

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: P882274

Luminaire Tested: **NAV-SB2A-827-U-SL4**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882274  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB2A-827-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

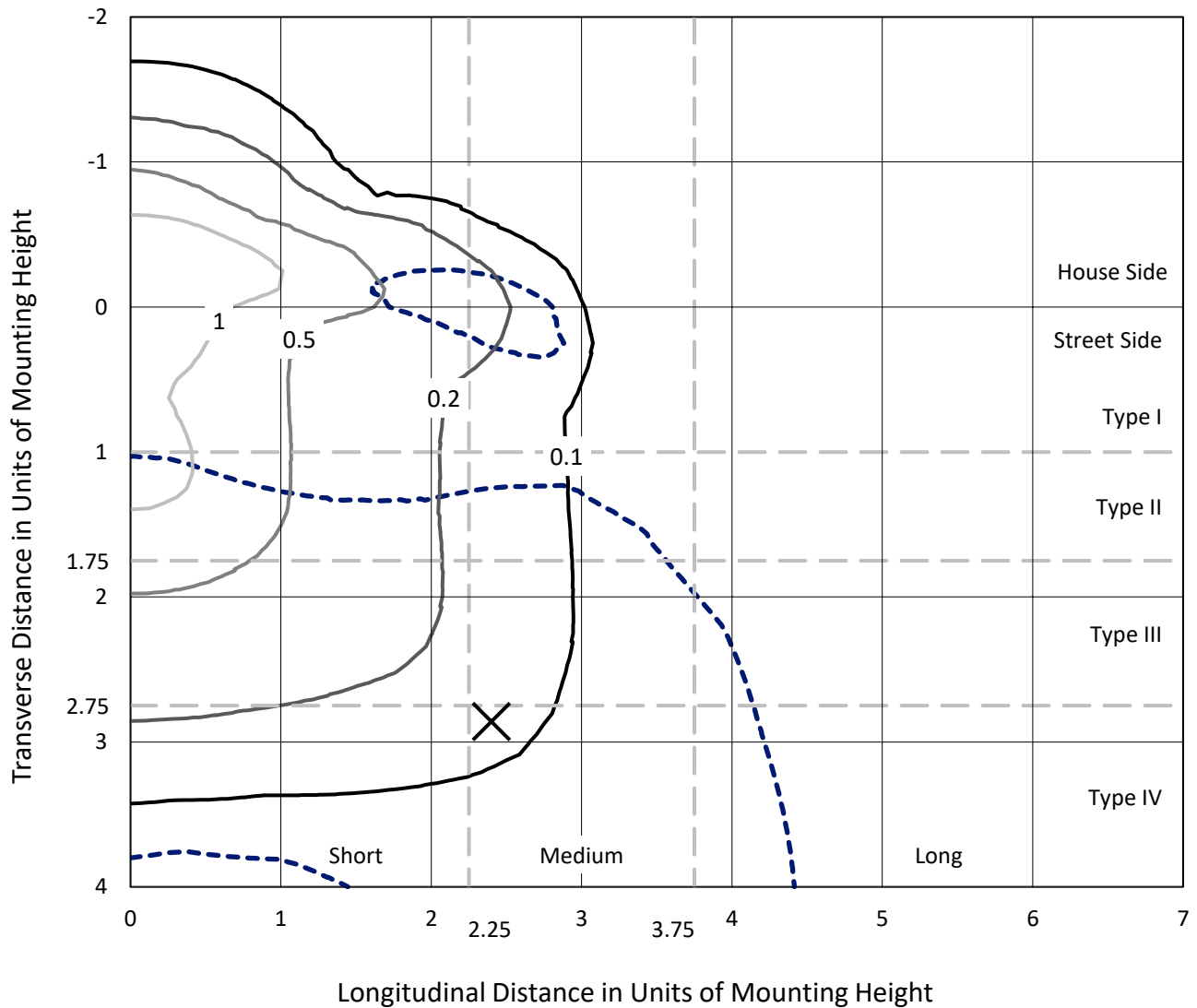
Lumens per Lamp: N/A  
Luminaire Lumens: 7363 lumens  
Efficiency: N/A  
Efficacy: 128.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 57.3  
Input Voltage (V): 120.0  
Input Current (Ain): 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

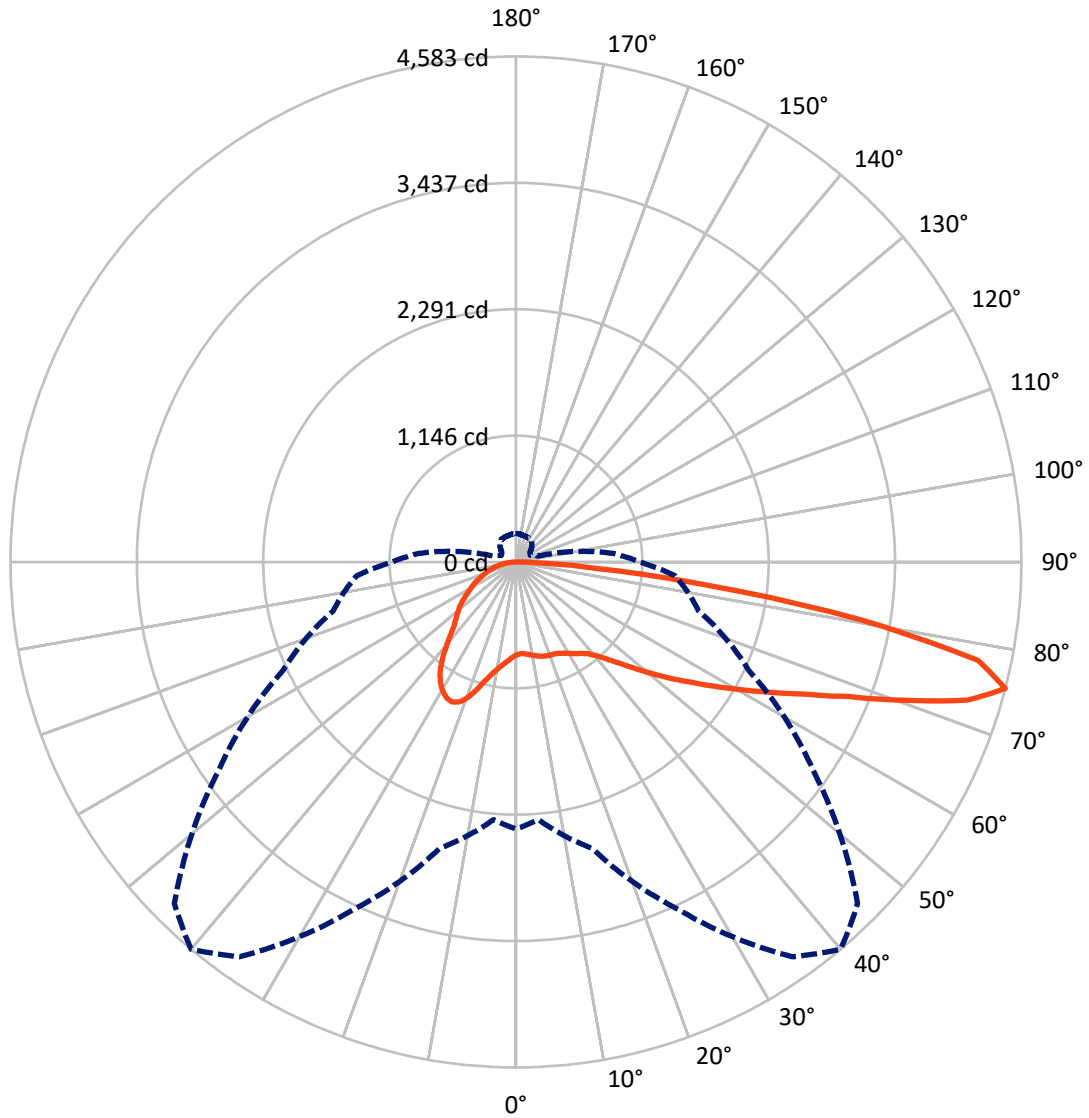
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.7 fc  
 Type IV - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral      - - - Horizontal Cone Through 75-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2281.3	0.0	2281.3
	% Fixture	31.0	0.0	31.0
<b>Street Side</b>	Lumens	5081.7	0.0	5081.7
	% Fixture	69.0	0.0	69.0
<b>Total</b>	Lumens	7363.0	0.0	7363.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.0	1.1
10°-20°	282.2	3.8
20°-30°	515.2	7.0
30°-40°	730.7	9.9
40°-50°	986.7	13.4
50°-60°	1327.4	18.0
60°-70°	1684.8	22.9
70°-80°	1529.0	20.8
80°-90°	222.9	3.0
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°	7363.0	100.0
0°-180°	7363.0	100.0

**Coefficient of Utilization**



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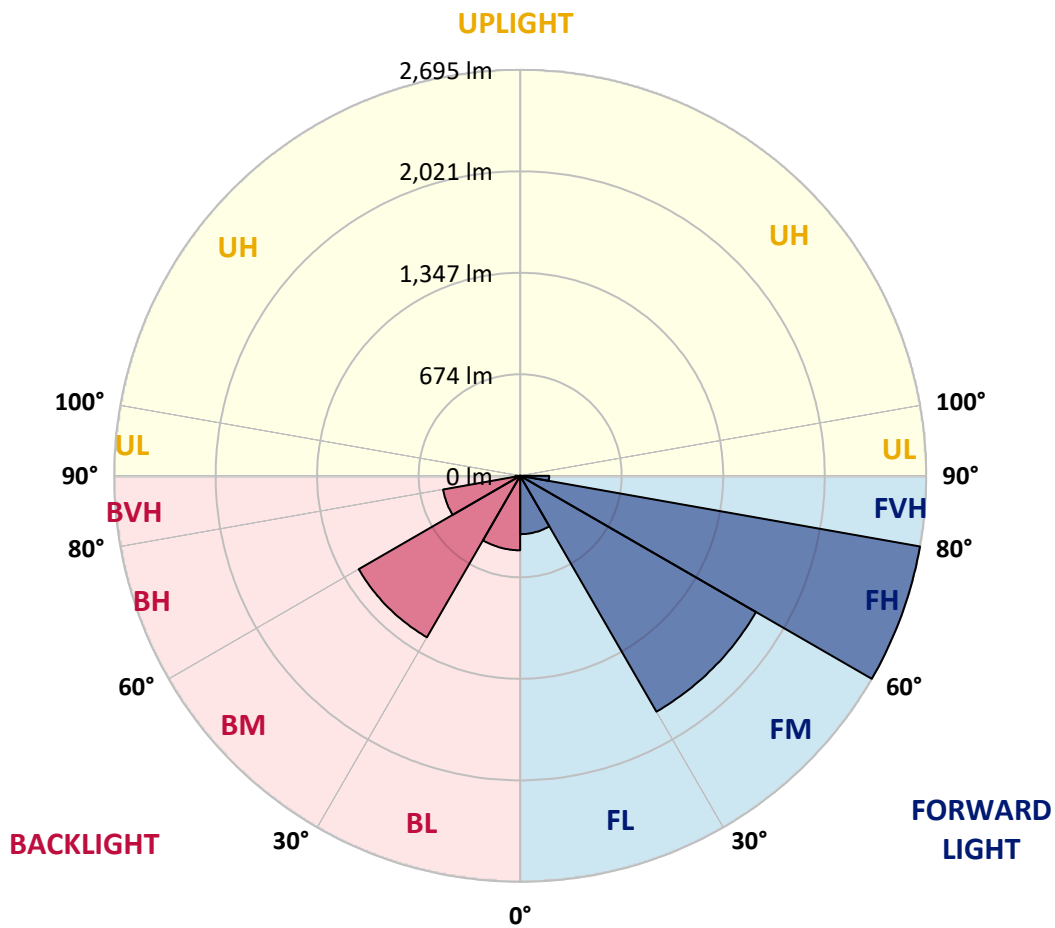
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	387.3	5.3			
FM (30°-60°)	1807.4	24.5			
FH (60°-80°)	2694.7	36.6			G2/5000
FVH (80°-90°)	192.2	2.6			G2/225
BL (0°-30°)	494.2	6.7	B1/500		
BM (30°-60°)	1237.4	16.8	B2/2500		
BH (60°-80°)	519.1	7.0	B2/1000		G2/1000
BVH (80°-90°)	30.7	0.4			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 Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	842.0	842.0	842.0	842.0	842.0	842.0	842.0	842.0	842.0	842.0	842.0
2.5°	829.1	833.8	832.6	831.0	831.0	831.4	831.0	833.8	836.5	839.2	843.5
5°	837.7	842.4	840.0	838.1	836.5	836.1	834.9	834.5	836.1	839.6	845.5
7.5°	854.5	859.2	855.6	852.1	849.0	847.4	845.9	843.5	842.4	844.3	852.5
10°	873.2	877.9	873.6	867.4	862.3	860.3	858.8	856.4	854.9	856.0	865.0
12.5°	892.0	896.6	890.8	882.2	875.6	874.4	872.4	871.6	871.3	870.9	879.8
15°	909.5	913.4	906.0	895.9	888.8	886.9	884.9	886.1	888.1	890.4	900.5
17.5°	923.2	927.1	916.2	902.9	896.3	895.5	894.3	898.2	903.7	909.5	922.0
20°	935.7	939.6	925.5	907.6	899.8	899.8	900.2	908.4	916.2	924.8	941.9
22.5°	953.3	956.4	939.2	914.6	903.3	904.1	907.2	915.4	925.2	936.9	960.7
25°	979.4	981.8	960.7	927.9	915.0	917.3	920.1	924.0	933.4	947.0	979.0
27.5°	1021.6	1023.6	995.8	951.3	931.8	935.7	939.6	936.9	941.2	952.9	993.9
30°	1081.0	1082.1	1047.0	988.0	960.3	962.3	963.0	951.7	943.5	952.9	1004.4
32.5°	1151.3	1150.9	1109.1	1032.5	992.7	990.8	984.1	961.9	942.7	950.9	1013.8
35°	1260.2	1255.9	1202.0	1095.0	1029.4	1017.3	1001.7	973.2	946.6	949.0	1022.0
37.5°	1440.6	1427.4	1352.8	1197.3	1084.1	1053.2	1030.2	991.5	955.2	948.2	1031.8
40°	1644.1	1627.3	1545.3	1337.5	1166.1	1116.5	1079.4	1017.7	969.3	951.7	1046.2
42.5°	1885.4	1861.6	1773.4	1502.7	1270.0	1198.1	1142.3	1050.9	990.0	963.0	1065.7
45°	2181.9	2150.2	2025.3	1689.0	1400.8	1305.1	1230.5	1101.3	1021.6	984.9	1095.0
47.5°	2481.4	2489.2	2311.5	1902.2	1557.8	1437.1	1341.1	1177.0	1067.7	1020.0	1142.3
50°	2799.7	2805.1	2596.2	2138.5	1735.9	1586.3	1465.2	1261.8	1131.7	1070.0	1213.0
52.5°	3048.0	3048.8	2854.7	2385.7	1921.4	1750.3	1599.2	1358.6	1205.9	1136.4	1307.1
55°	3203.5	3201.5	3035.9	2619.6	2134.6	1922.5	1747.6	1468.8	1296.5	1214.5	1425.4
57.5°	3316.3	3310.5	3160.9	2820.8	2361.9	2126.0	1915.5	1593.7	1403.5	1307.5	1581.2
60°	3359.3	3355.8	3245.6	2994.5	2600.9	2351.0	2109.2	1733.5	1525.0	1417.2	1781.6
62.5°	3375.7	3382.3	3328.8	3162.9	2856.7	2600.1	2322.1	1900.7	1661.7	1541.4	1992.8
65°	3433.5	3445.6	3434.7	3383.1	3145.7	2891.8	2604.4	2099.5	1810.9	1674.6	2213.5
67.5°	3547.9	3560.0	3564.7	3646.7	3498.7	3255.4	2956.7	2347.0	1985.4	1812.8	2379.5
70°	3545.2	3541.7	3624.4	3856.4	3940.8	3758.8	3431.5	2651.7	2193.6	1927.6	2400.5
72.5°	3226.9	3198.8	3394.4	3854.1	4308.6	4284.4	4011.5	3044.5	2373.2	1941.7	2083.1
75°	2420.9	2345.9	2691.5	3473.3	4370.0	4582.8	4380.1	3288.2	2330.6	1715.6	1449.6
77.5°	1035.3	959.9	1367.2	2571.2	3911.1	4284.0	4041.9	2868.8	1860.5	1134.5	711.9
80°	271.0	270.6	413.2	1165.7	2659.9	3163.6	2775.5	1852.6	1063.0	405.4	196.4
82.5°	112.1	109.3	151.9	453.4	1299.7	1775.3	1448.8	826.3	383.9	109.7	65.2
85°	41.8	41.4	73.8	156.6	458.5	732.2	529.9	211.3	95.7	53.5	29.3
87.5°	11.7	11.3	16.0	54.3	111.7	169.5	90.6	34.8	26.9	21.1	8.6
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°	842.0	842.0	842.0	842.0	842.0	842.0	842.0	842.0	842.0	842.0	842.0
2.5°	844.7	846.7	850.2	852.9	856.4	860.3	865.8	869.3	872.8	875.2	873.6
5°	848.2	852.5	861.5	870.5	881.0	890.8	902.1	910.3	916.9	918.9	919.7
7.5°	856.0	863.1	878.3	893.5	910.3	926.3	942.7	956.8	968.1	972.4	972.8
10°	869.7	879.1	900.5	922.0	944.3	968.9	990.0	1010.3	1026.3	1032.9	1033.3
12.5°	886.9	898.6	926.7	956.4	987.2	1021.2	1048.6	1073.5	1093.5	1102.4	1102.4
15°	909.1	924.4	960.3	1000.1	1045.4	1092.7	1127.4	1155.2	1177.4	1188.4	1187.6
17.5°	933.4	953.7	999.0	1059.1	1123.9	1186.0	1226.6	1246.9	1270.0	1280.5	1280.1
20°	956.8	981.8	1046.6	1134.1	1220.4	1286.4	1319.2	1324.7	1326.2	1327.4	1330.5
22.5°	981.0	1014.6	1106.4	1228.6	1321.1	1366.8	1371.5	1348.1	1315.3	1300.1	1304.3
25°	1007.6	1052.1	1184.5	1332.9	1407.8	1413.3	1377.4	1320.4	1258.3	1229.8	1234.1
27.5°	1033.3	1095.4	1278.2	1432.4	1470.3	1422.3	1345.0	1264.1	1189.1	1159.1	1162.6
30°	1059.1	1145.0	1381.7	1519.5	1498.8	1400.0	1293.8	1203.6	1128.2	1096.6	1100.1
32.5°	1085.3	1202.8	1500.8	1582.4	1493.8	1352.8	1230.1	1135.6	1069.3	1036.1	1040.4
35°	1114.9	1273.9	1613.6	1616.8	1459.8	1283.3	1146.2	1054.4	996.6	970.1	975.9
37.5°	1153.6	1364.1	1713.2	1625.4	1400.4	1181.3	1041.9	958.3	910.7	898.6	907.2
40°	1201.6	1472.7	1789.4	1611.7	1312.5	1057.5	927.9	861.1	834.2	836.9	846.3
42.5°	1264.1	1594.1	1842.9	1576.5	1190.3	929.8	827.9	798.2	811.1	822.1	832.2
45°	1345.4	1720.3	1876.1	1516.8	1052.1	821.7	768.9	776.0	785.7	786.9	794.7
47.5°	1449.2	1848.0	1897.9	1426.6	911.1	745.5	731.5	733.0	731.1	722.9	729.1
50°	1578.9	1972.1	1917.5	1307.1	791.2	697.9	679.1	673.7	646.7	620.2	623.7
52.5°	1726.5	2086.2	1925.7	1158.7	697.9	658.0	627.6	593.2	542.8	534.6	537.4
55°	1890.5	2191.6	1904.6	976.3	619.4	606.9	560.8	519.4	513.9	506.9	508.1
57.5°	2086.6	2305.3	1861.6	772.8	538.9	547.1	502.2	506.9	497.1	486.2	484.2
60°	2301.0	2422.8	1786.3	587.3	455.7	472.5	487.0	486.6	483.9	474.9	471.8
62.5°	2493.9	2500.1	1637.9	449.9	382.7	414.7	454.2	453.8	451.4	446.4	444.4
65°	2608.7	2488.4	1390.3	354.2	322.6	367.1	409.7	412.8	413.2	412.8	412.8
67.5°	2588.4	2351.3	1050.5	282.0	273.0	318.7	365.5	369.8	373.0	373.7	374.5
70°	2358.8	2050.2	685.0	224.9	228.8	276.1	323.7	328.0	330.8	333.9	335.5
72.5°	1838.6	1507.4	392.1	182.0	190.2	239.4	282.3	287.4	289.0	294.8	297.2
75°	1120.4	886.5	211.7	143.3	156.2	204.6	241.3	247.2	249.9	257.0	257.7
77.5°	532.7	383.9	120.7	111.7	125.7	167.1	203.9	210.5	203.1	207.0	203.9
80°	180.0	142.5	76.2	85.1	96.1	130.4	163.2	169.9	154.3	153.5	151.9
82.5°	62.9	57.8	48.4	56.6	62.1	93.3	123.4	132.0	114.8	114.4	109.0
85°	24.6	23.4	26.9	30.9	37.1	57.4	81.2	85.5	70.7	57.0	56.2
87.5°	5.1	5.5	6.6	7.0	11.3	19.9	29.3	35.9	28.5	24.2	22.3
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)