

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: P884087

Luminaire Tested: **NAV-SB4D-727-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884087
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-SB4D-727-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 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: 37031 lumens
Efficiency: N/A
Efficacy: 126.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B4 - U0 - G4

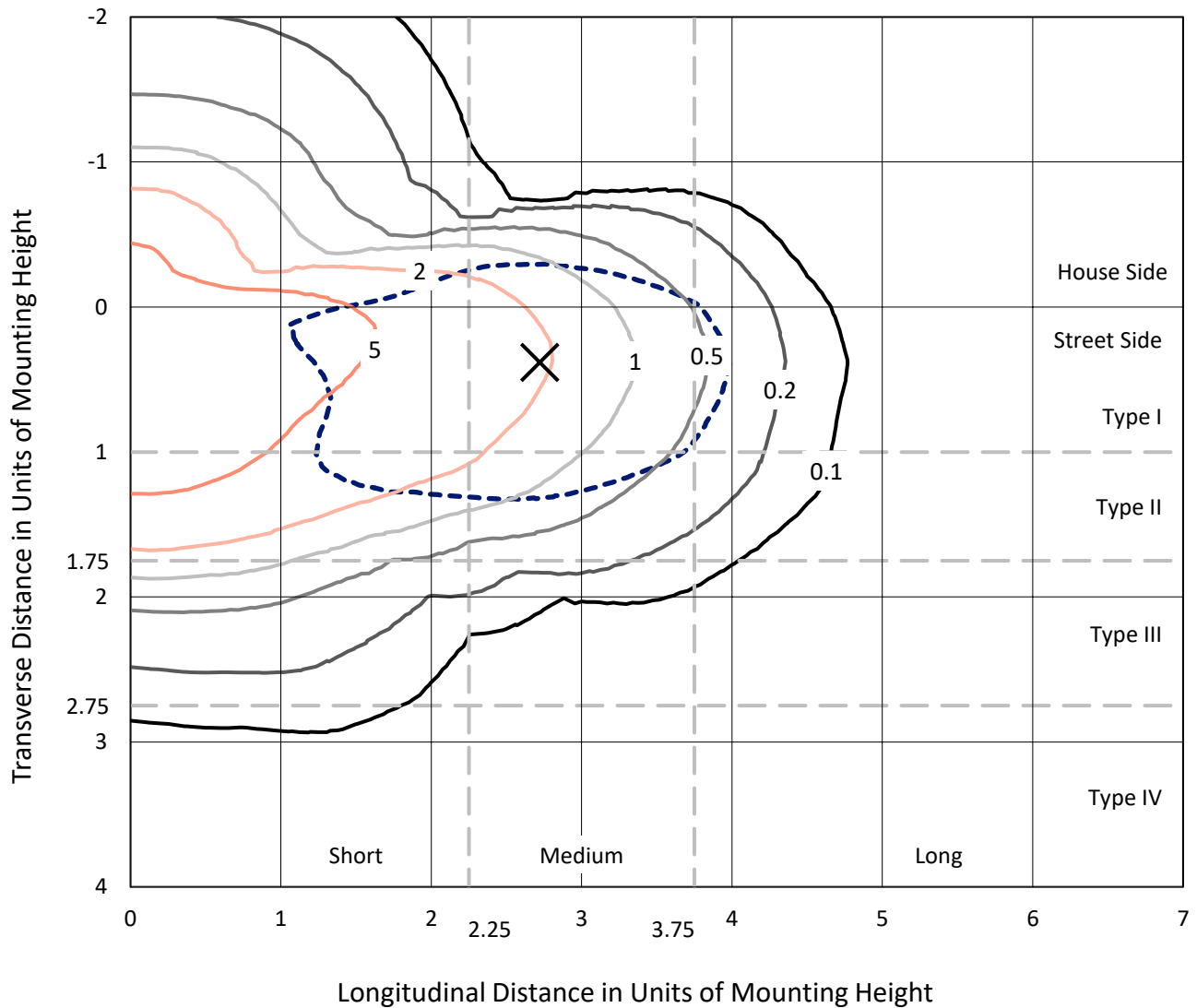
Input Watts (W): 293.6
Input Voltage (V): 120.0
Input Current (Ain): 2.469
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P884087
 CATALOG NUMBER: NAV-SB4D-727-U-T2

Iso-Footcandle Lines of Horizontal Illumination

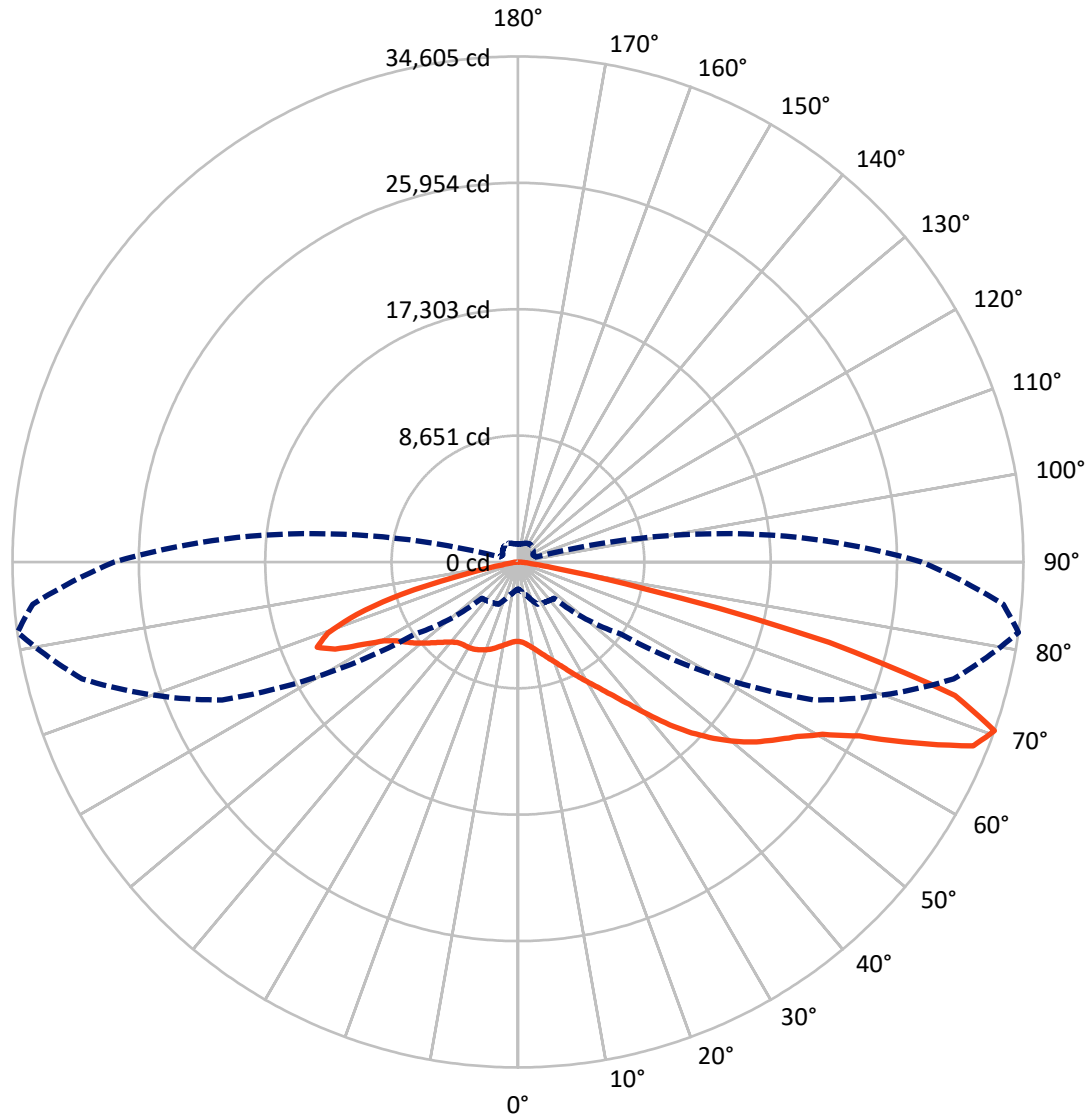
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.9 fc
 Type II - Medium - N/A

REPORT NUMBER: P884087
CATALOG NUMBER: NAV-SB4D-727-U-T2

Luminous Intensity Polar Plot



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

REPORT NUMBER: P884087
 CATALOG NUMBER: NAV-SB4D-727-U-T2

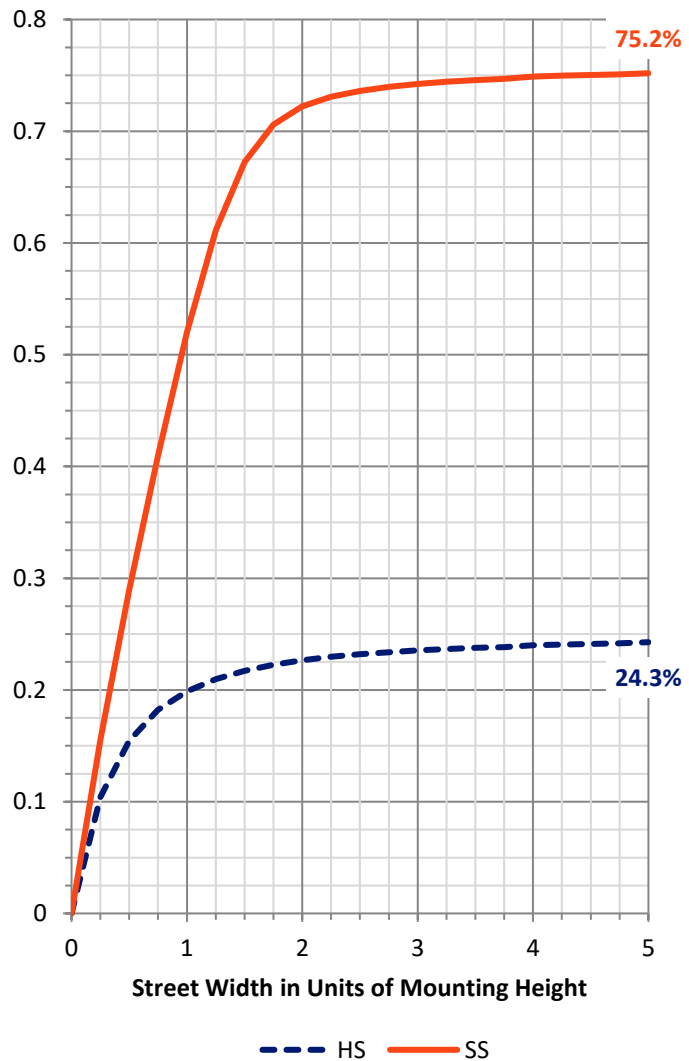
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9129.1	0.0	9129.1
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	27902.0	0.0	27902.0
	% Fixture	75.3	0.0	75.3
Total	Lumens	37031.0	0.0	37031.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	512.6	1.4
10°-20°	1472.8	4.0
20°-30°	2463.8	6.7
30°-40°	3849.1	10.4
40°-50°	6130.1	16.6
50°-60°	8530.8	23.0
60°-70°	8923.6	24.1
70°-80°	4664.0	12.6
80°-90°	484.3	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°	37031.0	100.0
0°-180°	37031.0	100.0

Coefficient of Utilization



REPORT NUMBER: P884087

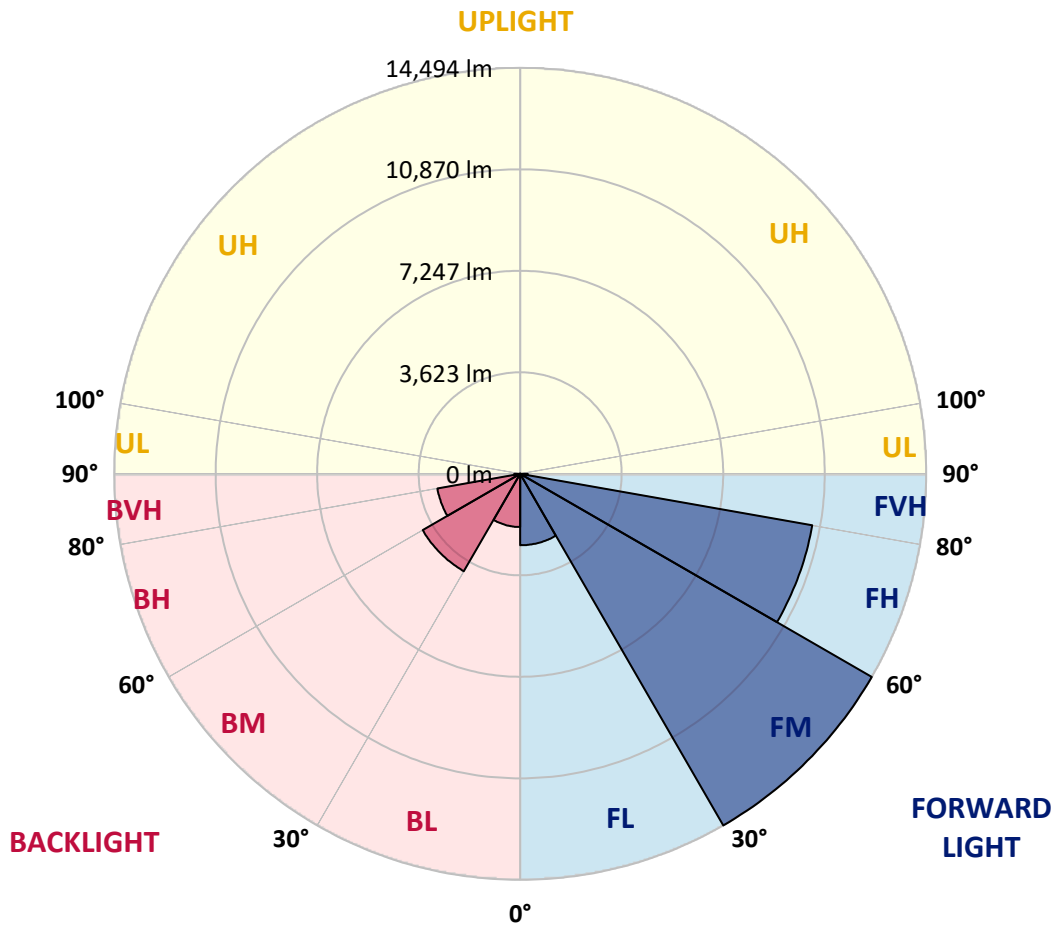
CATALOG NUMBER: NAV-SB4D-727-U-T2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2550.0	6.9			
FM (30°-60°)	14493.6	39.1			
FH (60°-80°)	10587.3	28.6			G4/12000
FVH (80°-90°)	271.1	0.7			G3/500
BL (0°-30°)	1899.2	5.1	B3/2500		
BM (30°-60°)	4016.4	10.8	B3/5000		
BH (60°-80°)	3000.3	8.1	B4/5000		G4/5000
BVH (80°-90°)	213.2	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Medium



REPORT NUMBER: P884087
 CATALOG NUMBER: NAV-SB4D-727-U-T2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	5429.2	5429.2	5429.2	5429.2	5429.2	5429.2	5429.2	5429.2	5429.2	5429.2	5429.2
2.5°	5558.9	5590.3	5580.5	5570.7	5570.7	5556.9	5555.0	5535.3	5519.6	5494.1	5488.2
5°	5629.6	5663.0	5659.1	5667.0	5692.5	5698.4	5704.3	5692.5	5661.1	5629.6	5615.9
7.5°	5566.8	5604.1	5615.9	5663.0	5741.6	5812.4	5865.4	5887.0	5857.6	5812.4	5790.8
10°	5354.5	5395.8	5437.1	5549.1	5688.6	5855.6	5997.1	6081.6	6075.7	6032.5	5995.1
12.5°	4924.2	4967.4	5055.9	5274.0	5529.4	5824.2	6087.5	6264.3	6325.2	6293.8	6228.9
15°	4580.3	4617.7	4684.5	4908.5	5240.6	5688.6	6120.9	6464.7	6620.0	6602.3	6523.7
17.5°	4570.5	4586.2	4627.5	4733.6	4989.1	5476.4	6085.5	6661.2	6958.0	6956.0	6857.7
20°	4743.4	4749.3	4772.9	4794.5	4939.9	5315.2	5995.1	6824.3	7337.2	7337.2	7231.1
22.5°	4983.2	4979.2	5002.8	4983.2	5053.9	5301.5	5938.1	6967.8	7759.7	7791.1	7657.5
25°	5342.7	5323.1	5317.2	5272.0	5285.8	5429.2	6001.0	7130.9	8260.7	8325.6	8158.5
27.5°	5822.2	5790.8	5769.1	5665.0	5629.6	5692.5	6193.6	7327.4	8818.8	8930.8	8718.6
30°	6447.1	6390.1	6358.6	6177.9	6050.1	6060.0	6484.4	7588.7	9402.4	9583.2	9314.0
32.5°	7299.9	7211.4	7126.9	6830.2	6596.4	6519.8	6859.7	7950.3	10035.1	10323.9	9978.1
35°	8254.8	8184.1	8093.7	7635.9	7276.3	7099.4	7366.7	8455.3	10775.9	11233.7	10783.7
37.5°	9174.4	9113.5	9156.8	8539.8	8076.0	7818.6	8030.8	9133.2	11689.6	12365.5	11793.7
40°	10125.5	10078.3	10084.2	9494.7	8954.4	8665.5	8836.5	9984.0	12736.9	13711.5	13008.1
42.5°	11159.1	11123.7	11005.8	10483.1	9875.9	9606.7	9763.9	10966.5	13860.9	15244.2	14340.3
45°	12316.4	12294.8	12184.8	11585.5	10889.9	10587.2	10799.5	12051.2	14990.7	16686.5	15678.5
47.5°	13316.6	13334.3	13320.5	12815.5	12094.4	11650.3	11903.8	13183.0	16042.0	18042.3	16961.6
50°	13798.0	13890.4	14025.9	13868.7	13420.7	12968.8	13017.9	14275.5	17044.1	19313.7	18191.7
52.5°	13546.5	13721.4	14090.8	14342.3	14515.2	14420.9	14289.3	15360.2	17987.3	20461.2	19354.9
55°	12609.2	12854.8	13467.9	14075.1	14957.3	15643.1	15816.0	16562.7	18906.9	21471.2	20455.3
57.5°	10901.6	11300.5	11850.7	13078.8	14564.3	16234.6	17596.3	18231.0	19881.6	22550.0	21606.8
60°	7973.8	8508.3	9192.1	11019.5	13188.9	15918.2	19111.3	20793.3	21266.9	23947.1	23106.1
62.5°	5103.0	5433.1	6061.9	7783.2	10276.8	14297.1	19575.0	23996.2	23615.0	26238.2	25354.0
65°	3493.7	3705.9	4281.7	5248.4	6643.6	10642.3	18333.2	26397.4	27344.5	29869.5	29197.5
67.5°	2538.7	2699.9	3191.1	4038.0	4328.8	6297.7	14226.4	26287.3	30969.9	33610.8	32565.4
70°	1851.0	1965.0	2377.6	3191.1	3330.6	3503.5	8618.4	22345.6	30891.3	34605.1	33353.4
72.5°	1371.5	1450.1	1727.2	2475.9	2695.9	2365.8	4265.9	16240.5	26544.8	31300.0	30295.9
75°	992.3	1051.3	1255.6	1894.2	2157.5	1801.9	2128.1	9490.8	18515.9	22017.5	22194.3
77.5°	758.5	803.7	937.3	1387.3	1727.2	1351.9	1320.5	4366.2	8779.5	8822.7	9317.9
80°	609.1	638.6	711.3	976.6	1324.4	1012.0	860.7	1762.6	2774.5	2348.1	2464.1
82.5°	448.0	497.1	601.3	685.8	947.1	697.6	524.6	890.1	1055.2	907.8	915.7
85°	255.4	288.9	363.5	491.2	605.2	426.4	300.6	395.0	491.2	402.8	359.6
87.5°	90.4	117.9	127.7	192.6	263.3	176.8	115.9	114.0	161.1	119.9	100.2
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: P884087
 CATALOG NUMBER: NAV-SB4D-727-U-T2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5429.2	5429.2	5429.2	5429.2	5429.2	5429.2	5429.2	5429.2	5429.2	5429.2	5429.2
2.5°	5468.5	5458.7	5419.4	5366.3	5311.3	5258.3	5240.6	5203.2	5177.7	5163.9	5179.7
5°	5578.5	5547.1	5454.8	5336.9	5213.1	5079.4	4985.1	4898.7	4835.8	4776.8	4800.4
7.5°	5735.7	5680.7	5521.6	5315.2	5095.2	4873.1	4708.1	4582.3	4497.8	4442.8	4454.6
10°	5918.5	5834.0	5590.3	5281.8	4941.9	4623.6	4429.0	4321.0	4267.9	4238.4	4246.3
12.5°	6128.7	6008.9	5661.1	5205.2	4708.1	4344.5	4210.9	4179.5	4181.5	4183.4	4187.3
15°	6388.1	6221.1	5718.1	5038.2	4403.5	4130.4	4106.8	4157.9	4210.9	4236.5	4234.5
17.5°	6680.9	6445.1	5727.9	4763.1	4104.8	3992.8	4067.5	4177.5	4258.1	4293.5	4301.3
20°	6995.3	6673.0	5657.1	4374.0	3859.2	3880.8	4014.4	4155.9	4244.3	4289.5	4301.3
22.5°	7354.9	6916.7	5488.2	3965.3	3658.8	3759.0	3916.2	4053.7	4146.1	4191.3	4203.1
25°	7765.6	7189.8	5222.9	3621.4	3485.9	3621.4	3778.6	3892.6	3967.3	4008.5	4020.3
27.5°	8221.4	7474.7	4869.2	3348.3	3334.6	3480.0	3609.6	3698.1	3737.4	3768.8	3780.6
30°	8679.3	7734.1	4440.8	3142.0	3202.9	3340.4	3432.8	3472.1	3483.9	3489.8	3503.5
32.5°	9174.4	7958.1	3990.9	2971.0	3077.1	3204.9	3259.9	3277.6	3222.5	3185.2	3197.0
35°	9773.8	8197.8	3550.7	2835.4	2953.3	3063.4	3081.1	3065.4	3000.5	2923.9	2927.8
37.5°	10514.5	8496.5	3199.0	2739.2	2837.4	2910.1	2888.5	2884.6	2890.5	2800.1	2806.0
40°	11422.4	8885.6	2941.6	2664.5	2743.1	2758.8	2697.9	2731.3	2760.8	2623.2	2627.2
42.5°	12430.4	9355.2	2778.5	2613.4	2664.5	2627.2	2532.8	2570.2	2566.2	2385.5	2383.5
45°	13458.1	9866.1	2721.5	2576.1	2591.8	2517.1	2413.0	2422.8	2340.3	2177.2	2183.1
47.5°	14479.9	10414.3	2756.9	2544.6	2501.4	2416.9	2336.3	2293.1	2171.3	2049.5	2049.5
50°	15482.0	10990.1	2886.5	2481.8	2377.6	2328.5	2269.5	2192.9	2063.2	1959.1	1951.2
52.5°	16411.4	11569.7	3031.9	2377.6	2222.4	2251.9	2214.5	2126.1	1998.4	1892.3	1894.2
55°	17291.7	12149.4	3088.9	2234.2	2077.0	2185.0	2163.4	2000.3	1847.1	1760.6	1752.8
57.5°	18250.6	12847.0	3026.1	2051.4	1959.1	2108.4	2025.9	1845.1	1756.7	1691.8	1685.9
60°	19578.9	13941.5	2890.5	1825.5	1847.1	1994.4	1853.0	1778.3	1682.0	1609.3	1605.4
62.5°	21785.6	15983.1	2672.4	1601.4	1715.4	1825.5	1770.4	1695.8	1597.5	1526.8	1526.8
65°	25047.5	18820.5	2261.7	1426.6	1568.0	1660.4	1682.0	1607.3	1505.2	1430.5	1434.4
67.5°	27798.4	20600.7	1711.5	1281.2	1416.7	1526.8	1587.7	1515.0	1406.9	1334.2	1336.2
70°	27647.1	19307.8	1306.7	1137.7	1283.1	1395.1	1473.7	1416.7	1300.8	1232.0	1237.9
72.5°	24556.2	16152.0	1057.2	992.3	1147.5	1257.6	1351.9	1308.7	1190.8	1124.0	1124.0
75°	18040.4	11465.6	844.9	844.9	978.6	1114.1	1218.3	1190.8	1082.7	1035.5	1021.8
77.5°	7604.4	4810.2	662.2	701.5	813.5	956.9	1086.6	1096.5	1002.1	1061.1	962.8
80°	2022.0	1326.4	505.0	552.2	638.6	789.9	945.1	941.2	839.0	784.0	729.0
82.5°	770.3	522.7	359.6	389.1	461.8	605.2	748.7	772.2	670.1	579.7	579.7
85°	296.7	224.0	222.0	233.8	269.2	400.9	565.9	585.6	505.0	428.4	442.1
87.5°	76.6	66.8	82.5	78.6	123.8	214.2	324.2	336.0	308.5	178.8	255.4
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)