

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: P881791

Luminaire Tested: **NAV-SB1B-835-U-T4FT**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P881791  
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-SB1B-835-U-T4FT  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 80 CRI, 3500K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD  
THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

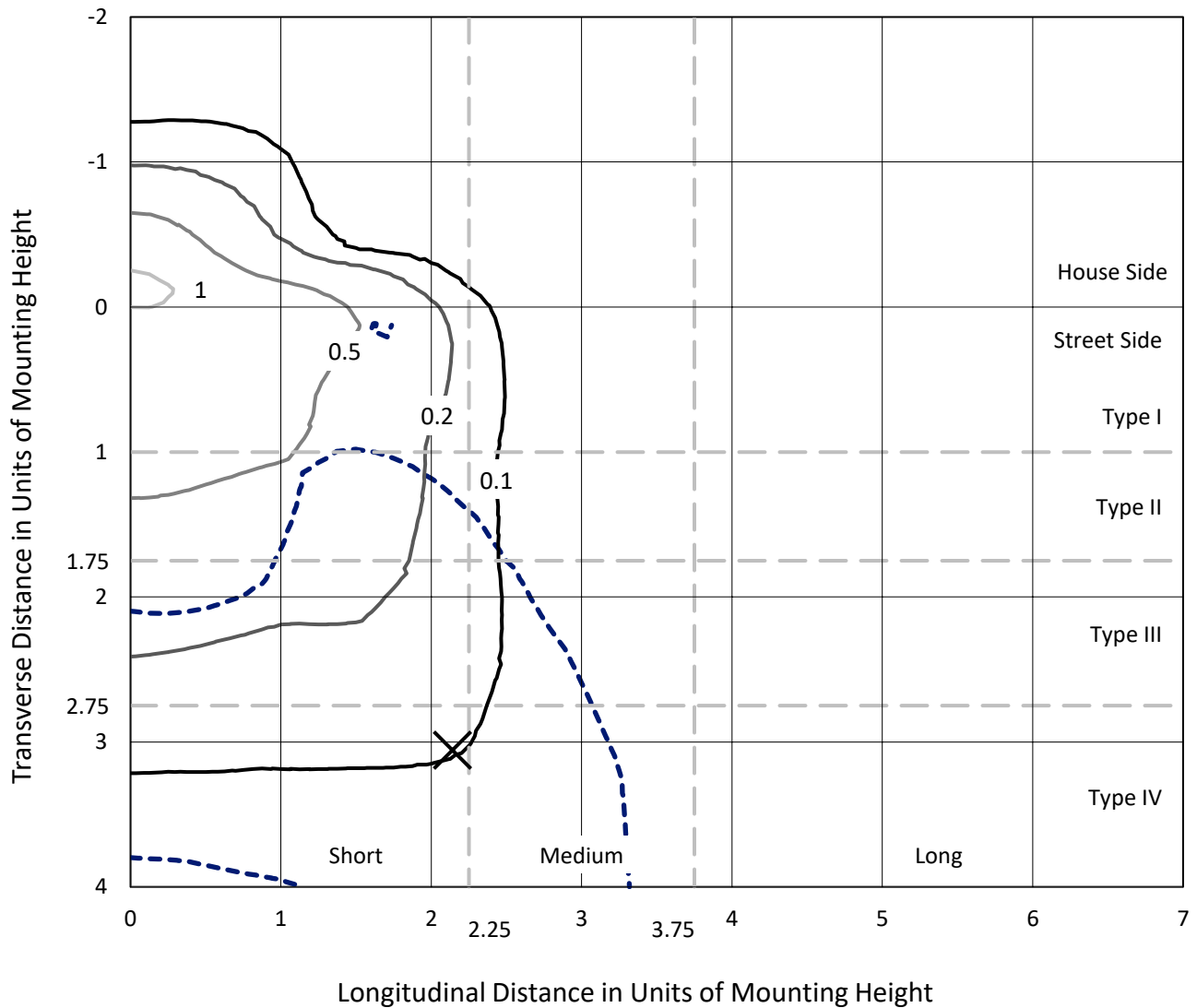
Lumens per Lamp: N/A  
Luminaire Lumens: 4700 lumens  
Efficiency: N/A  
Efficacy: 118.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 39.8  
Input Voltage (V): 120.0  
Input Current (Ain): 0.33  
Voltage Rise (V): NR  
Power Factor: 0.996  
Total Harmonic Distortion (THDi): 5.305  
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

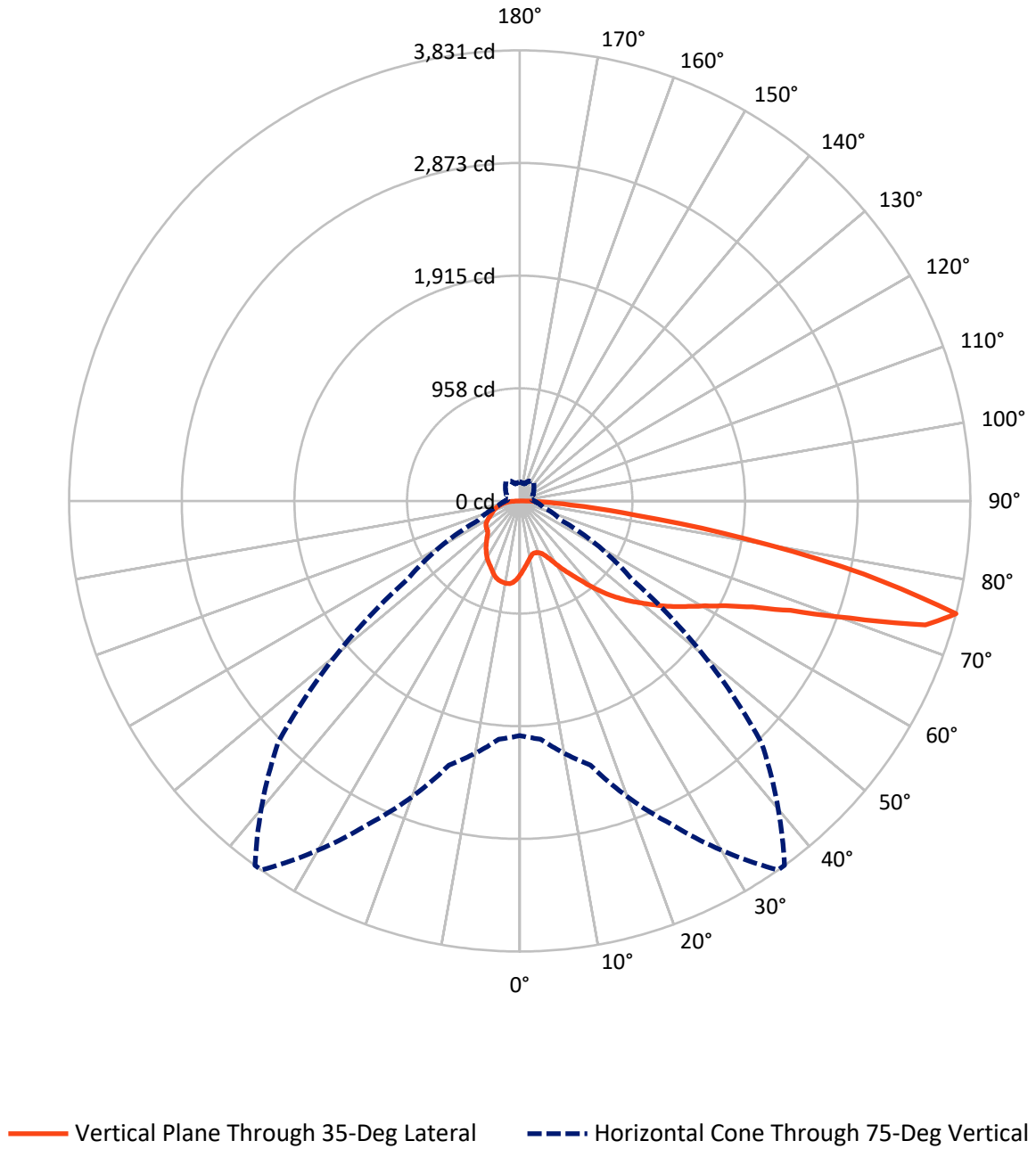
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.1 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1118.5	0.0	1118.5
	% Fixture	23.8	0.0	23.8
<b>Street Side</b>	Lumens	3581.5	0.0	3581.5
	% Fixture	76.2	0.0	76.2
<b>Total</b>	Lumens	4700.0	0.0	4700.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.3	1.3
10°-20°	171.0	3.6
20°-30°	287.2	6.1
30°-40°	446.4	9.5
40°-50°	662.6	14.1
50°-60°	914.7	19.5
60°-70°	1109.7	23.6
70°-80°	917.1	19.5
80°-90°	131.9	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°	4700.0	100.0
0°-180°	4700.0	100.0

**Coefficient of Utilization**



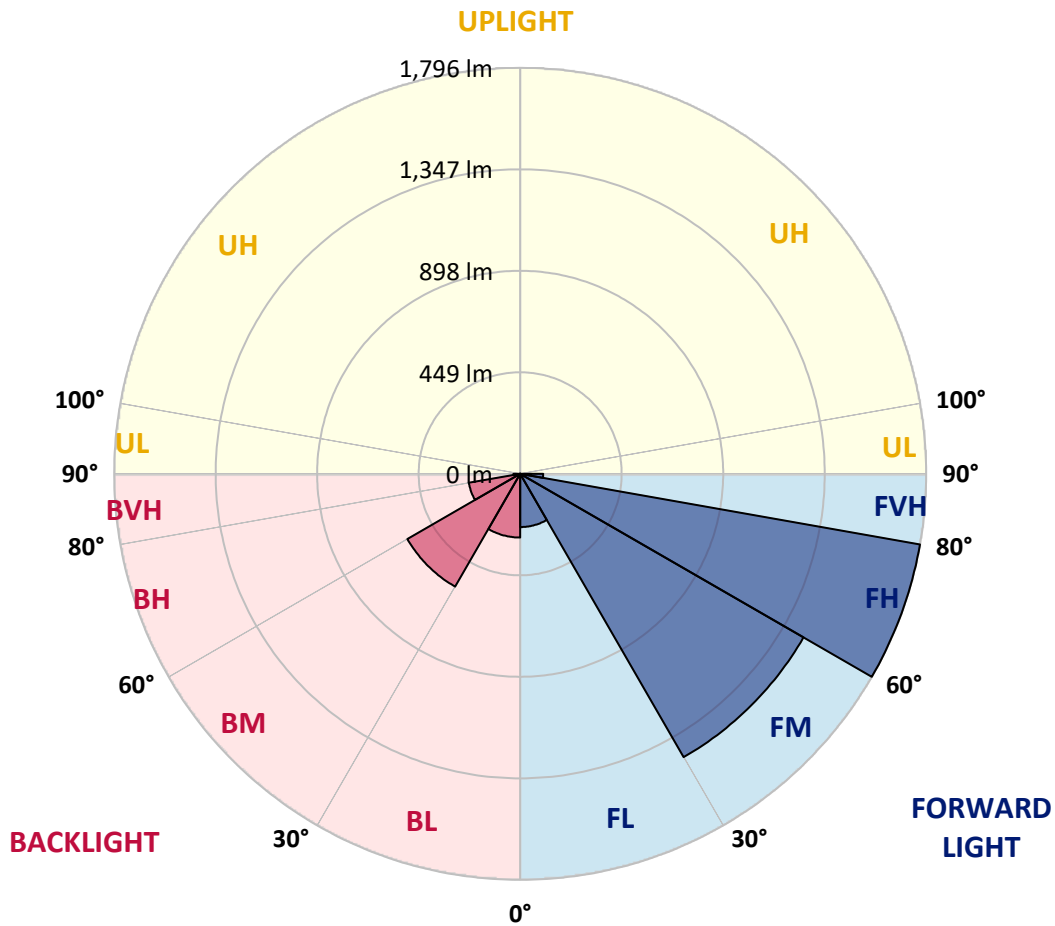
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	235.7	5.0			
FM (30°-60°)	1447.3	30.8			
FH (60°-80°)	1796.3	38.2			G1/1800
FVH (80°-90°)	102.2	2.2			G2/225
BL (0°-30°)	281.9	6.0	B1/500		
BM (30°-60°)	576.3	12.3	B1/1000		
BH (60°-80°)	230.6	4.9	B1/500		G1/500
BVH (80°-90°)	29.7	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

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

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	626.3	626.3	626.3	626.3	626.3	626.3	626.3	626.3	626.3	626.3	626.3
2.5°	577.5	581.1	582.6	581.8	585.7	585.1	590.5	597.1	606.2	615.1	628.1
5°	533.1	536.9	540.2	543.2	550.6	552.9	561.3	574.0	590.7	607.8	629.1
7.5°	491.6	494.9	500.0	505.6	518.1	520.4	534.3	554.1	577.5	602.4	631.9
10°	457.9	461.2	466.5	472.8	488.3	491.1	508.9	535.3	565.8	597.3	634.9
12.5°	443.4	444.4	447.4	453.8	467.3	469.0	488.6	518.8	554.4	593.5	639.5
15°	442.6	444.6	444.9	448.2	459.4	460.1	478.2	508.2	547.3	592.8	646.4
17.5°	450.2	451.8	449.5	451.5	460.9	462.2	476.4	503.1	545.0	596.1	658.1
20°	470.6	471.8	465.0	462.2	469.0	470.0	484.0	506.4	547.3	602.9	674.1
22.5°	513.7	514.5	497.7	486.3	486.8	487.3	499.5	519.8	556.2	615.4	694.4
25°	581.1	580.6	553.9	531.8	519.1	516.3	524.4	541.7	571.2	631.9	720.6
27.5°	659.8	656.0	629.4	596.3	568.6	564.6	562.8	570.2	592.5	653.7	752.6
30°	748.8	745.2	716.5	673.3	634.9	628.3	611.6	607.8	624.3	683.5	797.0
32.5°	846.3	844.1	809.8	757.4	706.1	698.5	670.3	660.1	673.1	728.4	859.0
35°	928.2	926.1	897.7	843.8	781.0	771.6	742.9	731.5	738.1	786.1	940.1
37.5°	1002.1	1001.1	976.7	934.3	869.5	858.0	825.8	821.9	820.7	862.1	1038.4
40°	1070.7	1068.2	1042.7	1020.4	972.4	961.9	933.5	930.2	920.5	955.6	1149.7
42.5°	1146.7	1140.1	1103.2	1092.8	1079.8	1071.2	1054.2	1054.7	1033.3	1061.0	1267.6
45°	1208.7	1204.8	1167.0	1160.9	1174.9	1171.3	1186.0	1189.9	1148.4	1171.6	1390.1
47.5°	1275.2	1271.7	1239.7	1235.3	1273.2	1274.2	1326.3	1327.6	1260.7	1286.4	1512.8
50°	1357.3	1352.2	1320.5	1325.8	1368.2	1372.0	1467.3	1458.7	1364.2	1403.0	1634.5
52.5°	1411.4	1414.5	1407.6	1416.2	1474.2	1477.7	1606.0	1583.9	1466.5	1518.1	1753.9
55°	1451.3	1457.4	1478.7	1498.6	1586.0	1589.5	1736.9	1703.1	1551.4	1624.8	1866.2
57.5°	1502.6	1494.0	1533.9	1572.5	1692.2	1701.6	1864.2	1817.9	1626.6	1716.8	1943.2
60°	1576.3	1570.2	1601.2	1658.4	1811.1	1826.1	1998.8	1921.4	1681.8	1789.7	1958.2
62.5°	1725.7	1710.5	1715.3	1765.9	1961.0	1980.8	2150.8	2011.6	1709.2	1818.2	1877.9
65°	1949.0	1922.9	1898.5	1933.5	2172.1	2191.7	2322.3	2082.4	1699.0	1763.1	1664.7
67.5°	2230.3	2204.4	2174.4	2207.4	2483.1	2498.6	2533.9	2122.3	1619.0	1550.6	1287.9
70°	2462.3	2452.6	2488.5	2624.4	2979.8	2980.4	2805.3	2089.3	1399.7	1099.4	745.2
72.5°	2431.5	2425.7	2614.5	3034.7	3605.9	3592.4	3062.2	1839.3	942.9	496.0	279.2
75°	1994.8	2032.6	2325.1	3027.4	3830.8	3829.0	2904.9	1169.3	390.0	205.6	144.3
77.5°	1069.7	1129.6	1509.5	2235.1	2990.5	3035.5	2042.3	409.1	167.4	131.6	99.9
80°	348.9	401.2	601.7	1138.0	1943.2	1934.8	875.3	160.6	114.6	93.2	69.1
82.5°	148.1	154.2	268.8	537.4	997.3	981.8	278.7	92.2	80.5	63.8	42.7
85°	57.9	64.8	118.7	248.5	431.9	422.5	100.6	45.7	51.6	41.7	25.4
87.5°	19.1	23.1	42.4	85.1	134.4	129.6	24.6	15.8	22.4	19.1	9.1
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°	626.3	626.3	626.3	626.3	626.3	626.3	626.3	626.3	626.3	626.3	626.3
2.5°	631.6	635.7	640.5	647.6	653.7	658.8	664.2	667.5	668.7	672.5	672.3
5°	636.2	645.1	657.1	668.7	680.2	687.0	693.1	696.2	699.0	701.0	701.5
7.5°	643.8	655.3	674.1	689.3	699.0	704.6	708.6	707.6	708.6	709.1	709.9
10°	650.4	666.5	688.8	703.3	710.7	710.9	709.9	706.3	704.6	704.8	705.3
12.5°	658.3	676.1	700.2	712.4	714.5	708.9	704.6	698.5	696.2	695.2	694.7
15°	669.0	689.3	712.7	717.3	712.2	705.1	697.7	687.8	682.7	678.6	679.9
17.5°	682.0	704.3	722.3	719.0	708.1	696.4	684.5	669.5	659.1	654.8	655.0
20°	700.0	720.1	729.7	715.2	698.7	680.9	660.6	642.3	632.7	628.3	627.8
22.5°	721.8	741.2	736.8	708.6	685.3	656.8	631.4	617.9	613.1	610.0	610.6
25°	748.0	764.5	741.9	699.0	663.1	624.8	605.2	600.9	598.6	596.3	596.3
27.5°	782.1	791.0	745.7	684.7	628.6	590.7	583.6	584.4	583.6	579.8	580.6
30°	827.0	825.3	749.3	661.6	589.0	560.0	560.5	563.8	564.3	561.8	563.0
32.5°	886.2	868.2	751.1	631.6	551.1	533.1	533.6	537.1	539.7	535.3	537.4
35°	957.9	918.2	748.3	594.0	521.9	507.4	503.6	504.6	505.4	501.3	504.1
37.5°	1041.5	974.4	735.8	552.4	497.7	482.2	474.1	467.3	463.2	459.4	461.9
40°	1133.2	1035.6	712.9	511.7	470.8	455.6	443.4	430.4	416.7	411.6	413.9
42.5°	1229.2	1098.6	685.3	472.8	439.8	427.4	414.4	395.6	375.0	364.6	365.9
45°	1328.8	1163.2	658.1	434.5	408.1	402.7	387.7	365.1	342.8	329.5	328.5
47.5°	1426.4	1224.2	618.2	395.9	378.3	384.2	372.5	351.6	326.7	305.9	303.6
50°	1519.7	1281.3	552.9	356.7	354.2	378.6	367.4	337.4	309.0	282.3	280.0
52.5°	1612.1	1327.6	469.3	321.2	341.2	377.1	360.8	327.8	293.0	265.0	262.0
55°	1690.6	1351.5	388.7	290.7	322.4	364.1	352.9	316.3	270.3	240.6	238.1
57.5°	1735.4	1332.1	321.7	260.7	296.5	342.8	339.5	291.9	243.4	220.5	217.5
60°	1716.1	1253.9	266.8	234.5	271.9	319.6	316.1	267.8	222.8	201.2	198.2
62.5°	1609.6	1104.7	223.3	211.6	249.5	296.0	292.7	249.3	207.1	186.2	182.9
65°	1395.2	898.7	189.5	192.6	226.9	267.5	272.4	233.8	194.6	174.3	171.0
67.5°	1064.1	651.0	163.1	176.1	204.8	239.6	253.6	222.6	184.2	164.9	161.8
70°	606.5	369.7	140.8	160.1	185.2	213.7	239.1	213.7	173.0	157.0	155.0
72.5°	229.9	169.7	121.7	144.1	166.4	191.8	223.1	199.7	160.1	148.1	146.1
75°	122.7	103.4	102.4	125.3	144.8	170.5	203.0	186.0	150.4	156.5	161.6
77.5°	83.6	73.2	85.6	107.2	121.2	146.9	181.7	165.2	130.3	129.8	119.7
80°	57.9	51.8	69.6	86.4	93.8	123.5	158.5	141.8	106.2	99.1	94.8
82.5°	34.8	33.8	52.1	64.5	66.3	95.3	131.4	118.9	86.9	75.7	76.2
85°	19.1	20.1	33.3	37.9	38.6	66.6	102.9	92.0	66.8	56.2	56.7
87.5°	5.3	6.9	12.2	15.0	18.5	34.6	61.2	54.6	33.5	23.4	23.4
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)