

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: P143641

Luminaire Tested: **LDRL-5MQ-E03-E-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P143641  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33697)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: LDRL-5MQ-E03-E-7050  
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE  
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM  
Light Source: (63) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9566.4 lumens  
Efficiency: N/A  
Efficacy: 127.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B3 - U0 - G2

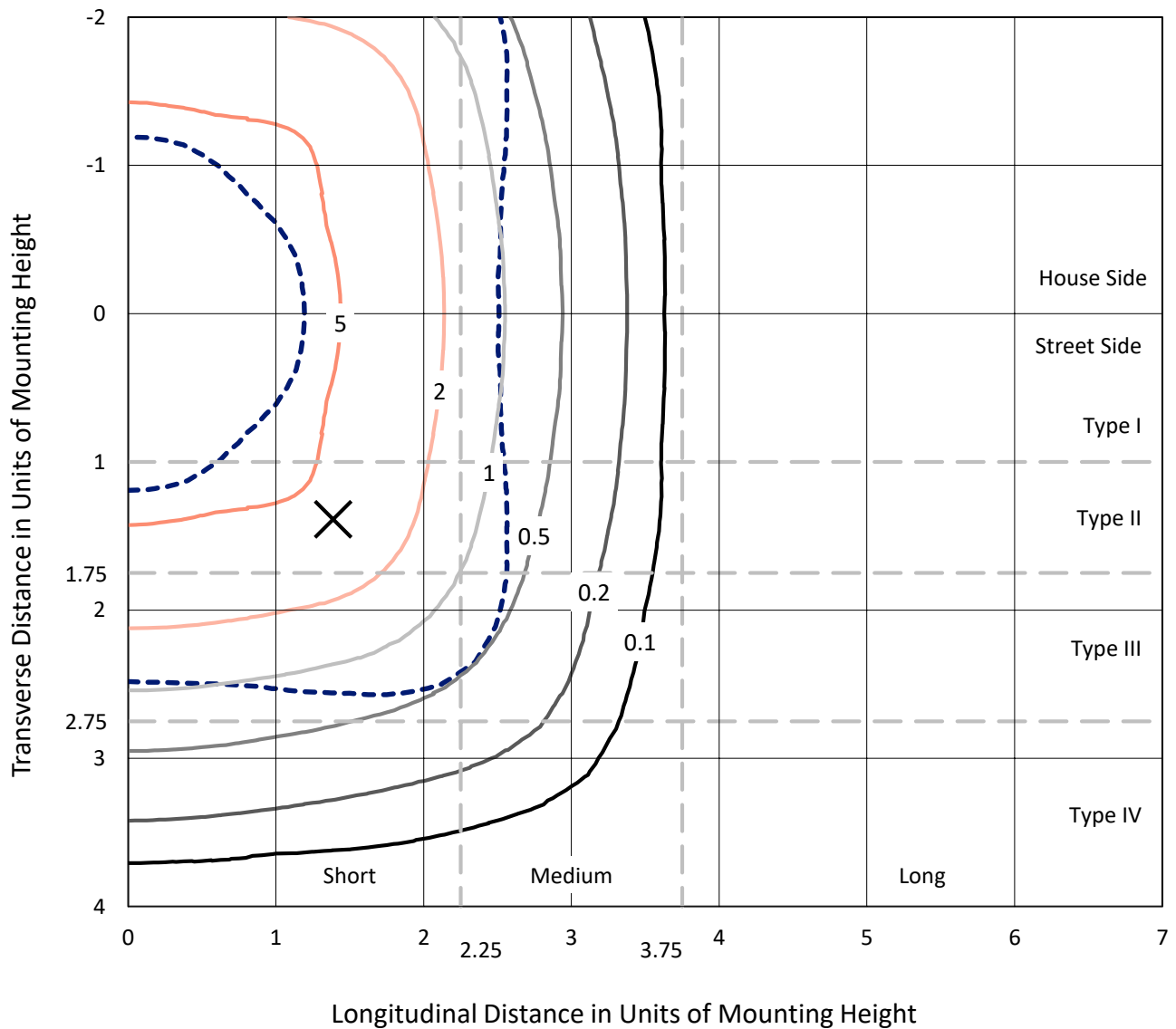
Input Watts (W): 75.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P143641  
 CATALOG NUMBER: LDRL-5MQ-E03-E-7050

### Iso-Footcandle Lines of Horizontal Illumination

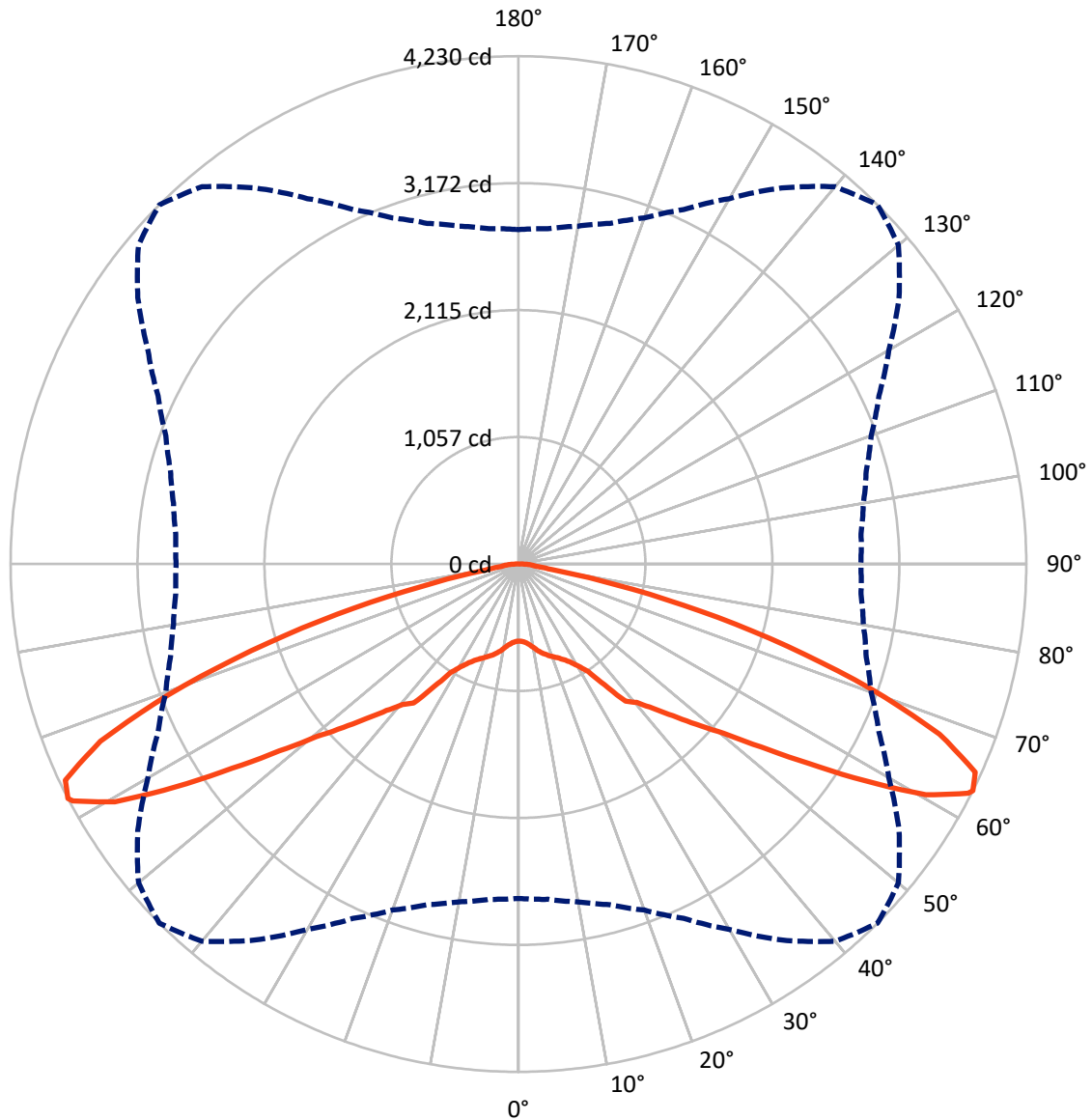
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.1 fc  
 Type V - Short - Full Cutoff

REPORT NUMBER: P143641  
CATALOG NUMBER: LDRL-5MQ-E03-E-7050

### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 63-Deg Vertical

REPORT NUMBER: P143641

CATALOG NUMBER: LDRL-5MQ-E03-E-7050

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4783.2	0.0	4783.2
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	4783.2	0.0	4783.2
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	9566.4	0.0	9566.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.6	0.7
10°-20°	220.9	2.3
20°-30°	421.8	4.4
30°-40°	803.6	8.4
40°-50°	1383.8	14.5
50°-60°	2472.9	25.8
60°-70°	3012.0	31.5
70°-80°	1072.9	11.2
80°-90°	113.8	1.2
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°	9566.4	100.0
0°-180°	9566.4	100.0



REPORT NUMBER: P143641

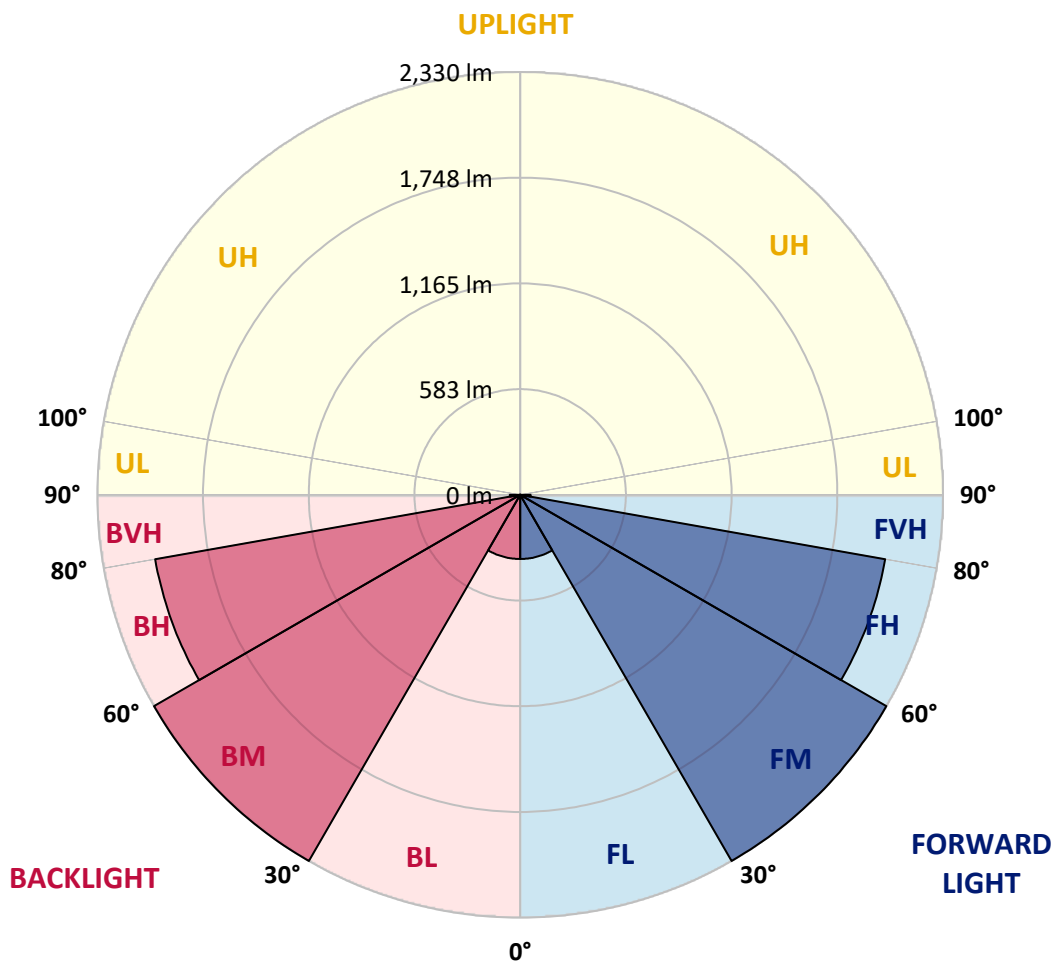
CATALOG NUMBER: LDRL-5MQ-E03-E-7050

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	353.7	3.7			
FM (30°-60°)	2330.2	24.4			
FH (60°-80°)	2042.5	21.4			G2/5000
FVH (80°-90°)	56.9	0.6			G1/100
BL (0°-30°)	353.7	3.7	B1/500		
BM (30°-60°)	2330.2	24.4	B2/2500		
BH (60°-80°)	2042.5	21.4	B3/2500		G2/5000
BVH (80°-90°)	56.9	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G2**

Type V Short





REPORT NUMBER: P143641

CATALOG NUMBER: LDRL-5MQ-E03-E-7050

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	642.1	642.1	642.1	642.1	642.1	642.1	642.1	642.1	642.1	642.1	642.1
2.5°	647.1	646.4	647.1	645.8	645.8	645.2	645.2	645.2	644.0	645.2	644.0
5°	660.6	660.0	660.6	659.4	659.4	658.1	658.1	658.1	656.9	658.1	657.5
7.5°	684.0	685.2	684.0	682.8	682.8	681.5	680.9	680.9	680.3	679.7	680.9
10°	716.6	717.9	716.0	714.8	714.2	713.6	712.3	711.7	711.7	709.2	709.9
12.5°	751.1	751.1	749.3	748.6	748.6	747.4	745.0	744.3	744.3	743.1	741.9
15°	781.9	781.9	780.7	778.2	778.8	777.0	775.1	773.9	773.9	772.7	771.4
17.5°	810.2	810.2	808.4	805.9	804.7	804.1	801.6	800.4	800.4	799.1	797.9
20°	838.5	839.8	836.7	834.2	831.8	829.3	826.8	825.6	823.8	824.4	823.8
22.5°	872.4	873.0	868.1	865.0	860.1	857.0	853.3	852.1	849.6	849.6	850.8
25°	915.5	914.9	909.3	903.8	898.3	892.1	886.6	885.3	882.9	882.2	882.9
27.5°	972.1	971.5	964.7	957.4	950.0	940.7	934.0	930.3	928.4	926.0	927.2
30°	1041.7	1042.9	1034.9	1026.3	1017.1	1006.0	997.4	992.4	988.8	986.3	987.5
32.5°	1183.3	1182.1	1169.8	1151.3	1131.6	1105.7	1084.8	1076.2	1069.4	1066.9	1068.8
35°	1325.5	1324.3	1319.4	1313.8	1308.9	1292.3	1276.9	1259.0	1244.3	1235.0	1237.5
37.5°	1392.6	1392.6	1388.9	1387.7	1387.7	1397.6	1409.9	1432.0	1449.3	1450.5	1445.0
40°	1497.3	1497.3	1491.1	1488.1	1486.2	1489.3	1497.3	1505.3	1513.9	1515.8	1509.6
42.5°	1620.4	1614.9	1610.6	1604.4	1603.8	1606.9	1615.5	1625.4	1634.0	1641.4	1628.4
45°	1753.4	1748.5	1744.2	1740.5	1742.9	1750.9	1762.6	1779.9	1792.2	1803.3	1792.8
47.5°	1901.8	1891.3	1895.6	1891.9	1898.1	1914.1	1935.0	1960.9	1973.8	1993.5	1976.9
50°	2086.5	2088.9	2086.5	2086.5	2093.9	2114.8	2145.6	2180.7	2202.8	2213.9	2204.1
52.5°	2361.1	2353.7	2337.1	2342.0	2351.8	2385.1	2425.1	2474.4	2502.7	2529.1	2498.4
55°	2661.5	2662.7	2660.3	2667.1	2686.1	2720.0	2770.5	2845.0	2880.7	2926.9	2889.9
57.5°	2910.2	2918.9	2933.6	2954.0	2995.2	3051.8	3151.0	3264.9	3359.7	3409.5	3351.7
60°	2990.9	2999.5	3035.2	3091.9	3169.4	3285.2	3445.9	3641.0	3811.6	3900.2	3824.5
62.5°	2835.7	2851.8	2904.7	2982.9	3110.9	3292.0	3530.8	3819.6	4082.5	4203.7	4112.0
63°	2785.3	2803.1	2857.3	2936.7	3067.2	3256.2	3514.2	3823.3	4101.5	4229.6	4130.5
65°	2561.2	2572.9	2630.1	2720.6	2865.9	3062.9	3349.8	3715.5	4032.6	4181.0	4075.7
67.5°	2208.4	2223.8	2276.1	2354.3	2495.3	2704.0	2986.0	3350.4	3662.6	3781.4	3691.5
70°	1771.3	1788.5	1831.6	1904.2	2015.1	2208.4	2449.7	2790.2	3024.8	3117.7	3021.7
72.5°	1244.9	1252.3	1283.7	1360.0	1443.1	1597.0	1788.5	2053.2	2278.6	2339.5	2247.2
75°	527.0	527.6	568.9	617.5	721.6	874.9	1041.7	1269.5	1472.1	1566.9	1449.9
77.5°	168.7	170.5	182.2	200.1	234.6	302.9	426.0	551.0	736.9	826.8	717.2
80°	141.0	143.4	148.4	152.1	154.5	158.2	172.4	192.1	242.0	281.4	227.2
82.5°	121.3	125.6	136.7	141.0	143.4	144.7	146.5	145.9	142.8	141.6	142.2
85°	92.3	102.8	115.1	125.0	126.2	126.8	130.5	131.8	121.9	112.1	121.9
87.5°	40.0	51.7	79.4	88.0	86.2	80.0	85.6	90.5	82.5	60.3	80.7
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: P143641

CATALOG NUMBER: LDRL-5MQ-E03-E-7050

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	642.1	642.1	642.1	642.1	642.1	642.1	642.1	642.1
2.5°	644.6	645.8	645.8	645.8	645.8	646.4	647.1	646.4
5°	658.1	659.4	658.8	659.4	659.4	660.0	660.6	660.0
7.5°	681.5	681.5	681.5	682.8	682.8	684.0	684.0	684.0
10°	710.5	709.9	709.9	711.1	712.3	712.9	714.2	713.6
12.5°	741.9	740.6	741.3	742.5	743.7	744.3	745.6	745.0
15°	770.2	769.6	769.6	771.4	772.0	772.7	775.1	775.1
17.5°	797.3	797.3	797.3	799.7	800.4	802.8	804.7	804.7
20°	824.4	824.4	824.4	826.8	828.7	832.4	836.1	835.5
22.5°	852.1	852.7	853.9	856.4	860.7	866.2	869.3	869.3
25°	886.6	889.0	891.5	895.2	901.3	908.7	913.6	915.5
27.5°	930.9	936.4	942.6	948.1	954.9	964.1	970.9	972.1
30°	991.2	999.2	1009.1	1016.5	1025.1	1035.5	1043.5	1047.9
32.5°	1076.8	1096.5	1109.4	1135.9	1151.9	1169.8	1184.5	1190.7
35°	1252.9	1272.6	1289.8	1307.7	1311.4	1317.5	1325.5	1327.4
37.5°	1427.1	1411.1	1395.7	1395.1	1390.8	1392.0	1394.5	1397.6
40°	1502.8	1497.9	1489.9	1493.0	1493.6	1493.6	1498.5	1499.1
42.5°	1624.7	1613.0	1603.8	1611.2	1612.4	1613.7	1618.6	1624.1
45°	1779.9	1762.0	1750.3	1746.0	1750.3	1749.1	1755.9	1757.1
47.5°	1957.2	1933.8	1907.3	1898.7	1896.2	1890.7	1902.4	1901.2
50°	2174.5	2137.0	2105.0	2092.6	2086.5	2083.4	2086.5	2086.5
52.5°	2449.7	2412.2	2368.5	2354.3	2349.4	2356.1	2346.3	2356.8
55°	2828.4	2767.4	2707.7	2688.6	2685.5	2682.4	2683.7	2688.0
57.5°	3254.4	3146.0	3066.0	3019.2	2989.0	2974.3	2958.3	2955.8
60°	3665.7	3468.6	3316.6	3213.1	3139.9	3084.5	3056.2	3046.3
62.5°	3863.9	3575.8	3339.4	3163.3	3054.3	2963.8	2913.9	2901.0
63°	3869.4	3562.2	3311.7	3125.7	2998.9	2917.6	2864.7	2851.1
65°	3766.6	3416.9	3123.3	2918.9	2784.6	2699.7	2634.4	2620.3
67.5°	3392.3	3053.1	2752.6	2545.2	2399.9	2331.5	2259.5	2257.6
70°	2784.0	2481.1	2228.1	2037.2	1915.9	1848.2	1775.0	1776.8
72.5°	2035.4	1766.3	1592.1	1443.1	1315.1	1251.0	1182.1	1188.8
75°	1225.2	985.1	828.1	698.8	567.0	488.2	435.3	405.1
77.5°	523.9	358.3	257.3	204.4	172.4	159.5	153.3	151.5
80°	182.2	161.3	152.1	149.6	147.8	145.3	141.0	136.7
82.5°	147.8	147.8	142.8	142.2	136.7	132.4	121.3	115.7
85°	131.1	128.7	124.4	122.5	121.3	112.1	97.9	90.5
87.5°	86.8	80.7	77.0	78.8	76.3	68.3	41.9	33.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)