

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: P966094

Luminaire Tested: **NAV-SB4B-727-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966094
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-SB4B-727-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22026.2 lumens
Efficiency: N/A
Efficacy: 149.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G3

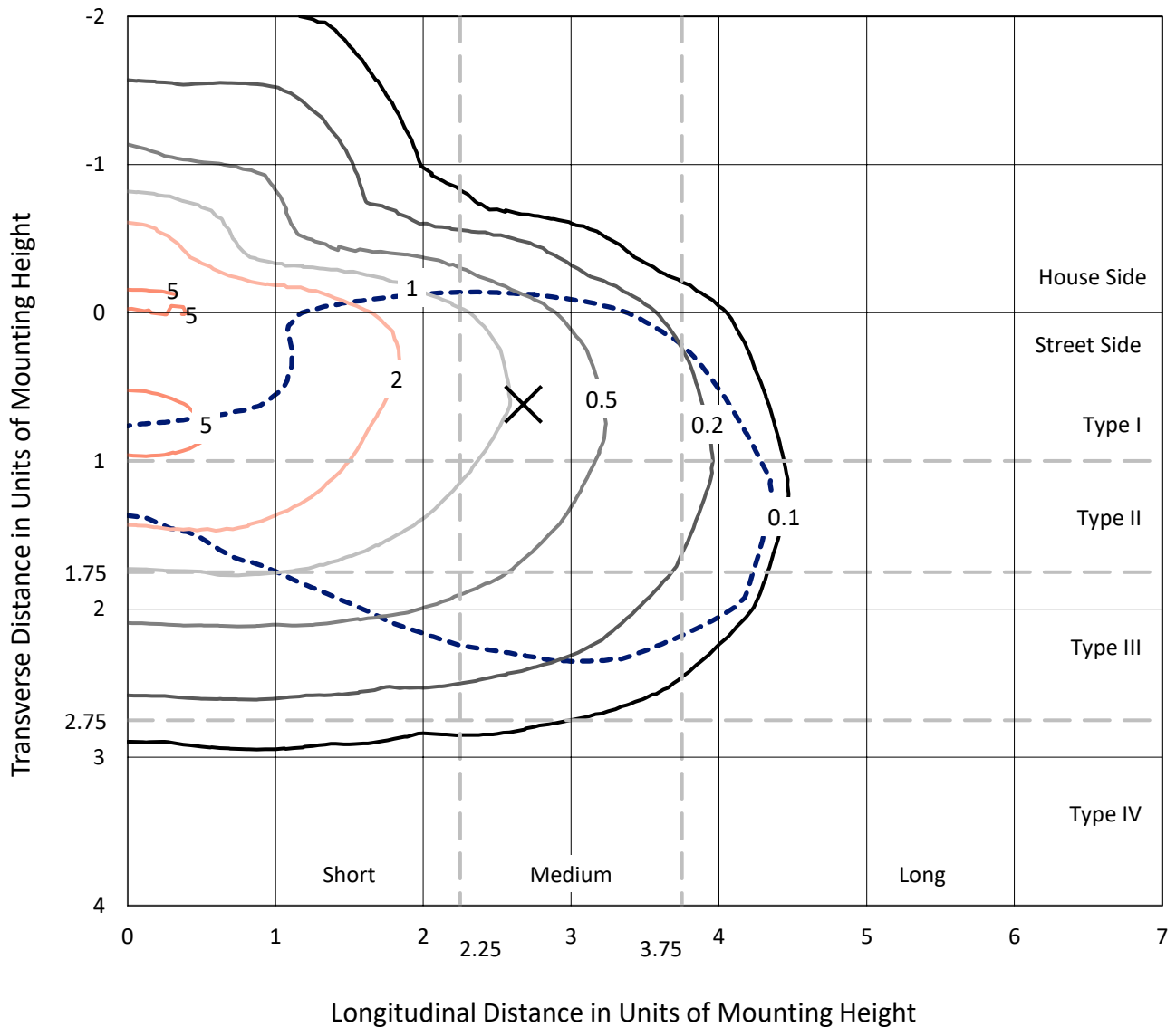
Input Watts (W): 147
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

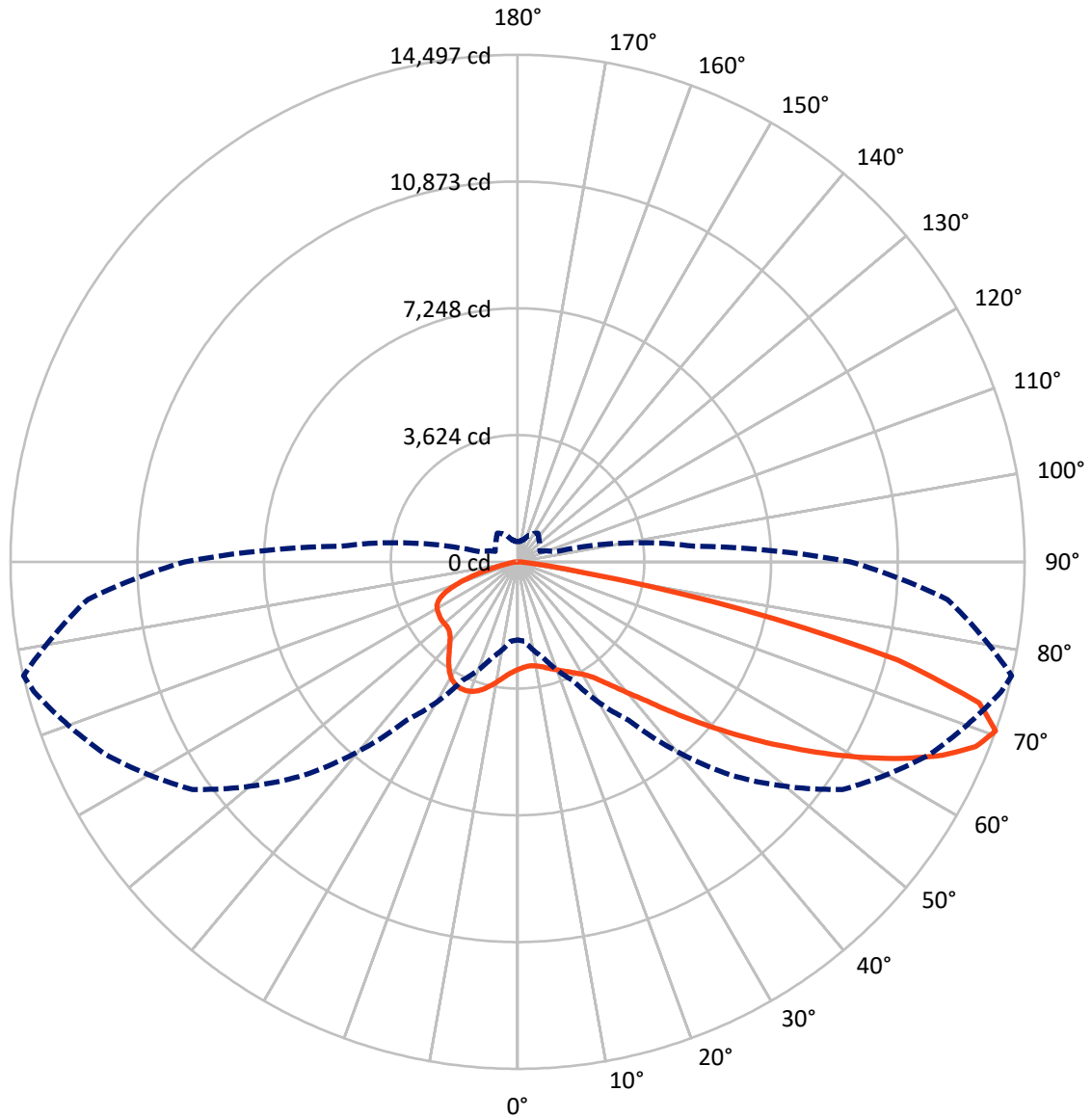
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.8 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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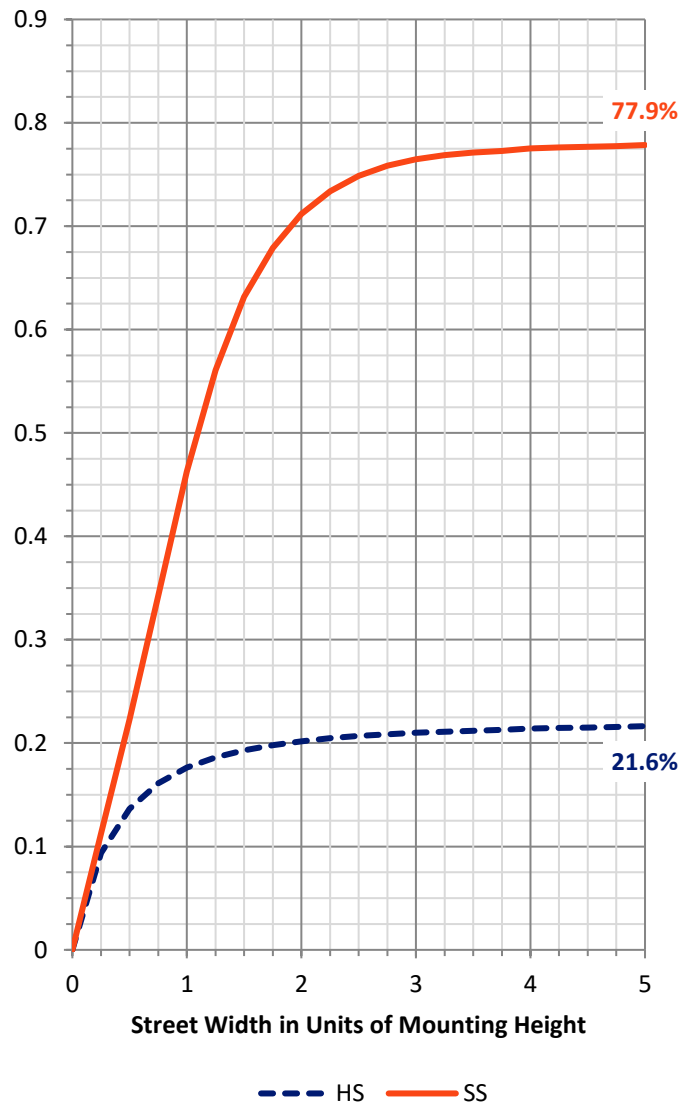
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4823.4	0.0	4823.4
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	17202.8	0.0	17202.8
	% Fixture	78.1	0.0	78.1
Total	Lumens	22026.2	0.0	22026.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	293.1	1.3
10°-20°	845.8	3.8
20°-30°	1446.5	6.6
30°-40°	2326.1	10.6
40°-50°	3631.6	16.5
50°-60°	4851.0	22.0
60°-70°	5170.4	23.5
70°-80°	3182.9	14.5
80°-90°	278.9	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°	22026.2	100.0
0°-180°	22026.2	100.0

Coefficient of Utilization

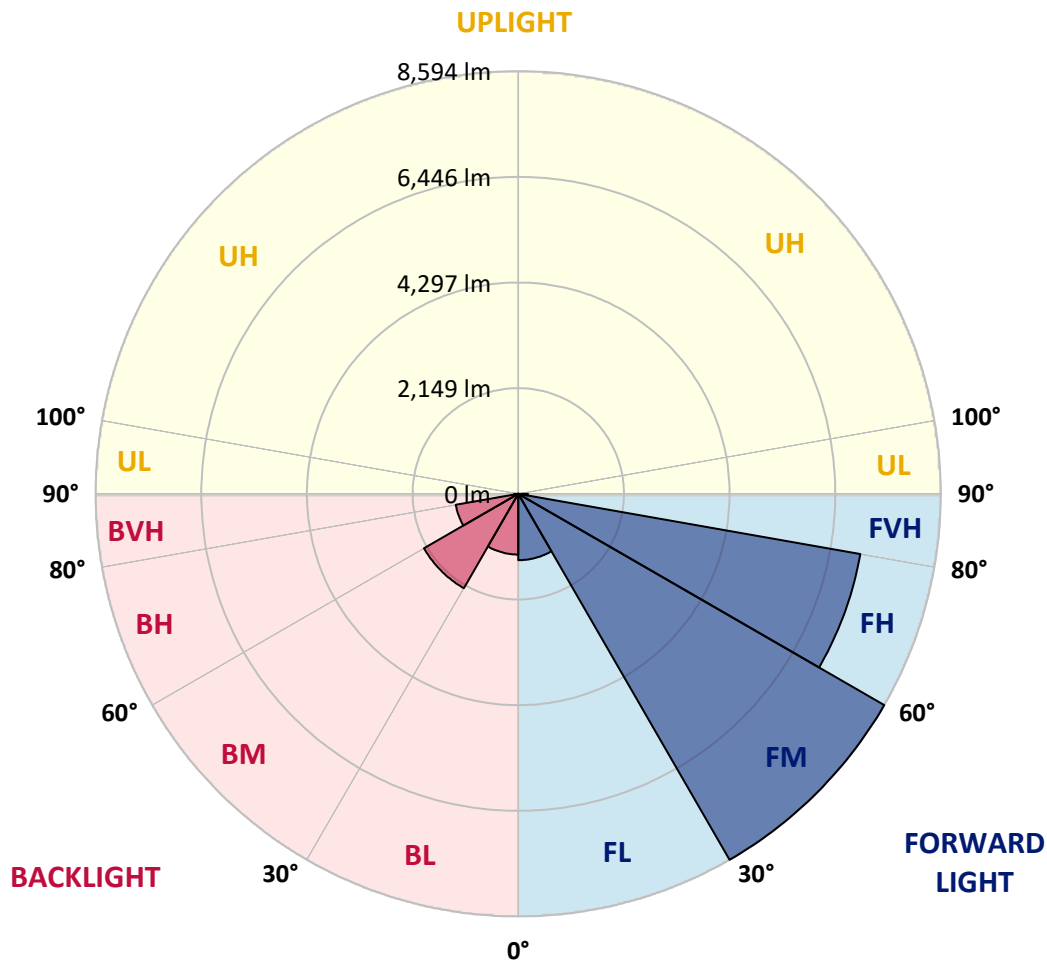


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1349.5	6.1			
FM (30°-60°)	8594.2	39.0			
FH (60°-80°)	7064.2	32.1			G3/7500
FVH (80°-90°)	195.0	0.9			G2/225
BL (0°-30°)	1235.9	5.6	B3/2500		
BM (30°-60°)	2214.5	10.1	B2/2500		
BH (60°-80°)	1289.1	5.9	B3/2500		G3/2500
BVH (80°-90°)	83.9	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°	3072.8	3072.8	3072.8	3072.8	3072.8	3072.8	3072.8	3072.8	3072.8	3072.8	3072.8
2.5°	2832.6	2831.5	2846.1	2850.6	2877.7	2896.9	2932.9	2971.4	3021.0	3026.6	3057.1
5°	2669.0	2669.0	2685.9	2704.0	2738.9	2777.3	2832.6	2899.1	2984.9	2998.4	3074.0
7.5°	2530.2	2539.2	2554.0	2588.9	2629.5	2684.8	2769.4	2864.2	2977.0	2998.4	3120.2
10°	2418.6	2428.7	2446.8	2475.0	2535.8	2612.6	2723.1	2845.0	2996.2	3030.0	3188.0
12.5°	2383.6	2393.8	2403.9	2425.4	2481.7	2572.0	2704.0	2854.0	3042.4	3076.2	3280.4
15°	2464.8	2477.2	2469.3	2463.7	2493.0	2575.4	2713.0	2886.7	3099.9	3148.4	3394.4
17.5°	2652.1	2656.6	2638.6	2585.6	2581.1	2625.0	2755.9	2931.8	3172.2	3225.2	3509.4
20°	2954.5	2946.5	2909.3	2804.4	2744.6	2735.5	2829.2	2999.6	3246.6	3303.0	3633.5
22.5°	3365.1	3356.1	3281.5	3115.7	2982.6	2894.6	2935.2	3087.5	3330.0	3393.3	3754.2
25°	3877.2	3864.8	3755.3	3529.7	3323.3	3105.5	3079.6	3203.7	3432.7	3491.4	3880.5
27.5°	4475.0	4464.9	4346.4	4048.6	3750.8	3394.4	3259.0	3340.2	3539.8	3606.5	4022.7
30°	5118.0	5147.3	4937.5	4617.2	4240.4	3771.2	3500.4	3508.3	3678.6	3738.4	4195.3
32.5°	5873.9	5924.6	5671.9	5265.8	4751.4	4180.7	3805.0	3742.9	3880.5	3930.2	4413.0
35°	6622.9	6680.4	6470.6	6021.7	5429.4	4663.4	4123.1	4012.6	4149.0	4203.2	4701.8
37.5°	7270.4	7347.1	7238.9	6848.5	6154.7	5245.5	4538.2	4329.5	4479.6	4547.2	5089.8
40°	7781.4	7898.8	7890.9	7647.2	7009.8	5951.7	5065.0	4720.9	4890.2	4963.5	5560.2
42.5°	8196.5	8298.1	8386.0	8373.6	7902.1	6753.7	5684.3	5229.8	5358.3	5443.0	6089.3
45°	8483.1	8591.3	8780.9	8985.0	8760.6	7612.2	6393.8	5833.3	5950.5	6078.0	6719.9
47.5°	8739.2	8862.2	9108.0	9431.7	9489.3	8474.1	7171.1	6536.0	6643.2	6775.1	7352.7
50°	8761.7	8867.8	9249.0	9708.2	10007.1	9302.1	8005.9	7324.5	7425.0	7565.9	8030.8
52.5°	8216.8	8383.8	9049.4	9700.3	10245.1	9994.7	8835.0	8144.6	8257.5	8426.6	8732.4
55°	6378.1	6622.9	8463.9	9397.9	10160.5	10442.5	9623.5	9016.6	9161.0	9338.2	9438.5
57.5°	5493.7	5600.9	6718.8	8847.5	9774.7	10558.7	10289.2	9897.7	10130.1	10324.1	10185.3
60°	4937.5	5026.7	5687.7	7991.2	9267.1	10374.8	10803.5	10718.9	11120.5	11351.8	10949.0
62.5°	4341.9	4426.6	5027.8	6672.5	8617.3	10069.2	11128.4	11476.9	12135.8	12388.5	11668.7
65°	3750.8	3823.0	4399.5	5606.5	7791.5	9763.4	11296.5	12132.4	13075.4	13337.2	12266.6
67.5°	3092.0	3151.9	3696.7	4730.0	6787.6	9344.9	11380.0	12647.9	13893.3	14117.7	12562.2
70°	2231.3	2277.5	2840.5	3740.6	5527.5	8625.2	11346.1	13013.4	14317.4	14496.8	12338.8
72.5°	1054.7	1096.4	1757.6	2428.7	3904.2	7224.2	10661.3	12723.5	13886.5	13797.4	10971.6
75°	562.9	599.0	1009.6	1332.3	2062.1	4952.2	8724.5	10960.3	11660.8	11227.6	8108.6
77.5°	381.3	409.5	624.9	799.8	942.0	2350.9	5607.7	7588.5	7300.9	6585.6	4061.0
80°	302.3	331.7	512.2	541.5	455.7	849.4	2317.0	3512.8	2523.4	2018.1	1155.2
82.5°	232.4	265.1	430.9	392.6	248.2	348.6	674.6	1111.1	646.4	491.8	279.7
85°	142.2	177.1	338.5	250.4	139.9	159.1	229.0	309.1	197.4	164.7	100.3
87.5°	72.2	101.5	171.5	91.3	63.1	37.2	60.9	60.9	51.9	45.1	25.9
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°	3072.8	3072.8	3072.8	3072.8	3072.8	3072.8	3072.8	3072.8	3072.8	3072.8	3072.8
2.5°	3084.1	3106.7	3145.0	3181.2	3209.4	3236.4	3263.5	3278.2	3282.7	3300.7	3310.9
5°	3120.2	3162.0	3236.4	3306.3	3350.3	3377.5	3396.6	3407.9	3410.2	3415.8	3424.8
7.5°	3186.8	3253.4	3357.2	3427.1	3459.8	3457.5	3449.6	3421.4	3410.2	3400.0	3402.3
10°	3280.4	3368.5	3495.9	3544.3	3524.1	3469.9	3400.0	3317.6	3279.3	3242.1	3230.8
12.5°	3396.6	3508.3	3633.5	3631.3	3530.8	3392.1	3229.7	3103.3	3023.2	2965.7	2952.2
15°	3537.6	3666.2	3762.2	3685.4	3465.4	3216.1	2978.1	2813.4	2741.2	2678.0	2671.3
17.5°	3683.1	3820.8	3864.8	3668.5	3300.7	2955.6	2685.9	2556.2	2485.1	2451.3	2461.4
20°	3825.3	3961.7	3925.6	3571.5	3050.3	2660.0	2419.7	2348.7	2333.9	2341.9	2338.5
22.5°	3975.4	4097.1	3938.0	3384.2	2731.0	2357.7	2225.7	2227.9	2260.6	2284.3	2290.0
25°	4128.7	4211.1	3905.4	3113.4	2388.1	2135.5	2102.7	2138.9	2203.1	2249.4	2261.8
27.5°	4276.5	4312.6	3834.3	2778.5	2093.7	1976.4	1982.0	2056.5	2153.5	2217.8	2233.6
30°	4443.5	4402.9	3697.8	2401.7	1889.5	1839.9	1887.2	1974.2	2071.1	2128.6	2142.2
32.5°	4631.9	4480.7	3481.2	2053.1	1745.2	1730.5	1808.3	1864.7	1907.5	1924.4	1933.6
35°	4866.5	4590.2	3203.7	1808.3	1615.4	1650.4	1724.8	1696.6	1679.7	1670.6	1679.7
37.5°	5171.0	4737.9	2878.8	1649.2	1510.4	1592.8	1623.3	1535.3	1468.7	1436.0	1443.9
40°	5537.7	4954.4	2566.4	1526.3	1443.9	1543.2	1490.1	1384.2	1299.5	1253.3	1256.6
42.5°	5944.9	5181.2	2303.5	1433.8	1406.7	1502.5	1392.1	1265.7	1129.2	1114.5	1129.2
45°	6372.4	5414.8	2124.1	1362.7	1388.7	1467.6	1335.7	1131.5	1034.4	1094.2	1125.9
47.5°	6800.0	5629.1	2015.9	1309.6	1379.6	1428.1	1286.0	1057.0	988.2	1075.0	1115.6
50°	7276.1	5820.9	1967.4	1271.3	1369.5	1412.3	1211.6	1037.8	939.7	997.2	1040.1
52.5°	7748.7	5969.7	1931.2	1233.0	1354.8	1399.9	1175.5	1015.3	881.0	884.4	908.0
55°	8220.2	6066.8	1891.7	1182.2	1322.1	1372.9	1172.1	990.5	837.0	821.2	832.5
57.5°	8723.4	6122.0	1843.3	1125.9	1265.7	1304.0	1168.7	971.3	823.5	797.6	800.9
60°	9235.5	6203.3	1780.1	1057.0	1190.1	1221.7	1160.8	964.5	815.6	771.6	775.0
62.5°	9694.7	6231.5	1704.5	991.6	1093.1	1140.5	1143.9	958.9	794.2	718.6	718.6
65°	9995.8	6109.6	1572.6	917.2	988.2	1057.0	1111.1	939.7	755.8	680.2	680.2
67.5°	9983.4	5762.1	1366.1	821.2	886.6	964.5	1063.7	906.9	709.5	632.8	636.2
70°	9518.7	5076.3	1104.3	709.5	775.0	865.2	1002.9	858.4	654.3	581.0	587.7
72.5°	8163.8	3973.1	802.1	578.7	645.2	762.6	923.9	799.8	597.9	534.7	531.4
75°	5832.1	2514.4	543.8	444.4	501.9	646.4	825.7	731.0	546.0	537.0	506.5
77.5°	2979.3	1201.4	359.9	324.9	349.7	509.9	693.7	653.1	553.9	443.3	394.8
80°	969.0	443.3	226.7	221.1	232.4	339.6	537.0	535.9	419.6	301.1	266.2
82.5°	309.1	190.6	147.8	142.2	136.5	213.2	374.5	424.1	283.1	190.6	189.5
85°	123.0	114.0	86.8	80.1	57.5	100.3	196.3	282.0	210.9	137.7	141.0
87.5°	45.1	45.1	23.7	16.9	12.4	33.8	53.0	84.6	120.7	71.0	69.9
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)