

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: P143639

Luminaire Tested: **LDRL-5MQ-E03-E-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P143639  
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-7030  
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE  
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM  
Light Source: (63) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8515.2 lumens  
Efficiency: N/A  
Efficacy: 113.2 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

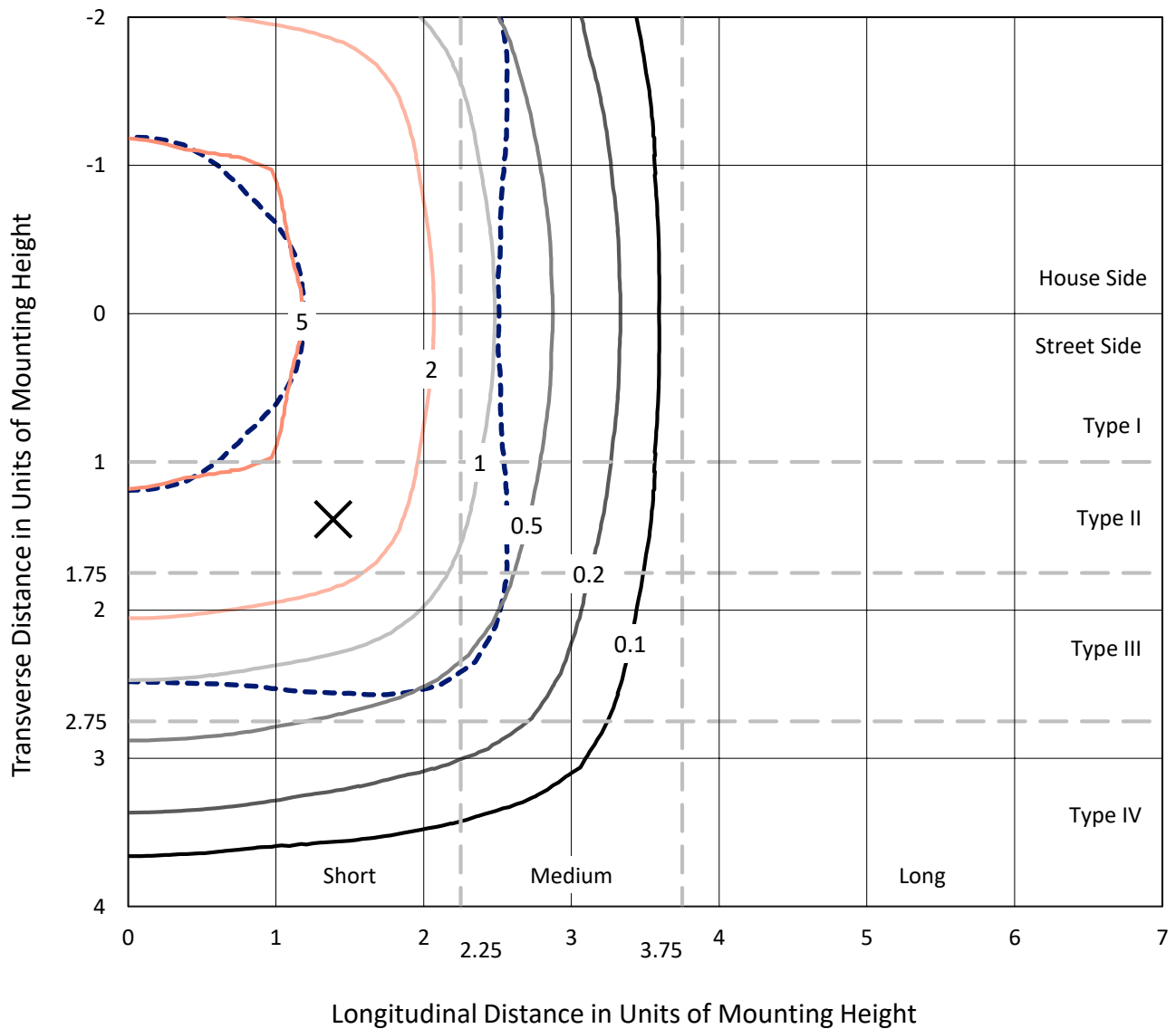
Input Watts (W): 75.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

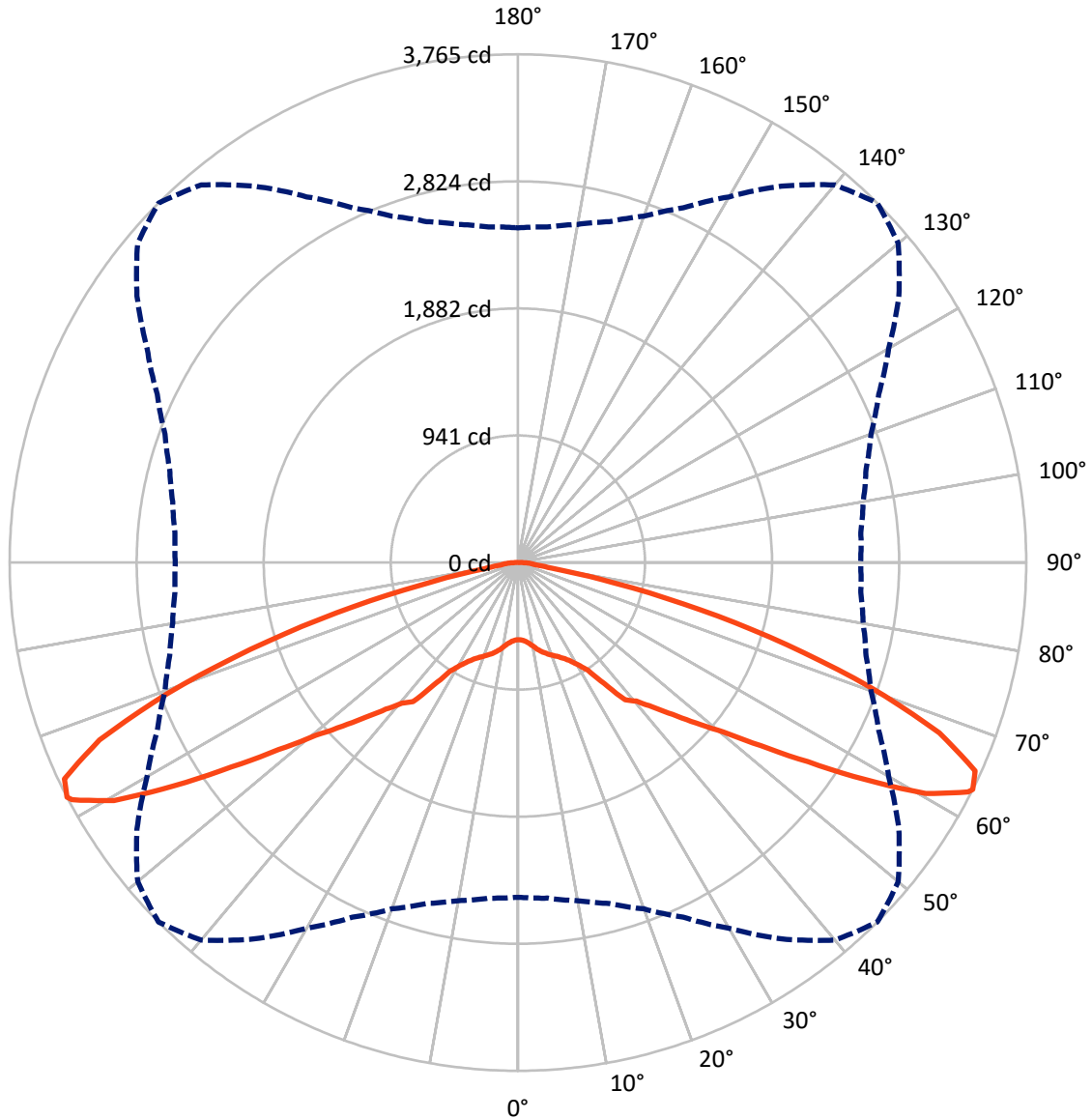


Based on 10 foot mounting height. Maximum calculated value = 6.3 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



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

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4257.6	0.0	4257.6
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	4257.6	0.0	4257.6
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	8515.2	0.0	8515.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.5	0.7
10°-20°	196.6	2.3
20°-30°	375.5	4.4
30°-40°	715.3	8.4
40°-50°	1231.8	14.5
50°-60°	2201.1	25.8
60°-70°	2681.0	31.5
70°-80°	955.0	11.2
80°-90°	101.3	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°	8515.2	100.0
0°-180°	8515.2	100.0



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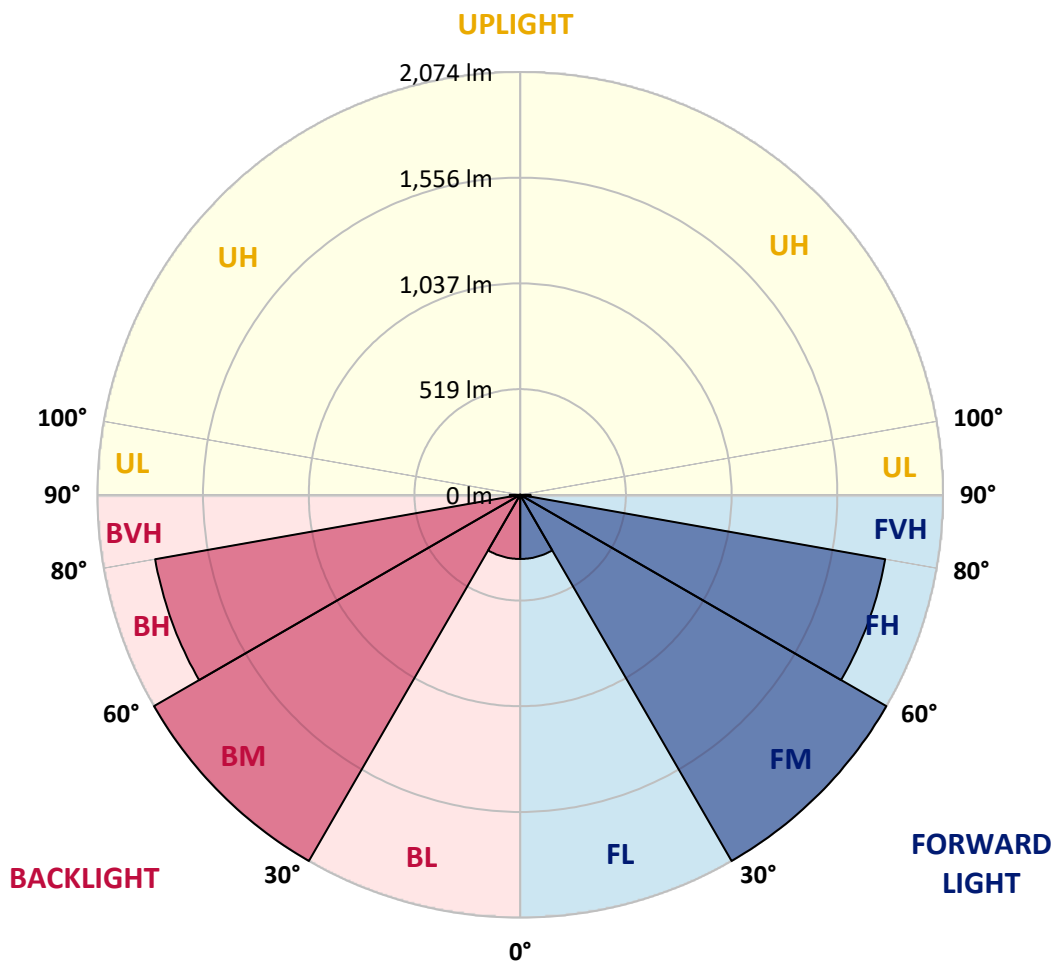
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	314.8	3.7			
FM (30°-60°)	2074.1	24.4			
FH (60°-80°)	1818.0	21.4			G2/5000
FVH (80°-90°)	50.6	0.6			G1/100
BL (0°-30°)	314.8	3.7	B1/500		
BM (30°-60°)	2074.1	24.4	B2/2500		
BH (60°-80°)	1818.0	21.4	B3/2500		G2/5000
BVH (80°-90°)	50.6	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6
2.5°	576.0	575.4	576.0	574.9	574.9	574.3	574.3	574.3	573.2	574.3	573.2
5°	588.0	587.5	588.0	586.9	586.9	585.8	585.8	585.8	584.7	585.8	585.3
7.5°	608.8	609.9	608.8	607.7	607.7	606.6	606.1	606.1	605.6	605.0	606.1
10°	637.9	639.0	637.3	636.2	635.7	635.1	634.0	633.5	633.5	631.3	631.9
12.5°	668.6	668.6	666.9	666.4	666.4	665.3	663.1	662.5	662.5	661.4	660.4
15°	696.0	696.0	694.9	692.7	693.2	691.6	689.9	688.8	688.8	687.8	686.7
17.5°	721.2	721.2	719.5	717.3	716.2	715.7	713.5	712.4	712.4	711.3	710.2
20°	746.4	747.5	744.7	742.6	740.4	738.2	736.0	734.9	733.2	733.8	733.2
22.5°	776.5	777.1	772.7	770.0	765.6	762.8	759.5	758.4	756.3	756.3	757.4
25°	814.9	814.3	809.4	804.5	799.5	794.1	789.1	788.0	785.8	785.3	785.8
27.5°	865.3	864.8	858.7	852.2	845.6	837.4	831.3	828.0	826.4	824.2	825.3
30°	927.2	928.3	921.2	913.5	905.3	895.4	887.8	883.4	880.1	877.9	879.0
32.5°	1053.3	1052.2	1041.2	1024.8	1007.2	984.2	965.6	957.9	951.9	949.7	951.3
35°	1179.9	1178.8	1174.4	1169.5	1165.1	1150.3	1136.6	1120.7	1107.5	1099.3	1101.5
37.5°	1239.6	1239.6	1236.3	1235.2	1235.2	1244.0	1254.9	1274.7	1290.0	1291.1	1286.2
40°	1332.8	1332.8	1327.3	1324.5	1322.9	1325.6	1332.8	1339.9	1347.6	1349.2	1343.7
42.5°	1442.4	1437.4	1433.6	1428.1	1427.6	1430.3	1438.0	1446.7	1454.4	1461.0	1449.5
45°	1560.7	1556.3	1552.5	1549.2	1551.4	1558.5	1569.0	1584.3	1595.3	1605.1	1595.8
47.5°	1692.8	1683.5	1687.3	1684.0	1689.5	1703.8	1722.4	1745.4	1756.9	1774.5	1759.7
50°	1857.2	1859.4	1857.2	1857.2	1863.8	1882.4	1909.8	1941.1	1960.8	1970.6	1961.9
52.5°	2101.6	2095.0	2080.2	2084.6	2093.4	2123.0	2158.6	2202.5	2227.7	2251.2	2223.8
55°	2369.0	2370.1	2368.0	2374.0	2391.0	2421.1	2466.0	2532.4	2564.1	2605.2	2572.4
57.5°	2590.4	2598.1	2611.3	2629.4	2666.1	2716.5	2804.7	2906.1	2990.5	3034.9	2983.4
60°	2662.2	2669.9	2701.7	2752.1	2821.2	2924.2	3067.2	3240.9	3392.7	3471.6	3404.2
62.5°	2524.1	2538.4	2585.5	2655.1	2769.1	2930.2	3142.8	3399.9	3633.9	3741.8	3660.2
63°	2479.2	2495.1	2543.3	2614.0	2730.2	2898.4	3128.0	3403.1	3650.8	3764.8	3676.6
65°	2279.7	2290.1	2341.1	2421.7	2551.0	2726.4	2981.7	3307.2	3589.5	3721.5	3627.8
67.5°	1965.7	1979.4	2026.0	2095.6	2221.1	2406.9	2657.8	2982.3	3260.1	3365.9	3285.9
70°	1576.6	1592.0	1630.3	1695.0	1793.6	1965.7	2180.5	2483.6	2692.4	2775.1	2689.6
72.5°	1108.1	1114.7	1142.6	1210.6	1284.5	1421.5	1592.0	1827.6	2028.2	2082.4	2000.2
75°	469.1	469.6	506.4	549.7	642.3	778.7	927.2	1130.0	1310.3	1394.7	1290.6
77.5°	150.2	151.8	162.2	178.1	208.8	269.6	379.2	490.5	656.0	736.0	638.4
80°	125.5	127.7	132.1	135.4	137.6	140.8	153.4	171.0	215.4	250.4	202.2
82.5°	108.0	111.8	121.7	125.5	127.7	128.8	130.4	129.9	127.1	126.0	126.6
85°	82.2	91.5	102.5	111.2	112.3	112.9	116.2	117.3	108.5	99.7	108.5
87.5°	35.6	46.0	70.7	78.4	76.7	71.2	76.2	80.6	73.4	53.7	71.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	571.6	571.6	571.6	571.6	571.6	571.6	571.6	571.6
2.5°	573.8	574.9	574.9	574.9	574.9	575.4	576.0	575.4
5°	585.8	586.9	586.4	586.9	586.9	587.5	588.0	587.5
7.5°	606.6	606.6	606.6	607.7	607.7	608.8	608.8	608.8
10°	632.4	631.9	631.9	633.0	634.0	634.6	635.7	635.1
12.5°	660.4	659.3	659.8	660.9	662.0	662.5	663.6	663.1
15°	685.6	685.0	685.0	686.7	687.2	687.8	689.9	689.9
17.5°	709.7	709.7	709.7	711.9	712.4	714.6	716.2	716.2
20°	733.8	733.8	733.8	736.0	737.6	740.9	744.2	743.6
22.5°	758.4	759.0	760.1	762.3	766.1	771.1	773.8	773.8
25°	789.1	791.3	793.5	796.8	802.3	808.9	813.2	814.9
27.5°	828.6	833.5	839.0	843.9	850.0	858.2	864.2	865.3
30°	882.3	889.4	898.2	904.8	912.4	921.8	928.9	932.7
32.5°	958.5	976.0	987.5	1011.1	1025.3	1041.2	1054.4	1059.9
35°	1115.2	1132.7	1148.1	1164.0	1167.3	1172.7	1179.9	1181.5
37.5°	1270.3	1256.0	1242.3	1241.8	1238.0	1239.1	1241.2	1244.0
40°	1337.7	1333.3	1326.2	1328.9	1329.5	1329.5	1333.9	1334.4
42.5°	1446.2	1435.8	1427.6	1434.1	1435.2	1436.3	1440.7	1445.7
45°	1584.3	1568.4	1558.0	1554.2	1558.0	1556.9	1562.9	1564.0
47.5°	1742.1	1721.3	1697.7	1690.1	1687.9	1682.9	1693.4	1692.3
50°	1935.6	1902.1	1873.6	1862.7	1857.2	1854.5	1857.2	1857.2
52.5°	2180.5	2147.1	2108.2	2095.6	2091.2	2097.2	2088.5	2097.8
55°	2517.6	2463.3	2410.1	2393.2	2390.4	2387.7	2388.8	2392.6
57.5°	2896.8	2800.3	2729.1	2687.4	2660.6	2647.4	2633.2	2631.0
60°	3262.9	3087.5	2952.1	2860.1	2794.9	2745.5	2720.3	2711.6
62.5°	3439.3	3182.8	2972.4	2815.7	2718.7	2638.1	2593.7	2582.2
63°	3444.2	3170.8	2947.7	2782.2	2669.4	2597.0	2549.9	2537.8
65°	3352.7	3041.5	2780.1	2598.1	2478.7	2403.0	2344.9	2332.3
67.5°	3019.5	2717.6	2450.2	2265.5	2136.1	2075.3	2011.2	2009.6
70°	2478.1	2208.5	1983.2	1813.4	1705.4	1645.1	1579.9	1581.6
72.5°	1811.7	1572.2	1417.2	1284.5	1170.5	1113.6	1052.2	1058.2
75°	1090.5	876.8	737.1	622.0	504.7	434.6	387.4	360.6
77.5°	466.4	318.9	229.1	181.9	153.4	141.9	136.5	134.8
80°	162.2	143.6	135.4	133.2	131.5	129.3	125.5	121.7
82.5°	131.5	131.5	127.1	126.6	121.7	117.8	108.0	103.0
85°	116.7	114.5	110.7	109.1	108.0	99.7	87.1	80.6
87.5°	77.3	71.8	68.5	70.1	68.0	60.8	37.3	29.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)