

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: P882076

Luminaire Tested: **NAV-SB1D-740-U-T2-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882076  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1D-740-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 4000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

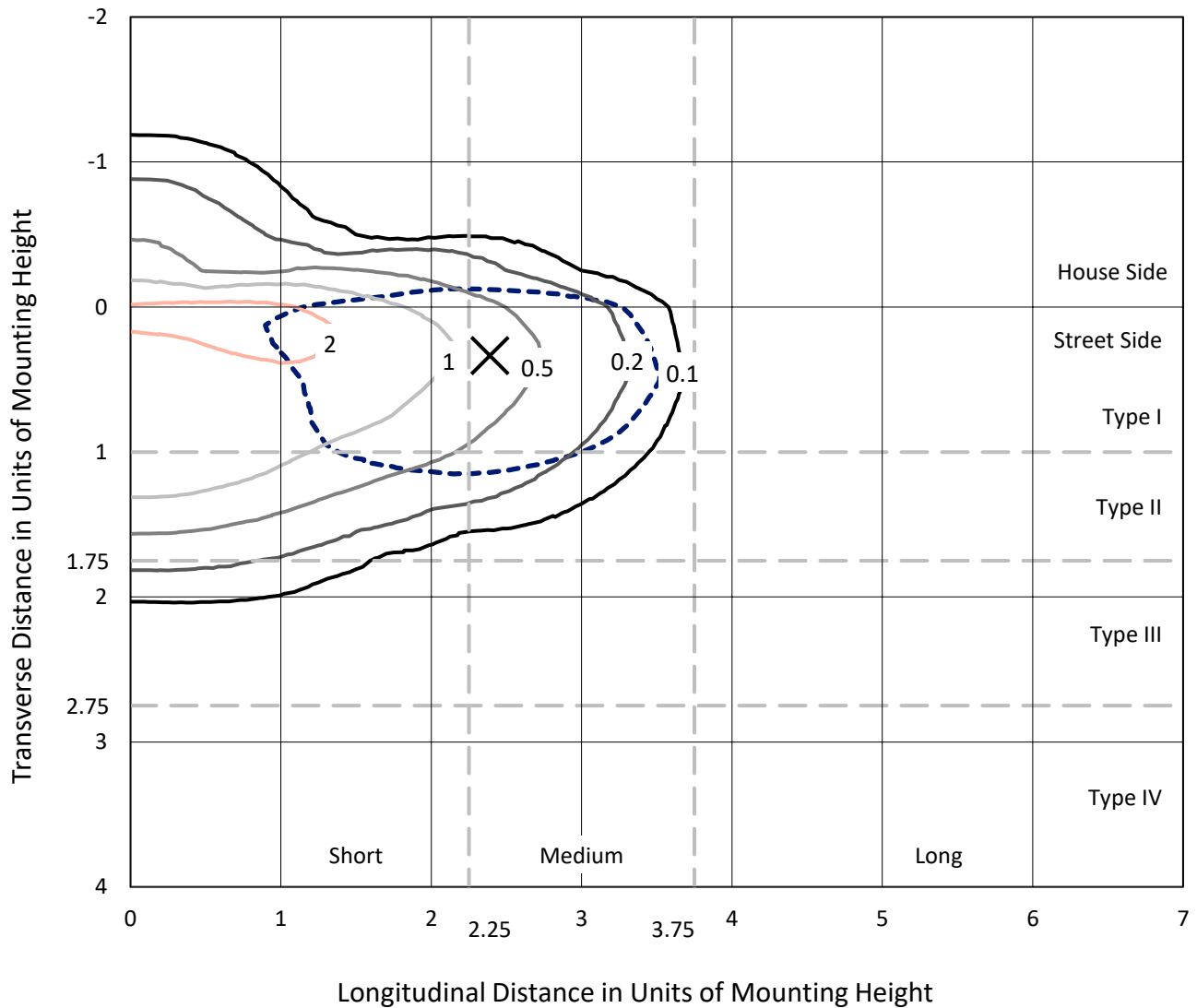
Lumens per Lamp: N/A  
Luminaire Lumens: 8018 lumens  
Efficiency: N/A  
Efficacy: 100.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 79.6  
Input Voltage (V): 120.0  
Input Current (Ain): 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

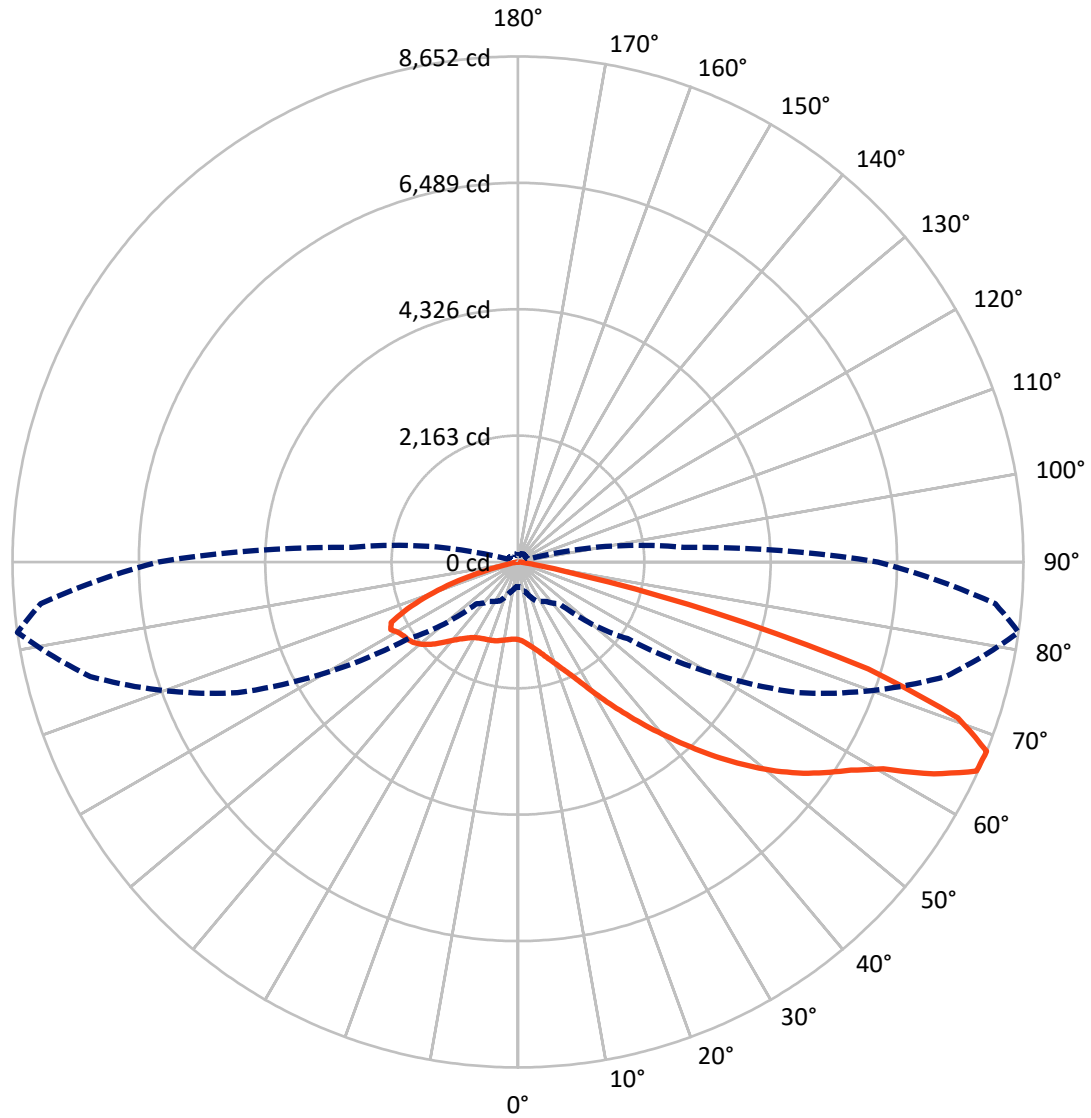
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1452.4	0.0	1452.4
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	6565.6	0.0	6565.6
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	8018.0	0.0	8018.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	118.3	1.5
10°-20°	307.5	3.8
20°-30°	492.6	6.1
30°-40°	871.0	10.9
40°-50°	1526.1	19.0
50°-60°	2035.3	25.4
60°-70°	1894.8	23.6
70°-80°	727.2	9.1
80°-90°	45.2	0.6
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°	8018.0	100.0
0°-180°	8018.0	100.0

**Coefficient of Utilization**



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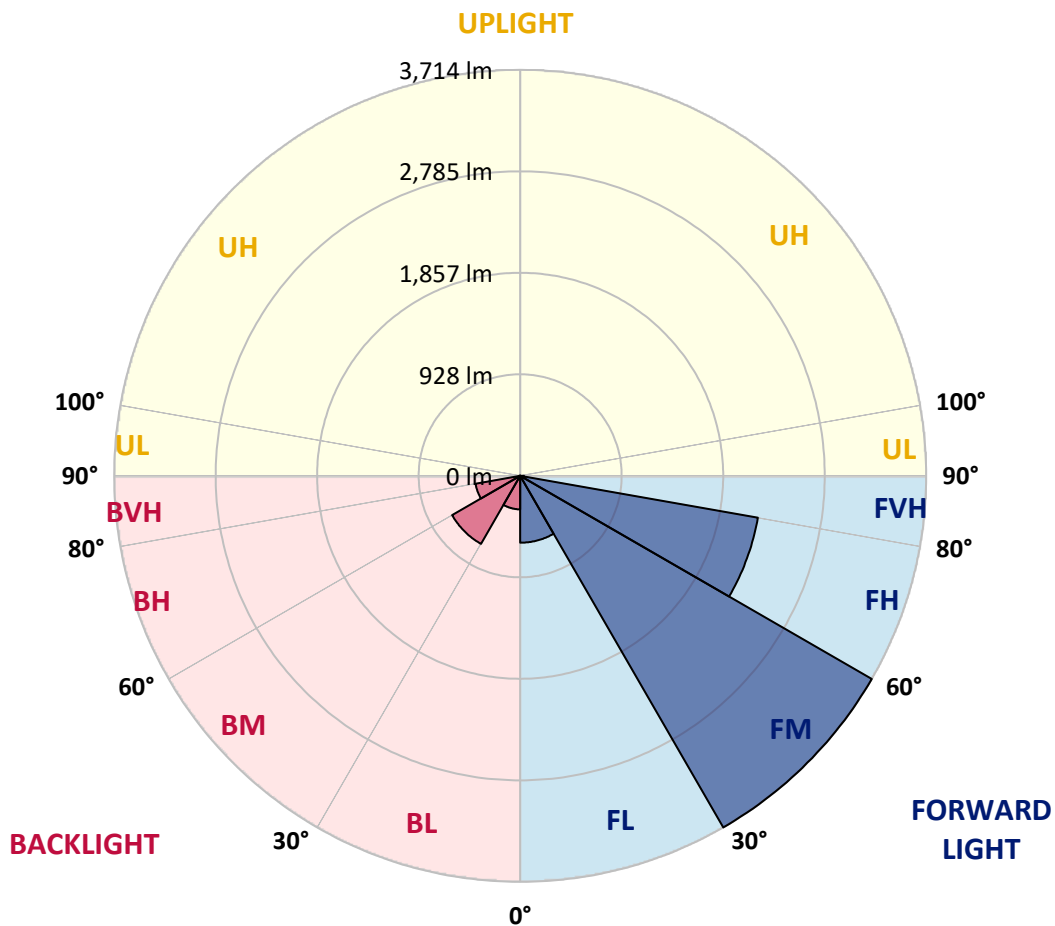
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	611.7	7.6			
FM (30°-60°)	3713.6	46.3			
FH (60°-80°)	2207.5	27.5			G2/5000
FVH (80°-90°)	32.8	0.4			G1/100
BL (0°-30°)	306.7	3.8	B1/500		
BM (30°-60°)	718.8	9.0	B1/1000		
BH (60°-80°)	414.5	5.2	B1/500		G1/500
BVH (80°-90°)	12.3	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	1328.3	1328.3	1328.3	1328.3	1328.3	1328.3	1328.3	1328.3	1328.3	1328.3	1328.3
2.5°	1403.9	1412.0	1407.4	1405.1	1401.0	1395.3	1390.7	1376.2	1361.2	1351.4	1347.9
5°	1432.2	1440.3	1439.7	1442.0	1444.9	1446.7	1445.5	1429.3	1408.0	1391.2	1381.4
7.5°	1408.0	1417.2	1424.7	1436.3	1456.5	1477.8	1488.2	1484.8	1462.8	1439.7	1427.6
10°	1339.3	1349.1	1367.0	1394.1	1436.8	1483.0	1521.7	1539.6	1525.7	1500.3	1483.6
12.5°	1213.4	1223.2	1258.5	1317.3	1388.9	1469.2	1543.1	1591.0	1594.4	1569.0	1549.4
15°	1072.0	1081.8	1119.3	1193.2	1302.3	1431.1	1554.6	1645.2	1675.8	1653.9	1630.2
17.5°	984.3	992.9	1021.2	1080.7	1194.4	1354.9	1550.6	1703.0	1772.8	1755.5	1727.2
20°	957.7	965.2	978.5	1020.0	1114.7	1275.8	1524.0	1757.2	1877.3	1867.5	1835.7
22.5°	986.0	992.9	997.0	1015.4	1074.9	1223.8	1490.5	1812.6	1998.5	1999.7	1961.0
25°	1051.2	1058.1	1053.5	1065.1	1091.1	1207.7	1477.8	1877.9	2150.9	2163.6	2119.8
27.5°	1158.6	1159.2	1148.2	1147.6	1151.7	1231.9	1491.1	1947.7	2343.2	2366.8	2312.6
30°	1373.9	1365.3	1323.1	1277.5	1256.7	1304.6	1528.0	2030.3	2570.0	2612.2	2544.1
32.5°	1705.8	1693.1	1615.8	1506.7	1397.0	1421.8	1594.4	2124.4	2817.1	2893.3	2810.2
35°	2066.1	2062.6	1981.8	1819.6	1627.9	1588.7	1702.4	2247.9	3086.7	3207.9	3109.2
37.5°	2400.9	2399.2	2353.0	2161.9	1928.7	1821.3	1875.6	2409.5	3375.3	3550.8	3434.2
40°	2706.8	2712.0	2665.9	2495.0	2260.0	2119.8	2111.1	2609.3	3696.3	3924.3	3785.8
42.5°	2971.2	2977.0	2930.3	2803.8	2587.3	2450.0	2400.3	2854.1	4009.8	4325.5	4161.6
45°	3150.8	3186.6	3179.6	3078.6	2923.3	2780.7	2747.8	3161.2	4367.1	4751.0	4558.7
47.5°	3201.6	3234.5	3286.4	3300.3	3205.6	3065.3	3104.6	3531.2	4728.5	5177.0	4958.2
50°	3076.3	3106.9	3214.8	3358.6	3424.4	3381.1	3451.5	3927.8	5098.5	5601.9	5350.2
52.5°	2829.2	2860.4	2996.6	3224.1	3492.5	3628.8	3799.6	4318.6	5457.0	6004.2	5721.4
55°	2471.9	2504.8	2679.7	2937.2	3362.6	3730.9	4090.0	4708.8	5785.5	6366.2	6056.2
57.5°	1985.8	2010.1	2191.9	2552.1	3035.9	3629.3	4304.2	5134.9	6094.9	6721.8	6388.1
60°	1294.3	1315.6	1526.9	1928.7	2494.4	3289.9	4346.9	5610.0	6505.9	7184.2	6835.5
62.5°	860.7	875.1	1000.4	1295.4	1756.6	2638.1	4096.9	5989.2	7108.6	7988.9	7602.7
65°	590.6	605.0	730.3	935.8	1134.9	1745.1	3378.2	5939.0	7654.7	8628.0	8171.3
67.5°	421.4	433.5	539.8	733.7	821.5	1013.7	2290.1	5297.1	7576.2	8652.2	8201.9
70°	301.9	308.8	396.6	571.5	652.9	609.0	1273.5	4051.3	6633.5	7989.5	7577.3
72.5°	211.3	213.6	275.4	435.3	525.9	444.5	606.1	2701.1	5017.1	6270.9	5874.4
75°	143.2	146.1	185.3	319.2	422.0	339.4	321.0	1448.4	2945.3	3471.2	3111.5
77.5°	87.7	88.9	119.5	218.2	315.8	258.6	206.7	613.6	1139.5	1118.8	953.7
80°	49.6	49.6	76.2	135.7	215.3	166.8	144.9	260.9	360.8	316.9	279.4
82.5°	27.7	28.3	55.4	84.3	142.6	98.7	79.7	120.7	155.9	138.0	120.1
85°	11.5	12.7	34.1	39.8	68.1	49.1	32.3	50.8	57.7	51.4	37.5
87.5°	1.2	1.7	10.4	7.5	8.1	9.8	4.6	9.8	8.1	8.1	5.8
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°	1328.3	1328.3	1328.3	1328.3	1328.3	1328.3	1328.3	1328.3	1328.3	1328.3	1328.3
2.5°	1337.0	1328.3	1306.4	1281.0	1247.5	1231.3	1209.4	1194.4	1181.7	1182.8	1171.3
5°	1362.9	1341.0	1291.9	1230.8	1154.6	1100.3	1042.6	1002.7	970.4	963.5	947.9
7.5°	1398.7	1364.1	1278.1	1167.8	1039.1	941.5	854.4	798.4	758.5	745.8	733.1
10°	1444.9	1394.7	1260.2	1088.7	903.4	779.3	685.8	641.9	614.8	605.6	598.6
12.5°	1498.6	1429.9	1236.5	992.3	763.7	644.2	584.8	562.8	554.2	551.3	549.6
15°	1566.1	1473.8	1200.7	878.0	645.4	561.7	536.3	533.4	534.6	533.4	532.8
17.5°	1646.4	1521.7	1142.4	760.3	565.7	519.5	510.3	512.6	515.5	514.9	513.8
20°	1734.1	1569.0	1068.0	655.8	511.5	489.5	484.3	486.6	489.0	487.8	487.2
22.5°	1834.0	1619.8	985.4	574.4	475.1	461.8	456.0	456.6	456.6	454.3	453.2
25°	1953.5	1675.8	898.8	516.7	447.4	437.0	430.1	427.8	424.3	417.4	416.2
27.5°	2096.1	1735.3	815.7	476.3	425.5	415.6	407.6	401.8	393.1	381.6	380.4
30°	2256.6	1807.5	745.3	450.9	408.1	398.3	389.1	380.4	367.7	353.3	352.1
32.5°	2445.3	1884.8	693.9	434.1	392.5	382.2	371.2	360.8	346.9	332.5	333.1
35°	2670.5	1978.3	663.9	422.6	380.4	366.6	354.4	342.9	332.5	319.8	318.7
37.5°	2914.7	2077.6	654.6	416.8	372.3	351.0	337.1	329.0	327.9	320.4	319.8
40°	3181.9	2195.4	661.6	413.3	363.7	336.0	321.0	319.2	322.1	308.8	309.4
42.5°	3464.8	2335.1	673.1	409.3	351.6	321.0	306.5	306.5	304.2	285.8	285.8
45°	3770.8	2496.1	684.6	399.5	337.1	306.0	295.0	290.9	281.1	263.2	262.7
47.5°	4079.0	2660.1	693.3	381.6	319.8	293.3	283.4	274.2	259.8	243.6	243.0
50°	4371.7	2807.3	684.1	355.0	300.2	281.1	270.7	258.0	242.5	231.5	229.8
52.5°	4633.2	2934.9	644.8	323.9	279.4	268.4	259.2	245.9	233.2	221.7	220.5
55°	4860.7	3038.2	575.5	294.4	260.9	257.5	248.2	231.5	214.2	204.4	203.2
57.5°	5078.9	3116.7	489.0	270.2	244.2	245.3	231.5	216.5	200.3	189.9	188.8
60°	5369.2	3221.8	401.2	247.7	226.3	229.8	214.7	203.8	183.6	170.3	168.6
62.5°	5833.4	3385.1	318.7	219.9	205.5	206.7	200.3	187.0	162.8	147.2	146.1
65°	6201.7	3325.1	251.1	189.9	181.8	183.6	183.6	169.1	143.2	125.3	123.5
67.5°	6160.1	2847.1	200.3	160.5	159.3	160.5	164.5	152.4	127.0	112.6	110.3
70°	5674.6	2264.7	160.5	133.4	138.5	135.7	147.2	139.1	114.3	99.9	98.1
72.5°	4630.3	1631.4	122.4	110.3	106.2	110.8	132.8	125.3	95.3	79.1	77.4
75°	2705.7	870.5	91.2	87.2	76.8	92.4	117.8	106.8	72.7	58.3	56.6
77.5°	880.9	303.6	67.0	64.1	57.2	74.5	100.4	90.1	59.5	46.2	44.5
80°	236.1	91.8	45.6	42.1	36.9	55.4	79.7	71.6	42.7	30.0	29.4
82.5°	94.7	38.7	26.6	23.7	20.2	38.1	62.9	57.7	31.8	19.1	19.1
85°	30.6	12.7	9.8	7.5	9.2	23.7	37.5	39.3	22.5	9.8	7.5
87.5°	4.0	1.7	1.7	2.3	1.7	4.0	11.5	11.0	6.4	1.2	0.0
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)