

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: P883431

Luminaire Tested: **NAV-SB3D-735-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883431
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-SB3D-735-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 3500K, 900mA 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: 30168 lumens
Efficiency: N/A
Efficacy: 138.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

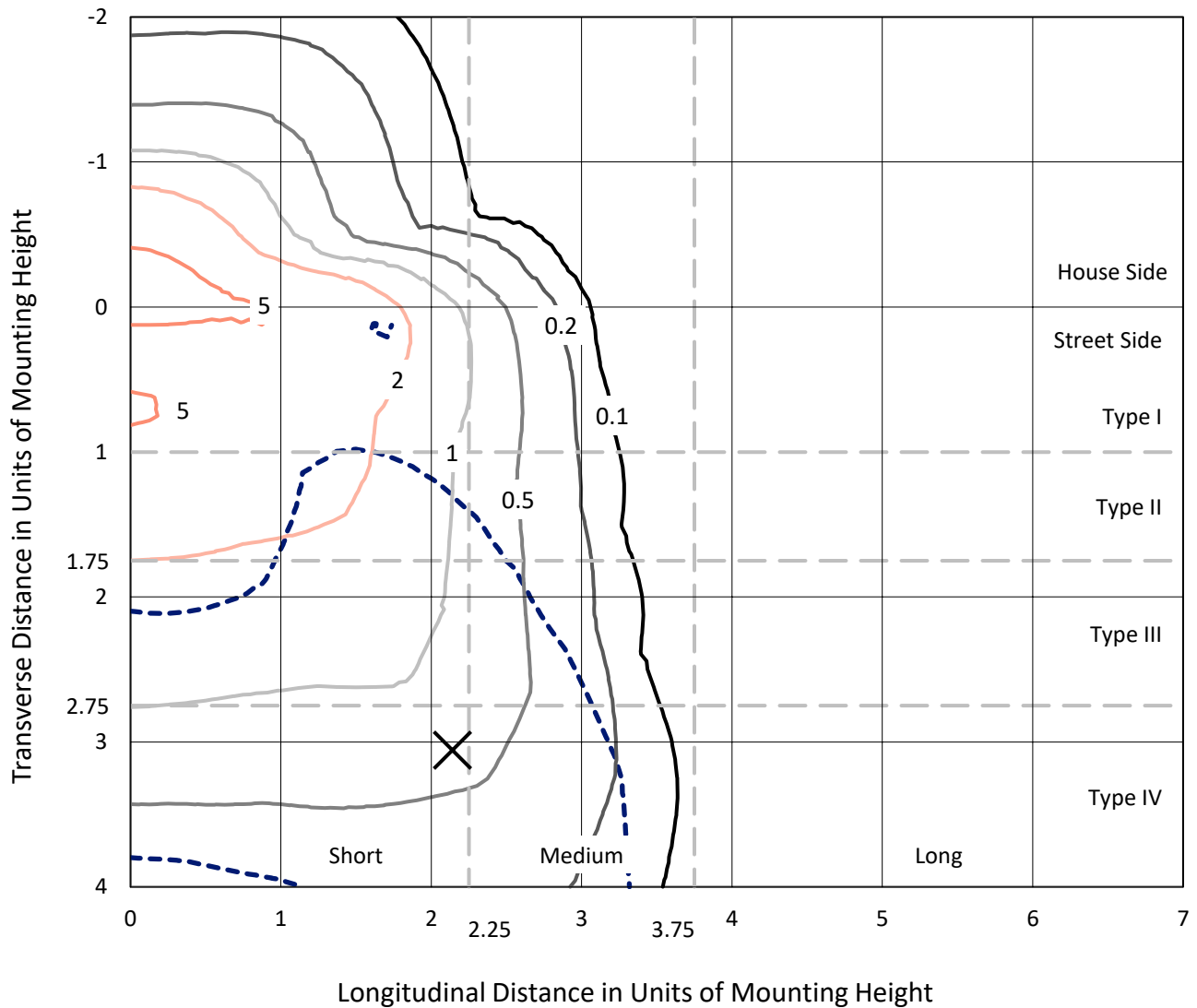
Input Watts (W): 218.1
Input Voltage (V): 120.0
Input Current (Ain): 1.84
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 2.542
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

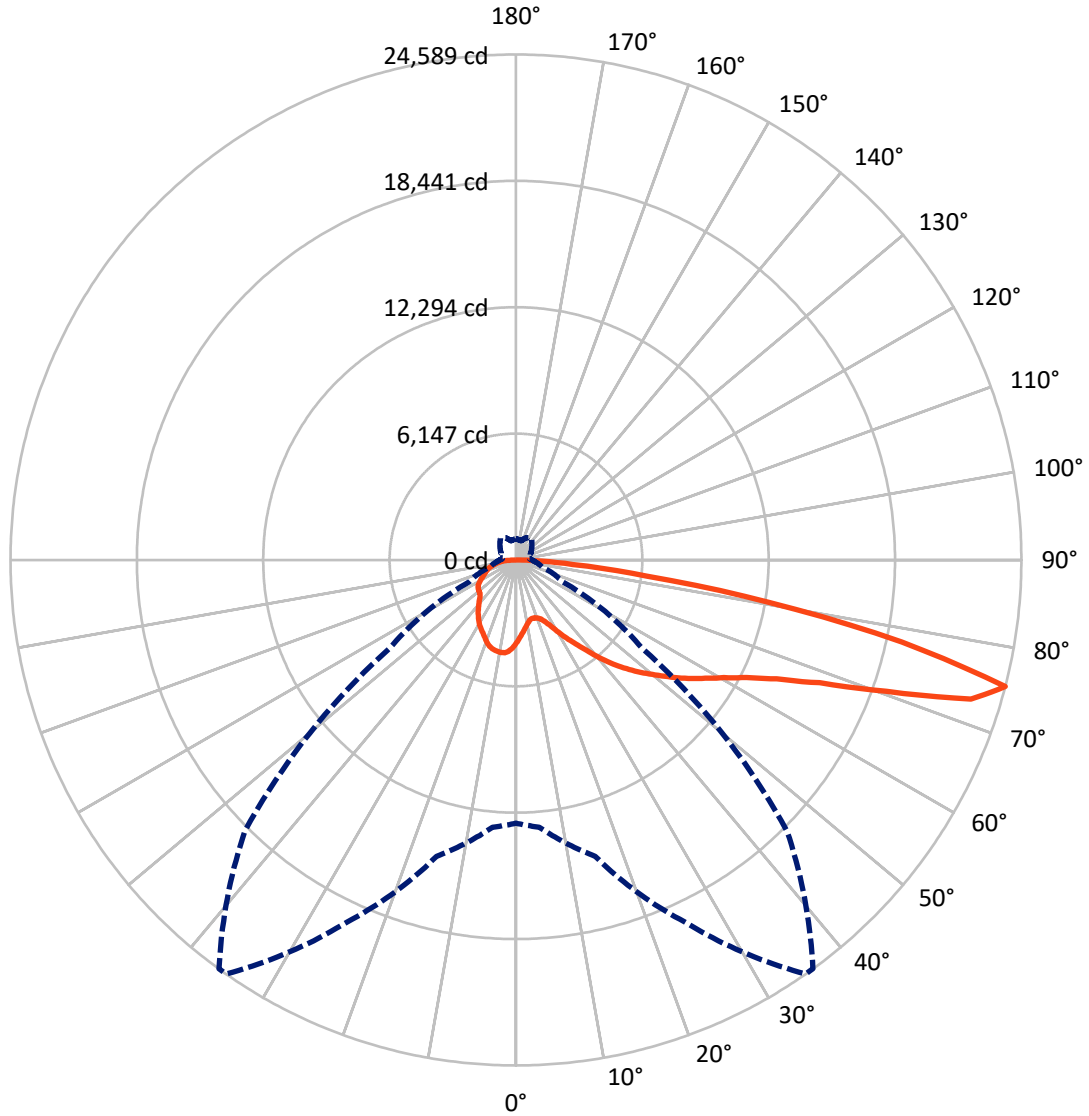
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.1 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	7179.2	0.0	7179.2
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	22988.8	0.0	22988.8
	% Fixture	76.2	0.0	76.2
Total	Lumens	30168.0	0.0	30168.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	380.6	1.3
10°-20°	1097.9	3.6
20°-30°	1843.6	6.1
30°-40°	2865.3	9.5
40°-50°	4252.8	14.1
50°-60°	5871.2	19.5
60°-70°	7123.1	23.6
70°-80°	5886.7	19.5
80°-90°	846.7	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°	30168.0	100.0
0°-180°	30168.0	100.0

Coefficient of Utilization



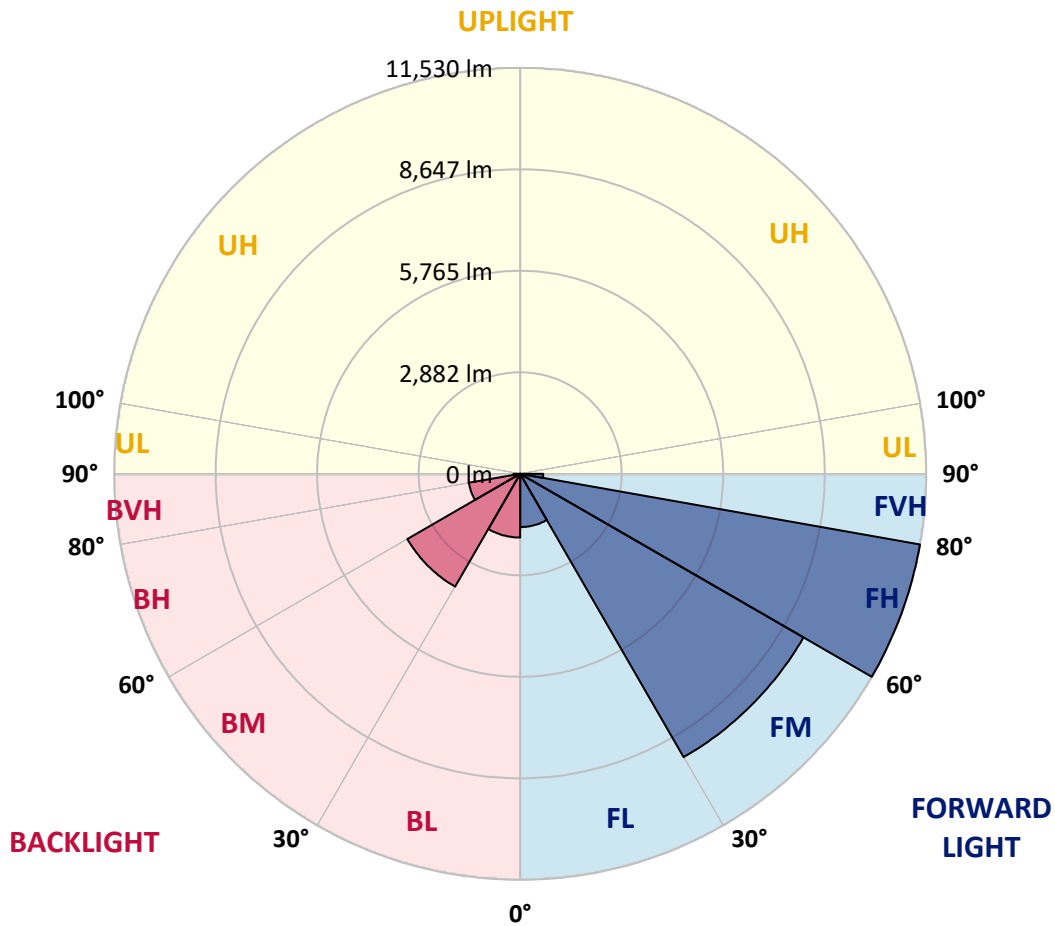
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1512.9	5.0			
FM (30°-60°)	9290.1	30.8			
FH (60°-80°)	11529.8	38.2			G4/12000
FVH (80°-90°)	656.0	2.2			G4/750
BL (0°-30°)	1809.3	6.0	B3/2500		
BM (30°-60°)	3699.2	12.3	B3/5000		
BH (60°-80°)	1480.1	4.9	B3/2500		G3/2500
BVH (80°-90°)	190.7	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°	4020.1	4020.1	4020.1	4020.1	4020.1	4020.1	4020.1	4020.1	4020.1	4020.1	4020.1
2.5°	3707.0	3729.8	3739.6	3734.7	3759.2	3755.9	3790.1	3832.5	3891.3	3948.3	4031.5
5°	3421.6	3446.0	3467.2	3486.8	3534.1	3548.8	3602.6	3684.1	3791.8	3901.0	4038.0
7.5°	3155.7	3176.9	3209.5	3245.4	3325.3	3340.0	3429.7	3556.9	3707.0	3866.8	4056.0
10°	2938.8	2960.0	2994.3	3035.0	3134.5	3152.5	3266.6	3436.2	3631.9	3834.2	4075.5
12.5°	2845.9	2852.4	2872.0	2912.7	2999.2	3010.6	3136.2	3330.2	3558.6	3809.7	4104.9
15°	2841.0	2854.0	2855.7	2876.9	2948.6	2953.5	3069.3	3261.7	3512.9	3804.8	4148.9
17.5°	2889.9	2899.7	2885.0	2898.1	2958.4	2966.5	3057.9	3229.1	3498.2	3826.0	4223.9
20°	3020.4	3028.5	2984.5	2966.5	3010.6	3017.1	3106.8	3250.3	3512.9	3870.1	4326.7
22.5°	3297.6	3302.5	3194.9	3121.5	3124.7	3128.0	3206.3	3336.8	3570.0	3950.0	4457.2
25°	3729.8	3726.5	3555.3	3413.4	3331.9	3313.9	3366.1	3477.0	3666.2	4056.0	4625.1
27.5°	4235.4	4210.9	4039.7	3827.6	3649.9	3623.8	3612.4	3659.7	3803.2	4196.2	4830.6
30°	4806.2	4783.3	4599.0	4321.8	4075.5	4033.1	3925.5	3901.0	4007.0	4387.0	5116.0
32.5°	5432.4	5417.7	5197.6	4861.6	4532.2	4483.3	4302.2	4237.0	4320.2	4675.7	5514.0
35°	5957.6	5944.5	5761.9	5416.1	5013.3	4952.9	4768.7	4695.3	4737.7	5045.9	6034.2
37.5°	6432.1	6425.6	6269.1	5996.7	5580.8	5507.4	5300.3	5275.9	5267.7	5533.5	6665.4
40°	6872.5	6856.2	6693.1	6549.6	6241.3	6174.5	5991.8	5970.6	5908.6	6133.7	7379.7
42.5°	7360.1	7317.7	7081.2	7014.4	6931.2	6875.7	6766.5	6769.7	6632.7	6810.5	8136.4
45°	7758.0	7733.6	7490.6	7451.4	7541.1	7518.3	7612.9	7637.4	7371.5	7519.9	8922.5
47.5°	8185.3	8162.5	7957.0	7929.3	8172.3	8178.8	8513.1	8521.3	8092.4	8257.1	9710.2
50°	8712.1	8679.5	8475.6	8509.9	8782.2	8806.7	9418.3	9362.8	8756.1	9005.7	10491.4
52.5°	9059.5	9079.0	9035.0	9090.5	9462.3	9485.1	10308.7	10166.8	9413.4	9744.4	11257.9
55°	9315.5	9354.7	9491.7	9618.9	10179.9	10202.7	11148.6	10931.7	9958.1	10429.4	11978.7
57.5°	9645.0	9589.5	9845.6	10093.4	10861.6	10921.9	11965.7	11668.9	10440.8	11019.8	12472.9
60°	10117.9	10078.8	10277.7	10644.7	11624.8	11721.0	12830.0	12332.6	10794.7	11487.8	12569.1
62.5°	11076.9	10979.0	11010.0	11334.5	12587.0	12714.2	13805.3	12911.6	10970.9	11670.5	12053.7
65°	12510.4	12342.4	12185.8	12410.9	13942.3	14067.9	14906.1	13366.6	10905.6	11316.6	10685.4
67.5°	14315.8	14149.4	13957.0	14169.0	15938.5	16038.0	16264.6	13622.6	10391.9	9953.2	8266.9
70°	15804.7	15742.8	15972.7	16845.2	19126.8	19130.1	18006.4	13410.6	8984.5	7056.8	4783.3
72.5°	15607.4	15569.9	16781.6	19479.1	23145.3	23058.8	19655.2	11805.9	6052.2	3183.5	1792.3
75°	12803.9	13046.9	14924.1	19431.8	24588.6	24577.2	18645.7	7505.3	2503.4	1319.4	926.3
77.5°	6866.0	7250.8	9689.0	14346.7	19195.3	19484.0	13108.9	2625.7	1074.7	844.8	640.9
80°	2239.2	2575.1	3861.9	7304.7	12472.9	12419.1	5618.3	1030.7	735.5	598.5	443.6
82.5°	950.8	989.9	1725.5	3449.3	6401.2	6301.7	1789.1	592.0	517.0	409.3	274.0
85°	371.8	415.9	761.6	1595.0	2772.5	2712.1	645.8	293.6	331.1	267.5	163.1
87.5°	122.3	148.4	272.4	546.3	862.7	831.7	158.2	101.1	143.5	122.3	58.7
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°	4020.1	4020.1	4020.1	4020.1	4020.1	4020.1	4020.1	4020.1	4020.1	4020.1	4020.1
2.5°	4054.3	4080.4	4111.4	4157.1	4196.2	4228.8	4263.1	4284.3	4292.4	4316.9	4315.3
5°	4083.7	4140.8	4217.4	4292.4	4365.8	4409.9	4449.0	4468.6	4486.5	4499.6	4502.8
7.5°	4132.6	4206.0	4326.7	4424.5	4486.5	4522.4	4548.5	4542.0	4548.5	4551.8	4556.6
10°	4175.0	4277.8	4421.3	4514.2	4561.5	4563.2	4556.6	4533.8	4522.4	4524.0	4527.3
12.5°	4225.6	4339.7	4494.7	4573.0	4586.0	4550.1	4522.4	4483.3	4468.6	4462.1	4458.8
15°	4294.1	4424.5	4574.6	4603.9	4571.3	4525.7	4478.4	4414.8	4382.1	4356.0	4364.2
17.5°	4377.3	4520.8	4636.6	4615.4	4545.2	4470.2	4393.6	4297.3	4230.5	4202.7	4204.4
20°	4493.0	4621.9	4683.9	4590.9	4484.9	4370.7	4240.3	4122.8	4060.9	4033.1	4029.9
22.5°	4633.3	4757.2	4729.5	4548.5	4398.5	4215.8	4052.7	3966.3	3935.3	3915.7	3919.0
25°	4801.3	4907.3	4762.1	4486.5	4256.6	4010.3	3884.7	3857.0	3842.3	3827.6	3827.6
27.5°	5019.8	5076.9	4786.6	4395.2	4034.8	3791.8	3746.1	3751.0	3746.1	3721.6	3726.5
30°	5308.5	5297.1	4809.4	4246.8	3780.4	3594.4	3597.7	3618.9	3622.2	3605.8	3614.0
32.5°	5688.5	5572.7	4820.8	4054.3	3537.4	3421.6	3424.8	3447.7	3464.0	3436.2	3449.3
35°	6148.4	5894.0	4802.9	3813.0	3349.8	3256.8	3232.4	3238.9	3243.8	3217.7	3235.6
37.5°	6684.9	6254.4	4723.0	3545.5	3194.9	3095.4	3043.2	2999.2	2973.1	2948.6	2964.9
40°	7273.7	6647.4	4576.2	3284.6	3022.0	2924.1	2845.9	2762.7	2674.6	2642.0	2656.7
42.5°	7890.1	7051.9	4398.5	3035.0	2823.0	2743.1	2659.9	2539.3	2407.2	2340.3	2348.5
45°	8529.4	7466.1	4223.9	2788.8	2619.2	2584.9	2488.7	2343.6	2200.0	2115.2	2108.7
47.5°	9155.7	7857.5	3967.9	2540.9	2428.4	2465.9	2390.9	2257.1	2097.3	1963.6	1948.9
50°	9754.2	8224.5	3548.8	2289.7	2273.4	2430.0	2358.2	2165.8	1983.1	1811.9	1797.2
52.5°	10347.9	8521.3	3012.2	2061.4	2190.3	2420.2	2315.8	2103.8	1880.4	1701.0	1681.4
55°	10851.8	8674.6	2495.2	1865.7	2069.6	2337.0	2265.3	2030.4	1735.2	1544.4	1528.1
57.5°	11138.8	8550.6	2064.7	1673.3	1903.2	2200.0	2178.8	1873.9	1562.4	1415.6	1396.0
60°	11014.9	8048.3	1712.4	1505.3	1745.0	2051.6	2028.8	1718.9	1430.3	1291.6	1272.1
62.5°	10331.5	7091.0	1433.5	1358.5	1601.5	1900.0	1878.8	1599.9	1329.2	1195.4	1174.2
65°	8955.1	5768.4	1216.6	1236.2	1456.4	1717.3	1748.3	1500.4	1249.2	1118.8	1097.6
67.5°	6830.1	4178.3	1047.0	1130.2	1314.5	1537.9	1627.6	1428.6	1182.4	1058.4	1038.9
70°	3892.9	2372.9	903.5	1027.4	1188.9	1371.6	1534.6	1371.6	1110.6	1007.9	994.8
72.5°	1475.9	1089.4	781.2	924.7	1068.2	1231.3	1431.9	1281.9	1027.4	950.8	937.7
75°	787.7	663.8	657.2	804.0	929.6	1094.3	1303.1	1193.8	965.5	1004.6	1037.2
77.5°	536.6	469.7	549.6	688.2	777.9	942.6	1166.1	1060.1	836.6	833.4	768.1
80°	371.8	332.7	446.9	554.5	601.8	792.6	1017.7	910.0	681.7	636.0	608.3
82.5°	223.4	216.9	334.3	414.2	425.7	611.6	843.2	763.2	557.8	486.0	489.3
85°	122.3	128.8	213.6	243.0	247.9	427.3	660.5	590.4	428.9	360.4	363.7
87.5°	34.2	44.0	78.3	96.2	119.1	221.8	393.0	350.6	215.3	150.0	150.0
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)