

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: P959764

Luminaire Tested: **NAV-SB1B-727-U-T2R**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P959764  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1B-727-U-T2R  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 2700K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5455.1 lumens  
Efficiency: N/A  
Efficacy: 137.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G1

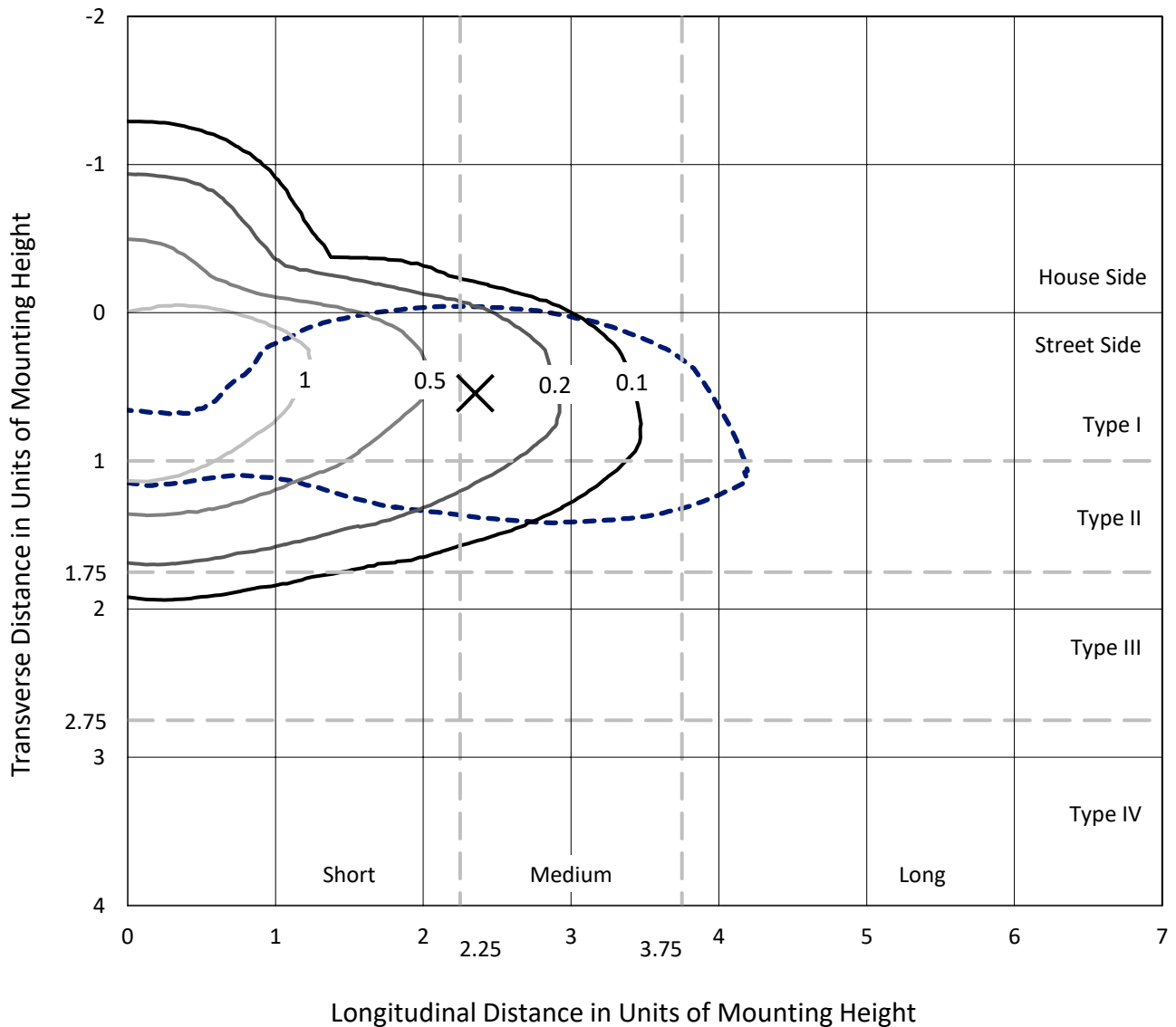
Input Watts (W): 39.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

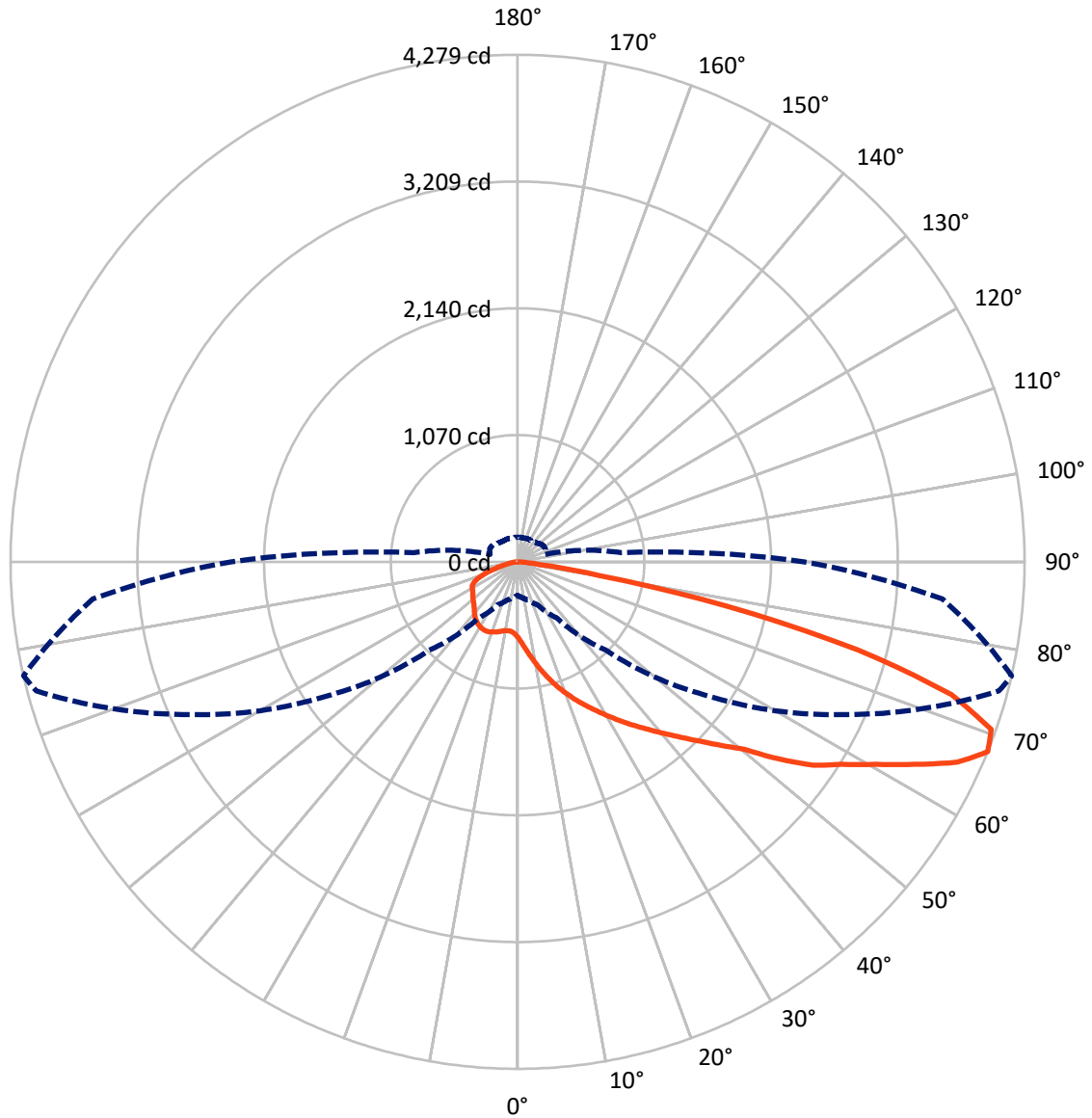
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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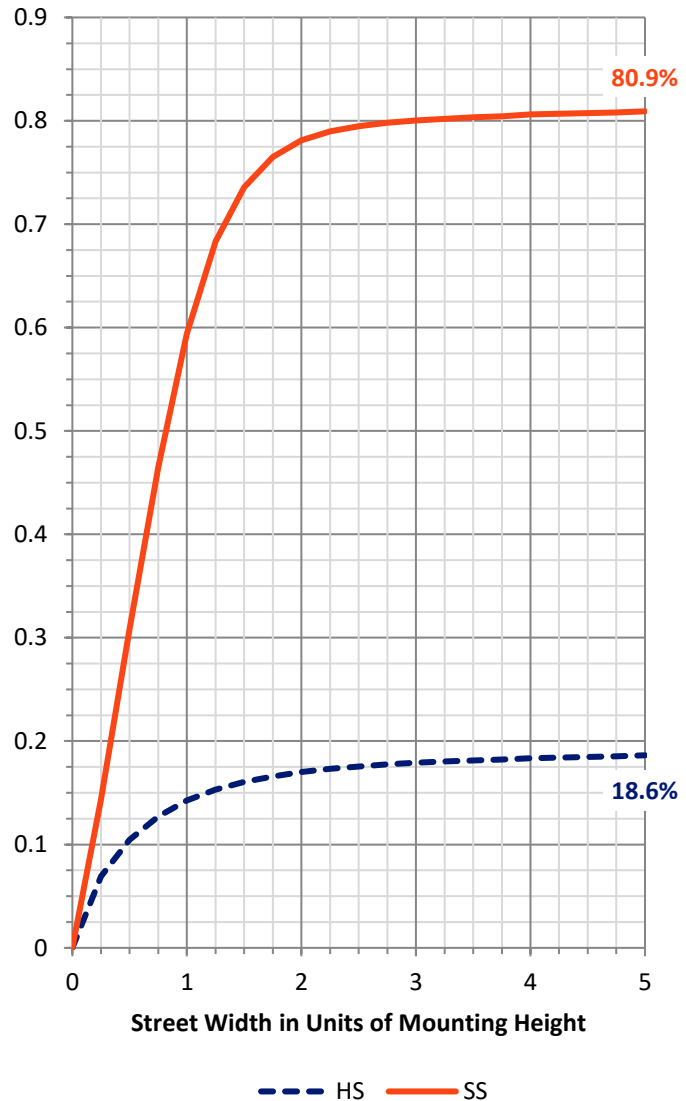
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1031.9	0.0	1031.9
	% Fixture	18.9	0.0	18.9
<b>Street Side</b>	Lumens	4423.2	0.0	4423.2
	% Fixture	81.1	0.0	81.1
<b>Total</b>	Lumens	5455.1	0.0	5455.1
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.6	1.3
10°-20°	246.5	4.5
20°-30°	465.4	8.5
30°-40°	749.7	13.7
40°-50°	1025.4	18.8
50°-60°	1156.7	21.2
60°-70°	1079.6	19.8
70°-80°	591.8	10.8
80°-90°	71.4	1.3
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°	5455.1	100.0
0°-180°	5455.1	100.0

**Coefficient of Utilization**



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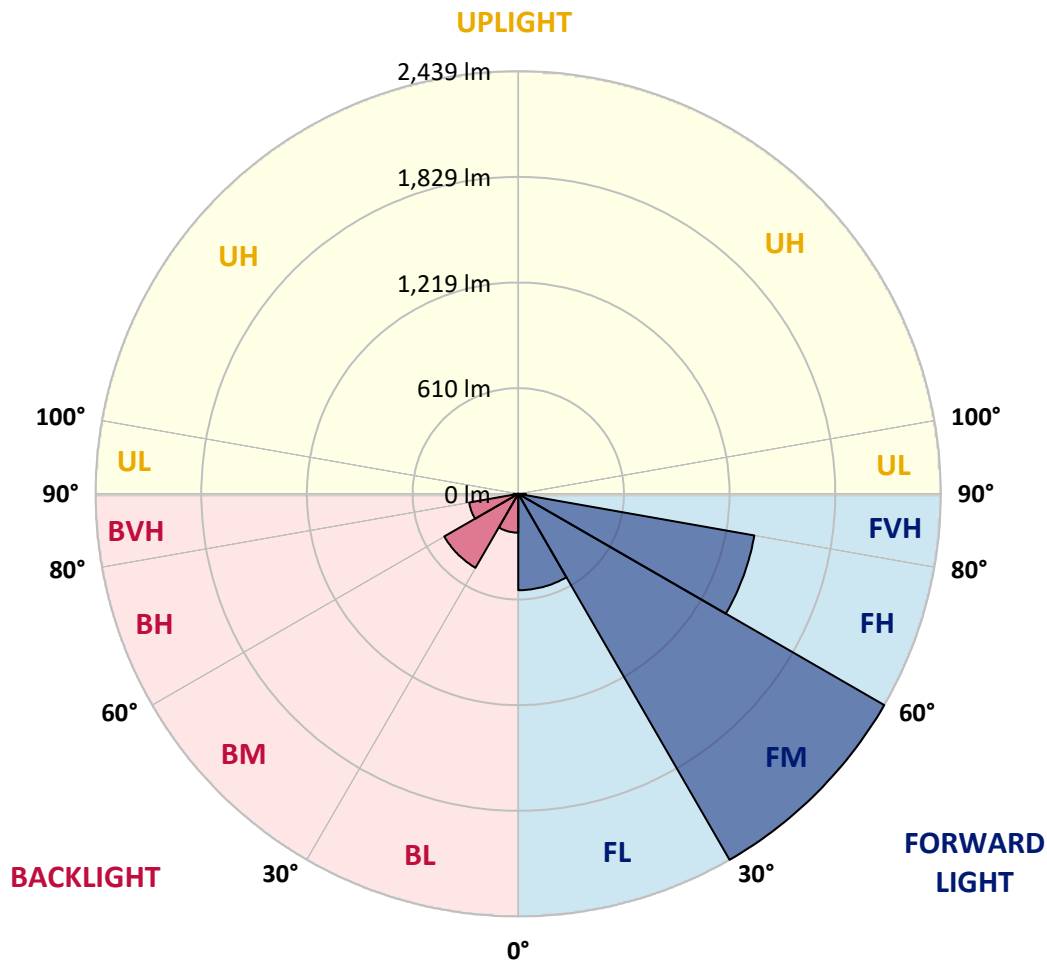
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	556.1	10.2			
FM (30°-60°)	2438.9	44.7			
FH (60°-80°)	1383.6	25.4			G1/1800
FVH (80°-90°)	44.6	0.8			G1/100
BL (0°-30°)	224.4	4.1	B1/500		
BM (30°-60°)	492.9	9.0	B1/1000		
BH (60°-80°)	287.9	5.3	B1/500		G1/500
BVH (80°-90°)	26.7	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
2.5°	801.3	807.0	800.0	800.0	776.3	763.9	740.3	722.3	689.9	684.3	662.9
5°	947.3	954.3	944.4	940.2	912.4	886.7	847.1	807.9	750.2	744.3	693.8
7.5°	1060.2	1069.2	1060.5	1056.0	1031.1	1002.4	956.0	901.4	820.0	808.4	735.5
10°	1152.2	1153.6	1150.9	1152.5	1133.1	1109.5	1061.9	998.2	896.6	880.8	785.9
12.5°	1204.4	1210.8	1216.5	1226.6	1223.2	1208.6	1165.7	1089.8	977.6	957.4	840.8
15°	1228.9	1240.1	1252.8	1276.1	1295.0	1298.7	1266.0	1188.0	1060.2	1035.7	896.3
17.5°	1237.6	1248.2	1268.2	1302.1	1342.6	1369.9	1355.3	1283.5	1141.8	1113.7	954.6
20°	1281.8	1284.8	1297.0	1329.1	1373.0	1418.4	1429.4	1375.2	1222.6	1190.8	1014.9
22.5°	1376.4	1370.2	1373.6	1388.3	1419.7	1463.7	1488.7	1456.3	1305.7	1269.2	1075.6
25°	1532.7	1514.6	1496.6	1479.7	1495.8	1520.6	1549.0	1537.5	1392.8	1346.2	1137.0
27.5°	1730.1	1708.1	1668.4	1612.9	1593.5	1602.3	1614.9	1612.6	1473.2	1426.3	1200.4
30°	1924.3	1898.7	1851.5	1771.2	1720.0	1696.9	1687.3	1680.8	1560.9	1510.7	1264.3
32.5°	2079.5	2059.2	2012.8	1923.0	1848.6	1809.2	1777.4	1754.3	1652.4	1602.3	1331.9
35°	2215.2	2196.4	2143.2	2045.2	1964.3	1922.4	1880.7	1831.5	1747.5	1696.9	1404.6
37.5°	2339.2	2320.3	2247.3	2145.4	2064.0	2035.0	1997.8	1914.2	1843.0	1795.1	1481.4
40°	2417.5	2413.2	2345.1	2229.6	2145.1	2130.8	2118.4	2010.2	1948.8	1904.3	1565.9
42.5°	2437.4	2446.7	2392.7	2297.7	2217.2	2205.7	2234.7	2119.0	2067.7	2025.2	1661.6
45°	2389.3	2416.0	2380.6	2316.1	2268.4	2262.3	2337.7	2237.8	2199.2	2160.3	1777.1
47.5°	2267.3	2312.7	2298.0	2289.0	2282.3	2309.0	2428.4	2364.0	2348.2	2314.3	1908.9
50°	2021.2	2107.1	2132.7	2189.6	2254.9	2345.3	2510.9	2501.6	2522.2	2488.1	2069.4
52.5°	1595.7	1714.0	1862.7	2005.2	2171.1	2333.2	2601.6	2699.3	2786.1	2767.4	2324.5
55°	1317.2	1370.5	1484.8	1746.1	2008.3	2282.3	2642.4	2858.9	3047.9	3031.2	2517.9
57.5°	1103.2	1150.9	1221.3	1439.5	1762.2	2166.5	2667.8	2956.4	3227.3	3225.6	2708.9
60°	873.8	924.1	996.3	1150.9	1474.7	1966.6	2662.1	3067.3	3456.2	3470.2	2941.7
62.5°	614.7	670.1	750.2	894.3	1181.0	1707.5	2547.2	3147.6	3725.7	3764.0	3221.9
65°	404.1	440.6	500.9	625.5	880.0	1374.4	2327.9	3158.0	4014.0	4078.8	3484.9
67.5°	283.3	297.4	332.8	400.5	580.0	1054.0	1978.5	3050.2	4206.4	4279.3	3599.0
70°	221.1	228.1	246.1	273.2	364.4	708.8	1516.1	2769.7	4165.2	4241.2	3479.9
72.5°	191.0	197.7	204.4	207.8	244.5	437.6	1026.9	2315.8	3778.0	3829.6	3025.7
75°	173.2	174.9	180.5	179.4	186.4	283.8	592.8	1687.3	2980.9	2963.2	2233.6
77.5°	145.5	147.8	157.1	155.7	165.5	194.0	307.8	1088.9	1932.5	1812.0	1243.2
80°	123.3	124.4	134.6	132.9	143.9	140.5	157.1	555.0	819.7	694.4	358.4
82.5°	42.8	52.9	102.8	105.9	109.8	85.1	90.7	226.4	250.3	191.8	75.1
85°	20.8	22.2	52.4	74.3	74.1	42.8	44.2	80.8	78.8	61.9	25.0
87.5°	3.4	4.2	6.1	29.0	23.1	11.3	15.2	15.8	16.3	14.0	5.6
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°	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
2.5°	647.1	633.0	603.4	576.2	554.7	534.1	522.6	512.8	507.2	506.0	506.0
5°	664.5	635.5	581.8	536.4	506.9	484.9	473.3	466.1	462.4	460.1	459.8
7.5°	689.6	647.1	570.5	519.0	488.0	472.2	466.3	465.1	464.9	465.1	466.1
10°	724.3	665.9	569.4	514.8	488.8	480.1	479.8	480.1	481.2	481.5	481.7
12.5°	761.7	685.4	573.9	518.4	499.6	494.8	493.9	493.6	494.5	495.1	495.3
15°	802.5	711.0	581.5	526.2	511.4	506.2	505.4	503.8	503.5	503.2	502.9
17.5°	844.5	736.4	589.9	534.7	519.0	511.9	508.8	504.9	501.7	500.9	501.7
20°	887.0	761.4	595.8	538.9	519.6	509.6	503.5	496.7	491.4	488.3	489.4
22.5°	932.3	787.6	599.5	537.8	514.4	500.9	489.6	481.7	473.7	468.3	468.5
25°	976.5	810.4	599.2	531.9	504.6	487.4	473.0	462.9	451.6	446.1	446.1
27.5°	1019.1	831.0	592.1	521.5	490.6	471.4	454.2	442.1	431.1	425.8	425.5
30°	1063.0	848.2	581.2	506.2	474.0	452.7	433.9	423.5	413.7	408.6	408.3
32.5°	1106.6	863.9	565.7	487.4	454.8	434.5	415.9	406.3	400.5	400.5	400.7
35°	1152.8	874.9	545.2	465.5	434.5	415.0	400.5	394.8	394.2	390.8	390.0
37.5°	1201.5	881.9	520.1	442.9	414.5	396.2	391.7	384.9	379.2	372.0	370.8
40°	1252.8	889.0	489.9	419.5	393.4	383.2	381.3	372.3	356.2	338.1	335.7
42.5°	1315.0	893.8	458.7	396.2	371.2	367.8	370.5	355.1	329.4	315.9	316.2
45°	1387.1	901.6	430.0	373.1	348.3	348.3	360.2	339.9	318.8	310.3	311.7
47.5°	1480.6	919.9	403.2	347.8	327.2	332.8	337.0	321.5	309.8	299.3	299.1
50°	1615.7	963.9	375.7	322.2	311.2	322.5	316.5	307.5	293.7	285.3	284.4
52.5°	1783.6	989.7	351.2	299.1	297.4	308.6	300.2	291.7	281.3	270.1	267.8
55°	1897.9	994.6	330.6	282.2	288.0	286.9	283.8	276.2	270.6	255.6	255.9
57.5°	2025.7	1004.1	313.6	272.0	282.2	269.8	268.7	262.2	254.8	244.7	241.3
60°	2178.6	1019.1	299.1	268.0	277.1	258.5	252.9	250.3	243.0	237.9	239.3
62.5°	2345.3	1032.6	284.1	268.7	271.2	247.5	239.0	238.2	233.7	232.1	232.1
65°	2459.1	995.7	265.6	268.0	261.9	236.3	225.5	225.3	221.6	221.1	220.8
67.5°	2419.4	878.8	240.5	260.1	252.3	225.0	213.2	212.1	207.3	207.6	207.6
70°	2220.6	712.2	205.8	240.8	240.5	214.8	200.2	196.6	190.0	191.2	192.3
72.5°	1847.8	527.7	159.4	208.4	221.6	205.5	185.3	179.4	171.2	172.3	172.1
75°	1334.4	358.7	116.0	158.6	192.9	194.5	170.7	160.5	150.7	152.3	152.9
77.5°	682.9	203.3	85.3	109.3	151.5	176.8	157.4	143.9	141.7	157.4	155.2
80°	222.7	101.9	59.1	76.6	99.4	144.7	138.0	122.5	122.0	125.6	107.8
82.5°	66.4	43.0	38.0	50.4	54.9	110.9	119.1	92.7	79.6	83.9	86.7
85°	22.9	20.8	21.7	25.0	26.1	65.1	83.3	61.4	58.0	64.0	63.0
87.5°	5.3	7.3	6.1	5.6	5.6	15.8	32.4	25.6	35.5	23.7	22.9
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)