

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: P882279

Luminaire Tested: **NAV-SB2A-827-U-T3**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882279  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB2A-827-U-T3  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

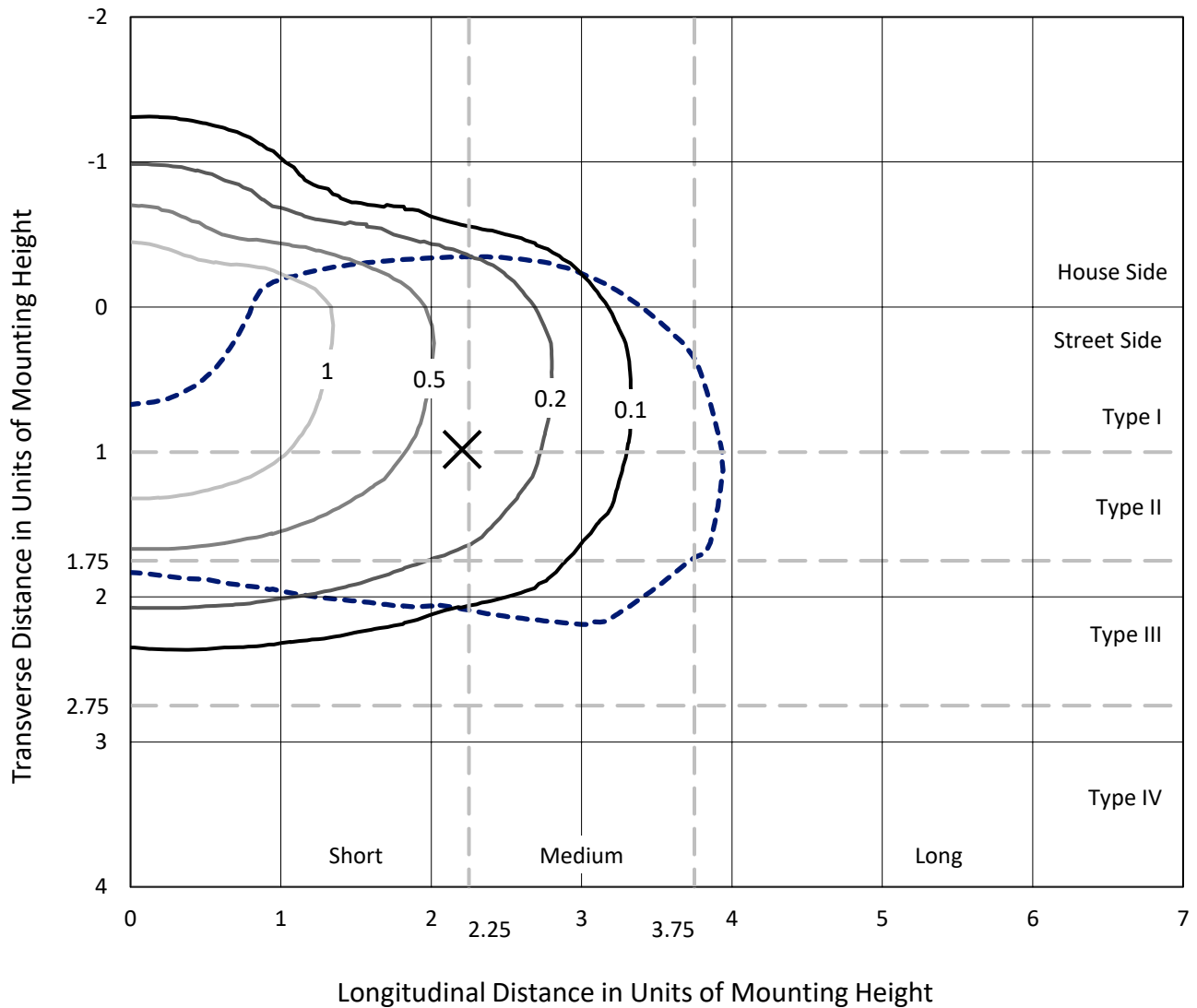
Lumens per Lamp: N/A  
Luminaire Lumens: 7433 lumens  
Efficiency: N/A  
Efficacy: 129.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 57.3  
Input Voltage (V): 120.0  
Input Current (Ain): 0.484  
Voltage Rise (V): NR  
Power Factor: 0.994  
Total Harmonic Distortion (THDi): 9.038  
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

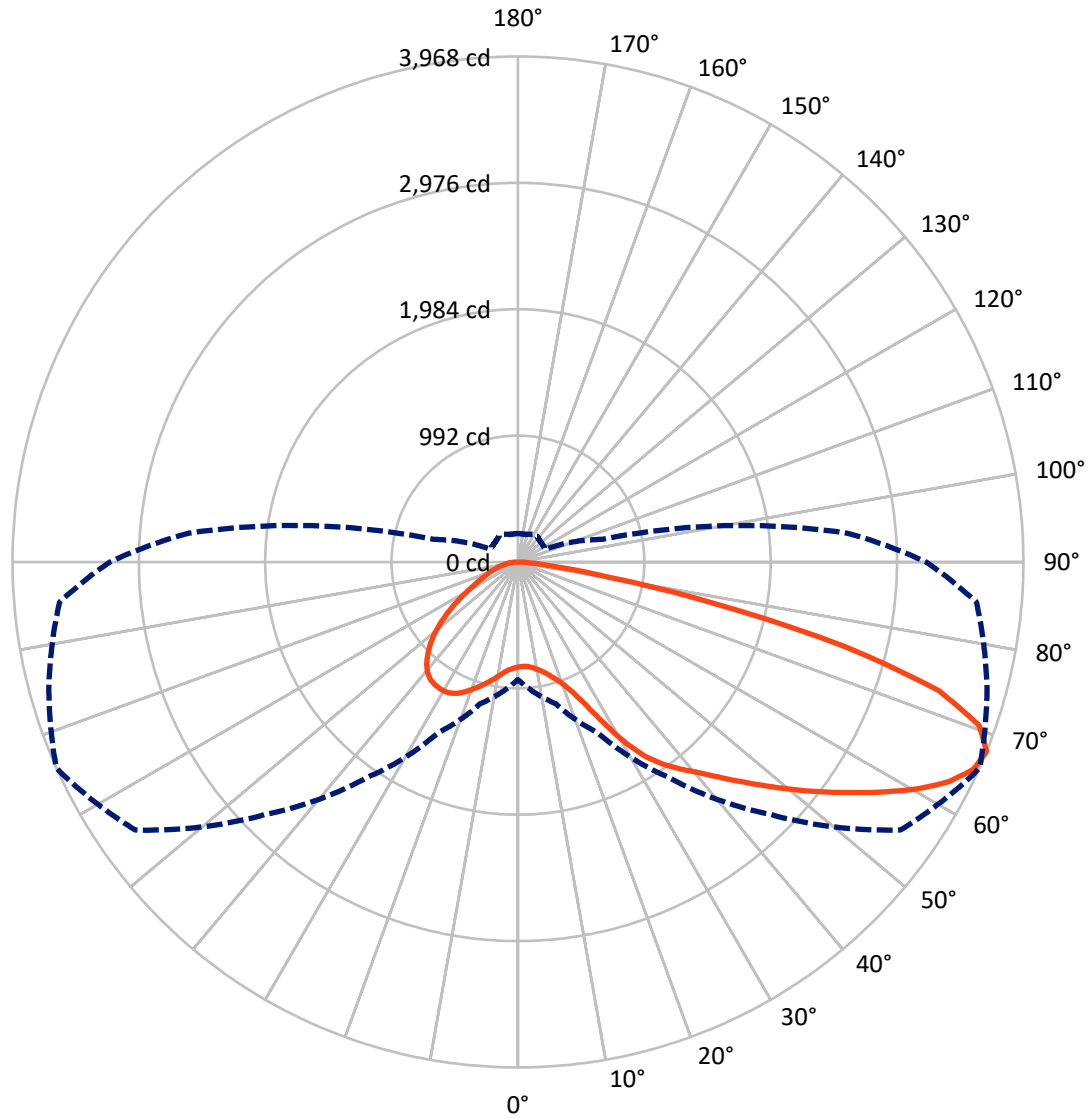
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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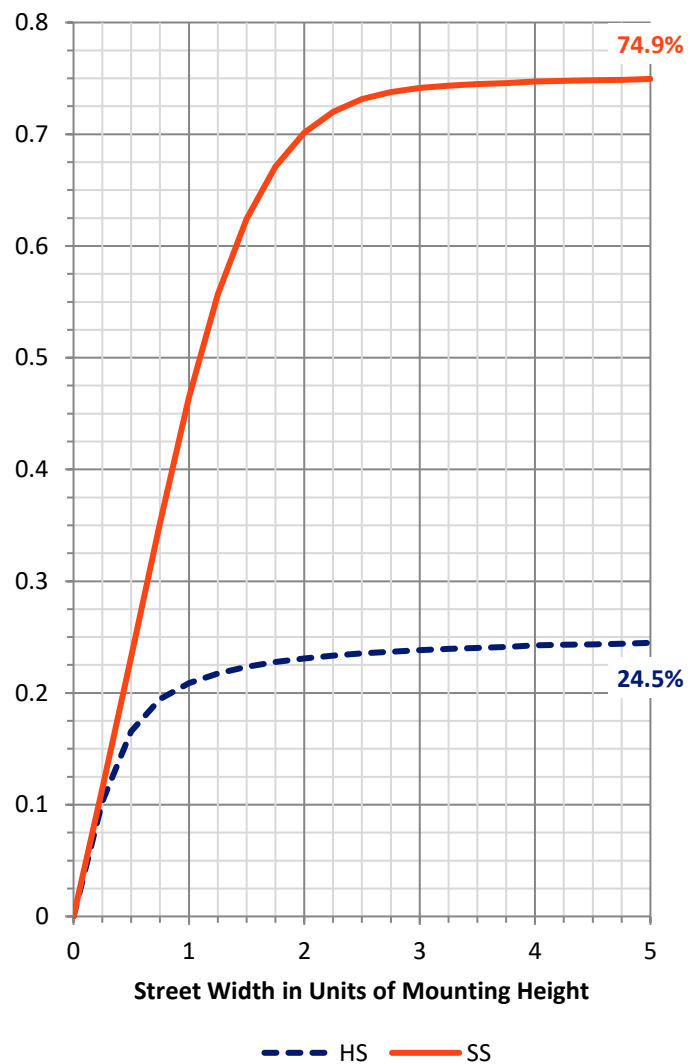
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1848.2	0.0	1848.2
	% Fixture	24.9	0.0	24.9
<b>Street Side</b>	Lumens	5584.8	0.0	5584.8
	% Fixture	75.1	0.0	75.1
<b>Total</b>	Lumens	7433.0	0.0	7433.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.7	1.1
10°-20°	270.1	3.6
20°-30°	520.5	7.0
30°-40°	912.6	12.3
40°-50°	1356.8	18.3
50°-60°	1719.9	23.1
60°-70°	1682.9	22.6
70°-80°	802.7	10.8
80°-90°	85.8	1.2
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°	7433.0	100.0
0°-180°	7433.0	100.0

**Coefficient of Utilization**



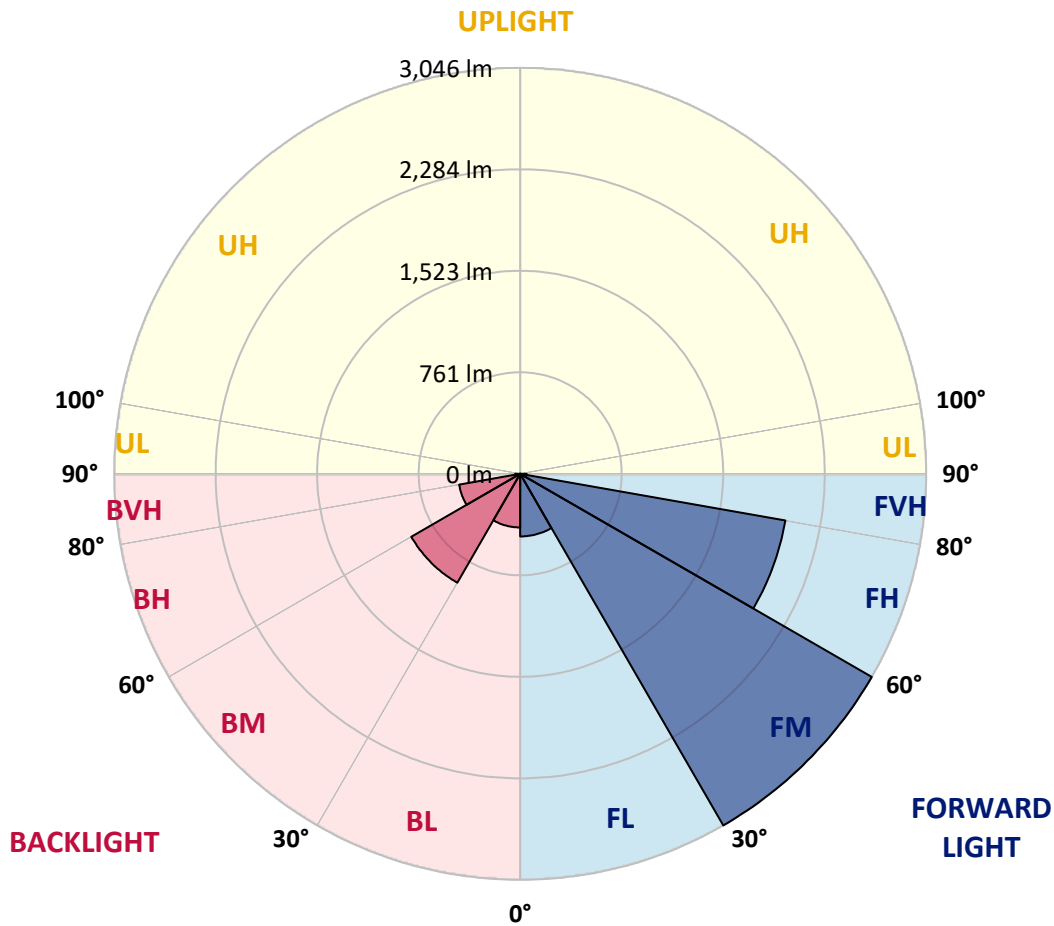
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	469.7	6.3			
FM (30°-60°)	3046.0	41.0			
FH (60°-80°)	2020.5	27.2			G2/5000
FVH (80°-90°)	48.6	0.7			G1/100
BL (0°-30°)	402.6	5.4	B1/500		
BM (30°-60°)	943.3	12.7	B1/1000		
BH (60°-80°)	465.1	6.3	B1/500		G1/500
BVH (80°-90°)	37.1	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-G2**

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	824.4	824.4	824.4	824.4	824.4	824.4	824.4	824.4	824.4	824.4	824.4
2.5°	815.8	820.5	819.3	817.4	817.0	817.8	819.0	820.1	819.7	821.7	824.8
5°	813.5	818.2	817.8	817.8	819.3	822.5	824.4	826.4	824.4	826.8	831.1
7.5°	815.0	818.6	820.1	821.7	825.6	831.4	836.1	840.4	838.1	840.8	846.3
10°	835.0	837.7	839.3	839.3	842.0	848.6	853.3	861.1	859.2	863.5	870.5
12.5°	871.3	874.0	874.0	872.5	874.4	878.7	880.3	888.9	885.3	892.4	899.4
15°	915.8	921.3	917.0	914.2	915.0	919.3	918.9	925.6	922.1	927.9	934.2
17.5°	965.0	972.0	965.0	964.6	963.1	967.7	968.1	974.0	967.7	972.0	976.3
20°	1023.2	1033.0	1027.1	1029.1	1025.5	1027.5	1029.4	1038.0	1028.3	1031.4	1030.2
22.5°	1105.2	1116.9	1110.7	1118.1	1115.8	1114.2	1113.8	1129.0	1113.8	1115.0	1103.6
25°	1224.7	1238.8	1227.8	1238.0	1238.0	1243.1	1248.9	1268.5	1243.1	1235.7	1206.4
27.5°	1401.2	1415.3	1393.8	1400.1	1398.1	1410.6	1404.4	1452.8	1425.5	1413.3	1354.4
30°	1613.7	1638.7	1598.1	1596.5	1594.6	1614.5	1623.5	1655.5	1627.7	1615.6	1544.6
32.5°	1843.3	1869.5	1821.1	1807.0	1799.6	1811.7	1804.3	1830.0	1810.9	1792.2	1704.3
35°	2086.2	2112.0	2065.9	2038.6	2008.9	1983.5	1957.0	1963.6	1945.6	1917.1	1826.1
37.5°	2315.9	2363.1	2314.3	2285.0	2230.3	2180.7	2106.5	2075.7	2058.9	2032.7	1941.0
40°	2549.8	2576.7	2539.6	2514.7	2455.3	2377.6	2258.9	2193.6	2171.0	2145.6	2067.9
42.5°	2722.0	2747.8	2727.9	2710.7	2664.2	2574.0	2420.5	2338.9	2306.1	2277.6	2211.6
45°	2858.7	2877.8	2865.4	2871.6	2851.7	2764.2	2588.1	2494.7	2460.8	2426.0	2374.1
47.5°	2913.8	2934.1	2954.0	2991.1	3025.1	2960.6	2768.1	2663.4	2627.5	2592.0	2540.8
50°	2907.5	2928.2	2986.0	3064.9	3170.4	3148.9	2957.9	2843.1	2809.9	2769.3	2722.0
52.5°	2857.5	2881.0	2955.2	3086.4	3254.3	3289.9	3151.2	3028.6	2997.4	2948.9	2901.7
55°	2726.3	2740.4	2851.7	3037.6	3274.2	3388.3	3340.6	3226.2	3195.0	3127.4	3075.8
57.5°	2483.0	2503.3	2665.4	2906.0	3224.3	3455.1	3507.0	3434.0	3403.9	3306.7	3252.8
60°	2165.5	2197.9	2383.4	2684.9	3096.9	3454.7	3658.1	3638.2	3613.2	3483.2	3426.9
62.5°	1806.2	1843.7	2022.2	2372.5	2874.3	3356.6	3752.6	3809.3	3796.4	3646.0	3574.2
65°	1387.2	1413.0	1590.6	1968.3	2527.9	3146.1	3763.6	3926.0	3928.4	3769.8	3651.1
67.5°	923.6	997.8	1152.1	1477.0	2064.0	2802.1	3667.5	3945.2	3967.8	3812.4	3612.4
70°	450.7	548.3	699.4	959.9	1477.0	2274.5	3416.4	3788.2	3838.6	3688.2	3382.0
72.5°	187.1	218.7	301.1	473.7	847.8	1534.8	2911.8	3362.5	3455.8	3268.0	2843.5
75°	126.1	136.7	172.2	242.9	386.2	756.9	2099.9	2507.2	2657.6	2468.2	2017.5
77.5°	97.2	103.9	125.4	169.9	229.6	286.3	1124.0	1511.0	1588.7	1470.8	1049.8
80°	76.5	81.6	93.7	123.8	162.9	153.1	383.1	684.6	729.5	612.0	337.4
82.5°	66.4	68.3	67.2	84.0	108.2	89.4	125.8	252.7	278.8	202.3	110.1
85°	48.0	53.5	55.8	51.9	57.4	45.3	51.6	89.4	98.4	87.9	62.1
87.5°	19.5	28.9	35.5	33.6	21.1	12.9	16.0	26.2	30.1	32.8	20.3
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°	824.4	824.4	824.4	824.4	824.4	824.4	824.4	824.4	824.4	824.4	824.4
2.5°	825.2	827.9	829.9	832.2	833.8	836.1	840.8	843.6	843.9	845.9	845.5
5°	832.6	836.5	840.8	847.1	854.1	860.0	868.9	875.2	877.5	879.5	879.1
7.5°	848.6	854.1	861.9	872.8	883.0	890.8	901.7	909.2	916.6	919.3	919.7
10°	872.5	880.3	891.6	906.4	917.4	927.5	938.8	945.1	952.5	955.6	957.2
12.5°	902.1	910.3	925.2	945.9	956.0	963.1	967.0	965.4	967.0	969.7	970.5
15°	936.1	945.1	961.9	984.1	991.2	984.9	976.3	968.5	967.4	968.1	970.9
17.5°	976.3	983.0	1002.5	1021.2	1016.2	990.4	971.6	959.2	952.9	951.0	953.7
20°	1032.6	1032.6	1048.6	1060.3	1026.3	982.6	953.3	933.0	920.1	914.6	913.5
22.5°	1100.9	1094.7	1104.8	1096.6	1024.4	960.7	920.1	885.0	865.4	857.6	856.4
25°	1187.6	1180.2	1177.5	1126.7	1010.3	926.0	860.0	817.4	800.2	795.9	796.7
27.5°	1318.4	1299.7	1264.2	1143.1	984.5	871.3	789.7	750.2	740.5	740.8	742.0
30°	1492.6	1455.1	1368.0	1145.8	942.4	794.0	717.8	689.7	685.0	686.9	693.6
32.5°	1653.9	1618.4	1474.3	1133.3	877.5	718.2	653.4	634.6	627.6	629.9	633.1
35°	1780.4	1770.7	1572.7	1115.8	797.9	647.1	595.6	579.6	565.9	562.8	565.1
37.5°	1899.9	1896.0	1646.5	1091.2	719.0	596.7	549.1	528.0	508.1	497.2	497.5
40°	2031.2	2027.3	1694.9	1053.3	649.1	553.0	507.3	479.6	455.0	435.1	437.0
42.5°	2178.8	2155.7	1718.0	999.0	589.7	515.9	473.3	435.8	403.4	385.1	386.2
45°	2340.1	2288.1	1717.6	929.9	539.7	481.9	437.0	383.9	353.8	336.6	335.9
47.5°	2511.1	2414.7	1696.5	853.3	491.3	444.4	380.8	340.2	320.2	309.7	307.4
50°	2687.7	2533.0	1660.6	765.4	441.7	401.9	345.6	317.9	302.7	292.9	289.4
52.5°	2853.6	2640.4	1617.2	665.9	391.3	360.5	330.0	308.5	292.5	281.6	276.9
55°	3007.9	2733.0	1555.9	563.9	350.3	332.7	322.6	304.6	286.3	273.4	268.3
57.5°	3145.0	2793.1	1450.1	468.3	321.0	313.6	314.8	298.0	276.9	266.0	258.9
60°	3259.0	2837.2	1293.4	379.6	297.2	294.9	302.7	285.5	260.9	248.4	242.9
62.5°	3327.4	2836.5	1101.3	310.9	276.9	277.7	286.7	269.9	244.9	233.1	229.6
65°	3321.5	2766.9	890.4	266.0	257.4	258.1	269.9	252.7	231.6	224.6	224.2
67.5°	3203.9	2597.4	683.0	236.7	235.9	239.4	253.1	241.0	223.4	222.6	223.8
70°	2885.7	2245.6	492.1	213.2	213.6	218.7	236.7	233.5	219.1	220.7	220.3
72.5°	2313.9	1712.1	330.4	188.6	189.0	197.2	221.0	227.7	214.8	235.5	238.6
75°	1541.0	1067.7	212.5	162.5	162.9	173.4	207.4	216.4	203.1	234.7	236.7
77.5°	740.5	480.0	153.9	136.7	136.7	146.5	179.3	193.7	173.0	182.4	167.1
80°	255.8	180.4	121.1	110.1	107.8	114.4	151.1	167.9	149.2	137.5	128.9
82.5°	100.8	93.7	97.2	85.5	77.7	82.0	117.6	138.6	109.7	99.2	98.8
85°	57.8	60.9	68.7	56.6	44.9	50.4	86.3	99.6	82.8	73.0	74.6
87.5°	15.6	21.5	31.6	29.3	20.3	21.5	41.0	55.1	47.6	36.7	37.9
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)