

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: HALO

Report Number: P639500

Luminaire Tested: RL56LS9FSD2W1EWH -900LM -3000K

Issue Date: 1/25/2023

Test Information

Test Method: LM-79-2019
Report Number: P639500
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2206549B001)
Test Lab:
Issue Date: 1/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: RL56LS9FSD2W1EWH -900LM -3000K
Description: 5/6IN RETROFIT, SELECTABLE LUMEN AND CCT, MATTE WHITE BAFFLE
Light Source: (1) SELECTABLE LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

Summary

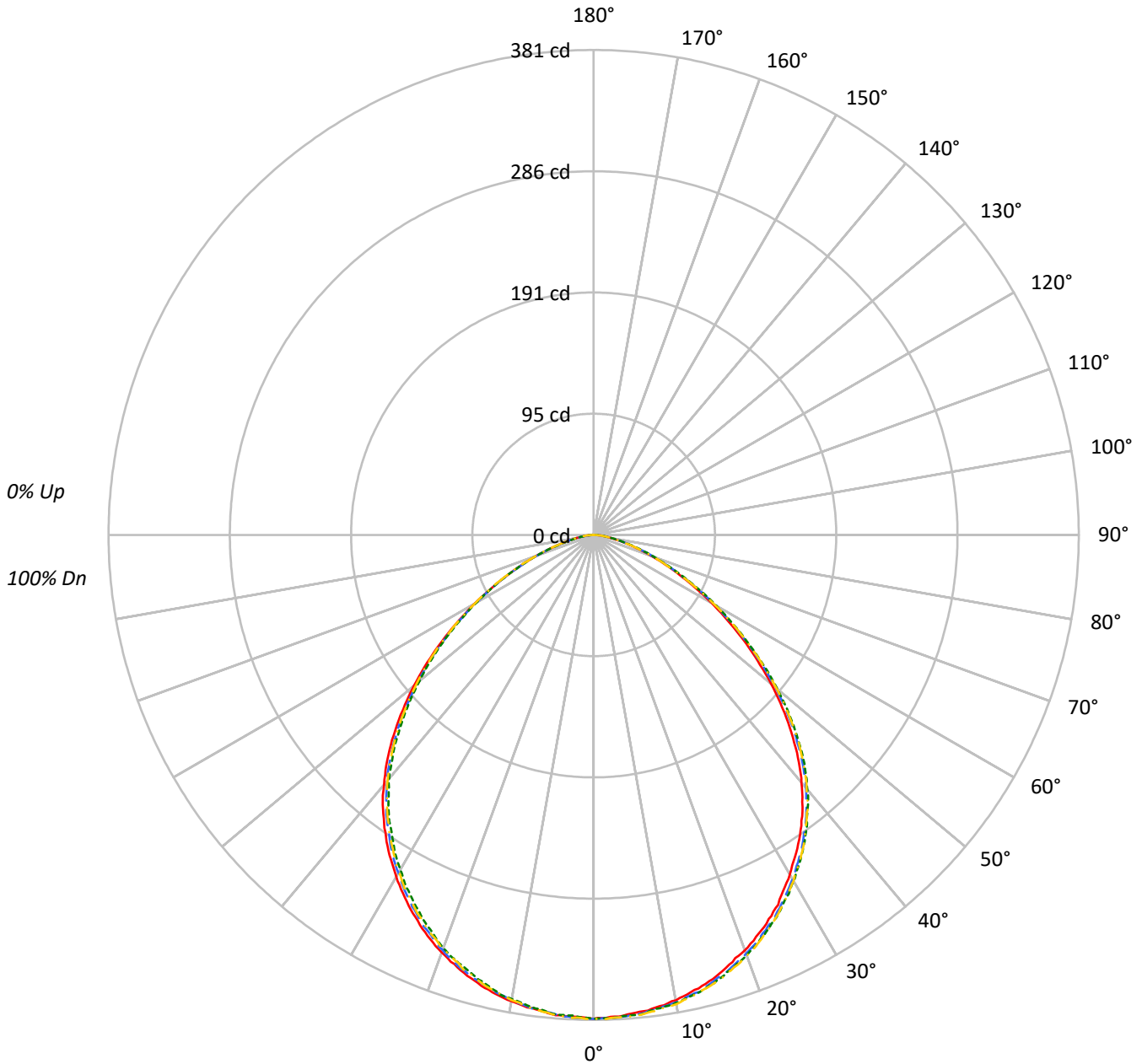
Lumens per Lamp: N/A
Luminaire Lumens: 880.0 lumens
Efficiency: N/A
Efficacy: 103.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.3
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 8.5
Input Voltage (V): NR
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: 24 FT



TEST NUMBER: P639500
CATALOG NUMBER: RL56LS9FSD2W1EWH -900LM -3000K

Luminous Intensity Polar Plot





TEST NUMBER: P639500
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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| RF | 20 | | | | | 20 | | | | | 20 | | | | | 20 | | | | |
| RC | 80 | | | | | 70 | | | | | 50 | | | | | 30 | | | | |
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 | | |
| RCR | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | |
| 1 | 110 | 106 | 102 | 99 | 108 | 104 | 101 | 97 | 100 | 97 | 94 | 96 | 94 | 92 | 92 | 91 | 89 | 87 | | |
| 2 | 101 | 94 | 88 | 83 | 99 | 92 | 87 | 82 | 89 | 84 | 80 | 86 | 82 | 78 | 83 | 79 | 77 | 74 | | |
| 3 | 93 | 84 | 76 | 70 | 91 | 82 | 75 | 70 | 79 | 73 | 69 | 76 | 72 | 67 | 74 | 70 | 66 | 64 | | |
| 4 | 86 | 75 | 67 | 61 | 84 | 73 | 66 | 60 | 71 | 65 | 59 | 69 | 63 | 59 | 67 | 62 | 58 | 56 | | |
| 5 | 79 | 67 | 59 | 53 | 77 | 66 | 58 | 52 | 64 | 57 | 52 | 62 | 56 | 51 | 60 | 55 | 51 | 49 | | |
| 6 | 73 | 61 | 53 | 47 | 72 | 60 | 52 | 46 | 58 | 51 | 46 | 57 | 50 | 46 | 55 | 50 | 45 | 43 | | |
| 7 | 68 | 55 | 47 | 41 | 67 | 55 | 47 | 41 | 53 | 46 | 41 | 52 | 45 | 41 | 50 | 45 | 40 | 39 | | |
| 8 | 64 | 51 | 43 | 37 | 62 | 50 | 42 | 37 | 49 | 42 | 37 | 48 | 41 | 37 | 46 | 41 | 36 | 35 | | |
| 9 | 60 | 47 | 39 | 34 | 58 | 46 | 39 | 34 | 45 | 38 | 33 | 44 | 38 | 33 | 43 | 37 | 33 | 31 | | |
| 10 | 56 | 43 | 36 | 31 | 55 | 43 | 35 | 31 | 42 | 35 | 30 | 41 | 35 | 30 | 40 | 34 | 30 | 28 | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° | 270° |
|-----|-------|-------|-------|-------|
| 0° | 20843 | 20843 | 20843 | 20843 |
| 5° | 20746 | 20829 | 20796 | 20774 |
| 10° | 20674 | 20780 | 20713 | 20613 |
| 15° | 20505 | 20698 | 20562 | 20386 |
| 20° | 20261 | 20512 | 20366 | 20150 |
| 25° | 19985 | 20239 | 20039 | 19683 |
| 30° | 19509 | 19895 | 19623 | 19231 |
| 35° | 18953 | 19381 | 19086 | 18645 |
| 40° | 18170 | 18692 | 18320 | 17876 |
| 45° | 17025 | 17591 | 17219 | 16692 |
| 50° | 15488 | 16051 | 15692 | 15240 |
| 55° | 13686 | 14164 | 13849 | 13581 |
| 60° | 11732 | 12192 | 11808 | 11655 |
| 65° | 9703 | 10092 | 9690 | 9677 |
| 70° | 7758 | 8142 | 7613 | 7581 |
| 75° | 5846 | 6248 | 5613 | 5401 |
| 80° | 4357 | 4609 | 3978 | 3788 |
| 85° | 3837 | 4088 | 3208 | 2893 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 112.5°
 Vertical Angle: 45°
 Luminance: 17614 cd/sqm



TEST NUMBER: P639500

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 35.9 | 4.1 |
| 10°-20° | 102.1 | 11.6 |
| 20°-30° | 152.3 | 17.3 |
| 30°-40° | 177.7 | 20.2 |
| 40°-50° | 170.2 | 19.3 |
| 50°-60° | 129.7 | 14.7 |
| 60°-70° | 75.6 | 8.6 |
| 70°-80° | 30.1 | 3.4 |
| 80°-90° | 6.3 | 0.7 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 290.3 | 33.0 |
| 0°-40° | 468.0 | 53.2 |
| 0°-60° | 768.0 | 87.3 |
| 0°-90° | 880.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 880.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 90° | 180° | 270° | 360° | Flux |
|-----|-----|-----|------|------|------|------|
| 0° | 380 | 380 | 380 | 380 | 380 | |
| 5° | 377 | 378 | 378 | 378 | 377 | 36 |
| 15° | 361 | 365 | 362 | 359 | 361 | 102 |
| 25° | 330 | 335 | 331 | 325 | 330 | 152 |
| 35° | 283 | 290 | 285 | 279 | 283 | 177 |
| 45° | 220 | 227 | 222 | 215 | 220 | 169 |
| 55° | 143 | 148 | 145 | 142 | 143 | 128 |
| 65° | 75 | 78 | 75 | 75 | 75 | 75 |
| 75° | 28 | 30 | 26 | 26 | 28 | 30 |
| 85° | 6 | 6 | 5 | 5 | 6 | 7 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P639500

CATALOG NUMBER: RL56LS9FSD2W1EWH -900LM -3000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 0° | 380.2 | 380.2 | 380.2 | 380.2 | 380.2 | 380.2 | 380.2 | 380.2 | 380.2 | 380.2 | 380.2 |
| 0.5° | 379.6 | 380.2 | 380.2 | 380.2 | 380.0 | 380.2 | 380.4 | 379.8 | 379.7 | 380.1 | 380.1 |
| 1° | 379.6 | 380.0 | 379.8 | 380.0 | 380.0 | 380.1 | 380.7 | 380.4 | 379.4 | 380.0 | 379.8 |
| 1.5° | 379.6 | 380.0 | 379.6 | 380.2 | 379.8 | 380.0 | 380.4 | 380.6 | 378.9 | 379.8 | 379.6 |
| 2° | 378.9 | 379.8 | 379.4 | 380.2 | 379.8 | 379.3 | 379.7 | 380.4 | 378.9 | 380.0 | 379.8 |
| 2.5° | 378.8 | 380.2 | 379.6 | 379.9 | 379.6 | 379.6 | 379.7 | 379.7 | 378.8 | 379.6 | 379.6 |
| 3° | 378.9 | 379.8 | 379.5 | 380.3 | 379.3 | 379.8 | 379.6 | 379.6 | 378.7 | 379.3 | 378.9 |
| 3.5° | 378.6 | 379.4 | 379.1 | 380.3 | 378.7 | 379.8 | 379.6 | 379.8 | 378.7 | 379.5 | 379.1 |
| 4° | 377.6 | 378.9 | 379.0 | 379.8 | 378.7 | 380.0 | 379.5 | 378.8 | 378.3 | 380.0 | 378.0 |
| 4.5° | 377.2 | 378.5 | 378.5 | 378.9 | 378.5 | 379.8 | 379.4 | 378.4 | 378.6 | 379.4 | 378.0 |
| 5° | 377.0 | 378.7 | 378.1 | 378.9 | 378.5 | 379.3 | 379.0 | 378.4 | 377.9 | 378.1 | 377.2 |
| 5.5° | 376.3 | 378.6 | 378.1 | 378.5 | 378.6 | 378.2 | 378.9 | 378.3 | 377.4 | 377.9 | 376.6 |
| 6° | 376.3 | 377.9 | 377.8 | 378.0 | 378.2 | 378.0 | 378.3 | 377.7 | 376.4 | 377.8 | 376.4 |
| 6.5° | 376.2 | 376.7 | 376.6 | 377.8 | 377.0 | 377.4 | 377.6 | 377.0 | 375.9 | 376.6 | 376.2 |
| 7° | 375.1 | 376.4 | 376.4 | 377.2 | 376.1 | 377.0 | 377.2 | 376.6 | 375.5 | 376.4 | 375.6 |
| 7.5° | 374.4 | 375.5 | 375.8 | 376.8 | 375.5 | 376.0 | 377.2 | 376.3 | 374.9 | 375.8 | 375.1 |
| 8° | 373.8 | 374.9 | 375.1 | 375.9 | 375.5 | 375.4 | 376.2 | 375.5 | 374.8 | 374.8 | 374.0 |
| 8.5° | 373.6 | 374.4 | 374.4 | 375.8 | 374.7 | 375.4 | 375.6 | 375.3 | 374.1 | 374.2 | 373.3 |
| 9° | 372.6 | 374.2 | 374.1 | 374.6 | 374.6 | 374.8 | 375.0 | 374.6 | 373.2 | 373.6 | 372.7 |
| 9.5° | 371.5 | 373.5 | 373.4 | 374.4 | 374.0 | 373.9 | 374.9 | 374.1 | 372.5 | 373.4 | 372.1 |
| 10° | 371.4 | 372.5 | 372.9 | 373.6 | 373.3 | 373.3 | 374.3 | 373.1 | 372.1 | 372.3 | 371.6 |
| 10.5° | 370.1 | 372.1 | 372.0 | 372.6 | 373.1 | 373.1 | 373.5 | 372.3 | 371.6 | 372.0 | 370.3 |
| 11° | 369.3 | 371.0 | 371.3 | 372.4 | 371.6 | 371.6 | 372.1 | 371.6 | 370.6 | 370.3 | 369.2 |
| 11.5° | 368.4 | 369.9 | 370.1 | 371.0 | 370.9 | 370.8 | 371.6 | 370.3 | 369.7 | 370.0 | 368.5 |
| 12° | 367.2 | 369.3 | 369.3 | 370.1 | 370.2 | 370.8 | 371.0 | 369.6 | 368.8 | 368.8 | 367.6 |
| 12.5° | 366.1 | 368.3 | 368.6 | 369.4 | 369.3 | 370.2 | 369.6 | 369.0 | 368.0 | 368.2 | 366.5 |
| 13° | 365.8 | 367.3 | 368.6 | 368.2 | 368.8 | 369.1 | 368.9 | 367.6 | 366.7 | 367.6 | 365.6 |
| 13.5° | 364.4 | 365.7 | 366.9 | 367.6 | 367.6 | 368.1 | 367.7 | 367.2 | 366.0 | 366.2 | 364.1 |
| 14° | 363.5 | 364.8 | 365.6 | 366.3 | 366.7 | 367.0 | 366.9 | 366.0 | 365.0 | 364.5 | 363.2 |
| 14.5° | 362.2 | 364.5 | 364.4 | 365.6 | 365.3 | 366.5 | 365.9 | 365.0 | 363.5 | 363.7 | 361.7 |
| 15° | 361.3 | 363.2 | 363.3 | 364.7 | 364.7 | 364.8 | 364.7 | 363.7 | 362.3 | 362.2 | 361.1 |
| 15.5° | 360.0 | 361.2 | 361.7 | 363.7 | 363.1 | 363.5 | 363.9 | 362.4 | 361.2 | 361.1 | 360.0 |
| 16° | 358.5 | 360.0 | 360.6 | 362.1 | 362.2 | 362.5 | 362.8 | 361.7 | 360.3 | 359.5 | 358.7 |
| 16.5° | 357.0 | 359.2 | 359.5 | 360.6 | 360.8 | 360.9 | 361.5 | 360.3 | 358.9 | 358.5 | 357.0 |
| 17° | 355.7 | 357.3 | 358.7 | 359.7 | 359.0 | 360.1 | 359.6 | 358.7 | 357.5 | 357.1 | 356.2 |
| 17.5° | 354.0 | 356.8 | 357.0 | 357.8 | 358.3 | 358.7 | 358.7 | 357.5 | 356.2 | 355.5 | 355.0 |
| 18° | 352.9 | 355.1 | 355.6 | 356.2 | 356.9 | 357.0 | 357.2 | 357.2 | 354.5 | 354.7 | 353.2 |
| 18.5° | 350.6 | 352.9 | 354.2 | 356.0 | 355.2 | 356.1 | 356.2 | 355.1 | 353.7 | 353.4 | 351.6 |
| 19° | 349.7 | 351.8 | 352.7 | 354.2 | 354.2 | 354.8 | 354.9 | 353.5 | 351.9 | 351.4 | 350.4 |
| 19.5° | 348.6 | 350.4 | 351.6 | 352.1 | 352.8 | 353.1 | 353.1 | 352.2 | 350.4 | 349.8 | 348.8 |
| 20° | 347.3 | 349.7 | 350.1 | 351.0 | 351.6 | 351.6 | 351.6 | 350.3 | 349.1 | 348.9 | 347.0 |
| 20.5° | 345.9 | 347.8 | 348.6 | 349.5 | 349.6 | 350.1 | 350.6 | 348.7 | 347.4 | 346.7 | 345.8 |
| 21° | 343.9 | 346.5 | 347.0 | 347.8 | 348.4 | 348.6 | 349.3 | 347.5 | 346.1 | 345.4 | 343.6 |



TEST NUMBER: P639500

CATALOG NUMBER: RL56LS9FSD2W1EWH -900LM -3000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 22.5° | 339.0 | 341.4 | 342.0 | 343.8 | 343.1 | 344.0 | 343.9 | 342.4 | 340.9 | 340.2 | 338.1 |
| 23° | 337.5 | 339.5 | 340.0 | 341.4 | 342.1 | 342.6 | 341.9 | 340.8 | 339.0 | 337.9 | 336.6 |
| 23.5° | 335.8 | 337.8 | 338.8 | 339.8 | 339.9 | 340.9 | 340.2 | 339.1 | 337.5 | 336.2 | 335.2 |
| 24° | 334.1 | 335.8 | 336.6 | 337.6 | 338.3 | 339.1 | 338.5 | 337.4 | 335.5 | 334.7 | 333.1 |
| 24.5° | 331.5 | 333.8 | 335.1 | 336.0 | 336.3 | 337.2 | 336.8 | 335.3 | 333.2 | 333.2 | 330.8 |
| 25° | 330.4 | 331.9 | 333.8 | 334.2 | 334.6 | 335.0 | 334.8 | 333.5 | 331.3 | 330.8 | 328.7 |
| 25.5° | 327.8 | 330.1 | 331.5 | 332.6 | 333.0 | 332.8 | 332.9 | 331.3 | 329.6 | 328.3 | 326.5 |
| 26° | 326.0 | 328.0 | 329.2 | 330.5 | 331.1 | 331.0 | 331.0 | 329.1 | 327.6 | 326.5 | 325.0 |
| 26.5° | 324.7 | 325.9 | 327.4 | 328.3 | 329.0 | 329.5 | 328.7 | 327.1 | 325.5 | 324.8 | 322.5 |
| 27° | 321.4 | 324.2 | 325.1 | 326.5 | 326.7 | 327.3 | 326.6 | 325.6 | 323.2 | 322.4 | 320.5 |
| 27.5° | 319.2 | 322.4 | 322.9 | 324.3 | 324.4 | 324.9 | 324.8 | 323.3 | 321.2 | 320.4 | 318.4 |
| 28° | 317.0 | 319.7 | 320.7 | 322.3 | 322.4 | 322.7 | 322.2 | 321.0 | 319.0 | 318.4 | 316.3 |
| 28.5° | 314.7 | 317.3 | 319.0 | 319.9 | 321.0 | 320.3 | 320.2 | 318.7 | 316.9 | 316.0 | 313.9 |
| 29° | 312.5 | 315.1 | 316.7 | 317.5 | 318.6 | 318.3 | 318.0 | 316.6 | 314.4 | 313.8 | 311.7 |
| 29.5° | 310.5 | 313.0 | 314.3 | 315.6 | 316.0 | 316.0 | 315.7 | 314.3 | 312.5 | 311.0 | 309.4 |
| 30° | 308.2 | 311.1 | 312.1 | 313.4 | 314.3 | 313.8 | 313.8 | 312.0 | 310.0 | 308.6 | 306.6 |
| 30.5° | 305.5 | 308.8 | 310.0 | 311.1 | 311.9 | 311.6 | 311.0 | 309.6 | 307.6 | 306.6 | 304.8 |
| 31° | 302.7 | 305.9 | 307.6 | 308.8 | 308.9 | 309.3 | 308.8 | 307.4 | 305.3 | 304.3 | 302.3 |
| 31.5° | 300.6 | 304.0 | 305.1 | 306.5 | 306.8 | 306.8 | 306.7 | 305.0 | 302.8 | 302.1 | 300.1 |
| 32° | 298.4 | 301.6 | 302.9 | 303.9 | 304.5 | 305.1 | 304.5 | 302.6 | 300.5 | 300.0 | 297.5 |
| 32.5° | 296.0 | 299.0 | 300.5 | 301.6 | 302.3 | 302.1 | 302.1 | 300.2 | 298.4 | 296.9 | 294.8 |
| 33° | 293.7 | 296.4 | 298.2 | 299.1 | 299.8 | 299.8 | 299.4 | 297.6 | 295.9 | 294.4 | 292.4 |
| 33.5° | 291.1 | 294.1 | 295.8 | 296.7 | 297.5 | 297.3 | 297.2 | 295.0 | 293.3 | 291.8 | 289.6 |
| 34° | 288.7 | 291.6 | 293.4 | 294.5 | 294.7 | 294.6 | 294.6 | 292.8 | 290.9 | 289.2 | 286.8 |
| 34.5° | 286.0 | 288.5 | 290.8 | 292.0 | 292.4 | 292.1 | 292.0 | 290.5 | 288.0 | 286.5 | 283.9 |
| 35° | 283.2 | 286.4 | 287.9 | 289.7 | 289.6 | 289.8 | 289.0 | 287.8 | 285.2 | 283.9 | 281.4 |
| 35.5° | 280.8 | 283.6 | 285.3 | 286.6 | 287.0 | 287.4 | 286.4 | 285.8 | 282.9 | 281.6 | 279.0 |
| 36° | 277.6 | 280.8 | 282.8 | 283.8 | 284.7 | 285.0 | 283.4 | 282.5 | 280.1 | 278.8 | 276.1 |
| 36.5° | 275.2 | 278.3 | 279.9 | 281.3 | 281.9 | 282.1 | 280.8 | 279.2 | 277.2 | 276.0 | 273.7 |
| 37° | 272.4 | 275.0 | 277.4 | 278.7 | 278.3 | 279.2 | 278.1 | 276.9 | 274.4 | 273.1 | 270.7 |
| 37.5° | 269.5 | 272.6 | 274.3 | 275.2 | 275.8 | 275.6 | 275.1 | 273.8 | 271.6 | 270.0 | 267.7 |
| 38° | 266.0 | 269.4 | 271.5 | 272.4 | 272.9 | 273.2 | 273.3 | 270.7 | 269.1 | 267.1 | 264.5 |
| 38.5° | 263.3 | 266.6 | 268.0 | 269.2 | 270.5 | 269.9 | 270.1 | 267.6 | 266.0 | 263.9 | 261.7 |
| 39° | 260.4 | 263.4 | 265.4 | 266.3 | 267.5 | 267.7 | 266.6 | 265.1 | 263.2 | 261.5 | 258.6 |
| 39.5° | 257.1 | 260.6 | 262.4 | 263.6 | 264.7 | 264.7 | 263.3 | 262.1 | 259.3 | 257.9 | 255.4 |
| 40° | 253.9 | 258.1 | 259.5 | 260.7 | 261.2 | 261.2 | 260.0 | 258.9 | 256.0 | 255.2 | 252.5 |
| 40.5° | 251.1 | 254.2 | 256.4 | 257.4 | 257.6 | 258.0 | 257.3 | 255.0 | 253.0 | 252.5 | 249.4 |
| 41° | 247.7 | 250.7 | 252.8 | 254.3 | 255.0 | 255.1 | 254.1 | 252.6 | 249.6 | 248.6 | 246.2 |
| 41.5° | 244.3 | 247.3 | 249.5 | 251.0 | 251.7 | 251.8 | 250.7 | 249.7 | 246.8 | 244.9 | 242.5 |
| 42° | 240.9 | 244.1 | 246.4 | 247.5 | 248.4 | 247.7 | 247.3 | 245.6 | 243.3 | 241.8 | 239.3 |
| 42.5° | 237.4 | 240.5 | 242.8 | 243.7 | 245.6 | 244.9 | 243.8 | 242.2 | 239.7 | 238.6 | 235.7 |
| 43° | 234.1 | 237.0 | 239.1 | 240.4 | 241.8 | 241.2 | 240.5 | 238.6 | 236.3 | 235.0 | 232.4 |
| 43.5° | 230.5 | 233.5 | 235.6 | 237.1 | 238.1 | 237.9 | 236.6 | 235.0 | 232.9 | 231.4 | 228.9 |



TEST NUMBER: P639500

CATALOG NUMBER: RL56LS9FSD2W1EWH -900LM -3000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 45° | 219.6 | 222.6 | 225.0 | 225.8 | 226.9 | 227.2 | 225.8 | 224.3 | 222.1 | 220.4 | 218.3 |
| 45.5° | 216.0 | 219.0 | 220.7 | 222.3 | 223.5 | 223.4 | 222.6 | 220.6 | 218.3 | 216.7 | 214.8 |
| 46° | 212.3 | 215.1 | 217.4 | 218.8 | 219.4 | 219.4 | 218.6 | 216.8 | 214.6 | 213.2 | 211.1 |
| 46.5° | 208.4 | 211.2 | 213.6 | 215.0 | 216.1 | 215.6 | 214.7 | 213.1 | 210.8 | 209.3 | 207.1 |
| 47° | 205.1 | 207.4 | 209.5 | 210.6 | 211.8 | 212.0 | 210.6 | 209.1 | 207.3 | 205.6 | 203.5 |
| 47.5° | 200.9 | 203.8 | 205.8 | 206.5 | 208.0 | 208.0 | 206.9 | 205.5 | 202.9 | 202.0 | 199.4 |
| 48° | 197.2 | 199.8 | 202.0 | 202.6 | 204.5 | 203.9 | 203.1 | 201.8 | 199.4 | 198.3 | 195.8 |
| 48.5° | 193.5 | 195.9 | 197.9 | 199.0 | 200.2 | 200.0 | 199.5 | 197.5 | 195.7 | 194.5 | 191.9 |
| 49° | 189.4 | 191.9 | 194.0 | 195.1 | 196.2 | 195.9 | 195.0 | 193.7 | 191.9 | 190.6 | 188.4 |
| 49.5° | 185.7 | 188.0 | 190.2 | 191.4 | 192.3 | 192.3 | 191.3 | 189.9 | 188.0 | 186.6 | 184.4 |
| 50° | 181.6 | 183.9 | 186.1 | 186.9 | 188.2 | 188.5 | 187.1 | 185.7 | 184.0 | 182.7 | 180.8 |
| 50.5° | 178.1 | 180.5 | 182.0 | 183.3 | 184.1 | 184.3 | 183.1 | 181.7 | 180.0 | 178.8 | 176.9 |
| 51° | 174.0 | 176.6 | 178.0 | 179.4 | 180.5 | 179.8 | 179.4 | 178.0 | 176.2 | 175.4 | 173.4 |
| 51.5° | 170.2 | 172.6 | 174.3 | 175.3 | 176.8 | 176.2 | 175.5 | 174.1 | 172.5 | 170.9 | 169.3 |
| 52° | 165.9 | 168.5 | 170.2 | 171.6 | 172.8 | 172.2 | 171.3 | 170.2 | 168.7 | 167.4 | 165.4 |
| 52.5° | 162.3 | 164.2 | 166.2 | 167.4 | 168.3 | 168.2 | 167.5 | 166.4 | 164.6 | 163.6 | 161.7 |
| 53° | 158.5 | 160.5 | 162.2 | 163.5 | 164.1 | 164.7 | 163.4 | 162.1 | 160.5 | 159.4 | 158.0 |
| 53.5° | 154.6 | 156.6 | 158.5 | 159.7 | 160.3 | 160.3 | 159.5 | 158.3 | 156.7 | 155.8 | 154.3 |
| 54° | 150.8 | 152.6 | 154.9 | 155.6 | 156.2 | 156.2 | 155.4 | 154.6 | 153.0 | 151.8 | 150.4 |
| 54.5° | 147.3 | 149.0 | 150.7 | 151.9 | 152.3 | 152.4 | 151.6 | 150.7 | 149.1 | 148.0 | 146.6 |
| 55° | 143.2 | 145.0 | 146.8 | 147.9 | 148.2 | 148.3 | 147.7 | 146.6 | 144.9 | 144.0 | 142.7 |
| 55.5° | 139.4 | 141.2 | 142.9 | 144.0 | 144.5 | 144.6 | 143.6 | 142.7 | 141.2 | 140.1 | 139.2 |
| 56° | 135.8 | 137.4 | 139.2 | 140.3 | 140.7 | 140.5 | 139.6 | 139.0 | 137.3 | 136.4 | 135.5 |
| 56.5° | 132.1 | 133.7 | 135.4 | 136.5 | 137.0 | 136.7 | 135.8 | 135.0 | 133.8 | 133.0 | 131.8 |
| 57° | 128.4 | 129.9 | 131.8 | 132.5 | 133.2 | 132.8 | 132.4 | 131.1 | 129.8 | 129.0 | 128.3 |
| 57.5° | 124.6 | 126.3 | 128.3 | 128.8 | 129.2 | 129.1 | 128.3 | 127.3 | 126.0 | 125.3 | 124.4 |
| 58° | 120.9 | 122.7 | 124.5 | 125.3 | 125.7 | 125.4 | 124.6 | 123.6 | 122.3 | 121.7 | 120.7 |
| 58.5° | 117.4 | 118.7 | 120.6 | 121.5 | 122.3 | 121.9 | 120.8 | 119.7 | 118.5 | 118.0 | 117.1 |
| 59° | 113.9 | 115.2 | 117.1 | 117.6 | 118.5 | 118.2 | 117.1 | 116.3 | 115.0 | 114.2 | 113.5 |
| 59.5° | 110.4 | 111.6 | 113.3 | 114.2 | 114.4 | 114.1 | 113.7 | 112.4 | 111.2 | 110.7 | 110.1 |
| 60° | 107.0 | 108.0 | 109.8 | 110.8 | 111.2 | 110.5 | 109.9 | 109.0 | 107.7 | 107.3 | 106.7 |
| 60.5° | 103.5 | 104.6 | 106.4 | 107.1 | 107.7 | 107.3 | 106.4 | 105.3 | 104.3 | 103.8 | 103.2 |
| 61° | 100.0 | 101.2 | 103.0 | 103.8 | 104.3 | 103.6 | 102.6 | 101.7 | 100.6 | 100.2 | 99.7 |
| 61.5° | 96.8 | 97.8 | 99.5 | 100.2 | 100.7 | 100.1 | 99.2 | 98.2 | 97.2 | 96.7 | 96.1 |
| 62° | 93.5 | 94.4 | 96.0 | 96.7 | 97.4 | 96.6 | 95.7 | 94.8 | 93.8 | 93.3 | 92.9 |
| 62.5° | 90.1 | 91.2 | 92.6 | 93.4 | 94.0 | 93.3 | 92.4 | 91.7 | 90.5 | 89.9 | 89.7 |
| 63° | 86.9 | 88.0 | 89.4 | 90.1 | 90.6 | 89.7 | 89.1 | 88.0 | 87.2 | 86.8 | 86.3 |
| 63.5° | 83.7 | 84.9 | 86.2 | 87.0 | 87.1 | 86.7 | 85.7 | 84.8 | 84.1 | 83.7 | 83.4 |
| 64° | 80.6 | 81.7 | 83.1 | 83.9 | 84.1 | 83.6 | 82.6 | 81.5 | 80.8 | 80.5 | 80.4 |
| 64.5° | 77.7 | 78.7 | 80.0 | 80.7 | 81.0 | 80.4 | 79.4 | 78.5 | 77.6 | 77.4 | 77.0 |
| 65° | 74.8 | 75.7 | 76.9 | 77.6 | 77.8 | 77.2 | 76.3 | 75.5 | 74.7 | 74.6 | 74.0 |
| 65.5° | 71.8 | 72.7 | 74.0 | 74.6 | 74.8 | 74.2 | 73.4 | 72.5 | 71.7 | 71.3 | 71.2 |
| 66° | 69.0 | 69.9 | 71.1 | 71.6 | 71.9 | 71.2 | 70.3 | 69.3 | 68.6 | 68.4 | 68.1 |



TEST NUMBER: P639500

CATALOG NUMBER: RL56LS9FSD2W1EWH -900LM -3000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|------|-------|------|-------|------|--------|------|--------|------|--------|------|
| 67.5° | 60.9 | 61.8 | 63.0 | 63.5 | 63.2 | 62.7 | 61.9 | 61.0 | 60.2 | 60.0 | 59.8 |
| 68° | 58.4 | 59.2 | 60.2 | 60.9 | 60.6 | 60.0 | 59.2 | 58.1 | 57.5 | 57.4 | 57.2 |
| 68.5° | 55.9 | 56.7 | 57.5 | 58.3 | 57.9 | 57.4 | 56.4 | 55.5 | 54.7 | 54.7 | 54.4 |
| 69° | 53.2 | 54.2 | 55.1 | 55.7 | 55.5 | 54.9 | 53.9 | 53.1 | 52.3 | 52.1 | 51.8 |
| 69.5° | 50.8 | 51.7 | 52.6 | 53.1 | 53.2 | 52.4 | 51.5 | 50.5 | 49.8 | 49.6 | 49.4 |
| 70° | 48.4 | 49.3 | 50.3 | 50.6 | 50.8 | 50.1 | 49.1 | 48.2 | 47.5 | 47.3 | 47.1 |
| 70.5° | 46.1 | 46.9 | 47.8 | 48.3 | 48.4 | 47.8 | 46.9 | 45.9 | 45.2 | 45.0 | 44.8 |
| 71° | 43.8 | 44.7 | 45.4 | 46.0 | 46.1 | 45.5 | 44.6 | 43.7 | 42.9 | 42.7 | 42.5 |
| 71.5° | 41.5 | 42.4 | 43.1 | 43.6 | 43.9 | 43.1 | 42.2 | 41.5 | 40.6 | 40.3 | 40.2 |
| 72° | 39.4 | 40.1 | 40.9 | 41.3 | 41.7 | 41.0 | 40.0 | 39.2 | 38.5 | 38.2 | 38.1 |
| 72.5° | 37.1 | 37.8 | 38.7 | 39.0 | 39.4 | 38.9 | 37.9 | 37.0 | 36.4 | 36.0 | 35.8 |
| 73° | 35.0 | 35.8 | 36.5 | 36.8 | 37.3 | 36.7 | 35.8 | 34.9 | 34.3 | 34.0 | 33.8 |
| 73.5° | 33.0 | 33.9 | 34.5 | 34.8 | 35.3 | 34.7 | 33.8 | 32.9 | 32.2 | 31.9 | 31.7 |
| 74° | 31.2 | 31.9 | 32.6 | 32.8 | 33.4 | 32.7 | 31.7 | 31.0 | 30.2 | 29.8 | 29.6 |
| 74.5° | 29.3 | 30.1 | 30.6 | 30.9 | 31.4 | 30.6 | 29.8 | 29.1 | 28.4 | 28.0 | 27.8 |
| 75° | 27.6 | 28.4 | 28.9 | 29.0 | 29.5 | 28.9 | 28.0 | 27.2 | 26.5 | 26.1 | 26.1 |
| 75.5° | 25.8 | 26.5 | 27.2 | 27.2 | 27.7 | 27.2 | 26.2 | 25.5 | 24.8 | 24.4 | 24.3 |
| 76° | 24.2 | 24.9 | 25.4 | 25.5 | 25.9 | 25.4 | 24.5 | 23.9 | 23.1 | 22.8 | 22.6 |
| 76.5° | 22.7 | 23.3 | 23.8 | 23.9 | 24.3 | 23.7 | 22.9 | 22.1 | 21.4 | 21.1 | 20.9 |
| 77° | 21.2 | 21.8 | 22.2 | 22.4 | 22.7 | 22.1 | 21.3 | 20.6 | 19.9 | 19.6 | 19.4 |
| 77.5° | 19.7 | 20.3 | 20.8 | 20.9 | 21.2 | 20.6 | 19.8 | 19.2 | 18.5 | 18.1 | 18.0 |
| 78° | 18.4 | 18.9 | 19.4 | 19.4 | 19.7 | 19.2 | 18.5 | 17.8 | 17.2 | 16.7 | 16.6 |
| 78.5° | 17.1 | 17.7 | 18.1 | 18.1 | 18.3 | 17.7 | 17.1 | 16.5 | 15.8 | 15.6 | 15.4 |
| 79° | 16.0 | 16.5 | 16.7 | 16.7 | 16.9 | 16.5 | 15.8 | 15.4 | 14.8 | 14.4 | 14.3 |
| 79.5° | 14.9 | 15.4 | 15.8 | 15.8 | 15.6 | 15.4 | 14.9 | 14.2 | 13.6 | 13.3 | 13.1 |
| 80° | 13.8 | 14.3 | 14.6 | 14.6 | 14.6 | 14.3 | 13.7 | 13.1 | 12.6 | 12.3 | 12.1 |
| 80.5° | 12.8 | 13.3 | 13.6 | 13.6 | 13.6 | 13.2 | 12.6 | 12.2 | 11.7 | 11.3 | 11.1 |
| 81° | 11.9 | 12.4 | 12.6 | 12.6 | 12.5 | 12.2 | 11.7 | 11.2 | 10.8 | 10.4 | 10.2 |
| 81.5° | 11.0 | 11.4 | 11.7 | 11.7 | 11.5 | 11.2 | 10.7 | 10.3 | 9.9 | 9.6 | 9.5 |
| 82° | 10.2 | 10.6 | 10.8 | 10.8 | 10.6 | 10.3 | 9.9 | 9.5 | 9.2 | 8.9 | 8.7 |
| 82.5° | 9.5 | 9.8 | 10.0 | 10.0 | 9.8 | 9.5 | 9.3 | 8.8 | 8.5 | 8.2 | 8.0 |
| 83° | 8.8 | 9.1 | 9.4 | 9.4 | 9.1 | 8.8 | 8.5 | 8.2 | 7.8 | 7.6 | 7.2 |
| 83.5° | 8.1 | 8.4 | 8.7 | 8.7 | 8.3 | 8.1 | 7.8 | 7.4 | 7.1 | 6.8 | 6.5 |
| 84° | 7.5 | 7.8 | 8.0 | 8.0 | 7.8 | 7.5 | 7.2 | 6.8 | 6.4 | 6.1 | 5.9 |
| 84.5° | 6.8 | 7.1 | 7.4 | 7.4 | 7.1 | 6.9 | 6.5 | 6.2 | 5.7 | 5.5 | 5.2 |
| 85° | 6.1 | 6.5 | 6.7 | 6.7 | 6.5 | 6.3 | 5.8 | 5.5 | 5.1 | 4.8 | 4.4 |
| 85.5° | 5.4 | 5.8 | 6.1 | 6.1 | 5.8 | 5.6 | 5.3 | 4.8 | 4.4 | 4.2 | 3.8 |
| 86° | 4.8 | 5.1 | 5.4 | 5.4 | 5.1 | 5.0 | 4.6 | 4.2 | 3.8 | 3.5 | 3.4 |
| 86.5° | 4.1 | 4.5 | 4.8 | 4.8 | 4.6 | 4.3 | 4.0 | 3.6 | 3.4 | 2.9 | 2.5 |
| 87° | 3.5 | 3.9 | 4.1 | 4.2 | 4.0 | 3.8 | 3.4 | 2.9 | 2.5 | 2.2 | 1.9 |
| 87.5° | 2.9 | 3.3 | 3.5 | 3.6 | 3.4 | 3.3 | 2.7 | 2.4 | 2.0 | 1.6 | 1.4 |
| 88° | 2.2 | 2.6 | 2.9 | 3.0 | 2.7 | 2.5 | 2.2 | 1.7 | 1.3 | 1.0 | 0.7 |
| 88.5° | 1.7 | 2.1 | 2.3 | 2.3 | 2.2 | 1.9 | 1.6 | 1.2 | 0.8 | 0.4 | 0.3 |



TEST NUMBER: P639500
CATALOG NUMBER: RL56LS9FSD2W1EWH -900LM -3000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-----|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 90° | 0.1 | 0.4 | 0.7 | 0.7 | 0.5 | 0.4 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P639500

CATALOG NUMBER: RL56LS9FSD2W1EWH -900LM -3000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 0° | 380.2 | 380.2 | 380.2 | 380.2 | 380.2 | 380.2 |
| 0.5° | 379.8 | 379.8 | 380.2 | 380.6 | 379.7 | 379.6 |
| 1° | 379.6 | 379.3 | 379.5 | 380.2 | 379.8 | 379.6 |
| 1.5° | 379.4 | 379.1 | 379.3 | 379.6 | 380.4 | 379.6 |
| 2° | 379.4 | 378.7 | 379.3 | 379.6 | 380.4 | 378.9 |
| 2.5° | 378.7 | 378.0 | 379.0 | 379.8 | 379.5 | 378.8 |
| 3° | 378.7 | 378.0 | 378.5 | 379.4 | 379.1 | 378.9 |
| 3.5° | 378.7 | 377.8 | 378.5 | 379.1 | 378.9 | 378.6 |
| 4° | 378.5 | 378.0 | 378.1 | 378.5 | 378.7 | 377.6 |
| 4.5° | 378.2 | 377.9 | 378.3 | 378.3 | 378.1 | 377.2 |
| 5° | 378.4 | 377.5 | 377.0 | 377.9 | 377.4 | 377.0 |
| 5.5° | 378.0 | 376.5 | 376.9 | 377.0 | 376.6 | 376.3 |
| 6° | 376.2 | 375.6 | 375.9 | 376.8 | 376.6 | 376.3 |
| 6.5° | 375.4 | 375.0 | 375.9 | 376.1 | 375.3 | 376.2 |
| 7° | 374.9 | 374.9 | 375.3 | 375.4 | 375.1 | 375.1 |
| 7.5° | 374.5 | 373.9 | 373.6 | 375.1 | 374.7 | 374.4 |
| 8° | 374.4 | 373.4 | 373.2 | 374.2 | 374.2 | 373.8 |
| 8.5° | 373.1 | 372.3 | 372.6 | 373.4 | 373.5 | 373.6 |
| 9° | 372.5 | 371.6 | 371.3 | 372.3 | 372.7 | 372.6 |
| 9.5° | 371.8 | 370.7 | 370.9 | 371.6 | 372.1 | 371.5 |
| 10° | 371.0 | 370.3 | 370.8 | 371.2 | 371.2 | 371.4 |
| 10.5° | 369.9 | 369.5 | 369.5 | 370.0 | 370.6 | 370.1 |
| 11° | 369.8 | 369.3 | 369.2 | 369.2 | 368.8 | 369.3 |
| 11.5° | 368.5 | 368.4 | 368.4 | 368.0 | 368.2 | 368.4 |
| 12° | 368.0 | 366.8 | 366.2 | 367.0 | 367.5 | 367.2 |
| 12.5° | 366.4 | 365.6 | 365.0 | 366.2 | 366.1 | 366.1 |
| 13° | 364.8 | 364.3 | 364.5 | 365.4 | 365.2 | 365.8 |
| 13.5° | 364.1 | 363.1 | 363.8 | 364.3 | 364.2 | 364.4 |
| 14° | 363.4 | 361.7 | 362.5 | 363.0 | 363.2 | 363.5 |
| 14.5° | 362.0 | 360.9 | 361.1 | 361.6 | 361.3 | 362.2 |
| 15° | 360.7 | 359.2 | 360.3 | 359.9 | 361.0 | 361.3 |
| 15.5° | 359.0 | 357.8 | 358.3 | 358.7 | 359.5 | 360.0 |
| 16° | 357.7 | 356.4 | 357.0 | 357.0 | 357.9 | 358.5 |
| 16.5° | 356.6 | 355.0 | 355.7 | 357.0 | 356.6 | 357.0 |
| 17° | 355.2 | 353.7 | 354.4 | 355.2 | 355.9 | 355.7 |
| 17.5° | 353.8 | 352.7 | 353.5 | 352.8 | 353.9 | 354.0 |
| 18° | 352.8 | 350.9 | 351.7 | 351.7 | 352.0 | 352.9 |
| 18.5° | 350.6 | 350.1 | 349.4 | 350.0 | 351.0 | 350.6 |
| 19° | 349.3 | 348.7 | 348.0 | 349.5 | 349.5 | 349.7 |
| 19.5° | 347.8 | 346.9 | 346.4 | 347.2 | 348.2 | 348.6 |
| 20° | 346.1 | 345.4 | 344.8 | 345.8 | 346.5 | 347.3 |
| 20.5° | 343.9 | 343.7 | 343.3 | 344.6 | 345.2 | 345.9 |
| 21° | 342.5 | 341.7 | 341.8 | 342.3 | 342.9 | 343.9 |



TEST NUMBER: P639500

CATALOG NUMBER: RL56LS9FSD2W1EWH -900LM -3000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 22.5° | 337.7 | 335.5 | 335.9 | 337.3 | 337.3 | 339.0 |
| 23° | 335.5 | 333.9 | 333.9 | 335.5 | 336.2 | 337.5 |
| 23.5° | 334.0 | 331.9 | 332.4 | 333.4 | 334.2 | 335.8 |
| 24° | 331.7 | 330.2 | 330.4 | 331.0 | 332.1 | 334.1 |
| 24.5° | 329.8 | 327.8 | 328.4 | 329.5 | 330.4 | 331.5 |
| 25° | 327.7 | 325.4 | 326.3 | 327.9 | 328.7 | 330.4 |
| 25.5° | 325.4 | 323.9 | 324.0 | 325.6 | 326.5 | 327.8 |
| 26° | 323.7 | 321.7 | 322.3 | 323.4 | 324.8 | 326.0 |
| 26.5° | 321.6 | 319.4 | 320.4 | 321.2 | 322.3 | 324.7 |
| 27° | 319.3 | 317.4 | 317.9 | 319.2 | 320.2 | 321.4 |
| 27.5° | 317.0 | 315.1 | 315.6 | 317.3 | 318.3 | 319.2 |
| 28° | 315.0 | 313.6 | 313.6 | 315.8 | 315.9 | 317.0 |
| 28.5° | 312.8 | 311.0 | 311.3 | 313.0 | 313.6 | 314.7 |
| 29° | 310.2 | 308.6 | 309.1 | 310.7 | 311.3 | 312.5 |
| 29.5° | 307.7 | 305.7 | 306.7 | 307.9 | 309.1 | 310.5 |
| 30° | 305.5 | 303.8 | 304.0 | 305.9 | 306.9 | 308.2 |
| 30.5° | 303.1 | 301.5 | 301.8 | 303.6 | 304.4 | 305.5 |
| 31° | 300.8 | 299.3 | 299.3 | 301.4 | 302.0 | 302.7 |
| 31.5° | 298.6 | 296.9 | 296.9 | 298.5 | 299.6 | 300.6 |
| 32° | 295.6 | 294.4 | 294.2 | 296.0 | 297.3 | 298.4 |
| 32.5° | 292.9 | 291.7 | 291.7 | 293.2 | 294.8 | 296.0 |
| 33° | 290.4 | 288.5 | 289.3 | 290.9 | 292.4 | 293.7 |
| 33.5° | 287.9 | 286.4 | 286.9 | 288.4 | 289.8 | 291.1 |
| 34° | 285.5 | 283.4 | 284.1 | 285.6 | 287.3 | 288.7 |
| 34.5° | 282.9 | 281.0 | 281.6 | 283.3 | 284.7 | 286.0 |
| 35° | 280.5 | 278.6 | 278.9 | 280.6 | 282.2 | 283.2 |
| 35.5° | 277.6 | 276.3 | 276.3 | 277.7 | 279.1 | 280.8 |
| 36° | 274.4 | 273.5 | 273.9 | 275.3 | 276.7 | 277.6 |
| 36.5° | 272.0 | 270.6 | 270.7 | 272.3 | 273.5 | 275.2 |
| 37° | 269.6 | 267.9 | 267.5 | 269.6 | 271.1 | 272.4 |
| 37.5° | 266.6 | 264.7 | 264.9 | 266.4 | 268.3 | 269.5 |
| 38° | 263.4 | 261.6 | 262.3 | 263.6 | 265.3 | 266.0 |
| 38.5° | 260.4 | 258.5 | 259.5 | 260.8 | 262.1 | 263.3 |
| 39° | 257.4 | 255.6 | 256.1 | 257.8 | 259.0 | 260.4 |
| 39.5° | 253.9 | 253.0 | 253.2 | 255.0 | 255.9 | 257.1 |
| 40° | 251.0 | 249.8 | 249.8 | 251.8 | 252.9 | 253.9 |
| 40.5° | 247.9 | 246.8 | 247.2 | 248.6 | 249.5 | 251.1 |
| 41° | 244.3 | 243.2 | 243.9 | 245.5 | 246.4 | 247.7 |
| 41.5° | 241.5 | 239.3 | 240.8 | 242.3 | 243.2 | 244.3 |
| 42° | 238.3 | 236.1 | 237.7 | 238.7 | 239.8 | 240.9 |
| 42.5° | 234.4 | 233.1 | 233.8 | 235.1 | 236.8 | 237.4 |
| 43° | 231.1 | 229.7 | 230.1 | 231.9 | 233.2 | 234.1 |
| 43.5° | 227.4 | 226.4 | 226.4 | 228.4 | 229.7 | 230.5 |



TEST NUMBER: P639500

CATALOG NUMBER: RL56LS9FSD2W1EWH -900LM -3000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 45° | 217.2 | 215.3 | 216.1 | 217.7 | 219.0 | 219.6 |
| 45.5° | 213.4 | 211.8 | 212.5 | 214.2 | 215.0 | 216.0 |
| 46° | 209.7 | 208.2 | 208.9 | 211.1 | 211.9 | 212.3 |
| 46.5° | 205.8 | 204.7 | 205.7 | 207.0 | 207.8 | 208.4 |
| 47° | 202.4 | 201.1 | 201.6 | 203.3 | 204.3 | 205.1 |
| 47.5° | 198.6 | 197.3 | 198.3 | 199.8 | 200.3 | 200.9 |
| 48° | 195.0 | 193.8 | 194.3 | 196.3 | 196.8 | 197.2 |
| 48.5° | 191.0 | 190.0 | 190.9 | 192.0 | 192.9 | 193.5 |
| 49° | 187.0 | 186.1 | 187.3 | 188.7 | 189.1 | 189.4 |
| 49.5° | 183.3 | 182.7 | 183.5 | 185.0 | 185.1 | 185.7 |
| 50° | 180.0 | 178.7 | 180.3 | 181.3 | 181.2 | 181.6 |
| 50.5° | 175.8 | 175.1 | 176.2 | 177.5 | 177.9 | 178.1 |
| 51° | 172.1 | 171.5 | 172.8 | 173.8 | 174.1 | 174.0 |
| 51.5° | 168.3 | 168.0 | 168.6 | 170.1 | 170.2 | 170.2 |
| 52° | 164.7 | 164.1 | 165.0 | 166.3 | 166.1 | 165.9 |
| 52.5° | 160.9 | 160.5 | 161.6 | 162.5 | 162.3 | 162.3 |
| 53° | 157.3 | 156.7 | 158.1 | 159.0 | 158.8 | 158.5 |
| 53.5° | 153.6 | 153.0 | 154.1 | 155.1 | 155.0 | 154.6 |
| 54° | 149.8 | 149.4 | 150.3 | 151.7 | 150.9 | 150.8 |
| 54.5° | 146.2 | 145.5 | 146.3 | 147.9 | 147.4 | 147.3 |
| 55° | 142.5 | 142.1 | 143.0 | 144.0 | 143.5 | 143.2 |
| 55.5° | 138.8 | 138.3 | 139.3 | 140.0 | 139.9 | 139.4 |
| 56° | 135.3 | 134.7 | 135.4 | 136.5 | 136.1 | 135.8 |
| 56.5° | 131.7 | 130.9 | 131.8 | 133.1 | 132.7 | 132.1 |
| 57° | 128.1 | 127.5 | 128.5 | 129.4 | 129.0 | 128.4 |
| 57.5° | 124.4 | 123.6 | 124.9 | 125.5 | 125.1 | 124.6 |
| 58° | 120.6 | 120.1 | 121.2 | 121.9 | 121.6 | 120.9 |
| 58.5° | 117.2 | 116.7 | 117.6 | 118.5 | 117.8 | 117.4 |
| 59° | 113.7 | 113.3 | 114.0 | 115.0 | 114.3 | 113.9 |
| 59.5° | 110.1 | 109.7 | 110.8 | 111.4 | 110.9 | 110.4 |
| 60° | 106.8 | 106.3 | 107.1 | 108.1 | 107.3 | 107.0 |
| 60.5° | 103.5 | 102.8 | 103.8 | 104.6 | 104.0 | 103.5 |
| 61° | 100.2 | 99.7 | 100.5 | 101.2 | 100.7 | 100.0 |
| 61.5° | 96.5 | 96.5 | 97.2 | 97.8 | 97.3 | 96.8 |
| 62° | 93.2 | 92.9 | 94.0 | 94.3 | 93.7 | 93.5 |
| 62.5° | 90.1 | 89.8 | 90.7 | 91.1 | 90.5 | 90.1 |
| 63° | 86.7 | 86.7 | 87.4 | 88.1 | 87.4 | 86.9 |
| 63.5° | 83.6 | 83.7 | 84.5 | 84.8 | 84.2 | 83.7 |
| 64° | 80.4 | 80.6 | 81.1 | 81.7 | 81.1 | 80.6 |
| 64.5° | 77.2 | 77.4 | 78.2 | 78.6 | 78.0 | 77.7 |
| 65° | 74.4 | 74.6 | 75.1 | 75.5 | 75.0 | 74.8 |
| 65.5° | 71.5 | 71.6 | 72.5 | 72.5 | 72.1 | 71.8 |
| 66° | 68.4 | 68.5 | 69.3 | 69.8 | 69.2 | 69.0 |

TEST NUMBER: P639500

CATALOG NUMBER: RL56LS9FSD2W1EWH -900LM -3000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|------|--------|------|--------|------|
| 67.5° | 60.2 | 60.4 | 61.0 | 61.3 | 61.1 | 60.9 |
| 68° | 57.5 | 57.7 | 58.4 | 58.6 | 58.4 | 58.4 |
| 68.5° | 54.8 | 55.1 | 55.6 | 56.0 | 55.9 | 55.9 |
| 69° | 52.1 | 52.4 | 53.0 | 53.4 | 53.2 | 53.2 |
| 69.5° | 49.7 | 49.9 | 50.4 | 50.8 | 50.7 | 50.8 |
| 70° | 47.4 | 47.3 | 48.0 | 48.4 | 48.3 | 48.4 |
| 70.5° | 45.2 | 44.8 | 45.6 | 45.9 | 46.0 | 46.1 |
| 71° | 42.8 | 42.4 | 43.0 | 43.6 | 43.7 | 43.8 |
| 71.5° | 40.5 | 40.1 | 40.7 | 41.2 | 41.3 | 41.5 |
| 72° | 38.2 | 37.9 | 38.5 | 38.9 | 39.1 | 39.4 |
| 72.5° | 36.1 | 35.6 | 36.1 | 36.6 | 36.8 | 37.1 |
| 73° | 33.9 | 33.3 | 33.8 | 34.4 | 34.7 | 35.0 |
| 73.5° | 31.9 | 31.2 | 31.7 | 32.3 | 32.7 | 33.0 |
| 74° | 29.9 | 29.2 | 29.7 | 30.4 | 30.7 | 31.2 |
| 74.5° | 27.9 | 27.4 | 27.8 | 28.4 | 28.9 | 29.3 |
| 75° | 26.1 | 25.5 | 26.0 | 26.6 | 27.1 | 27.6 |
| 75.5° | 24.4 | 23.8 | 24.2 | 24.8 | 25.3 | 25.8 |
| 76° | 22.6 | 22.1 | 22.6 | 23.1 | 23.7 | 24.2 |
| 76.5° | 21.0 | 20.6 | 20.9 | 21.6 | 22.1 | 22.7 |
| 77° | 19.4 | 19.1 | 19.4 | 20.1 | 20.6 | 21.2 |
| 77.5° | 18.0 | 17.7 | 18.1 | 18.6 | 19.2 | 19.7 |
| 78° | 16.6 | 16.3 | 16.6 | 17.3 | 17.9 | 18.4 |
| 78.5° | 15.4 | 15.2 | 15.5 | 16.0 | 16.6 | 17.1 |
| 79° | 14.1 | 14.1 | 14.4 | 14.9 | 15.5 | 16.0 |
| 79.5° | 13.0 | 13.0 | 13.2 | 13.8 | 14.4 | 14.9 |
| 80° | 11.9 | 12.0 | 12.3 | 12.8 | 13.3 | 13.8 |
| 80.5° | 11.0 | 11.1 | 11.3 | 11.9 | 12.4 | 12.8 |
| 81° | 10.1 | 10.3 | 10.6 | 10.9 | 11.5 | 11.9 |
| 81.5° | 9.4 | 9.6 | 9.8 | 10.2 | 10.6 | 11.0 |
| 82° | 8.6 | 8.9 | 9.1 | 9.5 | 9.9 | 10.2 |
| 82.5° | 7.9 | 8.1 | 8.3 | 8.7 | 9.1 | 9.5 |
| 83° | 7.2 | 7.4 | 7.6 | 8.0 | 8.4 | 8.8 |
| 83.5° | 6.5 | 6.7 | 6.9 | 7.4 | 7.8 | 8.1 |
| 84° | 5.7 | 6.1 | 6.3 | 6.6 | 7.0 | 7.5 |
| 84.5° | 5.1 | 5.3 | 5.5 | 6.0 | 6.4 | 6.8 |
| 85° | 4.4 | 4.6 | 5.0 | 5.3 | 5.7 | 6.1 |
| 85.5° | 3.7 | 4.0 | 4.2 | 4.6 | 5.0 | 5.4 |
| 86° | 3.1 | 3.4 | 3.6 | 3.9 | 4.4 | 4.8 |
| 86.5° | 2.5 | 2.7 | 3.0 | 3.3 | 3.8 | 4.1 |
| 87° | 1.8 | 2.1 | 2.3 | 2.7 | 3.1 | 3.5 |
| 87.5° | 1.2 | 1.4 | 1.8 | 2.1 | 2.4 | 2.9 |
| 88° | 0.6 | 0.8 | 1.0 | 1.4 | 1.9 | 2.2 |
| 88.5° | 0.1 | 0.4 | 0.6 | 0.8 | 1.2 | 1.7 |



TEST NUMBER: P639500
CATALOG NUMBER: RL56LS9FSD2W1EWH -900LM -3000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-----|--------|------|--------|------|--------|------|
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 |

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

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Cooper Lighting Solutions Photometric Lab
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Scaled Data Report





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

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Peachtree City, GA 30269

Scaled Data Report



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Scaled Data Report





| | | | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 21.5° | 342.7 | 344.5 | 345.6 | 346.8 | 347.1 | 347.6 | 347.3 | 345.4 | 344.1 | 343.6 | 342.0 |
| 22° | 340.5 | 342.5 | 343.5 | 345.4 | 345.2 | 346.2 | 345.4 | 344.3 | 342.6 | 342.1 | 340.0 |



| | | | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 44° | 226.7 | 229.9 | 232.2 | 233.7 | 234.4 | 234.5 | 233.2 | 231.6 | 229.2 | 227.9 | 225.5 |
| 44.5° | 223.5 | 226.2 | 227.9 | 229.8 | 230.6 | 230.3 | 229.9 | 228.1 | 225.9 | 223.7 | 221.5 |



| | | | | | | | | | | | |
|-------|------|------|------|------|------|------|------|------|------|------|------|
| 66.5° | 66.2 | 67.1 | 68.2 | 68.8 | 68.8 | 68.2 | 67.4 | 66.5 | 65.7 | 65.5 | 65.3 |
| 67° | 63.7 | 64.3 | 65.4 | 66.0 | 66.1 | 65.3 | 64.5 | 63.6 | 62.9 | 62.8 | 62.4 |



| | | | | | | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 89° | 1.0 | 1.4 | 1.7 | 1.8 | 1.6 | 1.4 | 1.0 | 0.5 | 0.2 | 0.0 | 0.0 |
| 89.5° | 0.5 | 0.8 | 1.2 | 1.2 | 1.1 | 0.8 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |

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1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





| | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|
| 21.5° | 341.1 | 339.6 | 339.8 | 340.5 | 341.4 | 342.7 |
| 22° | 338.8 | 337.2 | 338.3 | 339.0 | 339.4 | 340.5 |



| | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|
| 44° | 224.0 | 222.6 | 223.1 | 225.1 | 226.4 | 226.7 |
| 44.5° | 220.8 | 218.8 | 219.5 | 221.9 | 222.6 | 223.5 |



| | | | | | | |
|-------|------|------|------|------|------|------|
| 66.5° | 65.6 | 65.8 | 66.5 | 66.8 | 66.4 | 66.2 |
| 67° | 62.9 | 63.1 | 63.7 | 64.1 | 63.7 | 63.7 |

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Peachtree City, GA 30269

Scaled Data Report



| | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|
| 89° | 0.0 | 0.1 | 0.2 | 0.4 | 0.7 | 1.0 |
| 89.5° | 0.0 | 0.0 | 0.0 | 0.1 | 0.3 | 0.5 |

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Scaled Data Report



(END OF REPORT)