

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: P143939

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P143939  
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: LDRL-5WQ-E03-E-7030  
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE  
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE  
Light Source: (63) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8399.8 lumens  
Efficiency: N/A  
Efficacy: 111.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-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

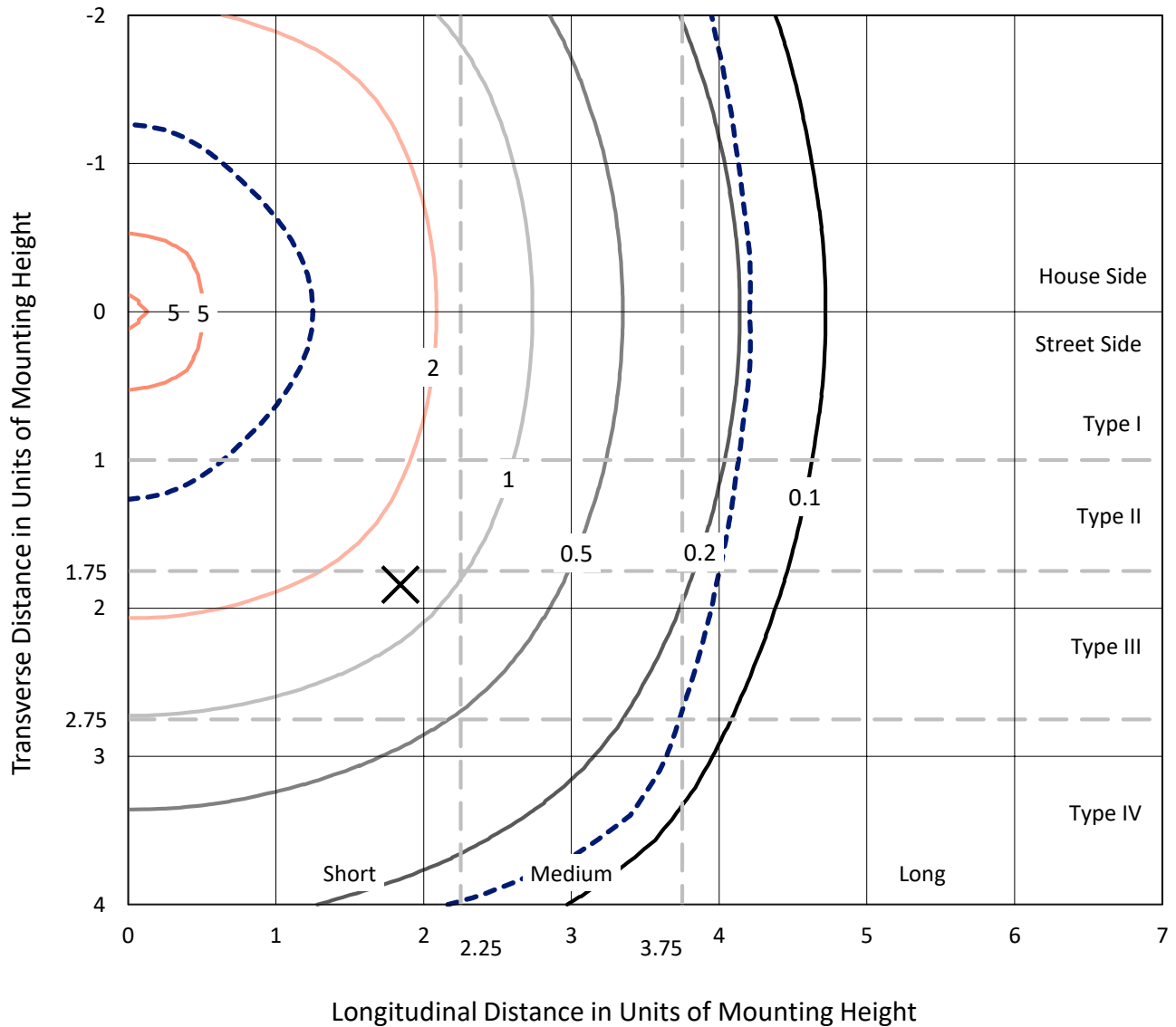


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### Iso-Footcandle Lines of Horizontal Illumination

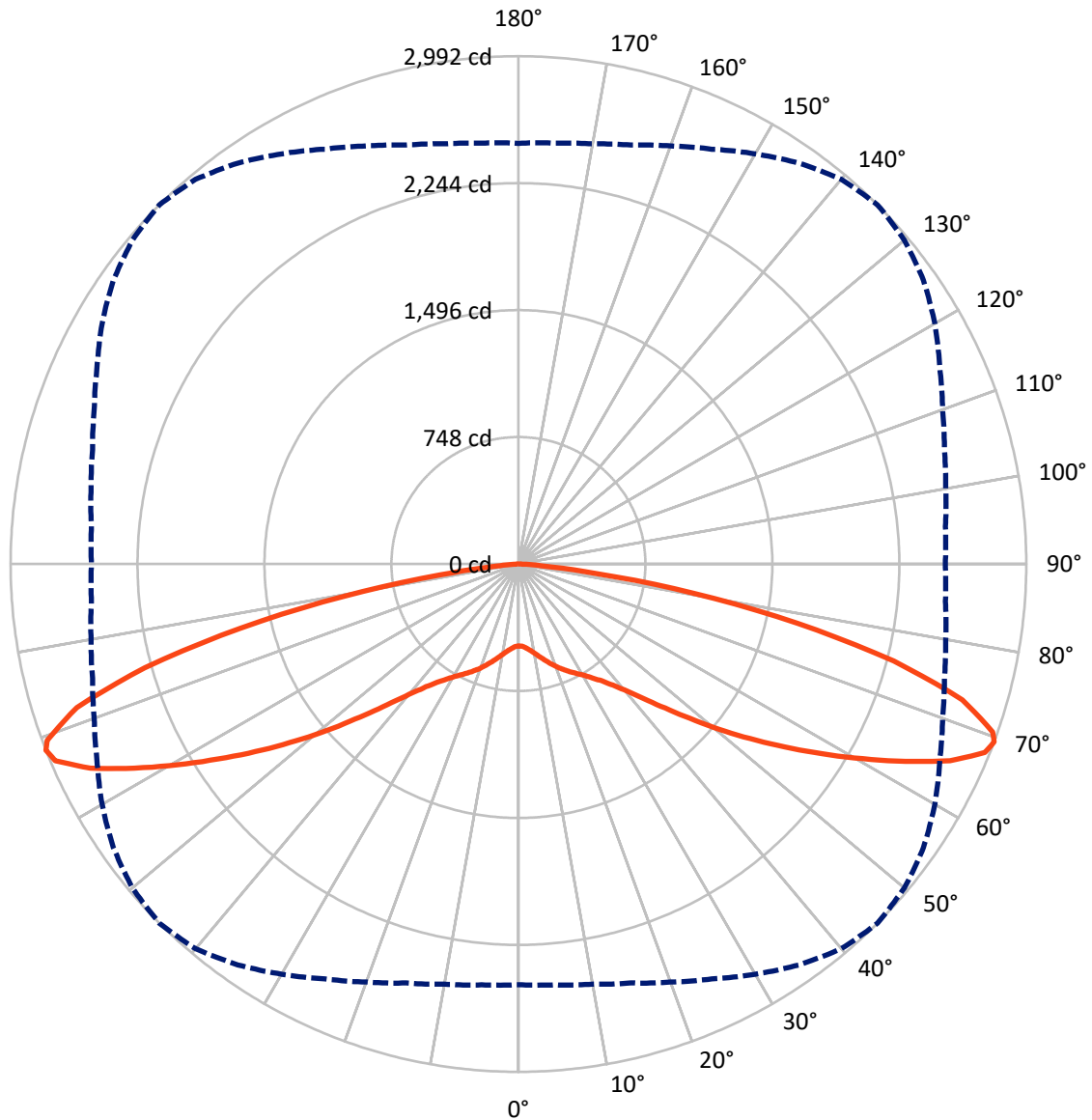
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.4 fc  
 Type V - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



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

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4199.9	0.0	4199.9
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	4199.9	0.0	4199.9
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	8399.8	0.0	8399.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.7	0.6
10°-20°	167.8	2.0
20°-30°	323.6	3.9
30°-40°	530.2	6.3
40°-50°	921.9	11.0
50°-60°	1637.7	19.5
60°-70°	2542.6	30.3
70°-80°	2025.8	24.1
80°-90°	201.5	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°	8399.8	100.0
0°-180°	8399.8	100.0



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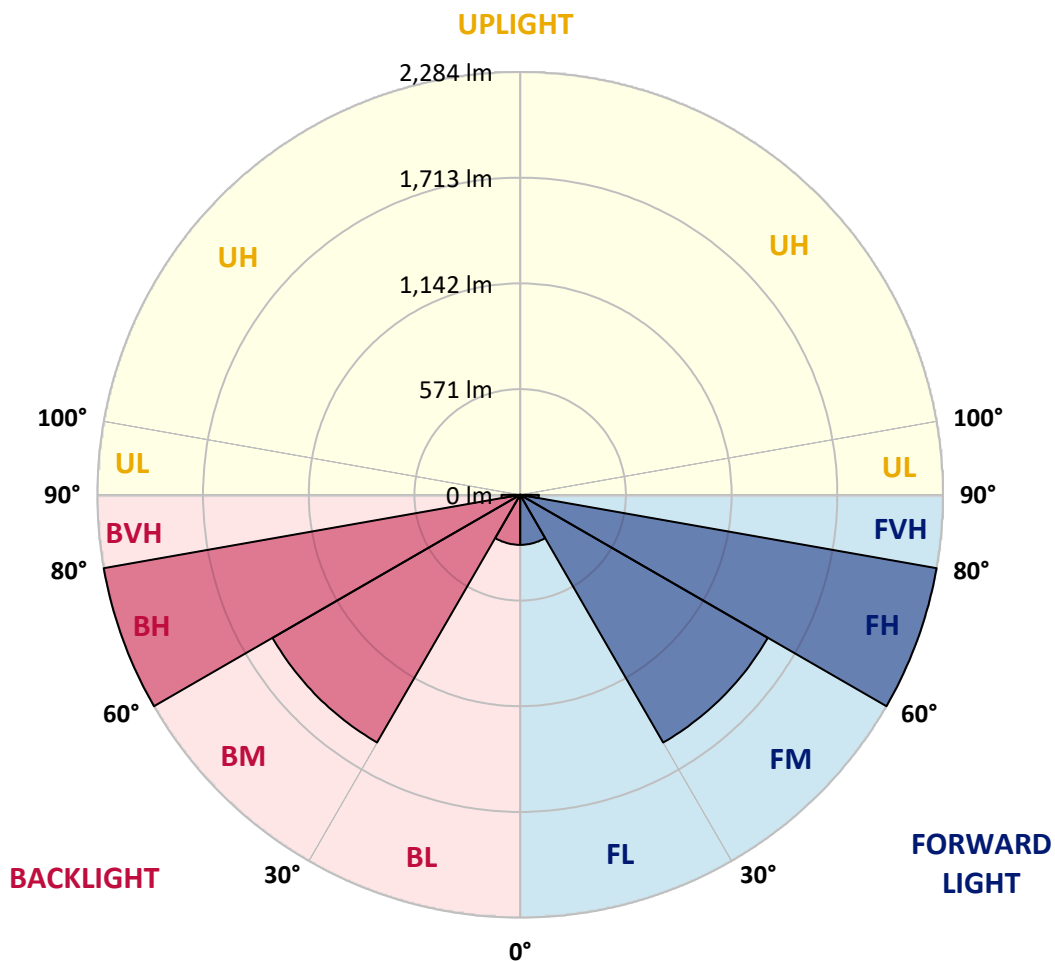
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	270.1	3.2			
FM	(30°-60°)	1544.9	18.4			
FH	(60°-80°)	2284.2	27.2			G2/5000
FVH	(80°-90°)	100.7	1.2			G2/225
BL	(0°-30°)	270.1	3.2	B1/500		
BM	(30°-60°)	1544.9	18.4	B2/2500		
BH	(60°-80°)	2284.2	27.2	B3/2500		G2/5000
BVH	(80°-90°)	100.7	1.2			G2/225
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°	482.8	482.8	482.8	482.8	482.8	482.8	482.8	482.8	482.8	482.8	482.8
2.5°	486.6	486.6	486.6	486.1	486.1	485.5	486.1	485.5	485.5	485.5	485.5
5°	499.2	498.1	498.1	497.6	498.7	498.7	497.6	498.1	497.6	498.1	498.1
7.5°	515.1	515.1	515.1	514.6	515.7	515.1	514.6	515.1	515.1	514.6	514.6
10°	534.9	535.4	534.9	534.9	536.5	536.0	536.5	536.5	537.0	536.5	536.5
12.5°	557.9	557.9	558.4	559.0	559.5	560.1	561.7	561.2	562.3	561.2	561.2
15°	584.7	585.8	584.7	584.7	586.4	587.5	588.0	588.0	589.1	588.6	587.5
17.5°	613.2	613.8	613.2	612.7	614.3	616.0	616.5	616.5	618.2	617.1	617.1
20°	642.3	642.8	641.7	641.2	643.4	643.4	644.5	645.0	646.7	647.2	645.6
22.5°	669.1	669.7	669.1	668.6	670.8	670.8	672.4	673.0	675.1	674.6	674.6
25°	695.4	695.4	694.9	694.9	697.1	697.6	699.3	700.4	702.5	702.5	702.5
27.5°	719.5	720.1	719.0	718.4	722.8	724.5	725.6	727.8	729.4	730.5	729.9
30°	746.9	746.9	746.4	748.0	750.8	753.0	755.2	758.4	761.7	760.6	760.6
32.5°	779.3	780.4	779.8	782.0	785.3	788.6	791.3	795.2	796.8	799.5	797.4
35°	822.6	824.8	823.7	825.9	828.6	830.8	836.8	840.6	843.4	845.0	843.9
37.5°	876.8	875.7	877.9	878.5	883.9	886.7	893.8	899.3	903.7	905.3	904.2
40°	944.2	942.6	945.3	948.1	955.2	957.9	966.1	974.4	980.4	982.6	981.5
42.5°	1024.8	1027.0	1031.4	1035.2	1045.1	1052.7	1062.0	1074.1	1080.7	1083.4	1079.6
45°	1130.5	1126.7	1134.9	1144.8	1150.3	1167.3	1182.6	1195.2	1206.2	1210.6	1206.2
47.5°	1251.1	1250.6	1260.4	1272.5	1286.7	1302.6	1320.7	1337.1	1356.3	1357.4	1351.9
50°	1384.3	1395.2	1400.7	1412.8	1439.1	1458.8	1481.8	1506.5	1524.0	1529.5	1519.6
52.5°	1544.8	1553.1	1556.3	1576.6	1600.7	1624.9	1657.2	1686.8	1707.1	1709.2	1704.3
55°	1719.1	1725.7	1731.7	1756.4	1782.7	1804.0	1845.2	1874.2	1894.5	1902.1	1898.9
57.5°	1899.4	1905.4	1913.1	1940.0	1966.8	1996.9	2035.9	2069.8	2093.4	2107.6	2103.8
60°	2099.4	2099.4	2117.0	2143.8	2165.7	2201.4	2241.9	2281.4	2307.1	2329.6	2323.6
62.5°	2309.9	2315.9	2332.9	2354.8	2377.8	2410.7	2456.7	2503.9	2543.3	2560.3	2559.8
65°	2469.3	2480.3	2502.8	2528.0	2566.3	2605.2	2663.3	2722.0	2769.6	2794.3	2794.3
67.5°	2515.9	2523.0	2551.0	2589.3	2644.7	2706.6	2785.5	2867.2	2932.4	2964.7	2944.5
69°	2478.7	2489.1	2513.7	2555.4	2621.1	2696.8	2790.5	2883.1	2958.7	2992.1	2968.6
70°	2435.4	2446.9	2471.5	2512.6	2580.6	2661.1	2754.8	2854.6	2935.7	2964.2	2937.3
72.5°	2258.9	2273.1	2290.7	2326.3	2387.7	2463.3	2547.7	2635.4	2713.2	2735.7	2702.2
75°	1958.0	1960.8	1969.5	1995.9	2017.8	2071.5	2143.3	2212.9	2271.5	2284.7	2249.0
77.5°	1385.9	1371.1	1356.3	1378.8	1396.3	1465.4	1543.2	1600.2	1661.6	1680.2	1644.0
80°	607.7	602.3	623.1	652.7	729.9	776.0	852.2	933.8	985.9	1046.7	981.5
82.5°	120.0	126.6	146.3	180.8	223.0	280.6	330.5	386.9	437.9	460.9	437.3
85°	48.8	53.2	60.3	67.4	72.3	81.1	95.4	118.4	130.4	132.1	125.5
87.5°	20.3	23.6	31.8	37.8	38.4	36.7	37.8	38.9	31.8	25.8	32.3
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°	482.8	482.8	482.8	482.8	482.8	482.8	482.8	482.8
2.5°	485.5	486.1	485.5	486.1	485.5	485.5	486.1	485.5
5°	497.6	498.1	497.6	497.0	496.5	497.0	497.0	497.0
7.5°	514.6	514.0	513.5	513.5	512.9	512.4	513.5	513.5
10°	535.4	534.9	533.8	533.8	533.2	533.2	533.2	533.2
12.5°	560.6	559.0	558.4	556.8	556.2	555.7	555.7	556.2
15°	586.9	585.3	584.7	582.0	582.0	581.4	581.4	581.4
17.5°	614.9	613.2	611.0	611.0	609.4	608.3	608.8	607.7
20°	643.4	641.2	640.1	639.5	637.3	637.3	637.3	636.8
22.5°	671.3	669.7	668.0	665.8	663.6	663.1	663.1	662.5
25°	699.8	697.1	693.8	691.6	689.4	687.8	687.8	687.8
27.5°	728.3	725.0	720.1	717.3	714.1	712.4	712.4	711.9
30°	758.4	754.6	750.2	746.4	742.0	740.4	739.8	738.7
32.5°	794.6	790.8	786.4	780.9	776.5	773.8	773.8	772.1
35°	840.6	836.3	833.0	825.9	820.4	816.0	816.5	817.6
37.5°	900.9	895.4	892.7	883.9	876.8	872.4	872.4	871.9
40°	977.7	972.2	966.1	957.9	949.2	943.1	941.5	941.5
42.5°	1075.2	1070.3	1062.0	1050.5	1040.1	1033.5	1028.1	1028.6
45°	1197.4	1191.4	1179.9	1165.6	1153.0	1143.7	1136.0	1136.0
47.5°	1345.9	1333.3	1317.4	1304.8	1283.4	1269.2	1263.7	1262.6
50°	1515.2	1491.7	1472.0	1453.9	1431.4	1416.6	1408.4	1406.2
52.5°	1692.8	1668.1	1643.5	1619.9	1592.5	1577.2	1564.0	1562.9
55°	1885.7	1854.5	1823.2	1800.2	1767.9	1752.0	1738.8	1731.2
57.5°	2082.4	2047.4	2024.9	1992.0	1958.0	1946.5	1933.9	1924.6
60°	2303.8	2265.5	2235.9	2201.4	2179.4	2154.8	2142.7	2135.6
62.5°	2530.2	2494.5	2456.7	2423.8	2393.2	2376.2	2359.7	2351.5
65°	2760.3	2701.7	2656.8	2611.3	2575.1	2544.4	2518.7	2515.4
67.5°	2901.7	2827.7	2752.7	2686.3	2633.2	2589.9	2563.6	2554.3
69°	2913.2	2832.7	2739.0	2659.5	2598.1	2556.5	2525.2	2515.4
70°	2881.4	2800.3	2701.7	2616.2	2552.6	2507.1	2481.4	2464.9
72.5°	2649.1	2577.8	2483.0	2398.6	2341.1	2287.9	2262.2	2255.6
75°	2185.5	2109.8	2022.7	1982.2	1942.1	1908.7	1891.2	1889.5
77.5°	1552.0	1474.7	1408.4	1355.2	1311.9	1290.6	1295.5	1277.4
80°	888.3	787.5	707.5	660.4	596.2	557.9	514.6	545.8
82.5°	382.0	308.5	235.1	191.3	145.8	115.6	95.4	88.8
85°	106.9	87.1	72.9	66.9	60.3	53.7	45.5	42.2
87.5°	36.2	34.5	30.7	30.7	27.9	23.6	16.4	14.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)