

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: P882051

Luminaire Tested: **NAV-SB1D-727-U-T4FT**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882051  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1D-727-U-T4FT  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD  
THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

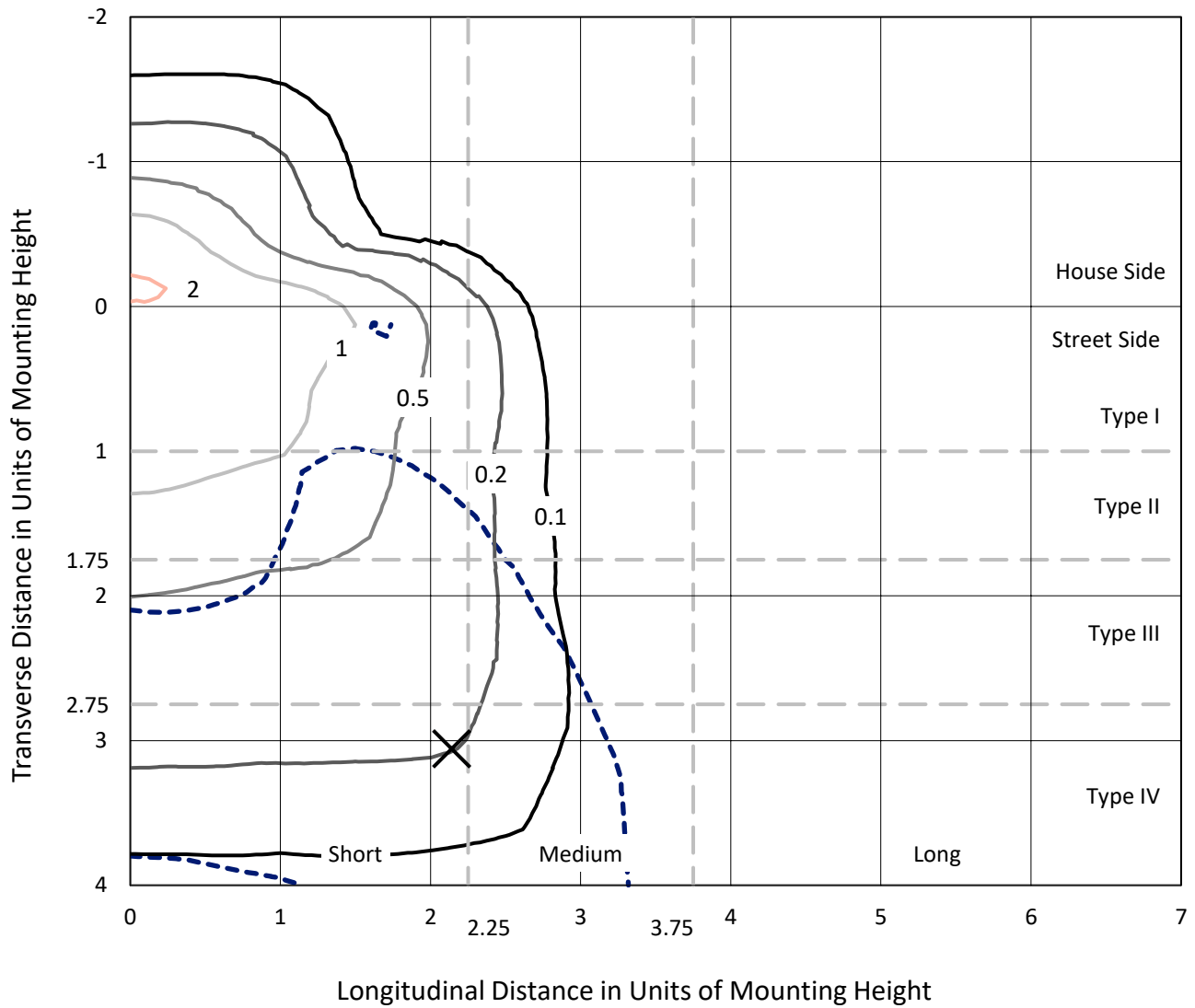
Lumens per Lamp: N/A  
Luminaire Lumens: 9123 lumens  
Efficiency: N/A  
Efficacy: 114.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 79.6  
Input Voltage (V): 120.0  
Input Current (Ain): 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

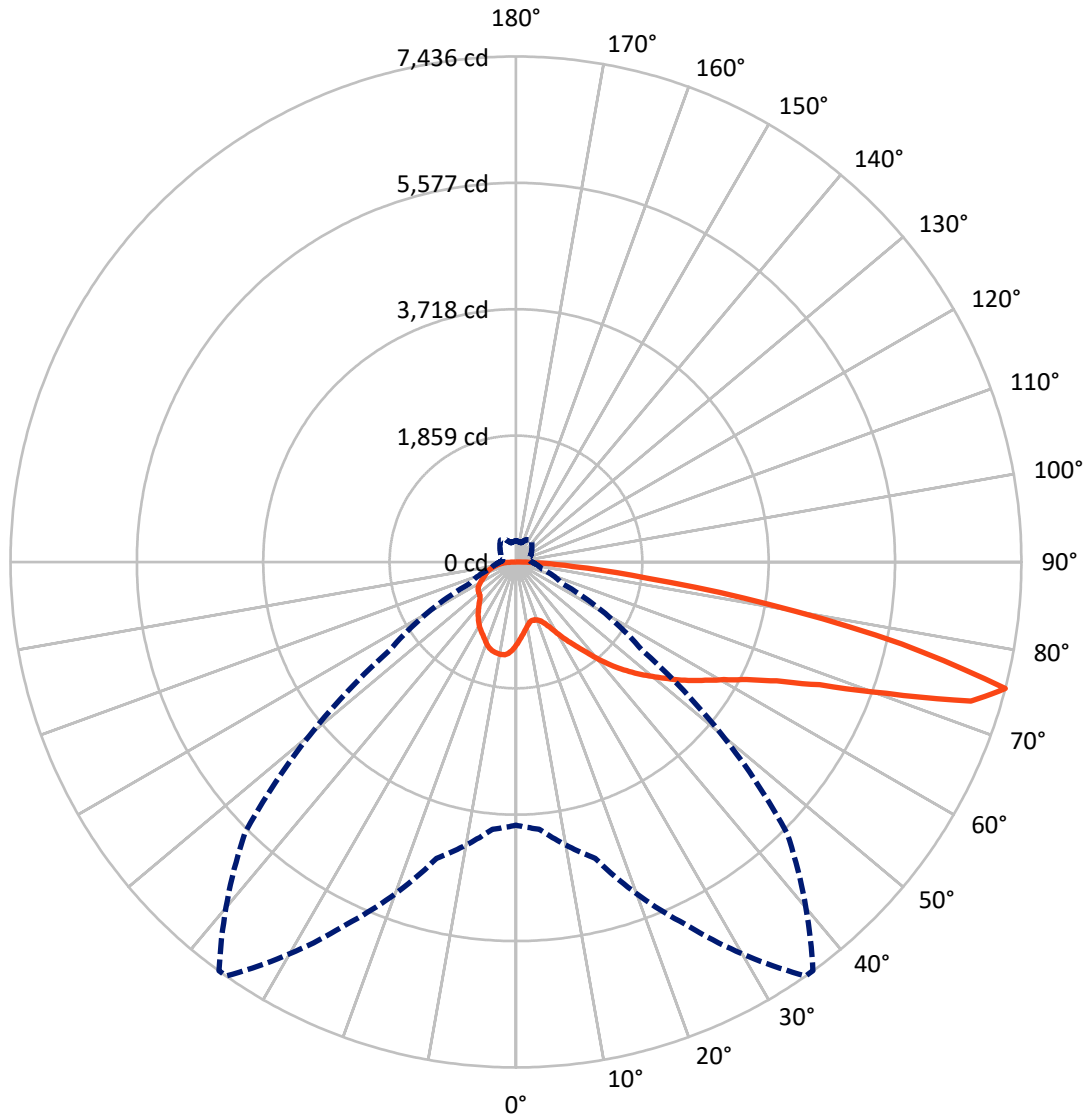
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.2 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral      - - - Horizontal Cone Through 75-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2171.0	0.0	2171.0
	% Fixture	23.8	0.0	23.8
<b>Street Side</b>	Lumens	6952.0	0.0	6952.0
	% Fixture	76.2	0.0	76.2
<b>Total</b>	Lumens	9123.0	0.0	9123.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	115.1	1.3
10°-20°	332.0	3.6
20°-30°	557.5	6.1
30°-40°	866.5	9.5
40°-50°	1286.1	14.1
50°-60°	1775.5	19.5
60°-70°	2154.1	23.6
70°-80°	1780.2	19.5
80°-90°	256.0	2.8
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°	9123.0	100.0
0°-180°	9123.0	100.0

**Coefficient of Utilization**



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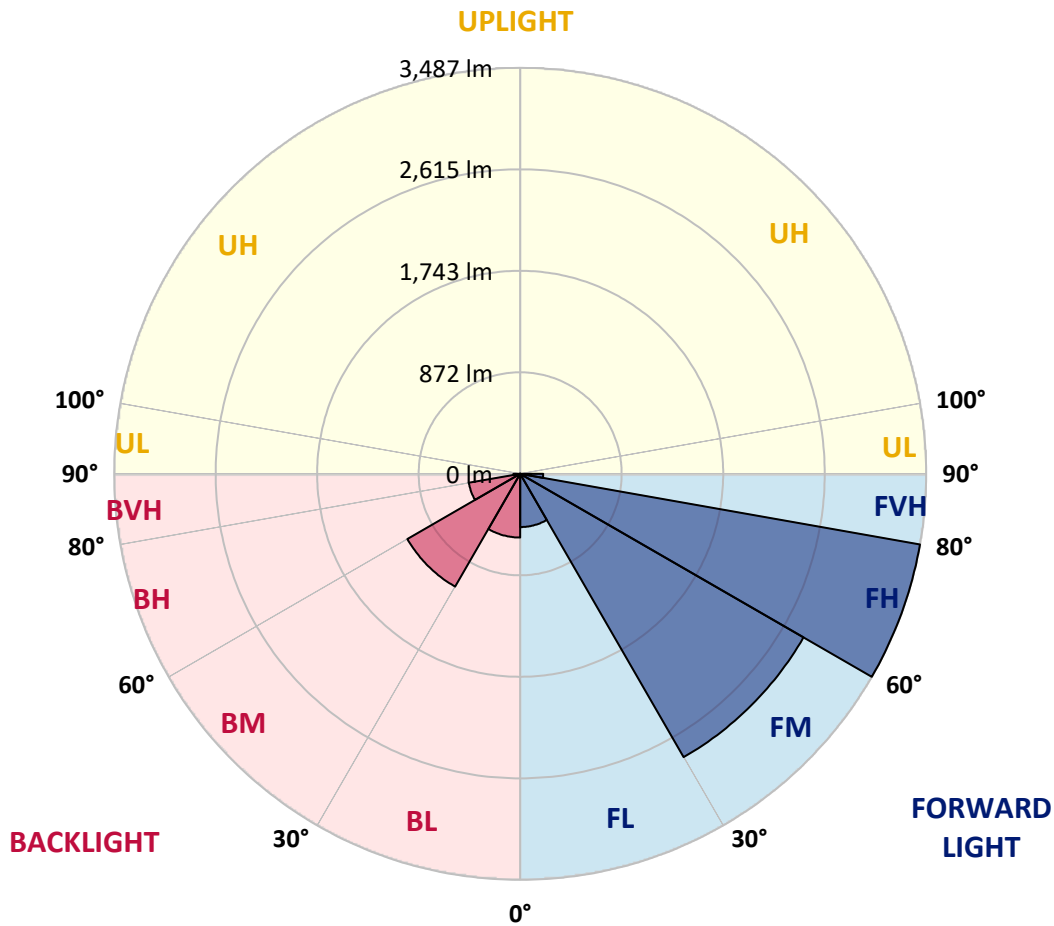
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	457.5	5.0			
FM (30°-60°)	2809.4	30.8			
FH (60°-80°)	3486.7	38.2			G2/5000
FVH (80°-90°)	198.4	2.2			G2/225
BL (0°-30°)	547.1	6.0	B2/1000		
BM (30°-60°)	1118.7	12.3	B2/2500		
BH (60°-80°)	447.6	4.9	B1/500		G1/500
BVH (80°-90°)	57.7	0.6			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°	36°	45°	55°	65°	75°	85°
0°	1215.7	1215.7	1215.7	1215.7	1215.7	1215.7	1215.7	1215.7	1215.7	1215.7	1215.7
2.5°	1121.0	1127.9	1130.9	1129.4	1136.8	1135.8	1146.2	1159.0	1176.7	1194.0	1219.2
5°	1034.7	1042.1	1048.5	1054.4	1068.7	1073.2	1089.4	1114.1	1146.7	1179.7	1221.1
7.5°	954.3	960.7	970.6	981.4	1005.6	1010.0	1037.2	1075.6	1121.0	1169.3	1226.6
10°	888.7	895.1	905.5	917.8	947.9	953.3	987.8	1039.1	1098.3	1159.5	1232.5
12.5°	860.6	862.6	868.5	880.8	907.0	910.4	948.4	1007.1	1076.1	1152.1	1241.3
15°	859.1	863.1	863.6	870.0	891.7	893.2	928.2	986.4	1062.3	1150.6	1254.7
17.5°	873.9	876.9	872.4	876.4	894.6	897.1	924.7	976.5	1057.9	1157.0	1277.3
20°	913.4	915.8	902.5	897.1	910.4	912.4	939.5	982.9	1062.3	1170.3	1308.4
22.5°	997.2	998.7	966.1	944.0	944.9	945.9	969.6	1009.1	1079.6	1194.5	1347.9
25°	1127.9	1126.9	1075.1	1032.2	1007.6	1002.2	1017.9	1051.5	1108.7	1226.6	1398.7
27.5°	1280.8	1273.4	1221.6	1157.5	1103.7	1095.9	1092.4	1106.7	1150.1	1269.0	1460.8
30°	1453.4	1446.5	1390.8	1306.9	1232.5	1219.6	1187.1	1179.7	1211.8	1326.7	1547.1
32.5°	1642.8	1638.4	1571.8	1470.2	1370.6	1355.8	1301.0	1281.3	1306.4	1414.0	1667.5
35°	1801.6	1797.7	1742.4	1637.9	1516.1	1497.8	1442.1	1419.9	1432.7	1525.9	1824.8
37.5°	1945.1	1943.1	1895.8	1813.4	1687.7	1665.5	1602.9	1595.5	1593.0	1673.4	2015.6
40°	2078.3	2073.4	2024.0	1980.6	1887.4	1867.2	1812.0	1805.6	1786.8	1854.9	2231.7
42.5°	2225.7	2212.9	2141.4	2121.2	2096.0	2079.3	2046.2	2047.2	2005.8	2059.5	2460.5
45°	2346.1	2338.7	2265.2	2253.4	2280.5	2273.6	2302.2	2309.6	2229.2	2274.1	2698.2
47.5°	2475.3	2468.4	2406.3	2397.9	2471.4	2473.3	2574.4	2576.9	2447.2	2497.0	2936.4
50°	2634.6	2624.7	2563.1	2573.4	2655.8	2663.2	2848.1	2831.4	2647.9	2723.4	3172.7
52.5°	2739.6	2745.6	2732.2	2749.0	2861.5	2868.4	3117.4	3074.5	2846.7	2946.8	3404.5
55°	2817.1	2828.9	2870.3	2908.8	3078.5	3085.4	3371.4	3305.8	3011.4	3153.9	3622.4
57.5°	2916.7	2899.9	2977.4	3052.3	3284.6	3302.9	3618.5	3528.7	3157.4	3332.5	3771.9
60°	3059.7	3047.9	3108.1	3219.0	3515.4	3544.5	3879.9	3729.5	3264.4	3474.0	3801.0
62.5°	3349.7	3320.1	3329.5	3427.6	3806.4	3844.9	4174.8	3904.5	3317.7	3529.2	3645.1
65°	3783.2	3732.4	3685.1	3753.1	4216.2	4254.2	4507.7	4042.1	3297.9	3422.2	3231.3
67.5°	4329.2	4278.9	4220.7	4284.8	4819.9	4850.0	4918.5	4119.6	3142.6	3009.9	2500.0
70°	4779.5	4760.7	4830.3	5094.1	5784.1	5785.1	5445.3	4055.5	2717.0	2134.0	1446.5
72.5°	4719.8	4708.4	5074.9	5890.6	6999.3	6973.1	5943.9	3570.2	1830.2	962.7	542.0
75°	3872.0	3945.5	4513.1	5876.3	7435.8	7432.3	5638.6	2269.6	757.0	399.0	280.1
77.5°	2076.3	2192.7	2930.0	4338.6	5804.8	5892.1	3964.2	794.0	325.0	255.5	193.8
80°	677.1	778.7	1167.9	2209.0	3771.9	3755.6	1699.0	311.7	222.4	181.0	134.1
82.5°	287.5	299.4	521.8	1043.1	1935.8	1905.7	541.0	179.0	156.3	123.8	82.9
85°	112.4	125.8	230.3	482.3	838.4	820.2	195.3	88.8	100.1	80.9	49.3
87.5°	37.0	44.9	82.4	165.2	260.9	251.5	47.8	30.6	43.4	37.0	17.8
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°	1215.7	1215.7	1215.7	1215.7	1215.7	1215.7	1215.7	1215.7	1215.7	1215.7	1215.7
2.5°	1226.1	1233.9	1243.3	1257.1	1269.0	1278.8	1289.2	1295.6	1298.1	1305.5	1305.0
5°	1234.9	1252.2	1275.4	1298.1	1320.3	1333.6	1345.4	1351.3	1356.8	1360.7	1361.7
7.5°	1249.7	1271.9	1308.4	1338.0	1356.8	1367.6	1375.5	1373.5	1375.5	1376.5	1378.0
10°	1262.6	1293.6	1337.0	1365.1	1379.4	1379.9	1378.0	1371.1	1367.6	1368.1	1369.1
12.5°	1277.8	1312.4	1359.2	1382.9	1386.8	1376.0	1367.6	1355.8	1351.3	1349.4	1348.4
15°	1298.6	1338.0	1383.4	1392.3	1382.4	1368.6	1354.3	1335.1	1325.2	1317.3	1319.8
17.5°	1323.7	1367.1	1402.1	1395.7	1374.5	1351.8	1328.6	1299.5	1279.3	1270.9	1271.4
20°	1358.7	1397.7	1416.4	1388.3	1356.3	1321.7	1282.3	1246.8	1228.0	1219.6	1218.7
22.5°	1401.1	1438.6	1430.2	1375.5	1330.1	1274.9	1225.6	1199.4	1190.1	1184.1	1185.1
25°	1451.9	1484.0	1440.1	1356.8	1287.2	1212.7	1174.8	1166.4	1161.9	1157.5	1157.5
27.5°	1518.0	1535.3	1447.5	1329.1	1220.1	1146.7	1132.8	1134.3	1132.8	1125.4	1126.9
30°	1605.3	1601.9	1454.4	1284.3	1143.2	1087.0	1088.0	1094.4	1095.4	1090.4	1092.9
32.5°	1720.2	1685.2	1457.9	1226.1	1069.7	1034.7	1035.7	1042.6	1047.5	1039.1	1043.1
35°	1859.3	1782.4	1452.4	1153.1	1013.0	984.9	977.5	979.5	980.9	973.1	978.5
37.5°	2021.6	1891.4	1428.3	1072.2	966.1	936.1	920.3	907.0	899.1	891.7	896.6
40°	2199.6	2010.2	1383.9	993.3	913.9	884.3	860.6	835.5	808.8	799.0	803.4
42.5°	2386.0	2132.5	1330.1	917.8	853.7	829.5	804.4	767.9	727.9	707.7	710.2
45°	2579.4	2257.8	1277.3	843.3	792.1	781.7	752.6	708.7	665.3	639.7	637.7
47.5°	2768.7	2376.2	1199.9	768.4	734.4	745.7	723.0	682.6	634.2	593.8	589.4
50°	2949.7	2487.1	1073.2	692.4	687.5	734.8	713.1	654.9	599.7	547.9	543.5
52.5°	3129.3	2576.9	910.9	623.4	662.3	731.9	700.3	636.2	568.6	514.4	508.5
55°	3281.7	2623.3	754.6	564.2	625.9	706.7	685.0	614.0	524.7	467.0	462.1
57.5°	3368.5	2585.8	624.4	506.0	575.5	665.3	658.9	566.7	472.5	428.1	422.2
60°	3331.0	2433.9	517.8	455.2	527.7	620.4	613.5	519.8	432.5	390.6	384.7
62.5°	3124.3	2144.4	433.5	410.8	484.3	574.6	568.1	483.8	401.9	361.5	355.1
65°	2708.1	1744.4	367.9	373.8	440.4	519.3	528.7	453.7	377.8	338.3	331.9
67.5°	2065.5	1263.5	316.6	341.8	397.5	465.1	492.2	432.0	357.6	320.1	314.2
70°	1177.2	717.6	273.2	310.7	359.5	414.8	464.1	414.8	335.9	304.8	300.8
72.5°	446.3	329.4	236.2	279.6	323.0	372.4	433.0	387.6	310.7	287.5	283.6
75°	238.2	200.7	198.8	243.1	281.1	330.9	394.1	361.0	292.0	303.8	313.7
77.5°	162.3	142.0	166.2	208.1	235.2	285.1	352.6	320.6	253.0	252.0	232.3
80°	112.4	100.6	135.1	167.7	182.0	239.7	307.7	275.2	206.2	192.3	184.0
82.5°	67.6	65.6	101.1	125.3	128.7	184.9	255.0	230.8	168.7	147.0	148.0
85°	37.0	39.0	64.6	73.5	75.0	129.2	199.7	178.5	129.7	109.0	110.0
87.5°	10.4	13.3	23.7	29.1	36.0	67.1	118.9	106.0	65.1	45.4	45.4
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)