

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: P882291

Luminaire Tested: **NAV-SB2A-830-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882291
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-830-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 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: 7907 lumens
Efficiency: N/A
Efficacy: 138.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

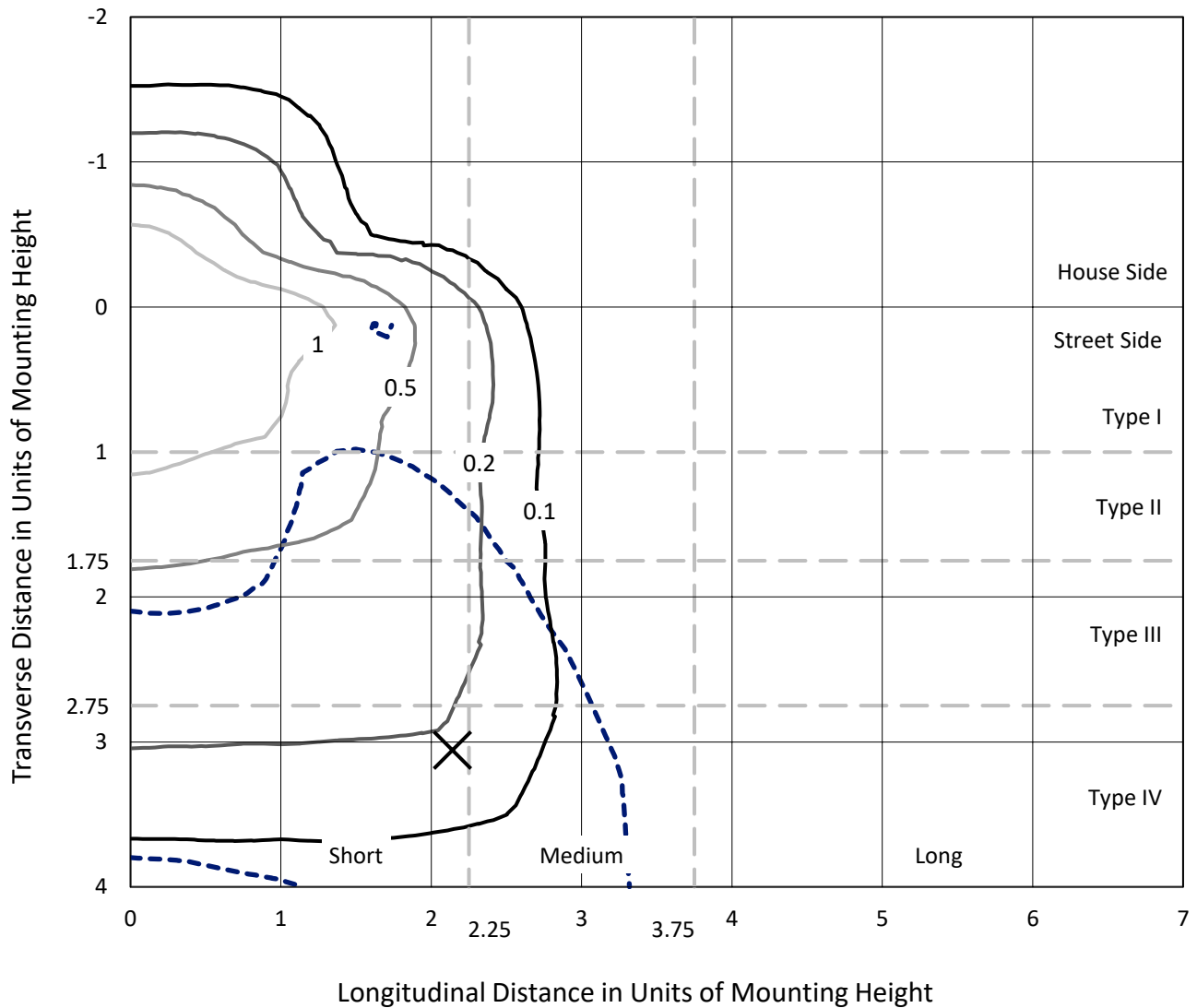
Input Watts (W): 57.3
Input Voltage (V): 120.0
Input Current (Ain): 0.484
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.038
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

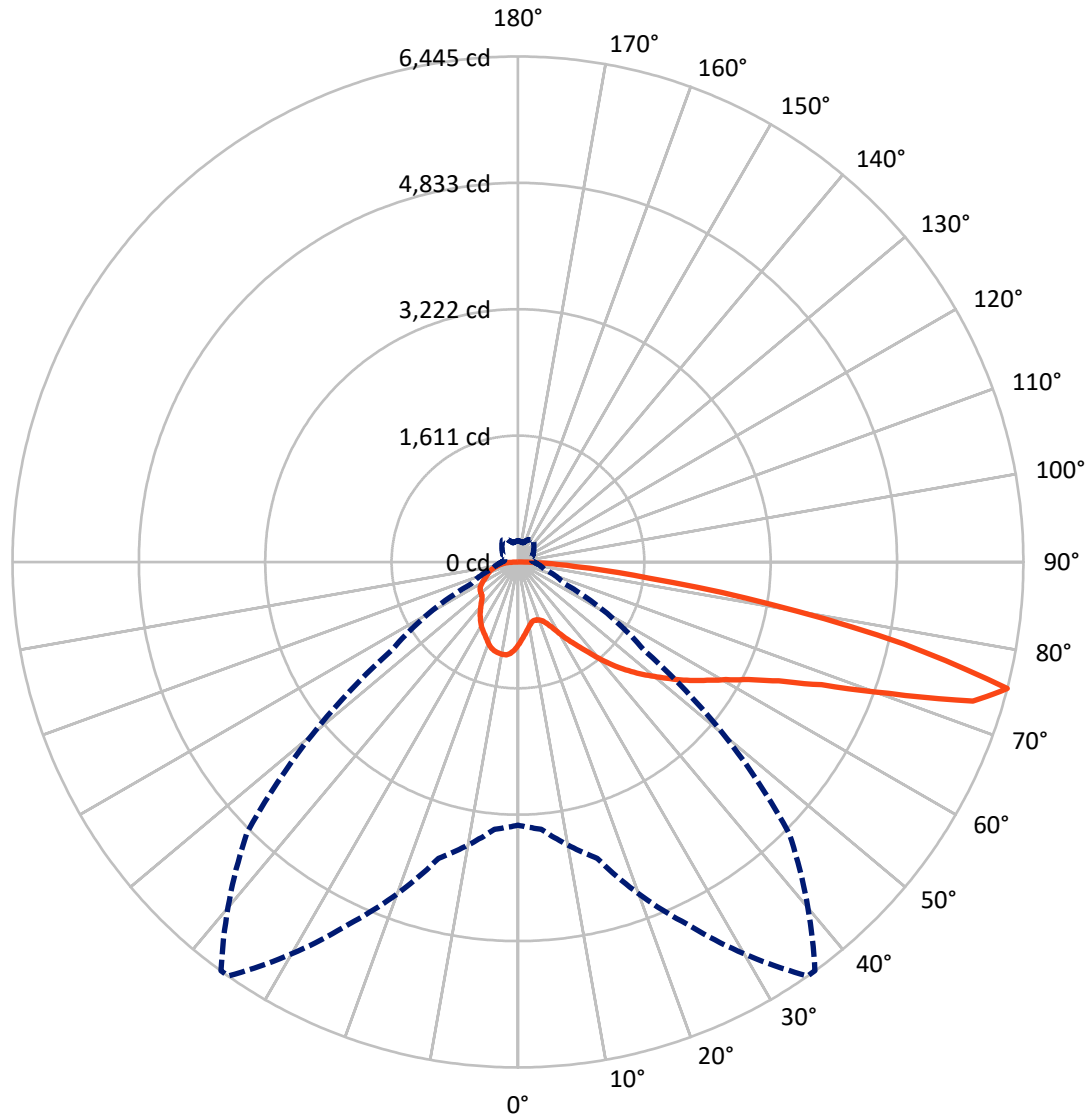
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 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
House Side	Lumens	1881.7	0.0	1881.7
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	6025.3	0.0	6025.3
	% Fixture	76.2	0.0	76.2
Total	Lumens	7907.0	0.0	7907.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.8	1.3
10°-20°	287.8	3.6
20°-30°	483.2	6.1
30°-40°	751.0	9.5
40°-50°	1114.7	14.1
50°-60°	1538.8	19.5
60°-70°	1867.0	23.6
70°-80°	1542.9	19.5
80°-90°	221.9	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°	7907.0	100.0
0°-180°	7907.0	100.0

Coefficient of Utilization



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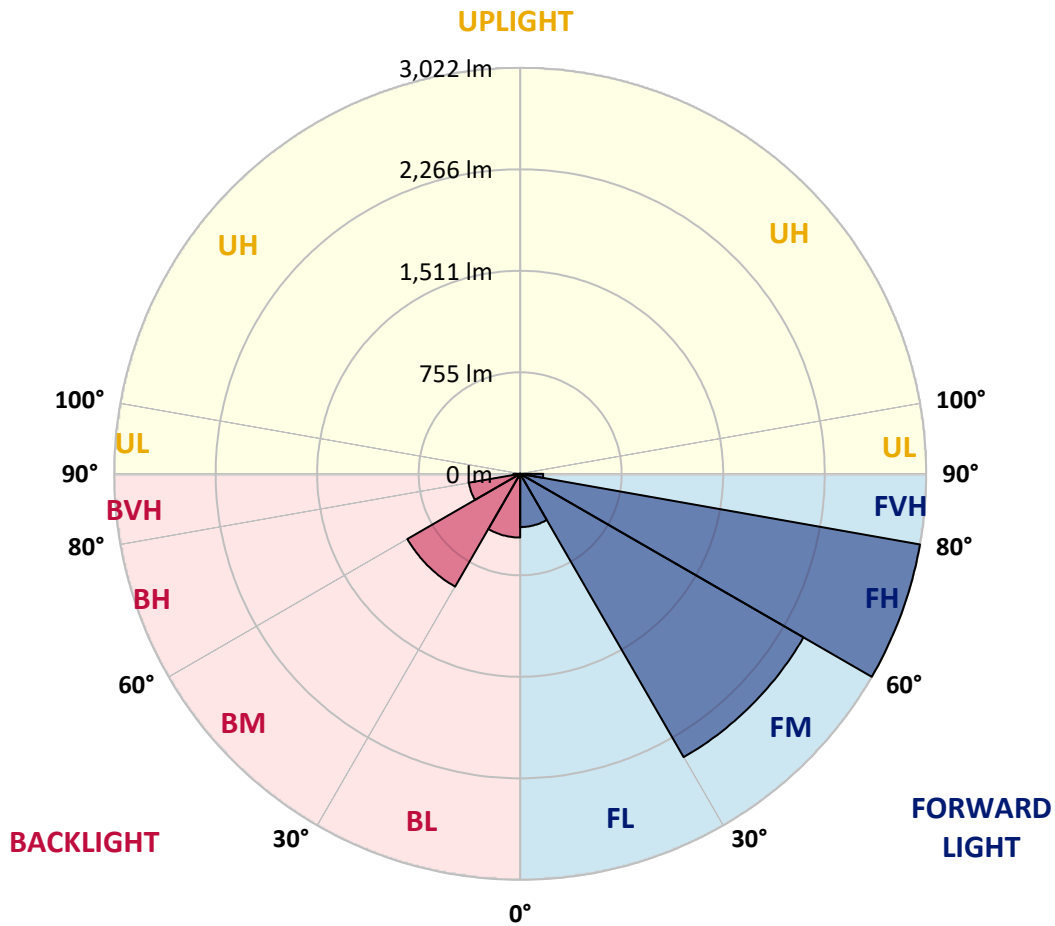
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	396.5	5.0			
FM (30°-60°)	2434.9	30.8			
FH (60°-80°)	3021.9	38.2			G2/5000
FVH (80°-90°)	171.9	2.2			G2/225
BL (0°-30°)	474.2	6.0	B1/500		
BM (30°-60°)	969.5	12.3	B1/1000		
BH (60°-80°)	387.9	4.9	B1/500		G1/500
BVH (80°-90°)	50.0	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°	1053.7	1053.7	1053.7	1053.7	1053.7	1053.7	1053.7	1053.7	1053.7	1053.7	1053.7
2.5°	971.6	977.6	980.1	978.9	985.3	984.4	993.4	1004.5	1019.9	1034.9	1056.7
5°	896.8	903.2	908.8	913.9	926.3	930.1	944.2	965.6	993.8	1022.5	1058.4
7.5°	827.1	832.7	841.2	850.6	871.6	875.4	898.9	932.3	971.6	1013.5	1063.1
10°	770.3	775.8	784.8	795.5	821.6	826.3	856.2	900.6	951.9	1004.9	1068.2
12.5°	745.9	747.6	752.7	763.4	786.1	789.1	822.0	872.9	932.7	998.5	1075.9
15°	744.6	748.0	748.5	754.0	772.8	774.1	804.5	854.9	920.7	997.2	1087.4
17.5°	757.4	760.0	756.2	759.6	775.4	777.5	801.5	846.3	916.9	1002.8	1107.1
20°	791.6	793.8	782.2	777.5	789.1	790.8	814.3	851.9	920.7	1014.3	1134.0
22.5°	864.3	865.6	837.4	818.1	819.0	819.8	840.4	874.6	935.7	1035.3	1168.2
25°	977.6	976.7	931.8	894.7	873.3	868.6	882.3	911.3	960.9	1063.1	1212.2
27.5°	1110.1	1103.7	1058.8	1003.2	956.6	949.8	946.8	959.2	996.8	1099.8	1266.1
30°	1259.7	1253.7	1205.4	1132.7	1068.2	1057.1	1028.9	1022.5	1050.2	1149.8	1340.9
32.5°	1423.8	1420.0	1362.3	1274.2	1187.9	1175.1	1127.6	1110.5	1132.3	1225.5	1445.2
35°	1561.5	1558.1	1510.2	1419.6	1314.0	1298.2	1249.9	1230.6	1241.7	1322.5	1581.6
37.5°	1685.9	1684.1	1643.1	1571.7	1462.7	1443.5	1389.2	1382.8	1380.7	1450.3	1747.0
40°	1801.3	1797.0	1754.2	1716.6	1635.8	1618.3	1570.4	1564.9	1548.6	1607.6	1934.2
42.5°	1929.1	1918.0	1856.0	1838.5	1816.7	1802.1	1773.5	1774.3	1738.4	1785.0	2132.5
45°	2033.4	2027.0	1963.3	1953.0	1976.5	1970.5	1995.3	2001.7	1932.1	1971.0	2338.6
47.5°	2145.4	2139.4	2085.5	2078.3	2141.9	2143.7	2231.3	2233.4	2121.0	2164.2	2545.0
50°	2283.4	2274.9	2221.5	2230.4	2301.8	2308.2	2468.5	2454.0	2295.0	2360.4	2749.8
52.5°	2374.5	2379.6	2368.1	2382.6	2480.1	2486.0	2701.9	2664.7	2467.2	2554.0	2950.7
55°	2441.6	2451.8	2487.8	2521.1	2668.1	2674.1	2922.0	2865.2	2610.0	2733.5	3139.6
57.5°	2527.9	2513.4	2580.5	2645.5	2846.8	2862.6	3136.2	3058.4	2736.5	2888.3	3269.1
60°	2651.9	2641.6	2693.8	2790.0	3046.9	3072.1	3362.7	3232.4	2829.3	3010.9	3294.3
62.5°	2903.2	2877.6	2885.7	2970.8	3299.0	3332.4	3618.4	3384.1	2875.4	3058.8	3159.3
65°	3279.0	3234.9	3193.9	3252.9	3654.3	3687.2	3906.9	3503.4	2858.3	2966.1	2800.6
67.5°	3752.1	3708.5	3658.1	3713.7	4177.5	4203.5	4262.9	3570.5	2723.7	2608.7	2166.7
70°	4142.4	4126.2	4186.4	4415.1	5013.1	5014.0	4719.5	3514.9	2354.8	1849.6	1253.7
72.5°	4090.7	4080.9	4398.4	5105.4	6066.4	6043.7	5151.6	3094.3	1586.3	834.4	469.8
75°	3355.9	3419.6	3911.6	5093.1	6444.6	6441.7	4887.0	1967.1	656.1	345.8	242.8
77.5°	1799.6	1900.4	2539.5	3760.3	5031.1	5106.7	3435.8	688.2	281.7	221.4	168.0
80°	586.9	674.9	1012.2	1914.5	3269.1	3255.0	1472.6	270.1	192.8	156.9	116.3
82.5°	249.2	259.5	452.2	904.1	1677.7	1651.7	468.9	155.2	135.5	107.3	71.8
85°	97.5	109.0	199.6	418.0	726.7	710.8	169.3	76.9	86.8	70.1	42.7
87.5°	32.1	38.9	71.4	143.2	226.1	218.0	41.5	26.5	37.6	32.1	15.4
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°	1053.7	1053.7	1053.7	1053.7	1053.7	1053.7	1053.7	1053.7	1053.7	1053.7	1053.7
2.5°	1062.6	1069.5	1077.6	1089.6	1099.8	1108.4	1117.4	1122.9	1125.0	1131.5	1131.0
5°	1070.3	1085.3	1105.4	1125.0	1144.3	1155.8	1166.1	1171.2	1175.9	1179.3	1180.2
7.5°	1083.2	1102.4	1134.0	1159.7	1175.9	1185.3	1192.2	1190.4	1192.2	1193.0	1194.3
10°	1094.3	1121.2	1158.8	1183.2	1195.6	1196.0	1194.3	1188.3	1185.3	1185.7	1186.6
12.5°	1107.5	1137.4	1178.0	1198.6	1202.0	1192.6	1185.3	1175.1	1171.2	1169.5	1168.6
15°	1125.5	1159.7	1199.0	1206.7	1198.1	1186.2	1173.8	1157.1	1148.6	1141.7	1143.9
17.5°	1147.3	1184.9	1215.2	1209.7	1191.3	1171.6	1151.5	1126.3	1108.8	1101.5	1102.0
20°	1177.6	1211.4	1227.6	1203.3	1175.5	1145.6	1111.4	1080.6	1064.3	1057.1	1056.2
22.5°	1214.4	1246.9	1239.6	1192.2	1152.8	1105.0	1062.2	1039.6	1031.4	1026.3	1027.2
25°	1258.4	1286.2	1248.2	1175.9	1115.6	1051.1	1018.2	1010.9	1007.1	1003.2	1003.2
27.5°	1315.7	1330.6	1254.6	1152.0	1057.5	993.8	981.8	983.1	981.8	975.4	976.7
30°	1391.3	1388.4	1260.5	1113.1	990.8	942.1	943.0	948.5	949.4	945.1	947.2
32.5°	1490.9	1460.6	1263.5	1062.6	927.1	896.8	897.6	903.6	907.9	900.6	904.1
35°	1611.5	1544.8	1258.8	999.4	878.0	853.6	847.2	848.9	850.2	843.4	848.1
37.5°	1752.1	1639.3	1237.9	929.3	837.4	811.3	797.6	786.1	779.2	772.8	777.1
40°	1906.4	1742.3	1199.4	860.9	792.1	766.4	745.9	724.1	701.0	692.5	696.3
42.5°	2068.0	1848.3	1152.8	795.5	739.9	719.0	697.2	665.5	630.9	613.4	615.5
45°	2235.6	1956.9	1107.1	730.9	686.5	677.5	652.3	614.2	576.6	554.4	552.7
47.5°	2399.7	2059.4	1040.0	666.0	636.5	646.3	626.6	591.6	549.7	514.6	510.8
50°	2556.6	2155.6	930.1	600.1	595.9	636.9	618.1	567.7	519.8	474.9	471.0
52.5°	2712.2	2233.4	789.5	540.3	574.1	634.3	607.0	551.4	492.8	445.8	440.7
55°	2844.2	2273.6	654.0	489.0	542.4	612.5	593.7	532.2	454.8	404.8	400.5
57.5°	2919.5	2241.1	541.2	438.6	498.8	576.6	571.1	491.1	409.5	371.0	365.9
60°	2887.0	2109.5	448.8	394.5	457.4	537.7	531.7	450.5	374.9	338.5	333.4
62.5°	2707.9	1858.5	375.7	356.1	419.8	498.0	492.4	419.3	348.4	313.3	307.8
65°	2347.1	1511.9	318.9	324.0	381.7	450.1	458.2	393.3	327.4	293.2	287.7
67.5°	1790.2	1095.1	274.4	296.2	344.5	403.1	426.6	374.4	309.9	277.4	272.3
70°	1020.3	621.9	236.8	269.3	311.6	359.5	402.2	359.5	291.1	264.2	260.7
72.5°	386.8	285.5	204.7	242.4	280.0	322.7	375.3	336.0	269.3	249.2	245.8
75°	206.5	174.0	172.3	210.7	243.6	286.8	341.5	312.9	253.0	263.3	271.9
77.5°	140.6	123.1	144.1	180.4	203.9	247.1	305.6	277.8	219.3	218.4	201.3
80°	97.5	87.2	117.1	145.3	157.7	207.7	266.7	238.5	178.7	166.7	159.4
82.5°	58.6	56.9	87.6	108.6	111.6	160.3	221.0	200.0	146.2	127.4	128.2
85°	32.1	33.8	56.0	63.7	65.0	112.0	173.1	154.7	112.4	94.5	95.3
87.5°	9.0	11.5	20.5	25.2	31.2	58.1	103.0	91.9	56.4	39.3	39.3
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)