

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: P960829

Luminaire Tested: **NAV-SB1D-727-U-T4W**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P960829  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1D-727-U-T4W  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

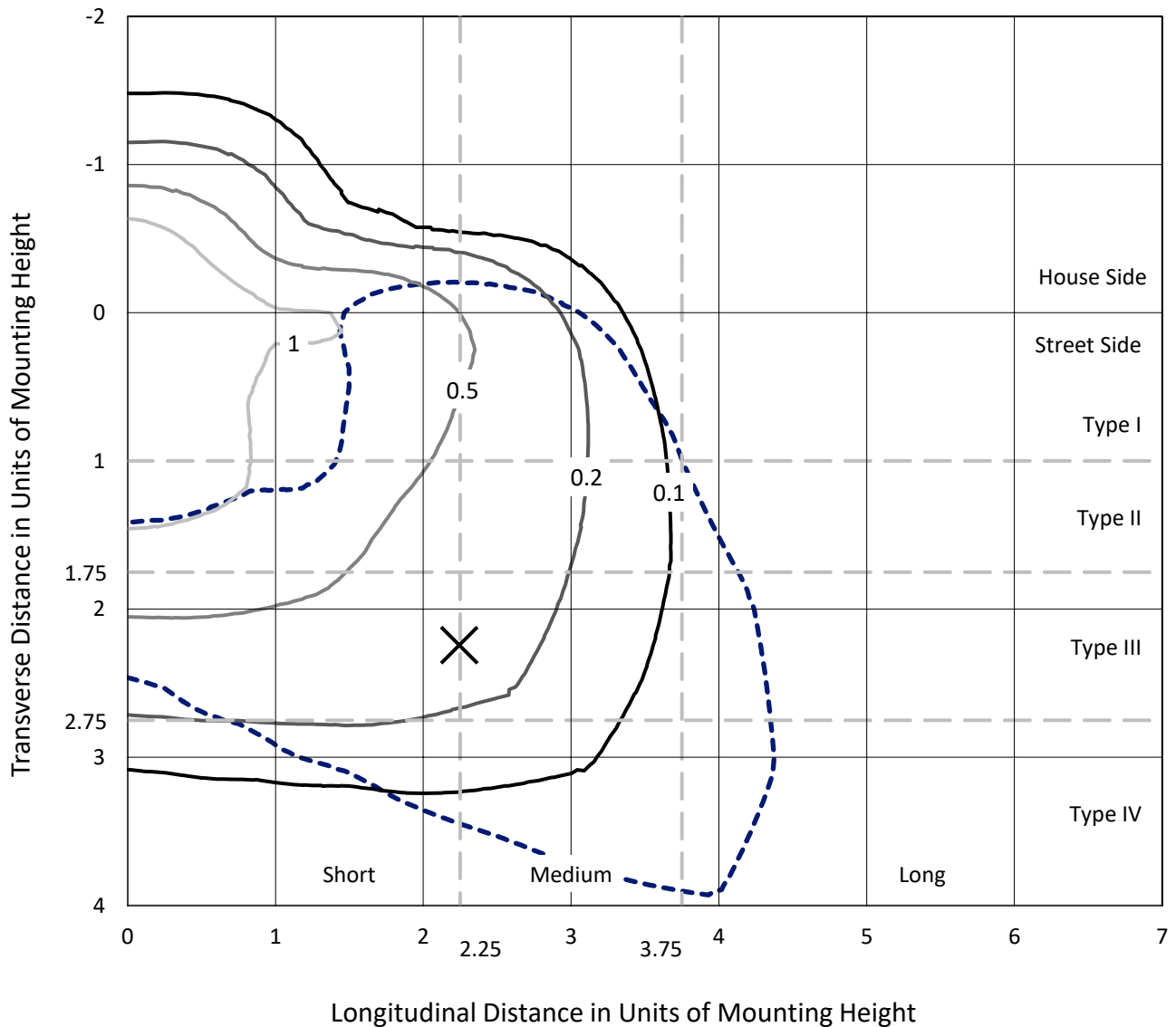
Lumens per Lamp: N/A  
Luminaire Lumens: 9658.6 lumens  
Efficiency: N/A  
Efficacy: 121.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 79.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
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

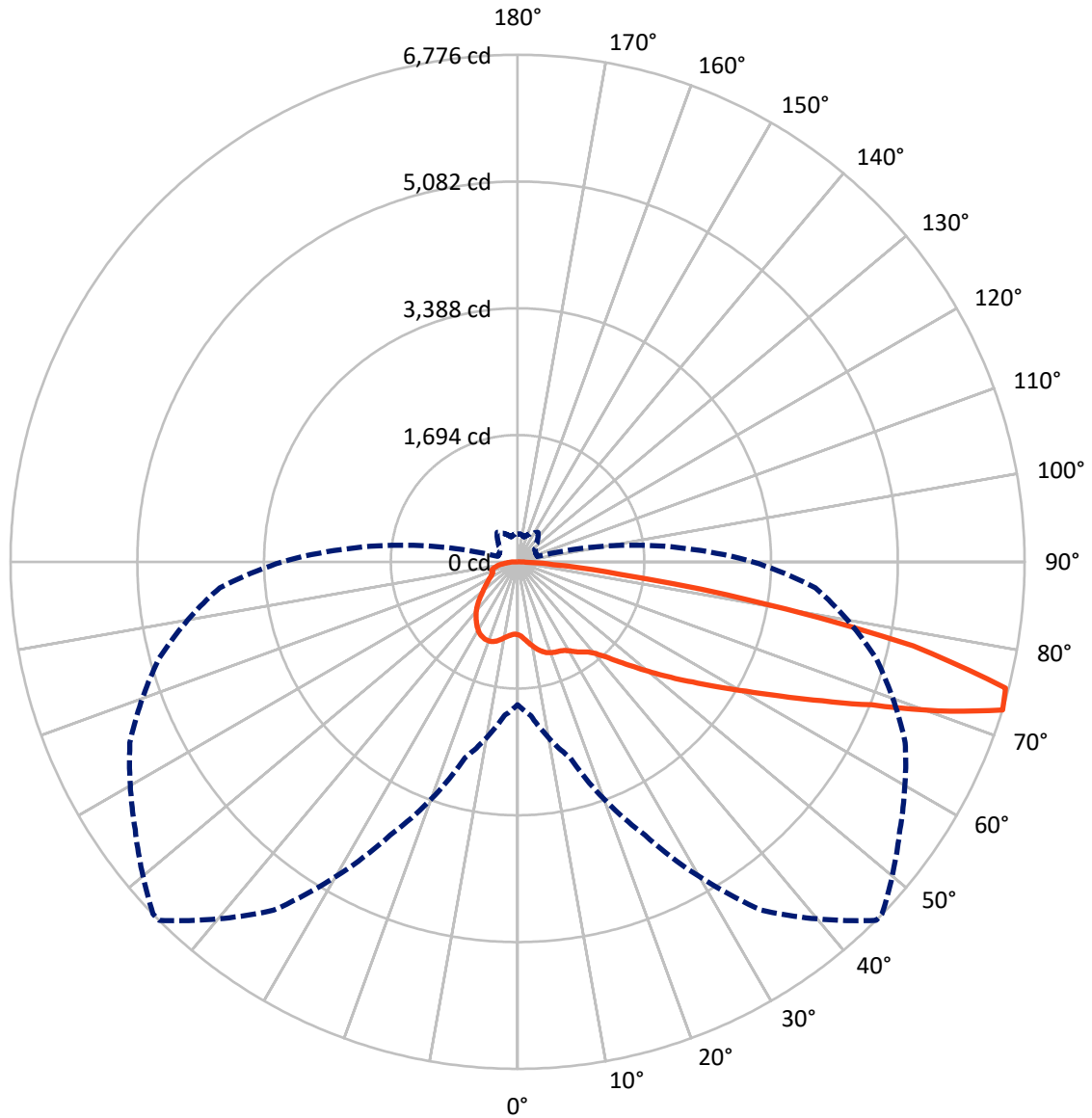
× Max cd  
 - - - 1/2 Max cd



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 45-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2183.5	0.0	2183.5
	% Fixture	22.6	0.0	22.6
<b>Street Side</b>	Lumens	7475.1	0.0	7475.1
	% Fixture	77.4	0.0	77.4
<b>Total</b>	Lumens	9658.6	0.0	9658.6
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.2	1.0
10°-20°	330.6	3.4
20°-30°	575.2	6.0
30°-40°	824.6	8.5
40°-50°	1161.0	12.0
50°-60°	1778.3	18.4
60°-70°	2576.2	26.7
70°-80°	2057.2	21.3
80°-90°	256.2	2.7
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°	9658.6	100.0
0°-180°	9658.6	100.0

**Coefficient of Utilization**



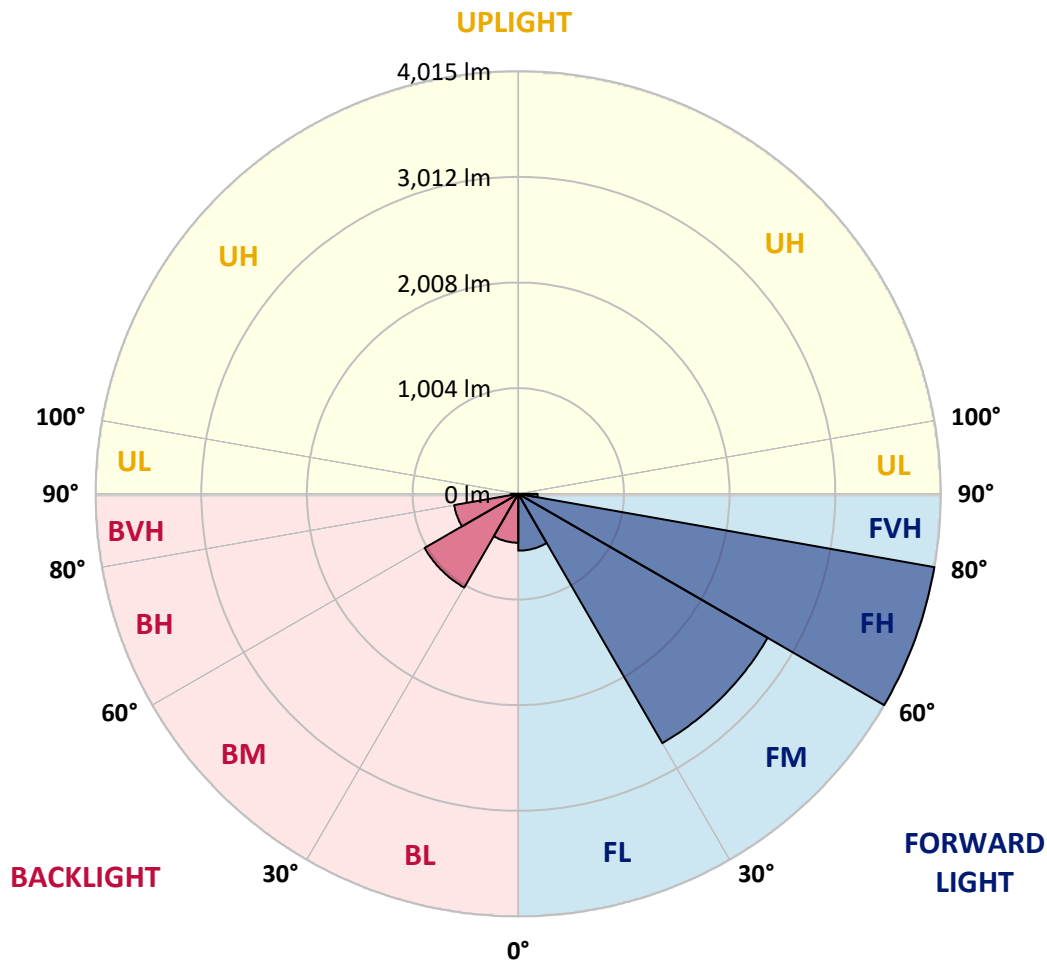
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	540.1	5.6			
FM (30°-60°)	2735.8	28.3			
FH (60°-80°)	4015.4	41.6			G2/5000
FVH (80°-90°)	183.8	1.9			G2/225
BL (0°-30°)	464.9	4.8	B1/500		
BM (30°-60°)	1028.1	10.6	B2/2500		
BH (60°-80°)	618.1	6.4	B2/1000		G2/1000
BVH (80°-90°)	72.4	0.7			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 Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	974.4	974.4	974.4	974.4	974.4	974.4	974.4	974.4	974.4	974.4	974.4
2.5°	1012.5	1019.2	1013.0	1007.5	1004.9	998.2	997.7	993.7	991.2	984.0	982.0
5°	1083.2	1091.9	1081.7	1070.5	1060.4	1044.1	1042.0	1030.3	1017.1	1001.8	993.2
7.5°	1163.2	1170.8	1159.1	1142.3	1124.4	1097.5	1097.0	1075.6	1054.7	1028.8	1014.0
10°	1232.9	1243.0	1227.2	1204.4	1181.9	1151.4	1147.9	1123.4	1097.0	1063.4	1041.0
12.5°	1294.4	1301.5	1286.3	1258.3	1232.4	1201.8	1197.2	1170.2	1140.7	1102.6	1074.1
15°	1343.3	1352.4	1332.1	1302.1	1274.6	1244.6	1240.5	1216.1	1186.5	1146.4	1109.7
17.5°	1375.3	1382.9	1362.1	1328.5	1302.1	1277.1	1274.1	1253.7	1227.7	1187.1	1147.9
20°	1387.5	1395.6	1373.8	1339.7	1315.3	1295.9	1294.4	1279.6	1261.9	1224.7	1185.0
22.5°	1399.7	1407.3	1378.8	1343.3	1321.8	1309.6	1309.1	1299.5	1292.3	1261.9	1223.1
25°	1449.0	1451.1	1413.0	1361.6	1331.1	1320.3	1319.8	1319.4	1322.4	1298.5	1264.3
27.5°	1491.8	1491.3	1458.8	1410.4	1363.0	1340.7	1340.2	1345.3	1354.9	1335.1	1307.1
30°	1554.4	1548.8	1510.1	1459.8	1416.6	1381.9	1378.8	1374.3	1381.9	1366.1	1349.8
32.5°	1687.2	1669.4	1606.8	1517.3	1460.8	1434.3	1430.3	1401.8	1404.8	1395.1	1387.0
35°	1877.5	1854.1	1770.7	1626.2	1515.8	1478.0	1476.0	1439.9	1433.8	1425.2	1428.2
37.5°	2103.9	2074.9	1977.7	1783.9	1610.4	1529.0	1525.9	1493.3	1468.4	1459.3	1476.5
40°	2331.4	2294.7	2214.3	1976.2	1749.8	1614.0	1604.2	1554.9	1526.4	1511.2	1547.7
42.5°	2552.1	2521.6	2452.9	2192.0	1921.8	1738.1	1716.7	1632.2	1610.9	1596.6	1662.8
45°	2747.5	2720.0	2669.7	2422.4	2123.3	1907.0	1886.1	1748.2	1741.7	1741.7	1837.3
47.5°	2906.3	2900.2	2846.7	2657.5	2360.9	2099.3	2063.2	1909.6	1927.3	1954.9	2085.1
50°	3082.4	3065.6	3008.6	2889.0	2640.2	2319.7	2290.2	2107.5	2174.1	2249.5	2443.3
52.5°	3244.1	3253.4	3189.7	3130.1	2955.7	2565.4	2513.5	2341.0	2485.0	2609.6	2863.0
55°	3410.5	3411.0	3393.3	3385.1	3286.4	2837.1	2780.1	2621.8	2850.8	3005.5	3352.5
57.5°	3566.7	3567.7	3594.2	3665.9	3670.0	3150.5	3085.9	2966.9	3257.3	3415.1	3857.3
60°	3706.1	3713.3	3785.5	3953.4	4007.3	3509.7	3448.7	3374.4	3677.6	3836.4	4387.9
62.5°	3752.9	3778.9	3939.7	4178.3	4340.6	3950.3	3890.3	3846.1	4119.3	4266.9	4831.6
65°	3673.6	3733.2	4044.0	4364.0	4683.5	4473.9	4414.4	4366.1	4578.3	4717.2	5195.9
67.5°	3478.7	3555.5	4037.9	4558.9	5099.8	5103.8	5048.3	4934.9	5070.3	5123.7	5314.5
70°	2965.3	3080.3	3682.2	4631.7	5577.5	5965.2	5911.8	5619.8	5561.2	5302.7	4980.7
72.5°	1910.6	2065.3	2711.4	4032.8	5683.8	6775.8	6772.7	6237.9	5716.4	4954.7	3994.6
75°	697.1	791.7	1259.8	2531.3	4771.1	6734.6	6754.3	6132.2	5218.3	3827.2	2488.6
77.5°	253.9	277.8	411.1	972.8	2934.3	5403.5	5444.7	4902.4	3714.3	1920.7	986.0
80°	133.4	146.6	210.6	377.5	1257.3	3209.1	3273.6	2913.5	1745.7	578.5	295.6
82.5°	73.8	79.8	118.1	205.0	566.3	1372.3	1410.9	1150.9	614.1	245.3	122.1
85°	39.7	42.2	55.5	111.9	276.8	475.7	486.5	344.0	244.8	144.0	59.0
87.5°	11.7	14.2	18.3	35.6	108.3	106.8	109.4	68.2	96.7	72.8	19.4
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°	974.4	974.4	974.4	974.4	974.4	974.4	974.4	974.4	974.4	974.4	974.4
2.5°	979.0	977.4	971.8	969.2	966.3	965.8	968.2	968.7	969.2	969.8	971.8
5°	988.1	983.0	978.0	974.9	975.9	976.4	981.4	985.0	987.6	989.6	990.7
7.5°	1005.9	1001.8	993.2	992.7	994.2	998.8	1005.4	1013.5	1018.1	1021.7	1022.7
10°	1032.4	1024.7	1014.5	1016.1	1019.2	1025.7	1039.5	1046.1	1053.7	1060.4	1058.8
12.5°	1059.3	1052.7	1041.0	1042.0	1047.1	1058.8	1072.0	1080.1	1085.3	1090.4	1092.4
15°	1094.4	1082.7	1070.0	1070.0	1079.2	1091.9	1098.0	1104.6	1107.7	1113.3	1115.3
17.5°	1130.6	1115.3	1098.5	1097.5	1108.6	1114.8	1118.4	1119.4	1120.4	1126.5	1128.5
20°	1166.7	1149.9	1126.0	1123.9	1126.5	1125.4	1124.9	1123.9	1125.4	1133.1	1136.2
22.5°	1202.3	1183.0	1149.9	1140.7	1133.6	1123.9	1123.4	1122.9	1123.9	1131.6	1136.6
25°	1244.0	1220.7	1176.4	1148.9	1124.9	1111.7	1113.3	1113.8	1114.8	1120.9	1129.0
27.5°	1289.3	1263.3	1200.8	1146.4	1103.1	1094.0	1091.4	1093.0	1096.4	1106.2	1115.8
30°	1334.6	1304.1	1223.1	1136.2	1075.6	1062.9	1054.7	1058.3	1069.5	1079.2	1089.9
32.5°	1375.9	1345.3	1241.0	1113.8	1040.5	1020.7	1009.9	1014.5	1025.7	1029.3	1042.0
35°	1424.1	1389.6	1248.7	1078.2	1002.3	971.8	957.6	951.0	956.5	952.9	964.2
37.5°	1478.0	1442.0	1247.6	1031.4	957.6	922.5	902.6	877.7	866.0	853.8	861.4
40°	1558.0	1506.0	1235.3	974.9	902.1	870.0	834.5	792.2	765.8	741.8	743.3
42.5°	1666.9	1595.1	1213.0	912.8	839.6	809.5	761.2	711.9	670.1	630.4	626.9
45°	1829.1	1711.6	1185.0	846.6	771.8	742.3	689.9	634.5	587.1	536.3	530.1
47.5°	2063.2	1868.4	1158.6	771.3	700.6	673.6	626.4	574.9	519.0	469.7	464.0
50°	2384.8	2093.3	1134.2	698.1	630.4	610.1	572.4	520.0	463.5	423.8	421.3
52.5°	2793.8	2399.0	1123.9	627.4	564.8	557.2	527.2	478.3	424.9	391.2	388.7
55°	3263.5	2764.8	1123.9	559.6	507.3	509.8	488.9	443.7	397.4	367.4	364.3
57.5°	3742.8	3135.3	1103.6	497.1	458.5	469.1	455.9	416.3	374.4	343.5	338.4
60°	4184.5	3445.6	1021.2	440.1	415.2	431.9	423.3	389.2	338.4	312.4	308.3
62.5°	4523.8	3620.7	862.4	394.8	379.6	398.9	394.3	353.6	331.7	321.0	317.5
65°	4693.7	3592.2	659.4	354.6	349.5	379.6	369.9	368.4	351.1	338.9	334.8
67.5°	4589.4	3346.9	478.3	325.1	332.2	361.7	398.9	405.0	373.0	349.0	345.0
70°	4132.0	2903.2	356.2	297.1	310.4	362.2	454.9	423.8	365.8	337.8	333.2
72.5°	3143.4	2165.0	276.2	267.6	281.9	364.8	479.8	415.2	345.5	373.5	370.4
75°	1797.6	1188.6	221.8	231.5	246.3	340.9	467.1	392.8	329.7	343.0	343.0
77.5°	685.3	456.9	183.2	195.9	197.9	297.7	446.7	391.2	314.0	306.3	279.3
80°	237.6	178.6	151.6	155.7	153.1	264.6	428.4	340.4	257.0	230.0	222.3
82.5°	97.2	89.1	120.0	115.0	108.9	205.5	345.9	278.3	210.1	185.7	183.7
85°	42.2	56.5	79.3	69.7	63.1	142.5	277.3	235.5	177.5	153.1	152.6
87.5°	8.6	21.3	33.6	31.6	32.6	95.1	196.9	167.4	125.7	94.1	73.8
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)