

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: P960816

Luminaire Tested: **NAV-SB1D-727-U-T2-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P960816  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1D-727-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II OPTICS WITH  
HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

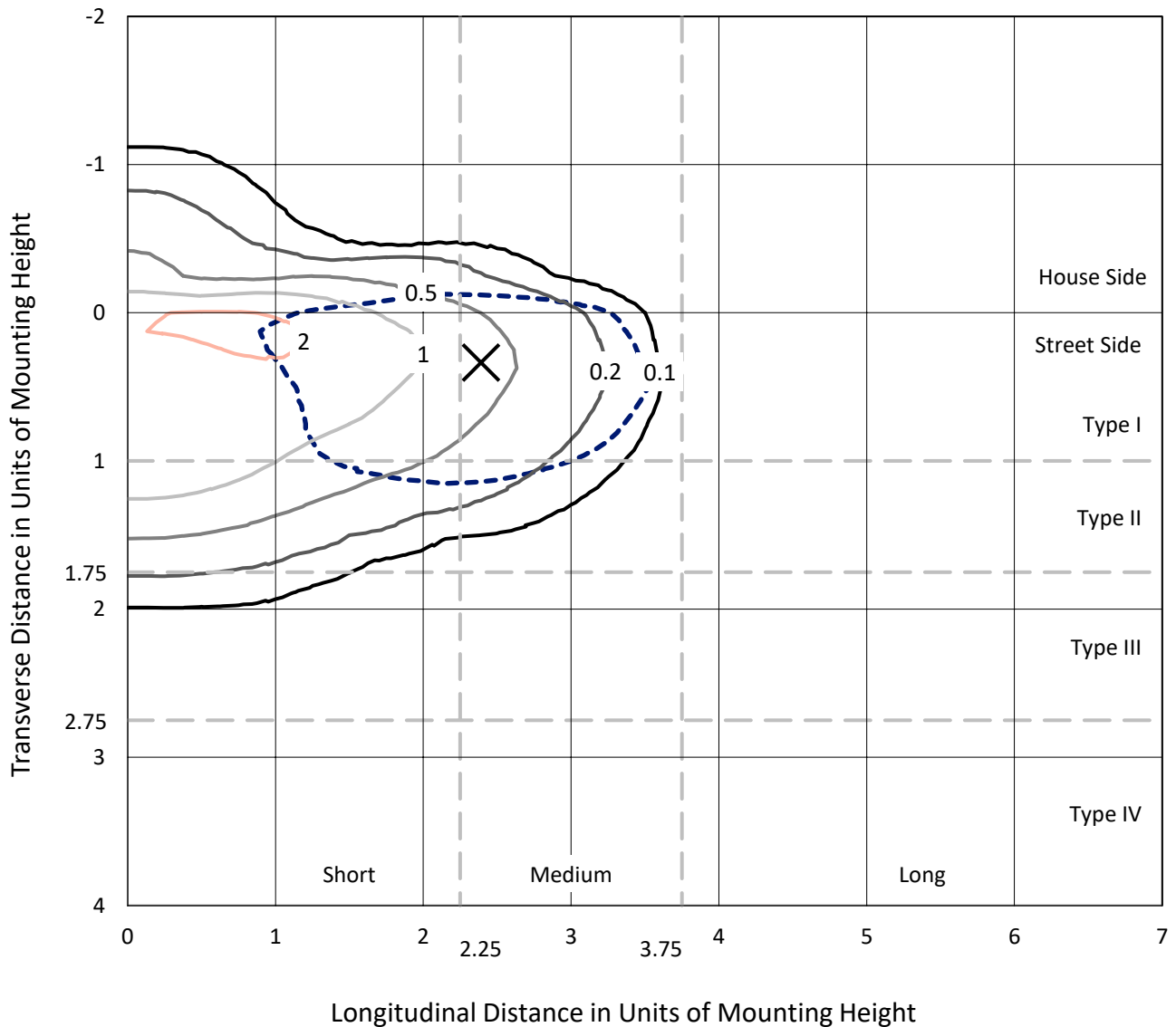
Lumens per Lamp: N/A  
Luminaire Lumens: 7067.4 lumens  
Efficiency: N/A  
Efficacy: 88.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 79.6  
Input Voltage (V): NR  
Input Current (Ain): 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

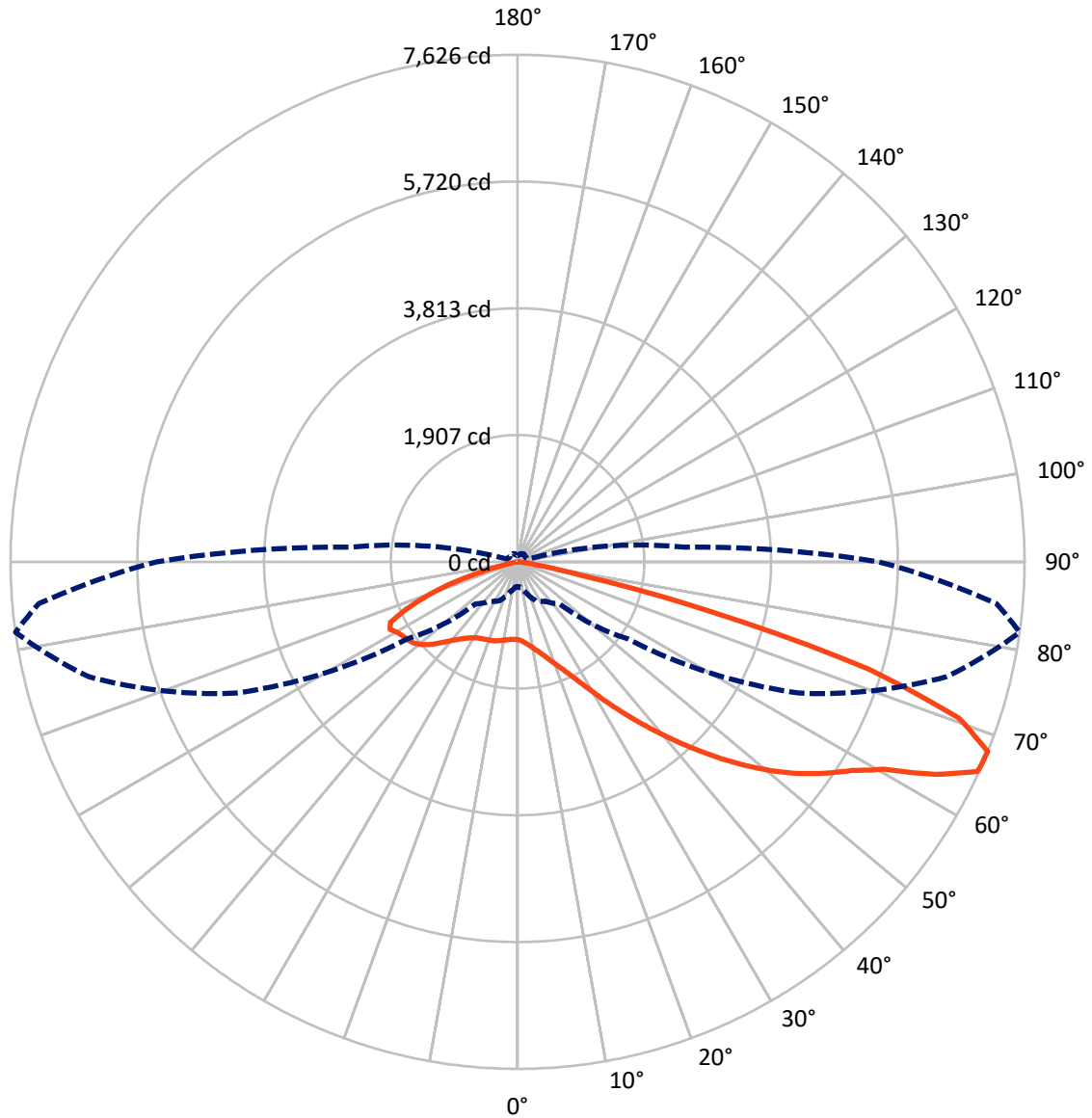
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 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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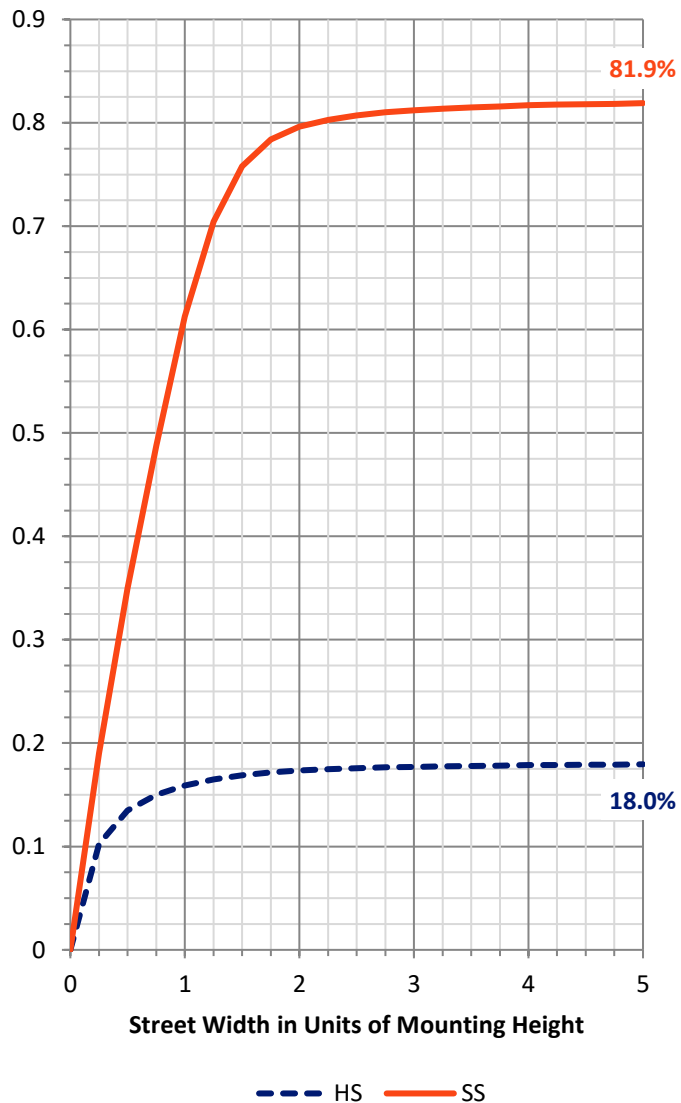
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1280.2	0.0	1280.2
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	5787.2	0.0	5787.2
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	7067.4	0.0	7067.4
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	104.3	1.5
10°-20°	271.1	3.8
20°-30°	434.2	6.1
30°-40°	767.7	10.9
40°-50°	1345.1	19.0
50°-60°	1794.0	25.4
60°-70°	1670.1	23.6
70°-80°	641.0	9.1
80°-90°	39.8	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°	7067.4	100.0
0°-180°	7067.4	100.0

**Coefficient of Utilization**



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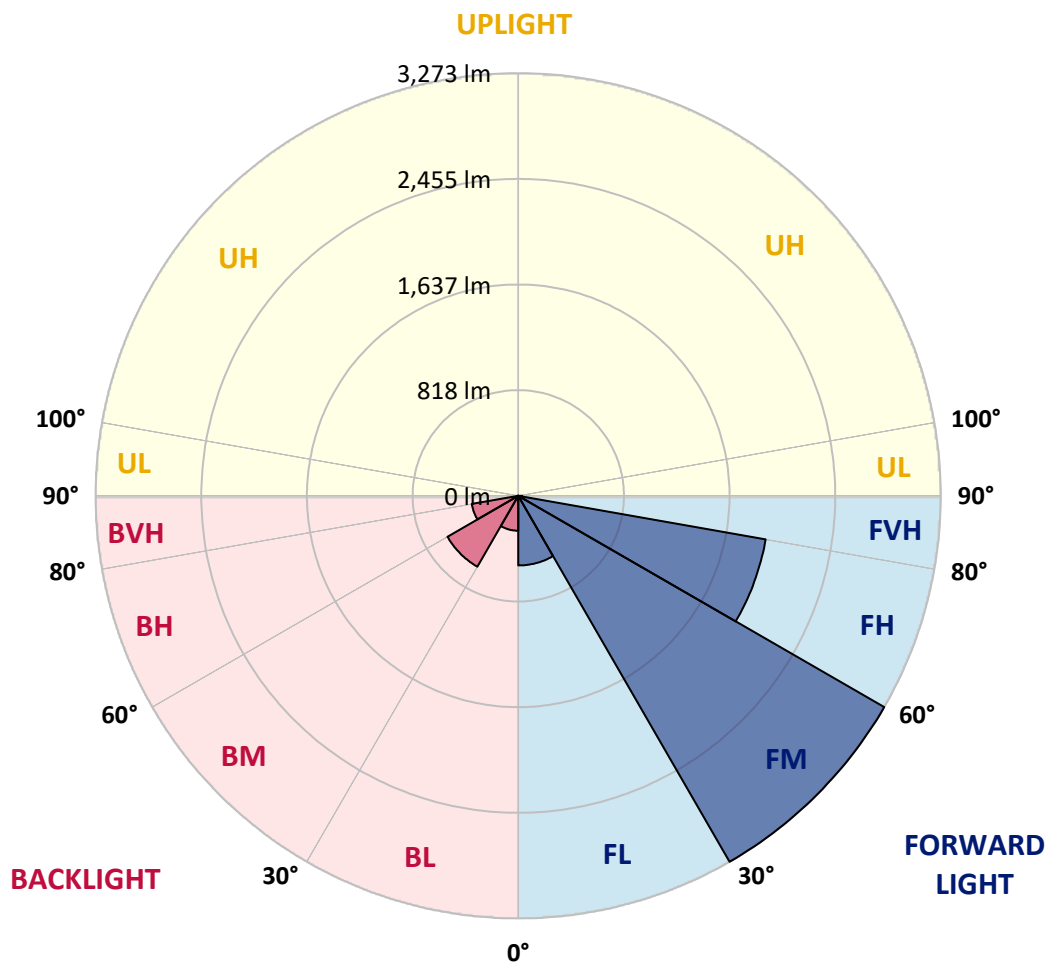
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	539.2	7.6			
FM (30°-60°)	3273.3	46.3			
FH (60°-80°)	1945.8	27.5			G2/5000
FVH (80°-90°)	28.9	0.4			G1/100
BL (0°-30°)	270.4	3.8	B1/500		
BM (30°-60°)	633.6	9.0	B1/1000		
BH (60°-80°)	365.4	5.2	B1/500		G1/500
BVH (80°-90°)	10.9	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°	1170.9	1170.9	1170.9	1170.9	1170.9	1170.9	1170.9	1170.9	1170.9	1170.9	1170.9
2.5°	1237.5	1244.6	1240.6	1238.5	1234.9	1229.9	1225.8	1213.1	1199.9	1191.2	1188.1
5°	1262.4	1269.6	1269.1	1271.1	1273.6	1275.1	1274.1	1259.8	1241.1	1226.3	1217.6
7.5°	1241.1	1249.2	1255.8	1266.0	1283.8	1302.6	1311.8	1308.7	1289.3	1269.1	1258.4
10°	1180.5	1189.1	1204.9	1228.9	1266.5	1307.2	1341.3	1357.1	1344.8	1322.5	1307.7
12.5°	1069.6	1078.2	1109.3	1161.1	1224.3	1295.0	1360.1	1402.3	1405.4	1383.0	1365.7
15°	944.9	953.6	986.7	1051.8	1147.9	1261.4	1370.3	1450.2	1477.1	1457.9	1436.9
17.5°	867.6	875.1	900.2	952.5	1052.8	1194.2	1366.7	1501.0	1562.6	1547.3	1522.4
20°	844.2	850.7	862.4	899.1	982.6	1124.5	1343.4	1548.9	1654.8	1646.0	1618.1
22.5°	869.1	875.1	878.7	895.0	947.4	1078.7	1313.8	1597.8	1761.6	1762.6	1728.5
25°	926.6	932.6	928.6	938.8	961.7	1064.5	1302.6	1655.3	1895.9	1907.1	1868.5
27.5°	1021.2	1021.7	1012.1	1011.6	1015.2	1085.9	1314.4	1716.8	2065.4	2086.2	2038.4
30°	1211.0	1203.4	1166.2	1126.1	1107.7	1149.9	1346.8	1789.5	2265.4	2302.5	2242.4
32.5°	1503.6	1492.4	1424.2	1328.1	1231.3	1253.3	1405.4	1872.5	2483.1	2550.3	2477.0
35°	1821.1	1818.0	1746.8	1603.8	1434.9	1400.4	1500.5	1981.4	2720.8	2827.6	2740.5
37.5°	2116.2	2114.7	2074.0	1905.6	1700.0	1605.4	1653.2	2123.9	2975.2	3129.8	3027.0
40°	2385.9	2390.5	2349.8	2199.1	1992.1	1868.5	1860.8	2299.9	3258.1	3459.1	3336.9
42.5°	2619.0	2624.1	2582.8	2471.4	2280.6	2159.5	2115.7	2515.7	3534.4	3812.7	3668.2
45°	2777.2	2808.8	2802.7	2713.6	2576.7	2451.1	2422.1	2786.4	3849.3	4187.7	4018.2
47.5°	2822.0	2851.0	2896.8	2909.0	2825.5	2701.9	2736.5	3112.5	4167.9	4563.2	4370.4
50°	2711.5	2738.5	2833.7	2960.4	3018.4	2980.2	3042.3	3462.1	4494.0	4937.7	4715.8
52.5°	2493.8	2521.3	2641.3	2841.8	3078.5	3198.5	3349.2	3806.5	4810.0	5292.4	5043.0
55°	2178.8	2207.8	2362.0	2588.9	2964.0	3288.6	3605.1	4150.5	5099.5	5611.4	5338.2
57.5°	1750.4	1771.7	1932.0	2249.6	2676.0	3199.0	3793.8	4526.1	5372.2	5924.8	5630.7
60°	1140.8	1159.6	1345.8	1700.0	2198.6	2899.8	3831.6	4944.8	5734.6	6332.4	6025.1
62.5°	758.7	771.4	881.8	1141.8	1548.4	2325.4	3611.2	5279.2	6265.7	7041.7	6701.3
65°	520.5	533.3	643.7	824.8	1000.4	1538.2	2977.7	5234.9	6747.2	7605.0	7202.6
67.5°	371.5	382.1	475.8	646.8	724.1	893.5	2018.5	4669.1	6677.9	7626.4	7229.5
70°	266.1	272.2	349.5	503.8	575.5	536.8	1122.5	3571.0	5847.0	7042.3	6678.9
72.5°	186.2	188.3	242.7	383.7	463.5	391.8	534.2	2380.9	4422.3	5527.4	5177.9
75°	126.2	128.7	163.4	281.4	372.0	299.2	282.9	1276.6	2596.0	3059.6	2742.6
77.5°	77.4	78.3	105.4	192.3	278.3	228.0	182.1	540.9	1004.4	986.2	840.6
80°	43.8	43.8	67.1	119.6	189.8	147.1	127.7	230.0	318.1	279.3	246.3
82.5°	24.4	24.9	48.9	74.3	125.7	87.0	70.2	106.4	137.4	121.6	105.9
85°	10.1	11.2	30.0	35.2	60.1	43.3	28.5	44.8	50.8	45.3	33.1
87.5°	1.0	1.5	9.1	6.7	7.1	8.6	4.1	8.6	7.1	7.1	5.1
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°	1170.9	1170.9	1170.9	1170.9	1170.9	1170.9	1170.9	1170.9	1170.9	1170.9	1170.9
2.5°	1178.4	1170.9	1151.5	1129.1	1099.6	1085.4	1066.0	1052.8	1041.6	1042.6	1032.4
5°	1201.4	1182.0	1138.8	1084.9	1017.6	969.9	918.9	883.9	855.4	849.2	835.5
7.5°	1232.9	1202.3	1126.6	1029.4	915.9	829.9	753.1	703.8	668.6	657.4	646.3
10°	1273.6	1229.4	1110.8	959.7	796.3	687.0	604.4	565.8	541.9	533.7	527.7
12.5°	1320.9	1260.3	1089.9	874.7	673.2	567.8	515.5	496.1	488.5	486.0	484.4
15°	1380.5	1299.1	1058.4	774.0	568.9	495.1	472.7	470.2	471.2	470.2	469.7
17.5°	1451.2	1341.3	1007.0	670.1	498.7	458.0	449.8	451.8	454.4	453.9	452.8
20°	1528.6	1383.0	941.4	578.0	450.8	431.5	426.9	429.0	431.0	430.0	429.5
22.5°	1616.5	1427.8	868.6	506.2	418.8	407.0	402.0	402.5	402.5	400.5	399.4
25°	1721.9	1477.1	792.2	455.4	394.3	385.2	379.0	377.0	374.0	367.9	366.8
27.5°	1847.6	1529.5	718.9	419.7	375.0	366.3	359.3	354.1	346.6	336.3	335.3
30°	1989.0	1593.2	656.9	397.4	359.8	351.1	343.0	335.3	324.1	311.4	310.4
32.5°	2155.4	1661.3	611.6	382.6	346.0	336.8	327.2	318.1	305.8	293.0	293.6
35°	2353.9	1743.7	585.2	372.5	335.3	323.1	312.4	302.3	293.0	281.9	280.8
37.5°	2569.1	1831.3	577.0	367.4	328.2	309.3	297.1	290.1	289.0	282.4	281.9
40°	2804.7	1935.1	583.1	364.3	320.5	296.1	282.9	281.4	283.9	272.2	272.8
42.5°	3054.0	2058.2	593.3	360.8	309.9	282.9	270.2	270.2	268.1	251.8	251.8
45°	3323.7	2200.2	603.5	352.1	297.1	269.7	260.0	256.5	247.8	232.1	231.5
47.5°	3595.4	2344.7	611.1	336.3	281.9	258.5	249.8	241.7	229.0	214.7	214.2
50°	3853.4	2474.5	603.0	312.9	264.6	247.8	238.6	227.4	213.7	204.1	202.5
52.5°	4083.9	2586.9	568.4	285.5	246.3	236.6	228.5	216.8	205.6	195.4	194.3
55°	4284.4	2678.0	507.3	259.5	230.0	226.9	218.8	204.1	188.8	180.1	179.1
57.5°	4476.7	2747.2	431.0	238.1	215.2	216.3	204.1	190.9	176.6	167.4	166.4
60°	4732.6	2839.8	353.6	218.3	199.5	202.5	189.3	179.6	161.8	150.1	148.6
62.5°	5141.7	2983.8	280.8	193.8	181.1	182.1	176.6	164.8	143.5	129.8	128.7
65°	5466.4	2930.9	221.3	167.4	160.3	161.8	161.8	149.1	126.2	110.4	108.9
67.5°	5429.7	2509.6	176.6	141.4	140.4	141.4	145.0	134.4	111.9	99.2	97.2
70°	5001.8	1996.2	141.4	117.6	122.1	119.6	129.8	122.6	100.8	88.0	86.5
72.5°	4081.3	1438.0	107.8	97.2	93.6	97.7	117.1	110.4	83.9	69.7	68.2
75°	2384.9	767.3	80.4	76.9	67.6	81.4	103.8	94.1	64.1	51.4	49.8
77.5°	776.4	267.6	59.0	56.5	50.3	65.6	88.6	79.3	52.4	40.7	39.2
80°	208.1	80.9	40.2	37.1	32.6	48.9	70.2	63.1	37.6	26.4	25.9
82.5°	83.4	34.1	23.4	20.9	17.8	33.6	55.5	50.8	28.0	16.8	16.8
85°	27.0	11.2	8.6	6.7	8.1	20.9	33.1	34.6	19.9	8.6	6.7
87.5°	3.6	1.5	1.5	2.0	1.5	3.6	10.1	9.6	5.6	1.0	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)