

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: P884767

Luminaire Tested: **NAV-SB5D-727-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884767
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-727-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 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: 46367 lumens
Efficiency: N/A
Efficacy: 127.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B4 - U0 - G5

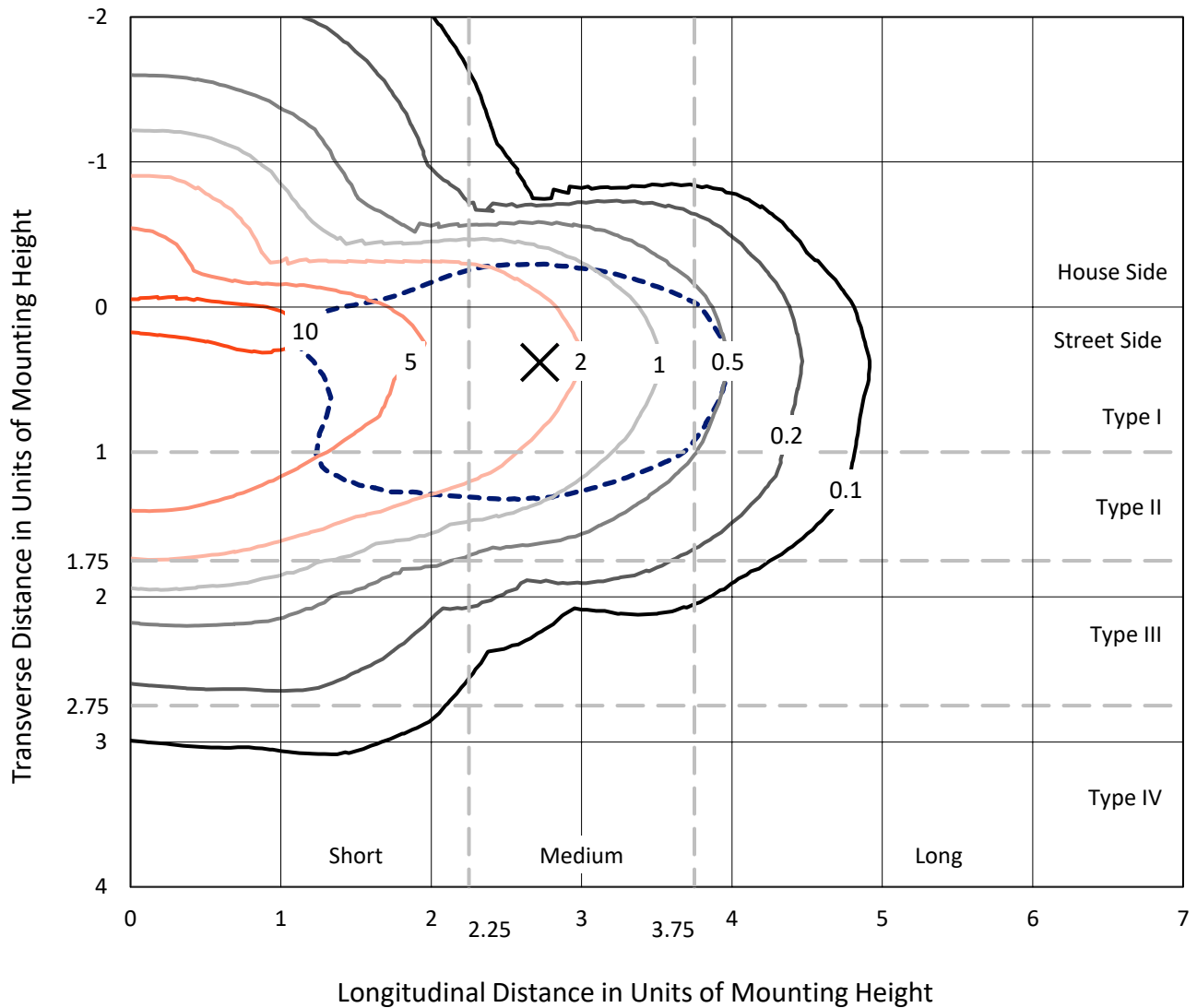
Input Watts (W): 364.9
Input Voltage (V): 120.0
Input Current (Ain): 3.094
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 3.28
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P884767
 CATALOG NUMBER: NAV-SB5D-727-U-T2

Iso-Footcandle Lines of Horizontal Illumination

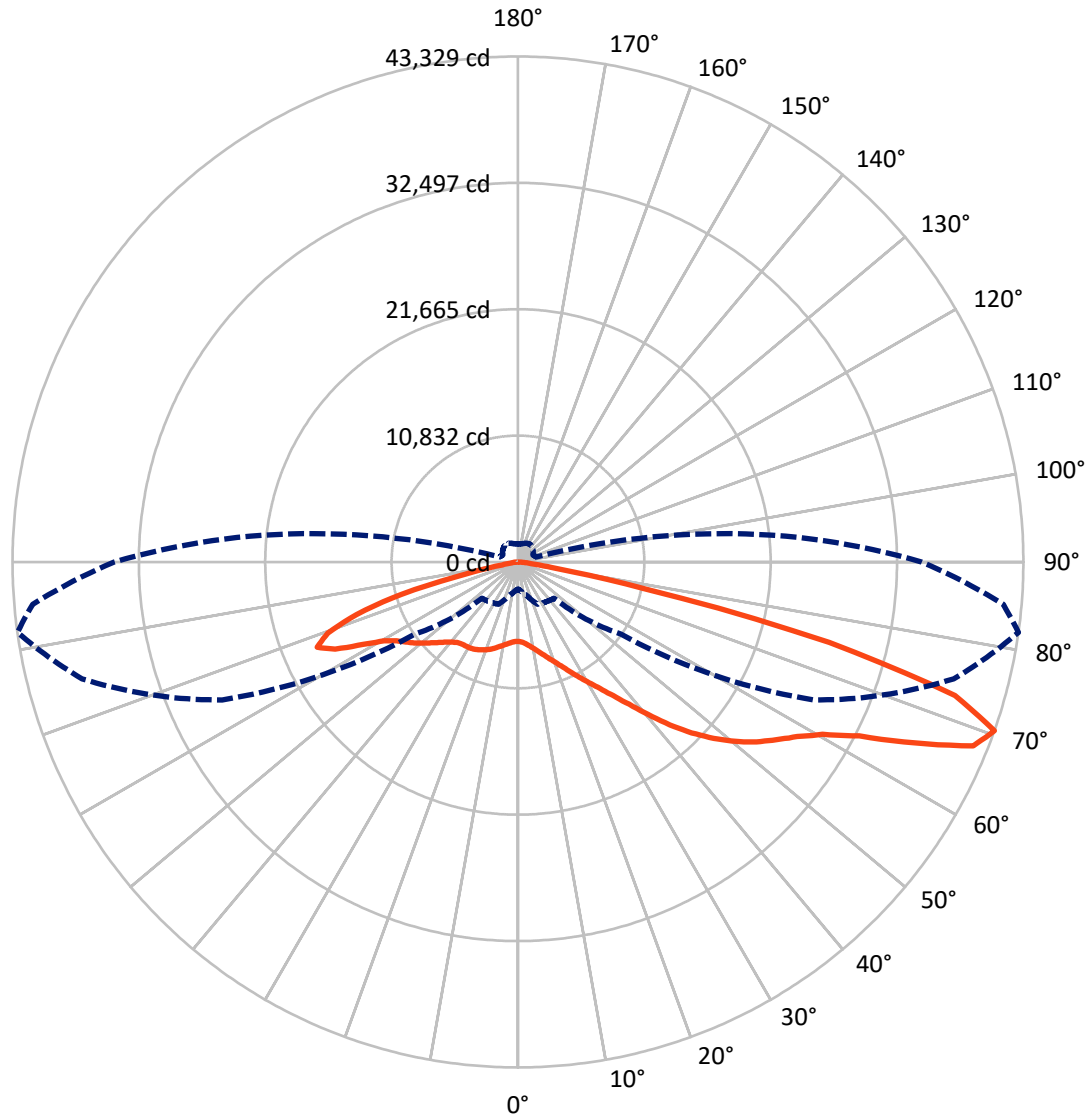
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.4 fc
 Type II - Medium - N/A

REPORT NUMBER: P884767
CATALOG NUMBER: NAV-SB5D-727-U-T2

Luminous Intensity Polar Plot



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

REPORT NUMBER: P884767
 CATALOG NUMBER: NAV-SB5D-727-U-T2

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11430.6	0.0	11430.6
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	34936.4	0.0	34936.4
	% Fixture	75.3	0.0	75.3
Total	Lumens	46367.0	0.0	46367.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	641.9	1.4
10°-20°	1844.1	4.0
20°-30°	3084.9	6.7
30°-40°	4819.5	10.4
40°-50°	7675.6	16.6
50°-60°	10681.5	23.0
60°-70°	11173.3	24.1
70°-80°	5839.8	12.6
80°-90°	606.4	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°	46367.0	100.0
0°-180°	46367.0	100.0

Coefficient of Utilization



REPORT NUMBER: P884767

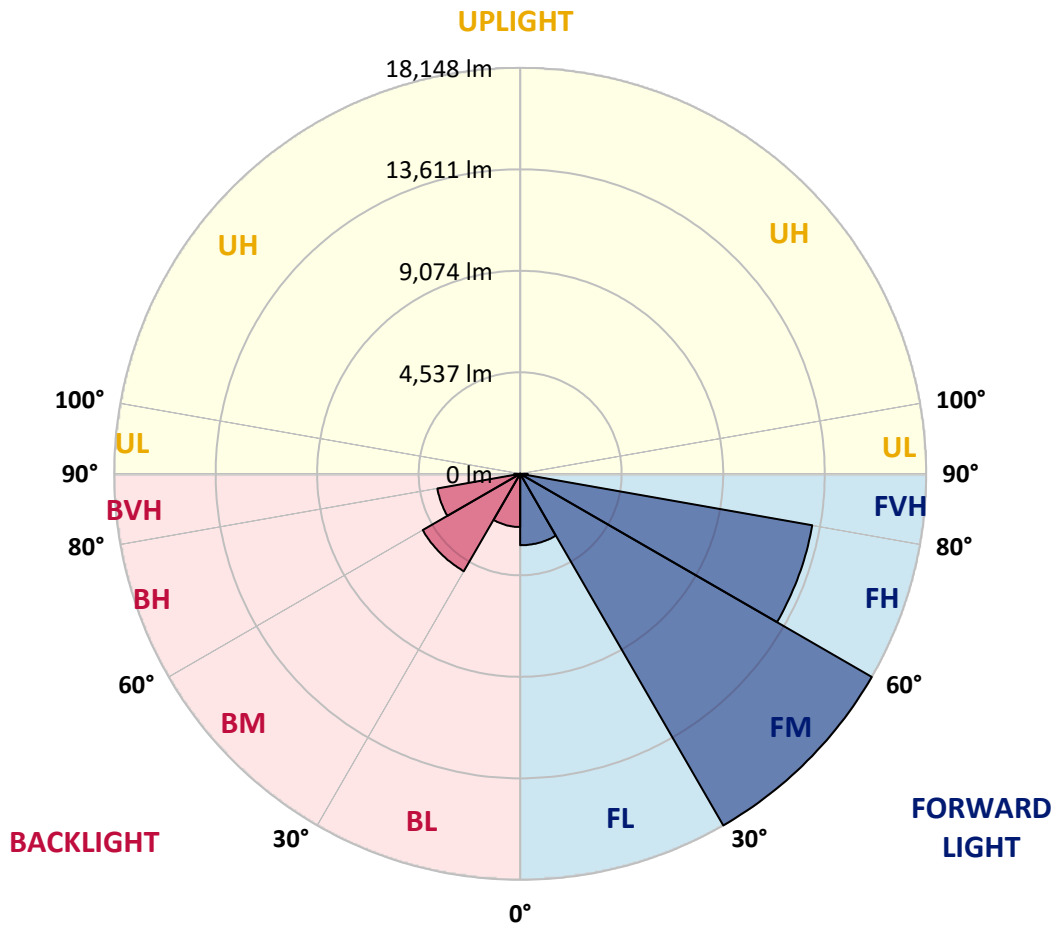
CATALOG NUMBER: NAV-SB5D-727-U-T2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3192.9	6.9			
FM (30°-60°)	18147.6	39.1			
FH (60°-80°)	13256.5	28.6			G5
FVH (80°-90°)	339.5	0.7			G3/500
BL (0°-30°)	2378.0	5.1	B3/2500		
BM (30°-60°)	5029.0	10.8	B4/8500		
BH (60°-80°)	3756.7	8.1	B4/5000		G4/5000
BVH (80°-90°)	266.9	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



REPORT NUMBER: P884767

CATALOG NUMBER: NAV-SB5D-727-U-T2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	6798.0	6798.0	6798.0	6798.0	6798.0	6798.0	6798.0	6798.0	6798.0	6798.0	6798.0
2.5°	6960.4	6999.7	6987.4	6975.1	6975.1	6957.9	6955.4	6930.8	6911.2	6879.2	6871.8
5°	7048.9	7090.8	7085.8	7095.7	7127.7	7135.1	7142.4	7127.7	7088.3	7048.9	7031.7
7.5°	6970.2	7017.0	7031.7	7090.8	7189.2	7277.8	7344.2	7371.2	7334.3	7277.8	7250.7
10°	6704.5	6756.2	6807.8	6948.1	7122.7	7331.9	7509.0	7614.8	7607.4	7553.3	7506.6
12.5°	6165.7	6219.8	6330.5	6603.6	6923.5	7292.5	7622.2	7843.6	7919.9	7880.5	7799.3
15°	5735.1	5781.9	5865.5	6146.0	6561.8	7122.7	7664.0	8094.6	8289.0	8266.8	8168.4
17.5°	5722.8	5742.5	5794.2	5927.0	6246.9	6857.0	7619.7	8340.6	8712.1	8709.7	8586.7
20°	5939.3	5946.7	5976.2	6003.3	6185.4	6655.3	7506.6	8544.8	9187.0	9187.0	9054.1
22.5°	6239.5	6234.6	6264.1	6239.5	6328.1	6638.1	7435.2	8724.4	9716.0	9755.3	9588.0
25°	6689.7	6665.1	6657.7	6601.2	6618.4	6798.0	7513.9	8928.7	10343.4	10424.6	10215.4
27.5°	7290.1	7250.7	7223.6	7093.2	7048.9	7127.7	7755.1	9174.7	11042.1	11182.3	10916.6
30°	8072.4	8001.1	7961.7	7735.4	7575.5	7587.8	8119.2	9501.9	11772.8	11999.2	11662.1
32.5°	9140.2	9029.5	8923.7	8552.2	8259.4	8163.5	8589.1	9954.6	12565.1	12926.7	12493.7
35°	10336.0	10247.4	10134.2	9561.0	9110.7	8889.3	9223.9	10586.9	13492.6	14065.9	13502.5
37.5°	11487.4	11411.2	11465.3	10692.7	10112.1	9789.8	10055.5	11435.8	14636.7	15483.1	14767.1
40°	12678.2	12619.2	12626.6	11888.5	11211.9	10850.2	11064.3	12501.1	15948.1	17168.4	16287.6
42.5°	13972.4	13928.1	13780.5	13126.0	12365.8	12028.7	12225.5	13731.3	17355.4	19087.5	17955.7
45°	15421.6	15394.5	15256.7	14506.3	13635.3	13256.4	13522.2	15089.4	18770.1	20893.4	19631.2
47.5°	16673.9	16696.0	16678.8	16046.5	15143.5	14587.5	14904.9	16506.6	20086.4	22591.0	21237.9
50°	17276.7	17392.3	17562.1	17365.2	16804.3	16238.4	16299.9	17874.5	21341.2	24182.9	22778.0
52.5°	16961.7	17180.7	17643.3	17958.2	18174.7	18056.6	17891.8	19232.7	22522.2	25619.8	24234.6
55°	15788.1	16095.7	16863.3	17623.6	18728.3	19586.9	19803.5	20738.4	23673.6	26884.4	25612.4
57.5°	13650.1	14149.5	14838.4	16376.2	18236.2	20327.5	22032.5	22827.2	24893.9	28235.1	27054.1
60°	9984.2	10653.4	11509.6	13797.7	16514.0	19931.4	23929.5	26035.6	26628.5	29984.4	28931.4
62.5°	6389.6	6802.9	7590.2	9745.5	12867.7	17901.6	24510.1	30045.9	29568.6	32853.2	31746.1
65°	4374.5	4640.2	5361.1	6571.6	8318.5	13325.3	22955.2	33052.5	34238.4	37400.0	36558.5
67.5°	3178.8	3380.5	3995.6	5056.0	5420.2	7885.5	17813.0	32914.7	38777.8	42084.5	40775.6
70°	2317.7	2460.4	2977.0	3995.6	4170.3	4386.8	10791.2	27979.2	38679.4	43329.4	41762.2
72.5°	1717.3	1815.7	2162.7	3100.1	3375.6	2962.3	5341.4	20334.9	33237.0	39191.1	37933.9
75°	1242.5	1316.3	1572.2	2371.8	2701.5	2256.2	2664.6	11883.6	23184.0	27568.4	27789.8
77.5°	949.7	1006.3	1173.6	1737.0	2162.7	1692.7	1653.4	5466.9	10992.9	11047.0	11667.0
80°	762.7	799.6	890.7	1222.8	1658.3	1267.1	1077.6	2206.9	3474.0	2940.1	3085.3
82.5°	561.0	622.5	752.9	858.7	1185.9	873.4	656.9	1114.5	1321.2	1136.7	1146.5
85°	319.8	361.7	455.2	615.1	757.8	533.9	376.4	494.5	615.1	504.4	450.2
87.5°	113.2	147.6	159.9	241.1	329.7	221.4	145.2	142.7	201.7	150.1	125.5
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: P884767

CATALOG NUMBER: NAV-SB5D-727-U-T2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6798.0	6798.0	6798.0	6798.0	6798.0	6798.0	6798.0	6798.0	6798.0	6798.0	6798.0
2.5°	6847.2	6834.9	6785.7	6719.3	6650.4	6583.9	6561.8	6515.0	6483.1	6465.8	6485.5
5°	6985.0	6945.6	6830.0	6682.3	6527.3	6360.0	6241.9	6133.7	6055.0	5981.1	6010.7
7.5°	7181.8	7112.9	6913.6	6655.3	6379.7	6101.7	5895.0	5737.6	5631.8	5562.9	5577.6
10°	7410.6	7304.8	6999.7	6613.5	6187.8	5789.2	5545.7	5410.3	5343.9	5307.0	5316.8
12.5°	7673.9	7523.8	7088.3	6517.5	5895.0	5439.9	5272.6	5233.2	5235.7	5238.1	5243.0
15°	7998.6	7789.5	7159.7	6308.4	5513.7	5171.7	5142.2	5206.1	5272.6	5304.5	5302.1
17.5°	8365.2	8070.0	7172.0	5963.9	5139.7	4999.5	5093.0	5230.7	5331.6	5375.9	5385.7
20°	8758.9	8355.4	7083.4	5476.8	4832.2	4859.2	5026.5	5203.7	5314.4	5371.0	5385.7
22.5°	9209.1	8660.5	6871.8	4965.0	4581.2	4706.7	4903.5	5075.7	5191.4	5248.0	5262.7
25°	9723.4	9002.5	6539.6	4534.4	4364.7	4534.4	4731.3	4874.0	4967.5	5019.1	5033.9
27.5°	10294.2	9359.2	6096.8	4192.5	4175.2	4357.3	4519.7	4630.4	4679.6	4719.0	4733.7
30°	10867.4	9684.0	5560.4	3934.1	4010.4	4182.6	4298.3	4347.5	4362.2	4369.6	4386.8
32.5°	11487.4	9964.5	4997.0	3720.1	3852.9	4012.9	4081.7	4103.9	4035.0	3988.2	4003.0
35°	12237.8	10264.6	4445.9	3550.3	3697.9	3835.7	3857.8	3838.2	3757.0	3661.0	3665.9
37.5°	13165.4	10638.6	4005.5	3429.7	3552.8	3643.8	3616.7	3611.8	3619.2	3506.0	3513.4
40°	14302.1	11125.8	3683.2	3336.3	3434.7	3454.3	3378.1	3419.9	3456.8	3284.6	3289.5
42.5°	15564.3	11713.8	3479.0	3272.3	3336.3	3289.5	3171.4	3218.2	3213.2	2986.9	2984.4
45°	16851.0	12353.5	3407.6	3225.5	3245.2	3151.7	3021.3	3033.6	2930.3	2726.1	2733.5
47.5°	18130.4	13039.9	3451.9	3186.2	3132.0	3026.2	2925.4	2871.2	2718.7	2566.2	2566.2
50°	19385.2	13760.8	3614.3	3107.4	2977.0	2915.5	2841.7	2745.8	2583.4	2453.0	2443.1
52.5°	20548.9	14486.6	3796.3	2977.0	2782.7	2819.6	2772.8	2662.1	2502.2	2369.3	2371.8
55°	21651.2	15212.4	3867.7	2797.4	2600.6	2735.9	2708.9	2504.6	2312.7	2204.5	2194.6
57.5°	22851.8	16085.9	3789.0	2568.6	2453.0	2640.0	2536.6	2310.3	2199.6	2118.4	2111.0
60°	24515.1	17456.3	3619.2	2285.7	2312.7	2497.3	2320.1	2226.6	2106.1	2015.0	2010.1
62.5°	27278.0	20012.6	3346.1	2005.2	2147.9	2285.7	2216.8	2123.3	2000.3	1911.7	1911.7
65°	31362.2	23565.4	2831.9	1786.2	1963.4	2079.0	2106.1	2012.6	1884.6	1791.1	1796.1
67.5°	34806.8	25794.4	2143.0	1604.2	1773.9	1911.7	1988.0	1896.9	1761.6	1670.6	1673.0
70°	34617.3	24175.5	1636.1	1424.5	1606.6	1746.9	1845.3	1773.9	1628.8	1542.6	1550.0
72.5°	30747.2	20224.2	1323.7	1242.5	1436.9	1574.6	1692.7	1638.6	1491.0	1407.3	1407.3
75°	22588.6	14356.2	1058.0	1058.0	1225.3	1395.0	1525.4	1491.0	1355.7	1296.6	1279.4
77.5°	9521.6	6023.0	829.1	878.3	1018.6	1198.2	1360.6	1372.9	1254.8	1328.6	1205.6
80°	2531.7	1660.7	632.3	691.4	799.6	989.1	1183.4	1178.5	1050.6	981.7	912.8
82.5°	964.5	654.5	450.2	487.2	578.2	757.8	937.4	966.9	839.0	725.8	725.8
85°	371.5	280.5	278.0	292.8	337.1	501.9	708.6	733.2	632.3	536.4	553.6
87.5°	96.0	83.7	103.3	98.4	155.0	268.2	406.0	420.7	386.3	223.9	319.8
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)