5 | 294.0 | 301.1 | 302.6 | 303.5 | 300.7 | 296.9 | 290.6 | 285.3 |
| 27° | 272.4 | 279.0 | 285.2 | 291.6 | 298.9 | 300.3 | 301.3 | 298.7 | 294.7 | 288.4 | 282.9 |
| 27.5° | 269.9 | 276.5 | 282.7 | 289.3 | 296.5 | 298.1 | 299.2 | 296.5 | 292.5 | 286.0 | 280.5 |
| 28° | 267.3 | 274.0 | 280.3 | 286.8 | 294.0 | 295.6 | 296.9 | 294.3 | 290.2 | 283.6 | 277.9 |
| 28.5° | 264.6 | 271.5 | 277.8 | 284.2 | 291.5 | 293.0 | 294.5 | 292.0 | 288.0 | 281.1 | 275.4 |
| 29° | 262.1 | 268.9 | 275.1 | 281.6 | 289.0 | 290.4 | 292.1 | 289.8 | 285.6 | 278.8 | 272.6 |
| 29.5° | 259.2 | 266.2 | 272.5 | 279.0 | 286.2 | 287.8 | 289.7 | 287.4 | 283.1 | 276.3 | 269.9 |
| 30° | 256.4 | 263.5 | 269.9 | 276.2 | 283.5 | 285.1 | 287.2 | 284.9 | 280.8 | 273.6 | 267.1 |
| 30.5° | 253.6 | 260.8 | 267.1 | 273.3 | 280.8 | 282.3 | 284.6 | 282.4 | 278.2 | 271.1 | 264.3 |
| 31° | 250.8 | 258.0 | 264.2 | 270.5 | 277.9 | 279.5 | 281.9 | 280.0 | 275.7 | 268.4 | 261.5 |
| 31.5° | 247.7 | 255.1 | 261.5 | 267.6 | 275.0 | 276.5 | 279.3 | 277.3 | 273.0 | 265.5 | 258.5 |
| 32° | 244.7 | 252.3 | 258.5 | 264.4 | 271.9 | 273.4 | 276.4 | 274.6 | 270.4 | 262.7 | 255.5 |
| 32.5° | 241.7 | 249.2 | 255.5 | 261.4 | 268.8 | 270.3 | 273.5 | 271.7 | 267.6 | 259.9 | 252.4 |
| 33° | 238.5 | 246.1 | 252.4 | 258.0 | 265.5 | 267.1 | 270.5 | 268.9 | 264.7 | 256.8 | 249.1 |
| 33.5° | 235.1 | 242.9 | 249.2 | 254.7 | 262.1 | 263.8 | 267.4 | 266.0 | 261.9 | 253.8 | 245.8 |
| 34° | 232.0 | 239.6 | 245.9 | 251.3 | 258.6 | 260.5 | 264.2 | 262.9 | 258.8 | 250.8 | 242.5 |
| 34.5° | 228.6 | 236.2 | 242.6 | 247.7 | 255.1 | 256.9 | 261.1 | 259.9 | 255.7 | 247.6 | 239.1 |
| 35° | 225.1 | 232.8 | 239.1 | 244.1 | 251.6 | 253.3 | 257.7 | 256.6 | 252.7 | 244.2 | 235.6 |
| 35.5° | 221.4 | 229.2 | 235.4 | 240.4 | 247.8 | 249.4 | 254.3 | 253.4 | 249.4 | 241.0 | 232.0 |
| 36° | 217.5 | 225.6 | 231.8 | 236.5 | 244.0 | 245.5 | 250.8 | 250.1 | 246.0 | 237.5 | 228.3 |
| 36.5° | 213.7 | 221.7 | 227.9 | 232.7 | 240.0 | 241.7 | 247.1 | 246.6 | 242.6 | 234.1 | 224.6 |
| 37° | 209.7 | 217.7 | 224.0 | 228.5 | 235.9 | 237.6 | 243.4 | 243.1 | 239.0 | 230.4 | 220.7 |
| 37.5° | 205.8 | 213.8 | 220.0 | 224.4 | 231.8 | 233.5 | 239.6 | 239.4 | 235.3 | 226.6 | 216.8 |
| 38° | 201.5 | 209.6 | 215.9 | 220.1 | 227.6 | 229.2 | 235.7 | 235.7 | 231.6 | 222.9 | 212.9 |
| 38.5° | 197.2 | 205.5 | 211.5 | 215.7 | 223.3 | 225.0 | 231.9 | 231.8 | 227.8 | 218.8 | 208.8 |
| 39° | 192.8 | 201.1 | 207.2 | 211.3 | 218.8 | 220.4 | 227.7 | 227.8 | 224.0 | 214.8 | 204.9 |
| 39.5° | 188.3 | 196.7 | 202.7 | 206.8 | 214.3 | 215.8 | 223.6 | 223.8 | 220.0 | 210.7 | 200.5 |
| 40° | 183.6 | 192.2 | 198.1 | 202.1 | 209.5 | 211.1 | 219.2 | 219.7 | 215.9 | 206.6 | 196.3 |
| 40.5° | 179.1 | 187.5 | 193.6 | 197.4 | 204.9 | 206.4 | 214.8 | 215.4 | 211.6 | 202.2 | 191.9 |
| 41° | 174.4 | 182.7 | 188.8 | 192.5 | 199.9 | 201.6 | 210.2 | 211.0 | 207.3 | 197.9 | 187.5 |
| 41.5° | 169.8 | 178.1 | 184.1 | 187.6 | 195.2 | 196.8 | 205.7 | 206.7 | 202.9 | 193.6 | 183.0 |
| 42° | 165.0 | 173.3 | 179.3 | 182.7 | 190.3 | 191.7 | 201.0 | 202.1 | 198.4 | 189.0 | 178.7 |
| 42.5° | 160.3 | 168.6 | 174.4 | 177.9 | 185.3 | 186.7 | 196.2 | 197.4 | 193.9 | 184.4 | 174.1 |
| 43° | 155.6 | 163.7 | 169.6 | 172.9 | 180.2 | 181.5 | 191.3 | 192.6 | 189.3 | 179.8 | 169.6 |
| 43.5° | 150.9 | 159.0 | 164.7 | 168.0 | 175.2 | 176.4 | 186.4 | 187.9 | 184.6 | 175.1 | 165.0 |
| 44° | 146.2 | 154.2 | 159.8 | 162.9 | 170.1 | 171.2 | 181.3 | 183.0 | 179.8 | 170.4 | 160.4 |
| 44.5° | 141.7 | 149.5 | 154.9 | 157.9 | 165.0 | 166.1 | 176.3 | 178.2 | 175.0 | 165.9 | 155.9 |



TEST NUMBER: P522092

CATALOG NUMBER: RLLV4069SE010WHDM-5000K-UNIT

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 45° | 137.2 | 144.7 | 150.3 | 153.0 | 159.9 | 161.1 | 171.1 | 173.3 | 170.2 | 161.2 | 151.5 |
| 45.5° | 132.8 | 140.2 | 145.5 | 148.2 | 154.9 | 155.9 | 166.2 | 168.4 | 165.5 | 156.5 | 146.9 |
| 46° | 128.4 | 135.7 | 140.8 | 143.4 | 150.0 | 150.8 | 161.1 | 163.3 | 160.8 | 151.8 | 142.6 |
| 46.5° | 124.2 | 131.2 | 136.2 | 138.7 | 145.0 | 145.6 | 156.0 | 158.4 | 155.9 | 147.0 | 138.2 |
| 47° | 119.9 | 126.8 | 131.6 | 133.9 | 140.1 | 140.7 | 150.9 | 153.5 | 151.2 | 142.5 | 133.7 |
| 47.5° | 115.7 | 122.5 | 127.0 | 129.4 | 135.3 | 135.8 | 145.9 | 148.7 | 146.5 | 137.9 | 129.5 |
| 48° | 111.9 | 118.2 | 122.8 | 124.7 | 130.6 | 131.0 | 141.0 | 143.8 | 141.8 | 133.5 | 125.3 |
| 48.5° | 107.9 | 114.3 | 118.5 | 120.4 | 125.9 | 126.2 | 136.1 | 139.2 | 137.1 | 129.1 | 121.3 |
| 49° | 104.1 | 110.3 | 114.5 | 116.0 | 121.4 | 121.6 | 131.3 | 134.5 | 132.6 | 124.7 | 117.1 |
| 49.5° | 100.6 | 106.3 | 110.4 | 111.9 | 116.9 | 117.1 | 126.5 | 129.8 | 128.1 | 120.4 | 113.3 |
| 50° | 96.9 | 102.7 | 106.4 | 107.7 | 112.6 | 112.7 | 121.9 | 125.1 | 123.7 | 116.1 | 109.4 |
| 50.5° | 93.4 | 99.0 | 102.5 | 103.8 | 108.2 | 108.4 | 117.3 | 120.6 | 119.3 | 112.1 | 105.6 |
| 51° | 90.0 | 95.5 | 98.7 | 99.9 | 104.2 | 104.2 | 112.9 | 116.2 | 115.0 | 108.1 | 101.9 |
| 51.5° | 86.9 | 91.9 | 95.1 | 96.1 | 100.2 | 100.2 | 108.6 | 112.0 | 110.9 | 104.3 | 98.2 |
| 52° | 83.8 | 88.5 | 91.6 | 92.4 | 96.4 | 96.4 | 104.3 | 107.7 | 106.7 | 100.5 | 94.8 |
| 52.5° | 80.7 | 85.3 | 88.2 | 88.9 | 92.6 | 92.6 | 100.2 | 103.7 | 102.9 | 96.8 | 91.3 |
| 53° | 77.7 | 82.1 | 84.9 | 85.6 | 89.1 | 88.9 | 96.4 | 99.7 | 99.1 | 93.2 | 88.0 |
| 53.5° | 74.9 | 79.0 | 81.8 | 82.2 | 85.7 | 85.5 | 92.5 | 95.9 | 95.4 | 89.7 | 84.9 |
| 54° | 72.1 | 76.2 | 78.5 | 79.0 | 82.3 | 82.1 | 88.8 | 92.0 | 91.7 | 86.4 | 81.8 |
| 54.5° | 69.4 | 73.3 | 75.6 | 76.0 | 79.1 | 78.8 | 85.3 | 88.3 | 88.1 | 83.0 | 78.6 |
| 55° | 66.9 | 70.5 | 72.7 | 73.0 | 76.0 | 75.7 | 81.8 | 84.9 | 84.7 | 79.9 | 75.8 |
| 55.5° | 64.5 | 67.9 | 70.0 | 70.1 | 73.0 | 72.7 | 78.4 | 81.5 | 81.4 | 76.8 | 72.9 |
| 56° | 62.0 | 65.3 | 67.2 | 67.5 | 70.2 | 70.0 | 75.3 | 78.2 | 78.2 | 73.9 | 70.2 |
| 56.5° | 59.8 | 62.8 | 64.6 | 64.8 | 67.8 | 67.2 | 72.3 | 75.0 | 75.2 | 71.0 | 67.8 |
| 57° | 57.5 | 60.4 | 62.1 | 62.3 | 65.0 | 64.5 | 69.4 | 71.9 | 72.2 | 68.5 | 65.1 |
| 57.5° | 55.3 | 58.3 | 59.7 | 59.9 | 62.5 | 61.9 | 66.6 | 69.0 | 69.3 | 65.6 | 62.6 |
| 58° | 53.2 | 56.0 | 57.4 | 57.7 | 60.0 | 59.6 | 63.8 | 66.2 | 66.5 | 63.0 | 60.1 |
| 58.5° | 51.2 | 53.9 | 55.1 | 55.4 | 57.8 | 57.4 | 61.2 | 63.4 | 63.7 | 60.5 | 57.8 |
| 59° | 49.5 | 51.8 | 53.0 | 53.1 | 55.7 | 55.1 | 58.8 | 60.8 | 61.1 | 58.2 | 55.7 |
| 59.5° | 47.6 | 49.8 | 51.0 | 50.9 | 53.5 | 53.0 | 56.3 | 58.3 | 58.6 | 55.9 | 53.5 |
| 60° | 45.8 | 47.9 | 49.0 | 49.1 | 51.4 | 51.0 | 54.1 | 55.9 | 56.2 | 53.6 | 51.3 |
| 60.5° | 44.1 | 46.1 | 47.0 | 47.2 | 49.5 | 49.0 | 52.0 | 53.3 | 53.9 | 51.3 | 49.4 |
| 61° | 42.4 | 44.3 | 45.1 | 45.4 | 47.6 | 47.1 | 49.8 | 51.2 | 51.6 | 49.4 | 47.4 |
| 61.5° | 40.7 | 42.6 | 43.3 | 43.7 | 45.8 | 45.3 | 47.7 | 49.0 | 49.4 | 47.3 | 45.6 |
| 62° | 39.1 | 40.9 | 41.7 | 41.9 | 44.1 | 43.5 | 45.8 | 46.9 | 47.3 | 45.3 | 43.8 |
| 62.5° | 37.7 | 39.3 | 40.1 | 40.3 | 42.3 | 42.0 | 43.9 | 44.9 | 45.4 | 43.5 | 42.1 |
| 63° | 36.4 | 37.7 | 38.5 | 38.7 | 40.8 | 40.4 | 42.1 | 43.1 | 43.5 | 41.8 | 40.4 |
| 63.5° | 34.9 | 36.4 | 37.0 | 37.2 | 39.3 | 38.9 | 40.4 | 41.2 | 41.7 | 40.2 | 38.8 |
| 64° | 33.6 | 35.0 | 35.4 | 35.7 | 37.9 | 37.3 | 38.8 | 39.4 | 39.9 | 38.5 | 37.4 |
| 64.5° | 32.3 | 33.5 | 33.9 | 34.3 | 36.5 | 35.8 | 37.2 | 37.7 | 38.2 | 36.9 | 35.9 |
| 65° | 31.2 | 32.2 | 32.6 | 33.1 | 35.0 | 34.4 | 35.7 | 36.1 | 36.7 | 35.3 | 34.5 |
| 65.5° | 30.1 | 31.0 | 31.3 | 31.8 | 33.7 | 33.2 | 34.2 | 34.5 | 35.0 | 33.7 | 33.2 |
| 66° | 28.9 | 29.9 | 30.1 | 30.6 | 32.5 | 32.0 | 32.9 | 33.1 | 33.4 | 32.4 | 31.9 |
| 66.5° | 28.0 | 28.8 | 29.1 | 29.4 | 31.3 | 30.8 | 31.6 | 31.8 | 32.0 | 31.1 | 30.7 |
| 67° | 26.7 | 27.6 | 28.1 | 28.2 | 30.1 | 29.7 | 30.3 | 30.4 | 30.7 | 30.0 | 29.7 |



TEST NUMBER: P522092

CATALOG NUMBER: RLLV4069SE010WHDM-5000K-UNIT

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|------|-------|------|-------|------|--------|------|--------|------|--------|------|
| 67.5° | 25.8 | 26.5 | 26.6 | 27.2 | 29.1 | 28.5 | 29.1 | 29.3 | 29.3 | 28.6 | 28.3 |
| 68° | 24.9 | 25.6 | 25.7 | 26.1 | 28.1 | 27.4 | 28.1 | 28.0 | 28.2 | 27.4 | 27.4 |
| 68.5° | 23.9 | 24.6 | 24.7 | 25.0 | 26.8 | 26.4 | 26.7 | 26.7 | 26.8 | 26.2 | 26.3 |
| 69° | 23.1 | 23.5 | 23.6 | 24.1 | 25.9 | 25.3 | 25.9 | 25.7 | 25.8 | 25.1 | 25.2 |
| 69.5° | 22.3 | 22.9 | 22.8 | 23.1 | 24.8 | 24.6 | 24.7 | 24.7 | 24.7 | 24.3 | 24.4 |
| 70° | 21.5 | 21.9 | 21.8 | 22.4 | 24.0 | 23.4 | 23.7 | 23.5 | 23.5 | 23.2 | 23.3 |
| 70.5° | 20.6 | 21.2 | 21.1 | 21.4 | 23.1 | 22.8 | 23.0 | 22.7 | 22.7 | 22.3 | 22.5 |
| 71° | 19.7 | 20.2 | 20.2 | 20.7 | 22.4 | 21.9 | 22.0 | 21.6 | 21.6 | 21.4 | 21.7 |
| 71.5° | 19.0 | 19.5 | 19.6 | 19.9 | 21.6 | 21.2 | 21.2 | 20.9 | 20.8 | 20.6 | 21.1 |
| 72° | 18.3 | 18.7 | 18.7 | 19.4 | 21.0 | 20.3 | 20.2 | 19.9 | 19.8 | 19.7 | 20.1 |
| 72.5° | 17.8 | 17.9 | 17.9 | 18.5 | 20.2 | 19.6 | 19.5 | 19.3 | 19.2 | 18.9 | 19.5 |
| 73° | 16.9 | 17.3 | 17.2 | 17.8 | 19.5 | 18.9 | 18.6 | 18.5 | 18.3 | 18.1 | 18.7 |
| 73.5° | 16.3 | 16.6 | 16.6 | 17.0 | 18.8 | 18.1 | 17.9 | 17.8 | 17.7 | 17.5 | 17.9 |
| 74° | 15.9 | 16.0 | 16.1 | 16.5 | 18.0 | 17.5 | 17.1 | 17.0 | 16.9 | 16.8 | 17.2 |
| 74.5° | 15.4 | 15.4 | 15.4 | 16.0 | 17.7 | 16.9 | 16.5 | 16.3 | 16.1 | 16.2 | 16.7 |
| 75° | 14.5 | 15.1 | 14.8 | 15.4 | 16.9 | 16.2 | 16.0 | 15.9 | 15.8 | 15.5 | 16.0 |
| 75.5° | 13.9 | 14.3 | 14.4 | 14.7 | 16.1 | 15.6 | 15.2 | 15.2 | 15.2 | 15.0 | 15.4 |
| 76° | 13.6 | 13.8 | 14.0 | 14.3 | 15.8 | 15.1 | 14.5 | 14.5 | 14.4 | 14.5 | 15.1 |
| 76.5° | 12.8 | 13.3 | 13.3 | 13.9 | 15.1 | 14.5 | 14.2 | 14.1 | 13.9 | 14.1 | 14.3 |
| 77° | 12.2 | 12.6 | 12.6 | 13.1 | 14.4 | 14.0 | 13.7 | 13.7 | 13.5 | 13.4 | 14.0 |
| 77.5° | 11.6 | 12.1 | 12.2 | 12.5 | 13.9 | 13.4 | 12.9 | 13.0 | 12.8 | 12.7 | 13.2 |
| 78° | 11.0 | 11.6 | 11.5 | 12.0 | 13.4 | 12.7 | 12.5 | 12.6 | 12.4 | 12.2 | 12.5 |
| 78.5° | 10.6 | 10.9 | 11.0 | 11.2 | 12.6 | 12.2 | 12.1 | 12.1 | 11.9 | 11.6 | 12.1 |
| 79° | 9.6 | 10.3 | 10.3 | 10.9 | 12.1 | 11.5 | 11.5 | 11.3 | 11.2 | 11.1 | 11.2 |
| 79.5° | 9.2 | 9.6 | 9.5 | 10.1 | 11.5 | 11.0 | 10.9 | 11.0 | 10.8 | 10.5 | 10.8 |
| 80° | 8.5 | 9.2 | 9.2 | 9.3 | 10.9 | 10.5 | 10.3 | 10.4 | 10.1 | 9.7 | 10.0 |
| 80.5° | 7.7 | 8.5 | 8.4 | 8.9 | 10.3 | 9.8 | 9.7 | 9.6 | 9.4 | 9.3 | 9.2 |
| 81° | 7.4 | 7.6 | 7.6 | 8.2 | 9.4 | 9.2 | 9.2 | 9.2 | 9.1 | 8.6 | 8.6 |
| 81.5° | 6.6 | 7.3 | 7.4 | 7.4 | 9.1 | 8.7 | 8.6 | 8.6 | 8.3 | 7.8 | 8.0 |
| 82° | 5.9 | 6.4 | 6.6 | 6.8 | 8.2 | 7.9 | 8.1 | 7.8 | 7.5 | 7.4 | 7.5 |
| 82.5° | 5.5 | 5.8 | 5.9 | 6.2 | 7.5 | 7.5 | 7.4 | 7.5 | 7.2 | 6.6 | 6.7 |
| 83° | 4.8 | 5.5 | 5.5 | 5.6 | 7.0 | 6.7 | 6.7 | 6.7 | 6.4 | 5.9 | 5.8 |
| 83.5° | 4.2 | 4.7 | 4.8 | 5.0 | 6.2 | 6.0 | 6.1 | 5.9 | 5.7 | 5.6 | 5.6 |
| 84° | 4.0 | 4.1 | 4.2 | 4.6 | 5.7 | 5.7 | 5.7 | 5.6 | 5.4 | 4.8 | 4.8 |
| 84.5° | 3.2 | 3.8 | 4.0 | 4.0 | 5.0 | 5.0 | 5.0 | 4.9 | 4.7 | 4.2 | 4.1 |
| 85° | 2.5 | 3.0 | 3.2 | 3.3 | 4.6 | 4.5 | 4.6 | 4.3 | 4.1 | 4.0 | 3.8 |
| 85.5° | 2.3 | 2.3 | 2.5 | 2.9 | 4.0 | 4.0 | 4.0 | 4.0 | 3.8 | 3.2 | 3.0 |
| 86° | 1.8 | 2.2 | 2.3 | 2.3 | 3.4 | 3.3 | 3.3 | 3.2 | 3.0 | 2.5 | 2.4 |
| 86.5° | 1.6 | 1.5 | 1.7 | 2.1 | 2.9 | 2.9 | 2.8 | 2.5 | 2.4 | 2.3 | 2.2 |
| 87° | 0.6 | 0.8 | 1.4 | 1.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.2 | 1.8 | 1.4 |
| 87.5° | 0.5 | 0.5 | 0.6 | 0.7 | 2.1 | 2.1 | 2.0 | 1.7 | 1.5 | 1.6 | 0.9 |
| 88° | 0.0 | 0.0 | 0.5 | 0.5 | 1.4 | 1.4 | 1.4 | 1.6 | 0.9 | 0.6 | 0.5 |
| 88.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.7 | 0.7 | 0.6 | 0.5 | 0.5 | 0.0 |
| 89° | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.5 | 0.5 | 0.5 | 0.3 | 0.0 | 0.3 |
| 89.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P522092

CATALOG NUMBER: RLLV4069SE010WHDM-5000K-UNIT

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-----|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P522092

CATALOG NUMBER: RLLV4069SE010WHDM-5000K-UNIT

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 0° | 351.9 | 351.9 | 351.9 | 351.9 | 351.9 | 351.9 |
| 0.5° | 352.7 | 351.3 | 351.3 | 351.2 | 351.3 | 351.5 |
| 1° | 352.5 | 351.0 | 350.9 | 350.8 | 350.9 | 351.2 |
| 1.5° | 352.2 | 350.5 | 350.4 | 350.3 | 350.5 | 350.8 |
| 2° | 351.8 | 350.0 | 349.8 | 349.8 | 350.0 | 350.4 |
| 2.5° | 351.5 | 349.5 | 349.3 | 349.2 | 349.5 | 349.9 |
| 3° | 351.0 | 348.9 | 348.7 | 348.5 | 348.9 | 349.4 |
| 3.5° | 350.5 | 348.2 | 348.0 | 347.8 | 348.2 | 348.8 |
| 4° | 350.0 | 347.5 | 347.2 | 347.1 | 347.5 | 348.2 |
| 4.5° | 349.4 | 346.7 | 346.5 | 346.2 | 346.8 | 347.5 |
| 5° | 348.8 | 345.9 | 345.6 | 345.4 | 346.0 | 346.8 |
| 5.5° | 348.1 | 345.1 | 344.8 | 344.6 | 345.2 | 346.1 |
| 6° | 347.3 | 344.2 | 343.9 | 343.6 | 344.3 | 345.4 |
| 6.5° | 346.6 | 343.2 | 342.9 | 342.6 | 343.4 | 344.5 |
| 7° | 345.7 | 342.2 | 341.9 | 341.5 | 342.4 | 343.5 |
| 7.5° | 345.0 | 341.1 | 340.7 | 340.4 | 341.2 | 342.5 |
| 8° | 344.1 | 340.0 | 339.6 | 339.3 | 340.1 | 341.5 |
| 8.5° | 343.1 | 338.9 | 338.4 | 338.1 | 338.9 | 340.4 |
| 9° | 342.1 | 337.8 | 337.1 | 336.9 | 337.7 | 339.3 |
| 9.5° | 341.0 | 336.6 | 336.0 | 335.7 | 336.5 | 338.2 |
| 10° | 339.9 | 335.4 | 334.7 | 334.4 | 335.3 | 337.0 |
| 10.5° | 338.8 | 334.1 | 333.3 | 332.9 | 334.0 | 335.8 |
| 11° | 337.6 | 332.8 | 331.9 | 331.5 | 332.6 | 334.5 |
| 11.5° | 336.4 | 331.4 | 330.5 | 330.0 | 331.3 | 333.1 |
| 12° | 335.3 | 329.9 | 329.0 | 328.5 | 329.8 | 331.7 |
| 12.5° | 333.9 | 328.5 | 327.5 | 327.0 | 328.2 | 330.3 |
| 13° | 332.6 | 327.0 | 326.1 | 325.4 | 326.8 | 328.7 |
| 13.5° | 331.2 | 325.5 | 324.5 | 323.8 | 325.3 | 327.2 |
| 14° | 329.7 | 323.9 | 322.8 | 322.0 | 323.6 | 325.7 |
| 14.5° | 328.2 | 322.3 | 321.1 | 320.3 | 321.9 | 324.0 |
| 15° | 326.7 | 320.6 | 319.4 | 318.5 | 320.2 | 322.3 |
| 15.5° | 325.2 | 318.8 | 317.7 | 316.8 | 318.4 | 320.6 |
| 16° | 323.6 | 317.2 | 315.9 | 315.0 | 316.6 | 318.9 |
| 16.5° | 321.9 | 315.4 | 314.0 | 313.1 | 314.8 | 317.2 |
| 17° | 320.2 | 313.5 | 312.1 | 311.1 | 312.9 | 315.4 |
| 17.5° | 318.4 | 311.6 | 310.3 | 309.2 | 311.0 | 313.5 |
| 18° | 316.7 | 309.7 | 308.4 | 307.3 | 309.1 | 311.6 |
| 18.5° | 314.9 | 307.8 | 306.4 | 305.2 | 307.2 | 309.6 |
| 19° | 313.0 | 305.9 | 304.4 | 303.2 | 305.2 | 307.8 |
| 19.5° | 311.2 | 303.9 | 302.3 | 301.1 | 303.1 | 305.8 |
| 20° | 309.2 | 301.9 | 300.2 | 299.1 | 301.0 | 303.8 |
| 20.5° | 307.4 | 299.8 | 298.3 | 297.0 | 299.1 | 301.8 |
| 21° | 305.3 | 297.8 | 296.2 | 294.9 | 297.0 | 299.7 |
| 21.5° | 303.3 | 295.6 | 294.0 | 292.7 | 294.8 | 297.6 |
| 22° | 301.2 | 293.5 | 291.8 | 290.4 | 292.7 | 295.5 |



TEST NUMBER: P522092

CATALOG NUMBER: RLLV4069SE010WHDM-5000K-UNIT

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 22.5° | 299.1 | 291.3 | 289.7 | 288.3 | 290.4 | 293.3 |
| 23° | 297.1 | 289.2 | 287.3 | 286.1 | 288.2 | 291.2 |
| 23.5° | 294.8 | 286.9 | 285.0 | 283.7 | 285.9 | 289.1 |
| 24° | 292.6 | 284.5 | 282.7 | 281.3 | 283.6 | 286.8 |
| 24.5° | 290.3 | 282.1 | 280.4 | 279.0 | 281.2 | 284.5 |
| 25° | 288.0 | 279.8 | 278.0 | 276.5 | 278.9 | 282.1 |
| 25.5° | 285.5 | 277.2 | 275.6 | 274.0 | 276.4 | 279.8 |
| 26° | 283.1 | 274.7 | 273.0 | 271.5 | 273.9 | 277.3 |
| 26.5° | 280.8 | 272.1 | 270.5 | 269.0 | 271.5 | 274.9 |
| 27° | 278.2 | 269.7 | 267.9 | 266.4 | 268.9 | 272.4 |
| 27.5° | 275.6 | 267.0 | 265.3 | 263.8 | 266.3 | 269.9 |
| 28° | 272.9 | 264.2 | 262.7 | 261.1 | 263.7 | 267.3 |
| 28.5° | 270.3 | 261.5 | 260.0 | 258.3 | 261.1 | 264.6 |
| 29° | 267.5 | 258.7 | 257.2 | 255.5 | 258.3 | 262.1 |
| 29.5° | 264.6 | 255.7 | 254.4 | 252.8 | 255.5 | 259.2 |
| 30° | 261.9 | 252.9 | 251.7 | 249.9 | 252.7 | 256.4 |
| 30.5° | 258.8 | 249.9 | 248.7 | 247.0 | 249.8 | 253.6 |
| 31° | 255.8 | 246.7 | 245.8 | 244.1 | 246.9 | 250.8 |
| 31.5° | 252.8 | 243.7 | 242.8 | 241.0 | 244.0 | 247.7 |
| 32° | 249.6 | 240.4 | 239.7 | 238.0 | 241.0 | 244.7 |
| 32.5° | 246.3 | 237.1 | 236.5 | 234.9 | 237.8 | 241.7 |
| 33° | 243.0 | 233.7 | 233.3 | 231.6 | 234.7 | 238.5 |
| 33.5° | 239.6 | 230.2 | 229.9 | 228.3 | 231.4 | 235.1 |
| 34° | 236.1 | 226.6 | 226.4 | 225.1 | 228.0 | 232.0 |
| 34.5° | 232.5 | 222.9 | 223.0 | 221.6 | 224.7 | 228.6 |
| 35° | 228.8 | 219.0 | 219.4 | 218.0 | 221.2 | 225.1 |
| 35.5° | 225.1 | 215.2 | 215.7 | 214.4 | 217.5 | 221.4 |
| 36° | 221.1 | 211.1 | 211.9 | 210.5 | 213.9 | 217.5 |
| 36.5° | 217.1 | 207.1 | 208.0 | 206.6 | 210.0 | 213.7 |
| 37° | 213.1 | 202.8 | 204.0 | 202.7 | 206.1 | 209.7 |
| 37.5° | 209.0 | 198.5 | 199.8 | 198.6 | 201.9 | 205.8 |
| 38° | 204.9 | 194.2 | 195.7 | 194.4 | 197.8 | 201.5 |
| 38.5° | 200.5 | 189.7 | 191.5 | 190.0 | 193.4 | 197.2 |
| 39° | 196.2 | 185.2 | 187.2 | 185.6 | 189.1 | 192.8 |
| 39.5° | 191.9 | 180.6 | 182.6 | 181.0 | 184.7 | 188.3 |
| 40° | 187.5 | 176.0 | 178.1 | 176.5 | 180.1 | 183.6 |
| 40.5° | 183.0 | 171.4 | 173.4 | 171.9 | 175.5 | 179.1 |
| 41° | 178.6 | 166.9 | 168.7 | 167.5 | 170.8 | 174.4 |
| 41.5° | 174.0 | 162.2 | 164.0 | 162.8 | 166.2 | 169.8 |
| 42° | 169.4 | 157.7 | 159.5 | 158.3 | 161.6 | 165.0 |
| 42.5° | 164.7 | 152.9 | 154.8 | 153.6 | 157.1 | 160.3 |
| 43° | 160.2 | 148.3 | 150.2 | 149.0 | 152.5 | 155.6 |
| 43.5° | 155.6 | 143.7 | 145.6 | 144.4 | 147.9 | 150.9 |
| 44° | 151.1 | 139.3 | 141.0 | 140.0 | 143.2 | 146.2 |
| 44.5° | 146.6 | 134.8 | 136.5 | 135.4 | 138.8 | 141.7 |



TEST NUMBER: P522092

CATALOG NUMBER: RLLV4069SE010WHDM-5000K-UNIT

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 45° | 142.2 | 130.6 | 132.0 | 131.1 | 134.2 | 137.2 |
| 45.5° | 137.8 | 126.2 | 127.7 | 126.7 | 129.9 | 132.8 |
| 46° | 133.4 | 122.2 | 123.5 | 122.6 | 125.5 | 128.4 |
| 46.5° | 129.0 | 117.9 | 119.4 | 118.3 | 121.4 | 124.2 |
| 47° | 124.7 | 113.9 | 115.2 | 114.3 | 117.2 | 119.9 |
| 47.5° | 120.8 | 110.1 | 111.4 | 110.3 | 113.2 | 115.7 |
| 48° | 116.7 | 106.2 | 107.5 | 106.5 | 109.3 | 111.9 |
| 48.5° | 112.8 | 102.7 | 103.7 | 102.9 | 105.6 | 107.9 |
| 49° | 109.0 | 99.1 | 100.1 | 99.3 | 101.9 | 104.1 |
| 49.5° | 105.3 | 95.6 | 96.6 | 95.9 | 98.3 | 100.6 |
| 50° | 101.6 | 92.2 | 93.2 | 92.5 | 95.0 | 96.9 |
| 50.5° | 98.0 | 88.9 | 89.8 | 89.0 | 91.5 | 93.4 |
| 51° | 94.6 | 85.8 | 86.7 | 85.9 | 88.1 | 90.0 |
| 51.5° | 91.2 | 82.7 | 83.5 | 82.8 | 85.0 | 86.9 |
| 52° | 88.0 | 79.7 | 80.3 | 79.8 | 81.8 | 83.8 |
| 52.5° | 84.9 | 76.9 | 77.6 | 77.0 | 78.8 | 80.7 |
| 53° | 81.7 | 74.1 | 74.7 | 74.2 | 76.1 | 77.7 |
| 53.5° | 78.7 | 71.4 | 72.0 | 71.5 | 73.3 | 74.9 |
| 54° | 75.8 | 68.9 | 69.4 | 68.9 | 70.6 | 72.1 |
| 54.5° | 73.1 | 66.3 | 66.9 | 66.5 | 68.1 | 69.4 |
| 55° | 70.4 | 63.8 | 64.4 | 64.0 | 65.5 | 66.9 |
| 55.5° | 68.0 | 61.6 | 61.9 | 61.6 | 63.0 | 64.5 |
| 56° | 65.3 | 59.4 | 59.8 | 59.5 | 60.8 | 62.0 |
| 56.5° | 62.9 | 57.3 | 57.7 | 57.3 | 58.6 | 59.8 |
| 57° | 60.6 | 55.1 | 55.7 | 55.1 | 56.6 | 57.5 |
| 57.5° | 58.4 | 53.1 | 53.7 | 53.1 | 54.3 | 55.3 |
| 58° | 56.3 | 51.1 | 51.6 | 51.1 | 52.4 | 53.2 |
| 58.5° | 54.2 | 49.4 | 49.7 | 49.4 | 50.6 | 51.2 |
| 59° | 52.1 | 47.6 | 47.9 | 47.7 | 48.6 | 49.5 |
| 59.5° | 50.3 | 45.9 | 46.2 | 45.9 | 46.8 | 47.6 |
| 60° | 48.3 | 44.2 | 44.6 | 44.2 | 45.1 | 45.8 |
| 60.5° | 46.6 | 42.6 | 42.9 | 42.6 | 43.6 | 44.1 |
| 61° | 44.8 | 41.1 | 41.5 | 41.1 | 42.0 | 42.4 |
| 61.5° | 43.2 | 39.7 | 40.1 | 39.7 | 40.3 | 40.7 |
| 62° | 41.5 | 38.3 | 38.6 | 38.3 | 38.8 | 39.1 |
| 62.5° | 40.2 | 37.0 | 37.1 | 36.9 | 37.3 | 37.7 |
| 63° | 38.7 | 35.5 | 35.9 | 35.4 | 36.0 | 36.4 |
| 63.5° | 37.3 | 34.2 | 34.6 | 34.2 | 34.8 | 34.9 |
| 64° | 35.7 | 33.1 | 33.4 | 33.0 | 33.4 | 33.6 |
| 64.5° | 34.4 | 32.0 | 32.2 | 32.0 | 32.2 | 32.3 |
| 65° | 33.1 | 30.9 | 31.3 | 30.9 | 31.1 | 31.2 |
| 65.5° | 32.0 | 30.0 | 30.1 | 29.8 | 30.0 | 30.1 |
| 66° | 30.9 | 28.8 | 29.1 | 28.7 | 29.0 | 28.9 |
| 66.5° | 30.0 | 28.1 | 28.2 | 27.9 | 28.0 | 28.0 |
| 67° | 28.7 | 26.8 | 27.1 | 26.7 | 26.8 | 26.7 |



TEST NUMBER: P522092

CATALOG NUMBER: RLLV4069SE010WHDM-5000K-UNIT

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|------|--------|------|--------|------|
| 67.5° | 27.8 | 26.1 | 26.2 | 26.0 | 26.0 | 25.8 |
| 68° | 26.6 | 25.0 | 25.3 | 24.9 | 24.9 | 24.9 |
| 68.5° | 25.9 | 24.3 | 24.6 | 24.1 | 24.1 | 23.9 |
| 69° | 24.9 | 23.3 | 23.6 | 23.2 | 23.1 | 23.1 |
| 69.5° | 24.0 | 22.8 | 23.0 | 22.6 | 22.5 | 22.3 |
| 70° | 23.2 | 21.9 | 22.2 | 21.7 | 21.7 | 21.5 |
| 70.5° | 22.6 | 21.4 | 21.4 | 21.2 | 21.1 | 20.6 |
| 71° | 21.6 | 20.5 | 20.6 | 20.3 | 20.2 | 19.7 |
| 71.5° | 20.9 | 19.8 | 19.9 | 19.7 | 19.5 | 19.0 |
| 72° | 20.1 | 19.1 | 19.5 | 18.9 | 18.8 | 18.3 |
| 72.5° | 19.6 | 18.6 | 18.7 | 18.1 | 18.0 | 17.8 |
| 73° | 18.8 | 17.9 | 17.9 | 17.7 | 17.6 | 16.9 |
| 73.5° | 18.1 | 17.2 | 17.3 | 17.0 | 16.8 | 16.3 |
| 74° | 17.8 | 16.8 | 16.7 | 16.3 | 16.1 | 15.9 |
| 74.5° | 16.9 | 16.2 | 16.0 | 15.8 | 15.7 | 15.4 |
| 75° | 16.3 | 15.6 | 15.5 | 15.3 | 15.1 | 14.5 |
| 75.5° | 16.0 | 15.1 | 15.2 | 14.5 | 14.4 | 13.9 |
| 76° | 15.3 | 14.4 | 14.4 | 14.0 | 13.8 | 13.6 |
| 76.5° | 14.5 | 13.8 | 13.8 | 13.5 | 13.3 | 12.8 |
| 77° | 13.9 | 13.0 | 13.0 | 12.7 | 12.5 | 12.2 |
| 77.5° | 13.5 | 12.3 | 12.4 | 12.1 | 12.0 | 11.6 |
| 78° | 12.7 | 11.7 | 11.8 | 11.3 | 11.3 | 11.0 |
| 78.5° | 12.2 | 11.0 | 11.0 | 10.9 | 10.8 | 10.6 |
| 79° | 11.3 | 10.3 | 10.3 | 10.0 | 9.9 | 9.6 |
| 79.5° | 10.8 | 9.4 | 9.6 | 9.3 | 9.2 | 9.2 |
| 80° | 10.0 | 9.0 | 9.1 | 8.7 | 8.6 | 8.5 |
| 80.5° | 9.3 | 8.3 | 8.3 | 7.8 | 8.0 | 7.7 |
| 81° | 8.8 | 7.5 | 7.4 | 7.5 | 7.4 | 7.4 |
| 81.5° | 7.8 | 7.0 | 6.8 | 6.6 | 6.7 | 6.6 |
| 82° | 7.5 | 6.0 | 6.1 | 5.8 | 5.8 | 5.9 |
| 82.5° | 6.6 | 5.7 | 5.6 | 5.1 | 5.5 | 5.5 |
| 83° | 5.8 | 4.8 | 4.8 | 4.6 | 4.7 | 4.8 |
| 83.5° | 5.3 | 4.1 | 4.1 | 4.0 | 4.1 | 4.2 |
| 84° | 4.7 | 3.8 | 3.8 | 3.3 | 3.8 | 4.0 |
| 84.5° | 4.1 | 3.0 | 3.0 | 2.8 | 3.0 | 3.2 |
| 85° | 3.4 | 2.4 | 2.3 | 2.3 | 2.3 | 2.5 |
| 85.5° | 2.9 | 2.1 | 2.1 | 1.7 | 2.2 | 2.3 |
| 86° | 2.3 | 1.4 | 1.4 | 1.4 | 1.5 | 1.8 |
| 86.5° | 1.7 | 0.9 | 0.8 | 0.7 | 1.0 | 1.6 |
| 87° | 1.3 | 0.6 | 0.5 | 0.5 | 0.5 | 0.6 |
| 87.5° | 0.7 | 0.0 | 0.0 | 0.0 | 0.3 | 0.5 |
| 88° | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 88.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 89° | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 89.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P522092

CATALOG NUMBER: RLLV4069SE010WHDM-5000K-UNIT

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-----|--------|------|--------|------|--------|------|
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)