

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: P882301

Luminaire Tested: **NAV-SB2A-835-U-T4FT**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882301  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB2A-835-U-T4FT  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

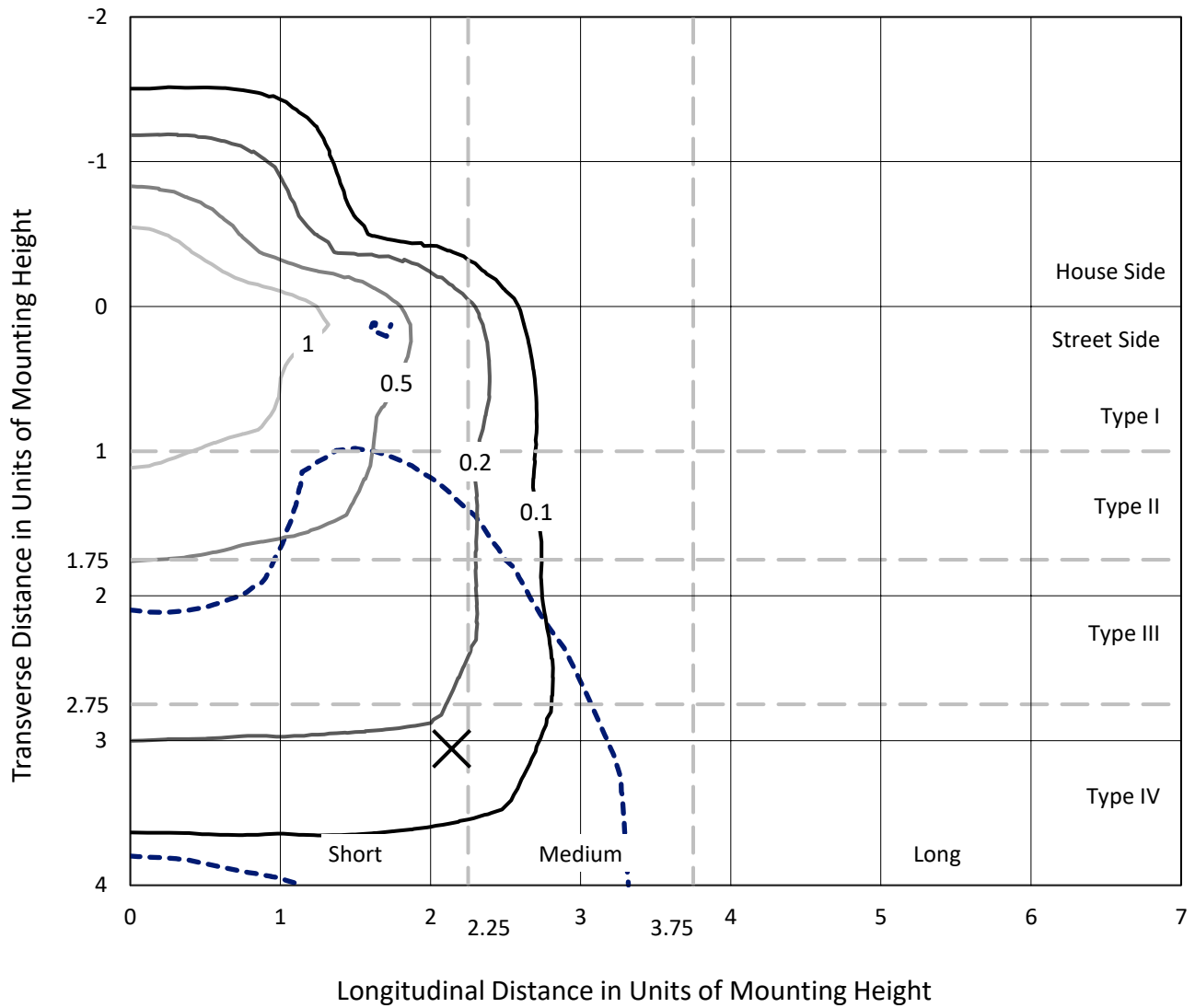
Lumens per Lamp: N/A  
Luminaire Lumens: 7624 lumens  
Efficiency: N/A  
Efficacy: 133.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 57.3  
Input Voltage (V): 120.0  
Input Current (Ain): 0.484  
Voltage Rise (V): NR  
Power Factor: 0.994  
Total Harmonic Distortion (THDi): 9.038  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

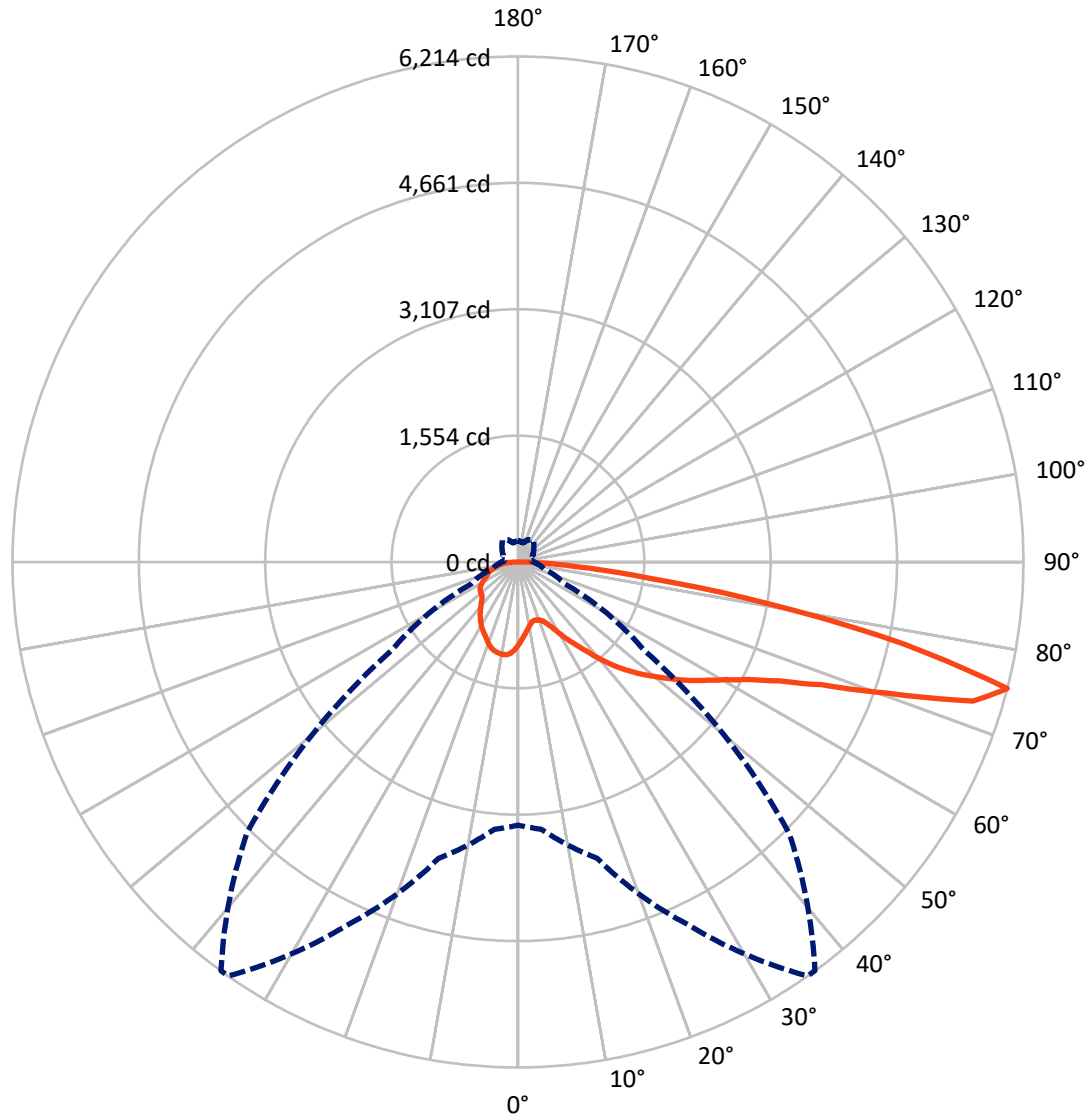
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.8 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral      - - - Horizontal Cone Through 75-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1814.3	0.0	1814.3
	% Fixture	23.8	0.0	23.8
<b>Street Side</b>	Lumens	5809.7	0.0	5809.7
	% Fixture	76.2	0.0	76.2
<b>Total</b>	Lumens	7624.0	0.0	7624.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.2	1.3
10°-20°	277.5	3.6
20°-30°	465.9	6.1
30°-40°	724.1	9.5
40°-50°	1074.8	14.1
50°-60°	1483.8	19.5
60°-70°	1800.1	23.6
70°-80°	1487.7	19.5
80°-90°	214.0	2.8
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°	7624.0	100.0
0°-180°	7624.0	100.0

**Coefficient of Utilization**



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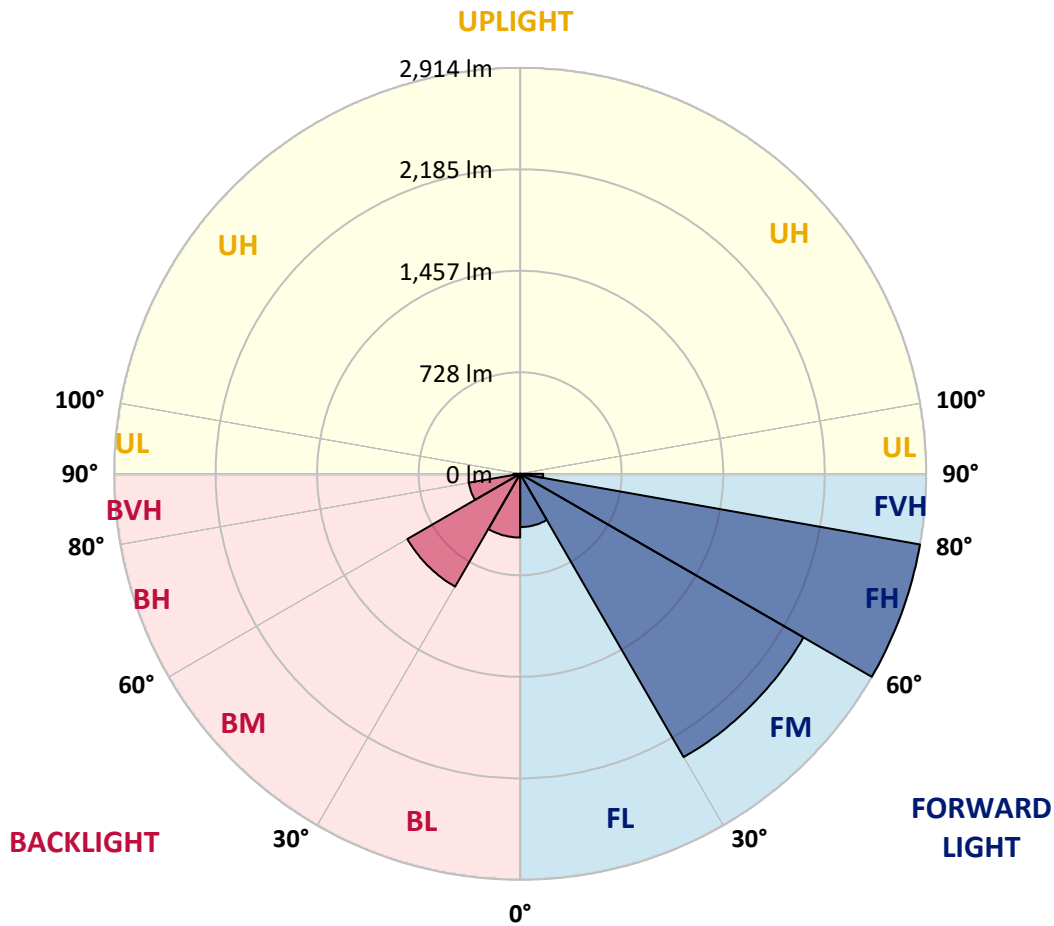
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	382.3	5.0			
FM (30°-60°)	2347.8	30.8			
FH (60°-80°)	2913.8	38.2			G2/5000
FVH (80°-90°)	165.8	2.2			G2/225
BL (0°-30°)	457.2	6.0	B1/500		
BM (30°-60°)	934.8	12.3	B1/1000		
BH (60°-80°)	374.1	4.9	B1/500		G1/500
BVH (80°-90°)	48.2	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9
2.5°	936.8	942.6	945.1	943.8	950.0	949.2	957.8	968.6	983.4	997.8	1018.8
5°	864.7	870.9	876.2	881.2	893.1	896.8	910.4	931.0	958.2	985.9	1020.5
7.5°	797.5	802.9	811.1	820.2	840.4	844.1	866.8	898.9	936.8	977.2	1025.0
10°	742.7	748.1	756.7	767.0	792.2	796.7	825.5	868.4	917.9	969.0	1030.0
12.5°	719.2	720.9	725.8	736.1	757.9	760.8	792.6	841.6	899.3	962.8	1037.4
15°	718.0	721.3	721.7	727.0	745.2	746.4	775.7	824.3	887.8	961.5	1048.5
17.5°	730.3	732.8	729.1	732.4	747.6	749.7	772.8	816.1	884.1	966.9	1067.5
20°	763.3	765.4	754.2	749.7	760.8	762.5	785.1	821.4	887.8	978.0	1093.4
22.5°	833.4	834.6	807.4	788.9	789.7	790.5	810.3	843.3	902.2	998.2	1126.4
25°	942.6	941.8	898.5	862.6	842.0	837.5	850.7	878.7	926.5	1025.0	1168.9
27.5°	1070.4	1064.2	1020.9	967.3	922.4	915.8	912.9	924.9	961.1	1060.5	1220.8
30°	1214.6	1208.8	1162.3	1092.2	1030.0	1019.2	992.0	985.9	1012.7	1108.7	1292.9
32.5°	1372.9	1369.2	1313.5	1228.6	1145.4	1133.0	1087.3	1070.8	1091.8	1181.6	1393.5
35°	1505.6	1502.3	1456.1	1368.7	1266.9	1251.7	1205.1	1186.6	1197.3	1275.2	1525.0
37.5°	1625.5	1623.9	1584.3	1515.5	1410.4	1391.8	1339.5	1333.3	1331.2	1398.4	1684.5
40°	1736.8	1732.7	1691.5	1655.2	1577.3	1560.4	1514.2	1508.9	1493.2	1550.1	1865.0
42.5°	1860.0	1849.3	1789.6	1772.7	1751.6	1737.6	1710.0	1710.8	1676.2	1721.1	2056.2
45°	1960.6	1954.4	1893.0	1883.1	1905.8	1900.0	1923.9	1930.1	1862.9	1900.4	2254.9
47.5°	2068.6	2062.8	2010.9	2003.9	2065.3	2066.9	2151.4	2153.5	2045.1	2086.7	2453.9
50°	2201.7	2193.5	2141.9	2150.6	2219.4	2225.6	2380.2	2366.2	2212.8	2275.9	2651.4
52.5°	2289.5	2294.4	2283.3	2297.3	2391.3	2397.1	2605.2	2569.3	2378.9	2462.6	2845.1
55°	2354.2	2364.1	2398.7	2430.9	2572.6	2578.4	2817.5	2762.6	2516.6	2635.7	3027.2
57.5°	2437.5	2423.4	2488.1	2550.8	2744.9	2760.2	3023.9	2948.9	2638.6	2784.9	3152.1
60°	2557.0	2547.1	2597.4	2690.1	2937.8	2962.1	3242.4	3116.7	2728.0	2903.2	3176.4
62.5°	2799.3	2774.6	2782.4	2864.4	3181.0	3213.1	3488.8	3263.0	2772.5	2949.3	3046.2
65°	3161.6	3119.2	3079.6	3136.5	3523.5	3555.2	3767.1	3378.0	2756.0	2859.9	2700.4
67.5°	3617.9	3575.8	3527.2	3580.8	4027.9	4053.1	4110.4	3442.7	2626.2	2515.4	2089.2
70°	3994.1	3978.5	4036.6	4257.1	4833.7	4834.5	4550.5	3389.1	2270.5	1783.4	1208.8
72.5°	3944.3	3934.8	4241.0	4922.7	5849.2	5827.4	4967.2	2983.6	1529.5	804.5	453.0
75°	3235.8	3297.2	3771.6	4910.8	6214.0	6211.1	4712.1	1896.7	632.7	333.4	234.1
77.5°	1735.2	1832.4	2448.6	3625.7	4851.0	4924.0	3312.9	663.6	271.6	213.5	162.0
80°	565.9	650.8	976.0	1846.0	3152.1	3138.5	1419.9	260.5	185.9	151.3	112.1
82.5°	240.3	250.2	436.1	871.7	1617.7	1592.5	452.1	149.6	130.7	103.4	69.2
85°	94.0	105.1	192.5	403.1	700.7	685.4	163.2	74.2	83.7	67.6	41.2
87.5°	30.9	37.5	68.8	138.1	218.0	210.2	40.0	25.6	36.3	30.9	14.8
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9	1015.9
2.5°	1024.6	1031.2	1039.0	1050.6	1060.5	1068.7	1077.4	1082.7	1084.8	1091.0	1090.5
5°	1032.0	1046.4	1065.8	1084.8	1103.3	1114.5	1124.3	1129.3	1133.8	1137.1	1137.9
7.5°	1044.4	1062.9	1093.4	1118.2	1133.8	1142.9	1149.5	1147.8	1149.5	1150.3	1151.5
10°	1055.1	1081.1	1117.3	1140.8	1152.8	1153.2	1151.5	1145.8	1142.9	1143.3	1144.1
12.5°	1067.9	1096.7	1135.9	1155.7	1159.0	1149.9	1142.9	1133.0	1129.3	1127.6	1126.8
15°	1085.2	1118.2	1156.1	1163.5	1155.3	1143.7	1131.8	1115.7	1107.4	1100.9	1102.9
17.5°	1106.2	1142.5	1171.7	1166.4	1148.7	1129.7	1110.3	1086.0	1069.1	1062.1	1062.5
20°	1135.5	1168.0	1183.7	1160.2	1133.4	1104.6	1071.6	1041.9	1026.3	1019.2	1018.4
22.5°	1170.9	1202.2	1195.2	1149.5	1111.6	1065.4	1024.2	1002.3	994.5	989.6	990.4
25°	1213.4	1240.2	1203.5	1133.8	1075.7	1013.5	981.7	974.7	971.0	967.3	967.3
27.5°	1268.6	1283.0	1209.7	1110.7	1019.7	958.2	946.7	947.9	946.7	940.5	941.8
30°	1341.5	1338.7	1215.4	1073.2	955.4	908.4	909.2	914.6	915.4	911.3	913.3
32.5°	1437.6	1408.3	1218.3	1024.6	894.0	864.7	865.5	871.3	875.4	868.4	871.7
35°	1553.8	1489.5	1213.8	963.6	846.6	823.1	816.9	818.5	819.8	813.2	817.7
37.5°	1689.4	1580.6	1193.6	896.0	807.4	782.3	769.1	757.9	751.3	745.2	749.3
40°	1838.2	1679.9	1156.5	830.1	763.7	739.0	719.2	698.2	675.9	667.7	671.4
42.5°	1994.0	1782.1	1111.6	767.0	713.4	693.2	672.2	641.7	608.3	591.4	593.5
45°	2155.5	1886.8	1067.5	704.8	661.9	653.3	628.9	592.3	556.0	534.6	532.9
47.5°	2313.8	1985.7	1002.8	642.1	613.7	623.2	604.2	570.4	530.0	496.2	492.5
50°	2465.1	2078.5	896.8	578.7	574.5	614.1	596.0	547.3	501.2	457.9	454.2
52.5°	2615.1	2153.5	761.2	521.0	553.5	611.6	585.3	531.7	475.2	429.9	424.9
55°	2742.4	2192.2	630.6	471.5	523.0	590.6	572.5	513.1	438.5	390.3	386.2
57.5°	2815.0	2160.9	521.8	422.9	481.0	556.0	550.6	473.6	394.8	357.7	352.8
60°	2783.7	2034.0	432.8	380.4	441.0	518.5	512.7	434.4	361.5	326.4	321.5
62.5°	2611.0	1792.0	362.3	343.3	404.7	480.2	474.8	404.3	335.9	302.1	296.7
65°	2263.1	1457.8	307.5	312.4	368.0	434.0	441.8	379.2	315.7	282.7	277.4
67.5°	1726.1	1055.9	264.6	285.6	332.2	388.7	411.3	361.0	298.8	267.5	262.5
70°	983.8	599.7	228.3	259.7	300.5	346.6	387.8	346.6	280.7	254.7	251.4
72.5°	373.0	275.3	197.4	233.7	270.0	311.2	361.9	323.9	259.7	240.3	237.0
75°	199.1	167.7	166.1	203.2	234.9	276.6	329.3	301.7	244.0	253.9	262.1
77.5°	135.6	118.7	138.9	173.9	196.6	238.2	294.7	267.9	211.4	210.6	194.1
80°	94.0	84.1	112.9	140.1	152.1	200.3	257.2	230.0	172.3	160.7	153.7
82.5°	56.5	54.8	84.5	104.7	107.6	154.6	213.1	192.9	141.0	122.8	123.6
85°	30.9	32.6	54.0	61.4	62.6	108.0	166.9	149.2	108.4	91.1	91.9
87.5°	8.7	11.1	19.8	24.3	30.1	56.1	99.3	88.6	54.4	37.9	37.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)