

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: P968388

Luminaire Tested: **NAV-SB5B-827-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968388
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-827-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26027.8 lumens
Efficiency: N/A
Efficacy: 142.5 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G4

Input Watts (W): 182.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



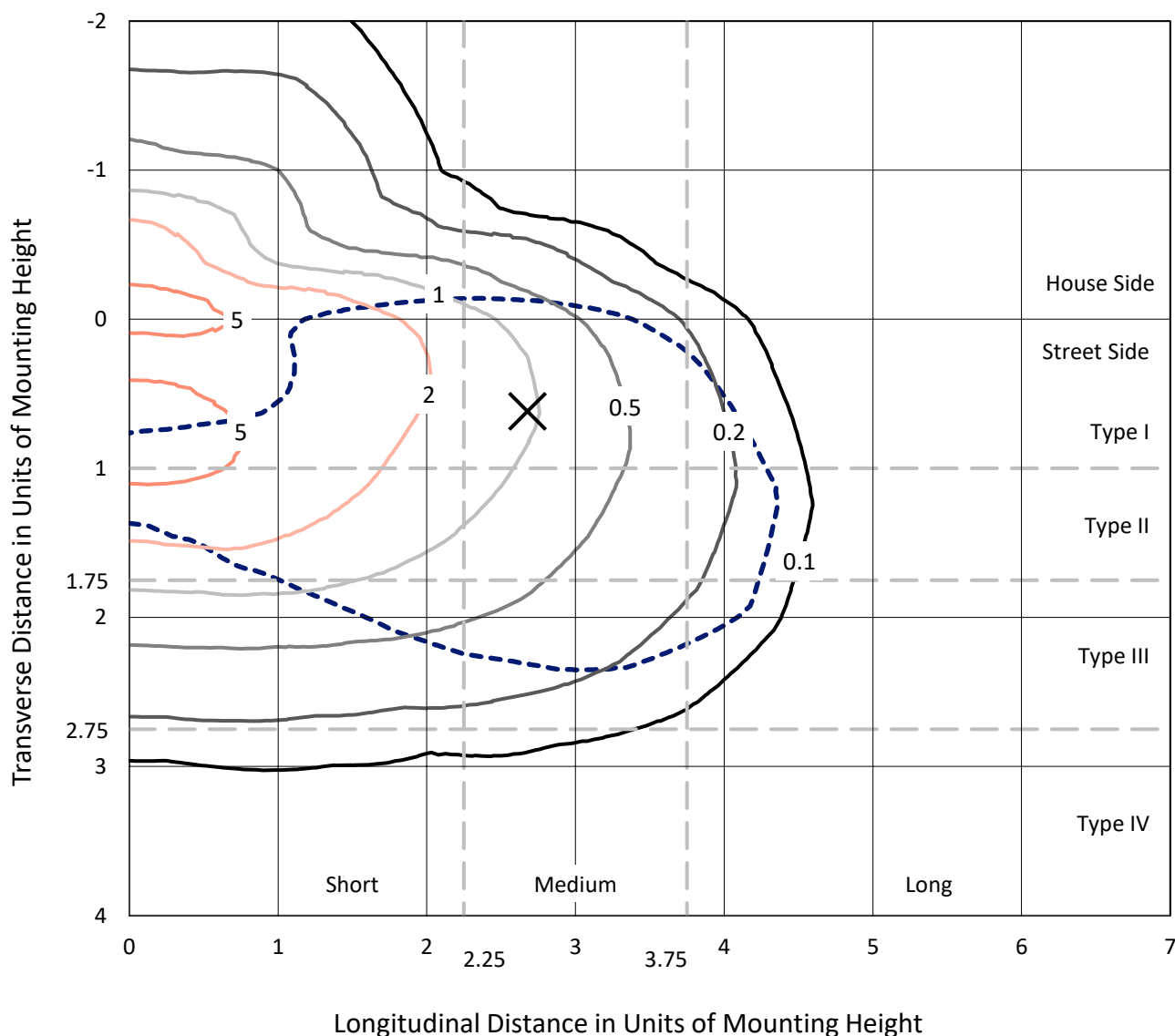
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

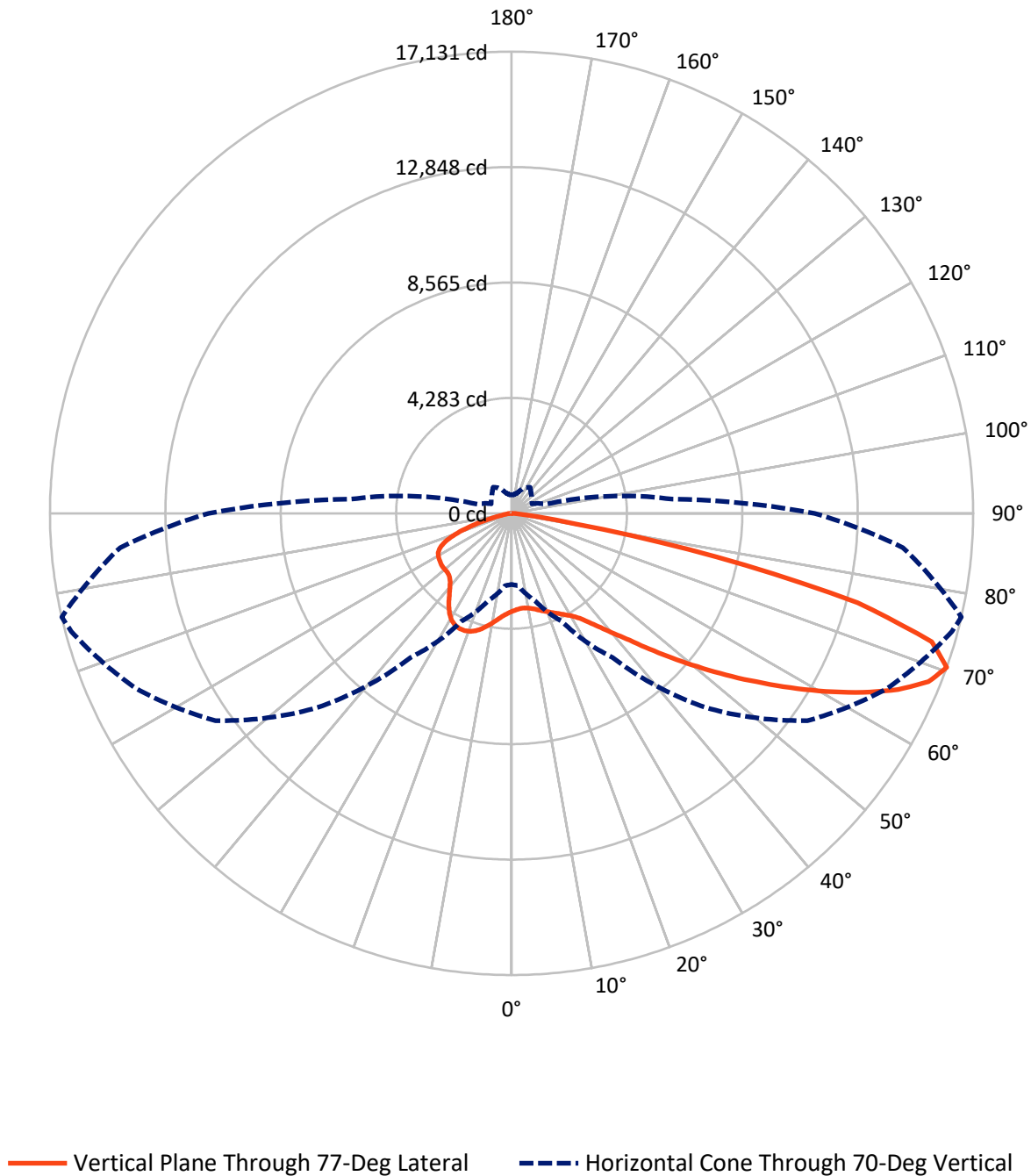


Based on 25 foot mounting height. Maximum calculated value = 6.9 fc

Type III - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5699.7	0.0	5699.7
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	20328.1	0.0	20328.1
	% Fixture	78.1	0.0	78.1
Total	Lumens	26027.8	0.0	26027.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	346.3	1.3
10°-20°	999.5	3.8
20°-30°	1709.3	6.6
30°-40°	2748.7	10.6
40°-50°	4291.4	16.5
50°-60°	5732.3	22.0
60°-70°	6109.7	23.5
70°-80°	3761.1	14.5
80°-90°	329.6	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°	26027.8	100.0
0°-180°	26027.8	100.0

Coefficient of Utilization



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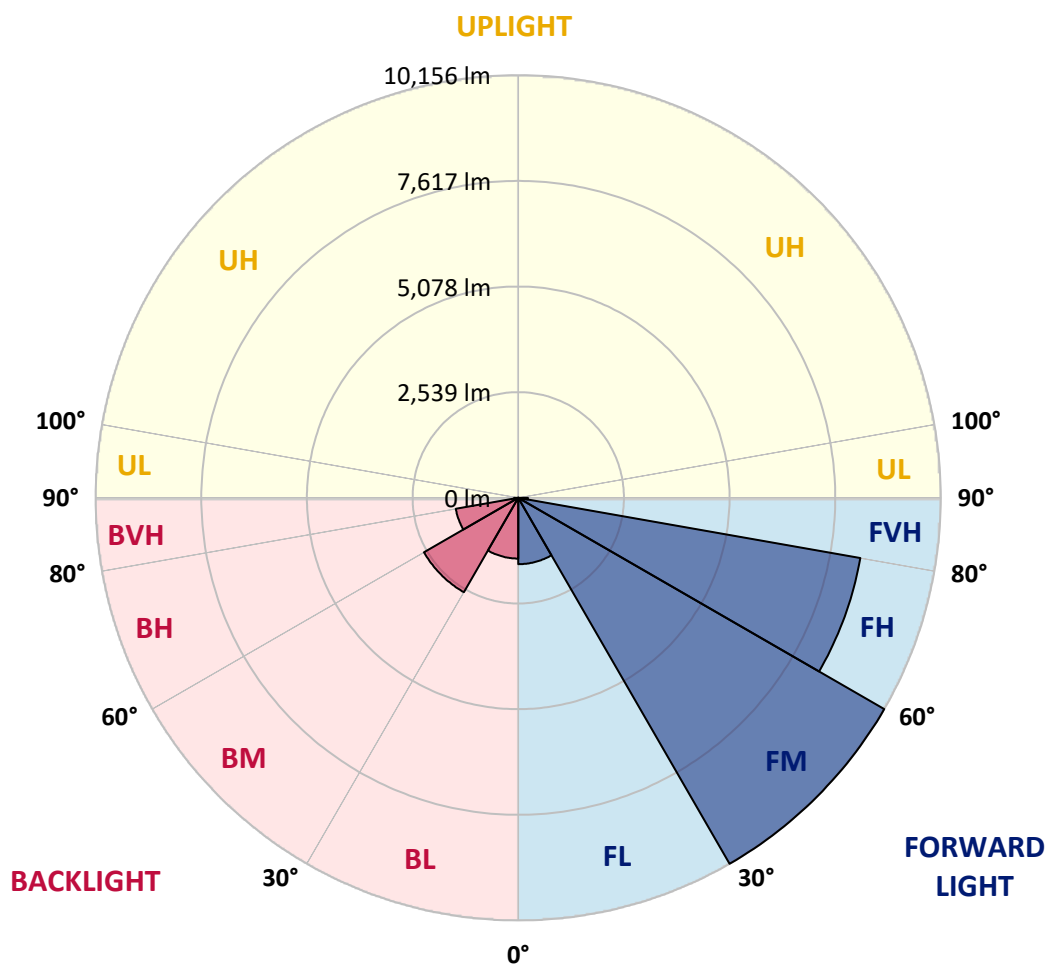
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1594.6	6.1			
FM	(30°-60°)	10155.5	39.0			
FH	(60°-80°)	8347.6	32.1			G4/12000
FVH	(80°-90°)	230.5	0.9			G3/500
BL	(0°-30°)	1460.4	5.6	B3/2500		
BM	(30°-60°)	2616.9	10.1	B3/5000		
BH	(60°-80°)	1523.3	5.9	B3/2500		G3/2500
BVH	(80°-90°)	99.1	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	3631.2	3631.2	3631.2	3631.2	3631.2	3631.2	3631.2	3631.2	3631.2	3631.2	3631.2
2.5°	3347.1	3345.8	3363.2	3368.6	3400.5	3423.2	3465.8	3511.1	3569.8	3576.4	3612.4
5°	3153.9	3153.9	3173.9	3195.2	3236.5	3281.8	3347.1	3425.9	3527.1	3543.1	3632.5
7.5°	2989.9	3000.6	3017.9	3059.2	3107.3	3172.6	3272.5	3384.6	3517.8	3543.1	3687.1
10°	2858.0	2870.0	2891.3	2924.6	2996.6	3087.3	3217.9	3361.9	3540.5	3580.4	3767.1
12.5°	2816.7	2828.7	2840.7	2866.0	2932.6	3039.2	3195.2	3372.6	3595.1	3635.2	3876.3
15°	2912.6	2927.3	2918.0	2911.3	2946.0	3043.2	3205.9	3411.2	3663.1	3720.4	4011.0
17.5°	3133.9	3139.3	3117.9	3055.2	3049.9	3102.0	3256.5	3464.5	3748.4	3811.1	4146.9
20°	3491.2	3481.8	3437.8	3313.8	3243.2	3232.5	3343.1	3544.4	3836.4	3903.1	4293.6
22.5°	3976.4	3965.7	3877.7	3681.8	3524.5	3420.5	3468.5	3648.5	3935.1	4009.7	4436.3
25°	4581.5	4566.9	4437.6	4171.0	3927.1	3669.8	3639.2	3785.7	4056.3	4125.6	4585.5
27.5°	5288.1	5276.1	5136.1	4784.2	4432.3	4011.0	3851.0	3947.1	4183.0	4261.6	4753.5
30°	6047.9	6082.6	5834.6	5456.0	5010.8	4456.3	4136.3	4145.6	4346.9	4417.5	4957.5
32.5°	6941.0	7001.0	6702.4	6222.5	5614.6	4940.1	4496.3	4423.0	4585.5	4644.2	5214.7
35°	7826.1	7894.0	7646.2	7115.7	6415.8	5510.7	4872.1	4741.5	4902.8	4966.8	5556.0
37.5°	8591.2	8681.9	8553.9	8092.7	7272.9	6198.5	5362.7	5116.1	5293.4	5373.4	6014.5
40°	9195.1	9333.8	9324.4	9036.5	8283.3	7032.9	5985.2	5578.7	5778.6	5865.3	6570.5
42.5°	9685.6	9805.7	9909.6	9894.9	9337.8	7980.8	6717.0	6179.8	6331.8	6431.8	7195.6
45°	10024.2	10152.2	10376.2	10617.5	10352.2	8995.2	7555.5	6893.0	7031.6	7182.3	7940.8
47.5°	10326.9	10472.1	10762.7	11145.3	11213.3	10013.5	8474.0	7723.5	7850.1	8006.1	8688.5
50°	10353.5	10478.8	10929.4	11471.9	11825.1	10992.0	9460.3	8655.2	8773.9	8940.5	9489.7
52.5°	9709.6	9906.9	10693.4	11462.6	12106.4	11810.5	10440.1	9624.3	9757.6	9957.6	10318.9
55°	7536.8	7826.1	10001.5	11105.3	12006.4	12339.7	11371.9	10654.8	10825.3	11034.6	11153.3
57.5°	6491.7	6618.4	7939.4	10454.8	11550.5	12477.0	12158.3	11695.9	11970.5	12199.8	12035.8
60°	5834.6	5939.9	6721.0	9443.0	10950.7	12259.7	12766.3	12666.2	13140.8	13414.1	12938.2
62.5°	5130.7	5230.8	5941.2	7884.7	10182.9	11898.4	13150.1	13562.1	14340.6	14639.2	13788.6
65°	4432.3	4517.6	5198.7	6625.1	9207.1	11537.2	13348.8	14336.6	15451.0	15760.2	14495.1
67.5°	3653.8	3724.4	4368.2	5589.3	8020.7	11042.6	13447.4	14945.7	16417.3	16682.6	14844.4
70°	2636.7	2691.3	3356.6	4420.2	6531.7	10192.2	13407.4	15377.6	16918.5	17130.5	14580.4
72.5°	1246.4	1295.7	2076.9	2870.0	4613.5	8536.6	12598.3	15035.0	16409.3	16304.1	12964.8
75°	665.1	707.9	1193.0	1574.3	2436.7	5851.9	10309.4	12951.5	13779.3	13267.5	9581.7
77.5°	450.6	483.9	738.5	945.2	1113.0	2778.0	6626.4	8967.1	8627.2	7782.1	4798.8
80°	357.2	391.9	605.2	639.8	538.5	1003.8	2738.0	4150.9	2981.9	2384.8	1365.0
82.5°	274.6	313.2	509.2	463.9	293.3	411.9	797.1	1313.0	763.8	581.2	330.6
85°	168.0	209.3	399.9	295.9	165.3	188.0	270.6	365.2	233.3	194.6	118.6
87.5°	85.3	119.9	202.6	107.9	74.6	44.0	72.0	72.0	61.3	53.3	30.6
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°	3631.2	3631.2	3631.2	3631.2	3631.2	3631.2	3631.2	3631.2	3631.2	3631.2	3631.2
2.5°	3644.5	3671.1	3716.4	3759.1	3792.4	3824.4	3856.4	3873.7	3879.0	3900.4	3912.4
5°	3687.1	3736.4	3824.4	3907.1	3959.1	3991.0	4013.7	4027.0	4029.7	4036.3	4047.0
7.5°	3765.7	3844.4	3967.1	4049.7	4088.3	4085.6	4076.3	4043.0	4029.7	4017.7	4020.4
10°	3876.3	3980.4	4131.0	4188.4	4164.4	4100.3	4017.7	3920.4	3875.0	3831.0	3817.7
12.5°	4013.7	4145.6	4293.6	4291.0	4172.4	4008.4	3816.4	3667.1	3572.4	3504.5	3488.5
15°	4180.4	4332.3	4445.6	4354.9	4095.0	3800.4	3519.1	3324.5	3239.2	3164.6	3156.6
17.5°	4352.3	4514.9	4566.9	4334.9	3900.4	3492.5	3173.9	3020.6	2936.6	2896.6	2908.6
20°	4520.2	4681.5	4638.8	4220.3	3604.4	3143.3	2859.3	2775.3	2758.0	2767.3	2763.3
22.5°	4697.6	4841.5	4653.5	3999.0	3227.2	2786.0	2630.0	2632.7	2671.4	2699.3	2706.0
25°	4878.8	4976.2	4614.9	3679.1	2822.0	2523.3	2484.7	2527.3	2603.4	2658.0	2672.7
27.5°	5053.5	5096.1	4530.9	3283.2	2474.0	2335.5	2342.1	2430.1	2544.7	2620.7	2639.4
30°	5250.8	5202.7	4369.6	2838.0	2232.8	2174.1	2230.1	2332.8	2447.4	2515.4	2531.3
32.5°	5473.3	5294.7	4113.6	2426.1	2062.2	2044.9	2136.8	2203.4	2254.1	2274.1	2284.8
35°	5750.6	5424.0	3785.7	2136.8	1908.9	1950.2	2038.2	2004.8	1984.8	1974.2	1984.8
37.5°	6110.5	5598.7	3401.9	1948.8	1784.9	1882.2	1918.2	1814.2	1735.5	1696.9	1706.2
40°	6543.7	5854.6	3032.6	1803.6	1706.2	1823.6	1761.0	1635.6	1535.7	1481.0	1485.0
42.5°	7024.9	6122.5	2722.0	1694.2	1662.2	1775.6	1644.9	1495.7	1334.3	1317.0	1334.3
45°	7530.2	6398.5	2510.0	1610.3	1640.9	1734.2	1578.3	1337.0	1222.4	1293.0	1330.3
47.5°	8035.4	6651.7	2382.1	1547.6	1630.3	1687.6	1519.7	1249.1	1167.7	1270.4	1318.4
50°	8597.9	6878.4	2324.8	1502.3	1618.3	1668.9	1431.6	1226.4	1110.4	1178.3	1229.1
52.5°	9156.4	7054.3	2282.2	1456.9	1600.9	1654.2	1389.0	1199.7	1041.1	1045.1	1073.1
55°	9713.6	7169.0	2235.4	1397.0	1562.3	1622.3	1385.0	1170.3	989.1	970.5	983.8
57.5°	10308.1	7234.2	2178.1	1330.3	1495.7	1541.0	1381.0	1147.7	973.1	942.5	946.5
60°	10913.4	7330.2	2103.5	1249.1	1406.3	1443.6	1371.7	1139.7	963.8	911.7	915.7
62.5°	11455.9	7363.5	2014.2	1171.7	1291.7	1347.7	1351.7	1133.0	938.5	849.1	849.1
65°	11811.8	7219.6	1858.2	1083.7	1167.7	1249.1	1313.0	1110.4	893.1	803.8	803.8
67.5°	11797.1	6809.0	1614.3	970.5	1047.8	1139.7	1257.1	1071.7	838.4	747.8	751.8
70°	11247.9	5998.5	1305.0	838.4	915.7	1022.4	1185.0	1014.4	773.2	686.5	694.5
72.5°	9647.0	4694.9	947.8	683.9	762.5	901.1	1091.7	945.2	706.5	631.8	627.8
75°	6891.7	2971.3	642.5	525.2	593.2	763.8	975.8	863.8	645.1	634.5	598.5
77.5°	3520.5	1419.6	425.3	383.9	413.3	602.5	819.8	771.8	654.5	523.9	466.6
80°	1145.0	523.9	267.9	261.3	274.6	401.2	634.5	633.1	495.9	355.9	314.6
82.5°	365.2	225.3	174.7	168.0	161.3	251.9	442.6	501.2	334.6	225.3	224.0
85°	145.3	134.7	102.6	94.6	68.0	118.6	232.0	333.2	249.3	162.7	166.7
87.5°	53.3	53.3	28.0	20.0	14.7	40.0	62.6	99.9	142.7	83.9	82.6
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)