

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: P884847

Luminaire Tested: **NAV-SB5D-835-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884847
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-SB5D-835-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 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: 43170 lumens
Efficiency: N/A
Efficacy: 118.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B4 - U0 - G5

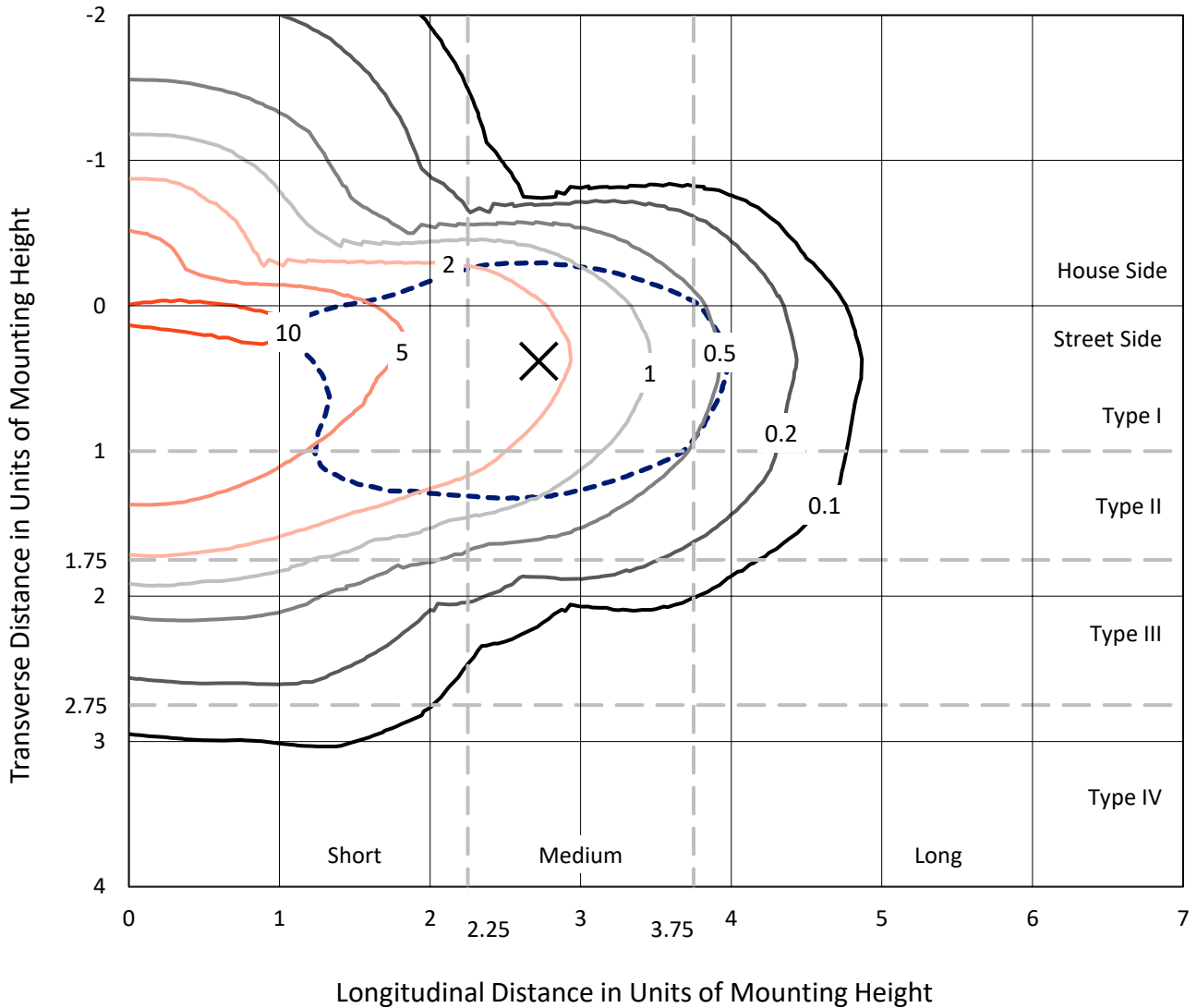
Input Watts (W): 364.9
Input Voltage (V): 120.0
Input Current (Ain): 3.094
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 3.28
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

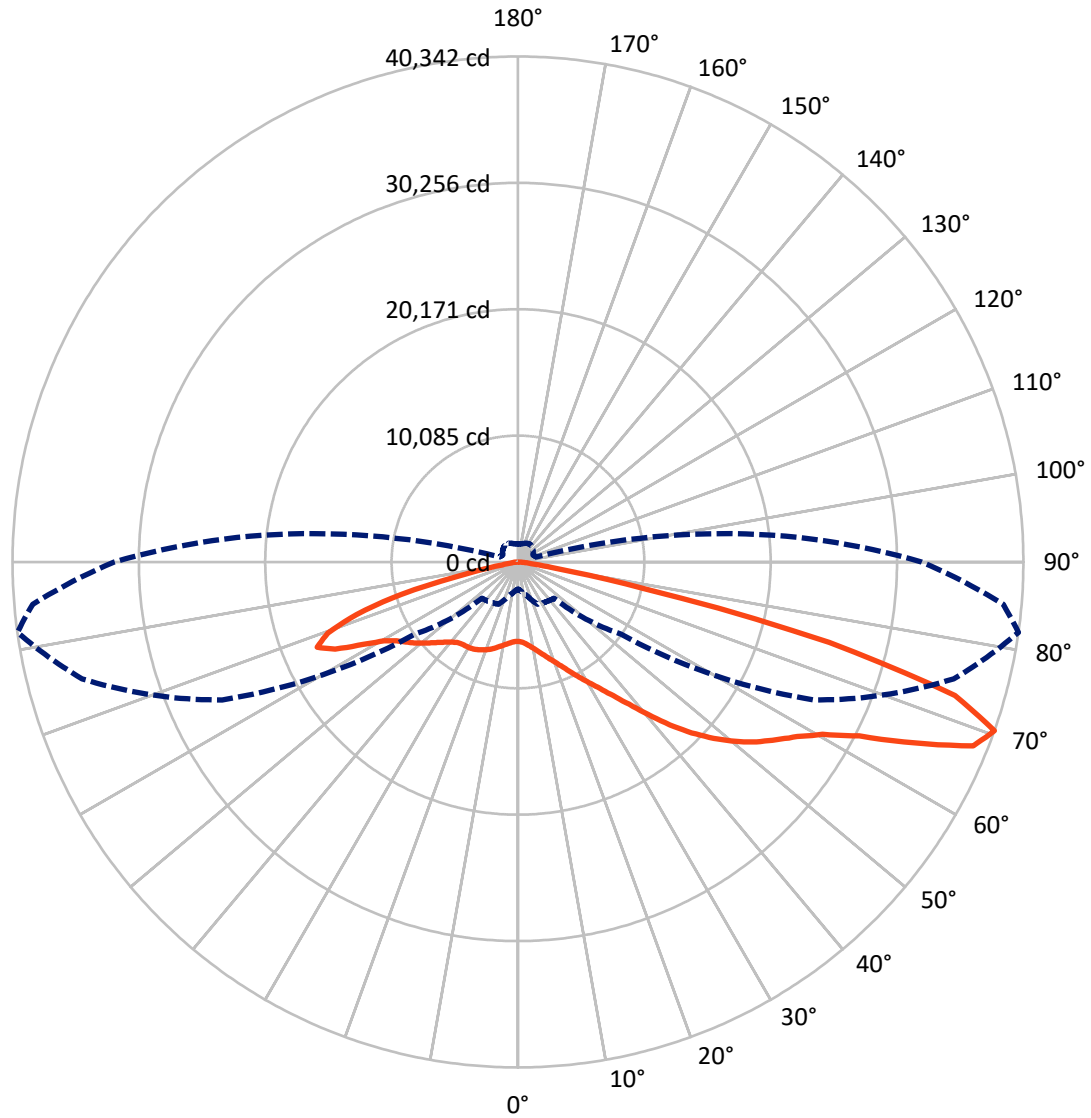
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.5 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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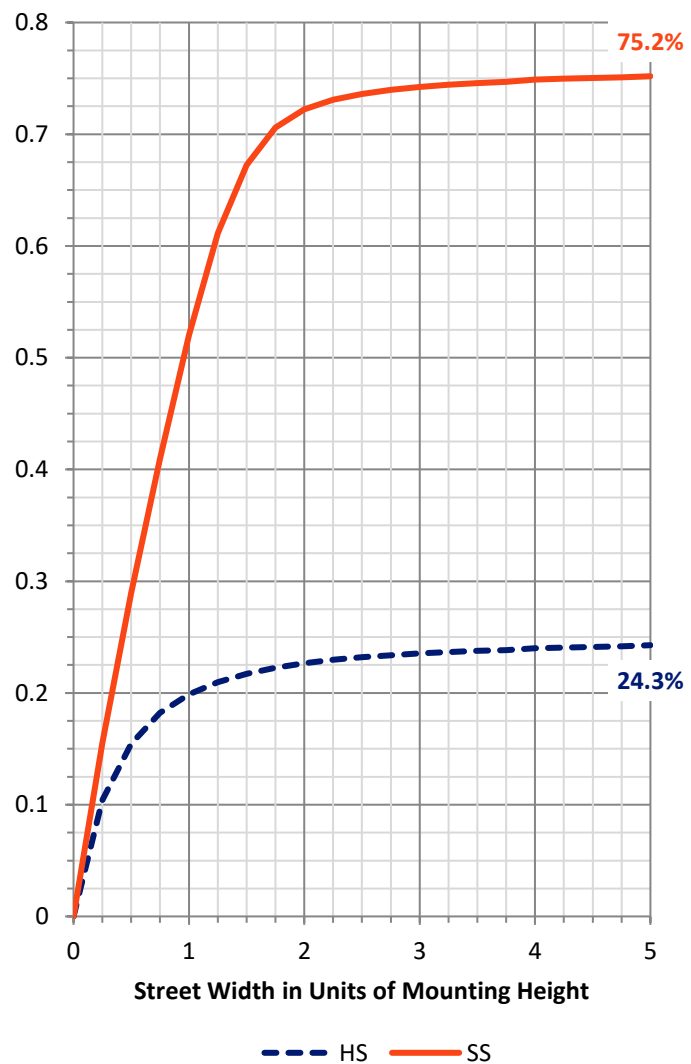
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10642.5	0.0	10642.5
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	32527.5	0.0	32527.5
	% Fixture	75.3	0.0	75.3
Total	Lumens	43170.0	0.0	43170.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	597.6	1.4
10°-20°	1716.9	4.0
20°-30°	2872.2	6.7
30°-40°	4487.2	10.4
40°-50°	7146.4	16.6
50°-60°	9945.0	23.0
60°-70°	10403.0	24.1
70°-80°	5437.1	12.6
80°-90°	564.6	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°	43170.0	100.0
0°-180°	43170.0	100.0

Coefficient of Utilization



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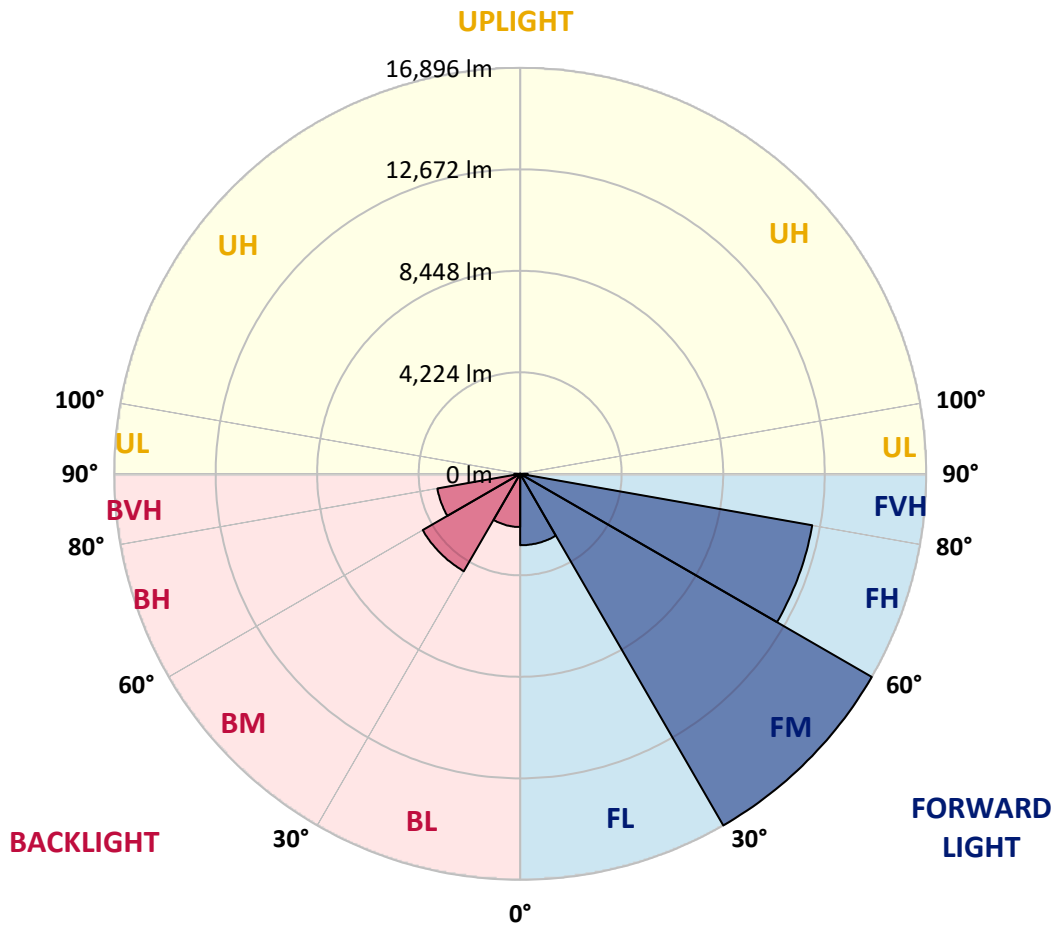
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2972.7	6.9			
FM (30°-60°)	16896.3	39.1			
FH (60°-80°)	12342.4	28.6			G5
FVH (80°-90°)	316.1	0.7			G3/500
BL (0°-30°)	2214.0	5.1	B3/2500		
BM (30°-60°)	4682.3	10.8	B3/5000		
BH (60°-80°)	3497.7	8.1	B4/5000		G4/5000
BVH (80°-90°)	248.5	0.6			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	6329.3	6329.3	6329.3	6329.3	6329.3	6329.3	6329.3	6329.3	6329.3	6329.3	6329.3
2.5°	6480.4	6517.1	6505.6	6494.2	6494.2	6478.2	6475.9	6453.0	6434.6	6404.9	6398.0
5°	6562.9	6601.9	6597.3	6606.4	6636.2	6643.1	6650.0	6636.2	6599.6	6562.9	6546.9
7.5°	6489.6	6533.1	6546.9	6601.9	6693.5	6776.0	6837.8	6863.0	6828.6	6776.0	6750.8
10°	6242.2	6290.3	6338.4	6469.0	6631.6	6826.3	6991.3	7089.8	7082.9	7032.5	6989.0
12.5°	5740.5	5790.9	5894.0	6148.3	6446.1	6789.7	7096.7	7302.8	7373.8	7337.2	7261.6
15°	5339.7	5383.2	5461.1	5722.2	6109.4	6631.6	7135.6	7536.5	7717.4	7696.8	7605.2
17.5°	5328.2	5346.5	5394.6	5518.3	5816.1	6384.2	7094.4	7765.5	8111.4	8109.2	7994.6
20°	5529.8	5536.7	5564.2	5589.4	5758.9	6196.4	6989.0	7955.7	8553.6	8553.6	8429.9
22.5°	5809.3	5804.7	5832.2	5809.3	5891.7	6180.4	6922.6	8122.9	9046.1	9082.7	8926.9
25°	6228.5	6205.6	6198.7	6146.0	6162.0	6329.3	6995.9	8313.0	9630.2	9705.8	9511.1
27.5°	6787.4	6750.8	6725.6	6604.1	6562.9	6636.2	7220.4	8542.1	10280.8	10411.3	10163.9
30°	7515.9	7449.4	7412.8	7202.0	7053.1	7064.6	7559.4	8846.8	10961.1	11171.8	10858.0
32.5°	8510.0	8406.9	8308.4	7962.5	7690.0	7600.6	7996.9	9268.3	11698.7	12035.4	11632.3
35°	9623.3	9540.9	9435.5	8901.7	8482.5	8276.4	8587.9	9857.0	12562.3	13096.1	12571.5
37.5°	10695.4	10624.4	10674.8	9955.5	9414.9	9114.8	9362.2	10647.3	13627.5	14415.5	13748.9
40°	11804.1	11749.1	11756.0	11068.8	10438.8	10102.1	10301.4	11639.2	14848.5	15984.7	15164.6
42.5°	13009.0	12967.8	12830.3	12221.0	11513.2	11199.3	11382.6	12784.5	16158.7	17771.4	16717.7
45°	14358.2	14333.0	14204.8	13506.1	12695.2	12342.4	12589.8	14049.0	17475.9	19452.8	18277.7
47.5°	15524.2	15544.8	15528.8	14940.1	14099.4	13581.7	13877.2	15368.4	18701.4	21033.4	19773.5
50°	16085.4	16193.1	16351.2	16167.9	15645.6	15118.8	15176.0	16642.1	19869.7	22515.5	21207.5
52.5°	15792.2	15996.1	16426.8	16720.0	16921.6	16811.6	16658.1	17906.6	20969.3	23853.3	22563.6
55°	14699.6	14985.9	15700.6	16408.4	17437.0	18236.4	18438.0	19308.5	22041.3	25030.7	23846.4
57.5°	12708.9	13173.9	13815.3	15247.0	16978.8	18925.9	20513.4	21253.3	23177.5	26288.3	25188.8
60°	9295.7	9918.8	10716.0	12846.4	15375.3	18557.1	22279.6	24240.4	24792.5	27917.0	26936.6
62.5°	5949.0	6333.8	7066.9	9073.5	11980.5	16667.3	22820.2	27974.3	27529.9	30588.0	29557.2
65°	4072.9	4320.3	4991.5	6118.5	7744.9	12406.5	21372.4	30773.5	31877.7	34821.2	34037.8
67.5°	2959.6	3147.5	3720.1	4707.4	5046.5	7341.8	16584.8	30645.3	36104.1	39182.8	37964.1
70°	2157.9	2290.7	2771.8	3720.1	3882.8	4084.4	10047.1	26050.1	36012.4	40341.9	38882.7
72.5°	1598.9	1690.6	2013.5	2886.3	3142.9	2758.0	4973.2	18932.8	30945.3	36488.9	35318.3
75°	1156.8	1225.5	1463.8	2208.3	2515.2	2100.6	2480.9	11064.2	21585.5	25667.5	25873.7
77.5°	884.2	936.9	1092.7	1617.2	2013.5	1576.0	1539.4	5090.0	10234.9	10285.3	10862.6
80°	710.1	744.5	829.2	1138.5	1543.9	1179.7	1003.3	2054.8	3234.5	2737.4	2872.6
82.5°	522.3	579.6	701.0	799.5	1104.1	813.2	611.6	1037.7	1230.1	1058.3	1067.5
85°	297.8	336.7	423.8	572.7	705.5	497.1	350.5	460.4	572.7	469.6	419.2
87.5°	105.4	137.4	148.9	224.5	307.0	206.2	135.2	132.9	187.8	139.7	116.8
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°	6329.3	6329.3	6329.3	6329.3	6329.3	6329.3	6329.3	6329.3	6329.3	6329.3	6329.3
2.5°	6375.1	6363.6	6317.8	6256.0	6191.8	6130.0	6109.4	6065.8	6036.0	6020.0	6038.3
5°	6503.4	6466.7	6359.0	6221.6	6077.3	5921.5	5811.6	5710.8	5637.5	5568.7	5596.2
7.5°	6686.6	6622.5	6436.9	6196.4	5939.8	5681.0	5488.6	5342.0	5243.5	5179.3	5193.1
10°	6899.7	6801.2	6517.1	6157.5	5761.2	5390.1	5163.3	5037.3	4975.4	4941.1	4950.2
12.5°	7144.8	7005.0	6599.6	6068.1	5488.6	5064.8	4909.0	4872.4	4874.7	4876.9	4881.5
15°	7447.1	7252.4	6666.0	5873.4	5133.5	4815.1	4787.6	4847.2	4909.0	4938.8	4936.5
17.5°	7788.5	7513.6	6677.5	5552.7	4785.3	4654.7	4741.8	4870.1	4964.0	5005.2	5014.4
20°	8155.0	7779.3	6595.0	5099.1	4499.0	4524.2	4679.9	4844.9	4948.0	5000.6	5014.4
22.5°	8574.2	8063.3	6398.0	4622.7	4265.3	4382.1	4565.4	4725.8	4833.4	4886.1	4899.9
25°	9052.9	8381.7	6088.7	4221.8	4063.7	4221.8	4405.1	4537.9	4625.0	4673.1	4686.8
27.5°	9584.4	8713.9	5676.4	3903.4	3887.4	4056.9	4208.1	4311.1	4357.0	4393.6	4407.3
30°	10118.1	9016.3	5177.0	3662.9	3733.9	3894.2	4001.9	4047.7	4061.4	4068.3	4084.4
32.5°	10695.4	9277.4	4652.5	3463.6	3587.3	3736.2	3800.3	3820.9	3756.8	3713.3	3727.0
35°	11394.0	9556.9	4139.3	3305.5	3443.0	3571.2	3591.9	3573.5	3497.9	3408.6	3413.2
37.5°	12257.6	9905.1	3729.3	3193.3	3307.8	3392.6	3367.4	3362.8	3369.7	3264.3	3271.1
40°	13316.0	10358.6	3429.2	3106.2	3197.8	3216.2	3145.2	3184.1	3218.5	3058.1	3062.7
42.5°	14491.1	10906.1	3239.1	3046.7	3106.2	3062.7	2952.7	2996.3	2991.7	2780.9	2778.6
45°	15689.1	11501.7	3172.6	3003.1	3021.5	2934.4	2813.0	2824.5	2728.2	2538.1	2545.0
47.5°	16880.3	12140.8	3213.9	2966.5	2916.1	2817.6	2723.7	2673.3	2531.2	2389.2	2389.2
50°	18048.6	12812.0	3365.1	2893.2	2771.8	2714.5	2645.8	2556.4	2405.3	2283.8	2274.7
52.5°	19132.1	13487.8	3534.6	2771.8	2590.8	2625.2	2581.6	2478.6	2329.7	2206.0	2208.3
55°	20158.3	14163.5	3601.0	2604.5	2421.3	2547.3	2522.1	2332.0	2153.3	2052.5	2043.3
57.5°	21276.2	14976.7	3527.7	2391.5	2283.8	2457.9	2361.7	2151.0	2047.9	1972.3	1965.4
60°	22824.7	16252.7	3369.7	2128.1	2153.3	2325.1	2160.1	2073.1	1960.9	1876.1	1871.5
62.5°	25397.2	18632.7	3115.4	1866.9	1999.8	2128.1	2063.9	1976.9	1862.4	1779.9	1779.9
65°	29199.8	21940.5	2636.6	1663.1	1828.0	1935.7	1960.9	1873.8	1754.7	1667.6	1672.2
67.5°	32406.8	24015.9	1995.2	1493.6	1651.6	1779.9	1850.9	1766.1	1640.2	1555.4	1557.7
70°	32230.4	22508.6	1523.3	1326.3	1495.8	1626.4	1718.0	1651.6	1516.5	1436.3	1443.2
72.5°	28627.1	18829.7	1232.4	1156.8	1337.8	1466.1	1576.0	1525.6	1388.2	1310.3	1310.3
75°	21031.1	13366.4	985.0	985.0	1140.8	1298.8	1420.2	1388.2	1262.2	1207.2	1191.2
77.5°	8865.1	5607.7	772.0	817.8	948.4	1115.6	1266.8	1278.2	1168.3	1237.0	1122.5
80°	2357.2	1546.2	588.7	643.7	744.5	920.9	1101.8	1097.3	978.1	914.0	849.9
82.5°	898.0	609.3	419.2	453.6	538.3	705.5	872.8	900.3	781.1	675.8	675.8
85°	345.9	261.1	258.9	272.6	313.8	467.3	659.7	682.6	588.7	499.4	515.4
87.5°	89.3	77.9	96.2	91.6	144.3	249.7	378.0	391.7	359.6	208.5	297.8
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)