

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: P882231

Luminaire Tested: **NAV-SB2A-730-U-T4FT**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882231  
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-730-U-T4FT  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

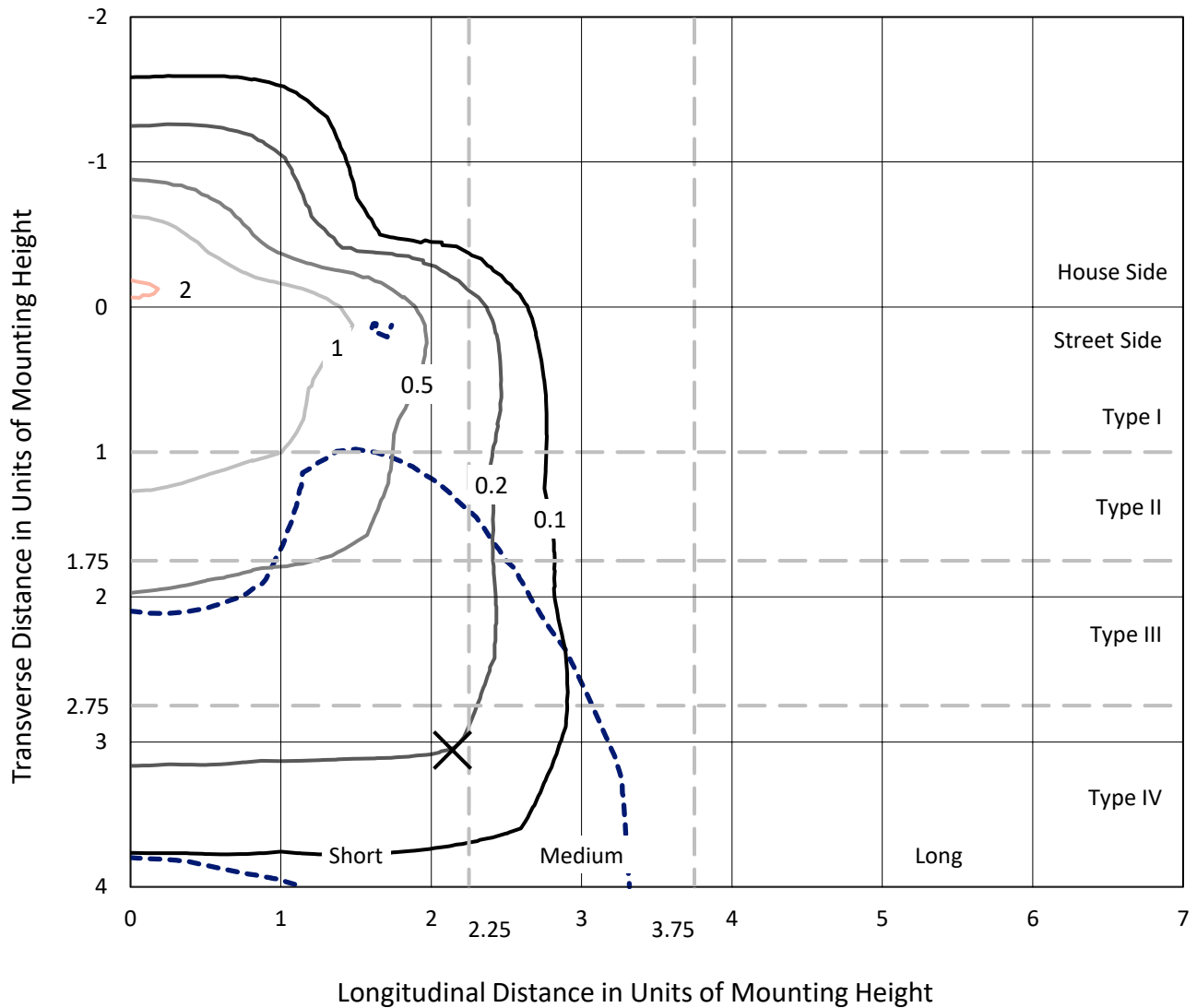
Lumens per Lamp: N/A  
Luminaire Lumens: 8895 lumens  
Efficiency: N/A  
Efficacy: 155.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 57.3  
Input Voltage (V): 120.0  
Input Current (Ain): 0.484  
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

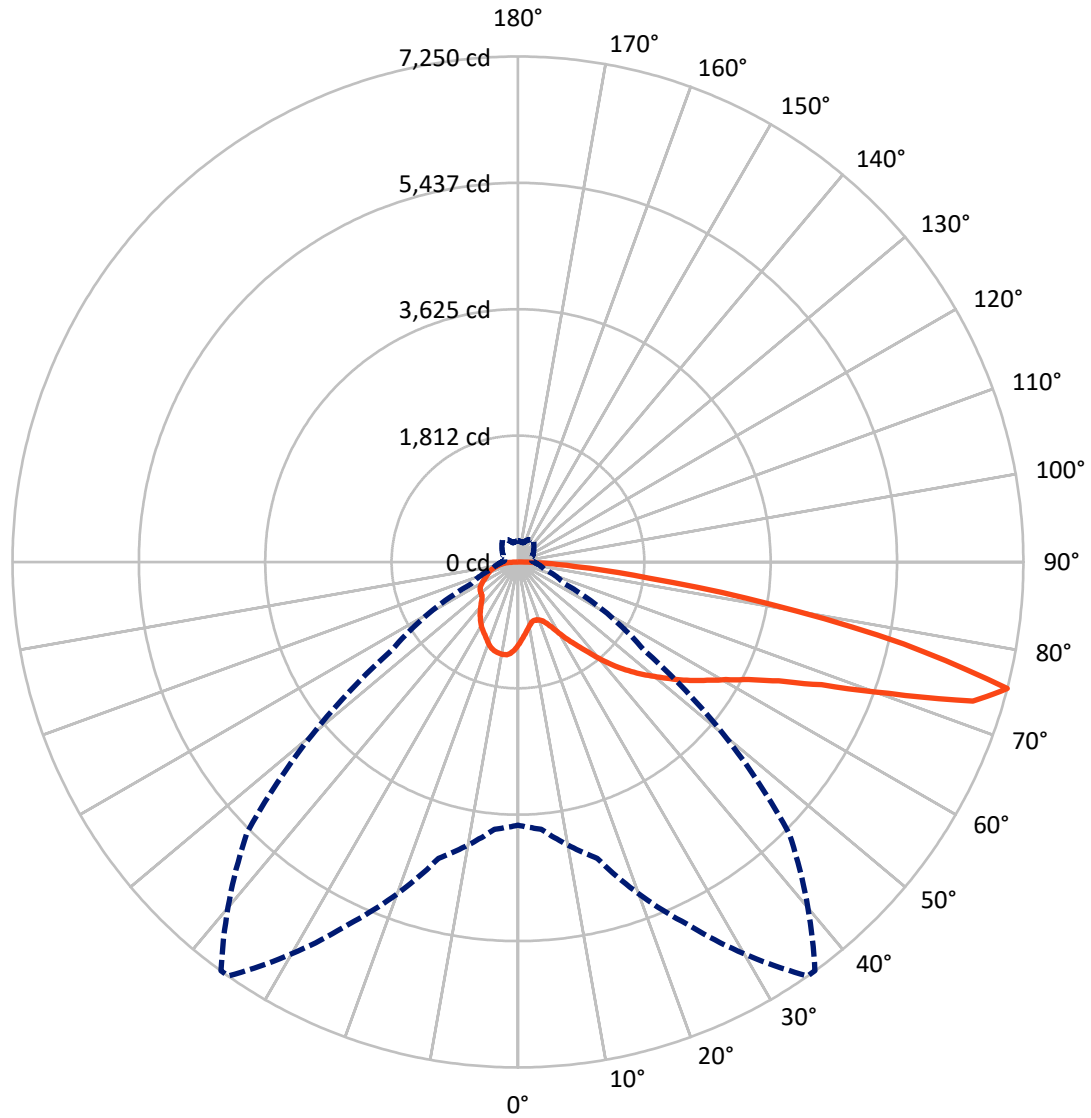
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.1 fc  
 Type IV - Short - N/A

REPORT NUMBER: P882231  
CATALOG NUMBER: NAV-SB2A-730-U-T4FT

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P882231

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2116.8	0.0	2116.8
	% Fixture	23.8	0.0	23.8
<b>Street Side</b>	Lumens	6778.2	0.0	6778.2
	% Fixture	76.2	0.0	76.2
<b>Total</b>	Lumens	8895.0	0.0	8895.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.2	1.3
10°-20°	323.7	3.6
20°-30°	543.6	6.1
30°-40°	844.8	9.5
40°-50°	1253.9	14.1
50°-60°	1731.1	19.5
60°-70°	2100.3	23.6
70°-80°	1735.7	19.5
80°-90°	249.7	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°	8895.0	100.0
0°-180°	8895.0	100.0

**Coefficient of Utilization**



REPORT NUMBER: P882231

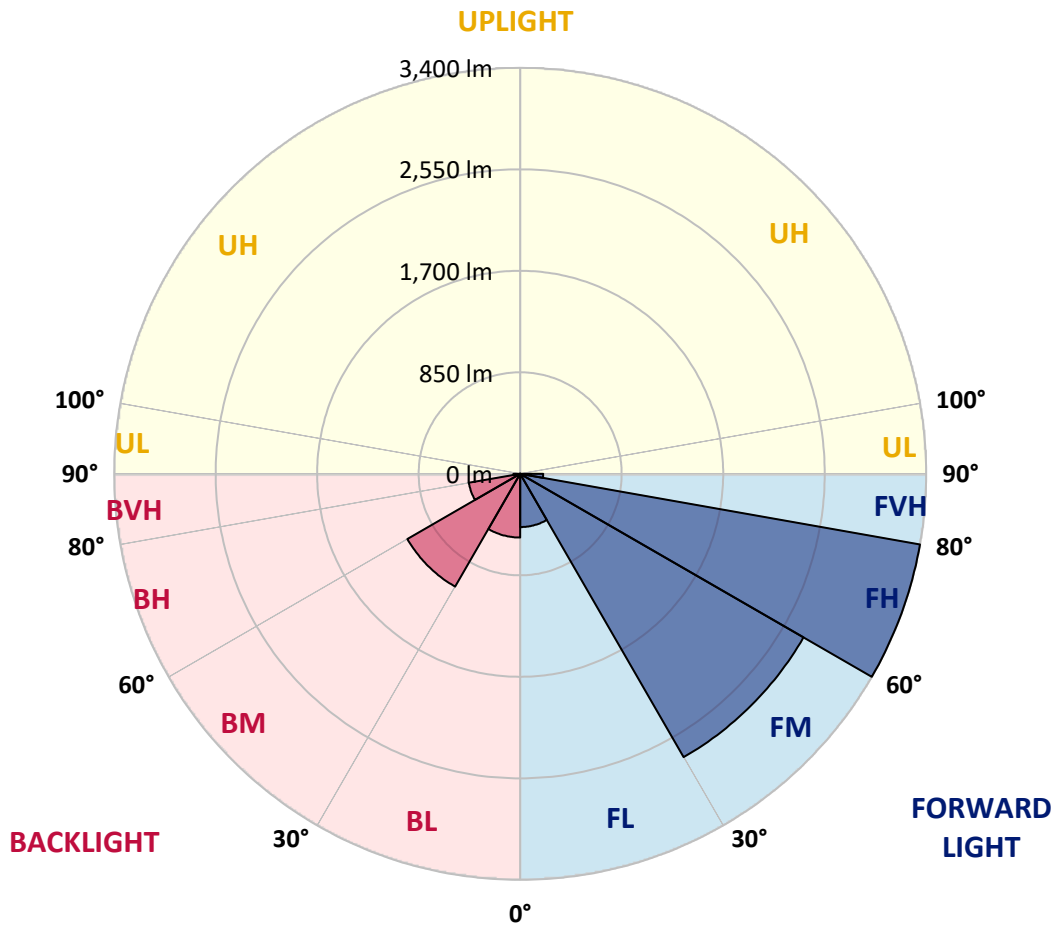
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	446.1	5.0			
FM (30°-60°)	2739.2	30.8			
FH (60°-80°)	3399.5	38.2			G2/5000
FVH (80°-90°)	193.4	2.2			G2/225
BL (0°-30°)	533.5	6.0	B2/1000		
BM (30°-60°)	1090.7	12.3	B2/2500		
BH (60°-80°)	436.4	4.9	B1/500		G1/500
BVH (80°-90°)	56.2	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	1185.3	1185.3	1185.3	1185.3	1185.3	1185.3	1185.3	1185.3	1185.3	1185.3	1185.3
2.5°	1093.0	1099.7	1102.6	1101.2	1108.4	1107.4	1117.5	1130.0	1147.3	1164.2	1188.7
5°	1008.8	1016.1	1022.3	1028.1	1042.0	1046.4	1062.2	1086.3	1118.0	1150.2	1190.6
7.5°	930.5	936.7	946.3	956.9	980.5	984.8	1011.2	1048.8	1093.0	1140.1	1195.9
10°	866.5	872.8	882.9	894.9	924.2	929.5	963.2	1013.2	1070.9	1130.5	1201.7
12.5°	839.1	841.0	846.8	858.8	884.3	887.7	924.7	981.9	1049.2	1123.3	1210.3
15°	837.7	841.5	842.0	848.2	869.4	870.8	905.0	961.7	1035.8	1121.8	1223.3
17.5°	852.1	855.0	850.6	854.5	872.3	874.7	901.6	952.1	1031.4	1128.1	1245.4
20°	890.6	893.0	880.0	874.7	887.7	889.6	916.0	958.4	1035.8	1141.1	1275.7
22.5°	972.3	973.7	942.0	920.4	921.3	922.3	945.4	983.8	1052.6	1164.6	1314.2
25°	1099.7	1098.8	1048.3	1006.4	982.4	977.1	992.5	1025.2	1081.0	1195.9	1363.7
27.5°	1248.8	1241.6	1191.1	1128.6	1076.2	1068.5	1065.1	1079.0	1121.4	1237.3	1424.3
30°	1417.1	1410.4	1356.0	1274.3	1201.7	1189.2	1157.4	1150.2	1181.5	1293.5	1508.5
32.5°	1601.7	1597.4	1532.5	1433.4	1336.3	1321.9	1268.5	1249.3	1273.8	1378.6	1625.8
35°	1756.6	1752.7	1698.9	1596.9	1478.2	1460.4	1406.0	1384.4	1396.9	1487.8	1779.2
37.5°	1896.5	1894.6	1848.4	1768.1	1645.5	1623.9	1562.8	1555.6	1553.2	1631.6	1965.3
40°	2026.3	2021.5	1973.4	1931.1	1840.2	1820.5	1766.7	1760.4	1742.2	1808.5	2175.9
42.5°	2170.1	2157.6	2087.9	2068.2	2043.7	2027.3	1995.1	1996.0	1955.7	2008.1	2399.0
45°	2287.4	2280.2	2208.6	2197.0	2223.5	2216.8	2244.7	2251.9	2173.5	2217.2	2630.8
47.5°	2413.4	2406.7	2346.1	2337.9	2409.6	2411.5	2510.1	2512.5	2386.0	2434.6	2863.0
50°	2568.8	2559.1	2499.0	2509.1	2589.4	2596.6	2777.0	2760.6	2581.7	2655.3	3093.4
52.5°	2671.2	2676.9	2664.0	2680.3	2789.9	2796.7	3039.5	2997.7	2775.5	2873.1	3319.4
55°	2746.7	2758.2	2798.6	2836.1	3001.5	3008.3	3287.2	3223.2	2936.1	3075.1	3531.9
57.5°	2843.8	2827.5	2902.9	2976.0	3202.5	3220.3	3528.1	3440.6	3078.5	3249.2	3677.6
60°	2983.3	2971.7	3030.4	3138.6	3427.6	3455.9	3782.9	3636.3	3182.8	3387.2	3706.0
62.5°	3266.0	3237.1	3246.3	3342.0	3711.3	3748.8	4070.5	3807.0	3234.7	3441.0	3554.0
65°	3688.7	3639.1	3593.0	3659.3	4110.9	4147.9	4395.1	3941.1	3215.5	3336.7	3150.6
67.5°	4221.0	4171.9	4115.2	4177.7	4699.4	4728.8	4795.6	4016.6	3064.0	2934.7	2437.5
70°	4660.0	4641.7	4709.5	4966.8	5639.5	5640.5	5309.2	3954.1	2649.1	2080.7	1410.4
72.5°	4601.8	4590.8	4948.0	5743.4	6824.4	6798.9	5795.3	3480.9	1784.5	938.6	528.5
75°	3775.2	3846.9	4400.3	5729.4	7249.9	7246.6	5497.7	2212.9	738.1	389.0	273.1
77.5°	2024.4	2137.9	2856.8	4230.1	5659.7	5744.8	3865.1	774.2	316.9	249.1	189.0
80°	660.2	759.3	1138.7	2153.8	3677.6	3661.7	1656.6	303.9	216.9	176.5	130.8
82.5°	280.3	291.9	508.7	1017.0	1887.4	1858.0	527.5	174.6	152.4	120.7	80.8
85°	109.6	122.6	224.6	470.3	817.5	799.7	190.4	86.6	97.6	78.9	48.1
87.5°	36.1	43.8	80.3	161.1	254.4	245.2	46.6	29.8	42.3	36.1	17.3
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: P882231  
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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1185.3	1185.3	1185.3	1185.3	1185.3	1185.3	1185.3	1185.3	1185.3	1185.3	1185.3
2.5°	1195.4	1203.1	1212.2	1225.7	1237.3	1246.9	1257.0	1263.2	1265.6	1272.8	1272.4
5°	1204.1	1220.9	1243.5	1265.6	1287.3	1300.2	1311.8	1317.6	1322.8	1326.7	1327.7
7.5°	1218.5	1240.1	1275.7	1304.6	1322.8	1333.4	1341.1	1339.2	1341.1	1342.1	1343.5
10°	1231.0	1261.3	1303.6	1331.0	1345.0	1345.4	1343.5	1336.8	1333.4	1333.9	1334.9
12.5°	1245.9	1279.6	1325.2	1348.3	1352.2	1341.6	1333.4	1321.9	1317.6	1315.6	1314.7
15°	1266.1	1304.6	1348.8	1357.5	1347.8	1334.4	1320.4	1301.7	1292.1	1284.4	1286.8
17.5°	1290.6	1332.9	1367.1	1360.8	1340.2	1318.0	1295.4	1267.1	1247.3	1239.2	1239.7
20°	1324.8	1362.8	1381.0	1353.6	1322.4	1288.7	1250.2	1215.6	1197.3	1189.2	1188.2
22.5°	1366.1	1402.7	1394.5	1341.1	1296.9	1243.0	1194.9	1169.5	1160.3	1154.5	1155.5
25°	1415.7	1446.9	1404.1	1322.8	1255.0	1182.4	1145.4	1137.2	1132.9	1128.6	1128.6
27.5°	1480.1	1496.9	1411.3	1295.9	1189.6	1118.0	1104.5	1106.0	1104.5	1097.3	1098.8
30°	1565.2	1561.8	1418.1	1252.2	1114.6	1059.8	1060.8	1067.0	1068.0	1063.2	1065.6
32.5°	1677.2	1643.1	1421.4	1195.4	1043.0	1008.8	1009.8	1016.5	1021.3	1013.2	1017.0
35°	1812.8	1737.8	1416.1	1124.2	987.7	960.3	953.1	955.0	956.4	948.7	954.0
37.5°	1971.0	1844.1	1392.6	1045.4	942.0	912.7	897.3	884.3	876.6	869.4	874.2
40°	2144.6	1960.0	1349.3	968.5	891.0	862.2	839.1	814.6	788.6	779.0	783.3
42.5°	2326.4	2079.2	1296.9	894.9	832.4	808.8	784.3	748.7	709.7	690.0	692.4
45°	2514.9	2201.4	1245.4	822.3	772.3	762.2	733.8	691.0	648.7	623.7	621.8
47.5°	2699.5	2316.8	1169.9	749.2	716.0	727.1	704.9	665.5	618.4	579.0	574.6
50°	2876.0	2425.0	1046.4	675.1	670.3	716.5	695.3	638.6	584.7	534.2	529.9
52.5°	3051.1	2512.5	888.1	607.8	645.8	713.6	682.8	620.3	554.4	501.5	495.8
55°	3199.6	2557.7	735.7	550.1	610.2	689.1	667.9	598.7	511.6	455.4	450.6
57.5°	3284.3	2521.1	608.8	493.4	561.2	648.7	642.4	552.5	460.7	417.4	411.6
60°	3247.7	2373.0	504.9	443.8	514.5	604.9	598.2	506.8	421.7	380.8	375.1
62.5°	3046.2	2090.8	422.7	400.6	472.2	560.2	554.0	471.7	391.9	352.5	346.2
65°	2640.4	1700.8	358.7	364.5	429.4	506.3	515.5	442.4	368.3	329.9	323.6
67.5°	2013.8	1232.0	308.7	333.2	387.6	453.5	479.9	421.2	348.6	312.1	306.3
70°	1147.8	699.7	266.4	302.9	350.5	404.4	452.5	404.4	327.5	297.2	293.3
72.5°	435.2	321.2	230.3	272.6	315.0	363.0	422.2	378.0	302.9	280.3	276.5
75°	232.3	195.7	193.8	237.1	274.1	322.7	384.2	352.0	284.7	296.2	305.8
77.5°	158.2	138.5	162.0	202.9	229.4	277.9	343.8	312.6	246.7	245.7	226.5
80°	109.6	98.1	131.8	163.5	177.4	233.7	300.1	268.3	201.0	187.5	179.4
82.5°	65.9	64.0	98.6	122.1	125.5	180.3	248.6	225.0	164.5	143.3	144.3
85°	36.1	38.0	63.0	71.6	73.1	126.0	194.7	174.1	126.5	106.3	107.2
87.5°	10.1	13.0	23.1	28.4	35.1	65.4	115.9	103.4	63.5	44.2	44.2
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)