

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: LUMARK

Report Number: P144015

Luminaire Tested: **LDRC-5WQ-F04-E**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P144015
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33698)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: LDRC-5WQ-F04-E
Description: RC LED ROADWAY SMALL CUTOFF COBRAHEAD LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE
Light Source: (28) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10122.8 lumens
Efficiency: N/A
Efficacy: 99.0 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G2

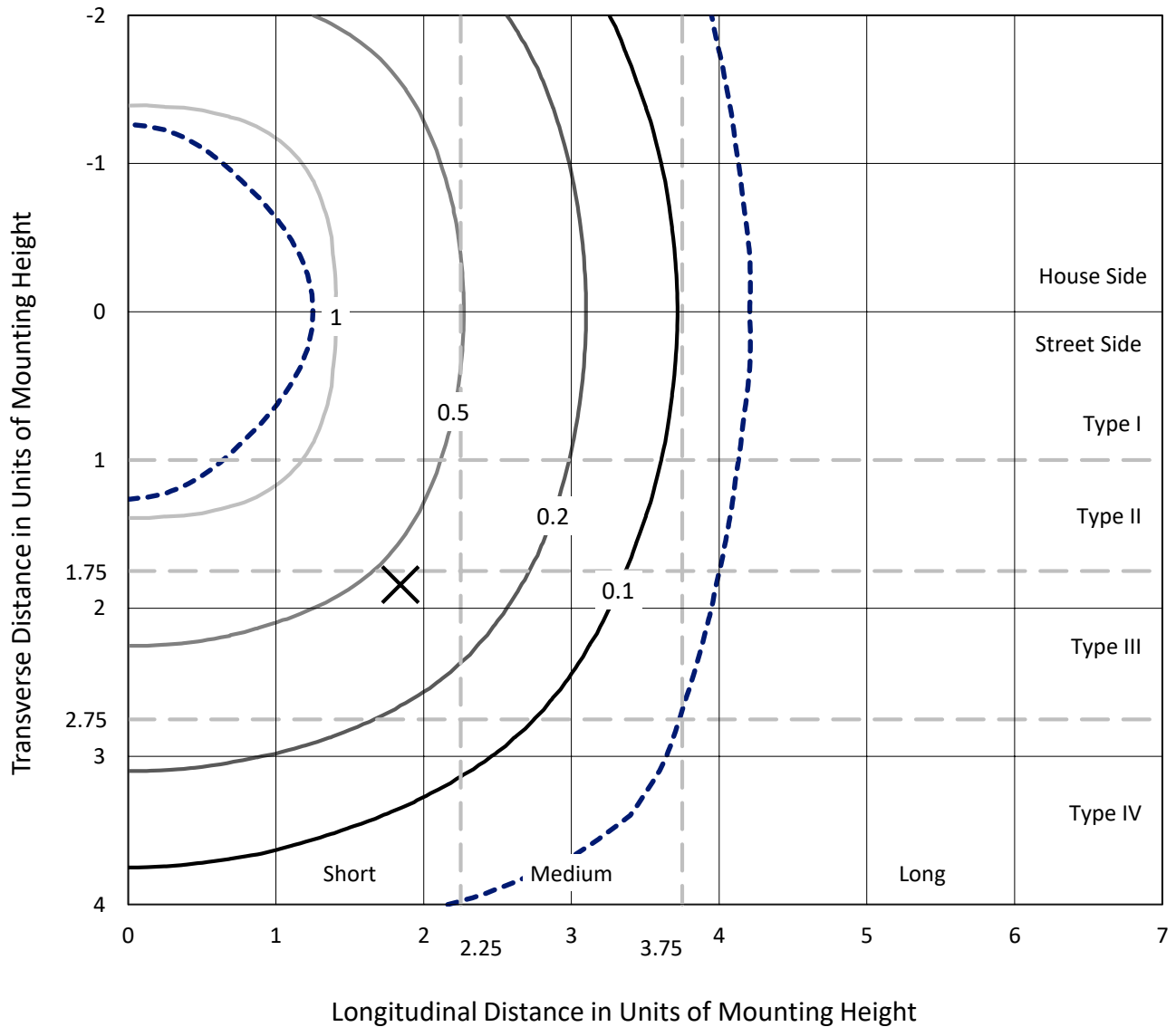
Input Watts (W): 102.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P144015
 CATALOG NUMBER: LDRC-5WQ-F04-E

Iso-Footcandle Lines of Horizontal Illumination

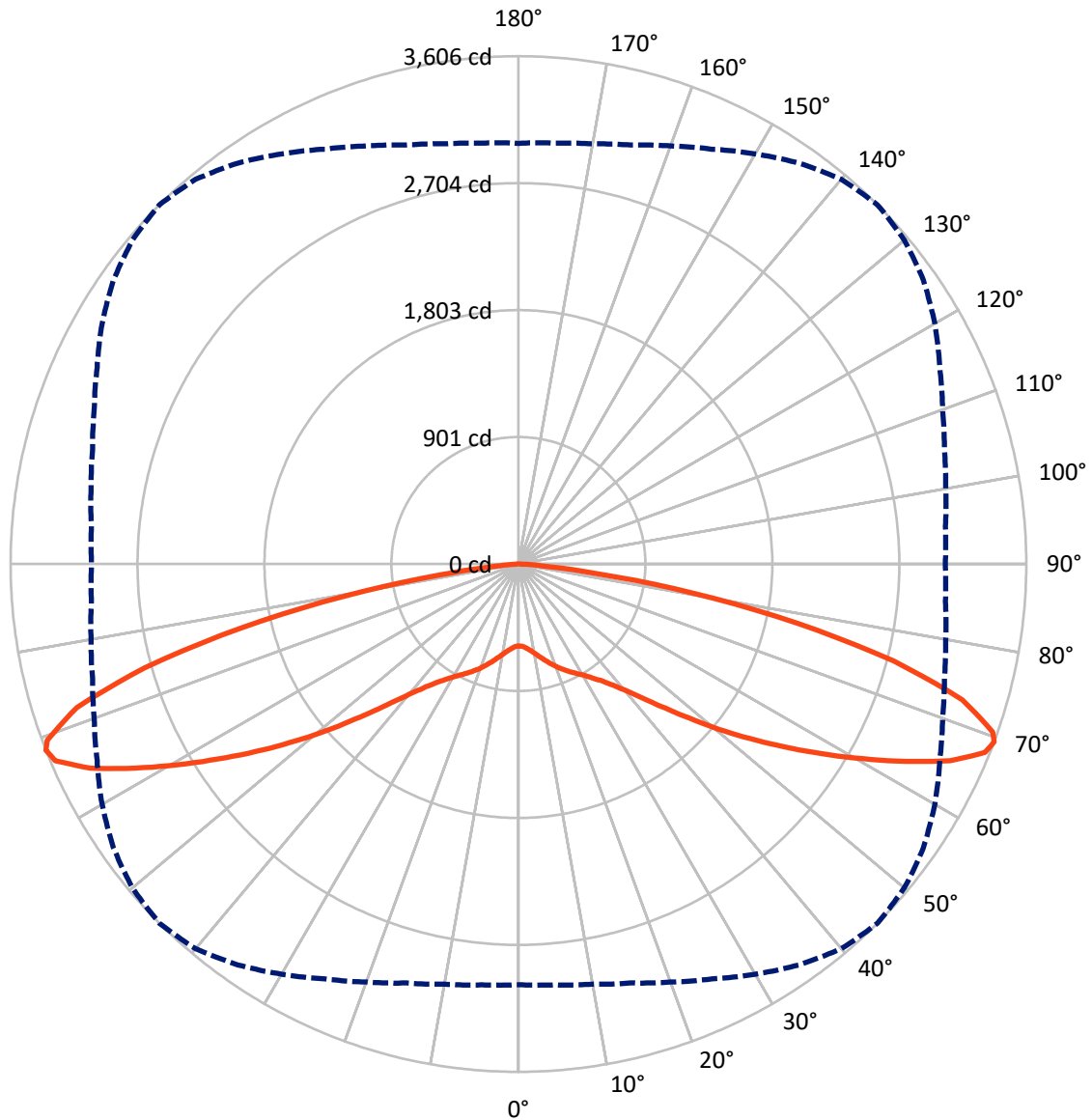
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 1.6 fc
 Type V - Short - Semi-Cutoff

REPORT NUMBER: P144015
CATALOG NUMBER: LDRC-5WQ-F04-E

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P144015

CATALOG NUMBER: LDRC-5WQ-F04-E

FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5061.4 | 0.0 | 5061.4 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 5061.4 | 0.0 | 5061.4 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 10122.8 | 0.0 | 10122.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 58.7 | 0.6 |
| 10°-20° | 202.3 | 2.0 |
| 20°-30° | 389.9 | 3.9 |
| 30°-40° | 639.0 | 6.3 |
| 40°-50° | 1111.0 | 11.0 |
| 50°-60° | 1973.6 | 19.5 |
| 60°-70° | 3064.2 | 30.3 |
| 70°-80° | 2441.3 | 24.1 |
| 80°-90° | 242.8 | 2.4 |
| 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°-90° | 10122.8 | 100.0 |
| 0°-180° | 10122.8 | 100.0 |



REPORT NUMBER: P144015

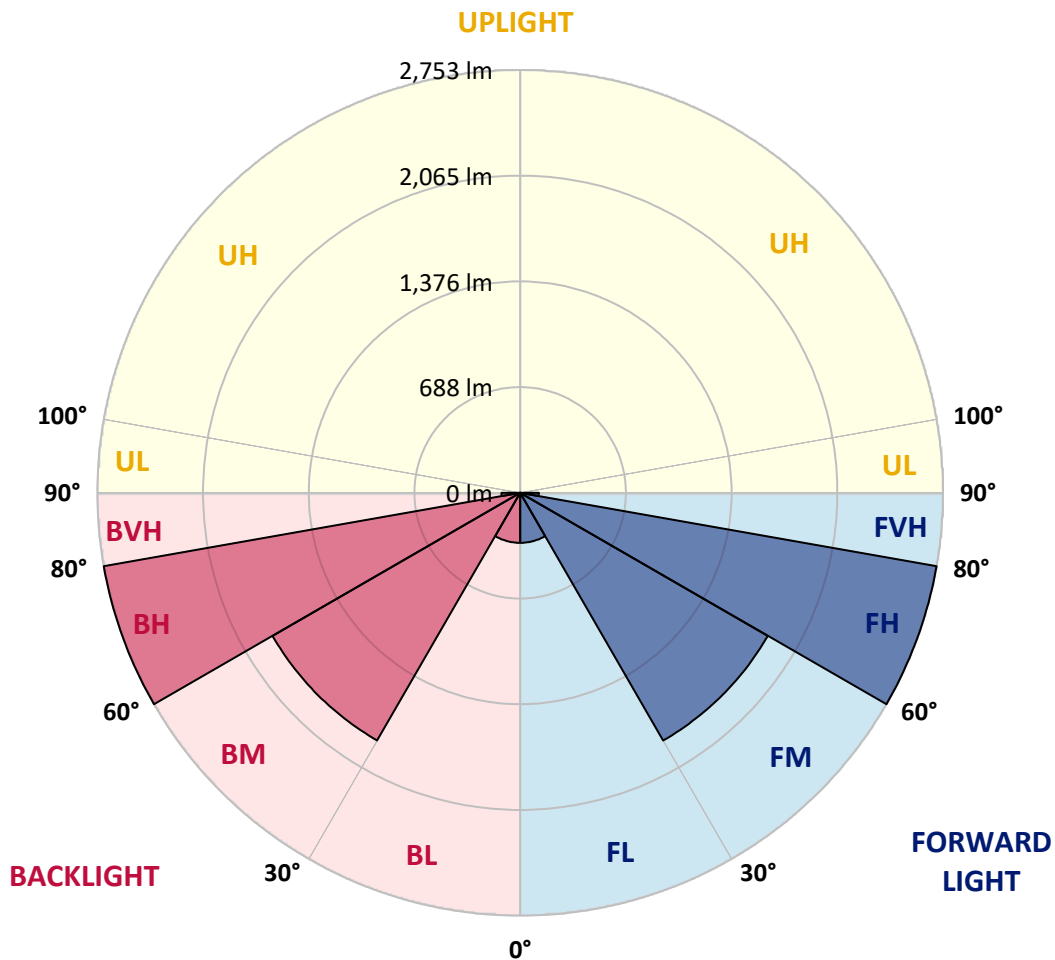
CATALOG NUMBER: LDRC-5WQ-F04-E

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 325.4 | 3.2 | | | |
| FM | (30°-60°) | 1861.8 | 18.4 | | | |
| FH | (60°-80°) | 2752.8 | 27.2 | | | G2/5000 |
| FVH | (80°-90°) | 121.4 | 1.2 | | | G2/225 |
| BL | (0°-30°) | 325.4 | 3.2 | B1/500 | | |
| BM | (30°-60°) | 1861.8 | 18.4 | B2/2500 | | |
| BH | (60°-80°) | 2752.8 | 27.2 | B4/5000 | | G2/5000 |
| BVH | (80°-90°) | 121.4 | 1.2 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G2

Type V Short





REPORT NUMBER: P144015
 CATALOG NUMBER: LDRC-5WQ-F04-E

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 581.8 | 581.8 | 581.8 | 581.8 | 581.8 | 581.8 | 581.8 | 581.8 | 581.8 | 581.8 | 581.8 |
| 2.5° | 586.5 | 586.5 | 586.5 | 585.8 | 585.8 | 585.1 | 585.8 | 585.1 | 585.1 | 585.1 | 585.1 |
| 5° | 601.6 | 600.3 | 600.3 | 599.7 | 601.0 | 601.0 | 599.7 | 600.3 | 599.7 | 600.3 | 600.3 |
| 7.5° | 620.8 | 620.8 | 620.8 | 620.1 | 621.5 | 620.8 | 620.1 | 620.8 | 620.8 | 620.1 | 620.1 |
| 10° | 644.6 | 645.2 | 644.6 | 644.6 | 646.6 | 645.9 | 646.6 | 646.6 | 647.2 | 646.6 | 646.6 |
| 12.5° | 672.3 | 672.3 | 673.0 | 673.6 | 674.3 | 674.9 | 676.9 | 676.3 | 677.6 | 676.3 | 676.3 |
| 15° | 704.7 | 706.0 | 704.7 | 704.7 | 706.6 | 708.0 | 708.6 | 708.6 | 710.0 | 709.3 | 708.0 |
| 17.5° | 739.0 | 739.7 | 739.0 | 738.3 | 740.3 | 742.3 | 743.0 | 743.0 | 745.0 | 743.6 | 743.6 |
| 20° | 774.0 | 774.7 | 773.4 | 772.7 | 775.3 | 775.3 | 776.7 | 777.3 | 779.3 | 780.0 | 778.0 |
| 22.5° | 806.4 | 807.0 | 806.4 | 805.7 | 808.4 | 808.4 | 810.3 | 811.0 | 813.6 | 813.0 | 813.0 |
| 25° | 838.1 | 838.1 | 837.4 | 837.4 | 840.1 | 840.7 | 842.7 | 844.0 | 846.7 | 846.7 | 846.7 |
| 27.5° | 867.1 | 867.8 | 866.5 | 865.8 | 871.1 | 873.1 | 874.4 | 877.0 | 879.0 | 880.3 | 879.7 |
| 30° | 900.2 | 900.2 | 899.5 | 901.5 | 904.8 | 907.4 | 910.1 | 914.0 | 918.0 | 916.7 | 916.7 |
| 32.5° | 939.1 | 940.4 | 939.8 | 942.4 | 946.4 | 950.3 | 953.6 | 958.3 | 960.3 | 963.6 | 960.9 |
| 35° | 991.3 | 993.9 | 992.6 | 995.3 | 998.6 | 1001.2 | 1008.5 | 1013.1 | 1016.4 | 1018.4 | 1017.0 |
| 37.5° | 1056.7 | 1055.4 | 1058.0 | 1058.7 | 1065.3 | 1068.6 | 1077.1 | 1083.7 | 1089.0 | 1091.0 | 1089.7 |
| 40° | 1137.9 | 1135.9 | 1139.2 | 1142.5 | 1151.1 | 1154.4 | 1164.3 | 1174.2 | 1181.5 | 1184.1 | 1182.8 |
| 42.5° | 1235.0 | 1237.6 | 1242.9 | 1247.5 | 1259.4 | 1268.7 | 1279.9 | 1294.4 | 1302.3 | 1305.7 | 1301.0 |
| 45° | 1362.4 | 1357.8 | 1367.7 | 1379.6 | 1386.2 | 1406.7 | 1425.2 | 1440.4 | 1453.6 | 1458.9 | 1453.6 |
| 47.5° | 1507.7 | 1507.1 | 1519.0 | 1533.5 | 1550.7 | 1569.8 | 1591.6 | 1611.4 | 1634.5 | 1635.9 | 1629.3 |
| 50° | 1668.2 | 1681.4 | 1688.0 | 1702.6 | 1734.3 | 1758.0 | 1785.8 | 1815.5 | 1836.6 | 1843.2 | 1831.3 |
| 52.5° | 1861.7 | 1871.6 | 1875.6 | 1900.0 | 1929.1 | 1958.1 | 1997.1 | 2032.8 | 2057.2 | 2059.8 | 2053.9 |
| 55° | 2071.7 | 2079.7 | 2086.9 | 2116.6 | 2148.3 | 2174.1 | 2223.6 | 2258.6 | 2283.1 | 2292.3 | 2288.4 |
| 57.5° | 2289.0 | 2296.3 | 2305.5 | 2337.9 | 2370.2 | 2406.6 | 2453.5 | 2494.4 | 2522.8 | 2540.0 | 2535.4 |
| 60° | 2530.1 | 2530.1 | 2551.2 | 2583.6 | 2610.0 | 2652.9 | 2701.8 | 2749.3 | 2780.4 | 2807.4 | 2800.2 |
| 62.5° | 2783.7 | 2790.9 | 2811.4 | 2837.8 | 2865.6 | 2905.2 | 2960.7 | 3017.5 | 3065.0 | 3085.5 | 3084.8 |
| 65° | 2975.9 | 2989.1 | 3016.1 | 3046.5 | 3092.7 | 3139.6 | 3209.6 | 3280.3 | 3337.8 | 3367.5 | 3367.5 |
| 67.5° | 3032.0 | 3040.6 | 3074.3 | 3120.5 | 3187.2 | 3261.8 | 3356.9 | 3455.3 | 3533.9 | 3572.9 | 3548.4 |
| 69° | 2987.1 | 2999.6 | 3029.3 | 3079.5 | 3158.8 | 3249.9 | 3362.9 | 3474.5 | 3565.6 | 3605.9 | 3577.5 |
| 70° | 2934.9 | 2948.8 | 2978.5 | 3028.0 | 3109.9 | 3207.0 | 3319.9 | 3440.1 | 3537.9 | 3572.2 | 3539.9 |
| 72.5° | 2722.3 | 2739.4 | 2760.6 | 2803.5 | 2877.4 | 2968.6 | 3070.3 | 3176.0 | 3269.7 | 3296.8 | 3256.5 |
| 75° | 2359.7 | 2363.0 | 2373.5 | 2405.2 | 2431.7 | 2496.4 | 2582.9 | 2666.8 | 2737.4 | 2753.3 | 2710.4 |
| 77.5° | 1670.2 | 1652.4 | 1634.5 | 1661.6 | 1682.8 | 1766.0 | 1859.7 | 1928.4 | 2002.4 | 2024.8 | 1981.3 |
| 80° | 732.4 | 725.8 | 750.9 | 786.6 | 879.7 | 935.2 | 1027.0 | 1125.4 | 1188.1 | 1261.4 | 1182.8 |
| 82.5° | 144.6 | 152.6 | 176.3 | 217.9 | 268.8 | 338.1 | 398.2 | 466.3 | 527.7 | 555.4 | 527.0 |
| 85° | 58.8 | 64.1 | 72.6 | 81.2 | 87.2 | 97.7 | 114.9 | 142.7 | 157.2 | 159.2 | 151.2 |
| 87.5° | 24.4 | 28.4 | 38.3 | 45.6 | 46.2 | 44.2 | 45.6 | 46.9 | 38.3 | 31.0 | 39.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P144015
 CATALOG NUMBER: LDRC-5WQ-F04-E

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 581.8 | 581.8 | 581.8 | 581.8 | 581.8 | 581.8 | 581.8 | 581.8 |
| 2.5° | 585.1 | 585.8 | 585.1 | 585.8 | 585.1 | 585.1 | 585.8 | 585.1 |
| 5° | 599.7 | 600.3 | 599.7 | 599.0 | 598.3 | 599.0 | 599.0 | 599.0 |
| 7.5° | 620.1 | 619.5 | 618.8 | 618.8 | 618.2 | 617.5 | 618.8 | 618.8 |
| 10° | 645.2 | 644.6 | 643.2 | 643.2 | 642.6 | 642.6 | 642.6 | 642.6 |
| 12.5° | 675.6 | 673.6 | 673.0 | 671.0 | 670.3 | 669.7 | 669.7 | 670.3 |
| 15° | 707.3 | 705.3 | 704.7 | 701.4 | 701.4 | 700.7 | 700.7 | 700.7 |
| 17.5° | 741.0 | 739.0 | 736.4 | 736.4 | 734.4 | 733.1 | 733.7 | 732.4 |
| 20° | 775.3 | 772.7 | 771.4 | 770.7 | 768.1 | 768.1 | 768.1 | 767.4 |
| 22.5° | 809.0 | 807.0 | 805.1 | 802.4 | 799.8 | 799.1 | 799.1 | 798.4 |
| 25° | 843.4 | 840.1 | 836.1 | 833.4 | 830.8 | 828.8 | 828.8 | 828.8 |
| 27.5° | 877.7 | 873.7 | 867.8 | 864.5 | 860.5 | 858.5 | 858.5 | 857.9 |
| 30° | 914.0 | 909.4 | 904.1 | 899.5 | 894.2 | 892.2 | 891.6 | 890.2 |
| 32.5° | 957.6 | 953.0 | 947.7 | 941.1 | 935.8 | 932.5 | 932.5 | 930.5 |
| 35° | 1013.1 | 1007.8 | 1003.8 | 995.3 | 988.6 | 983.4 | 984.0 | 985.3 |
| 37.5° | 1085.7 | 1079.1 | 1075.8 | 1065.3 | 1056.7 | 1051.4 | 1051.4 | 1050.7 |
| 40° | 1178.2 | 1171.6 | 1164.3 | 1154.4 | 1143.8 | 1136.6 | 1134.6 | 1134.6 |
| 42.5° | 1295.7 | 1289.8 | 1279.9 | 1266.0 | 1253.5 | 1245.6 | 1238.9 | 1239.6 |
| 45° | 1443.0 | 1435.8 | 1421.9 | 1404.7 | 1389.5 | 1378.3 | 1369.1 | 1369.1 |
| 47.5° | 1622.0 | 1606.8 | 1587.6 | 1572.5 | 1546.7 | 1529.5 | 1522.9 | 1521.6 |
| 50° | 1826.1 | 1797.7 | 1773.9 | 1752.1 | 1725.0 | 1707.2 | 1697.3 | 1694.6 |
| 52.5° | 2040.0 | 2010.3 | 1980.6 | 1952.2 | 1919.2 | 1900.7 | 1884.8 | 1883.5 |
| 55° | 2272.5 | 2234.9 | 2197.2 | 2169.5 | 2130.5 | 2111.4 | 2095.5 | 2086.3 |
| 57.5° | 2509.6 | 2467.3 | 2440.3 | 2400.6 | 2359.7 | 2345.8 | 2330.6 | 2319.4 |
| 60° | 2776.4 | 2730.2 | 2694.5 | 2652.9 | 2626.5 | 2596.8 | 2582.2 | 2573.7 |
| 62.5° | 3049.2 | 3006.2 | 2960.7 | 2921.0 | 2884.1 | 2863.6 | 2843.8 | 2833.9 |
| 65° | 3326.5 | 3255.9 | 3201.7 | 3146.9 | 3103.3 | 3066.3 | 3035.3 | 3031.3 |
| 67.5° | 3496.9 | 3407.8 | 3317.3 | 3237.4 | 3173.3 | 3121.1 | 3089.4 | 3078.2 |
| 69° | 3510.8 | 3413.7 | 3300.8 | 3205.0 | 3131.1 | 3080.9 | 3043.2 | 3031.3 |
| 70° | 3472.5 | 3374.7 | 3255.9 | 3152.8 | 3076.2 | 3021.4 | 2990.4 | 2970.6 |
| 72.5° | 3192.5 | 3106.6 | 2992.4 | 2890.7 | 2821.3 | 2757.3 | 2726.2 | 2718.3 |
| 75° | 2633.8 | 2542.6 | 2437.6 | 2388.7 | 2340.5 | 2300.2 | 2279.1 | 2277.1 |
| 77.5° | 1870.3 | 1777.2 | 1697.3 | 1633.2 | 1581.0 | 1555.3 | 1561.2 | 1539.4 |
| 80° | 1070.5 | 949.0 | 852.6 | 795.8 | 718.5 | 672.3 | 620.1 | 657.8 |
| 82.5° | 460.3 | 371.8 | 283.3 | 230.5 | 175.7 | 139.3 | 114.9 | 107.0 |
| 85° | 128.8 | 105.0 | 87.8 | 80.6 | 72.6 | 64.7 | 54.8 | 50.9 |
| 87.5° | 43.6 | 41.6 | 37.0 | 37.0 | 33.7 | 28.4 | 19.8 | 17.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)