

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: P882294

Luminaire Tested: **NAV-SB2A-835-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882294
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-835-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3500K, 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: 7646 lumens
Efficiency: N/A
Efficacy: 133.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - U0 - G2

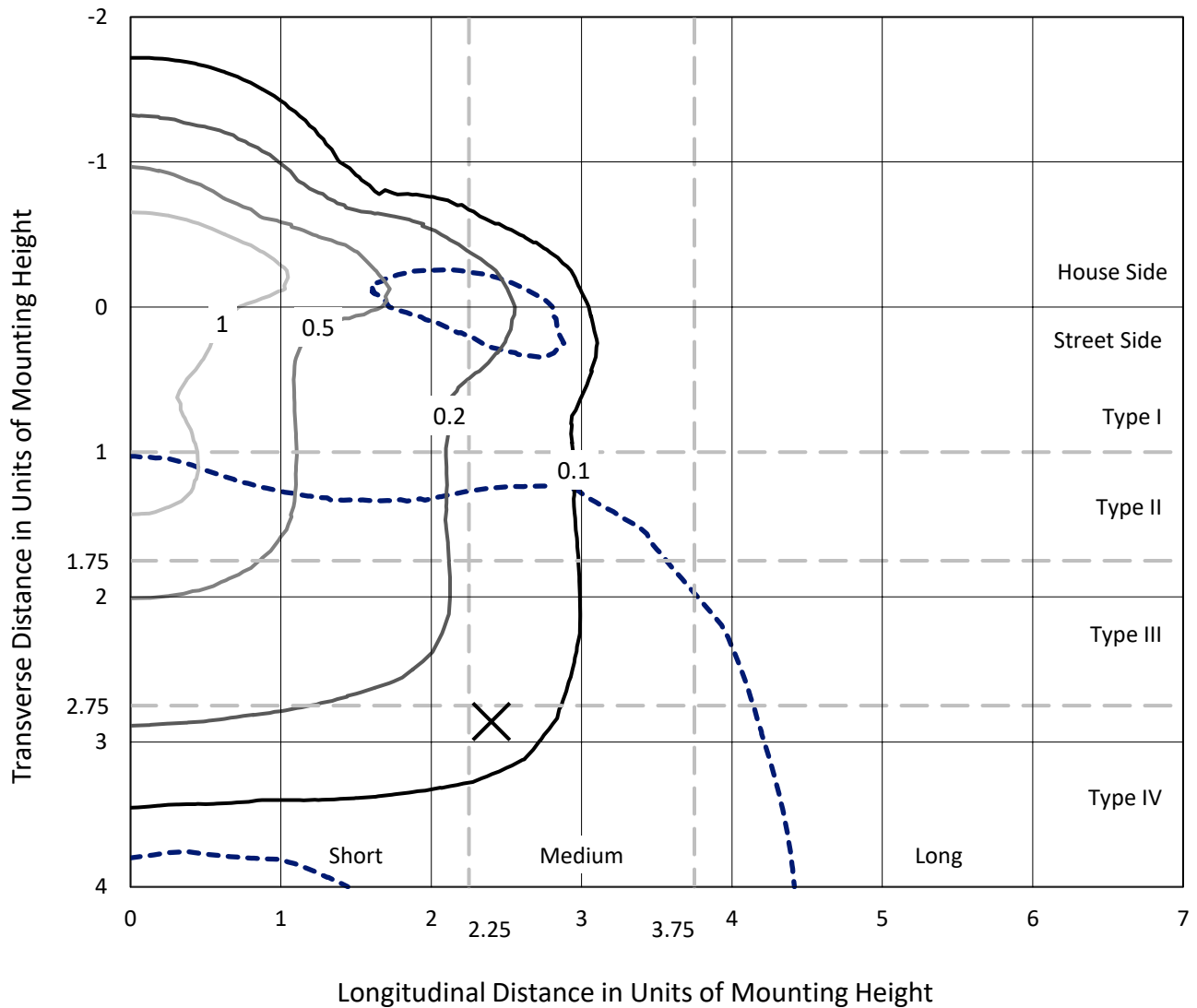
Input Watts (W): 57.3
Input Voltage (V): 120.0
Input Current (Ain): 0.484
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.038
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

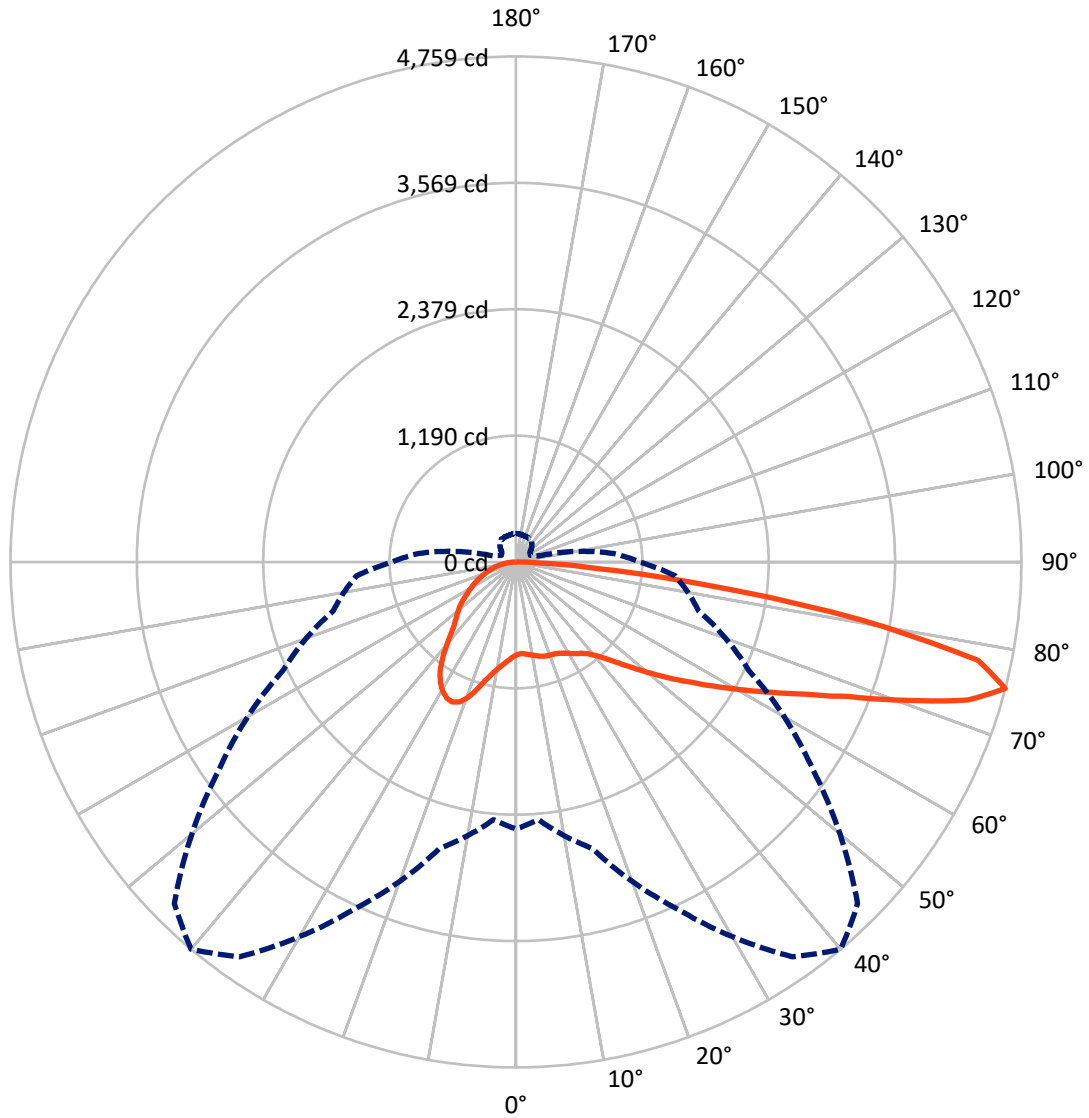
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.8 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	2369.0	0.0	2369.0
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	5277.0	0.0	5277.0
	% Fixture	69.0	0.0	69.0
Total	Lumens	7646.0	0.0	7646.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.3	1.1
10°-20°	293.0	3.8
20°-30°	535.0	7.0
30°-40°	758.8	9.9
40°-50°	1024.6	13.4
50°-60°	1378.4	18.0
60°-70°	1749.5	22.9
70°-80°	1587.8	20.8
80°-90°	231.5	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°	7646.0	100.0
0°-180°	7646.0	100.0

Coefficient of Utilization



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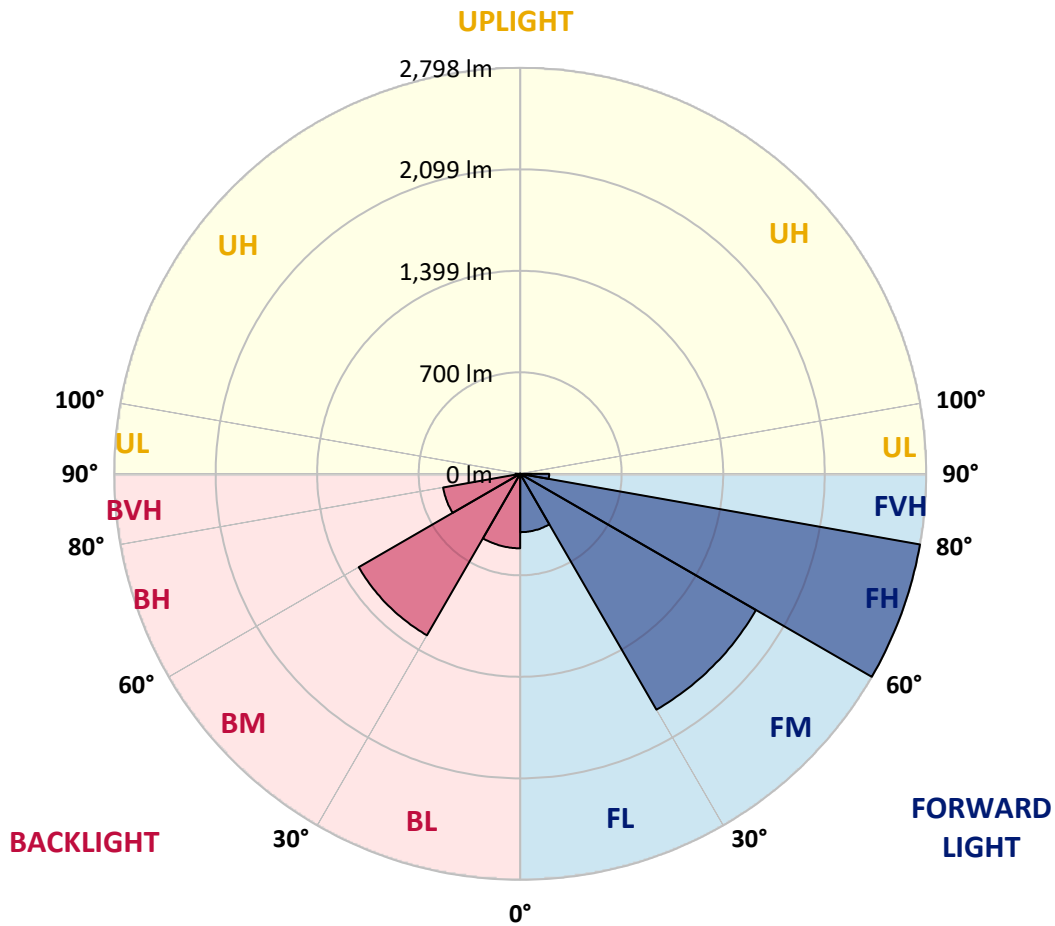
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	402.2	5.3			
FM (30°-60°)	1876.9	24.5			
FH (60°-80°)	2798.3	36.6			G2/5000
FVH (80°-90°)	199.6	2.6			G2/225
BL (0°-30°)	513.1	6.7	B2/1000		
BM (30°-60°)	1285.0	16.8	B2/2500		
BH (60°-80°)	539.0	7.0	B2/1000		G2/1000
BVH (80°-90°)	31.9	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°	874.3	874.3	874.3	874.3	874.3	874.3	874.3	874.3	874.3	874.3	874.3
2.5°	860.9	865.8	864.6	863.0	863.0	863.4	863.0	865.8	868.7	871.5	876.0
5°	869.9	874.7	872.3	870.3	868.7	868.2	867.0	866.6	868.2	871.9	878.0
7.5°	887.3	892.2	888.5	884.9	881.6	880.0	878.4	876.0	874.7	876.8	885.3
10°	906.8	911.6	907.2	900.7	895.4	893.4	891.8	889.3	887.7	888.9	898.3
12.5°	926.2	931.1	925.0	916.1	909.2	908.0	906.0	905.2	904.7	904.3	913.7
15°	944.5	948.5	940.8	930.3	923.0	921.0	918.9	920.2	922.2	924.6	935.2
17.5°	958.7	962.7	951.4	937.6	930.7	929.9	928.7	932.7	938.4	944.5	957.5
20°	971.7	975.7	961.1	942.5	934.3	934.3	934.8	943.3	951.4	960.3	978.1
22.5°	989.9	993.2	975.3	949.8	938.0	938.8	942.1	950.6	960.7	972.9	997.6
25°	1017.1	1019.5	997.6	963.5	950.2	952.6	955.4	959.5	969.2	983.4	1016.7
27.5°	1060.9	1062.9	1034.1	987.9	967.6	971.7	975.7	972.9	977.3	989.5	1032.1
30°	1122.5	1123.7	1087.2	1026.0	997.2	999.2	1000.0	988.3	979.8	989.5	1043.0
32.5°	1195.5	1195.1	1151.7	1072.2	1030.9	1028.8	1021.9	998.8	979.0	987.5	1052.8
35°	1308.7	1304.2	1248.2	1137.1	1069.0	1056.4	1040.2	1010.6	983.0	985.4	1061.3
37.5°	1496.0	1482.2	1404.8	1243.4	1125.8	1093.7	1069.8	1029.6	991.9	984.6	1071.4
40°	1707.3	1689.9	1604.7	1389.0	1210.9	1159.4	1120.9	1056.8	1006.5	988.3	1086.4
42.5°	1957.9	1933.2	1841.5	1560.5	1318.8	1244.2	1186.2	1091.3	1028.0	1000.0	1106.7
45°	2265.7	2232.9	2103.1	1753.9	1454.6	1355.3	1277.8	1143.6	1060.9	1022.8	1137.1
47.5°	2576.8	2584.9	2400.4	1975.4	1617.7	1492.4	1392.6	1222.3	1108.7	1059.3	1186.2
50°	2907.3	2912.9	2696.0	2220.7	1802.6	1647.3	1521.6	1310.3	1175.2	1111.2	1259.6
52.5°	3165.2	3166.0	2964.5	2477.4	1995.2	1817.6	1660.7	1410.9	1252.3	1180.1	1357.3
55°	3326.6	3324.6	3152.6	2720.3	2216.6	1996.4	1814.8	1525.2	1346.4	1261.2	1480.2
57.5°	3443.8	3437.7	3282.4	2929.2	2452.7	2207.7	1989.1	1655.0	1457.5	1357.7	1642.0
60°	3488.4	3484.7	3370.4	3109.6	2700.9	2441.3	2190.3	1800.2	1583.6	1471.7	1850.0
62.5°	3505.4	3512.3	3456.8	3284.4	2966.5	2700.0	2411.3	1973.7	1725.5	1600.6	2069.4
65°	3565.5	3578.0	3566.7	3513.1	3266.6	3003.0	2704.5	2180.1	1880.5	1738.9	2298.6
67.5°	3684.3	3696.8	3701.7	3786.9	3633.2	3380.5	3070.3	2437.3	2061.7	1882.5	2470.9
70°	3681.4	3677.8	3763.8	4004.6	4092.2	3903.3	3563.4	2753.6	2277.9	2001.7	2492.8
72.5°	3350.9	3321.7	3524.9	4002.2	4474.3	4449.1	4165.6	3161.5	2464.4	2016.3	2163.1
75°	2513.9	2436.0	2794.9	3606.8	4537.9	4758.9	4548.5	3414.6	2420.2	1781.5	1505.3
77.5°	1075.1	996.8	1419.8	2670.0	4061.4	4448.7	4197.3	2979.0	1932.0	1178.1	739.3
80°	281.4	281.0	429.1	1210.5	2762.1	3285.2	2882.1	1923.9	1103.9	420.9	204.0
82.5°	116.4	113.5	157.8	470.8	1349.6	1843.6	1504.5	858.1	398.6	114.0	67.7
85°	43.4	43.0	76.6	162.6	476.1	760.4	550.3	219.4	99.4	55.6	30.4
87.5°	12.2	11.8	16.6	56.4	116.0	176.0	94.1	36.1	28.0	21.9	8.9
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°	874.3	874.3	874.3	874.3	874.3	874.3	874.3	874.3	874.3	874.3	874.3
2.5°	877.2	879.2	882.8	885.7	889.3	893.4	899.1	902.7	906.4	908.8	907.2
5°	880.8	885.3	894.6	903.9	914.9	925.0	936.8	945.3	952.2	954.2	955.0
7.5°	888.9	896.2	912.0	927.9	945.3	961.9	979.0	993.6	1005.3	1009.8	1010.2
10°	903.1	912.9	935.2	957.5	980.6	1006.1	1028.0	1049.1	1065.7	1072.6	1073.0
12.5°	921.0	933.1	962.3	993.2	1025.2	1060.5	1088.9	1114.8	1135.5	1144.8	1144.8
15°	944.1	959.9	997.2	1038.6	1085.6	1134.7	1170.8	1199.6	1222.7	1234.0	1233.2
17.5°	969.2	990.3	1037.4	1099.8	1167.1	1231.6	1273.8	1294.9	1318.8	1329.7	1329.3
20°	993.6	1019.5	1086.8	1177.7	1267.3	1335.8	1369.9	1375.6	1377.2	1378.4	1381.7
22.5°	1018.7	1053.6	1148.9	1275.8	1371.9	1419.4	1424.2	1399.9	1365.8	1350.0	1354.5
25°	1046.3	1092.5	1230.0	1384.1	1461.9	1467.6	1430.3	1371.1	1306.6	1277.0	1281.5
27.5°	1073.0	1137.5	1327.3	1487.5	1526.8	1477.0	1396.7	1312.7	1234.8	1203.6	1207.3
30°	1099.8	1189.0	1434.8	1577.9	1556.4	1453.8	1343.5	1249.9	1171.6	1138.7	1142.4
32.5°	1127.0	1249.0	1558.5	1643.2	1551.2	1404.8	1277.4	1179.3	1110.4	1075.9	1080.3
35°	1157.8	1322.9	1675.7	1678.9	1515.9	1332.6	1190.2	1094.9	1034.9	1007.3	1013.4
37.5°	1197.9	1416.5	1779.1	1687.8	1454.2	1226.7	1082.0	995.2	945.7	933.1	942.1
40°	1247.8	1529.3	1858.2	1673.6	1363.0	1098.2	963.5	894.2	866.2	869.1	878.8
42.5°	1312.7	1655.4	1913.7	1637.1	1236.1	965.6	859.7	828.9	842.3	853.6	864.2
45°	1397.1	1786.4	1948.2	1575.1	1092.5	853.2	798.5	805.8	815.9	817.2	825.3
47.5°	1504.9	1919.0	1970.9	1481.4	946.1	774.2	759.6	761.2	759.2	750.6	757.1
50°	1639.6	2047.9	1991.2	1357.3	821.6	724.7	705.2	699.5	671.6	644.0	647.6
52.5°	1792.9	2166.4	1999.7	1203.2	724.7	683.3	651.7	616.0	563.7	555.2	558.0
55°	1963.2	2275.9	1977.8	1013.8	643.2	630.2	582.3	539.4	533.7	526.4	527.6
57.5°	2166.8	2393.9	1933.2	802.6	559.6	568.2	521.5	526.4	516.2	504.9	502.9
60°	2389.4	2515.9	1854.9	609.9	473.3	490.7	505.7	505.3	502.5	493.1	489.9
62.5°	2589.7	2596.2	1700.8	467.2	397.4	430.7	471.6	471.2	468.8	463.5	461.5
65°	2709.0	2584.1	1443.7	367.8	335.0	381.2	425.4	428.6	429.1	428.6	428.6
67.5°	2687.9	2441.7	1090.9	292.8	283.5	330.9	379.6	384.0	387.3	388.1	388.9
70°	2449.4	2129.1	711.3	233.6	237.6	286.7	336.2	340.6	343.5	346.7	348.4
72.5°	1909.3	1565.4	407.2	189.0	197.5	248.6	293.2	298.5	300.1	306.2	308.6
75°	1163.5	920.6	219.8	148.8	162.2	212.5	250.6	256.7	259.5	266.8	267.7
77.5°	553.1	398.6	125.3	116.0	130.6	173.6	211.7	218.6	210.9	214.9	211.7
80°	187.0	148.0	79.1	88.4	99.8	135.4	169.5	176.4	160.2	159.4	157.8
82.5°	65.3	60.0	50.3	58.8	64.5	96.9	128.1	137.1	119.2	118.8	113.1
85°	25.5	24.3	28.0	32.0	38.5	59.6	84.4	88.8	73.4	59.2	58.4
87.5°	5.3	5.7	6.9	7.3	11.8	20.7	30.4	37.3	29.6	25.1	23.1
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)