

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: P967194

Luminaire Tested: **NAV-SB4D-735-U-SL3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967194
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-12)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-735-U-SL3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 40855.5 lumens
Efficiency: N/A
Efficacy: 139.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G5

Input Watts (W): 293.6
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



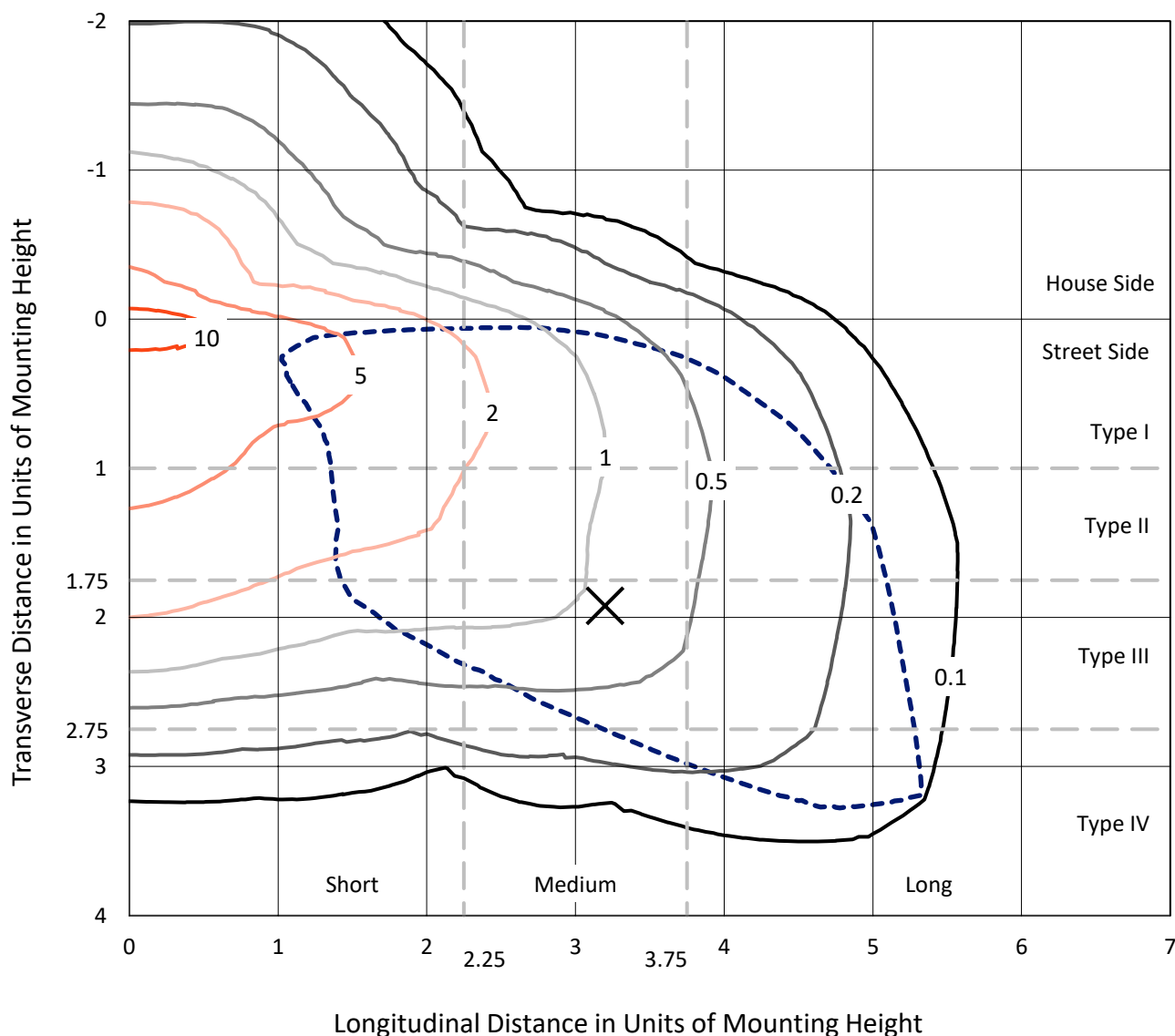
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

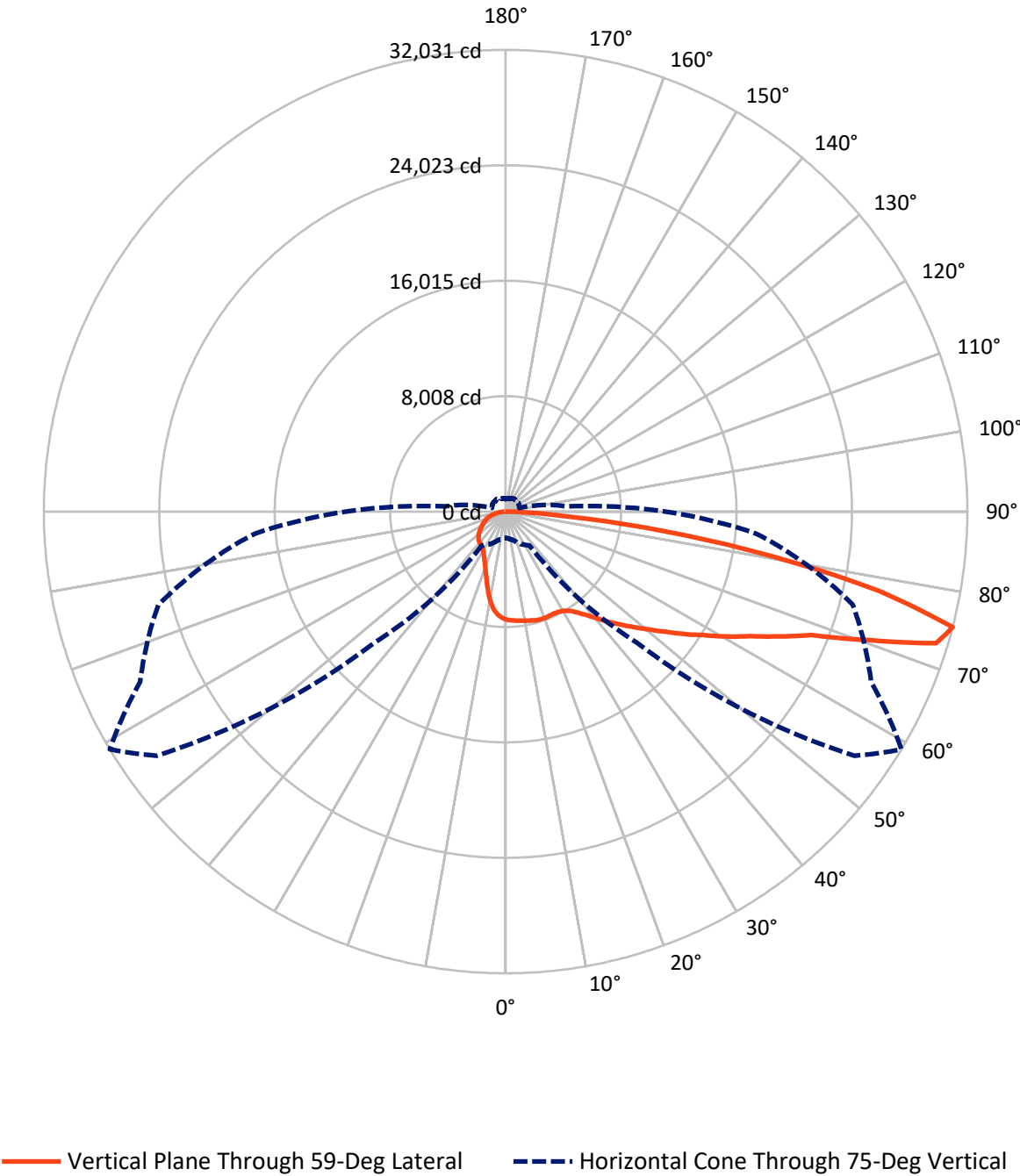
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12 fc
Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7662.7	0.0	7662.7
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	33192.7	0.0	33192.7
	% Fixture	81.2	0.0	81.2
Total	Lumens	40855.5	0.0	40855.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	672.4	1.6
10°-20°	1718.7	4.2
20°-30°	2610.6	6.4
30°-40°	3880.5	9.5
40°-50°	5771.0	14.1
50°-60°	7833.5	19.2
60°-70°	9563.4	23.4
70°-80°	7505.2	18.4
80°-90°	1300.1	3.2
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°	40855.5	100.0
0°-180°	40855.5	100.0

Coefficient of Utilization



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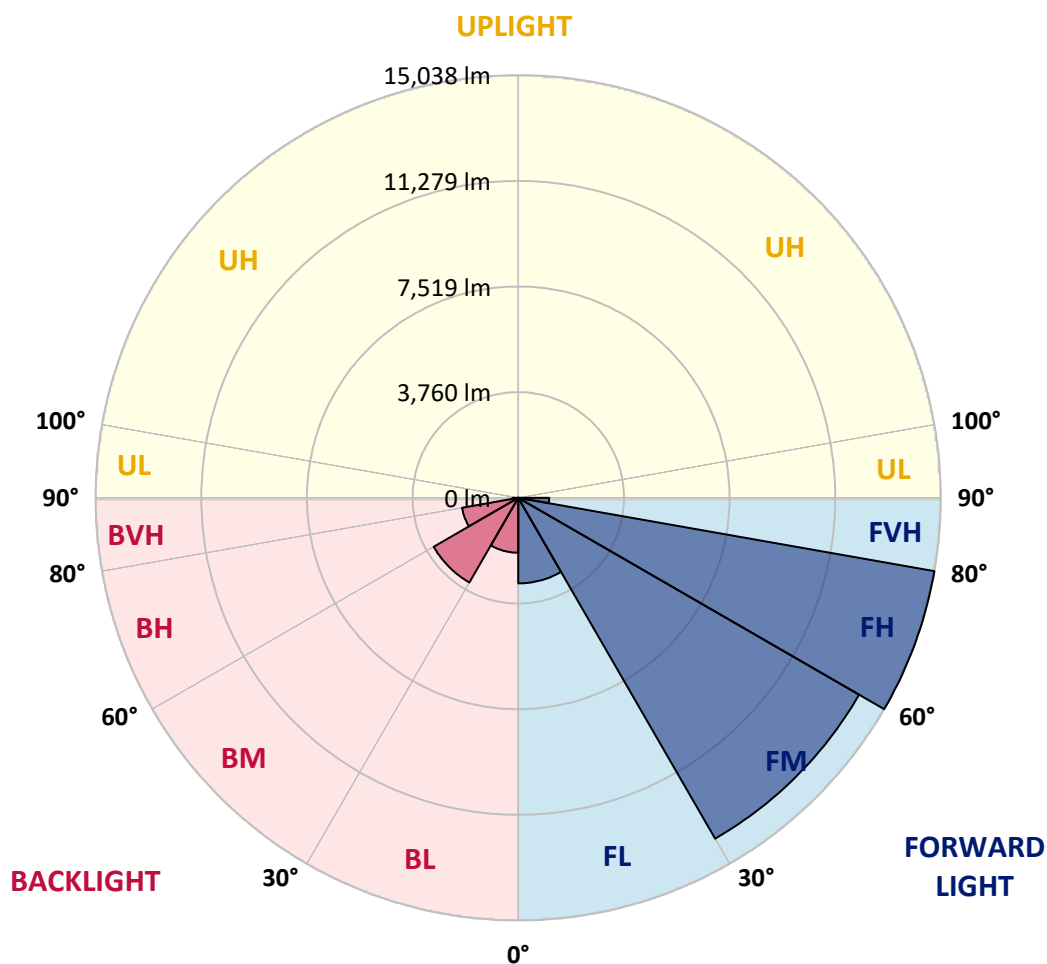
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3046.2	7.5			
FM	(30°-60°)	14007.0	34.3			
FH	(60°-80°)	15038.5	36.8			G5
FVH	(80°-90°)	1101.1	2.7			G5
BL	(0°-30°)	1955.4	4.8	B3/2500		
BM	(30°-60°)	3478.1	8.5	B3/5000		
BH	(60°-80°)	2030.2	5.0	B3/2500		G3/2500
BVH	(80°-90°)	199.0	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	7498.9	7498.9	7498.9	7498.9	7498.9	7498.9	7498.9	7498.9	7498.9	7498.9	7498.9
2.5°	7562.7	7536.3	7562.7	7551.7	7547.3	7538.5	7540.7	7556.1	7547.3	7558.2	7520.9
5°	7512.1	7496.7	7523.1	7516.5	7545.1	7549.4	7578.0	7595.7	7606.6	7608.8	7580.3
7.5°	7428.6	7413.2	7450.6	7481.4	7542.9	7560.5	7619.8	7648.3	7663.7	7690.2	7648.3
10°	7123.1	7116.5	7208.8	7325.3	7470.4	7560.5	7650.6	7699.0	7723.1	7793.5	7745.1
12.5°	6582.4	6591.3	6712.1	6936.3	7226.4	7516.5	7685.8	7756.1	7793.5	7881.3	7859.4
15°	6066.0	6063.8	6195.6	6435.2	6841.8	7323.1	7703.3	7824.2	7888.0	8017.7	8000.0
17.5°	5767.1	5758.2	5850.6	6032.9	6411.0	7026.4	7659.4	7861.5	7997.9	8160.4	8145.1
20°	5712.1	5694.5	5742.9	5833.0	6101.1	6701.1	7545.1	7861.5	8085.7	8296.8	8287.9
22.5°	5912.1	5883.5	5863.7	5852.7	5971.4	6433.0	7415.5	7835.2	8215.4	8492.3	8477.0
25°	6314.3	6270.3	6169.3	6070.4	6035.2	6312.2	7301.2	7828.6	8408.8	8756.1	8699.0
27.5°	6964.9	6909.9	6705.6	6468.2	6255.0	6373.7	7250.5	7868.2	8622.0	9035.2	8920.9
30°	7771.4	7712.1	7454.9	7090.1	6707.7	6602.2	7314.3	7984.6	8894.5	9406.6	9182.5
32.5°	8494.6	8428.6	8208.8	7837.4	7320.9	6997.9	7516.5	8206.7	9323.1	9923.1	9575.9
35°	9136.3	9059.4	8861.5	8518.7	8072.6	7553.8	7881.3	8600.1	9931.9	10762.7	10109.9
37.5°	9764.9	9674.8	9459.4	9096.8	8784.7	8294.5	8384.6	9105.5	10740.7	11782.5	10817.6
40°	10468.2	10338.5	10077.0	9718.7	9415.4	9162.7	9046.2	9725.3	11562.7	12920.9	11701.2
42.5°	11149.5	11026.4	10714.3	10408.9	10028.6	9956.1	9813.2	10450.6	12461.5	14171.4	12597.9
45°	11883.5	11736.4	11358.3	10971.5	10732.0	10483.6	10556.1	11175.9	13342.9	15446.2	13538.5
47.5°	12571.5	12406.6	11960.5	11529.7	11397.9	10927.5	11237.4	11973.6	14259.4	16738.6	14470.4
50°	12942.9	12780.3	12408.9	12019.9	11916.5	11474.8	11975.9	12850.6	15219.8	18026.5	15364.9
52.5°	13252.8	13076.9	12591.3	12375.8	12345.1	12070.4	12885.8	13852.8	16180.2	19164.9	16228.6
55°	13582.5	13386.9	12767.1	12573.7	12714.3	12738.5	13964.9	14989.1	17195.7	20274.8	17044.0
57.5°	13962.7	13714.3	12936.3	12740.7	13074.8	13521.0	15204.4	16167.1	18193.4	21303.4	17769.3
60°	14320.9	14070.4	13261.6	13006.6	13463.8	14428.6	16626.4	17593.5	19323.2	22219.8	18455.0
62.5°	14391.3	14184.7	13521.0	13518.7	13991.2	15488.0	18310.0	19033.0	20310.0	23125.3	19070.4
65°	13173.7	13044.0	12650.6	13498.9	14747.3	17013.3	20184.7	20874.8	21564.9	23916.5	19611.0
67.5°	10026.4	10044.0	10015.4	11652.8	14136.3	19204.5	22899.0	22846.2	23114.4	24804.5	20233.1
70°	4584.6	4687.9	5360.4	8044.0	11325.3	19457.3	27387.0	26703.4	25059.4	25953.9	20771.5
72.5°	2476.9	2556.0	2830.7	3896.7	6808.8	17298.9	30740.8	31226.5	27646.3	26727.6	20180.3
75°	1817.6	1861.5	2052.8	2476.9	2859.3	12857.2	29538.6	32030.9	27969.4	24923.2	17426.4
77.5°	1360.5	1380.3	1536.3	1962.7	1463.7	6778.0	23602.3	26527.6	23943.0	20477.0	12872.6
80°	986.8	1008.8	1125.2	1472.5	1026.3	2479.2	16206.7	18619.8	16397.8	13052.8	6415.4
82.5°	681.3	690.1	740.7	1002.2	716.5	962.7	9195.7	10918.7	9153.9	4580.2	1731.8
85°	411.0	422.0	443.9	584.7	406.6	457.2	3969.2	4105.5	2736.2	1094.5	538.4
87.5°	169.2	180.2	197.8	246.2	160.4	127.5	655.0	821.9	512.1	320.9	167.1
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°	7498.9	7498.9	7498.9	7498.9	7498.9	7498.9	7498.9	7498.9	7498.9	7498.9	7498.9
2.5°	7510.0	7494.5	7452.8	7395.7	7342.9	7277.0	7248.4	7224.2	7202.3	7160.4	7140.7
5°	7556.1	7514.3	7402.2	7257.2	7092.4	6912.1	6736.3	6615.5	6512.1	6435.2	6371.5
7.5°	7626.4	7547.3	7342.9	7046.2	6668.1	6281.3	5931.9	5683.5	5496.8	5428.6	5309.9
10°	7699.0	7604.5	7248.4	6725.3	6072.5	5477.0	5013.2	4758.3	4608.8	4560.4	4485.7
12.5°	7784.7	7646.2	7101.1	6279.2	5406.6	4753.8	4349.5	4200.0	4123.1	4096.7	4103.3
15°	7909.9	7681.4	6879.2	5720.9	4771.5	4226.4	3964.8	3861.6	3822.0	3819.8	3828.6
17.5°	8004.4	7687.9	6534.1	5123.1	4283.6	3907.7	3692.4	3652.8	3679.1	3718.7	3734.1
20°	8109.9	7628.6	6081.3	4578.1	3940.7	3628.6	3538.5	3564.8	3628.6	3685.7	3705.5
22.5°	8184.6	7520.9	5534.1	4153.8	3644.0	3468.2	3463.8	3518.7	3553.9	3582.5	3597.9
25°	8250.5	7338.5	4953.8	3797.8	3400.0	3371.4	3419.8	3402.2	3378.0	3402.2	3417.6
27.5°	8298.9	7050.6	4435.2	3485.7	3228.5	3305.5	3276.9	3237.4	3235.2	3248.3	3270.4
30°	8283.5	6666.0	4008.8	3189.0	3107.7	3182.4	3114.3	3107.7	3101.1	3107.7	3131.9
32.5°	8283.5	6228.6	3681.3	2984.6	3030.8	3002.2	2995.7	2980.2	2953.8	2951.7	2980.2
35°	8329.7	5791.2	3400.0	2874.7	2967.1	2898.9	2903.3	2865.9	2811.0	2784.6	2811.0
37.5°	8424.2	5439.6	3120.9	2822.0	2854.9	2852.8	2835.1	2771.4	2674.7	2591.2	2619.8
40°	8652.7	5336.3	2929.7	2797.8	2802.2	2828.6	2782.5	2659.4	2439.6	2303.3	2320.9
42.5°	9011.0	5509.9	2887.9	2738.5	2767.1	2793.4	2703.3	2417.6	2261.6	2180.3	2180.3
45°	9466.0	5813.2	2978.0	2652.8	2683.6	2729.7	2461.5	2325.3	2255.0	2257.2	2268.1
47.5°	10041.8	6131.9	3145.1	2578.1	2562.6	2589.0	2301.1	2217.6	2120.9	2145.0	2206.6
50°	10707.8	6454.9	3303.3	2476.9	2428.5	2342.8	2197.8	2118.7	1995.6	1938.5	1953.9
52.5°	11428.6	6767.0	3367.0	2353.8	2283.5	2184.6	2127.5	2030.7	1881.3	1786.8	1784.6
55°	12112.1	7050.6	3296.7	2206.6	2138.5	2061.6	2052.8	1993.4	1833.0	1701.1	1701.1
57.5°	12758.3	7288.0	3120.9	2057.2	1991.3	1945.0	2004.4	1975.8	1773.7	1604.4	1595.6
60°	13305.5	7450.6	2865.9	1905.5	1859.4	1835.2	1925.3	1916.4	1690.1	1501.1	1494.6
62.5°	13740.7	7514.3	2584.6	1760.4	1749.5	1705.5	1815.4	1815.4	1584.6	1400.0	1393.4
65°	14081.3	7452.8	2298.9	1617.6	1639.6	1573.7	1681.3	1668.2	1472.5	1309.8	1301.1
67.5°	14382.5	7250.5	1982.5	1476.9	1527.5	1443.9	1540.7	1509.9	1349.4	1219.8	1211.0
70°	14516.6	6780.3	1622.0	1336.3	1397.8	1316.5	1400.0	1342.9	1211.0	1123.1	1105.5
72.5°	13439.6	5635.1	1276.9	1189.0	1241.8	1175.9	1248.3	1182.4	1061.6	1022.0	989.0
75°	11118.7	4228.6	982.5	1028.6	1068.2	1017.6	1065.9	1017.6	907.7	936.2	855.0
77.5°	8074.7	2854.9	751.6	859.4	876.9	850.5	892.3	837.3	738.5	731.8	698.9
80°	4015.4	1672.5	589.0	679.2	672.5	655.0	703.3	676.9	593.4	628.5	622.0
82.5°	1162.7	716.5	428.6	476.9	463.7	468.1	503.3	516.5	773.7	767.0	784.6
85°	364.8	281.4	257.2	265.9	252.8	259.3	296.7	589.0	545.1	318.7	345.0
87.5°	94.5	96.7	63.8	68.2	70.3	83.5	94.5	358.2	171.4	112.1	118.7
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)