

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: P883467

Luminaire Tested: **NAV-SB3D-827-U-T2**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883467  
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-SB3D-827-U-T2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

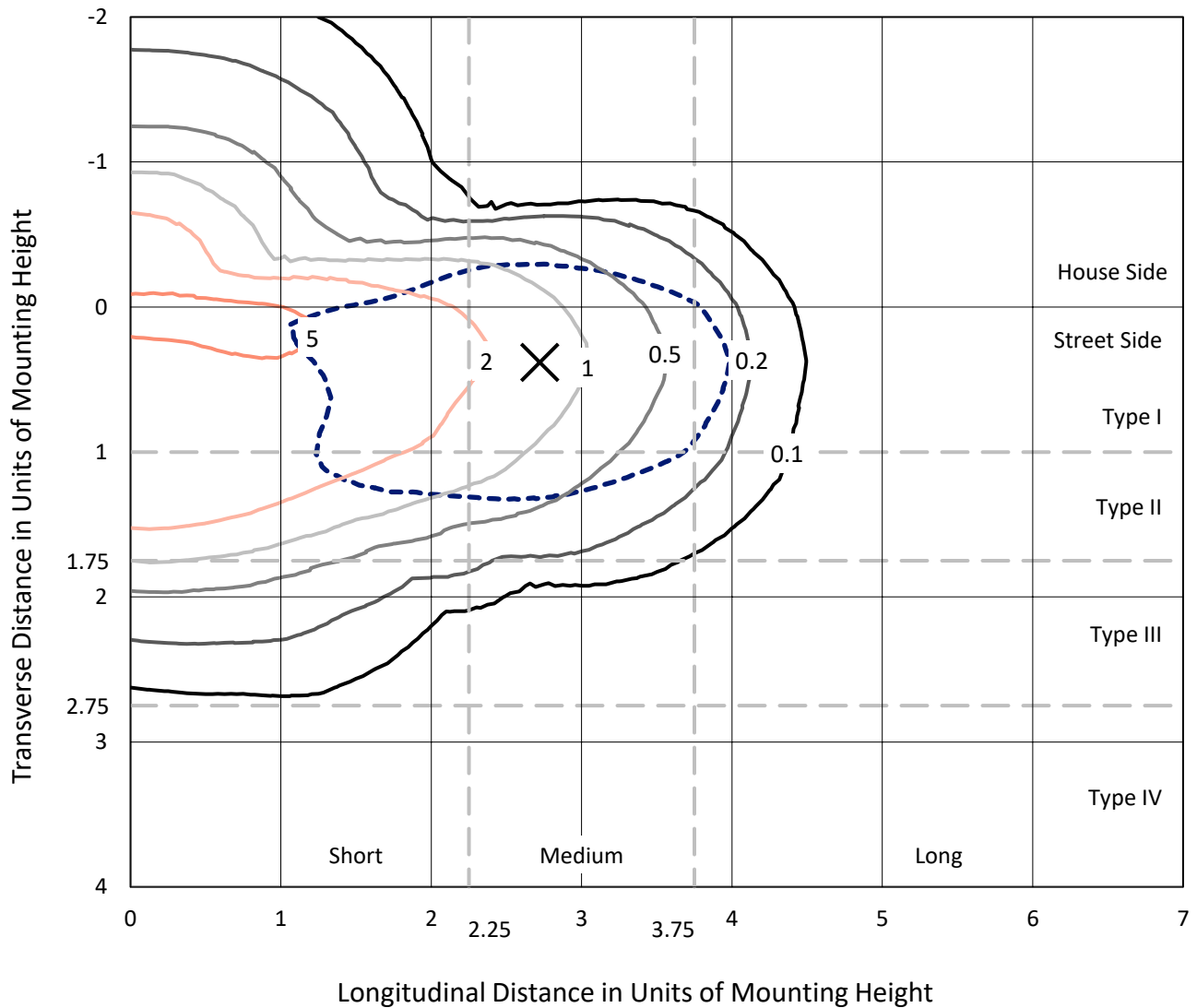
Lumens per Lamp: N/A  
Luminaire Lumens: 24573 lumens  
Efficiency: N/A  
Efficacy: 112.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G3  
  
Input Watts (W): 218.1  
Input Voltage (V): 120.0  
Input Current (Ain): 1.84  
Voltage Rise (V): NR  
Power Factor: 0.998  
Total Harmonic Distortion (THDi): 2.542  
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

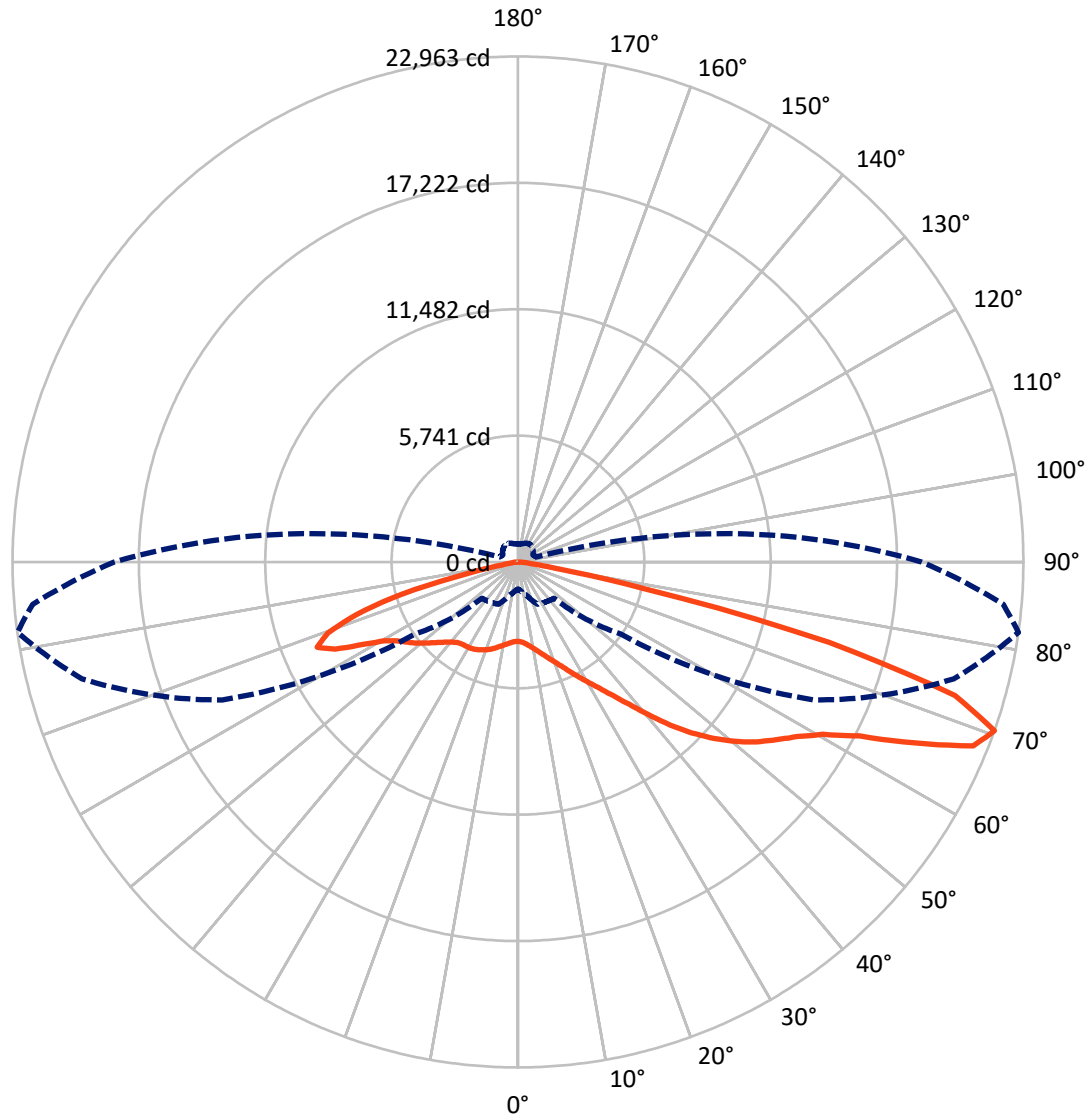
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.5 fc  
 Type II - Medium - N/A

REPORT NUMBER: P883467  
CATALOG NUMBER: NAV-SB3D-827-U-T2

### Luminous Intensity Polar Plot



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

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 CATALOG NUMBER: NAV-SB3D-827-U-T2

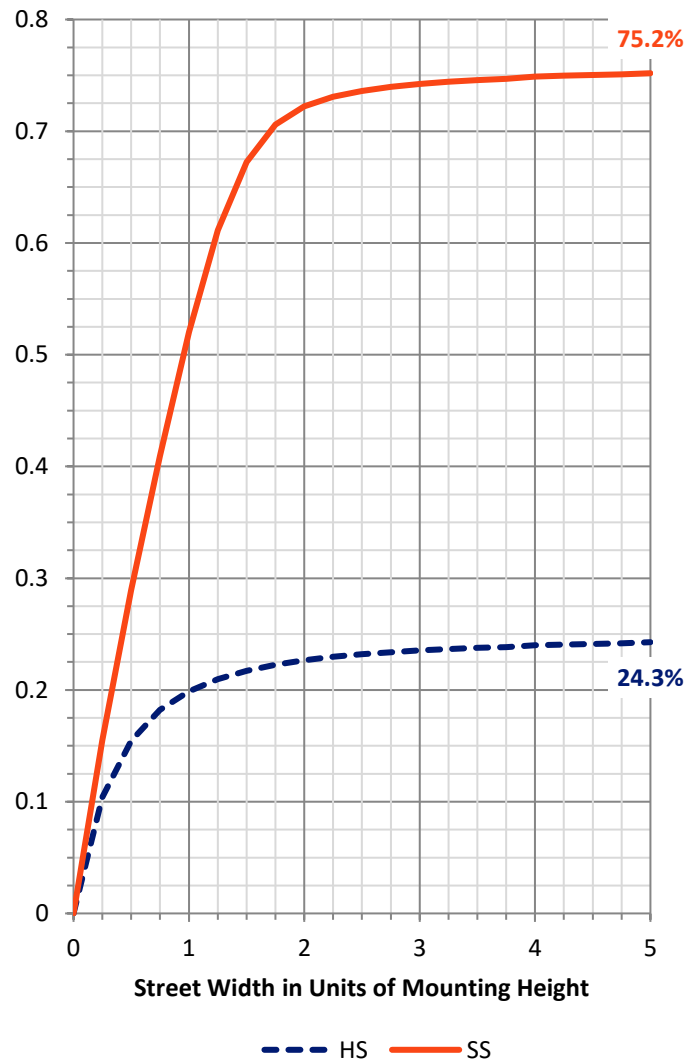
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6057.8	0.0	6057.8
	% Fixture	24.7	0.0	24.7
<b>Street Side</b>	Lumens	18515.1	0.0	18515.1
	% Fixture	75.3	0.0	75.3
<b>Total</b>	Lumens	24573.0	0.0	24573.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	340.2	1.4
10°-20°	977.3	4.0
20°-30°	1634.9	6.7
30°-40°	2554.2	10.4
40°-50°	4067.8	16.6
50°-60°	5660.9	23.0
60°-70°	5921.5	24.1
70°-80°	3094.9	12.6
80°-90°	321.4	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°	24573.0	100.0
0°-180°	24573.0	100.0



REPORT NUMBER: P883467

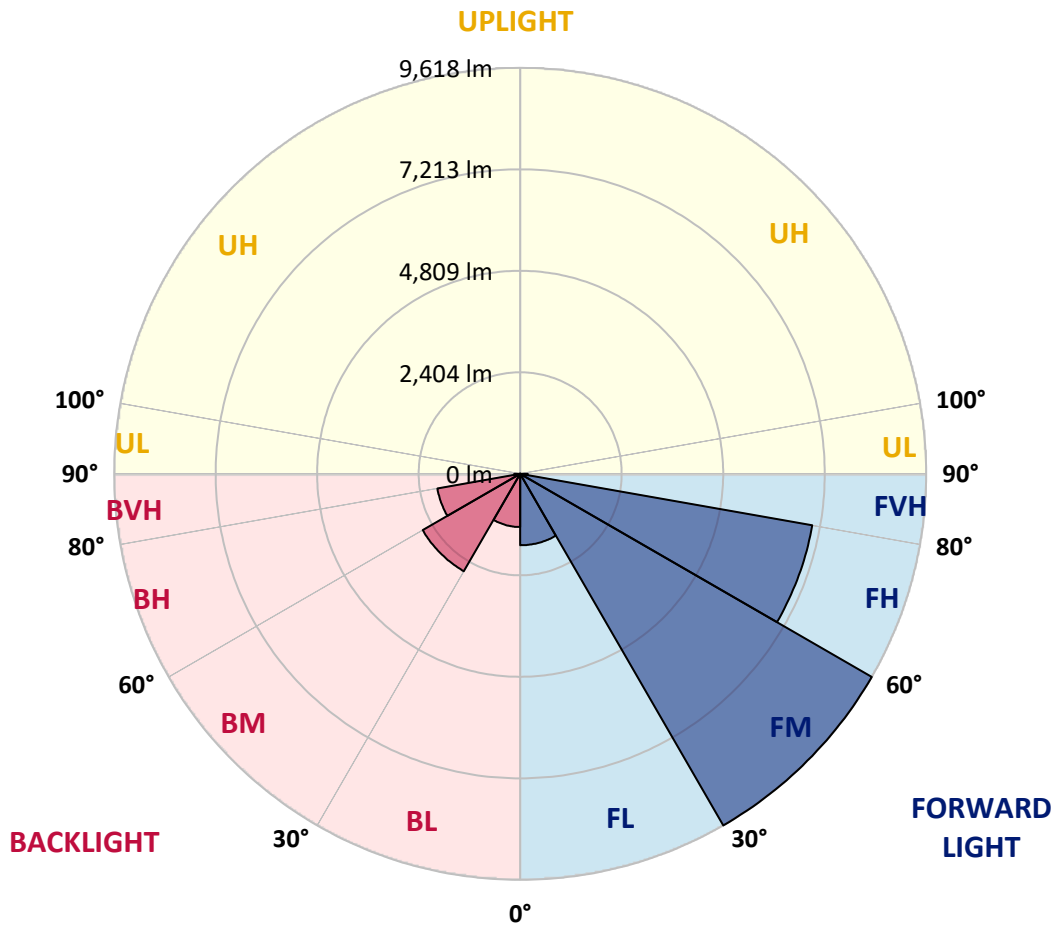
CATALOG NUMBER: NAV-SB3D-827-U-T2

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1692.1	6.9			
FM (30°-60°)	9617.6	39.1			
FH (60°-80°)	7025.5	28.6			G3/7500
FVH (80°-90°)	179.9	0.7			G2/225
BL (0°-30°)	1260.3	5.1	B3/2500		
BM (30°-60°)	2665.2	10.8	B3/5000		
BH (60°-80°)	1990.9	8.1	B3/2500		G3/2500
BVH (80°-90°)	141.5	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



REPORT NUMBER: P883467

CATALOG NUMBER: NAV-SB3D-827-U-T2

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	3602.7	3602.7	3602.7	3602.7	3602.7	3602.7	3602.7	3602.7	3602.7	3602.7	3602.7
2.5°	3688.8	3709.6	3703.1	3696.6	3696.6	3687.5	3686.2	3673.1	3662.7	3645.7	3641.8
5°	3735.7	3757.9	3755.3	3760.5	3777.4	3781.3	3785.3	3777.4	3756.6	3735.7	3726.6
7.5°	3694.0	3718.8	3726.6	3757.9	3810.0	3857.0	3892.2	3906.5	3887.0	3857.0	3842.6
10°	3553.2	3580.5	3607.9	3682.2	3774.8	3885.7	3979.5	4035.6	4031.7	4003.0	3978.2
12.5°	3267.6	3296.3	3355.0	3499.7	3669.2	3864.8	4039.5	4156.9	4197.3	4176.4	4133.4
15°	3039.4	3064.2	3108.5	3257.2	3477.5	3774.8	4061.7	4289.9	4392.9	4381.1	4329.0
17.5°	3032.9	3043.3	3070.7	3141.1	3310.6	3634.0	4038.2	4420.3	4617.2	4615.8	4550.7
20°	3147.6	3151.6	3167.2	3181.5	3278.0	3527.1	3978.2	4528.5	4868.8	4868.8	4798.4
22.5°	3306.7	3304.1	3319.8	3306.7	3353.7	3518.0	3940.4	4623.7	5149.1	5170.0	5081.3
25°	3545.3	3532.3	3528.4	3498.4	3507.5	3602.7	3982.1	4731.9	5481.6	5524.7	5413.8
27.5°	3863.5	3842.6	3828.3	3759.2	3735.7	3777.4	4109.9	4862.3	5852.0	5926.3	5785.5
30°	4278.1	4240.3	4219.5	4099.5	4014.7	4021.3	4302.9	5035.7	6239.2	6359.2	6180.5
32.5°	4844.0	4785.4	4729.3	4532.4	4377.2	4326.4	4552.0	5275.6	6659.1	6850.8	6621.3
35°	5477.7	5430.8	5370.8	5067.0	4828.4	4711.0	4888.4	5610.7	7150.7	7454.5	7155.9
37.5°	6088.0	6047.5	6076.2	5666.8	5359.1	5188.3	5329.1	6060.6	7757.0	8205.5	7826.1
40°	6719.1	6687.8	6691.7	6300.5	5941.9	5750.3	5863.7	6625.2	8452.0	9098.7	8631.9
42.5°	7404.9	7381.4	7303.2	6956.4	6553.5	6374.8	6479.1	7277.1	9197.8	10115.7	9516.0
45°	8172.9	8158.6	8085.6	7687.9	7226.3	7025.5	7166.3	7996.9	9947.5	11072.8	10403.9
47.5°	8836.6	8848.3	8839.2	8504.1	8025.6	7730.9	7899.1	8747.9	10645.1	11972.5	11255.4
50°	9156.1	9217.4	9307.3	9203.0	8905.7	8605.8	8638.4	9472.9	11310.1	12816.2	12071.6
52.5°	8989.2	9105.2	9350.4	9517.3	9632.0	9569.4	9482.0	10192.7	11936.0	13577.6	12843.5
55°	8367.2	8530.2	8937.0	9339.9	9925.4	10380.4	10495.2	10990.7	12546.2	14247.8	13573.7
57.5°	7234.1	7498.8	7863.9	8678.8	9664.6	10772.9	11676.5	12097.7	13193.0	14963.7	14337.8
60°	5291.3	5645.9	6099.7	7312.3	8751.9	10563.0	12681.8	13798.0	14112.2	15890.8	15332.7
62.5°	3386.3	3605.3	4022.6	5164.8	6819.5	9487.3	12989.6	15923.4	15670.4	17411.1	16824.4
65°	2318.4	2459.2	2841.2	3482.7	4408.5	7062.0	12165.5	17516.8	18145.2	19820.8	19374.8
67.5°	1684.7	1791.6	2117.6	2679.5	2872.5	4179.0	9440.3	17443.7	20551.0	22303.4	21609.7
70°	1228.3	1303.9	1577.7	2117.6	2210.1	2324.9	5719.0	14828.1	20498.8	22963.2	22132.6
72.5°	910.1	962.3	1146.1	1642.9	1789.0	1569.9	2830.8	10776.8	17614.5	20770.0	20103.7
75°	658.5	697.6	833.2	1257.0	1431.7	1195.7	1412.1	6297.9	12286.8	14610.3	14727.7
77.5°	503.3	533.3	622.0	920.6	1146.1	897.1	876.2	2897.3	5825.9	5854.6	6183.2
80°	404.2	423.8	472.0	648.0	878.8	671.5	571.1	1169.6	1841.1	1558.2	1635.1
82.5°	297.3	329.9	399.0	455.1	628.5	462.9	348.1	590.7	700.2	602.4	607.6
85°	169.5	191.7	241.2	326.0	401.6	282.9	199.5	262.1	326.0	267.3	238.6
87.5°	60.0	78.2	84.8	127.8	174.7	117.4	76.9	75.6	106.9	79.5	66.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P883467  
 CATALOG NUMBER: NAV-SB3D-827-U-T2

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3602.7	3602.7	3602.7	3602.7	3602.7	3602.7	3602.7	3602.7	3602.7	3602.7	3602.7
2.5°	3628.8	3622.3	3596.2	3561.0	3524.5	3489.3	3477.5	3452.8	3435.8	3426.7	3437.1
5°	3701.8	3680.9	3619.7	3541.4	3459.3	3370.6	3308.0	3250.7	3208.9	3169.8	3185.5
7.5°	3806.1	3769.6	3664.0	3527.1	3381.0	3233.7	3124.2	3040.7	2984.7	2948.1	2956.0
10°	3927.4	3871.3	3709.6	3504.9	3279.3	3068.1	2939.0	2867.3	2832.1	2812.5	2817.8
12.5°	4066.9	3987.4	3756.6	3454.1	3124.2	2882.9	2794.3	2773.4	2774.7	2776.0	2778.6
15°	4239.0	4128.2	3794.4	3343.2	2922.1	2740.8	2725.2	2759.1	2794.3	2811.2	2809.9
17.5°	4433.3	4276.8	3800.9	3160.7	2723.9	2649.5	2699.1	2772.1	2825.6	2849.0	2854.3
20°	4641.9	4428.1	3754.0	2902.5	2560.9	2575.2	2663.9	2757.8	2816.5	2846.4	2854.3
22.5°	4880.5	4589.8	3641.8	2631.3	2427.9	2494.4	2598.7	2690.0	2751.3	2781.2	2789.1
25°	5153.1	4771.0	3465.8	2403.1	2313.1	2403.1	2507.4	2583.0	2632.6	2660.0	2667.8
27.5°	5455.6	4960.1	3231.1	2221.9	2212.7	2309.2	2395.3	2454.0	2480.0	2500.9	2508.7
30°	5759.4	5132.2	2946.8	2085.0	2125.4	2216.7	2277.9	2304.0	2311.8	2315.7	2324.9
32.5°	6088.0	5280.8	2648.2	1971.5	2041.9	2126.7	2163.2	2174.9	2138.4	2113.6	2121.5
35°	6485.7	5439.9	2356.2	1881.5	1959.8	2032.8	2044.5	2034.1	1991.1	1940.2	1942.8
37.5°	6977.2	5638.1	2122.8	1817.7	1882.8	1931.1	1916.8	1914.1	1918.1	1858.1	1862.0
40°	7579.6	5896.3	1952.0	1768.1	1820.3	1830.7	1790.3	1812.4	1832.0	1740.7	1743.3
42.5°	8248.5	6207.9	1843.7	1734.2	1768.1	1743.3	1680.7	1705.5	1702.9	1582.9	1581.6
45°	8930.5	6546.9	1805.9	1709.4	1719.9	1670.3	1601.2	1607.7	1553.0	1444.7	1448.6
47.5°	9608.5	6910.7	1829.4	1688.6	1659.9	1603.8	1550.4	1521.7	1440.8	1360.0	1360.0
50°	10273.5	7292.8	1915.4	1646.8	1577.7	1545.1	1506.0	1455.2	1369.1	1300.0	1294.8
52.5°	10890.3	7677.4	2011.9	1577.7	1474.7	1494.3	1469.5	1410.8	1326.1	1255.7	1257.0
55°	11474.4	8062.1	2049.7	1482.5	1378.2	1450.0	1435.6	1327.4	1225.7	1168.3	1163.1
57.5°	12110.7	8525.0	2008.0	1361.3	1300.0	1399.1	1344.3	1224.4	1165.7	1122.7	1118.8
60°	12992.2	9251.3	1918.1	1211.3	1225.7	1323.5	1229.6	1180.0	1116.1	1067.9	1065.3
62.5°	14456.5	10606.0	1773.3	1062.7	1138.3	1211.3	1174.8	1125.3	1060.1	1013.1	1013.1
65°	16621.0	12488.9	1500.8	946.6	1040.5	1101.8	1116.1	1066.6	998.8	949.2	951.9
67.5°	18446.4	13670.2	1135.7	850.2	940.1	1013.1	1053.6	1005.3	933.6	885.4	886.7
70°	18346.0	12812.2	867.1	755.0	851.5	925.8	977.9	940.1	863.2	817.6	821.5
72.5°	16295.0	10718.2	701.5	658.5	761.5	834.5	897.1	868.4	790.2	745.8	745.8
75°	11971.2	7608.3	560.7	560.7	649.3	739.3	808.4	790.2	718.5	687.2	678.0
77.5°	5046.1	3192.0	439.4	465.5	539.8	635.0	721.1	727.6	665.0	704.1	638.9
80°	1341.7	880.1	335.1	366.4	423.8	524.2	627.2	624.6	556.8	520.3	483.8
82.5°	511.1	346.8	238.6	258.2	306.4	401.6	496.8	512.4	444.6	384.7	384.7
85°	196.9	148.6	147.3	155.2	178.6	266.0	375.5	388.6	335.1	284.3	293.4
87.5°	50.9	44.3	54.8	52.2	82.1	142.1	215.1	223.0	204.7	118.7	169.5
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)