

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: INVUE

Report Number: P140616

Luminaire Tested: **ECM-F04-LED-E1-5XQ-7050**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P140616
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33688)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-F04-LED-E1-5XQ-7050
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE
Light Source: (28) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10102.3 lumens
Efficiency: N/A
Efficacy: 98.8 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type V - Short - Non-Cutoff
BUG Rating: B4 - U0 - G3

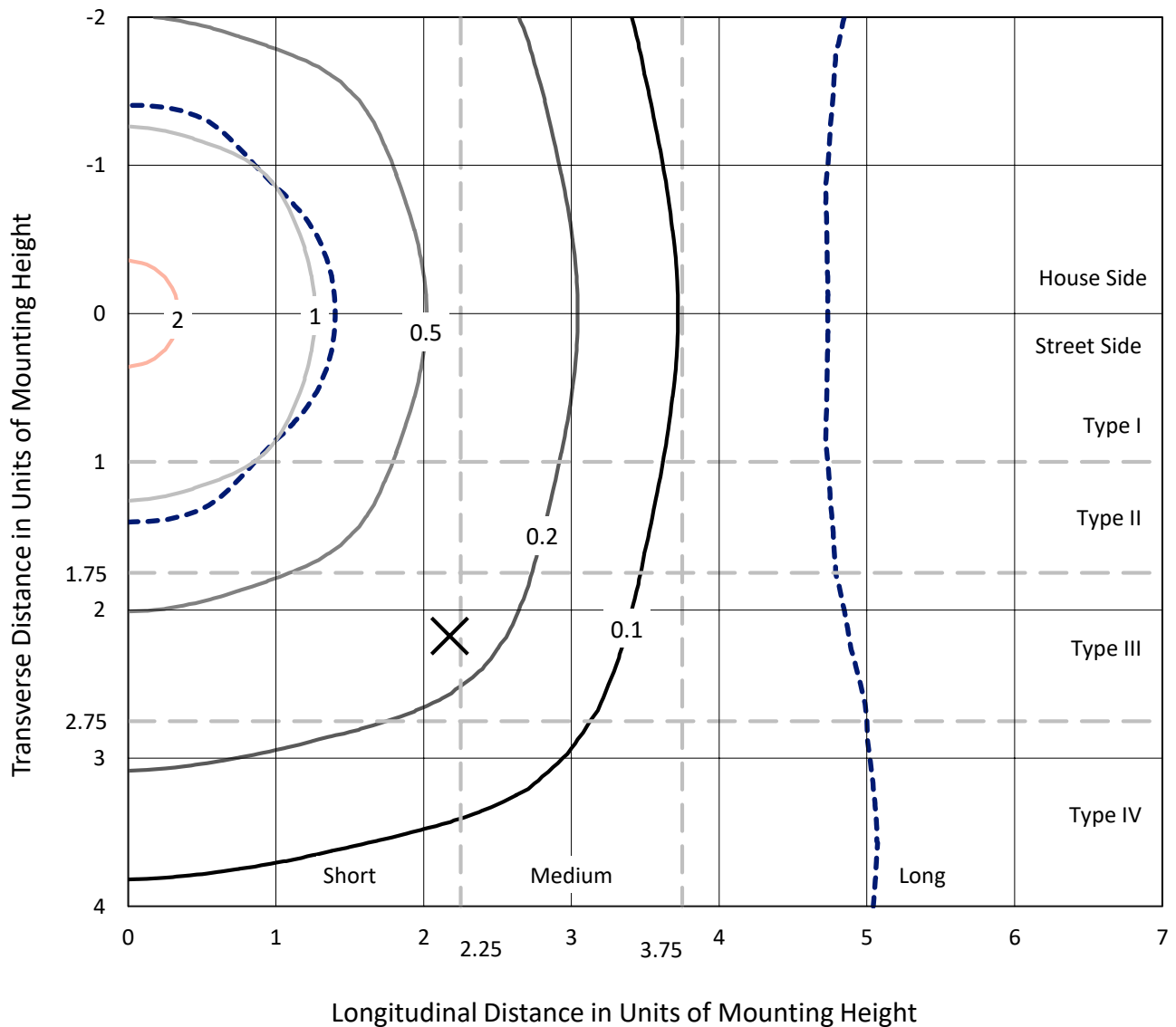
Input Watts (W): 102.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

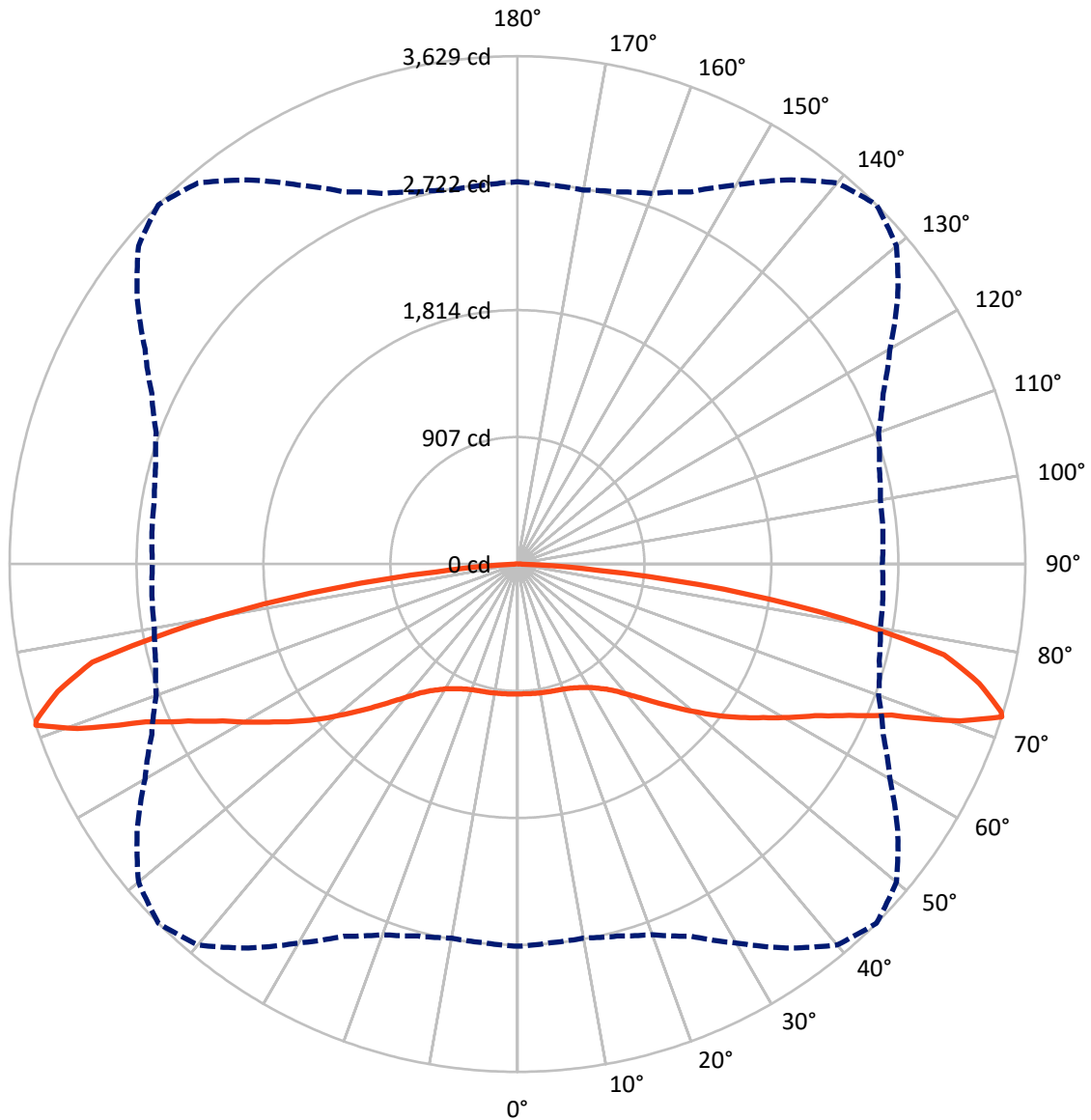
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2.3 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5051.2	0.0	5051.2
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	5051.2	0.0	5051.2
	% Fixture	50.0	0.0	50.0
Total	Lumens	10102.3	0.0	10102.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.1	0.9
10°-20°	268.0	2.7
20°-30°	453.5	4.5
30°-40°	689.9	6.8
40°-50°	1092.3	10.8
50°-60°	1673.9	16.6
60°-70°	2457.5	24.3
70°-80°	2787.7	27.6
80°-90°	590.5	5.8
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°	10102.3	100.0
0°-180°	10102.3	100.0



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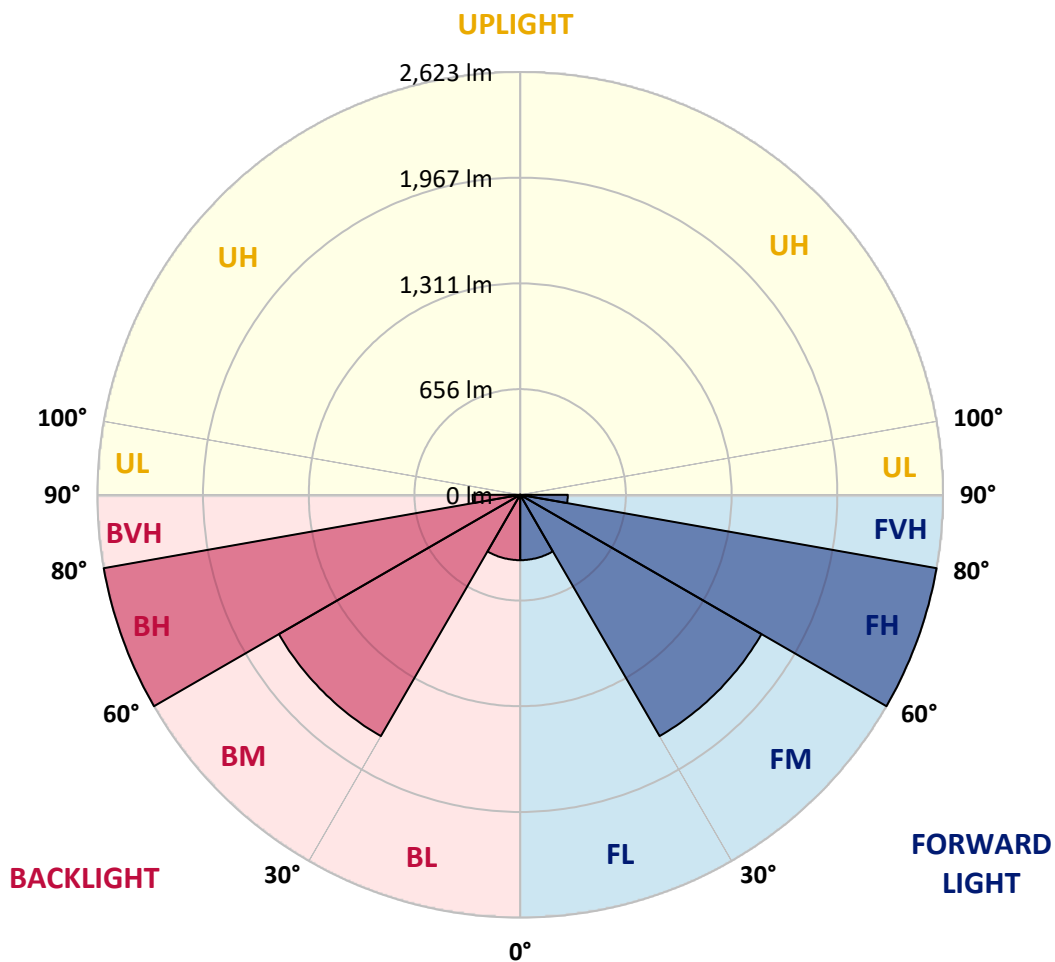
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	405.3	4.0			
FM	(30°-60°)	1728.1	17.1			
FH	(60°-80°)	2622.6	26.0			G2/5000
FVH	(80°-90°)	295.3	2.9			G3/500
BL	(0°-30°)	405.3	4.0	B1/500		
BM	(30°-60°)	1728.1	17.1	B2/2500		
BH	(60°-80°)	2622.6	26.0	B4/5000		G2/5000
BVH	(80°-90°)	295.3	2.9			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	928.4	928.4	928.4	928.4	928.4	928.4	928.4	928.4	928.4	928.4	928.4
2.5°	931.8	932.9	931.8	930.7	930.7	929.5	929.5	929.5	930.7	928.4	928.4
5°	934.0	935.2	934.0	931.8	931.8	931.8	930.7	930.7	931.8	930.7	930.7
7.5°	937.4	938.6	937.4	935.2	935.2	934.0	932.9	932.9	935.2	932.9	932.9
10°	940.8	943.1	940.8	938.6	938.6	937.4	936.3	936.3	937.4	935.2	935.2
12.5°	946.5	946.5	945.3	944.2	944.2	943.1	941.9	940.8	939.7	938.6	937.4
15°	951.0	952.1	949.9	948.7	947.6	946.5	945.3	945.3	943.1	941.9	941.9
17.5°	956.6	957.8	955.5	953.2	953.2	951.0	949.9	949.9	947.6	946.5	945.3
20°	962.3	963.4	961.1	960.0	958.9	957.8	955.5	956.6	955.5	953.2	953.2
22.5°	969.1	969.1	967.9	966.8	966.8	965.7	964.5	966.8	964.5	964.5	963.4
25°	975.8	977.0	975.8	975.8	977.0	977.0	978.1	980.3	980.3	979.2	978.1
27.5°	990.5	990.5	990.5	990.5	993.9	993.9	995.0	998.4	999.5	999.5	999.5
30°	1009.7	1010.8	1009.7	1009.7	1013.1	1014.2	1017.6	1021.0	1023.3	1023.3	1024.4
32.5°	1037.9	1036.8	1037.9	1040.2	1042.5	1044.7	1048.1	1053.8	1057.2	1058.3	1058.3
35°	1074.1	1075.2	1074.1	1075.2	1079.7	1083.1	1086.5	1093.3	1095.6	1097.8	1098.9
37.5°	1127.2	1130.6	1128.3	1128.3	1134.0	1136.2	1140.7	1146.4	1150.9	1153.2	1152.0
40°	1204.0	1202.8	1200.6	1201.7	1202.8	1205.1	1209.6	1220.9	1226.6	1226.6	1226.6
42.5°	1292.1	1293.2	1289.8	1288.7	1289.8	1292.1	1298.8	1307.9	1316.9	1314.7	1315.8
45°	1392.6	1384.7	1386.9	1384.7	1385.8	1393.7	1405.0	1409.5	1418.6	1418.6	1420.8
47.5°	1490.9	1487.5	1486.3	1485.2	1488.6	1496.5	1510.1	1524.7	1532.6	1537.2	1540.5
50°	1601.5	1595.9	1594.8	1595.9	1597.0	1599.3	1625.3	1639.9	1659.1	1662.5	1661.4
52.5°	1708.8	1704.3	1702.1	1702.1	1706.6	1714.5	1741.6	1765.3	1786.8	1800.3	1794.7
55°	1825.2	1825.2	1818.4	1816.1	1822.9	1830.8	1868.1	1895.2	1925.7	1935.9	1920.0
57.5°	1944.9	1943.8	1933.6	1930.2	1935.9	1956.2	1987.8	2029.6	2062.3	2071.4	2062.3
60°	2062.3	2062.3	2056.7	2054.4	2060.1	2084.9	2123.3	2169.6	2209.2	2226.1	2211.4
62.5°	2196.7	2196.7	2182.1	2188.8	2196.7	2215.9	2264.5	2324.4	2377.5	2386.5	2372.9
65°	2349.2	2356.0	2344.7	2342.4	2352.6	2388.8	2444.1	2519.8	2581.9	2605.6	2585.3
67.5°	2581.9	2571.7	2558.2	2552.5	2568.3	2602.2	2670.0	2769.4	2860.9	2883.4	2859.7
70°	2823.6	2813.4	2808.9	2827.0	2860.9	2932.0	3035.9	3174.8	3302.5	3356.7	3307.0
72°	2731.0	2717.4	2714.0	2752.4	2817.9	2934.3	3126.3	3349.9	3553.2	3628.9	3535.1
72.5°	2683.5	2672.2	2671.1	2707.3	2778.4	2895.9	3084.5	3314.9	3532.9	3615.3	3514.8
75°	2491.5	2480.2	2491.5	2532.2	2603.3	2729.8	2921.8	3137.6	3334.1	3409.8	3311.5
77.5°	2226.1	2205.8	2215.9	2272.4	2351.5	2489.3	2692.6	2947.8	3137.6	3117.2	2971.5
80°	1776.6	1731.4	1780.0	1796.9	1887.3	1979.9	2176.4	2290.5	2356.0	2359.4	2255.5
82.5°	775.9	794.0	855.0	905.8	970.2	1077.5	1156.5	1279.6	1423.1	1489.7	1409.5
85°	50.8	63.2	100.5	119.7	166.0	202.2	290.3	422.4	509.4	582.8	491.3
87.5°	9.0	12.4	22.6	27.1	29.4	32.8	32.8	45.2	47.4	38.4	42.9
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°	928.4	928.4	928.4	928.4	928.4	928.4	928.4	928.4
2.5°	928.4	928.4	929.5	928.4	928.4	928.4	927.3	927.3
5°	929.5	929.5	930.7	930.7	929.5	929.5	929.5	929.5
7.5°	932.9	931.8	932.9	932.9	931.8	931.8	930.7	931.8
10°	934.0	934.0	935.2	935.2	934.0	934.0	934.0	934.0
12.5°	937.4	937.4	937.4	938.6	937.4	937.4	938.6	937.4
15°	940.8	939.7	939.7	939.7	939.7	940.8	940.8	941.9
17.5°	944.2	944.2	943.1	944.2	944.2	945.3	945.3	945.3
20°	951.0	949.9	947.6	949.9	949.9	949.9	949.9	951.0
22.5°	961.1	958.9	956.6	956.6	955.5	956.6	955.5	955.5
25°	975.8	972.4	969.1	967.9	966.8	965.7	964.5	965.7
27.5°	997.3	992.8	988.3	986.0	984.9	982.6	981.5	981.5
30°	1021.0	1017.6	1010.8	1008.6	1005.2	1001.8	1001.8	1000.7
32.5°	1057.2	1052.6	1044.7	1041.3	1035.7	1032.3	1031.2	1031.2
35°	1094.4	1088.8	1085.4	1080.9	1074.1	1070.7	1069.6	1069.6
37.5°	1150.9	1144.1	1139.6	1134.0	1132.8	1128.3	1128.3	1128.3
40°	1224.3	1218.7	1213.0	1208.5	1205.1	1201.7	1197.2	1197.2
42.5°	1314.7	1305.6	1302.2	1296.6	1292.1	1288.7	1286.4	1286.4
45°	1414.1	1406.1	1401.6	1393.7	1392.6	1390.3	1385.8	1385.8
47.5°	1525.9	1514.6	1505.5	1503.3	1497.6	1492.0	1489.7	1490.9
50°	1647.8	1628.6	1616.2	1616.2	1609.4	1601.5	1602.7	1601.5
52.5°	1773.2	1751.8	1735.9	1724.6	1716.7	1715.6	1716.7	1715.6
55°	1899.7	1877.1	1857.9	1845.5	1837.6	1829.7	1828.6	1828.6
57.5°	2030.7	2002.5	1972.0	1960.7	1952.8	1948.3	1948.3	1949.4
60°	2178.7	2132.4	2094.0	2079.3	2073.6	2075.9	2074.8	2075.9
62.5°	2328.9	2275.8	2230.6	2213.7	2205.8	2204.7	2213.7	2217.1
65°	2518.6	2453.1	2402.3	2370.7	2370.7	2367.3	2377.5	2372.9
67.5°	2766.0	2673.4	2611.3	2560.4	2561.6	2564.9	2579.6	2578.5
70°	3187.3	3023.5	2908.3	2821.3	2787.4	2764.9	2760.3	2760.3
72°	3317.1	3073.2	2883.4	2746.8	2676.8	2633.8	2621.4	2607.9
72.5°	3283.3	3032.5	2840.5	2698.2	2625.9	2583.0	2563.8	2546.9
75°	3069.8	2789.7	2580.8	2431.7	2351.5	2299.5	2289.4	2281.5
77.5°	2708.4	2459.9	2244.2	2089.5	2009.3	1942.6	1915.5	1913.3
80°	2088.3	1864.7	1698.7	1577.8	1505.5	1455.8	1458.1	1442.3
82.5°	1232.2	1043.6	901.3	739.8	633.6	572.6	534.2	529.7
85°	362.5	246.2	157.0	112.9	81.3	61.0	45.2	40.7
87.5°	32.8	26.0	21.5	18.1	16.9	14.7	9.0	6.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)