

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: P965096

Luminaire Tested: **NAV-SB3D-735-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965096
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3D-735-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31875.5 lumens
Efficiency: N/A
Efficacy: 146.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G4

Input Watts (W): 218.1
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

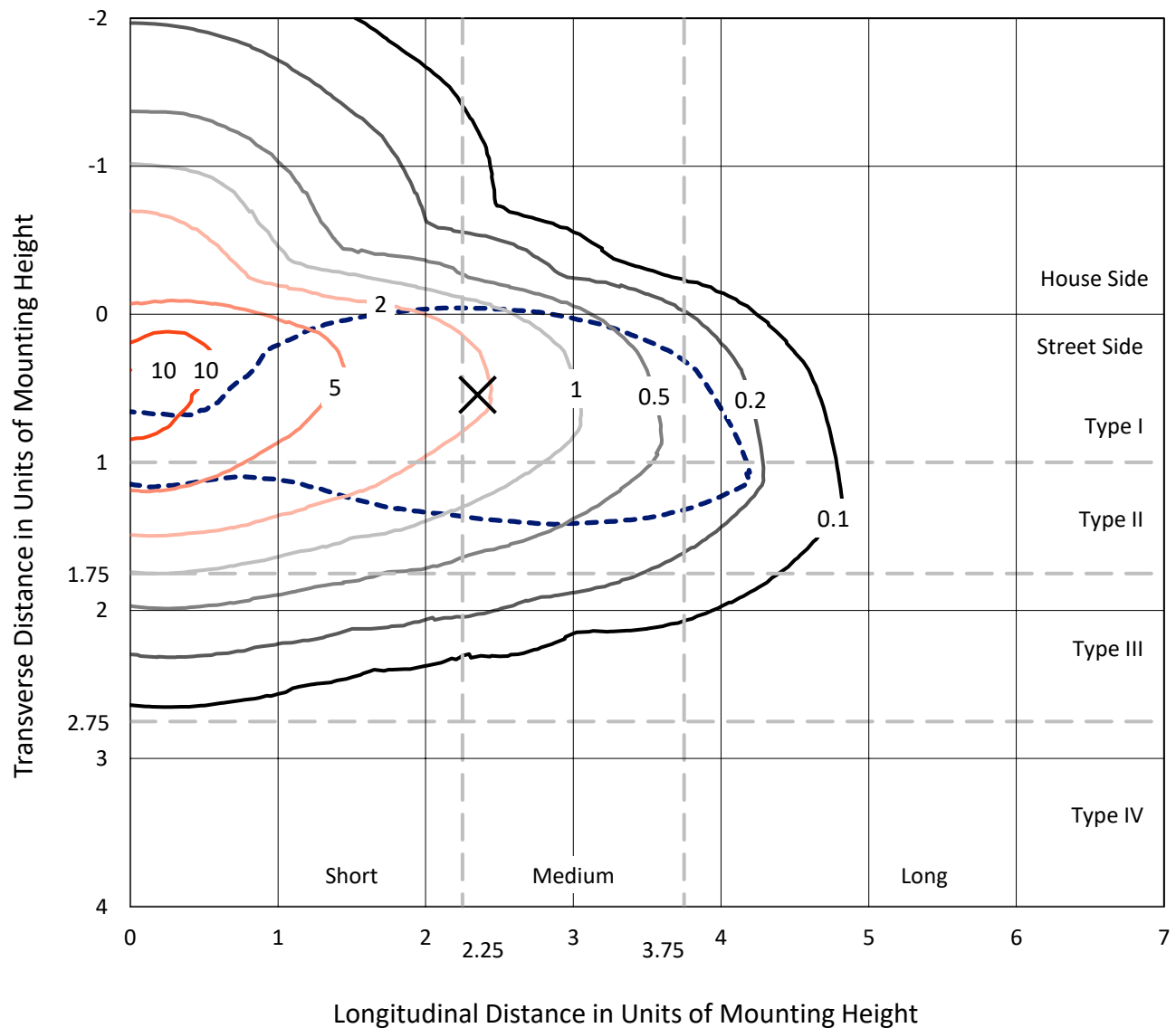


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Iso-Footcandle Lines of Horizontal Illumination

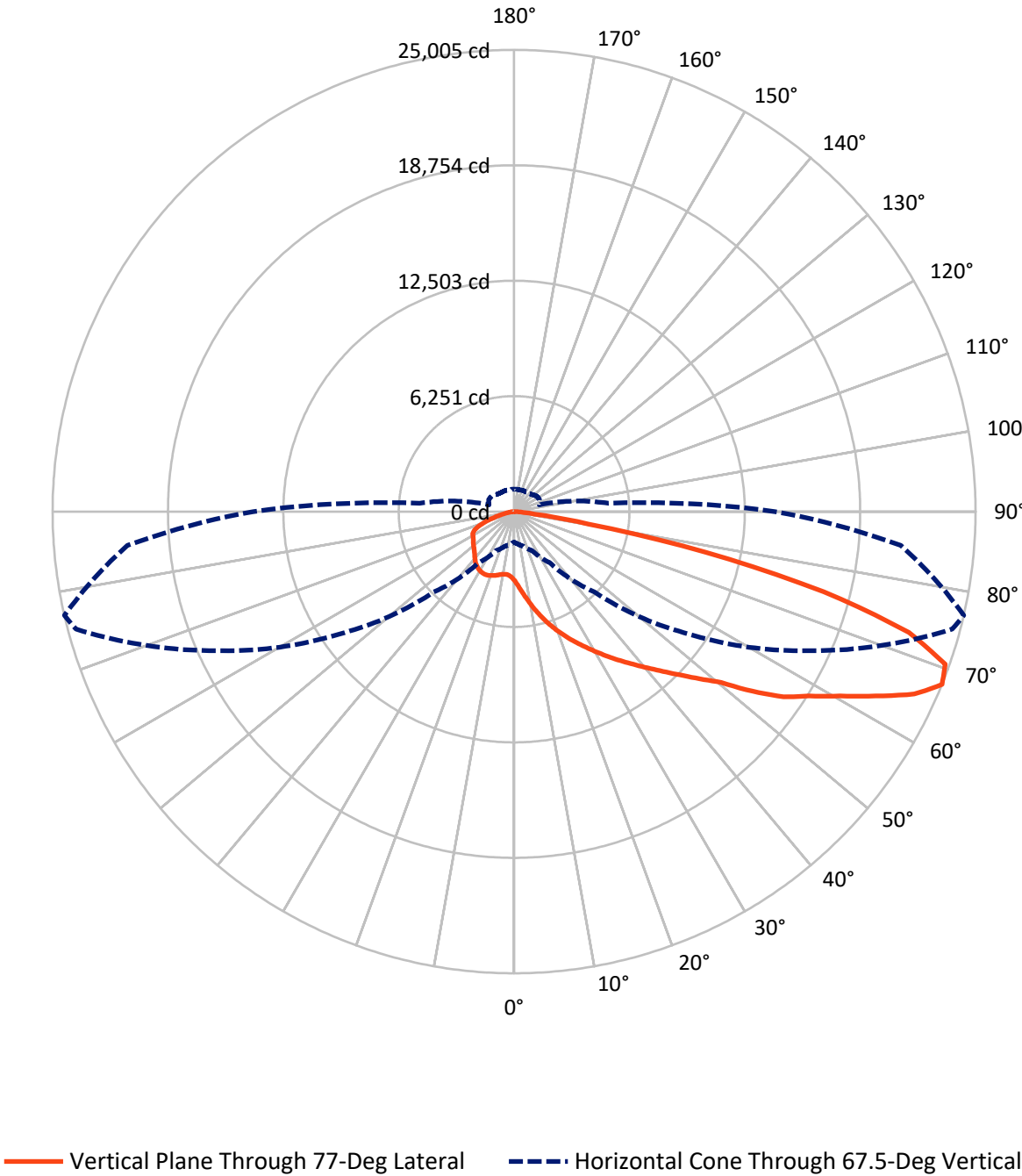
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.7 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6029.6	0.0	6029.6
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	25845.9	0.0	25845.9
	% Fixture	81.1	0.0	81.1
Total	Lumens	31875.5	0.0	31875.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	400.9	1.3
10°-20°	1440.2	4.5
20°-30°	2719.2	8.5
30°-40°	4380.6	13.7
40°-50°	5991.9	18.8
50°-60°	6758.9	21.2
60°-70°	6308.6	19.8
70°-80°	3458.2	10.8
80°-90°	417.1	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°	31875.5	100.0
0°-180°	31875.5	100.0

Coefficient of Utilization



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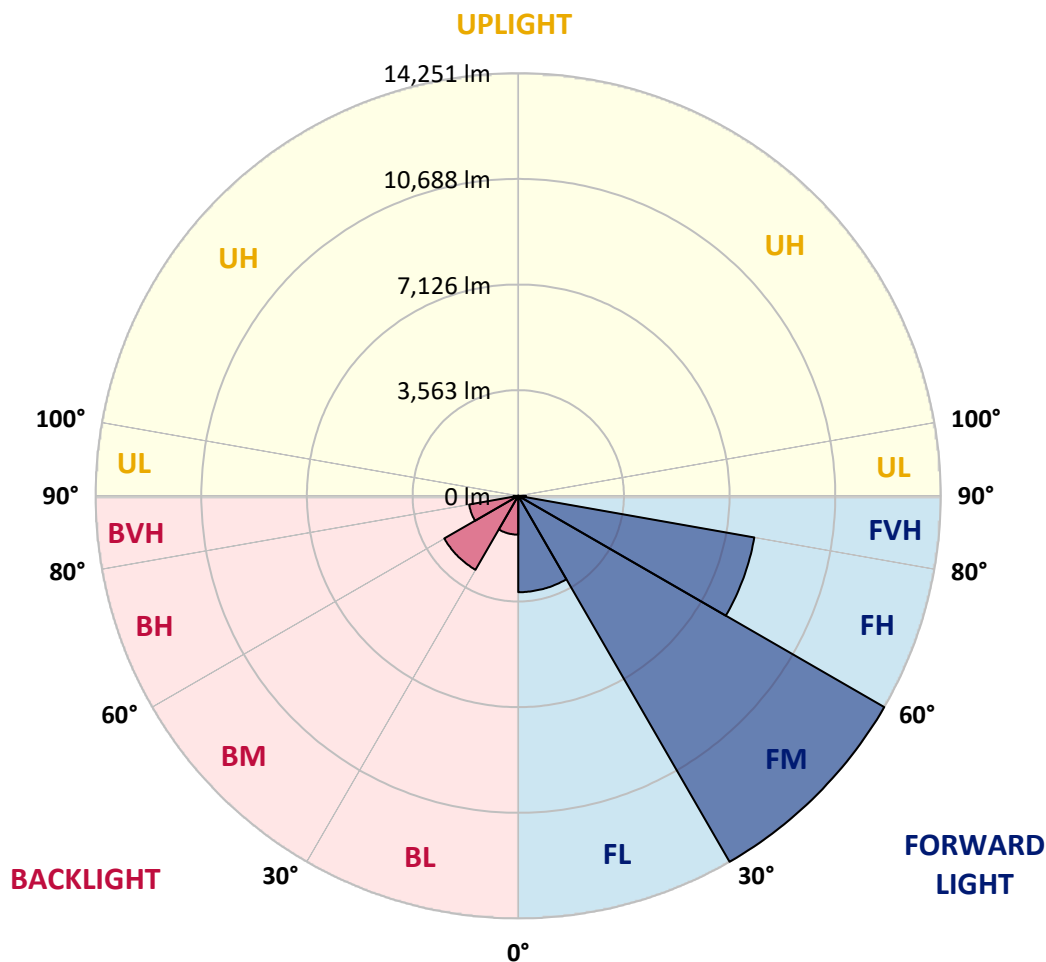
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3249.3	10.2			
FM	(30°-60°)	14251.2	44.7			
FH	(60°-80°)	8084.6	25.4			G4/12000
FVH	(80°-90°)	260.9	0.8			G3/500
BL	(0°-30°)	1311.0	4.1	B3/2500		
BM	(30°-60°)	2880.2	9.0	B3/5000		
BH	(60°-80°)	1682.2	5.3	B3/2500		G3/2500
BVH	(80°-90°)	156.3	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-G4

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	3740.0	3740.0	3740.0	3740.0	3740.0	3740.0	3740.0	3740.0	3740.0	3740.0	3740.0
2.5°	4682.8	4715.7	4674.6	4674.6	4536.3	4464.0	4325.7	4220.4	4031.2	3998.3	3873.3
5°	5535.1	5576.2	5518.7	5494.0	5331.1	5181.4	4949.3	4720.6	4383.3	4348.8	4054.3
7.5°	6194.9	6247.6	6196.5	6170.2	6025.5	5857.6	5586.1	5266.9	4791.4	4723.9	4297.7
10°	6732.9	6741.2	6724.7	6734.6	6621.1	6482.8	6204.7	5833.0	5239.0	5146.8	4592.3
12.5°	7037.3	7075.2	7108.1	7167.3	7147.6	7062.0	6811.9	6367.7	5712.8	5594.3	4913.1
15°	7180.5	7246.3	7320.3	7456.9	7567.2	7588.6	7397.7	6941.9	6194.9	6051.8	5237.3
17.5°	7231.5	7294.0	7410.9	7608.3	7845.2	8004.8	7919.3	7499.7	6672.0	6507.5	5577.8
20°	7489.9	7507.9	7578.6	7766.2	8023.0	8287.8	8352.0	8036.1	7144.2	6958.4	5930.0
22.5°	8042.7	8006.5	8026.3	8111.7	8296.0	8552.8	8699.2	8510.0	7629.7	7415.8	6285.4
25°	8955.8	8850.6	8745.3	8646.6	8740.4	8885.1	9051.3	8983.8	8138.1	7866.7	6644.0
27.5°	10109.3	9980.9	9749.0	9424.8	9311.3	9362.2	9436.4	9423.1	8608.7	8334.0	7014.3
30°	11244.7	11094.9	10818.5	10349.5	10050.0	9915.1	9859.2	9821.3	9120.4	8827.5	7387.8
32.5°	12151.3	12032.8	11761.3	11236.4	10802.0	10571.6	10385.7	10250.8	9655.2	9362.2	7782.7
35°	12944.3	12834.0	12523.1	11950.5	11478.3	11233.1	10989.5	10701.6	10211.4	9915.1	8207.2
37.5°	13668.3	13558.1	13131.9	12536.3	12060.8	11891.2	11674.0	11185.4	10769.1	10489.3	8656.4
40°	14125.7	14101.0	13702.8	13028.3	12534.6	12450.7	12378.3	11746.5	11387.7	11127.8	9150.1
42.5°	14242.6	14296.8	13980.9	13426.4	12955.8	12888.3	13057.9	12381.6	12082.1	11833.6	9709.5
45°	13961.2	14117.5	13910.2	13533.4	13255.3	13219.1	13660.1	13075.9	12850.5	12623.5	10384.1
47.5°	13248.7	13513.6	13428.0	13375.4	13336.0	13492.3	14189.9	13813.1	13721.0	13523.5	11154.2
50°	11810.7	12312.5	12462.3	12794.6	13176.3	13704.5	14672.0	14617.7	14737.8	14538.7	12092.0
52.5°	9324.4	10015.5	10884.3	11716.9	12686.0	13633.7	15201.8	15772.7	16279.6	16170.9	13582.7
55°	7697.1	8008.1	8676.1	10203.1	11734.9	13336.0	15440.4	16705.7	17809.8	17712.7	14713.2
57.5°	6446.6	6724.7	7136.0	8411.3	10296.8	12659.7	15588.5	17275.0	18857.8	18848.0	15828.7
60°	5105.6	5400.2	5821.4	6724.7	8617.0	11491.5	15555.6	17923.3	20195.6	20277.9	17189.5
62.5°	3591.9	3916.0	4383.3	5225.8	6900.8	9977.7	14884.2	18392.2	21770.2	21993.9	18826.6
65°	2361.2	2575.0	2927.2	3654.4	5141.8	8031.2	13602.5	18453.1	23455.1	23833.5	20363.4
67.5°	1655.3	1737.6	1944.8	2339.8	3389.5	6158.7	11560.6	17822.9	24578.9	25005.1	21029.8
70°	1291.6	1332.8	1438.1	1596.0	2129.1	4141.4	8858.8	16184.1	24338.6	24783.0	20333.7
72.5°	1115.6	1155.1	1194.5	1214.3	1428.2	2557.0	6000.8	13531.7	22076.2	22377.4	17679.7
75°	1011.9	1021.8	1054.7	1048.2	1089.3	1658.6	3463.6	9859.2	17418.1	17314.5	13051.2
77.5°	850.6	863.9	918.1	909.9	967.5	1133.6	1798.5	6362.7	11292.3	10588.1	7264.4
80°	720.7	727.2	786.5	776.6	840.8	821.0	918.1	3243.1	4789.7	4057.6	2094.6
82.5°	250.1	309.3	600.5	618.7	641.8	496.9	529.8	1322.9	1462.8	1120.5	439.3
85°	121.8	130.0	306.1	434.4	432.8	250.1	258.3	472.2	460.7	362.0	146.5
87.5°	19.8	24.7	36.2	169.4	134.9	65.8	88.9	92.1	95.4	82.3	32.9
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°	3740.0	3740.0	3740.0	3740.0	3740.0	3740.0	3740.0	3740.0	3740.0	3740.0	3740.0
2.5°	3781.1	3698.8	3526.1	3366.5	3241.5	3121.3	3053.9	2996.3	2963.4	2956.8	2956.8
5°	3883.1	3713.7	3399.4	3134.4	2961.7	2833.4	2765.9	2723.1	2701.7	2688.6	2686.9
7.5°	4029.6	3781.1	3333.6	3032.5	2851.4	2759.3	2724.8	2718.2	2716.6	2718.2	2723.1
10°	4231.9	3891.3	3326.9	3007.8	2856.4	2805.4	2803.8	2805.4	2812.0	2813.6	2815.3
12.5°	4450.8	4004.9	3353.3	3029.2	2918.9	2890.9	2886.0	2884.4	2889.3	2892.7	2894.3
15°	4689.4	4154.6	3397.8	3075.2	2988.1	2958.5	2953.4	2943.6	2942.0	2940.3	2938.7
17.5°	4934.6	4302.7	3447.1	3124.6	3032.5	2991.4	2973.2	2950.2	2932.1	2927.2	2932.1
20°	5183.0	4449.1	3481.6	3149.3	3035.7	2978.1	2942.0	2902.5	2871.2	2853.1	2859.6
22.5°	5447.9	4602.1	3503.0	3142.8	3006.1	2927.2	2861.4	2815.3	2767.6	2736.3	2738.0
25°	5706.3	4735.4	3501.4	3108.1	2948.5	2848.2	2764.2	2705.1	2639.2	2606.3	2606.3
27.5°	5954.6	4855.5	3460.3	3047.2	2866.3	2754.4	2654.0	2583.3	2519.1	2487.9	2486.2
30°	6211.4	4956.0	3396.1	2958.5	2769.2	2645.8	2535.5	2474.7	2417.1	2387.4	2385.8
32.5°	6466.4	5048.0	3305.6	2848.2	2657.3	2538.8	2430.3	2374.3	2339.8	2339.8	2341.4
35°	6736.2	5112.3	3185.5	2719.8	2538.8	2425.4	2339.8	2306.9	2303.6	2283.8	2278.9
37.5°	7020.9	5153.4	3039.0	2588.2	2422.0	2315.1	2288.7	2249.3	2216.4	2173.6	2167.0
40°	7320.3	5194.5	2863.0	2451.6	2298.7	2239.4	2227.8	2175.3	2081.5	1976.1	1961.3
42.5°	7684.0	5222.5	2680.4	2315.1	2168.6	2148.9	2165.3	2074.8	1925.2	1846.1	1847.8
45°	8105.2	5268.6	2512.5	2180.2	2035.3	2035.3	2104.4	1986.0	1862.6	1813.2	1821.4
47.5°	8651.5	5375.5	2356.2	2032.1	1911.9	1944.8	1969.5	1879.0	1809.9	1749.1	1747.4
50°	9441.3	5632.2	2194.9	1882.3	1818.1	1884.0	1849.4	1796.7	1716.2	1666.8	1661.8
52.5°	10421.9	5783.6	2051.8	1747.4	1737.6	1803.4	1754.0	1704.7	1643.8	1577.9	1564.8
55°	11090.0	5811.5	1931.7	1648.7	1683.3	1676.7	1658.6	1614.2	1581.3	1494.0	1495.7
57.5°	11837.0	5867.5	1833.0	1589.5	1648.7	1576.2	1569.7	1531.9	1489.1	1429.9	1410.1
60°	12730.4	5954.6	1747.4	1566.4	1619.1	1510.4	1477.5	1462.8	1419.9	1390.3	1398.6
62.5°	13704.5	6033.7	1660.2	1569.7	1584.5	1446.3	1397.0	1392.1	1365.7	1355.8	1355.8
65°	14369.3	5818.1	1551.6	1566.4	1530.2	1380.5	1317.9	1316.3	1294.9	1291.6	1290.0
67.5°	14137.2	5135.2	1405.2	1520.4	1474.3	1314.7	1245.6	1239.0	1211.0	1212.7	1212.7
70°	12975.6	4161.2	1202.7	1406.8	1405.2	1255.4	1169.8	1148.5	1110.7	1117.2	1123.8
72.5°	10797.0	3083.5	931.3	1217.6	1294.9	1201.1	1082.7	1048.2	1000.4	1007.0	1005.3
75°	7797.5	2096.2	677.9	926.4	1127.1	1136.9	997.1	937.9	880.3	890.1	893.5
77.5°	3990.1	1188.0	498.6	638.4	885.2	1033.3	919.7	840.8	827.6	919.7	906.6
80°	1301.5	595.6	345.5	447.5	580.9	845.7	806.3	715.8	712.5	733.8	630.2
82.5°	388.3	251.7	222.1	294.5	320.8	648.3	696.0	541.3	465.7	490.4	506.8
85°	133.2	121.8	126.7	146.5	153.0	380.1	487.1	358.6	339.0	373.5	368.6
87.5°	31.3	42.7	36.2	32.9	32.9	92.1	189.2	149.8	207.4	138.2	133.2
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)