

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: P883607

Luminaire Tested: **NAV-SB4A-740-U-T2**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883607  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4A-740-U-T2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19420 lumens  
Efficiency: N/A  
Efficacy: 170.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G3

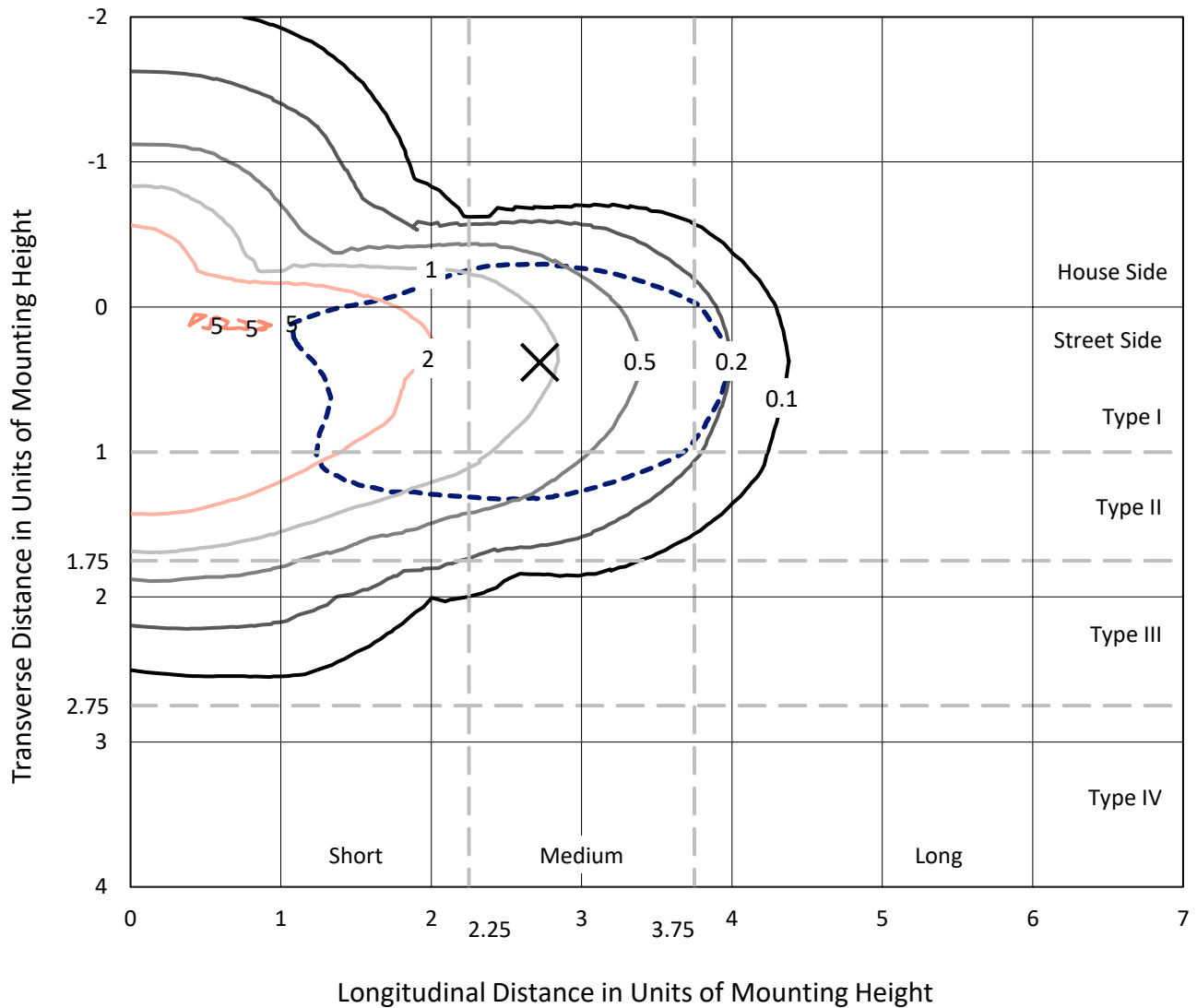
Input Watts (W): 114  
Input Voltage (V): 120.0  
Input Current (Ain): 0.952  
Voltage Rise (V): NR  
Power Factor: 0.995  
Total Harmonic Distortion (THDi): 8.206  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

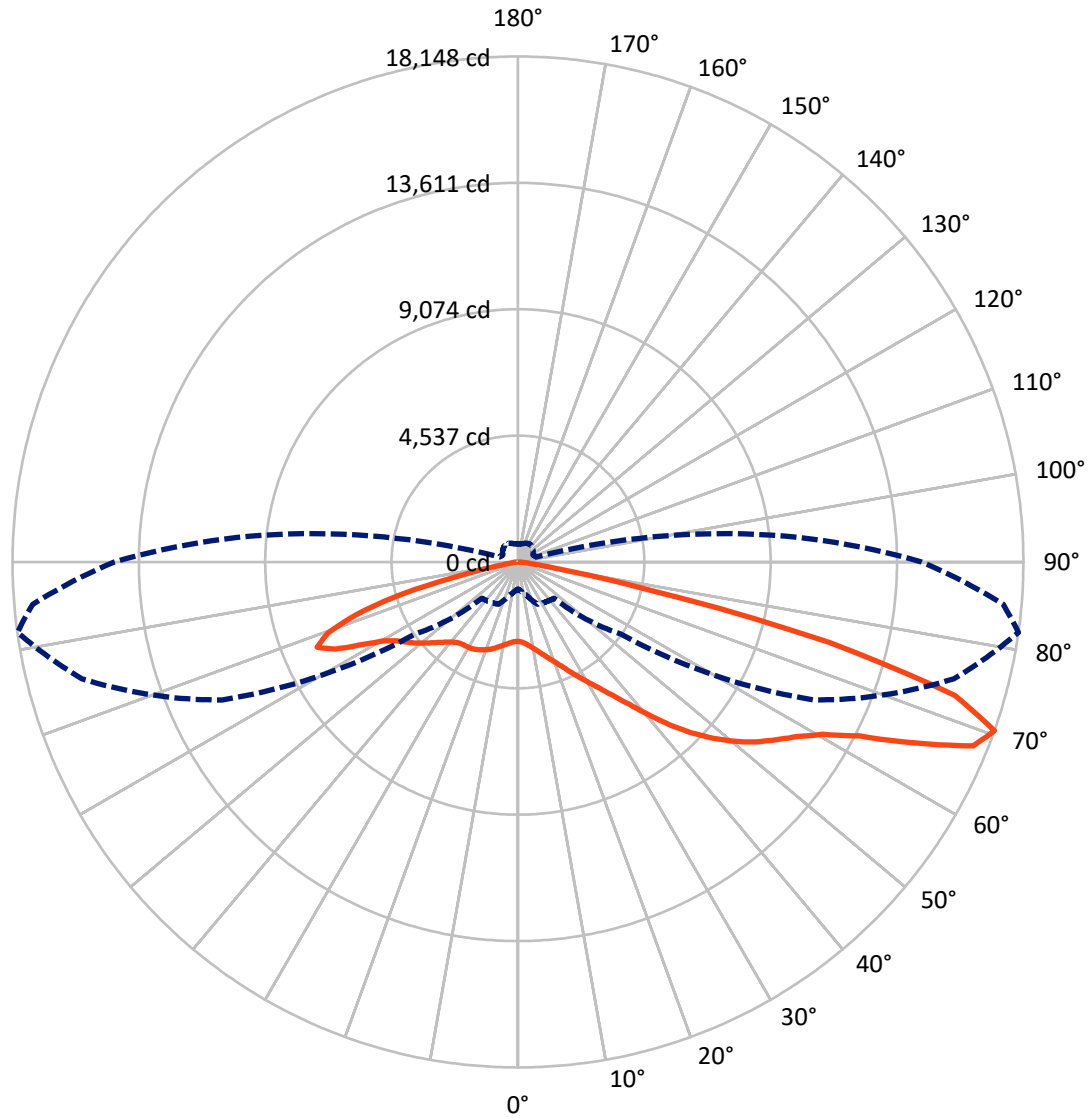
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.2 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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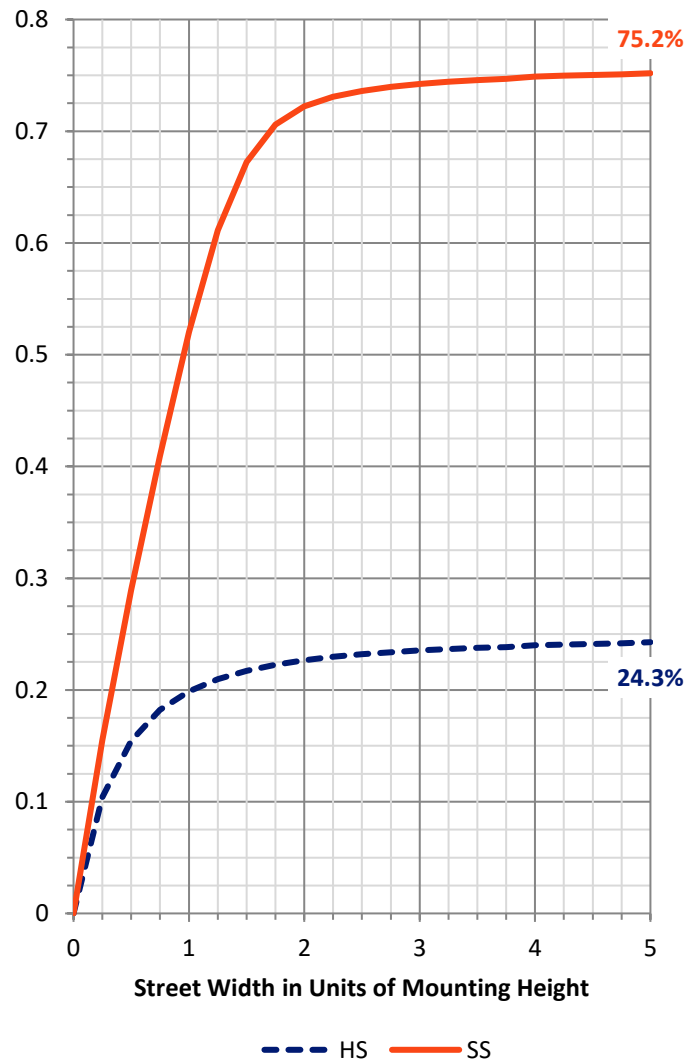
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4787.5	0.0	4787.5
	% Fixture	24.7	0.0	24.7
<b>Street Side</b>	Lumens	14632.5	0.0	14632.5
	% Fixture	75.3	0.0	75.3
<b>Total</b>	Lumens	19420.0	0.0	19420.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	268.8	1.4
10°-20°	772.4	4.0
20°-30°	1292.1	6.7
30°-40°	2018.6	10.4
40°-50°	3214.8	16.6
50°-60°	4473.8	23.0
60°-70°	4679.8	24.1
70°-80°	2445.9	12.6
80°-90°	254.0	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°	19420.0	100.0
0°-180°	19420.0	100.0

**Coefficient of Utilization**



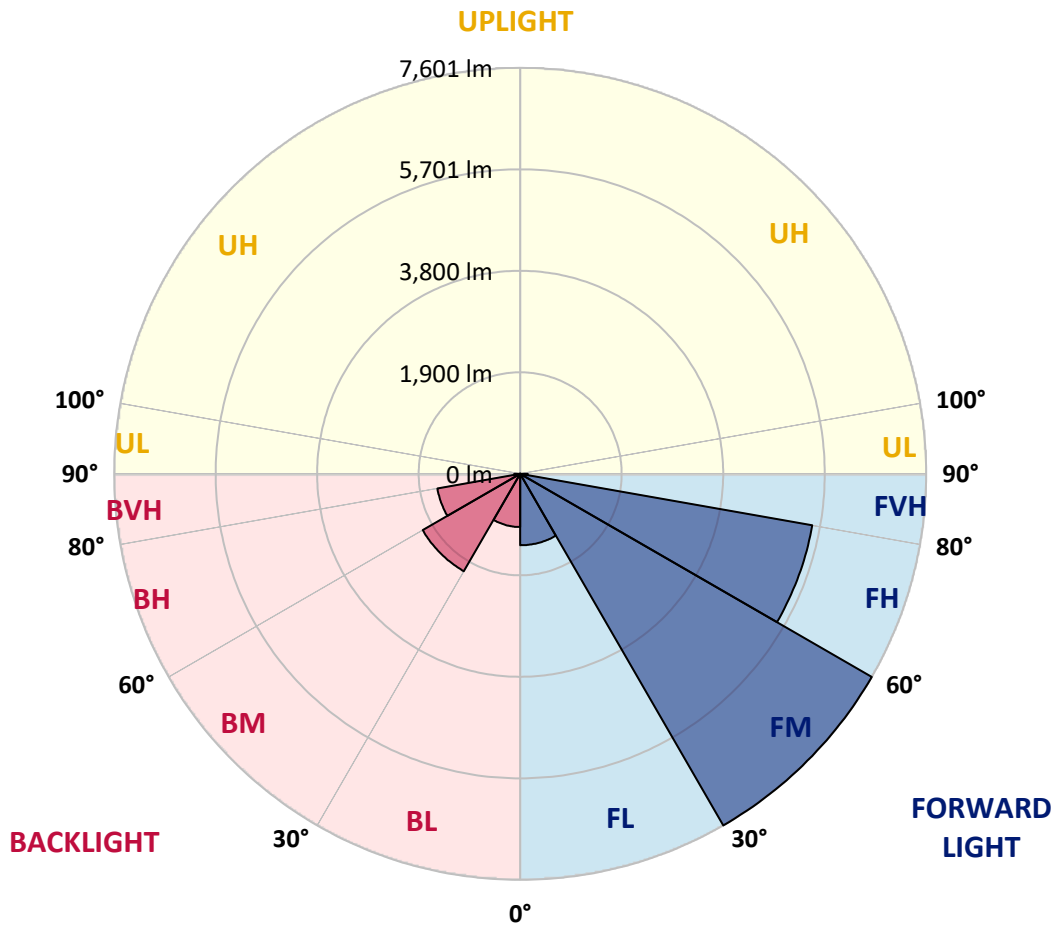
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1337.3	6.9			
FM (30°-60°)	7600.8	39.1			
FH (60°-80°)	5552.2	28.6			G3/7500
FVH (80°-90°)	142.2	0.7			G2/225
BL (0°-30°)	996.0	5.1	B2/1000		
BM (30°-60°)	2106.3	10.8	B2/2500		
BH (60°-80°)	1573.4	8.1	B3/2500		G3/2500
BVH (80°-90°)	111.8	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2847.2	2847.2	2847.2	2847.2	2847.2	2847.2	2847.2	2847.2	2847.2	2847.2	2847.2
2.5°	2915.2	2931.7	2926.6	2921.4	2921.4	2914.2	2913.2	2902.9	2894.6	2881.2	2878.1
5°	2952.3	2969.8	2967.8	2971.9	2985.3	2988.4	2991.5	2985.3	2968.8	2952.3	2945.1
7.5°	2919.3	2938.9	2945.1	2969.8	3011.1	3048.2	3076.0	3087.3	3071.9	3048.2	3036.8
10°	2808.1	2829.7	2851.3	2910.1	2983.2	3070.8	3145.0	3189.3	3186.2	3163.6	3144.0
12.5°	2582.4	2605.1	2651.4	2765.8	2899.8	3054.3	3192.4	3285.2	3317.1	3300.6	3266.6
15°	2402.0	2421.6	2456.7	2574.1	2748.3	2983.2	3209.9	3390.3	3471.7	3462.4	3421.2
17.5°	2396.9	2405.1	2426.8	2482.4	2616.4	2871.9	3191.4	3493.3	3648.9	3647.9	3596.4
20°	2487.6	2490.7	2503.0	2514.4	2590.6	2787.4	3144.0	3578.9	3847.8	3847.8	3792.2
22.5°	2613.3	2611.2	2623.6	2613.3	2650.4	2780.2	3114.1	3654.1	4069.4	4085.9	4015.8
25°	2801.9	2791.6	2788.5	2764.8	2772.0	2847.2	3147.1	3739.6	4332.1	4366.1	4278.6
27.5°	3053.3	3036.8	3025.5	2970.9	2952.3	2985.3	3248.1	3842.7	4624.8	4683.5	4572.2
30°	3381.0	3351.1	3334.6	3239.8	3172.8	3178.0	3400.6	3979.7	4930.8	5025.6	4884.5
32.5°	3828.2	3781.9	3737.5	3581.9	3459.3	3419.1	3597.4	4169.3	5262.7	5414.1	5232.8
35°	4329.0	4291.9	4244.5	4004.4	3815.9	3723.1	3863.3	4434.2	5651.1	5891.3	5655.3
37.5°	4811.3	4779.4	4802.0	4478.5	4235.3	4100.3	4211.6	4789.7	6130.3	6484.8	6184.9
40°	5310.1	5285.3	5288.4	4979.3	4695.9	4544.4	4634.1	5235.9	6679.6	7190.7	6821.8
42.5°	5852.1	5833.5	5771.7	5497.6	5179.2	5038.0	5120.5	5751.1	7269.0	7994.5	7520.4
45°	6459.0	6447.7	6390.0	6075.7	5710.9	5552.2	5663.5	6319.9	7861.5	8750.8	8222.2
47.5°	6983.6	6992.8	6985.6	6720.8	6342.6	6109.7	6242.6	6913.5	8412.8	9461.9	8895.1
50°	7236.0	7284.5	7355.6	7273.1	7038.2	6801.2	6826.9	7486.4	8938.4	10128.6	9540.2
52.5°	7104.1	7195.8	7389.6	7521.5	7612.2	7562.7	7493.6	8055.3	9433.0	10730.4	10150.2
55°	6612.6	6741.4	7062.9	7381.3	7844.0	8203.6	8294.3	8685.9	9915.3	11260.0	10727.3
57.5°	5717.1	5926.3	6214.8	6858.9	7637.9	8513.8	9227.9	9560.8	10426.4	11825.8	11331.2
60°	4181.7	4462.0	4820.6	5778.9	6916.6	8347.9	10022.4	10904.5	11152.9	12558.5	12117.4
62.5°	2676.2	2849.3	3179.0	4081.7	5389.4	7497.8	10265.6	12584.2	12384.3	13760.0	13296.3
65°	1832.2	1943.5	2245.4	2752.4	3484.1	5581.1	9614.4	13843.5	14340.2	15664.3	15311.9
67.5°	1331.4	1415.9	1673.5	2117.6	2270.1	3302.7	7460.7	13785.8	16241.4	17626.4	17078.1
70°	970.7	1030.5	1246.9	1673.5	1746.7	1837.3	4519.7	11718.6	16200.2	18147.8	17491.4
72.5°	719.3	760.5	905.8	1298.4	1413.8	1240.7	2237.2	8516.9	13920.7	16414.5	15887.9
75°	520.4	551.3	658.5	993.4	1131.5	944.9	1116.0	4977.2	9710.2	11546.5	11639.3
77.5°	397.8	421.5	491.5	727.5	905.8	709.0	692.5	2289.7	4604.2	4626.9	4886.5
80°	319.4	334.9	373.0	512.1	694.5	530.7	451.4	924.3	1455.0	1231.4	1292.2
82.5°	234.9	260.7	315.3	359.6	496.7	365.8	275.1	466.8	553.4	476.1	480.2
85°	134.0	151.5	190.6	257.6	317.4	223.6	157.7	207.1	257.6	211.2	188.6
87.5°	47.4	61.8	67.0	101.0	138.1	92.7	60.8	59.8	84.5	62.9	52.6
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°	2847.2	2847.2	2847.2	2847.2	2847.2	2847.2	2847.2	2847.2	2847.2	2847.2	2847.2
2.5°	2867.8	2862.7	2842.1	2814.2	2785.4	2757.6	2748.3	2728.7	2715.3	2708.1	2716.3
5°	2925.5	2909.0	2860.6	2798.8	2733.9	2663.8	2614.3	2569.0	2536.0	2505.1	2517.5
7.5°	3008.0	2979.1	2895.6	2787.4	2672.0	2555.6	2469.0	2403.1	2358.8	2329.9	2336.1
10°	3103.8	3059.5	2931.7	2769.9	2591.7	2424.7	2322.7	2266.0	2238.2	2222.7	2226.9
12.5°	3214.1	3151.2	2968.8	2729.7	2469.0	2278.4	2208.3	2191.8	2192.9	2193.9	2196.0
15°	3350.1	3262.5	2998.7	2642.1	2309.3	2166.1	2153.7	2180.5	2208.3	2221.7	2220.7
17.5°	3503.6	3380.0	3003.8	2497.9	2152.7	2093.9	2133.1	2190.8	2233.0	2251.6	2255.7
20°	3668.5	3499.5	2966.8	2293.8	2023.9	2035.2	2105.3	2179.5	2225.8	2249.5	2255.7
22.5°	3857.1	3627.3	2878.1	2079.5	1918.8	1971.3	2053.7	2125.9	2174.3	2198.0	2204.2
25°	4072.5	3770.5	2739.0	1899.2	1828.1	1899.2	1981.6	2041.4	2080.5	2102.2	2108.4
27.5°	4311.5	3919.9	2553.5	1755.9	1748.7	1825.0	1893.0	1939.4	1960.0	1976.5	1982.6
30°	4551.6	4056.0	2328.9	1647.7	1679.7	1751.8	1800.2	1820.9	1827.0	1830.1	1837.3
32.5°	4811.3	4173.4	2092.9	1558.1	1613.7	1680.7	1709.6	1718.8	1690.0	1670.4	1676.6
35°	5125.6	4299.2	1862.1	1487.0	1548.8	1606.5	1615.8	1607.5	1573.5	1533.4	1535.4
37.5°	5514.1	4455.8	1677.6	1436.5	1488.0	1526.1	1514.8	1512.7	1515.8	1468.4	1471.5
40°	5990.2	4659.8	1542.6	1397.3	1438.5	1446.8	1414.8	1432.4	1447.8	1375.7	1377.8
42.5°	6518.8	4906.1	1457.1	1370.5	1397.3	1377.8	1328.3	1347.9	1345.8	1251.0	1250.0
45°	7057.8	5174.0	1427.2	1351.0	1359.2	1320.0	1265.4	1270.6	1227.3	1141.8	1144.9
47.5°	7593.6	5461.5	1445.8	1334.5	1311.8	1267.5	1225.2	1202.6	1138.7	1074.8	1074.8
50°	8119.1	5763.5	1513.8	1301.5	1246.9	1221.1	1190.2	1150.0	1082.0	1027.4	1023.3
52.5°	8606.6	6067.5	1590.0	1246.9	1165.5	1180.9	1161.4	1115.0	1048.0	992.4	993.4
55°	9068.2	6371.5	1619.9	1171.7	1089.2	1145.9	1134.6	1049.0	968.7	923.3	919.2
57.5°	9571.1	6737.3	1586.9	1075.8	1027.4	1105.7	1062.4	967.6	921.2	887.2	884.2
60°	10267.7	7311.3	1515.8	957.3	968.7	1045.9	971.7	932.6	882.1	844.0	841.9
62.5°	11424.9	8381.9	1401.5	839.8	899.6	957.3	928.5	889.3	837.8	800.7	800.7
65°	13135.5	9869.9	1186.1	748.1	822.3	870.8	882.1	842.9	789.3	750.2	752.3
67.5°	14578.2	10803.5	897.5	671.9	743.0	800.7	832.6	794.5	737.8	699.7	700.7
70°	14498.8	10125.5	685.3	596.6	672.9	731.6	772.9	743.0	682.2	646.1	649.2
72.5°	12877.9	8470.5	554.4	520.4	601.8	659.5	709.0	686.3	624.5	589.4	589.4
75°	9460.8	6012.8	443.1	443.1	513.2	584.3	638.9	624.5	567.8	543.1	535.8
77.5°	3988.0	2522.6	347.3	367.9	426.6	501.8	569.9	575.0	525.5	556.5	504.9
80°	1060.4	695.6	264.8	289.6	334.9	414.3	495.7	493.6	440.0	411.2	382.3
82.5°	403.9	274.1	188.6	204.0	242.2	317.4	392.6	405.0	351.4	304.0	304.0
85°	155.6	117.5	116.4	122.6	141.2	210.2	296.8	307.1	264.8	224.6	231.9
87.5°	40.2	35.0	43.3	41.2	64.9	112.3	170.0	176.2	161.8	93.8	134.0
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)