

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: P967892

Luminaire Tested: **NAV-SB5A-830-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967892
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-SB5A-830-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21424.5 lumens
Efficiency: N/A
Efficacy: 151.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G3

Input Watts (W): 141.7
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

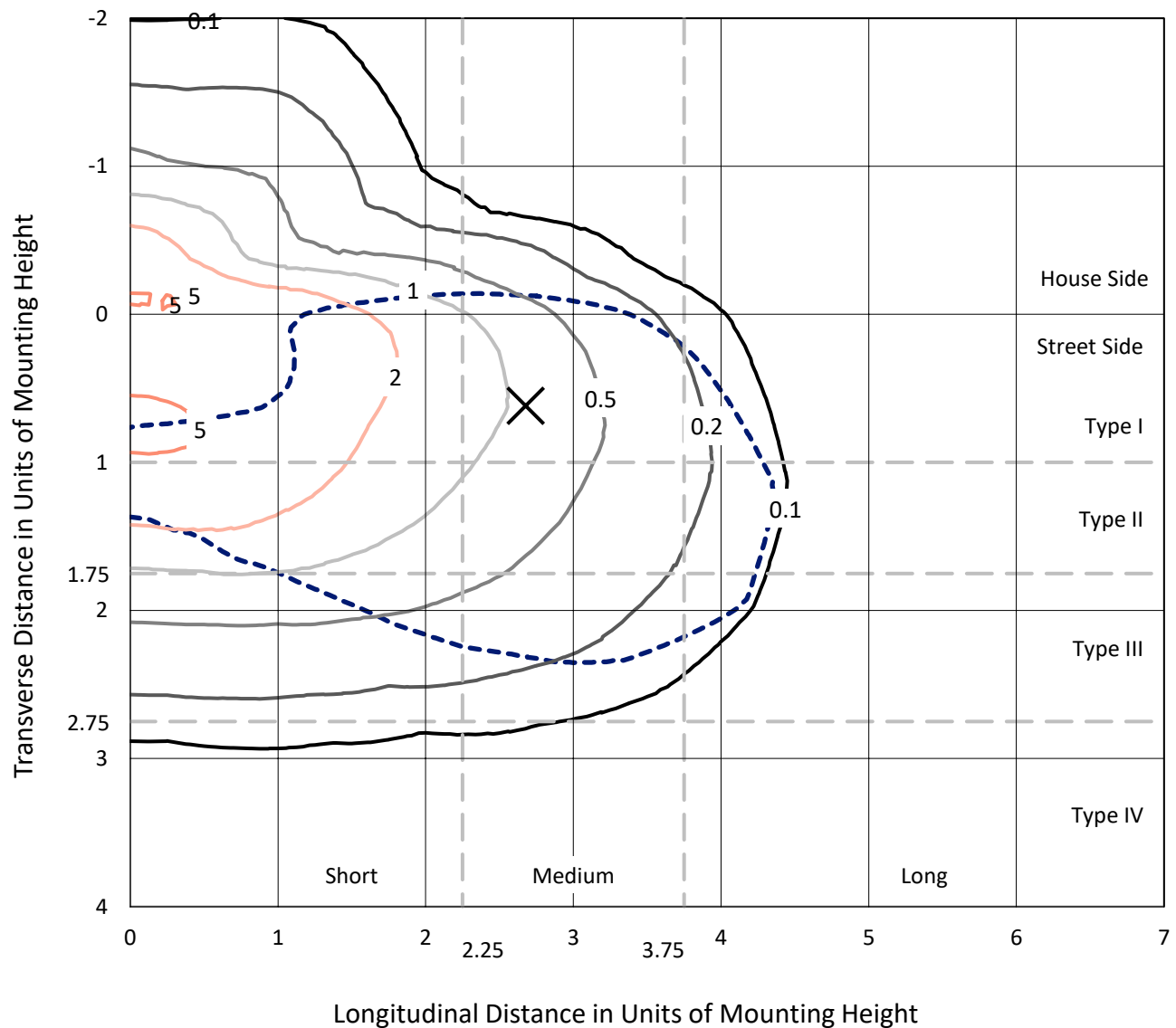


REPORT NUMBER: P967892

CATALOG NUMBER: NAV-SB5A-830-U-T3R

Iso-Footcandle Lines of Horizontal Illumination

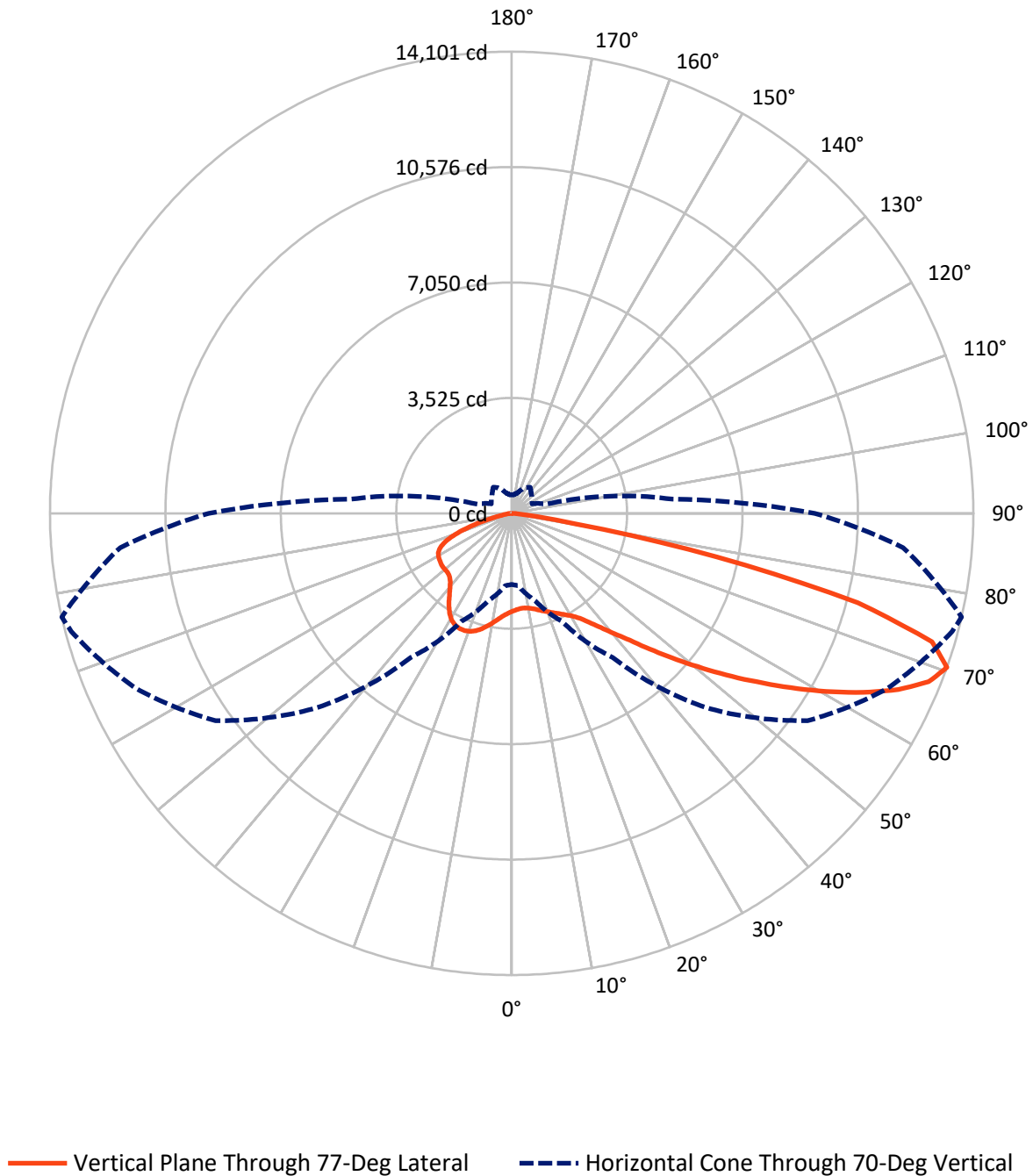
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.7 fc
Type III - Medium - N/A

REPORT NUMBER: P967892
CATALOG NUMBER: NAV-SB5A-830-U-T3R

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4691.6	0.0	4691.6
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	16732.9	0.0	16732.9
	% Fixture	78.1	0.0	78.1
Total	Lumens	21424.5	0.0	21424.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	285.1	1.3
10°-20°	822.7	3.8
20°-30°	1407.0	6.6
30°-40°	2262.5	10.6
40°-50°	3532.4	16.5
50°-60°	4718.5	22.0
60°-70°	5029.2	23.5
70°-80°	3095.9	14.5
80°-90°	271.3	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°	21424.5	100.0
0°-180°	21424.5	100.0

Coefficient of Utilization



REPORT NUMBER: P967892

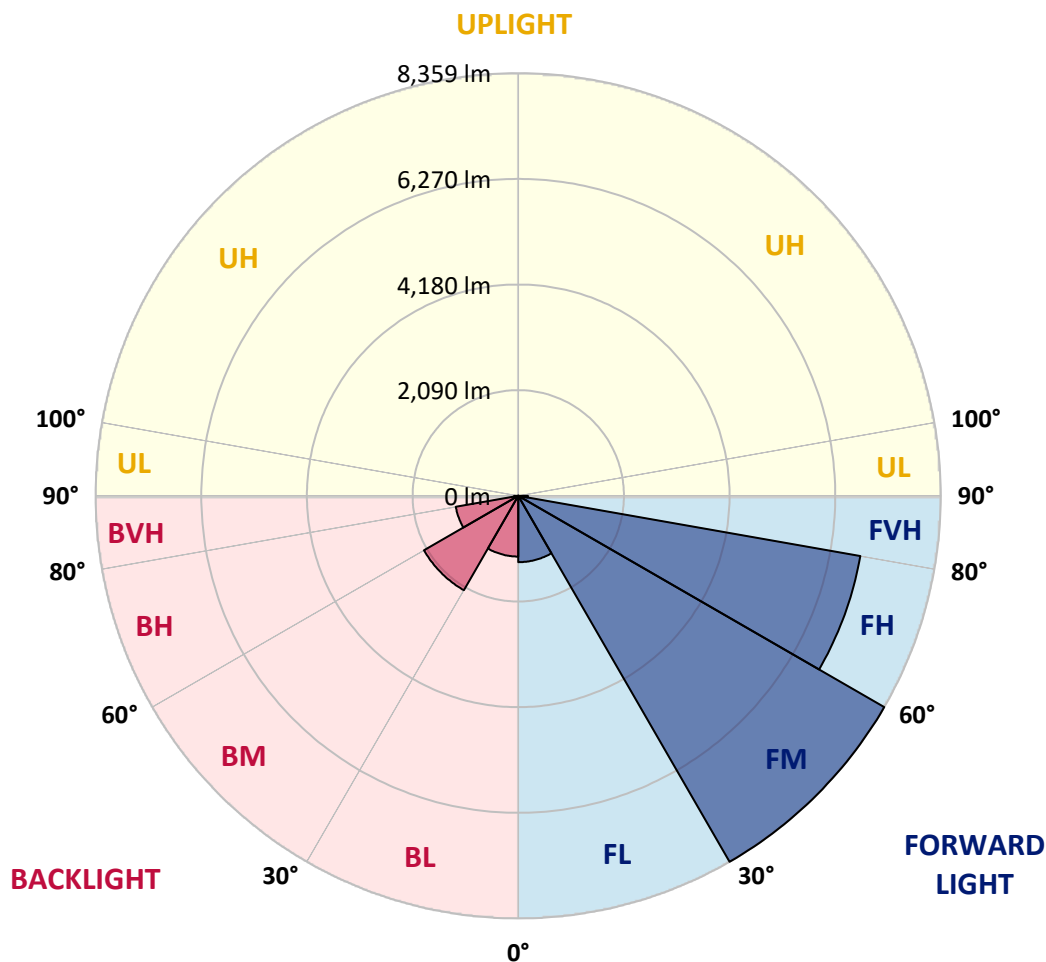
CATALOG NUMBER: NAV-SB5A-830-U-T3R

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1312.6	6.1			
FM	(30°-60°)	8359.4	39.0			
FH	(60°-80°)	6871.2	32.1			G3/7500
FVH	(80°-90°)	189.7	0.9			G2/225
BL	(0°-30°)	1202.1	5.6	B3/2500		
BM	(30°-60°)	2154.0	10.1	B2/2500		
BH	(60°-80°)	1253.9	5.9	B3/2500		G3/2500
BVH	(80°-90°)	81.6	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-G3

Type III Medium



REPORT NUMBER: P967892

CATALOG NUMBER: NAV-SB5A-830-U-T3R

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2988.9	2988.9	2988.9	2988.9	2988.9	2988.9	2988.9	2988.9	2988.9	2988.9	2988.9
2.5°	2755.2	2754.1	2768.4	2772.7	2799.1	2817.7	2852.9	2890.2	2938.5	2943.9	2973.5
5°	2596.1	2596.1	2612.5	2630.1	2664.2	2701.5	2755.2	2820.0	2903.3	2916.5	2990.0
7.5°	2461.1	2469.9	2484.2	2518.2	2557.7	2611.5	2693.8	2786.0	2895.6	2916.5	3035.0
10°	2352.5	2362.4	2379.9	2407.4	2466.7	2541.3	2648.8	2767.3	2914.3	2947.2	3100.8
12.5°	2318.4	2328.4	2338.2	2359.1	2414.0	2501.7	2630.1	2776.0	2959.3	2992.2	3190.8
15°	2397.5	2409.6	2401.9	2396.4	2424.9	2505.0	2638.9	2807.9	3015.2	3062.4	3301.6
17.5°	2579.6	2584.0	2566.5	2514.9	2510.5	2553.3	2680.6	2851.8	3085.5	3137.0	3413.6
20°	2873.7	2866.0	2829.8	2727.7	2669.6	2660.8	2751.9	2917.6	3157.9	3212.8	3534.3
22.5°	3273.1	3264.3	3192.0	3030.6	2901.2	2815.6	2855.0	3003.1	3239.1	3300.5	3651.7
25°	3771.3	3759.2	3652.8	3433.3	3232.5	3020.8	2995.5	3116.2	3338.9	3396.0	3774.6
27.5°	4352.8	4342.9	4227.7	3938.0	3648.4	3301.6	3170.0	3248.9	3443.2	3508.0	3912.8
30°	4978.2	5006.8	4802.6	4491.0	4124.6	3668.2	3404.7	3412.4	3578.2	3636.3	4080.7
32.5°	5713.5	5762.8	5517.0	5122.0	4621.6	4066.4	3701.1	3640.7	3774.6	3822.8	4292.5
35°	6442.0	6498.0	6293.8	5857.2	5281.1	4536.0	4010.4	3902.9	4035.7	4088.4	4573.3
37.5°	7071.8	7146.4	7041.0	6661.5	5986.6	5102.2	4414.3	4211.2	4357.2	4423.1	4950.9
40°	7568.9	7683.0	7675.3	7438.3	6818.3	5789.1	4926.7	4592.0	4756.6	4828.0	5408.4
42.5°	7972.7	8071.4	8156.9	8145.0	7686.3	6569.2	5529.1	5086.9	5211.9	5294.2	5923.0
45°	8251.4	8356.7	8541.0	8739.7	8521.2	7404.3	6219.2	5673.9	5788.0	5912.0	6536.3
47.5°	8500.4	8620.0	8859.3	9174.2	9230.1	8242.5	6975.2	6357.5	6461.7	6590.1	7151.9
50°	8522.4	8625.5	8996.4	9443.0	9733.7	9048.0	7787.2	7124.5	7222.2	7359.3	7811.3
52.5°	7992.4	8154.8	8802.2	9435.3	9965.3	9721.7	8593.7	7922.2	8031.9	8196.5	8493.9
55°	6203.9	6442.0	8232.7	9141.3	9882.9	10157.2	9360.7	8770.3	8910.8	9083.0	9180.7
57.5°	5343.6	5447.9	6535.2	8605.8	9507.7	10270.3	10008.1	9627.3	9853.3	10042.0	9907.1
60°	4802.6	4889.4	5532.3	7773.0	9014.0	10091.4	10508.4	10426.1	10816.7	11041.7	10650.0
62.5°	4223.3	4305.6	4890.5	6490.3	8381.9	9794.1	10824.4	11163.5	11804.3	12050.0	11350.0
65°	3648.4	3718.6	4279.3	5453.3	7578.7	9496.7	10987.9	11800.9	12718.3	12972.8	11931.5
67.5°	3007.6	3065.8	3595.7	4600.8	6602.1	9089.7	11069.1	12302.5	13513.8	13732.1	12219.0
70°	2170.3	2215.3	2762.9	3638.5	5376.5	8389.6	11036.2	12657.9	13926.4	14100.8	12001.7
72.5°	1025.9	1066.5	1709.5	2362.4	3797.6	7026.8	10370.1	12376.0	13507.2	13420.5	10671.9
75°	547.6	582.6	982.1	1295.9	2005.8	4817.0	8486.2	10660.9	11342.3	10921.0	7887.1
77.5°	370.8	398.3	607.9	778.0	916.2	2286.7	5454.4	7381.2	7101.4	6405.7	3950.1
80°	294.1	322.6	498.2	526.6	443.3	826.3	2253.8	3416.8	2454.6	1963.0	1123.6
82.5°	226.0	257.9	419.1	381.8	241.4	339.1	656.2	1080.8	628.7	478.4	272.1
85°	138.3	172.3	329.1	243.5	136.0	154.7	222.7	300.6	192.0	160.2	97.7
87.5°	70.2	98.7	166.8	88.9	61.4	36.2	59.2	59.2	50.4	43.9	25.2
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: P967892

CATALOG NUMBER: NAV-SB5A-830-U-T3R

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2988.9	2988.9	2988.9	2988.9	2988.9	2988.9	2988.9	2988.9	2988.9	2988.9	2988.9
2.5°	2999.9	3021.8	3059.1	3094.3	3121.6	3148.0	3174.3	3188.6	3193.0	3210.6	3220.4
5°	3035.0	3075.6	3148.0	3216.0	3258.9	3285.2	3303.9	3314.8	3317.0	3322.4	3331.2
7.5°	3099.7	3164.5	3265.4	3333.5	3365.3	3363.1	3355.4	3328.0	3317.0	3307.2	3309.3
10°	3190.8	3276.4	3400.4	3447.6	3427.8	3375.1	3307.2	3227.0	3189.7	3153.5	3142.5
12.5°	3303.9	3412.4	3534.3	3532.0	3434.4	3299.5	3141.4	3018.5	2940.6	2884.7	2871.5
15°	3441.0	3566.1	3659.4	3584.7	3370.8	3128.3	2896.8	2736.5	2666.3	2604.8	2598.3
17.5°	3582.6	3716.4	3759.2	3568.2	3210.6	2874.8	2612.5	2486.3	2417.3	2384.4	2394.2
20°	3720.7	3853.6	3818.4	3473.9	2967.0	2587.3	2353.6	2284.5	2270.2	2277.9	2274.6
22.5°	3866.7	3985.2	3830.5	3291.8	2656.5	2293.2	2164.9	2167.1	2198.9	2221.9	2227.4
25°	4016.0	4096.0	3798.6	3028.5	2322.9	2077.1	2045.3	2080.4	2143.0	2188.0	2200.0
27.5°	4159.7	4194.8	3729.6	2702.5	2036.5	1922.4	1927.9	2000.3	2094.7	2157.2	2172.6
30°	4322.1	4282.6	3596.8	2336.1	1837.9	1789.6	1835.7	1920.2	2014.5	2070.5	2083.7
32.5°	4505.3	4358.3	3386.1	1997.0	1697.5	1683.2	1758.9	1813.7	1855.5	1872.0	1880.7
35°	4733.6	4464.7	3116.2	1758.9	1571.2	1605.3	1677.7	1650.2	1633.8	1625.0	1633.8
37.5°	5029.8	4608.5	2800.2	1604.2	1469.2	1549.3	1578.9	1493.3	1428.6	1396.8	1404.5
40°	5386.4	4819.1	2496.3	1484.6	1404.5	1501.0	1449.5	1346.3	1264.0	1219.0	1222.3
42.5°	5782.5	5039.7	2240.5	1394.6	1368.3	1461.5	1354.0	1231.1	1098.4	1084.0	1098.4
45°	6198.4	5266.9	2066.1	1325.5	1350.7	1427.5	1299.2	1100.5	1006.1	1064.4	1095.1
47.5°	6614.2	5475.3	1960.8	1273.9	1341.9	1389.1	1250.9	1028.2	961.2	1045.7	1085.2
50°	7077.3	5661.8	1913.6	1236.6	1332.1	1373.8	1178.4	1009.5	914.0	970.0	1011.7
52.5°	7537.0	5806.6	1878.5	1199.2	1317.8	1361.7	1143.4	987.5	857.0	860.3	883.2
55°	7995.7	5901.0	1840.1	1149.9	1286.0	1335.4	1140.0	963.4	814.2	798.8	809.7
57.5°	8485.1	5954.8	1792.9	1095.1	1231.1	1268.4	1136.7	944.7	801.0	775.7	779.0
60°	8983.2	6033.8	1731.4	1028.2	1157.6	1188.3	1129.0	938.2	793.3	750.5	753.8
62.5°	9429.8	6061.2	1657.9	964.5	1063.2	1109.4	1112.6	932.6	772.4	698.9	698.9
65°	9722.7	5942.7	1529.6	892.1	961.2	1028.2	1080.8	914.0	735.1	661.6	661.6
67.5°	9710.7	5604.8	1328.8	798.8	862.4	938.2	1034.7	882.2	690.1	615.5	618.9
70°	9258.6	4937.6	1074.2	690.1	753.8	841.6	975.5	835.0	636.4	565.1	571.6
72.5°	7940.8	3864.6	780.1	562.9	627.6	741.8	898.6	778.0	581.6	520.1	516.8
75°	5672.8	2445.8	528.9	432.3	488.3	628.7	803.2	711.0	531.1	522.3	492.7
77.5°	2897.9	1168.6	350.0	316.0	340.2	496.0	674.9	635.3	538.7	431.2	384.1
80°	942.6	431.2	220.6	215.0	226.0	330.3	522.3	521.2	408.2	292.9	258.9
82.5°	300.6	185.4	143.7	138.3	132.7	207.4	364.3	412.6	275.4	185.4	184.3
85°	119.6	110.8	84.5	77.9	56.0	97.7	191.0	274.3	205.2	133.9	137.1
87.5°	43.9	43.9	23.1	16.5	12.1	32.9	51.6	82.3	117.4	69.1	68.1
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)