

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: P882284

Luminaire Tested: **NAV-SB2A-830-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882284
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-830-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 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: 7930 lumens
Efficiency: N/A
Efficacy: 138.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - U0 - G2

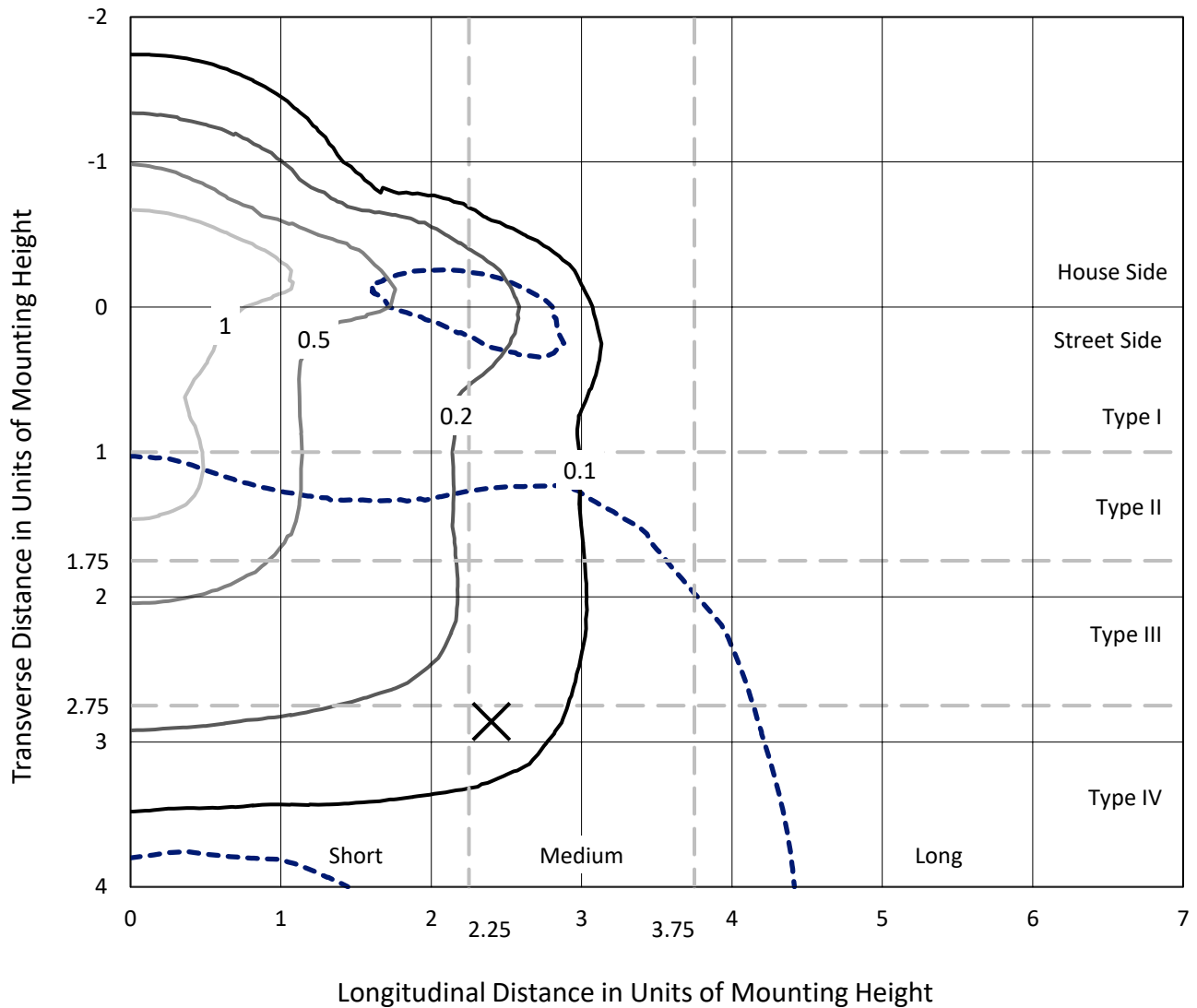
Input Watts (W): 57.3
Input Voltage (V): 120.0
Input Current (Ain): 0.484
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.038
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

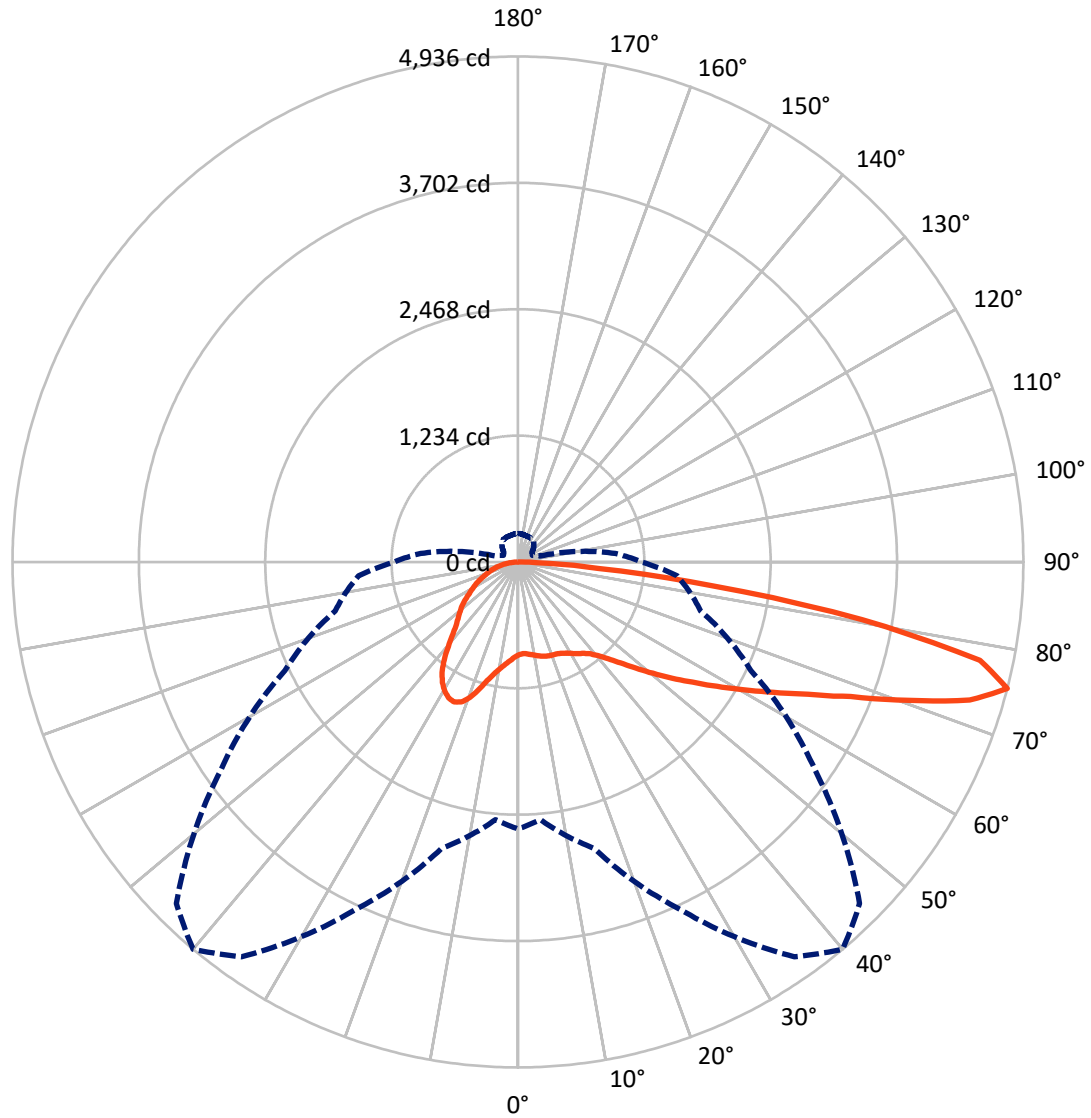
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 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
House Side	Lumens	2457.0	0.0	2457.0
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	5473.0	0.0	5473.0
	% Fixture	69.0	0.0	69.0
Total	Lumens	7930.0	0.0	7930.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.5	1.1
10°-20°	303.9	3.8
20°-30°	554.9	7.0
30°-40°	787.0	9.9
40°-50°	1062.7	13.4
50°-60°	1429.6	18.0
60°-70°	1814.5	22.9
70°-80°	1646.8	20.8
80°-90°	240.0	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°	7930.0	100.0
0°-180°	7930.0	100.0

Coefficient of Utilization



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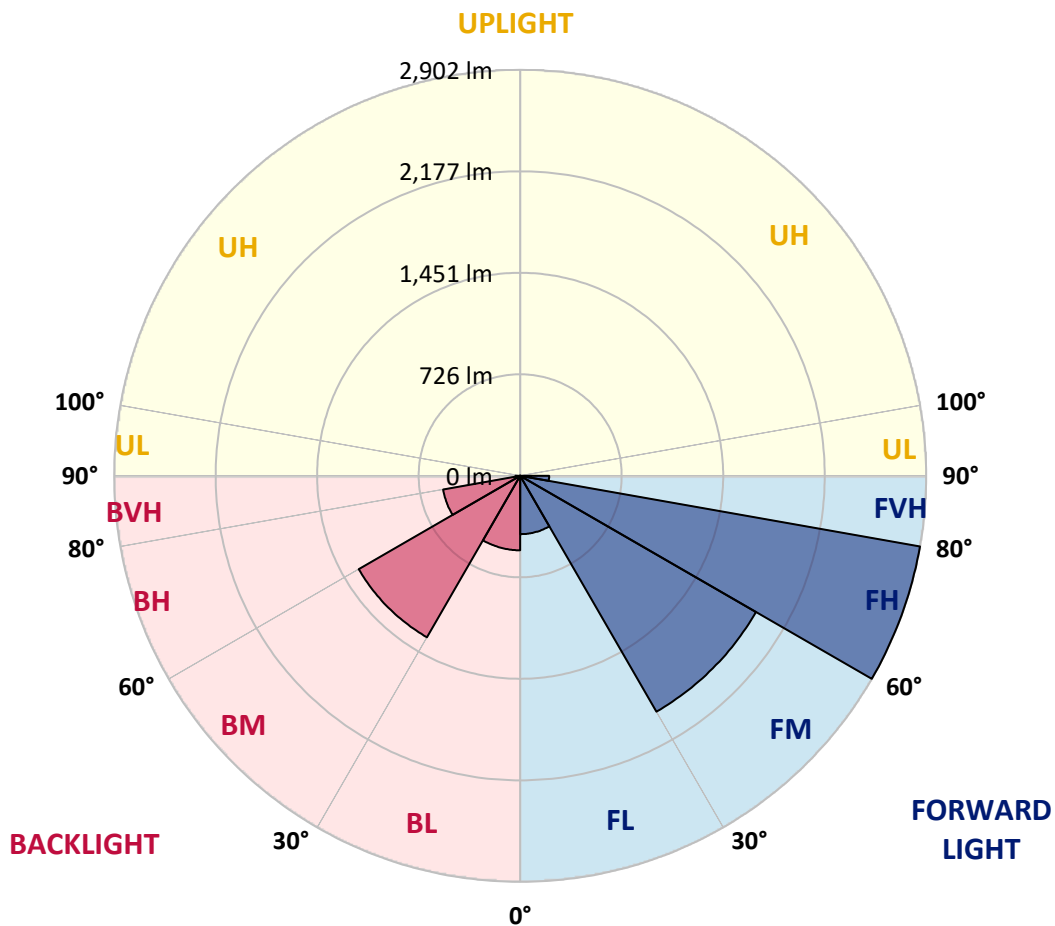
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	417.1	5.3			
FM (30°-60°)	1946.6	24.5			
FH (60°-80°)	2902.3	36.6			G2/5000
FVH (80°-90°)	207.0	2.6			G2/225
BL (0°-30°)	532.2	6.7	B2/1000		
BM (30°-60°)	1332.7	16.8	B2/2500		
BH (60°-80°)	559.0	7.0	B2/1000		G2/1000
BVH (80°-90°)	33.1	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°	906.8	906.8	906.8	906.8	906.8	906.8	906.8	906.8	906.8	906.8	906.8
2.5°	892.9	898.0	896.7	895.0	895.0	895.4	895.0	898.0	900.9	903.9	908.5
5°	902.2	907.2	904.7	902.6	900.9	900.5	899.2	898.8	900.5	904.3	910.6
7.5°	920.3	925.3	921.5	917.7	914.4	912.7	911.0	908.5	907.2	909.3	918.2
10°	940.5	945.5	940.9	934.1	928.7	926.6	924.9	922.4	920.7	921.9	931.6
12.5°	960.6	965.7	959.4	950.1	943.0	941.7	939.6	938.8	938.4	937.9	947.6
15°	979.6	983.8	975.8	964.8	957.3	955.2	953.1	954.3	956.4	959.0	969.9
17.5°	994.3	998.5	986.7	972.4	965.3	964.4	963.2	967.4	973.3	979.6	993.0
20°	1007.7	1012.0	996.8	977.5	969.1	969.1	969.5	978.3	986.7	996.0	1014.5
22.5°	1026.7	1030.0	1011.5	985.0	972.8	973.7	977.0	985.9	996.4	1009.0	1034.7
25°	1054.9	1057.4	1034.7	999.3	985.5	988.0	990.9	995.1	1005.2	1019.9	1054.4
27.5°	1100.3	1102.4	1072.5	1024.6	1003.5	1007.7	1012.0	1009.0	1013.6	1026.3	1070.4
30°	1164.2	1165.5	1127.6	1064.1	1034.2	1036.3	1037.2	1025.0	1016.2	1026.3	1081.8
32.5°	1239.9	1239.5	1194.5	1112.1	1069.2	1067.1	1059.9	1035.9	1015.3	1024.2	1091.9
35°	1357.3	1352.6	1294.6	1179.4	1108.7	1095.7	1078.8	1048.1	1019.5	1022.0	1100.7
37.5°	1551.6	1537.3	1456.9	1289.5	1167.6	1134.3	1109.5	1067.9	1028.8	1021.2	1111.2
40°	1770.7	1752.6	1664.3	1440.5	1255.9	1202.5	1162.5	1096.1	1043.9	1025.0	1126.8
42.5°	2030.6	2005.0	1909.9	1618.5	1367.8	1290.4	1230.2	1131.8	1066.2	1037.2	1147.8
45°	2349.9	2315.8	2181.2	1819.1	1508.7	1405.6	1325.3	1186.1	1100.3	1060.7	1179.4
47.5°	2672.5	2680.9	2489.5	2048.7	1677.8	1547.8	1444.3	1267.7	1149.9	1098.6	1230.2
50°	3015.3	3021.1	2796.1	2303.2	1869.6	1708.5	1578.1	1358.9	1218.9	1152.4	1306.4
52.5°	3282.8	3283.6	3074.6	2569.4	2069.3	1885.1	1722.3	1463.3	1298.8	1223.9	1407.7
55°	3450.2	3448.1	3269.7	2821.4	2299.0	2070.6	1882.2	1581.9	1396.4	1308.1	1535.2
57.5°	3571.7	3565.4	3404.3	3038.0	2543.8	2289.7	2063.0	1716.5	1511.6	1408.2	1703.0
60°	3618.0	3614.2	3495.6	3225.1	2801.2	2532.0	2271.6	1867.0	1642.4	1526.3	1918.8
62.5°	3635.6	3642.8	3585.2	3406.4	3076.7	2800.3	2500.9	2047.0	1789.6	1660.1	2146.3
65°	3697.9	3710.9	3699.1	3643.6	3387.9	3114.5	2805.0	2261.1	1950.3	1803.5	2383.9
67.5°	3821.1	3834.2	3839.2	3927.5	3768.1	3506.1	3184.3	2527.8	2138.3	1952.4	2562.7
70°	3818.2	3814.4	3903.6	4153.4	4244.2	4048.2	3695.8	2855.9	2362.5	2076.1	2585.4
72.5°	3475.4	3445.1	3655.8	4150.9	4640.4	4614.4	4320.4	3279.0	2556.0	2091.2	2243.5
75°	2607.3	2526.5	2898.8	3740.8	4706.5	4935.7	4717.4	3541.4	2510.1	1847.7	1561.3
77.5°	1115.0	1033.8	1472.5	2769.2	4212.3	4613.9	4353.2	3089.7	2003.7	1221.8	766.7
80°	291.9	291.5	445.0	1255.5	2864.7	3407.3	2989.2	1995.3	1144.9	436.6	211.6
82.5°	120.7	117.8	163.6	488.3	1399.7	1912.0	1560.4	890.0	413.4	118.2	70.2
85°	45.0	44.6	79.5	168.7	493.8	788.6	570.7	227.5	103.0	57.6	31.5
87.5°	12.6	12.2	17.2	58.5	120.3	182.5	97.6	37.4	29.0	22.7	9.3
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°	906.8	906.8	906.8	906.8	906.8	906.8	906.8	906.8	906.8	906.8	906.8
2.5°	909.8	911.9	915.6	918.6	922.4	926.6	932.5	936.2	940.0	942.6	940.9
5°	913.5	918.2	927.8	937.5	948.9	959.4	971.6	980.4	987.6	989.7	990.5
7.5°	921.9	929.5	945.9	962.3	980.4	997.7	1015.3	1030.5	1042.7	1047.3	1047.7
10°	936.7	946.8	969.9	993.0	1017.0	1043.5	1066.2	1088.1	1105.3	1112.5	1112.9
12.5°	955.2	967.8	998.1	1030.0	1063.3	1099.9	1129.3	1156.2	1177.7	1187.3	1187.3
15°	979.1	995.6	1034.2	1077.1	1125.9	1176.8	1214.3	1244.1	1268.1	1279.9	1279.0
17.5°	1005.2	1027.1	1075.9	1140.7	1210.5	1277.4	1321.1	1343.0	1367.8	1379.1	1378.7
20°	1030.5	1057.4	1127.2	1221.4	1314.4	1385.4	1420.8	1426.7	1428.3	1429.6	1433.0
22.5°	1056.5	1092.7	1191.5	1323.2	1422.9	1472.1	1477.1	1451.9	1416.6	1400.2	1404.8
25°	1085.1	1133.1	1275.7	1435.5	1516.3	1522.1	1483.4	1422.0	1355.2	1324.5	1329.1
27.5°	1112.9	1179.8	1376.6	1542.7	1583.5	1531.8	1448.5	1361.5	1280.7	1248.3	1252.1
30°	1140.7	1233.2	1488.1	1636.5	1614.2	1507.8	1393.4	1296.3	1215.1	1181.0	1184.8
32.5°	1168.8	1295.4	1616.4	1704.3	1608.8	1456.9	1324.9	1223.1	1151.6	1115.8	1120.5
35°	1200.8	1372.0	1737.9	1741.3	1572.2	1382.1	1234.5	1135.6	1073.4	1044.8	1051.1
37.5°	1242.4	1469.1	1845.2	1750.5	1508.3	1272.3	1122.2	1032.1	980.8	967.8	977.0
40°	1294.2	1586.1	1927.2	1735.8	1413.6	1139.0	999.3	927.4	898.4	901.3	911.4
42.5°	1361.5	1716.9	1984.8	1697.9	1282.0	1001.4	891.7	859.7	873.6	885.4	896.3
45°	1449.0	1852.7	2020.5	1633.6	1133.1	884.9	828.2	835.7	846.2	847.5	855.9
47.5°	1560.8	1990.3	2044.1	1536.4	981.3	802.9	787.8	789.5	787.4	778.5	785.3
50°	1700.5	2124.0	2065.1	1407.7	852.1	751.6	731.4	725.5	696.5	667.9	671.7
52.5°	1859.5	2246.8	2074.0	1247.9	751.6	708.7	675.9	638.9	584.6	575.8	578.7
55°	2036.1	2360.4	2051.2	1051.5	667.1	653.6	604.0	559.4	553.5	545.9	547.2
57.5°	2247.2	2482.8	2005.0	832.4	580.4	589.3	540.9	545.9	535.4	523.6	521.5
60°	2478.2	2609.4	1923.8	632.6	490.8	508.9	524.5	524.1	521.1	511.4	508.1
62.5°	2685.9	2692.7	1764.0	484.5	412.2	446.7	489.2	488.7	486.2	480.7	478.6
65°	2809.6	2680.0	1497.3	381.5	347.4	395.4	441.2	444.6	445.0	444.6	444.6
67.5°	2787.7	2532.4	1131.4	303.7	294.0	343.2	393.7	398.3	401.7	402.5	403.4
70°	2540.4	2208.1	737.7	242.3	246.5	297.4	348.7	353.3	356.2	359.6	361.3
72.5°	1980.2	1623.5	422.3	196.0	204.8	257.8	304.1	309.6	311.2	317.6	320.1
75°	1206.7	954.8	228.0	154.4	168.2	220.4	259.9	266.2	269.2	276.8	277.6
77.5°	573.7	413.4	130.0	120.3	135.4	180.0	219.6	226.7	218.7	222.9	219.6
80°	193.9	153.5	82.0	91.7	103.5	140.5	175.8	183.0	166.1	165.3	163.6
82.5°	67.7	62.2	52.2	61.0	66.9	100.5	132.9	142.2	123.7	123.2	117.3
85°	26.5	25.2	29.0	33.2	40.0	61.8	87.5	92.1	76.1	61.4	60.6
87.5°	5.5	5.9	7.2	7.6	12.2	21.5	31.5	38.7	30.7	26.1	24.0
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)