

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: P884827

Luminaire Tested: **NAV-SB5D-827-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884827
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-827-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 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: 41571 lumens
Efficiency: N/A
Efficacy: 113.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B4 - U0 - G4

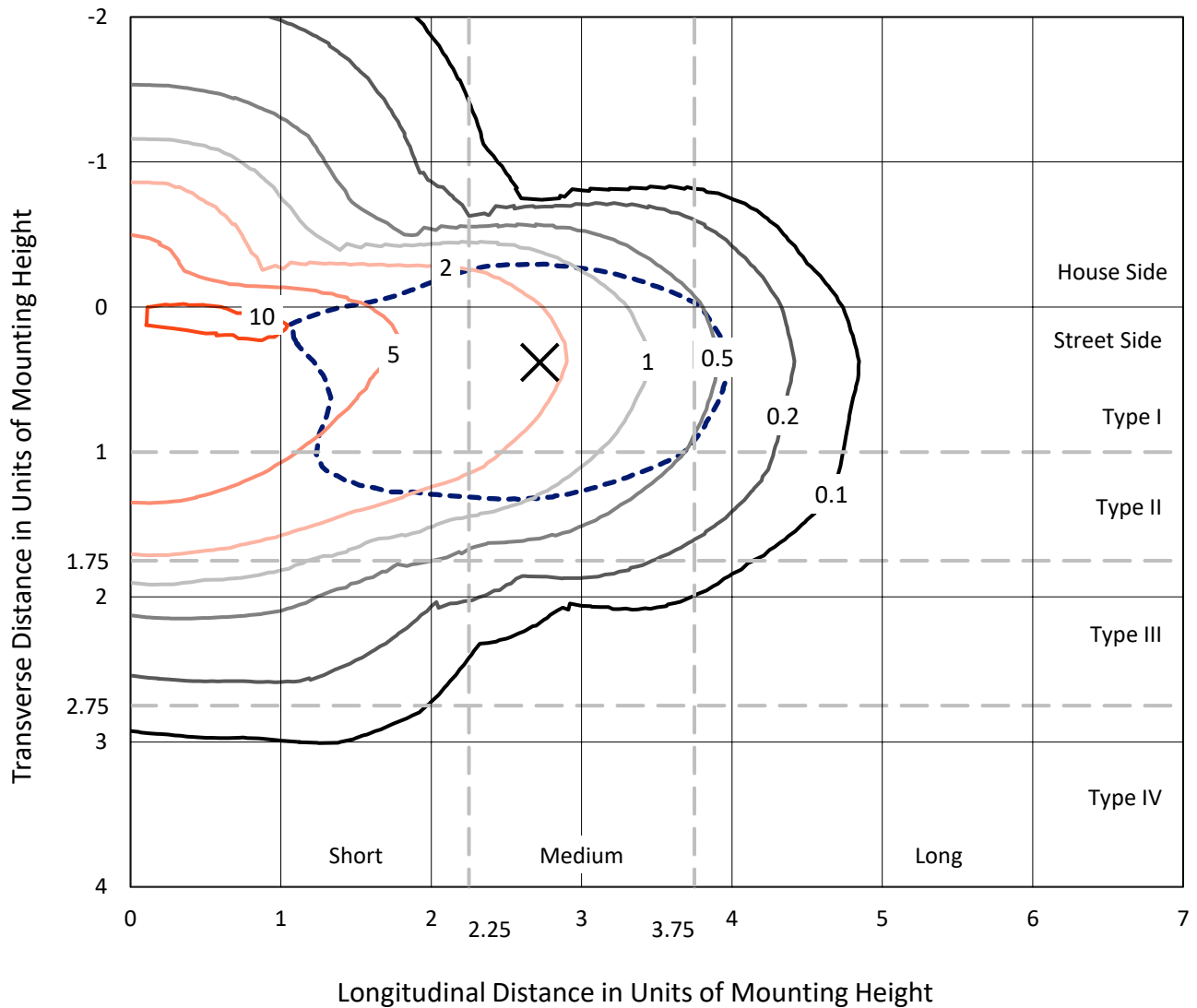
Input Watts (W): 364.9
Input Voltage (V): 120.0
Input Current (Ain): 3.094
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 3.28
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

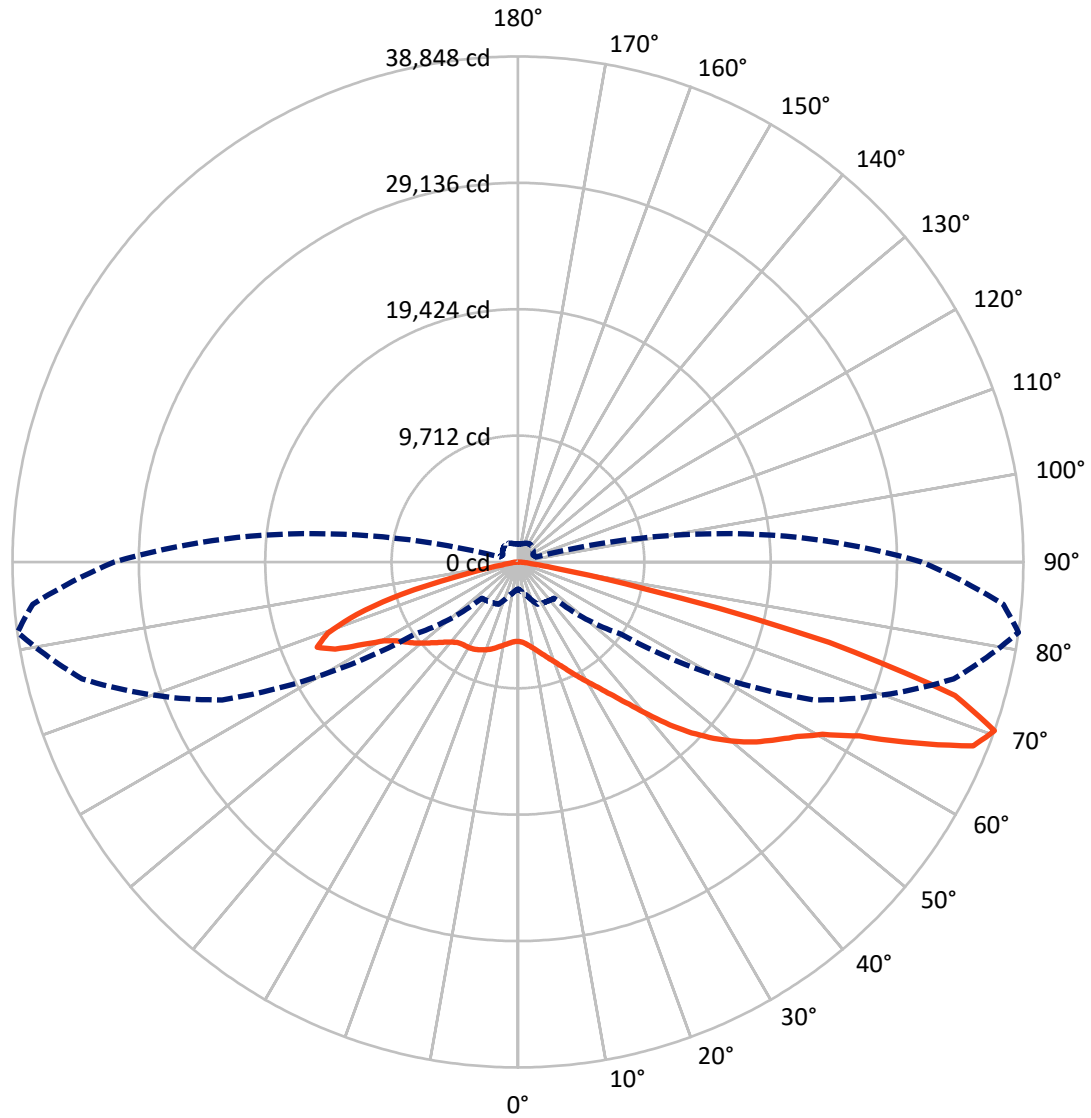
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.1 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	10248.3	0.0	10248.3
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	31322.7	0.0	31322.7
	% Fixture	75.3	0.0	75.3
Total	Lumens	41571.0	0.0	41571.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	575.5	1.4
10°-20°	1653.3	4.0
20°-30°	2765.9	6.7
30°-40°	4321.0	10.4
40°-50°	6881.7	16.6
50°-60°	9576.7	23.0
60°-70°	10017.6	24.1
70°-80°	5235.8	12.6
80°-90°	543.7	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°	41571.0	100.0
0°-180°	41571.0	100.0

Coefficient of Utilization

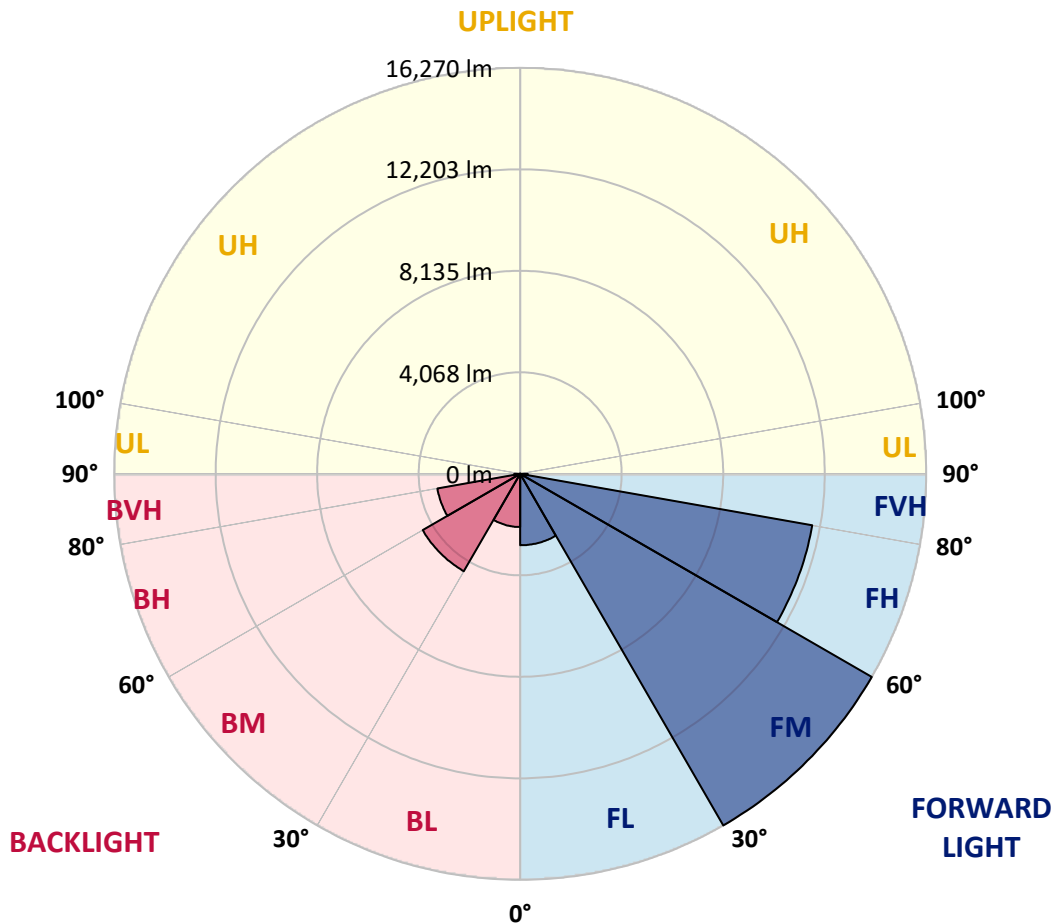


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2862.6	6.9			
FM (30°-60°)	16270.5	39.1			
FH (60°-80°)	11885.3	28.6			G4/12000
FVH (80°-90°)	304.4	0.7			G3/500
BL (0°-30°)	2132.0	5.1	B3/2500		
BM (30°-60°)	4508.8	10.8	B3/5000		
BH (60°-80°)	3368.1	8.1	B4/5000		G4/5000
BVH (80°-90°)	239.3	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-G4
 Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	6094.8	6094.8	6094.8	6094.8	6094.8	6094.8	6094.8	6094.8	6094.8	6094.8	6094.8
2.5°	6240.4	6275.7	6264.7	6253.7	6253.7	6238.2	6236.0	6213.9	6196.3	6167.6	6161.0
5°	6319.8	6357.3	6352.9	6361.7	6390.4	6397.0	6403.7	6390.4	6355.1	6319.8	6304.4
7.5°	6249.2	6291.2	6304.4	6357.3	6445.6	6525.0	6584.5	6608.8	6575.7	6525.0	6500.7
10°	6011.0	6057.3	6103.7	6229.4	6386.0	6573.5	6732.3	6827.2	6820.6	6772.0	6730.1
12.5°	5527.9	5576.4	5675.7	5920.6	6207.3	6538.2	6833.8	7032.3	7100.7	7065.4	6992.6
15°	5141.9	5183.8	5258.8	5510.3	5883.1	6386.0	6871.3	7257.3	7431.6	7411.7	7323.5
17.5°	5130.9	5148.5	5194.8	5313.9	5600.7	6147.8	6831.6	7477.9	7811.0	7808.8	7698.5
20°	5325.0	5331.6	5358.1	5382.3	5545.6	5966.9	6730.1	7661.0	8236.7	8236.7	8117.6
22.5°	5594.1	5589.7	5616.2	5594.1	5673.5	5951.4	6666.1	7822.0	8711.0	8746.3	8596.3
25°	5997.8	5975.7	5969.1	5918.4	5933.8	6094.8	6736.7	8005.1	9273.5	9346.3	9158.8
27.5°	6536.0	6500.7	6476.4	6359.5	6319.8	6390.4	6952.9	8225.7	9900.0	10025.7	9787.5
30°	7237.5	7173.5	7138.2	6935.3	6791.9	6802.9	7279.4	8519.1	10555.1	10758.0	10455.8
32.5°	8194.8	8095.6	8000.7	7667.6	7405.1	7319.1	7700.7	8925.0	11265.4	11589.7	11201.4
35°	9266.9	9187.5	9086.0	8572.0	8168.3	7969.8	8269.8	9491.9	12097.0	12611.0	12105.8
37.5°	10299.2	10230.8	10279.4	9586.7	9066.1	8777.2	9015.4	10252.9	13122.7	13881.6	13239.7
40°	11366.9	11313.9	11320.5	10658.8	10052.2	9727.9	9919.8	11208.0	14298.5	15392.6	14602.9
42.5°	12527.2	12487.4	12355.1	11768.3	11086.7	10784.5	10961.0	12311.0	15560.2	17113.2	16098.5
45°	13826.4	13802.2	13678.6	13005.8	12225.0	11885.2	12123.5	13528.6	16828.6	18732.3	17600.7
47.5°	14949.2	14969.1	14953.6	14386.7	13577.2	13078.6	13363.2	14799.2	18008.8	20254.3	19041.1
50°	15489.6	15593.3	15745.5	15569.1	15066.1	14558.8	14613.9	16025.7	19133.7	21681.5	20422.0
52.5°	15207.3	15403.6	15818.3	16100.7	16294.8	16188.9	16041.1	17243.3	20192.6	22969.8	21727.9
55°	14155.1	14430.8	15119.1	15800.7	16791.1	17561.0	17755.1	18593.3	21224.9	24103.6	22963.1
57.5°	12238.2	12686.0	13303.6	14682.3	16349.9	18224.9	19753.6	20466.1	22319.0	25314.6	24255.8
60°	8951.4	9551.4	10319.1	12370.5	14805.8	17869.8	21454.3	23342.6	23874.2	26883.0	25938.9
62.5°	5728.7	6099.2	6805.1	8737.5	11536.7	16049.9	21974.9	26938.1	26510.2	29455.0	28462.4
65°	3922.0	4160.3	4806.6	5891.9	7458.1	11947.0	20580.8	29633.7	30696.9	33531.5	32777.1
67.5°	2850.0	3030.9	3582.3	4533.1	4859.5	7069.8	15970.5	29510.2	34766.8	37731.5	36557.9
70°	2077.9	2205.9	2669.1	3582.3	3739.0	3933.1	9675.0	25085.2	34678.5	38847.6	37442.5
72.5°	1539.7	1627.9	1939.0	2779.4	3026.5	2655.9	4789.0	18231.5	29799.1	35137.4	34010.2
75°	1114.0	1180.1	1409.6	2126.5	2422.0	2022.8	2389.0	10654.4	20785.9	24716.8	24915.3
77.5°	851.5	902.2	1052.2	1557.3	1939.0	1517.6	1482.3	4901.5	9855.8	9904.4	10460.3
80°	683.8	716.9	798.5	1096.3	1486.8	1136.0	966.2	1978.7	3114.7	2636.0	2766.2
82.5°	502.9	558.1	675.0	769.8	1063.2	783.1	589.0	999.3	1184.6	1019.1	1027.9
85°	286.8	324.3	408.1	551.5	679.4	478.7	337.5	443.4	551.5	452.2	403.7
87.5°	101.5	132.4	143.4	216.2	295.6	198.5	130.1	127.9	180.9	134.6	112.5
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°	6094.8	6094.8	6094.8	6094.8	6094.8	6094.8	6094.8	6094.8	6094.8	6094.8	6094.8
2.5°	6138.9	6127.9	6083.8	6024.2	5962.5	5902.9	5883.1	5841.2	5812.5	5797.0	5814.7
5°	6262.5	6227.2	6123.5	5991.2	5852.2	5702.2	5596.3	5499.2	5428.7	5362.5	5388.9
7.5°	6438.9	6377.2	6198.5	5966.9	5719.8	5470.6	5285.3	5144.1	5049.2	4987.5	5000.7
10°	6644.1	6549.2	6275.7	5929.4	5547.8	5190.4	4972.0	4850.7	4791.2	4758.1	4766.9
12.5°	6880.1	6745.6	6355.1	5843.4	5285.3	4877.2	4727.2	4691.9	4694.1	4696.3	4700.7
15°	7171.3	6983.8	6419.1	5655.9	4943.4	4636.7	4610.3	4667.6	4727.2	4755.9	4753.7
17.5°	7500.0	7235.3	6430.1	5347.0	4608.1	4482.3	4566.2	4689.7	4780.1	4819.8	4828.7
20°	7852.9	7491.1	6350.7	4910.3	4332.3	4356.6	4506.6	4665.4	4764.7	4815.4	4828.7
22.5°	8256.6	7764.7	6161.0	4451.5	4107.3	4219.8	4396.3	4550.7	4654.4	4705.1	4718.4
25°	8717.6	8071.3	5863.2	4065.4	3913.2	4065.4	4241.9	4369.8	4453.7	4500.0	4513.2
27.5°	9229.4	8391.1	5466.2	3758.8	3743.4	3906.6	4052.2	4151.5	4195.6	4230.9	4244.1
30°	9743.3	8682.3	4985.3	3527.2	3595.6	3750.0	3853.7	3897.8	3911.0	3917.6	3933.1
32.5°	10299.2	8933.8	4480.1	3335.3	3454.4	3597.8	3659.5	3679.4	3617.6	3575.7	3589.0
35°	10972.0	9202.9	3986.0	3183.1	3315.4	3439.0	3458.8	3441.2	3368.4	3282.3	3286.8
37.5°	11803.6	9538.2	3591.2	3075.0	3185.3	3266.9	3242.6	3238.2	3244.8	3143.4	3150.0
40°	12822.7	9975.0	3302.2	2991.2	3079.4	3097.0	3028.7	3066.2	3099.3	2944.8	2949.3
42.5°	13954.4	10502.2	3119.1	2933.8	2991.2	2949.3	2843.4	2885.3	2880.9	2677.9	2675.7
45°	15108.0	11075.7	3055.1	2891.9	2909.5	2825.7	2708.8	2719.8	2627.2	2444.1	2450.7
47.5°	16255.1	11691.1	3094.8	2856.6	2808.1	2713.2	2622.8	2574.3	2437.5	2300.7	2300.7
50°	17380.1	12337.5	3240.4	2786.0	2669.1	2614.0	2547.8	2461.8	2316.2	2199.3	2190.4
52.5°	18423.5	12988.2	3403.7	2669.1	2494.8	2527.9	2486.0	2386.8	2243.4	2124.3	2126.5
55°	19411.7	13638.9	3467.6	2508.1	2331.6	2452.9	2428.7	2245.6	2073.5	1976.5	1967.6
57.5°	20488.2	14422.0	3397.0	2302.9	2199.3	2366.9	2274.3	2071.3	1972.1	1899.3	1892.6
60°	21979.3	15650.7	3244.8	2049.3	2073.5	2239.0	2080.1	1996.3	1888.2	1806.6	1802.2
62.5°	24456.5	17942.6	3000.0	1797.8	1925.7	2049.3	1987.5	1903.7	1793.4	1714.0	1714.0
65°	28118.3	21127.9	2539.0	1601.5	1760.3	1864.0	1888.2	1804.4	1689.7	1605.9	1610.3
67.5°	31206.5	23126.4	1921.3	1438.2	1590.4	1714.0	1782.3	1700.7	1579.4	1497.8	1500.0
70°	31036.6	21674.9	1466.9	1277.2	1440.4	1566.2	1654.4	1590.4	1460.3	1383.1	1389.7
72.5°	27566.8	18132.3	1186.8	1114.0	1288.2	1411.8	1517.6	1469.1	1336.8	1261.8	1261.8
75°	20252.1	12871.3	948.5	948.5	1098.5	1250.7	1367.6	1336.8	1215.4	1162.5	1147.1
77.5°	8536.7	5400.0	743.4	787.5	913.2	1074.3	1219.8	1230.9	1125.0	1191.2	1080.9
80°	2269.8	1489.0	566.9	619.9	716.9	886.8	1061.0	1056.6	941.9	880.1	818.4
82.5°	864.7	586.8	403.7	436.8	518.4	679.4	840.4	866.9	752.2	650.7	650.7
85°	333.1	251.5	249.3	262.5	302.2	450.0	635.3	657.4	566.9	480.9	496.3
87.5°	86.0	75.0	92.6	88.2	139.0	240.4	364.0	377.2	346.3	200.7	286.8
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)