

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: P965189

Luminaire Tested: **NAV-SB3D-760-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965189
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-760-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 5700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 33723.5 lumens
Efficiency: N/A
Efficacy: 154.6 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

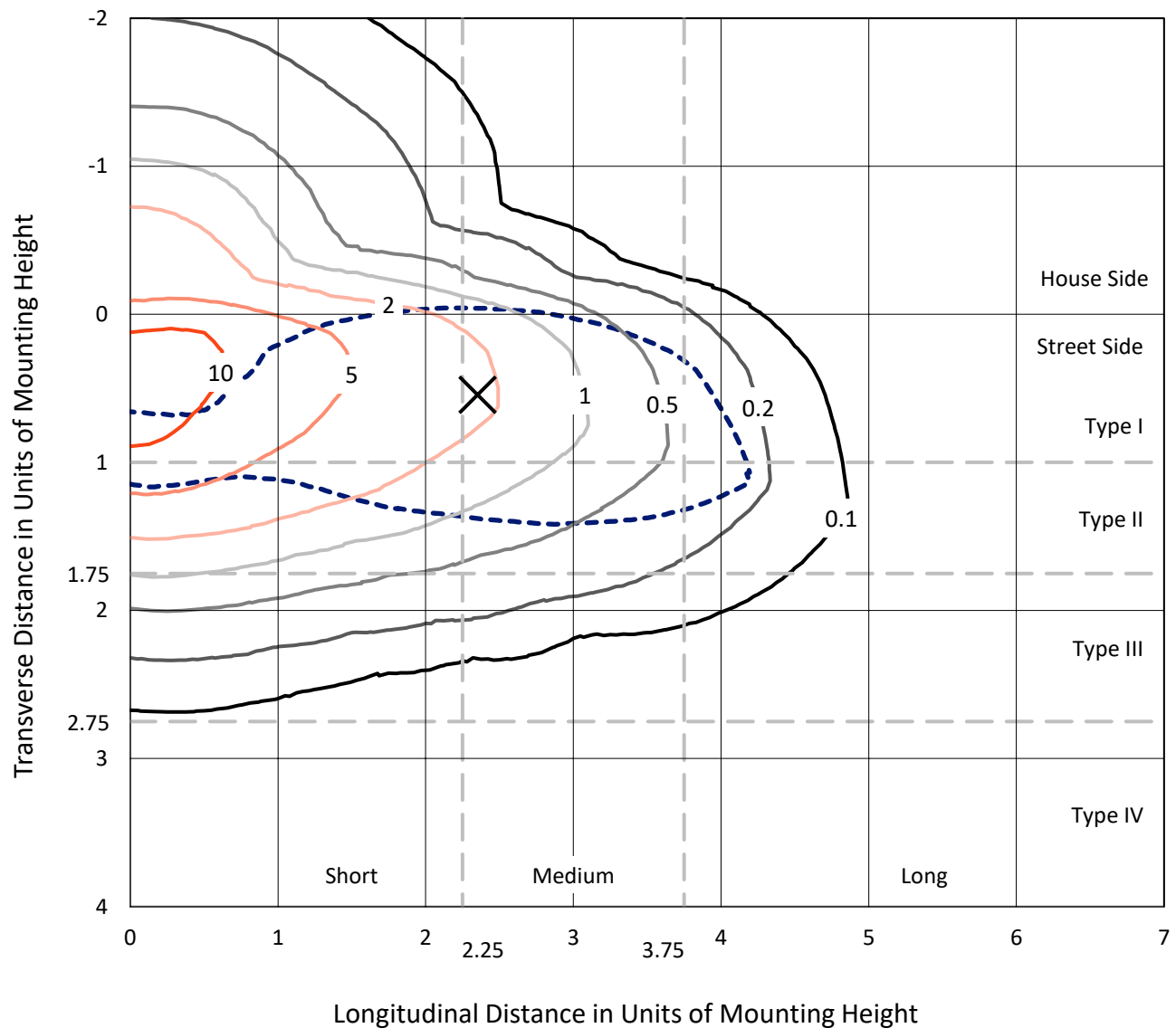


REPORT NUMBER: P965189

CATALOG NUMBER: NAV-SB3D-760-U-T2R

Iso-Footcandle Lines of Horizontal Illumination

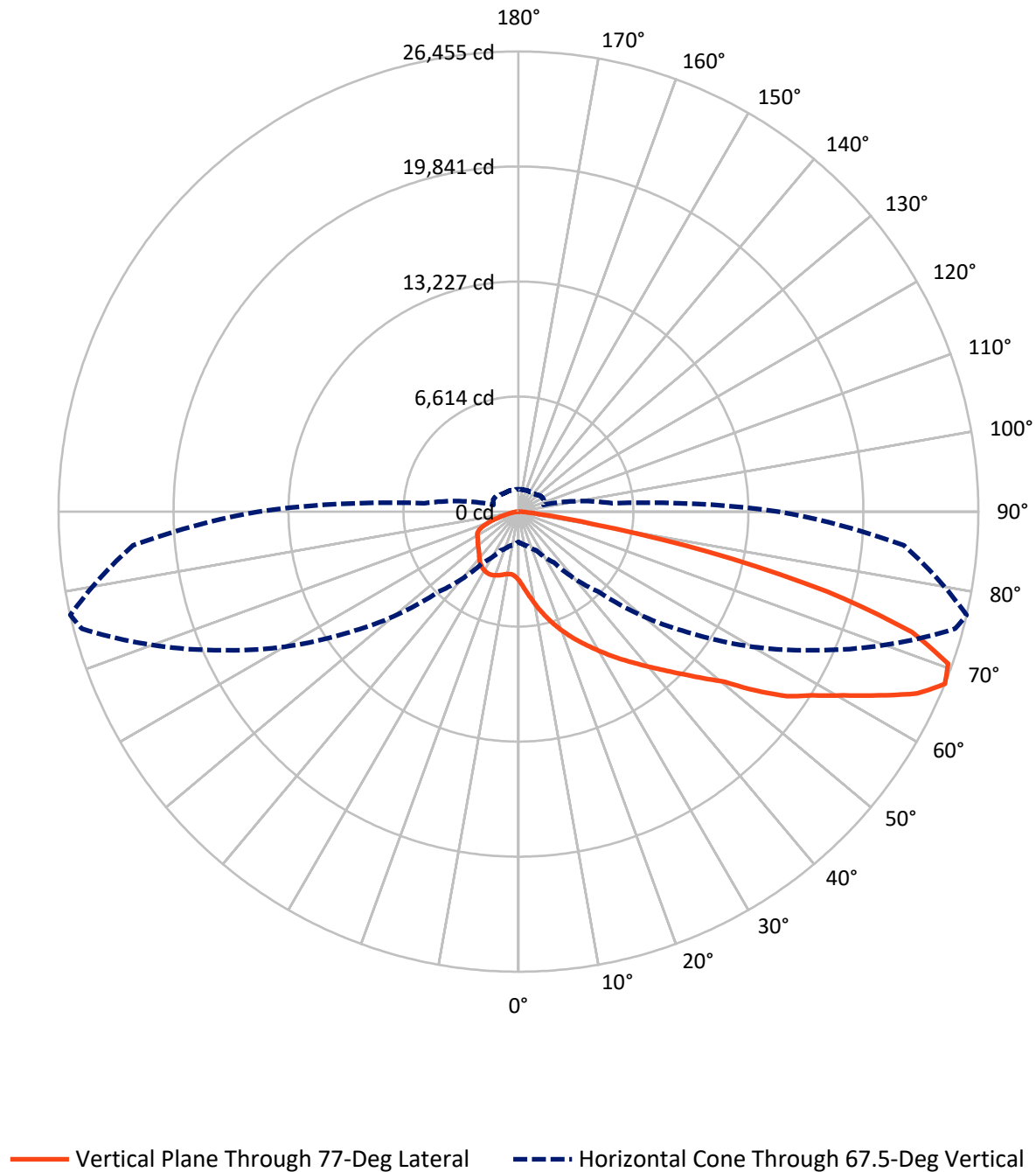
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.4 fc
Type II - Medium - N/A

REPORT NUMBER: P965189
CATALOG NUMBER: NAV-SB3D-760-U-T2R

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6379.1	0.0	6379.1
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	27344.4	0.0	27344.4
	% Fixture	81.1	0.0	81.1
Total	Lumens	33723.5	0.0	33723.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	424.1	1.3
10°-20°	1523.7	4.5
20°-30°	2876.9	8.5
30°-40°	4634.6	13.7
40°-50°	6339.3	18.8
50°-60°	7150.7	21.2
60°-70°	6674.3	19.8
70°-80°	3658.7	10.8
80°-90°	441.3	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°	33723.5	100.0
0°-180°	33723.5	100.0

Coefficient of Utilization



REPORT NUMBER: P965189

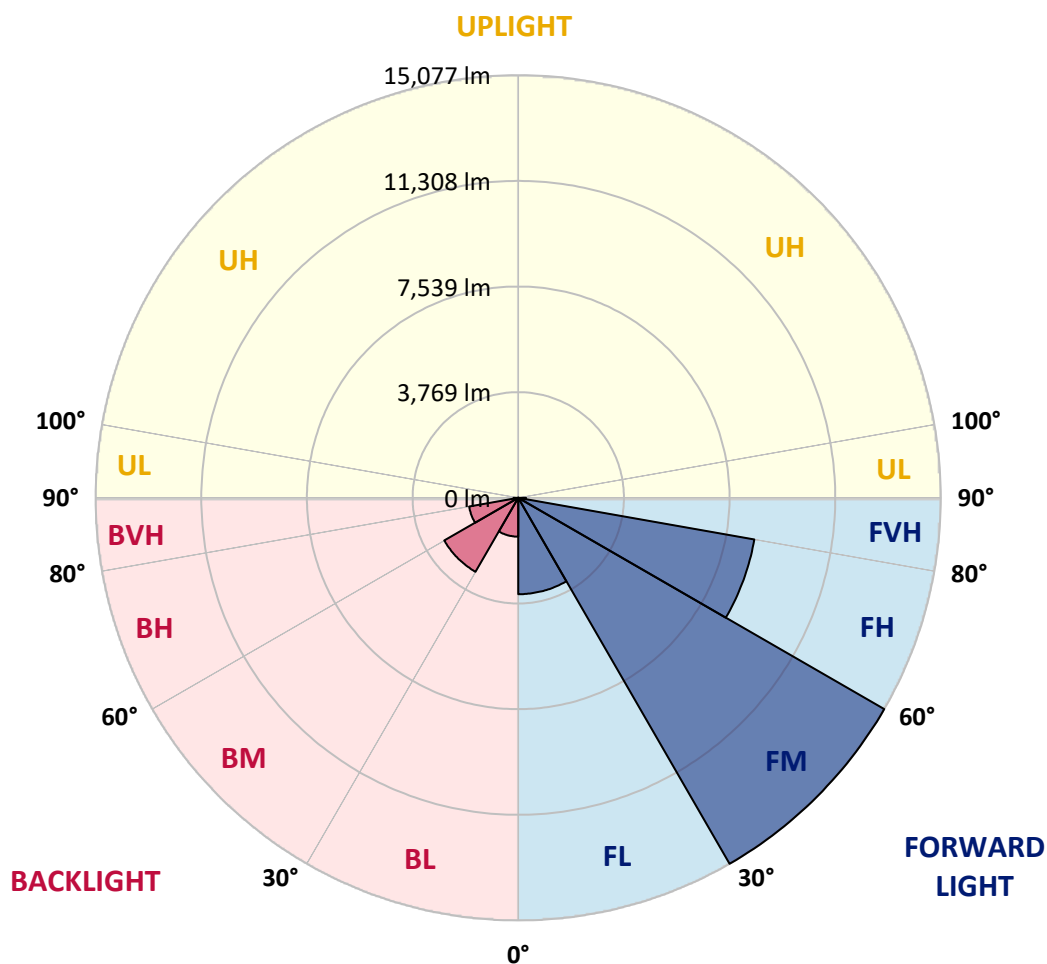
CATALOG NUMBER: NAV-SB3D-760-U-T2R

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3437.7	10.2			
FM	(30°-60°)	15077.4	44.7			
FH	(60°-80°)	8553.3	25.4			G4/12000
FVH	(80°-90°)	276.0	0.8			G3/500
BL	(0°-30°)	1387.0	4.1	B3/2500		
BM	(30°-60°)	3047.2	9.0	B3/5000		
BH	(60°-80°)	1779.7	5.3	B3/2500		G3/2500
BVH	(80°-90°)	165.3	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



REPORT NUMBER: P965189

CATALOG NUMBER: NAV-SB3D-760-U-T2R

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	3956.8	3956.8	3956.8	3956.8	3956.8	3956.8	3956.8	3956.8	3956.8	3956.8	3956.8
2.5°	4954.3	4989.1	4945.6	4945.6	4799.4	4722.8	4576.5	4465.1	4264.9	4230.1	4097.8
5°	5856.0	5899.5	5838.6	5812.5	5640.2	5481.7	5236.3	4994.3	4637.5	4600.9	4289.3
7.5°	6554.1	6609.8	6555.8	6527.9	6374.8	6197.3	5909.9	5572.3	5069.1	4997.8	4546.9
10°	7123.3	7132.1	7114.6	7125.1	7005.0	6858.7	6564.5	6171.1	5542.7	5445.2	4858.5
12.5°	7445.4	7485.4	7520.2	7582.8	7562.0	7471.4	7206.9	6736.8	6044.0	5918.7	5198.0
15°	7596.8	7666.5	7744.8	7889.2	8005.9	8028.5	7826.6	7344.4	6554.1	6402.7	5540.9
17.5°	7650.8	7716.9	7840.5	8049.4	8300.0	8469.0	8378.5	7934.5	7058.9	6884.8	5901.2
20°	7924.1	7943.2	8018.1	8216.5	8488.1	8768.4	8836.2	8502.1	7558.6	7361.8	6273.8
22.5°	8508.9	8470.7	8491.6	8582.1	8777.1	9048.6	9203.6	9003.4	8072.1	7845.8	6649.8
25°	9475.1	9363.7	9252.3	9147.8	9247.0	9400.3	9576.1	9504.7	8610.0	8322.7	7029.3
27.5°	10695.5	10559.7	10314.2	9971.2	9851.2	9905.1	9983.4	9969.5	9107.8	8817.2	7421.0
30°	11896.6	11738.2	11445.7	10949.6	10632.7	10490.1	10430.8	10390.7	9649.2	9339.4	7816.1
32.5°	12855.8	12730.4	12443.2	11887.8	11428.3	11184.6	10987.9	10845.1	10214.9	9905.1	8233.9
35°	13694.8	13578.2	13249.2	12643.4	12143.8	11884.4	11626.8	11322.2	10803.4	10490.1	8683.1
37.5°	14460.7	14344.2	13893.3	13263.1	12760.0	12580.6	12350.9	11833.9	11393.5	11097.6	9158.3
40°	14944.7	14918.6	14497.3	13783.6	13261.3	13172.6	13096.0	12427.5	12048.1	11772.9	9680.5
42.5°	15068.3	15125.7	14791.5	14204.9	13707.0	13635.6	13815.0	13099.5	12782.7	12519.8	10272.4
45°	14770.7	14936.0	14716.6	14318.0	14023.8	13985.5	14452.1	13834.0	13595.6	13355.3	10986.2
47.5°	14016.9	14297.1	14206.6	14150.8	14109.1	14274.5	15012.6	14613.9	14516.5	14307.6	11800.8
50°	12495.4	13026.3	13184.8	13536.4	13940.2	14499.0	15522.6	15465.2	15592.3	15381.7	12793.0
52.5°	9865.0	10596.1	11515.4	12396.1	13421.5	14424.2	16083.2	16687.2	17223.4	17108.5	14370.2
55°	8143.4	8472.4	9179.2	10794.7	12415.3	14109.1	16335.6	17674.3	18842.3	18739.6	15566.2
57.5°	6820.5	7114.6	7549.8	8898.9	10893.9	13393.7	16492.2	18276.6	19951.2	19940.8	16746.4
60°	5401.6	5713.2	6158.9	7114.6	9116.6	12157.7	16457.4	18962.4	21366.4	21453.5	18186.1
62.5°	3800.2	4143.0	4637.5	5528.7	7300.9	10556.2	15747.2	19458.6	23032.4	23269.1	19918.1
65°	2498.0	2724.3	3096.8	3866.3	5440.0	8496.8	14391.1	19523.0	24814.9	25215.3	21544.1
67.5°	1751.2	1838.2	2057.6	2475.4	3586.1	6515.8	12230.8	18856.2	26003.9	26454.8	22249.1
70°	1366.5	1410.0	1521.4	1688.6	2252.5	4381.6	9372.4	17122.4	25749.7	26219.8	21512.7
72.5°	1180.3	1222.0	1263.8	1284.7	1511.1	2705.2	6348.6	14316.3	23356.2	23674.7	18704.8
75°	1070.6	1081.1	1115.8	1108.8	1152.4	1754.7	3664.4	10430.8	18428.0	18318.4	13808.0
77.5°	900.0	913.9	971.4	962.7	1023.6	1199.5	1902.7	6731.7	11947.1	11202.0	7685.6
80°	762.5	769.5	832.1	821.6	889.5	868.7	971.4	3431.1	5067.4	4292.8	2216.0
82.5°	264.6	327.3	635.4	654.6	678.9	525.7	560.6	1399.6	1547.5	1185.5	464.8
85°	128.8	137.6	323.8	459.6	457.9	264.6	273.3	499.6	487.4	382.9	155.0
87.5°	20.9	26.1	38.3	179.3	142.8	69.6	94.0	97.5	101.0	87.0	34.8
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: P965189

CATALOG NUMBER: NAV-SB3D-760-U-T2R

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3956.8	3956.8	3956.8	3956.8	3956.8	3956.8	3956.8	3956.8	3956.8	3956.8	3956.8
2.5°	4000.4	3913.3	3730.5	3561.7	3429.3	3302.2	3230.9	3170.0	3135.2	3128.2	3128.2
5°	4108.3	3928.9	3596.5	3316.2	3133.4	2997.6	2926.3	2881.0	2858.4	2844.5	2842.7
7.5°	4263.2	4000.4	3526.8	3208.2	3016.8	2919.3	2882.7	2875.7	2874.0	2875.7	2881.0
10°	4477.3	4117.0	3519.8	3182.2	3022.0	2968.1	2966.4	2968.1	2975.0	2976.7	2978.4
12.5°	4708.8	4237.0	3547.7	3204.8	3088.1	3058.6	3053.4	3051.6	3056.9	3060.3	3062.1
15°	4961.2	4395.5	3594.8	3253.6	3161.3	3129.9	3124.7	3114.3	3112.5	3110.8	3109.0
17.5°	5220.6	4552.1	3647.0	3305.7	3208.2	3164.8	3145.6	3121.2	3102.1	3096.8	3102.1
20°	5483.4	4707.1	3683.5	3331.9	3211.7	3150.8	3112.5	3070.8	3037.7	3018.5	3025.5
22.5°	5763.8	4869.0	3706.1	3324.9	3180.5	3096.8	3027.2	2978.4	2928.0	2894.9	2896.6
25°	6037.0	5010.0	3704.5	3288.3	3119.5	3013.3	2924.5	2861.9	2792.2	2757.5	2757.5
27.5°	6300.0	5137.1	3660.9	3223.9	3032.5	2914.1	2807.9	2733.1	2665.1	2632.1	2630.4
30°	6571.5	5243.3	3593.0	3129.9	2929.8	2799.2	2682.5	2618.2	2557.3	2525.9	2524.2
32.5°	6841.3	5340.8	3497.2	3013.3	2811.4	2686.0	2571.1	2512.0	2475.4	2475.4	2477.1
35°	7126.8	5408.6	3370.2	2877.5	2686.0	2565.9	2475.4	2440.6	2437.1	2416.2	2411.0
37.5°	7428.0	5452.2	3215.2	2738.3	2562.4	2449.3	2421.5	2379.6	2344.9	2299.6	2292.6
40°	7744.8	5495.6	3029.0	2593.8	2431.9	2369.2	2357.0	2301.3	2202.1	2090.7	2075.0
42.5°	8129.5	5525.3	2835.8	2449.3	2294.4	2273.4	2290.9	2195.1	2036.7	1953.1	1954.9
45°	8575.2	5574.1	2658.2	2306.6	2153.3	2153.3	2226.5	2101.1	1970.6	1918.4	1927.1
47.5°	9153.0	5687.2	2492.8	2149.8	2022.8	2057.6	2083.7	1988.0	1914.9	1850.4	1848.7
50°	9988.6	5958.7	2322.2	1991.5	1923.6	1993.2	1956.6	1901.0	1815.7	1763.4	1758.2
52.5°	11026.1	6118.8	2170.7	1848.7	1838.2	1907.9	1855.7	1803.5	1739.0	1669.4	1655.5
55°	11733.0	6148.5	2043.6	1744.2	1780.8	1773.9	1754.7	1707.8	1672.9	1580.7	1582.4
57.5°	12523.2	6207.7	1939.2	1681.6	1744.2	1667.7	1660.7	1620.6	1575.4	1512.8	1491.9
60°	13468.5	6300.0	1848.7	1657.2	1713.0	1598.1	1563.2	1547.5	1502.3	1471.0	1479.7
62.5°	14499.0	6383.5	1756.4	1660.7	1676.4	1530.1	1477.9	1472.7	1444.8	1434.4	1434.4
65°	15202.3	6155.4	1641.5	1657.2	1618.9	1460.5	1394.4	1392.7	1370.0	1366.5	1364.8
67.5°	14956.9	5433.0	1486.7	1608.5	1559.7	1390.9	1317.7	1310.8	1281.2	1283.0	1283.0
70°	13727.8	4402.5	1272.5	1488.4	1486.7	1328.2	1237.7	1215.0	1175.1	1182.0	1189.0
72.5°	11423.1	3262.3	985.3	1288.2	1370.0	1270.8	1145.4	1108.8	1058.4	1065.4	1063.6
75°	8249.6	2217.8	717.2	980.1	1192.5	1202.8	1054.9	992.2	931.3	941.8	945.3
77.5°	4221.5	1256.9	527.5	675.5	936.5	1093.3	973.1	889.5	875.7	973.1	959.2
80°	1377.0	630.2	365.5	473.4	614.5	894.7	853.0	757.3	753.8	776.4	666.8
82.5°	410.8	266.3	235.0	311.6	339.5	685.8	736.4	572.8	492.6	518.8	536.2
85°	141.0	128.8	134.1	155.0	161.8	402.1	515.3	379.5	358.6	395.1	389.9
87.5°	33.1	45.3	38.3	34.8	34.8	97.5	200.2	158.4	219.4	146.3	141.0
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)