

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: P882124

Luminaire Tested: **NAV-SB1D-835-U-SL4**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882124  
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-SB1D-835-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 80 CRI, 3500K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV SPILL LIGHT  
ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

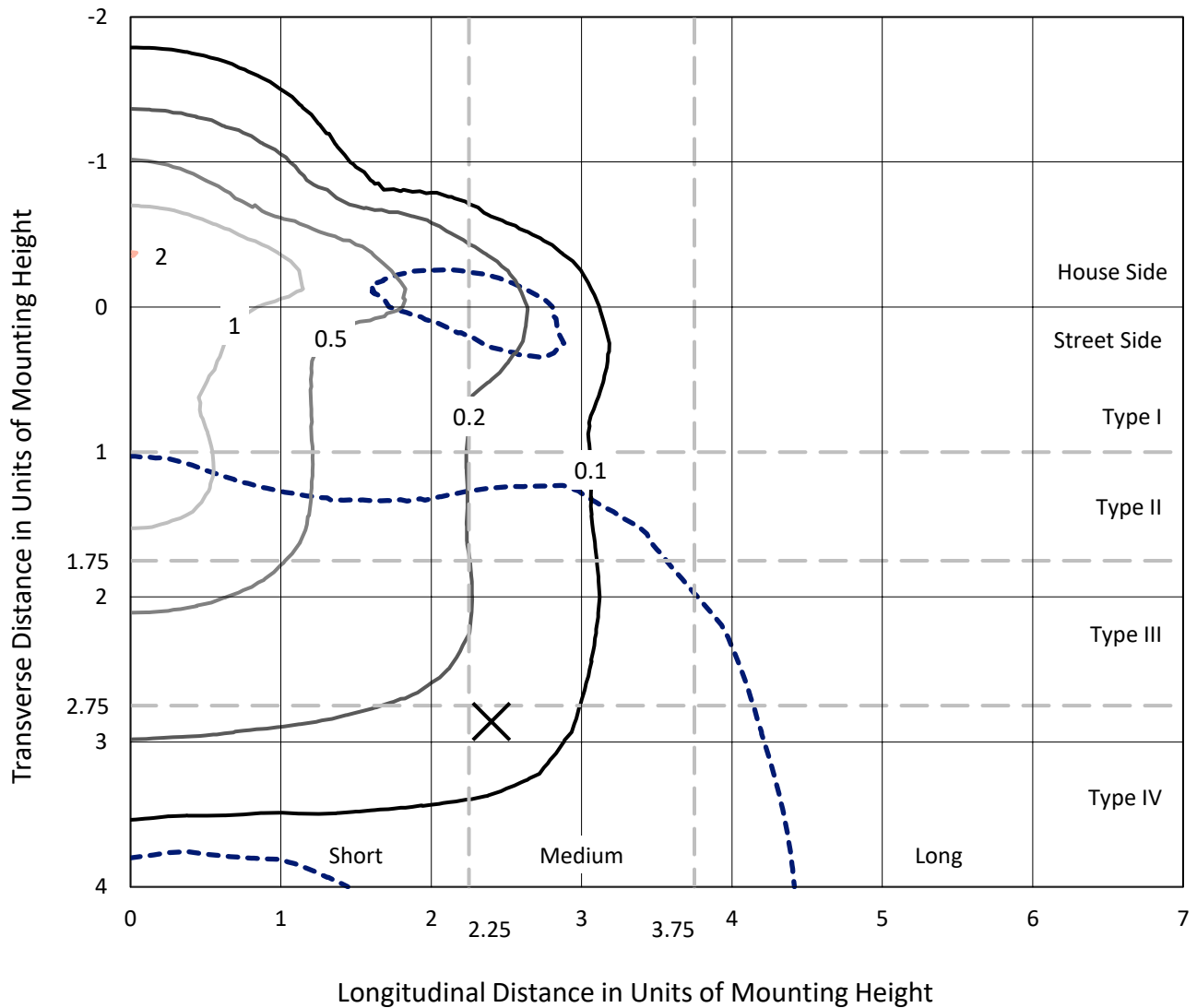
Lumens per Lamp: N/A  
Luminaire Lumens: 8518 lumens  
Efficiency: N/A  
Efficacy: 107.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 79.6  
Input Voltage (V): 120.0  
Input Current (Ain): 0.638  
Voltage Rise (V): NR  
Power Factor: 0.997  
Total Harmonic Distortion (THDi): 6.673  
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

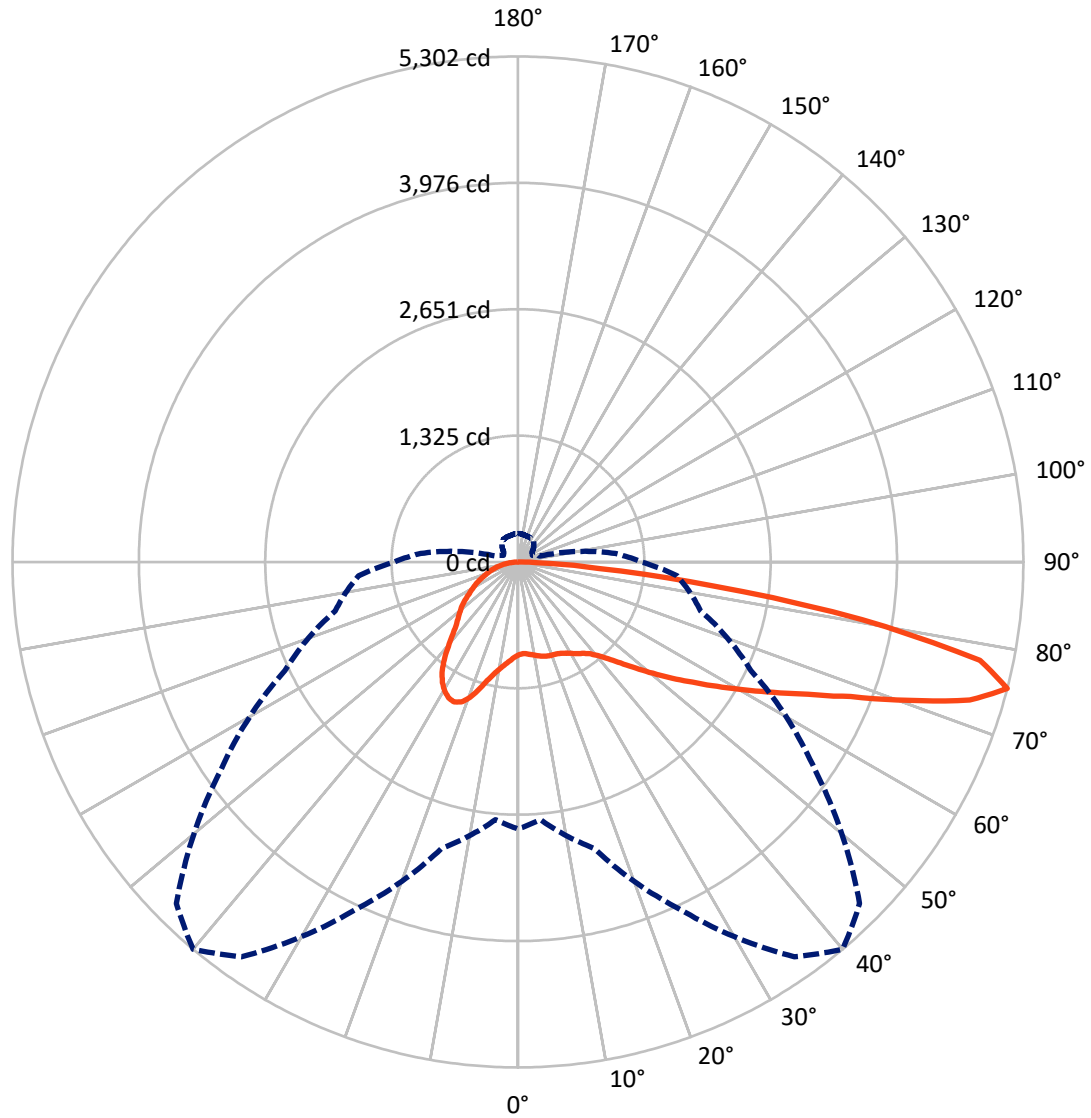
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2 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	2639.2	0.0	2639.2
	% Fixture	31.0	0.0	31.0
<b>Street Side</b>	Lumens	5878.8	0.0	5878.8
	% Fixture	69.0	0.0	69.0
<b>Total</b>	Lumens	8518.0	0.0	8518.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.2	1.1
10°-20°	326.4	3.8
20°-30°	596.1	7.0
30°-40°	845.4	9.9
40°-50°	1141.5	13.4
50°-60°	1535.6	18.0
60°-70°	1949.1	22.9
70°-80°	1768.9	20.8
80°-90°	257.9	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°	8518.0	100.0
0°-180°	8518.0	100.0

**Coefficient of Utilization**



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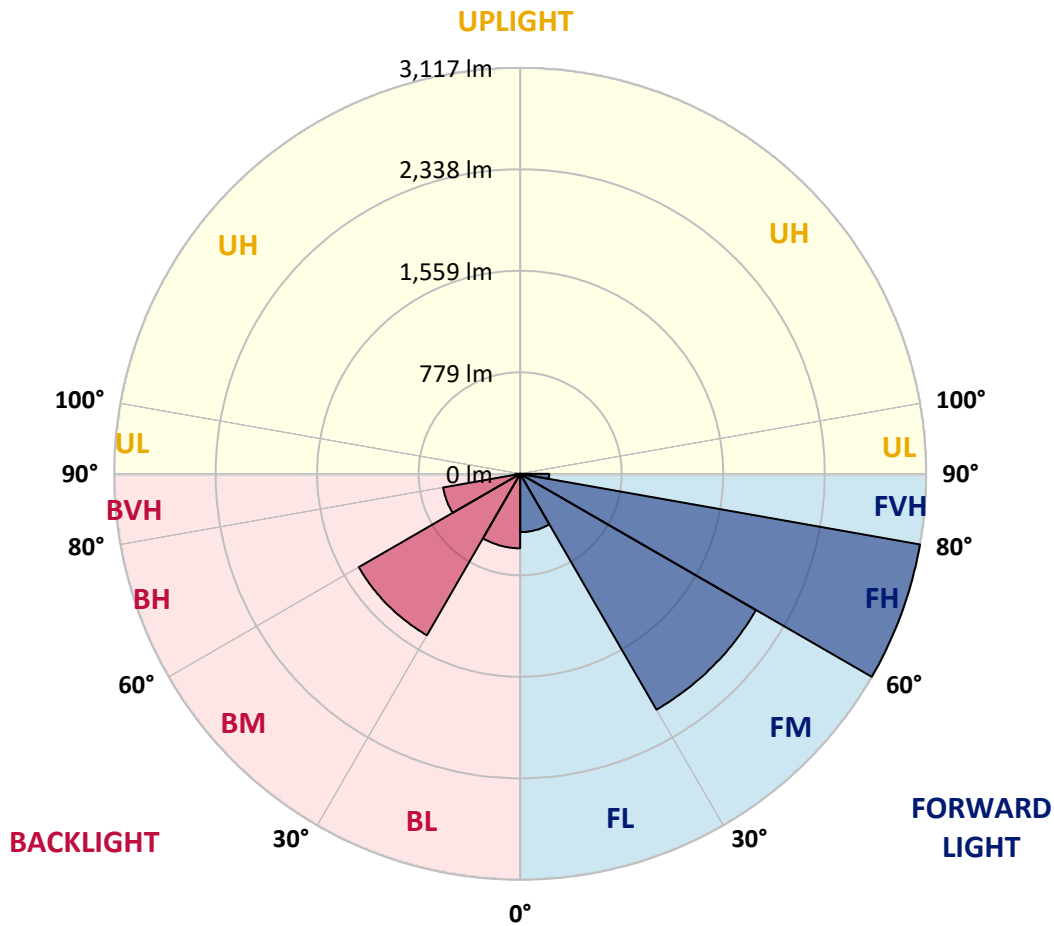
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	448.1	5.3			
FM (30°-60°)	2091.0	24.5			
FH (60°-80°)	3117.5	36.6			G2/5000
FVH (80°-90°)	222.3	2.6			G2/225
BL (0°-30°)	571.7	6.7	B2/1000		
BM (30°-60°)	1431.5	16.8	B2/2500		
BH (60°-80°)	600.5	7.0	B2/1000		G2/1000
BVH (80°-90°)	35.5	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°	974.0	974.0	974.0	974.0	974.0	974.0	974.0	974.0	974.0	974.0	974.0
2.5°	959.1	964.6	963.2	961.4	961.4	961.8	961.4	964.6	967.7	970.9	975.9
5°	969.1	974.5	971.8	969.5	967.7	967.3	965.9	965.5	967.3	971.3	978.1
7.5°	988.5	993.9	989.9	985.8	982.2	980.4	978.6	975.9	974.5	976.8	986.2
10°	1010.2	1015.6	1010.6	1003.4	997.5	995.3	993.5	990.8	989.0	990.3	1000.7
12.5°	1031.9	1037.3	1030.5	1020.6	1012.9	1011.5	1009.3	1008.4	1007.9	1007.5	1017.9
15°	1052.2	1056.7	1048.1	1036.4	1028.3	1026.0	1023.7	1025.1	1027.4	1030.1	1041.8
17.5°	1068.0	1072.5	1059.9	1044.5	1036.8	1035.9	1034.6	1039.1	1045.4	1052.2	1066.7
20°	1082.5	1087.0	1070.7	1049.9	1040.9	1040.9	1041.4	1050.8	1059.9	1069.8	1089.7
22.5°	1102.8	1106.4	1086.5	1058.1	1045.0	1045.9	1049.5	1059.0	1070.3	1083.8	1111.4
25°	1133.1	1135.8	1111.4	1073.4	1058.5	1061.2	1064.4	1068.9	1079.8	1095.6	1132.6
27.5°	1181.9	1184.1	1152.0	1100.5	1078.0	1082.5	1087.0	1083.8	1088.8	1102.4	1149.8
30°	1250.5	1251.9	1211.2	1143.0	1110.9	1113.2	1114.1	1101.0	1091.5	1102.4	1162.0
32.5°	1331.9	1331.4	1283.1	1194.5	1148.4	1146.2	1138.5	1112.7	1090.6	1100.1	1172.8
35°	1457.9	1452.9	1390.6	1266.8	1190.9	1176.9	1158.8	1125.8	1095.1	1097.8	1182.3
37.5°	1666.6	1651.3	1565.0	1385.2	1254.2	1218.5	1191.8	1147.1	1105.1	1096.9	1193.6
40°	1902.0	1882.6	1787.7	1547.4	1349.0	1291.6	1248.7	1177.3	1121.3	1101.0	1210.3
42.5°	2181.2	2153.7	2051.5	1738.5	1469.2	1386.1	1321.5	1215.7	1145.3	1114.1	1232.9
45°	2524.1	2487.5	2342.9	1954.0	1620.5	1509.9	1423.6	1274.0	1181.9	1139.4	1266.8
47.5°	2870.6	2879.7	2674.1	2200.6	1802.2	1662.6	1551.4	1361.7	1235.2	1180.1	1321.5
50°	3238.8	3245.2	3003.5	2474.0	2008.2	1835.1	1695.1	1459.7	1309.3	1237.9	1403.2
52.5°	3526.2	3527.1	3302.5	2759.9	2222.8	2024.9	1850.1	1571.8	1395.1	1314.7	1512.1
55°	3706.0	3703.7	3512.2	3030.6	2469.4	2224.1	2021.7	1699.2	1499.9	1405.0	1649.0
57.5°	3836.5	3829.8	3656.7	3263.2	2732.4	2459.5	2216.0	1843.7	1623.7	1512.6	1829.3
60°	3886.2	3882.2	3754.8	3464.3	3008.9	2719.7	2440.1	2005.5	1764.2	1639.5	2061.0
62.5°	3905.2	3912.9	3851.0	3659.0	3304.8	3008.0	2686.3	2198.8	1922.3	1783.2	2305.4
65°	3972.1	3986.1	3973.4	3913.8	3639.1	3345.5	3012.9	2428.8	2094.9	1937.2	2560.7
67.5°	4104.5	4118.5	4123.9	4218.8	4047.5	3766.1	3420.5	2715.2	2296.9	2097.2	2752.7
70°	4101.3	4097.2	4193.0	4461.4	4558.9	4348.4	3969.8	3067.6	2537.7	2230.0	2777.1
72.5°	3733.1	3700.6	3926.9	4458.6	4984.5	4956.5	4640.7	3522.1	2745.5	2246.3	2409.8
75°	2800.6	2713.9	3113.7	4018.2	5055.5	5301.7	5067.2	3804.0	2696.2	1984.7	1677.0
77.5°	1197.7	1110.5	1581.7	2974.5	4524.6	4956.1	4676.0	3318.8	2152.3	1312.4	823.6
80°	313.5	313.1	478.0	1348.6	3077.1	3659.9	3210.8	2143.3	1229.8	469.0	227.2
82.5°	129.7	126.5	175.7	524.5	1503.5	2053.8	1676.1	956.0	444.1	127.0	75.4
85°	48.3	47.9	85.4	181.2	530.4	847.1	613.1	244.4	110.7	61.9	33.9
87.5°	13.6	13.1	18.5	62.8	129.2	196.1	104.8	40.2	31.2	24.4	9.9
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°	974.0	974.0	974.0	974.0	974.0	974.0	974.0	974.0	974.0	974.0	974.0
2.5°	977.2	979.5	983.5	986.7	990.8	995.3	1001.6	1005.7	1009.7	1012.4	1010.6
5°	981.3	986.2	996.6	1007.0	1019.2	1030.5	1043.6	1053.1	1060.8	1063.0	1063.9
7.5°	990.3	998.4	1016.1	1033.7	1053.1	1071.6	1090.6	1106.9	1120.0	1124.9	1125.4
10°	1006.1	1017.0	1041.8	1066.7	1092.4	1120.9	1145.3	1168.8	1187.3	1195.0	1195.4
12.5°	1026.0	1039.6	1072.1	1106.4	1142.1	1181.4	1213.0	1242.0	1265.0	1275.4	1275.4
15°	1051.8	1069.4	1110.9	1157.0	1209.4	1264.1	1304.3	1336.4	1362.1	1374.8	1373.9
17.5°	1079.8	1103.3	1155.7	1225.2	1300.2	1372.1	1419.1	1442.5	1469.2	1481.4	1480.9
20°	1106.9	1135.8	1210.8	1312.0	1411.8	1488.2	1526.1	1532.4	1534.3	1535.6	1539.2
22.5°	1134.9	1173.7	1279.9	1421.3	1528.4	1581.2	1586.7	1559.6	1521.6	1504.0	1509.0
25°	1165.6	1217.1	1370.3	1541.9	1628.7	1635.0	1593.4	1527.5	1455.6	1422.7	1427.6
27.5°	1195.4	1267.3	1478.7	1657.1	1701.0	1645.4	1555.9	1462.4	1375.7	1340.9	1345.0
30°	1225.2	1324.6	1598.4	1757.9	1733.9	1619.6	1496.8	1392.4	1305.2	1268.6	1272.7
32.5°	1255.5	1391.5	1736.2	1830.6	1728.1	1565.0	1423.1	1313.8	1237.0	1198.6	1203.6
35°	1289.8	1473.7	1866.8	1870.4	1688.8	1484.6	1326.0	1219.8	1153.0	1122.2	1129.0
37.5°	1334.6	1578.1	1982.0	1880.3	1620.1	1366.6	1205.4	1108.7	1053.6	1039.6	1049.5
40°	1390.1	1703.7	2070.1	1864.5	1518.4	1223.4	1073.4	996.2	965.0	968.2	979.0
42.5°	1462.4	1844.2	2132.0	1823.8	1377.0	1075.7	957.8	923.4	938.4	951.0	962.8
45°	1556.4	1990.1	2170.4	1754.7	1217.1	950.6	889.6	897.7	909.0	910.3	919.4
47.5°	1676.6	2137.8	2195.7	1650.4	1054.0	862.5	846.2	848.0	845.7	836.3	843.5
50°	1826.6	2281.5	2218.3	1512.1	915.3	807.3	785.7	779.3	748.2	717.4	721.5
52.5°	1997.3	2413.4	2227.7	1340.4	807.3	761.3	726.0	686.3	628.0	618.5	621.7
55°	2187.1	2535.4	2203.3	1129.5	716.5	702.1	648.8	600.9	594.5	586.4	587.8
57.5°	2413.9	2666.9	2153.7	894.1	623.5	632.9	581.0	586.4	575.1	562.5	560.2
60°	2661.9	2802.9	2066.5	679.5	527.2	546.7	563.4	562.9	559.8	549.4	545.8
62.5°	2885.1	2892.3	1894.8	520.5	442.7	479.8	525.4	525.0	522.3	516.4	514.1
65°	3017.9	2878.8	1608.3	409.8	373.2	424.7	473.9	477.5	478.0	477.5	477.5
67.5°	2994.4	2720.2	1215.3	326.2	315.8	368.7	422.9	427.8	431.5	432.4	433.3
70°	2728.8	2371.9	792.4	260.2	264.7	319.4	374.5	379.5	382.7	386.3	388.1
72.5°	2127.0	1743.9	453.6	210.5	220.0	276.9	326.6	332.5	334.3	341.1	343.8
75°	1296.2	1025.5	244.9	165.8	180.7	236.7	279.2	286.0	289.1	297.3	298.2
77.5°	616.2	444.1	139.6	129.2	145.5	193.4	235.8	243.5	234.9	239.4	235.8
80°	208.3	164.9	88.1	98.5	111.1	150.9	188.8	196.5	178.5	177.6	175.7
82.5°	72.7	66.9	56.0	65.5	71.8	108.0	142.8	152.7	132.8	132.4	126.0
85°	28.5	27.1	31.2	35.7	42.9	66.4	94.0	98.9	81.8	66.0	65.1
87.5°	5.9	6.3	7.7	8.1	13.1	23.0	33.9	41.6	33.0	28.0	25.8
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)