

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: P883487

Luminaire Tested: **NAV-SB3D-835-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883487
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-835-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25518 lumens
Efficiency: N/A
Efficacy: 117.0 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

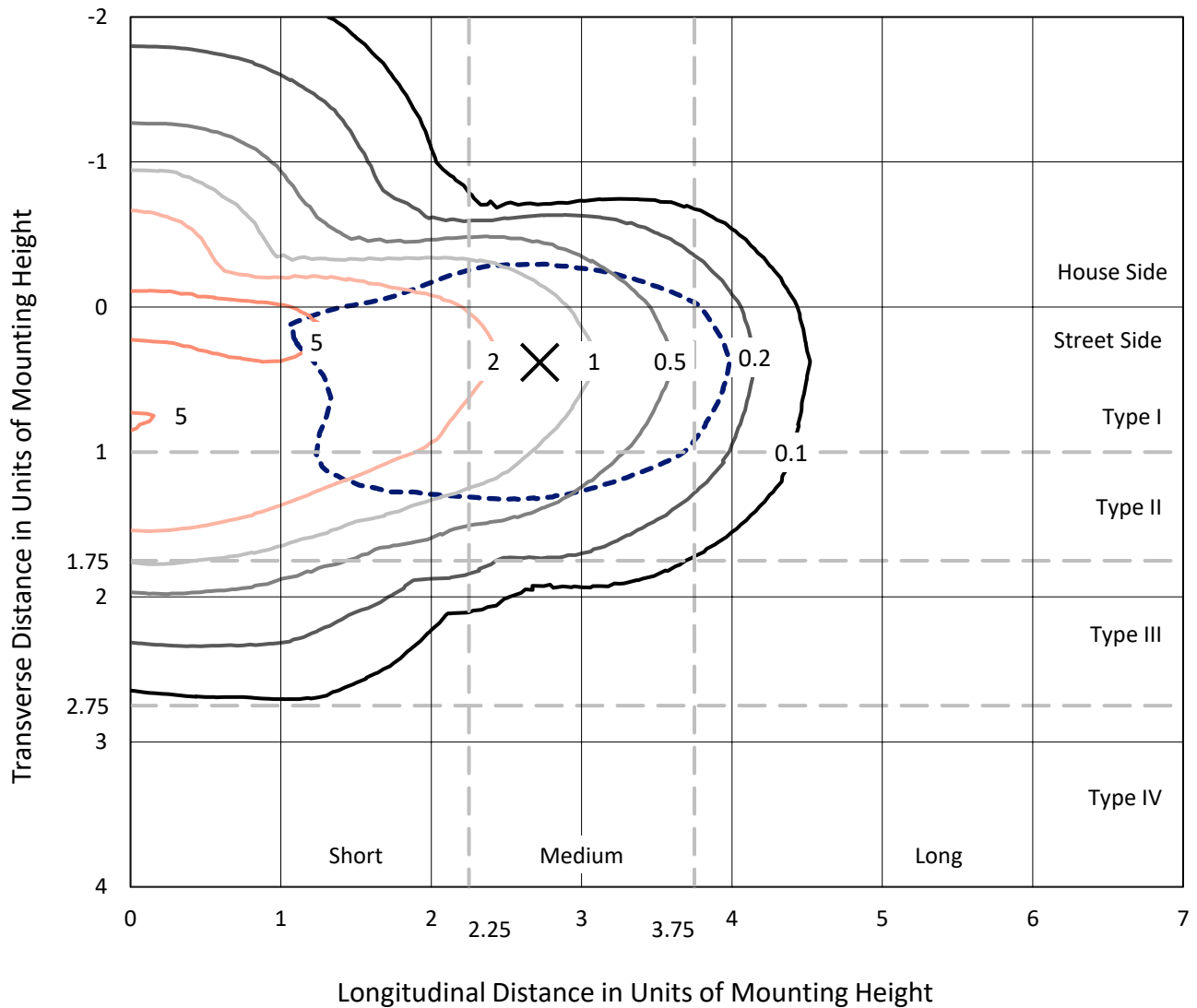
Input Watts (W): 218.1
Input Voltage (V): 120.0
Input Current (Ain): 1.84
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 2.542
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

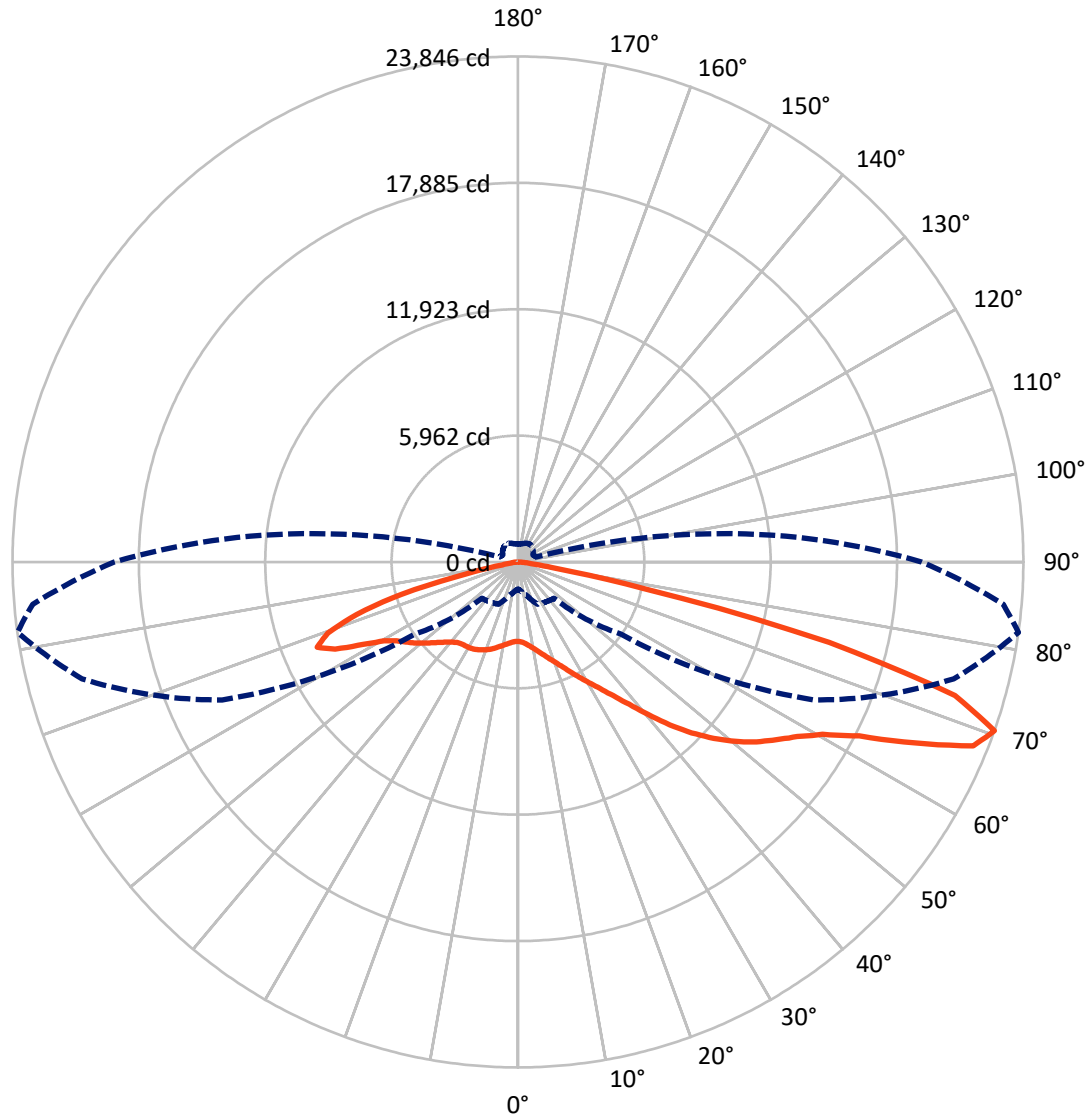
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.8 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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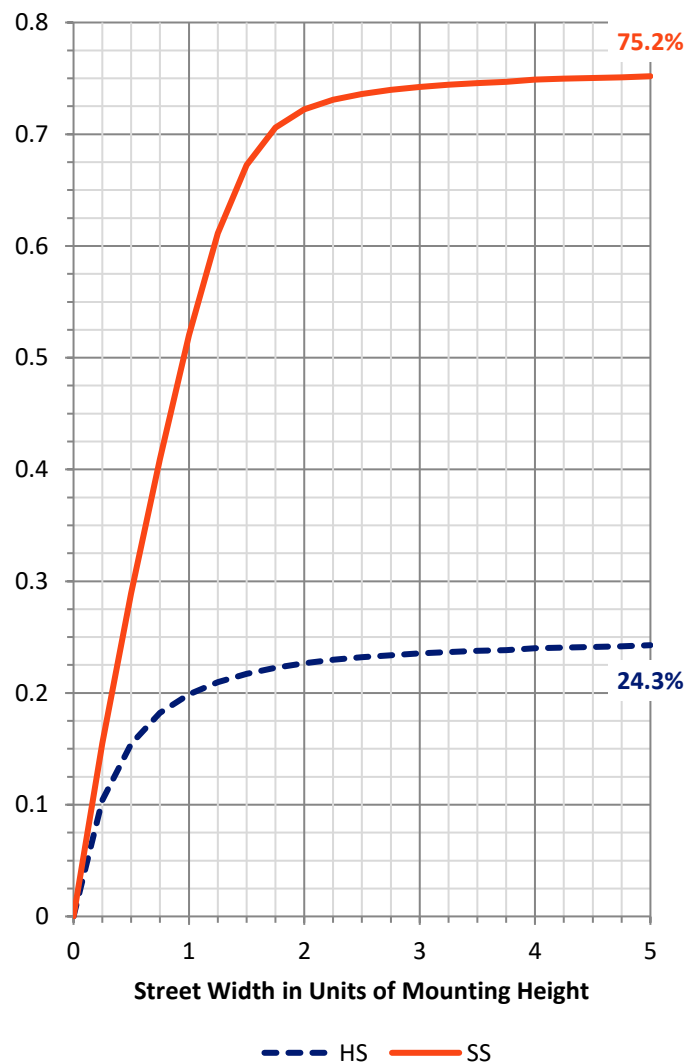
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6290.8	0.0	6290.8
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	19227.2	0.0	19227.2
	% Fixture	75.3	0.0	75.3
Total	Lumens	25518.0	0.0	25518.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	353.2	1.4
10°-20°	1014.9	4.0
20°-30°	1697.8	6.7
30°-40°	2652.4	10.4
40°-50°	4224.2	16.6
50°-60°	5878.6	23.0
60°-70°	6149.2	24.1
70°-80°	3213.9	12.6
80°-90°	333.7	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°	25518.0	100.0
0°-180°	25518.0	100.0



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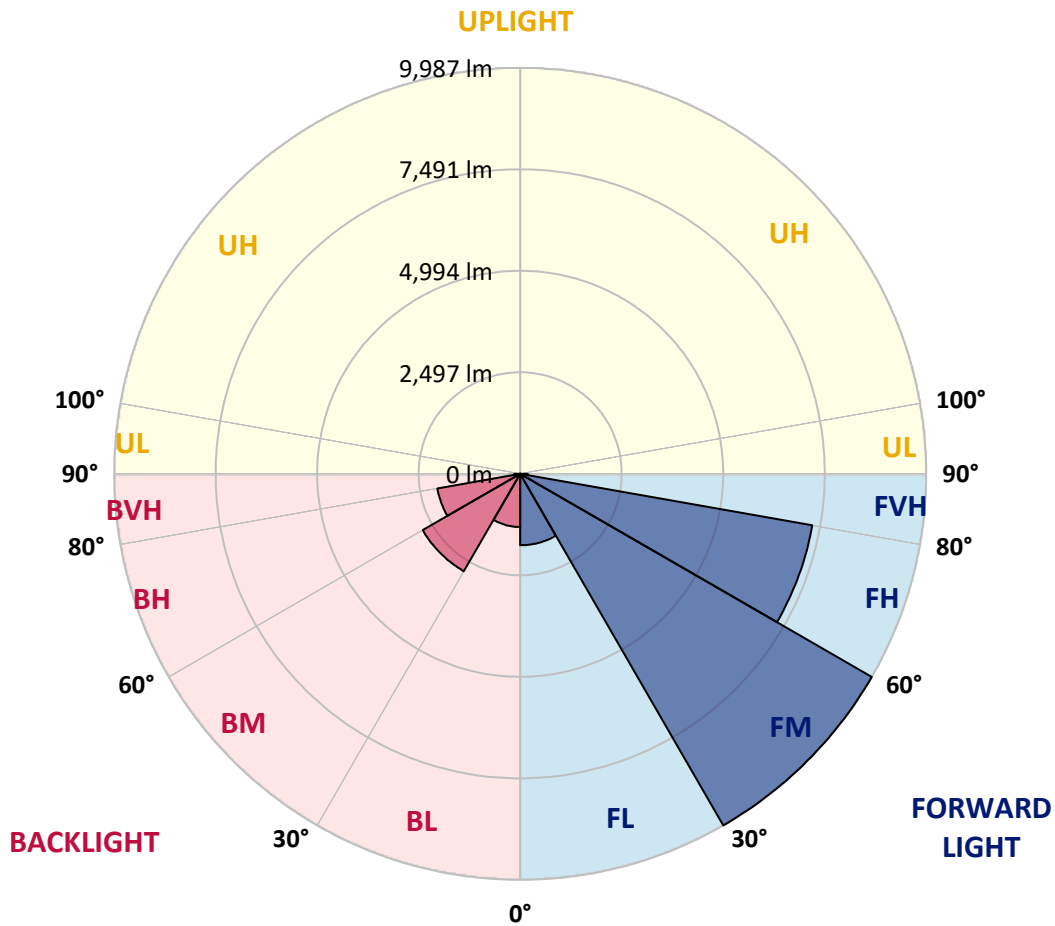
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1757.2	6.9			
FM (30°-60°)	9987.5	39.1			
FH (60°-80°)	7295.7	28.6			G3/7500
FVH (80°-90°)	186.8	0.7			G2/225
BL (0°-30°)	1308.7	5.1	B3/2500		
BM (30°-60°)	2767.7	10.8	B3/5000		
BH (60°-80°)	2067.5	8.1	B3/2500		G3/2500
BVH (80°-90°)	146.9	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°	3741.3	3741.3	3741.3	3741.3	3741.3	3741.3	3741.3	3741.3	3741.3	3741.3	3741.3
2.5°	3830.6	3852.3	3845.5	3838.7	3838.7	3829.3	3827.9	3814.4	3803.5	3785.9	3781.9
5°	3879.4	3902.4	3899.7	3905.1	3922.7	3926.8	3930.8	3922.7	3901.0	3879.4	3869.9
7.5°	3836.0	3861.8	3869.9	3902.4	3956.6	4005.3	4041.9	4056.8	4036.4	4005.3	3990.4
10°	3689.8	3718.2	3746.7	3823.9	3920.0	4035.1	4132.6	4190.8	4186.7	4157.0	4131.2
12.5°	3393.3	3423.1	3484.0	3634.3	3810.3	4013.4	4194.9	4316.7	4358.7	4337.0	4292.4
15°	3156.3	3182.0	3228.1	3382.4	3611.3	3920.0	4217.9	4454.8	4561.8	4549.6	4495.5
17.5°	3149.5	3160.4	3188.8	3261.9	3437.9	3773.8	4193.5	4590.3	4794.7	4793.4	4725.7
20°	3268.7	3272.8	3289.0	3303.9	3404.1	3662.7	4131.2	4702.6	5056.0	5056.0	4982.9
22.5°	3433.9	3431.2	3447.4	3433.9	3482.6	3653.2	4092.0	4801.5	5347.2	5368.8	5276.8
25°	3681.7	3668.1	3664.1	3632.9	3642.4	3741.3	4135.3	4913.9	5692.5	5737.1	5622.0
27.5°	4012.1	3990.4	3975.5	3903.7	3879.4	3922.7	4268.0	5049.3	6077.0	6154.2	6007.9
30°	4442.7	4403.4	4381.7	4257.2	4169.1	4175.9	4468.4	5229.4	6479.2	6603.7	6418.2
32.5°	5030.3	4969.4	4911.2	4706.7	4545.6	4492.8	4727.0	5478.5	6915.2	7114.2	6875.9
35°	5688.4	5639.6	5577.4	5261.9	5014.1	4892.2	5076.4	5826.5	7425.6	7741.1	7431.1
37.5°	6322.1	6280.1	6309.9	5884.7	5565.2	5387.8	5534.0	6293.7	8055.3	8521.1	8127.0
40°	6977.5	6945.0	6949.0	6542.8	6170.4	5971.4	6089.2	6880.0	8777.0	9448.6	8963.9
42.5°	7689.7	7665.3	7584.1	7223.9	6805.5	6620.0	6728.3	7557.0	9551.5	10504.8	9881.9
45°	8487.2	8472.3	8396.5	7983.5	7504.2	7295.7	7441.9	8304.4	10330.1	11498.6	10804.0
47.5°	9176.4	9188.6	9179.1	8831.2	8334.2	8028.2	8202.9	9084.4	11054.5	12432.9	11688.2
50°	9508.2	9571.8	9665.3	9556.9	9248.2	8936.8	8970.6	9837.2	11745.1	13309.0	12535.9
52.5°	9334.9	9455.4	9709.9	9883.3	10002.4	9937.4	9846.7	10584.7	12395.0	14099.8	13337.5
55°	8689.0	8858.2	9280.7	9699.1	10307.1	10779.6	10898.8	11413.3	13028.7	14795.8	14095.7
57.5°	7512.3	7787.2	8166.3	9012.6	10036.3	11187.2	12125.6	12562.9	13700.3	15539.2	14889.2
60°	5494.8	5863.1	6334.3	7593.5	9088.4	10969.2	13169.6	14328.6	14655.0	16501.9	15922.3
62.5°	3516.5	3744.0	4177.3	5363.4	7081.7	9852.1	13489.1	16535.7	16273.1	18080.7	17471.4
65°	2407.5	2553.8	2950.5	3616.7	4578.1	7333.6	12633.3	18190.4	18843.0	20583.0	20119.9
67.5°	1749.4	1860.5	2199.0	2782.6	2983.0	4339.8	9803.4	18114.6	21341.3	23161.1	22440.8
70°	1275.5	1354.1	1638.4	2199.0	2295.1	2414.3	5938.9	15398.3	21287.1	23846.3	22983.8
72.5°	945.1	999.3	1190.2	1706.1	1857.8	1630.3	2939.7	11191.3	18291.9	21568.8	20876.8
75°	683.8	724.4	865.2	1305.3	1486.8	1241.7	1466.4	6540.1	12759.3	15172.2	15294.1
77.5°	522.7	553.8	645.9	956.0	1190.2	931.6	909.9	3008.7	6049.9	6079.7	6420.9
80°	419.8	440.1	490.2	673.0	912.6	697.3	593.1	1214.6	1911.9	1618.1	1698.0
82.5°	308.7	342.6	414.3	472.6	652.7	480.7	361.5	613.4	727.1	625.6	631.0
85°	176.0	199.0	250.5	338.5	417.0	293.8	207.2	272.2	338.5	277.6	247.8
87.5°	62.3	81.2	88.0	132.7	181.4	121.9	79.9	78.5	111.0	82.6	69.1
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°	3741.3	3741.3	3741.3	3741.3	3741.3	3741.3	3741.3	3741.3	3741.3	3741.3	3741.3
2.5°	3768.3	3761.6	3734.5	3697.9	3660.0	3623.5	3611.3	3585.5	3567.9	3558.5	3569.3
5°	3844.2	3822.5	3758.9	3677.6	3592.3	3500.2	3435.2	3375.7	3332.3	3291.7	3308.0
7.5°	3952.5	3914.6	3804.9	3662.7	3511.1	3358.1	3244.3	3157.7	3099.4	3061.5	3069.6
10°	4078.4	4020.2	3852.3	3639.7	3405.5	3186.1	3052.0	2977.6	2941.0	2920.7	2926.1
12.5°	4223.3	4140.7	3901.0	3586.9	3244.3	2993.8	2901.7	2880.1	2881.4	2882.8	2885.5
15°	4402.0	4286.9	3940.3	3471.8	3034.4	2846.2	2830.0	2865.2	2901.7	2919.3	2918.0
17.5°	4603.8	4441.3	3947.1	3282.2	2828.6	2751.4	2802.9	2878.7	2934.2	2958.6	2964.0
20°	4820.4	4598.4	3898.3	3014.1	2659.4	2674.3	2766.3	2863.8	2924.8	2955.9	2964.0
22.5°	5068.2	4766.3	3781.9	2732.5	2521.3	2590.3	2698.6	2793.4	2857.1	2888.2	2896.3
25°	5351.2	4954.5	3599.1	2495.5	2402.1	2495.5	2603.9	2682.4	2733.8	2762.3	2770.4
27.5°	5665.4	5150.8	3355.4	2307.3	2297.8	2398.0	2487.4	2548.3	2575.4	2597.1	2605.2
30°	5980.9	5329.6	3060.2	2165.1	2207.1	2301.9	2365.5	2392.6	2400.7	2404.8	2414.3
32.5°	6322.1	5483.9	2750.1	2047.3	2120.5	2208.5	2246.4	2258.6	2220.7	2194.9	2203.0
35°	6735.1	5649.1	2446.8	1953.9	2035.1	2111.0	2123.2	2112.3	2067.6	2014.8	2017.5
37.5°	7245.6	5854.9	2204.4	1887.6	1955.3	2005.4	1990.5	1987.8	1991.8	1929.5	1933.6
40°	7871.1	6123.0	2027.0	1836.1	1890.3	1901.1	1859.1	1882.1	1902.4	1807.7	1810.4
42.5°	8565.8	6446.7	1914.6	1800.9	1836.1	1810.4	1745.4	1771.1	1768.4	1643.8	1642.5
45°	9273.9	6798.7	1875.4	1775.2	1786.0	1734.5	1662.8	1669.6	1612.7	1500.3	1504.4
47.5°	9978.0	7176.5	1899.7	1753.5	1723.7	1665.5	1610.0	1580.2	1496.2	1412.3	1412.3
50°	10668.6	7573.2	1989.1	1710.2	1638.4	1604.6	1563.9	1511.1	1421.8	1350.0	1344.6
52.5°	11309.1	7972.7	2089.3	1638.4	1531.4	1551.7	1526.0	1465.1	1377.1	1304.0	1305.3
55°	11915.7	8372.1	2128.6	1539.6	1431.2	1505.7	1490.8	1378.4	1272.8	1213.2	1207.8
57.5°	12576.5	8852.8	2085.2	1413.6	1350.0	1452.9	1396.0	1271.5	1210.5	1165.8	1161.8
60°	13491.8	9607.0	1991.8	1257.9	1272.8	1374.4	1276.9	1225.4	1159.1	1109.0	1106.3
62.5°	15012.4	11013.9	1841.5	1103.6	1182.1	1257.9	1220.0	1168.6	1100.8	1052.1	1052.1
65°	17260.2	12969.2	1558.5	983.0	1080.5	1144.2	1159.1	1107.6	1037.2	985.8	988.5
67.5°	19155.8	14195.9	1179.4	882.8	976.3	1052.1	1094.1	1044.0	969.5	919.4	920.8
70°	19051.6	13305.0	900.4	784.0	884.2	961.4	1015.5	976.3	896.4	849.0	853.1
72.5°	16921.6	11130.3	728.5	683.8	790.8	866.6	931.6	901.8	820.6	774.5	774.5
75°	12431.6	7900.9	582.2	582.2	674.3	767.7	839.5	820.6	746.1	713.6	704.1
77.5°	5240.2	3314.7	456.3	483.4	560.6	659.4	748.8	755.6	690.6	731.2	663.5
80°	1393.3	914.0	348.0	380.5	440.1	544.3	651.3	648.6	578.2	540.3	502.4
82.5°	530.8	360.2	247.8	268.1	318.2	417.0	515.9	532.1	461.7	399.4	399.4
85°	204.5	154.4	153.0	161.1	185.5	276.2	390.0	403.5	348.0	295.2	304.7
87.5°	52.8	46.0	56.9	54.2	85.3	147.6	223.4	231.5	212.6	123.2	176.0
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)