

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: P884431

Luminaire Tested: **NAV-SB5B-727-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884431
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-727-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25594 lumens
Efficiency: N/A
Efficacy: 140.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

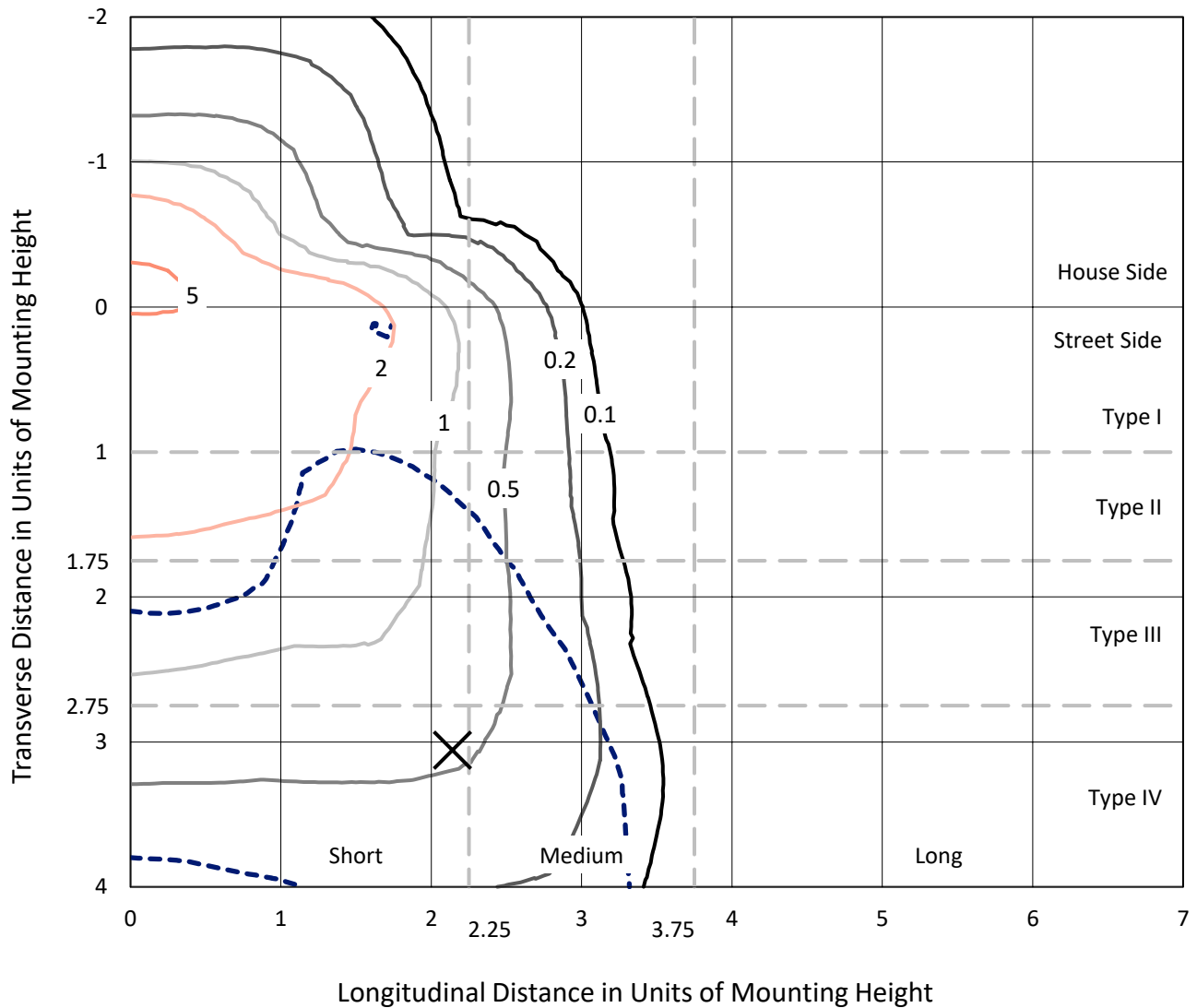
Input Watts (W): 182.7
Input Voltage (V): 120.0
Input Current (Ain): 1.547
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 11.125
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

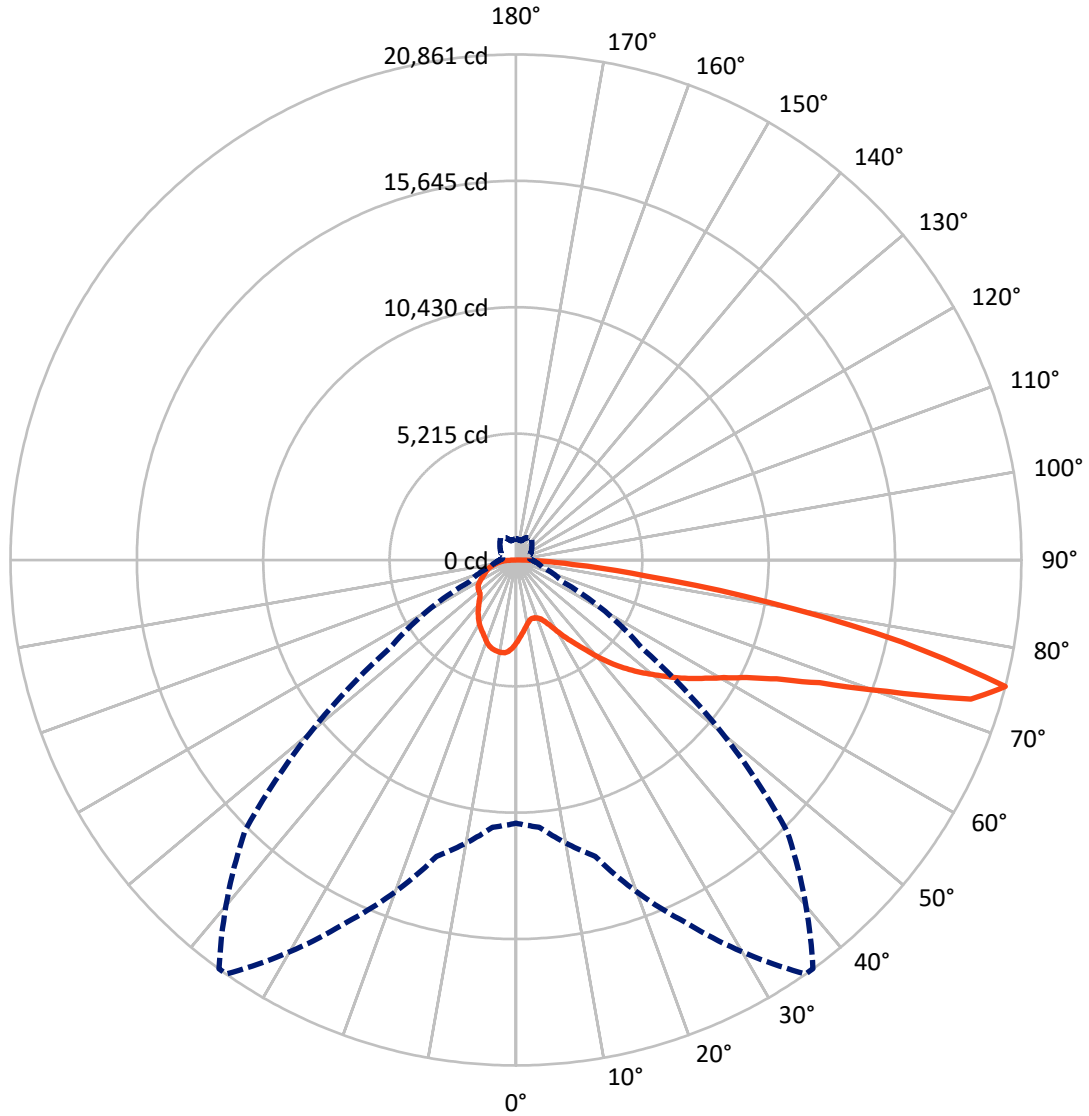
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6090.7	0.0	6090.7
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	19503.3	0.0	19503.3
	% Fixture	76.2	0.0	76.2
Total	Lumens	25594.0	0.0	25594.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	322.9	1.3
10°-20°	931.4	3.6
20°-30°	1564.1	6.1
30°-40°	2430.8	9.5
40°-50°	3608.0	14.1
50°-60°	4981.1	19.5
60°-70°	6043.2	23.6
70°-80°	4994.2	19.5
80°-90°	718.3	2.8
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°	25594.0	100.0
0°-180°	25594.0	100.0

Coefficient of Utilization



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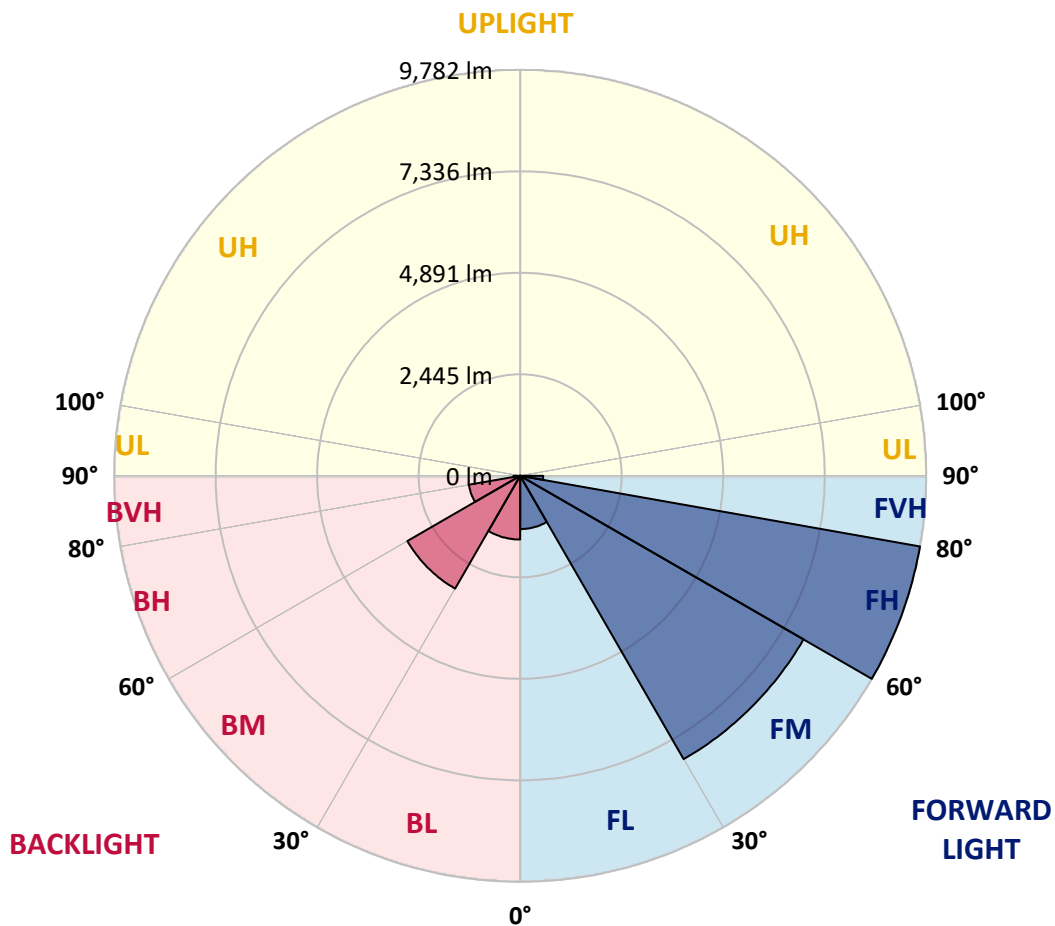
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1283.5	5.0			
FM (30°-60°)	7881.6	30.8			
FH (60°-80°)	9781.6	38.2			G4/12000
FVH (80°-90°)	556.6	2.2			G4/750
BL (0°-30°)	1534.9	6.0	B3/2500		
BM (30°-60°)	3138.3	12.3	B3/5000		
BH (60°-80°)	1255.7	4.9	B3/2500		G3/2500
BVH (80°-90°)	161.7	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	3410.6	3410.6	3410.6	3410.6	3410.6	3410.6	3410.6	3410.6	3410.6	3410.6	3410.6
2.5°	3144.9	3164.3	3172.6	3168.4	3189.2	3186.4	3215.5	3251.5	3301.3	3349.7	3420.3
5°	2902.8	2923.5	2941.5	2958.1	2998.3	3010.7	3056.4	3125.6	3216.9	3309.6	3425.8
7.5°	2677.3	2695.3	2722.9	2753.4	2821.2	2833.6	2909.7	3017.6	3144.9	3280.5	3441.0
10°	2493.2	2511.2	2540.3	2574.9	2659.3	2674.5	2771.4	2915.2	3081.3	3252.8	3457.6
12.5°	2414.4	2419.9	2436.5	2471.1	2544.4	2554.1	2660.7	2825.3	3019.0	3232.1	3482.5
15°	2410.2	2421.3	2422.7	2440.7	2501.5	2505.7	2603.9	2767.2	2980.3	3227.9	3519.9
17.5°	2451.7	2460.0	2447.6	2458.7	2509.9	2516.8	2594.2	2739.5	2967.8	3245.9	3583.5
20°	2562.4	2569.3	2532.0	2516.8	2554.1	2559.7	2635.8	2757.5	2980.3	3283.3	3670.7
22.5°	2797.6	2801.8	2710.5	2648.2	2651.0	2653.7	2720.2	2830.8	3028.7	3351.1	3781.4
25°	3164.3	3161.5	3016.2	2895.9	2826.7	2811.5	2855.8	2949.8	3110.3	3441.0	3923.9
27.5°	3593.2	3572.5	3427.2	3247.3	3096.5	3074.4	3064.7	3104.8	3226.6	3560.0	4098.2
30°	4077.5	4058.1	3901.8	3666.5	3457.6	3421.6	3330.3	3309.6	3399.5	3721.9	4340.4
32.5°	4608.8	4596.3	4409.5	4124.5	3845.0	3803.5	3649.9	3594.6	3665.2	3966.8	4678.0
35°	5054.3	5043.2	4888.3	4594.9	4253.2	4202.0	4045.6	3983.4	4019.4	4280.9	5119.3
37.5°	5456.9	5451.4	5318.6	5087.5	4734.7	4672.4	4496.7	4475.9	4469.0	4694.6	5654.8
40°	5830.5	5816.7	5678.3	5556.5	5295.0	5238.3	5083.3	5065.4	5012.8	5203.7	6260.8
42.5°	6244.2	6208.2	6007.6	5950.9	5880.3	5833.3	5740.6	5743.3	5627.1	5777.9	6902.8
45°	6581.8	6561.0	6354.9	6321.7	6397.8	6378.4	6458.6	6479.4	6253.9	6379.8	7569.7
47.5°	6944.3	6924.9	6750.6	6727.1	6933.2	6938.8	7222.4	7229.3	6865.4	7005.2	8238.0
50°	7391.2	7363.5	7190.6	7219.6	7450.7	7471.4	7990.3	7943.2	7428.5	7640.2	8900.7
52.5°	7685.9	7702.5	7665.1	7712.2	8027.6	8047.0	8745.7	8625.4	7986.1	8267.0	9551.0
55°	7903.1	7936.3	8052.6	8160.5	8636.4	8655.8	9458.3	9274.3	8448.3	8848.1	10162.5
57.5°	8182.6	8135.6	8352.8	8563.1	9214.8	9266.0	10151.5	9899.7	8857.8	9349.0	10581.8
60°	8583.9	8550.6	8719.4	9030.8	9862.3	9943.9	10884.8	10462.8	9158.0	9746.1	10663.4
62.5°	9397.4	9314.4	9340.7	9616.0	10678.6	10786.5	11712.2	10954.0	9307.5	9901.0	10226.2
65°	10613.6	10471.1	10338.3	10529.2	11828.4	11934.9	12646.1	11340.0	9252.1	9600.8	9065.3
67.5°	12145.2	12004.1	11840.8	12020.7	13521.9	13606.3	13798.6	11557.2	8816.3	8444.1	7013.5
70°	13408.5	13355.9	13551.0	14291.2	16226.9	16229.6	15276.3	11377.3	7622.3	5986.8	4058.1
72.5°	13241.1	13209.2	14237.2	16525.7	19636.0	19562.7	16675.1	10015.9	5134.5	2700.8	1520.6
75°	10862.6	11068.8	12661.3	16485.6	20860.5	20850.8	15818.7	6367.3	2123.8	1119.3	785.9
77.5°	5825.0	6151.5	8220.0	12171.5	16285.0	16529.9	11121.4	2227.6	911.8	716.7	543.8
80°	1899.7	2184.7	3276.4	6197.1	10581.8	10536.1	4766.5	874.4	624.0	507.8	376.3
82.5°	806.6	839.8	1463.8	2926.3	5430.6	5346.2	1517.8	502.2	438.6	347.3	232.4
85°	315.5	352.8	646.1	1353.2	2352.1	2300.9	547.9	249.0	280.9	226.9	138.4
87.5°	103.8	125.9	231.1	463.5	731.9	705.6	134.2	85.8	121.8	103.8	49.8
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°	3410.6	3410.6	3410.6	3410.6	3410.6	3410.6	3410.6	3410.6	3410.6	3410.6	3410.6
2.5°	3439.6	3461.8	3488.1	3526.8	3560.0	3587.7	3616.7	3634.7	3641.6	3662.4	3661.0
5°	3464.5	3513.0	3578.0	3641.6	3703.9	3741.3	3774.5	3791.1	3806.3	3817.4	3820.1
7.5°	3506.0	3568.3	3670.7	3753.7	3806.3	3836.7	3858.9	3853.3	3858.9	3861.6	3865.8
10°	3542.0	3629.2	3750.9	3829.8	3869.9	3871.3	3865.8	3846.4	3836.7	3838.1	3840.9
12.5°	3584.9	3681.8	3813.2	3879.6	3890.7	3860.2	3836.7	3803.5	3791.1	3785.5	3782.8
15°	3643.0	3753.7	3881.0	3905.9	3878.2	3839.5	3799.4	3745.4	3717.7	3695.6	3702.5
17.5°	3713.6	3835.3	3933.6	3915.6	3856.1	3792.4	3727.4	3645.8	3589.1	3565.5	3566.9
20°	3811.8	3921.1	3973.7	3894.8	3804.9	3708.0	3597.4	3497.7	3445.2	3421.6	3418.9
22.5°	3930.8	4036.0	4012.4	3858.9	3731.6	3576.6	3438.2	3364.9	3338.6	3322.0	3324.8
25°	4073.3	4163.3	4040.1	3806.3	3611.2	3402.3	3295.7	3272.2	3259.8	3247.3	3247.3
27.5°	4258.7	4307.1	4060.9	3728.8	3423.0	3216.9	3178.1	3182.3	3178.1	3157.4	3161.5
30°	4503.6	4493.9	4080.2	3602.9	3207.2	3049.5	3052.2	3070.2	3073.0	3059.1	3066.1
32.5°	4826.0	4727.8	4089.9	3439.6	3001.0	2902.8	2905.6	2924.9	2938.8	2915.2	2926.3
35°	5216.2	5000.3	4074.7	3234.9	2841.9	2763.0	2742.3	2747.8	2752.0	2729.8	2745.1
37.5°	5671.4	5306.1	4006.9	3007.9	2710.5	2626.1	2581.8	2544.4	2522.3	2501.5	2515.4
40°	6170.9	5639.6	3882.4	2786.6	2563.8	2480.8	2414.4	2343.8	2269.1	2241.4	2253.9
42.5°	6693.9	5982.7	3731.6	2574.9	2395.0	2327.2	2256.7	2154.3	2042.2	1985.5	1992.4
45°	7236.2	6334.1	3583.5	2366.0	2222.1	2193.0	2111.4	1988.2	1866.5	1794.5	1789.0
47.5°	7767.5	6666.2	3366.3	2155.6	2060.2	2092.0	2028.4	1914.9	1779.3	1665.9	1653.4
50°	8275.3	6977.5	3010.7	1942.6	1928.7	2061.6	2000.7	1837.4	1682.5	1537.2	1524.7
52.5°	8778.9	7229.3	2555.5	1748.9	1858.2	2053.3	1964.7	1784.8	1595.3	1443.1	1426.5
55°	9206.5	7359.4	2116.9	1582.8	1755.8	1982.7	1921.8	1722.6	1472.2	1310.3	1296.4
57.5°	9450.0	7254.2	1751.6	1419.6	1614.7	1866.5	1848.5	1589.8	1325.5	1201.0	1184.4
60°	9344.8	6828.1	1452.8	1277.1	1480.5	1740.6	1721.2	1458.3	1213.4	1095.8	1079.2
62.5°	8765.1	6015.9	1216.2	1152.5	1358.7	1611.9	1593.9	1357.3	1127.6	1014.2	996.2
65°	7597.3	4893.8	1032.2	1048.8	1235.6	1456.9	1483.2	1272.9	1059.8	949.1	931.2
67.5°	5794.5	3544.8	888.3	958.8	1115.2	1304.7	1380.8	1212.0	1003.1	898.0	881.4
70°	3302.7	2013.1	766.5	871.7	1008.6	1163.6	1302.0	1163.6	942.2	855.1	844.0
72.5°	1252.2	924.2	662.7	784.5	906.3	1044.6	1214.8	1087.5	871.7	806.6	795.6
75°	668.3	563.1	557.6	682.1	788.7	928.4	1105.5	1012.8	819.1	852.3	880.0
77.5°	455.2	398.5	466.3	583.9	660.0	799.7	989.3	899.3	709.8	707.0	651.7
80°	315.5	282.3	379.1	470.4	510.5	672.4	863.4	772.0	578.3	539.6	516.1
82.5°	189.6	184.0	283.6	351.4	361.1	518.8	715.3	647.5	473.2	412.3	415.1
85°	103.8	109.3	181.3	206.2	210.3	362.5	560.4	500.9	363.9	305.8	308.5
87.5°	29.1	37.4	66.4	81.6	101.0	188.2	333.4	297.5	182.6	127.3	127.3
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)