

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: P967644

Luminaire Tested: **NAV-SB5A-722-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967644
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-722-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2200K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19697.4 lumens
Efficiency: N/A
Efficacy: 139.0 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G3

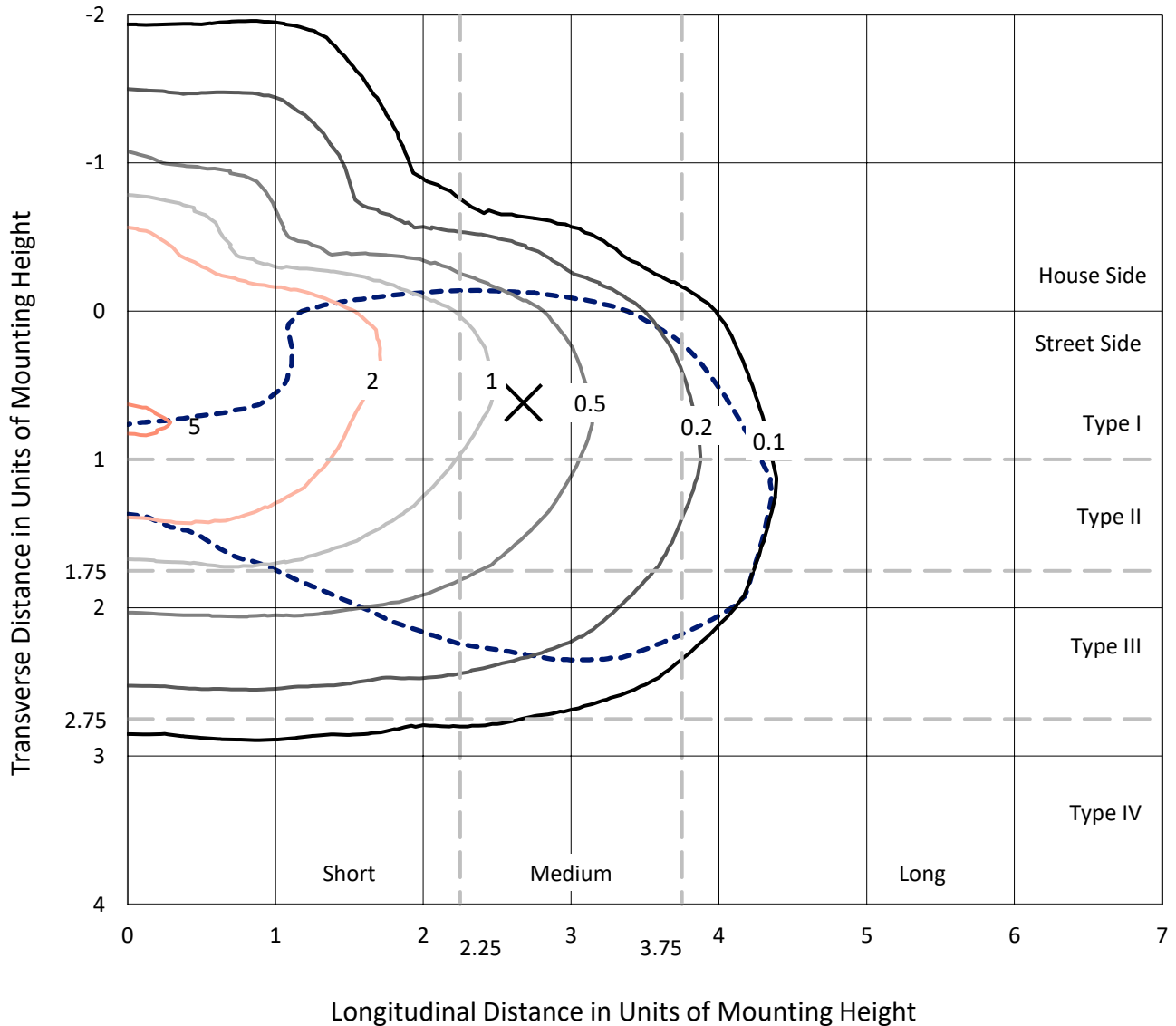
Input Watts (W): 141.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

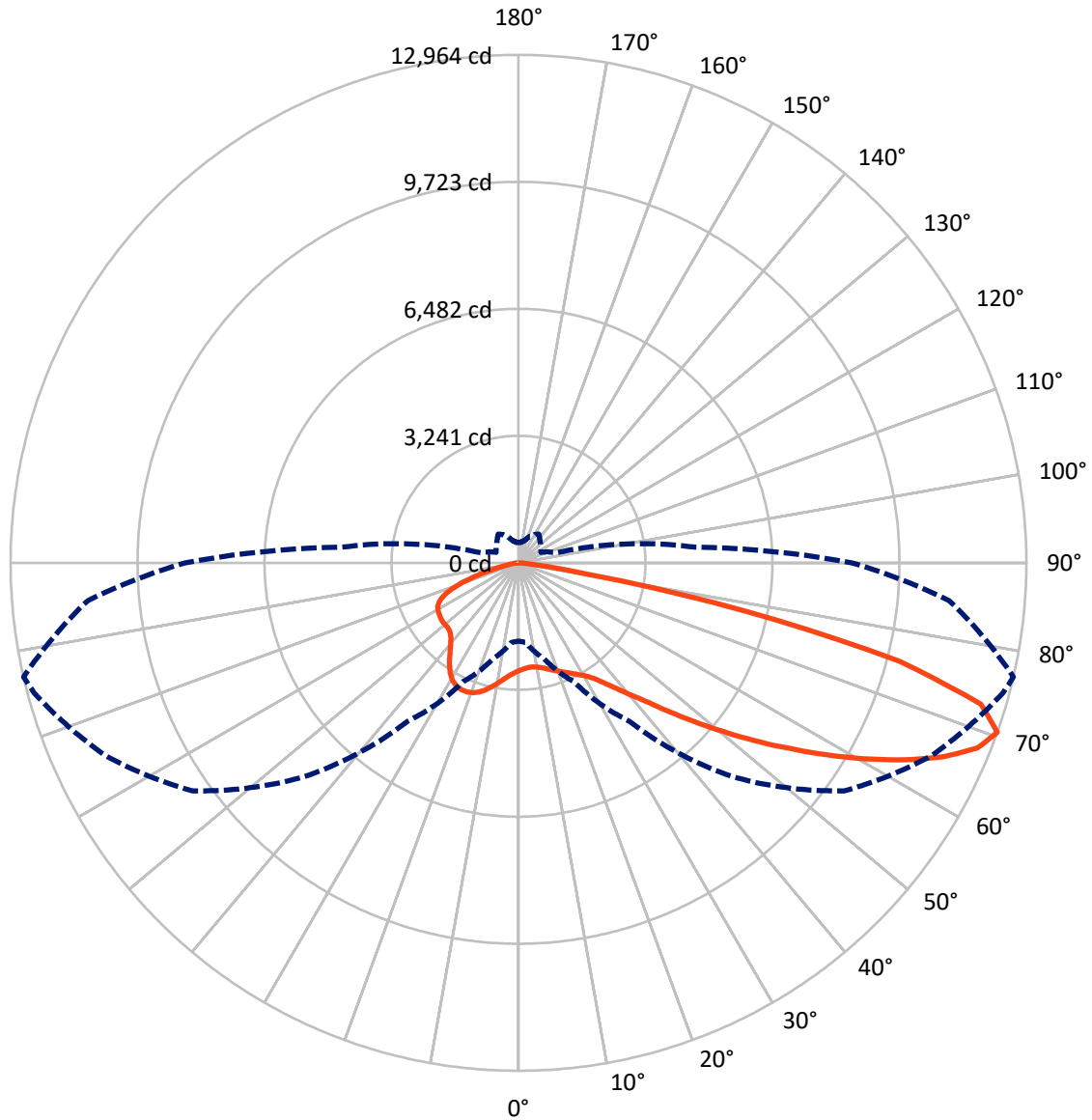
✕ Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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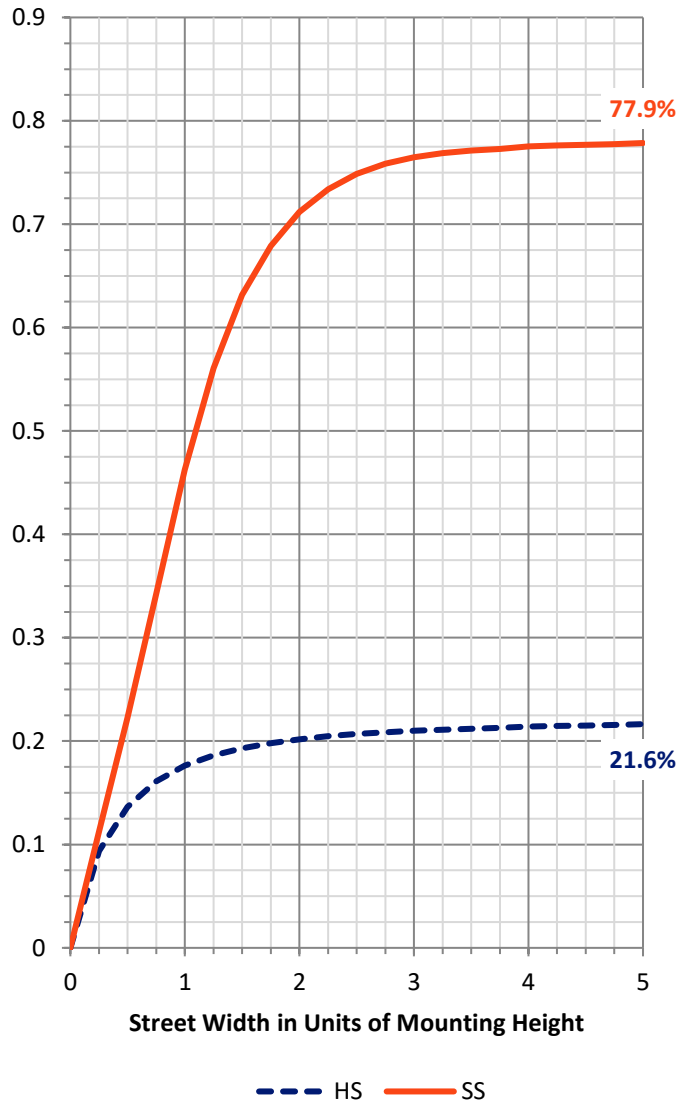
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4313.4	0.0	4313.4
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	15384.0	0.0	15384.0
	% Fixture	78.1	0.0	78.1
Total	Lumens	19697.4	0.0	19697.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	262.1	1.3
10°-20°	756.4	3.8
20°-30°	1293.5	6.6
30°-40°	2080.1	10.6
40°-50°	3247.7	16.5
50°-60°	4338.1	22.0
60°-70°	4623.7	23.5
70°-80°	2846.3	14.5
80°-90°	249.4	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°	19697.4	100.0
0°-180°	19697.4	100.0

Coefficient of Utilization



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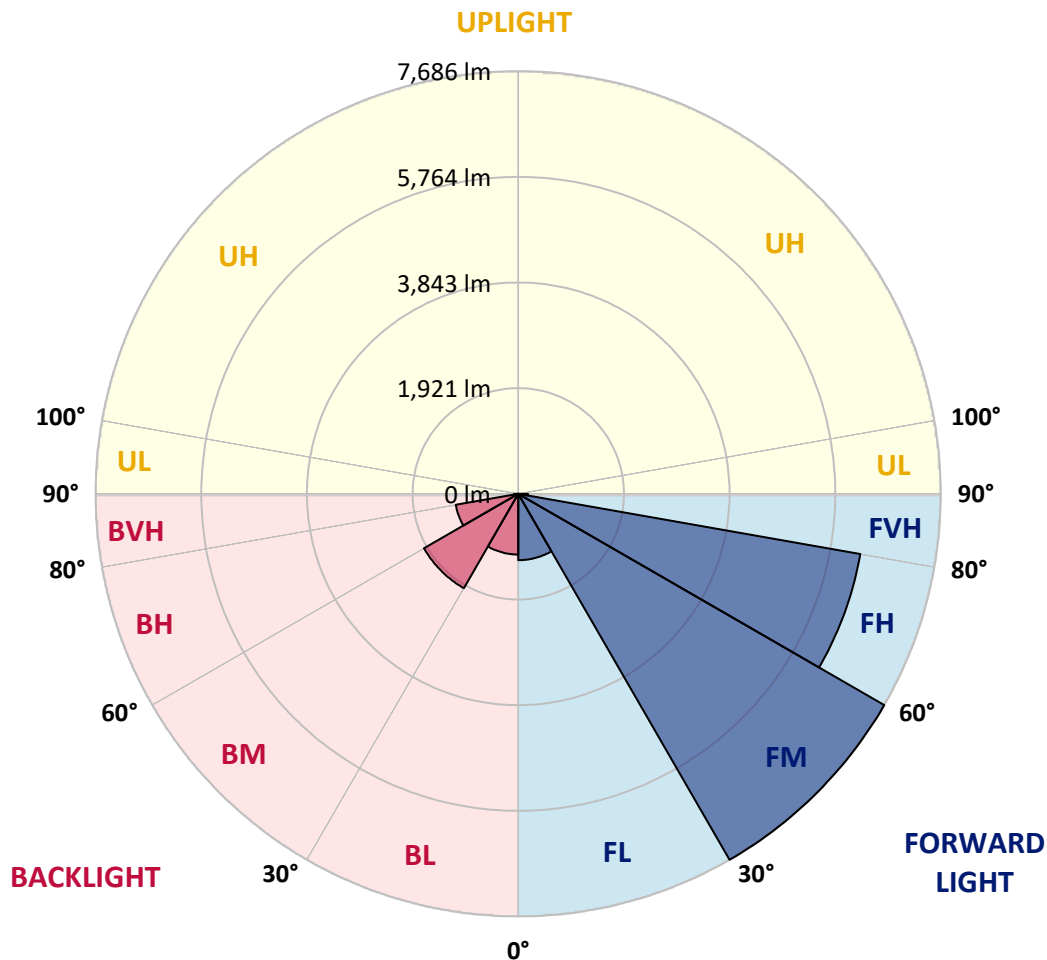
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1206.8	6.1			
FM (30°-60°)	7685.5	39.0			
FH (60°-80°)	6317.3	32.1			G3/7500
FVH (80°-90°)	174.4	0.9			G2/225
BL (0°-30°)	1105.2	5.6	B3/2500		
BM (30°-60°)	1980.4	10.1	B2/2500		
BH (60°-80°)	1152.8	5.9	B3/2500		G3/2500
BVH (80°-90°)	75.0	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2747.9	2747.9	2747.9	2747.9	2747.9	2747.9	2747.9	2747.9	2747.9	2747.9	2747.9
2.5°	2533.1	2532.1	2545.2	2549.3	2573.5	2590.6	2622.9	2657.2	2701.6	2706.6	2733.9
5°	2386.8	2386.8	2402.0	2418.1	2449.3	2483.7	2533.1	2592.6	2669.3	2681.4	2748.9
7.5°	2262.7	2270.8	2283.9	2315.2	2351.6	2401.0	2476.6	2561.4	2662.2	2681.4	2790.4
10°	2162.9	2172.0	2188.1	2213.3	2267.8	2336.4	2435.2	2544.2	2679.4	2709.6	2850.8
12.5°	2131.6	2140.7	2149.7	2168.9	2219.3	2300.1	2418.1	2552.2	2720.8	2751.0	2933.5
15°	2204.3	2215.3	2208.3	2203.2	2229.5	2303.1	2426.2	2581.6	2772.2	2815.6	3035.4
17.5°	2371.6	2375.7	2359.5	2312.2	2308.1	2347.5	2464.5	2621.8	2836.8	2884.1	3138.3
20°	2642.0	2635.0	2601.7	2507.9	2454.4	2446.4	2530.1	2682.4	2903.3	2953.7	3249.4
22.5°	3009.3	3001.2	2934.6	2786.3	2667.3	2588.5	2624.9	2761.0	2977.9	3034.5	3357.3
25°	3467.3	3456.2	3358.3	3156.5	2971.9	2777.2	2754.1	2865.0	3069.8	3122.3	3470.2
27.5°	4001.9	3992.8	3886.9	3620.6	3354.2	3035.4	2914.4	2987.1	3165.6	3225.2	3597.3
30°	4576.9	4603.2	4415.5	4129.0	3792.1	3372.5	3130.4	3137.3	3289.7	3343.1	3751.7
32.5°	5252.8	5298.2	5072.2	4709.1	4249.0	3738.6	3402.7	3347.2	3470.2	3514.6	3946.5
35°	5922.7	5974.1	5786.4	5384.9	4855.3	4170.4	3687.1	3588.3	3710.4	3758.8	4204.7
37.5°	6501.7	6570.4	6473.5	6124.4	5504.0	4690.9	4058.4	3871.7	4005.9	4066.5	4551.7
40°	6958.7	7063.6	7056.5	6838.7	6268.7	5322.4	4529.5	4221.9	4373.2	4438.8	4972.4
42.5°	7330.0	7420.7	7499.4	7488.3	7066.7	6039.7	5083.4	4676.8	4791.8	4867.4	5445.5
45°	7586.1	7683.0	7852.5	8035.1	7834.4	6807.3	5717.9	5216.5	5321.4	5435.4	6009.4
47.5°	7815.2	7925.1	8145.1	8434.6	8486.0	7578.1	6412.9	5845.0	5940.8	6058.9	6575.4
50°	7835.3	7930.2	8271.1	8681.8	8949.1	8318.6	7159.4	6550.2	6640.0	6766.0	7181.7
52.5°	7348.1	7497.4	8092.6	8674.7	9162.0	8938.0	7900.9	7283.5	7384.4	7535.7	7809.2
55°	5703.7	5922.7	7569.0	8404.3	9086.2	9338.5	8606.1	8063.4	8192.4	8350.9	8440.7
57.5°	4912.8	5008.7	6008.4	7912.0	8741.2	9442.4	9201.2	8851.2	9059.1	9232.6	9108.5
60°	4415.5	4495.2	5086.4	7146.3	8287.3	9277.9	9661.2	9585.6	9944.8	10151.6	9791.4
62.5°	3882.9	3958.6	4496.3	5967.0	7706.3	9004.5	9951.8	10263.5	10852.7	11078.6	10435.0
65°	3354.2	3418.8	3934.4	5013.7	6967.7	8731.2	10102.1	10849.6	11693.0	11927.0	10969.7
67.5°	2765.1	2818.5	3305.8	4229.9	6069.9	8356.9	10176.8	11310.7	12424.3	12625.1	11234.0
70°	1995.4	2036.8	2540.2	3345.2	4943.2	7713.3	10146.5	11637.5	12803.7	12964.1	11034.2
72.5°	943.2	980.5	1571.7	2172.0	3491.5	6460.4	9534.1	11378.2	12418.3	12338.6	9811.6
75°	503.4	535.7	902.9	1191.4	1844.1	4428.6	7802.1	9801.5	10427.9	10040.6	7251.3
77.5°	341.0	366.2	558.8	715.2	842.3	2102.4	5014.7	6786.2	6528.9	5889.3	3631.7
80°	270.4	296.6	458.0	484.2	407.5	759.6	2072.0	3141.4	2256.6	1804.7	1033.0
82.5°	207.8	237.1	385.4	351.1	221.9	311.7	603.2	993.6	578.0	439.8	250.2
85°	127.1	158.4	302.7	224.0	125.0	142.3	204.8	276.4	176.5	147.3	89.8
87.5°	64.6	90.8	153.3	81.7	56.5	33.3	54.4	54.4	46.4	40.4	23.2
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°	2747.9	2747.9	2747.9	2747.9	2747.9	2747.9	2747.9	2747.9	2747.9	2747.9	2747.9
2.5°	2758.1	2778.3	2812.5	2844.8	2870.0	2894.3	2918.5	2931.6	2935.6	2951.8	2960.8
5°	2790.4	2827.7	2894.3	2956.8	2996.2	3020.4	3037.5	3047.6	3049.6	3054.6	3062.7
7.5°	2849.9	2909.4	3002.2	3064.7	3094.0	3092.0	3084.9	3059.7	3049.6	3040.6	3042.5
10°	2933.5	3012.3	3126.2	3169.6	3151.5	3103.1	3040.6	2966.9	2932.6	2899.3	2889.2
12.5°	3037.5	3137.3	3249.4	3247.3	3157.5	3033.5	2888.1	2775.2	2703.5	2652.1	2640.0
15°	3163.6	3278.6	3364.4	3295.8	3099.0	2876.0	2663.3	2516.0	2451.4	2394.9	2388.9
17.5°	3293.7	3416.8	3456.2	3280.6	2951.8	2643.1	2402.0	2286.0	2222.4	2192.2	2201.2
20°	3420.8	3542.9	3510.6	3193.9	2727.8	2378.7	2163.9	2100.3	2087.2	2094.3	2091.2
22.5°	3555.0	3664.0	3521.7	3026.4	2442.3	2108.4	1990.3	1992.4	2021.6	2042.8	2047.8
25°	3692.3	3765.8	3492.5	2784.3	2135.6	1909.7	1880.4	1912.6	1970.2	2011.6	2022.6
27.5°	3824.4	3856.7	3428.9	2484.7	1872.4	1767.4	1772.4	1839.1	1925.8	1983.3	1997.4
30°	3973.6	3937.3	3306.9	2147.8	1689.7	1645.3	1687.8	1765.4	1852.2	1903.6	1915.7
32.5°	4142.1	4006.9	3113.1	1836.0	1560.6	1547.5	1617.1	1667.6	1705.9	1721.0	1729.1
35°	4351.9	4104.8	2865.0	1617.1	1444.6	1475.9	1542.4	1517.2	1502.1	1494.0	1502.1
37.5°	4624.3	4236.9	2574.5	1474.9	1350.7	1424.4	1451.7	1373.0	1313.4	1284.2	1291.3
40°	4952.2	4430.7	2295.0	1364.9	1291.3	1380.1	1332.6	1237.8	1162.1	1120.7	1123.8
42.5°	5316.4	4633.4	2059.9	1282.2	1258.0	1343.7	1244.9	1131.9	1009.8	996.7	1009.8
45°	5698.7	4842.2	1899.5	1218.6	1241.8	1312.4	1194.4	1011.8	925.1	978.6	1006.8
47.5°	6081.0	5033.9	1802.8	1171.3	1233.8	1277.1	1150.0	945.3	883.8	961.3	997.7
50°	6506.8	5205.4	1759.3	1136.9	1224.7	1263.0	1083.4	928.1	840.3	891.7	930.1
52.5°	6929.4	5338.6	1727.0	1102.6	1211.6	1251.9	1051.1	907.9	787.9	790.9	812.1
55°	7351.1	5425.3	1691.8	1057.2	1182.3	1227.7	1048.2	885.7	748.6	734.4	744.5
57.5°	7801.1	5474.7	1648.4	1006.8	1131.9	1166.1	1045.1	868.6	736.5	713.2	716.3
60°	8259.0	5547.4	1591.9	945.3	1064.3	1092.5	1038.0	862.5	729.4	690.0	693.0
62.5°	8669.7	5572.6	1524.3	886.7	977.5	1019.9	1023.0	857.5	710.2	642.6	642.6
65°	8939.0	5463.7	1406.3	820.2	883.8	945.3	993.6	840.3	675.9	608.3	608.3
67.5°	8927.9	5153.0	1221.7	734.4	792.9	862.5	951.3	811.1	634.6	565.9	569.0
70°	8512.2	4539.6	987.6	634.6	693.0	773.8	896.8	767.7	585.1	519.6	525.6
72.5°	7300.7	3553.0	717.3	517.5	577.1	681.9	826.3	715.2	534.6	478.2	475.2
75°	5215.5	2248.6	486.3	397.5	449.0	578.0	738.4	653.7	488.3	480.2	452.9
77.5°	2664.3	1074.4	321.8	290.5	312.7	456.0	620.4	584.0	495.3	396.5	353.1
80°	866.5	396.5	202.7	197.7	207.8	303.6	480.2	479.2	375.3	269.4	238.1
82.5°	276.4	170.5	132.1	127.1	122.1	190.6	335.0	379.4	253.2	170.5	169.4
85°	110.0	101.9	77.7	71.6	51.5	89.8	175.5	252.2	188.6	123.1	126.1
87.5°	40.4	40.4	21.2	15.2	11.1	30.2	47.5	75.6	107.9	63.6	62.5
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)