

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: P966708

Luminaire Tested: **NAV-SB4C-740-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966708
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-SB4C-740-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 33152.6 lumens
Efficiency: N/A
Efficacy: 165.2 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): 200.7
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



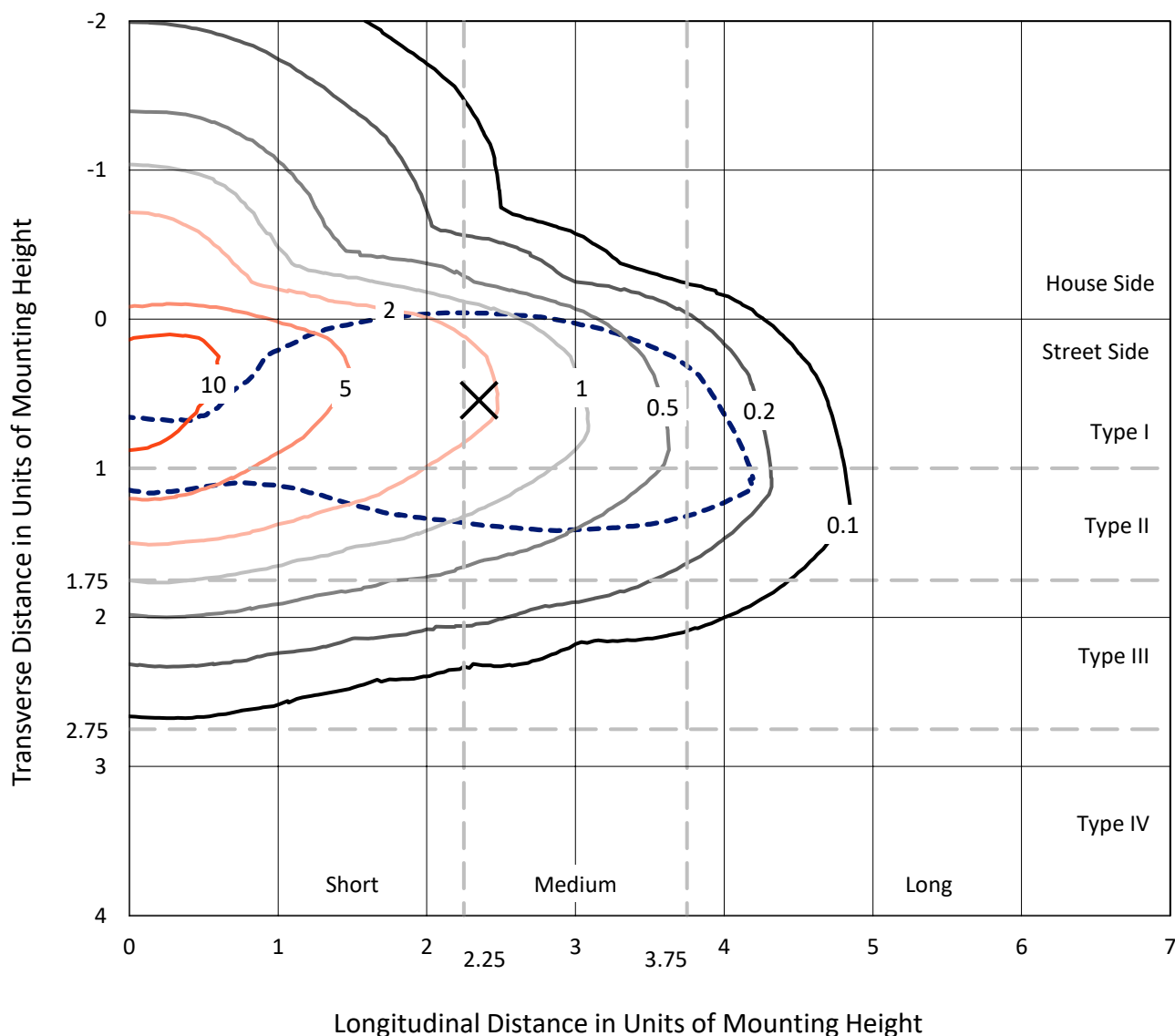
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

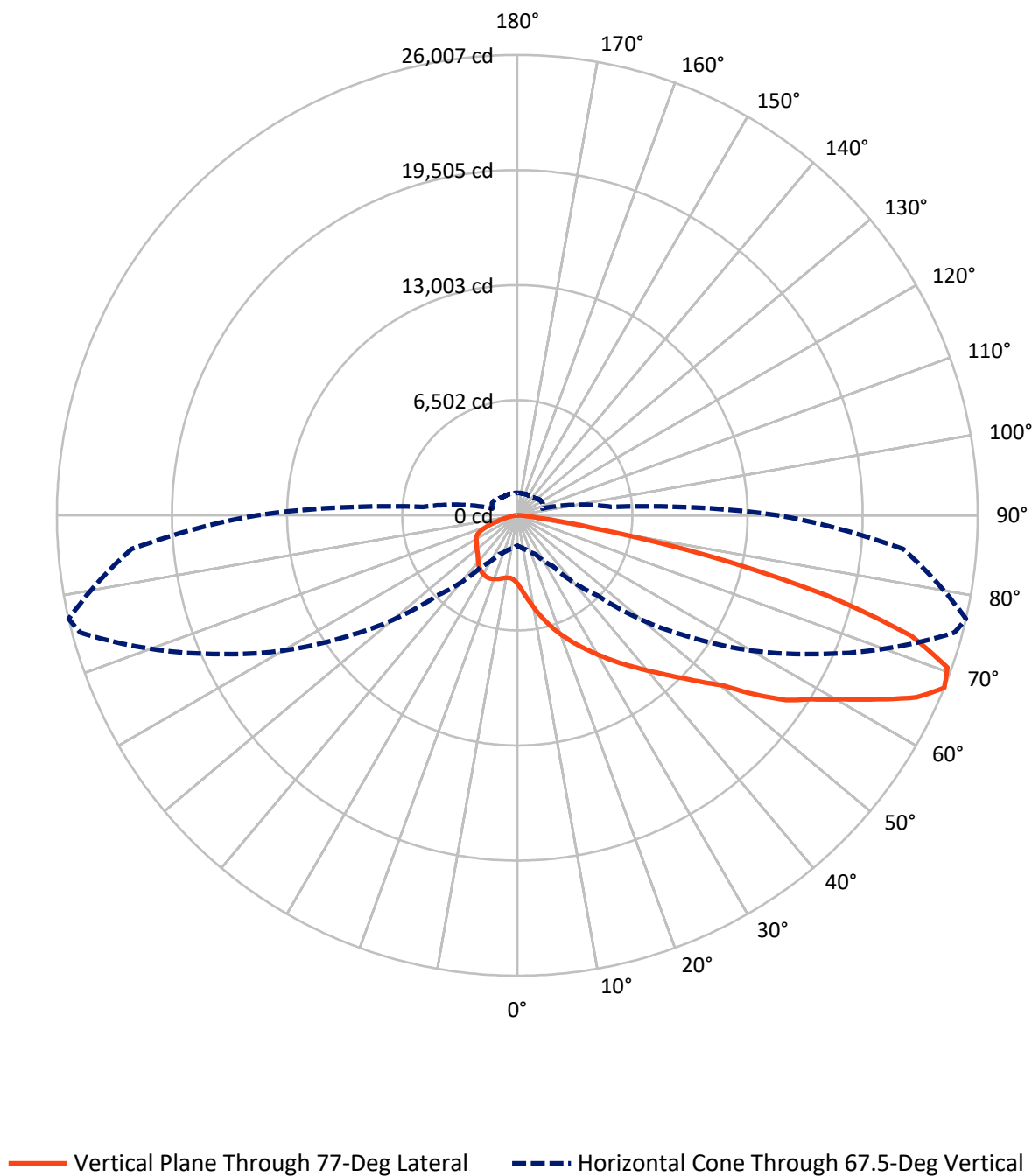
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.1 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	6271.1	0.0	6271.1
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	26881.5	0.0	26881.5
	% Fixture	81.1	0.0	81.1
Total	Lumens	33152.6	0.0	33152.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	416.9	1.3
10°-20°	1497.9	4.5
20°-30°	2828.2	8.5
30°-40°	4556.1	13.7
40°-50°	6231.9	18.8
50°-60°	7029.7	21.2
60°-70°	6561.3	19.8
70°-80°	3596.7	10.8
80°-90°	433.8	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°	33152.6	100.0
0°-180°	33152.6	100.0

Coefficient of Utilization



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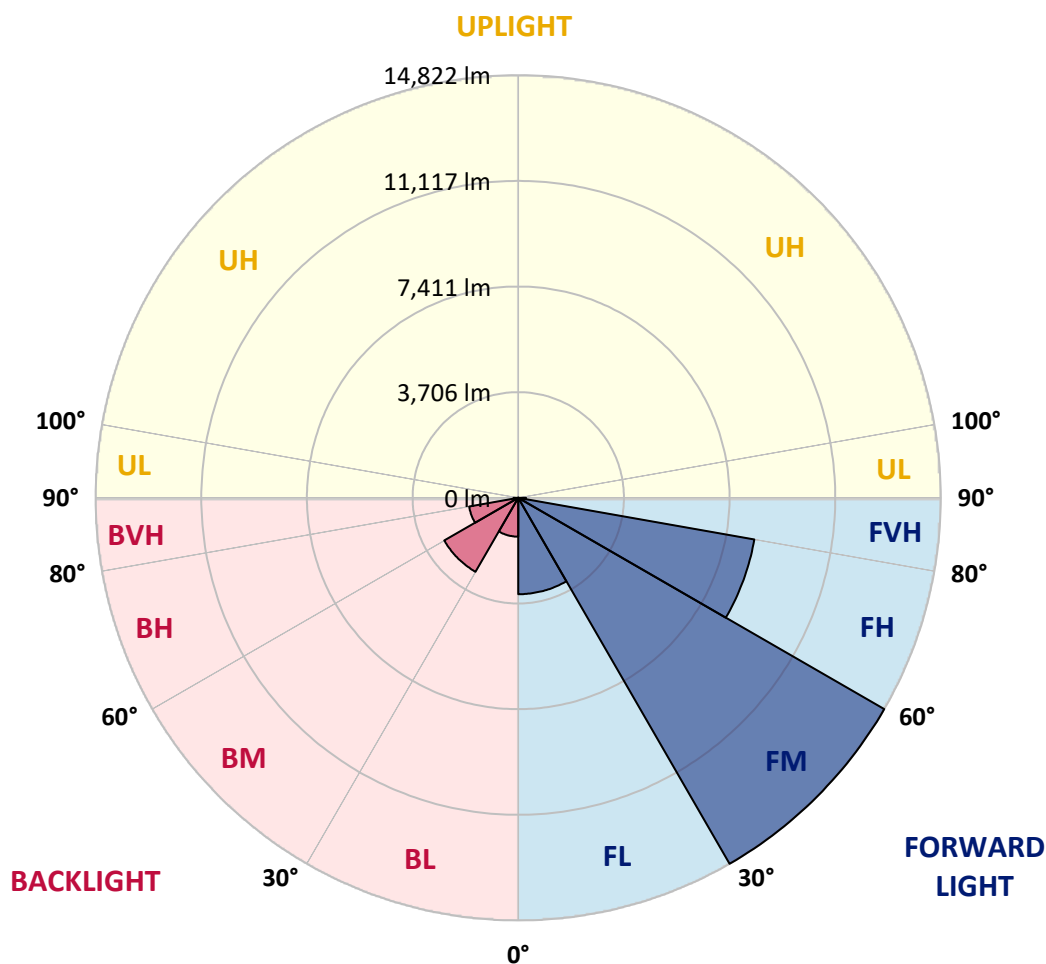
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3379.5	10.2			
FM	(30°-60°)	14822.2	44.7			
FH	(60°-80°)	8408.5	25.4			G4/12000
FVH	(80°-90°)	271.3	0.8			G3/500
BL	(0°-30°)	1363.5	4.1	B3/2500		
BM	(30°-60°)	2995.6	9.0	B3/5000		
BH	(60°-80°)	1749.6	5.3	B3/2500		G3/2500
BVH	(80°-90°)	162.5	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°	3889.9	3889.9	3889.9	3889.9	3889.9	3889.9	3889.9	3889.9	3889.9	3889.9	3889.9
2.5°	4870.4	4904.6	4861.9	4861.9	4718.1	4642.8	4499.0	4389.6	4192.8	4158.5	4028.5
5°	5756.9	5799.7	5739.8	5714.1	5544.6	5388.9	5147.7	4909.8	4559.0	4523.0	4216.6
7.5°	6443.2	6497.9	6444.8	6417.4	6266.8	6092.3	5809.9	5477.9	4983.3	4913.2	4469.9
10°	7002.7	7011.3	6994.2	7004.4	6886.4	6742.6	6453.4	6066.7	5448.8	5353.0	4776.3
12.5°	7319.3	7358.7	7392.9	7454.5	7434.0	7344.9	7084.9	6622.8	5941.7	5818.5	5110.0
15°	7468.2	7536.6	7613.7	7755.7	7870.4	7892.6	7694.1	7220.1	6443.2	6294.2	5447.2
17.5°	7521.2	7586.2	7707.8	7913.1	8159.6	8325.6	8236.6	7800.1	6939.4	6768.3	5801.4
20°	7789.9	7808.8	7882.4	8077.4	8344.4	8619.9	8686.7	8358.1	7430.5	7237.2	6167.6
22.5°	8364.9	8327.3	8347.8	8436.8	8628.4	8895.5	9047.8	8851.0	7935.3	7712.9	6537.2
25°	9314.7	9205.2	9095.6	8992.9	9090.5	9241.1	9414.0	9343.8	8464.1	8181.9	6910.3
27.5°	10514.3	10380.9	10139.6	9802.5	9684.4	9737.4	9814.4	9800.7	8953.6	8667.8	7295.3
30°	11695.1	11539.4	11251.9	10764.2	10452.7	10312.4	10254.2	10214.8	9485.9	9181.2	7683.8
32.5°	12638.1	12514.8	12232.6	11686.6	11234.8	10995.3	10801.9	10661.5	10042.0	9737.4	8094.5
35°	13463.0	13348.3	13024.9	12429.4	11938.2	11683.2	11429.9	11130.5	10620.4	10312.4	8536.1
37.5°	14215.9	14101.2	13658.0	13038.5	12543.9	12367.8	12141.8	11633.5	11200.6	10909.7	9003.3
40°	14691.6	14666.0	14251.9	13550.2	13036.9	12949.5	12874.3	12217.1	11844.1	11573.7	9516.6
42.5°	14813.2	14869.7	14541.1	13964.4	13475.0	13404.7	13581.0	12877.7	12566.2	12307.8	10098.5
45°	14520.6	14683.1	14467.5	14075.6	13786.4	13748.7	14207.4	13599.9	13365.4	13129.2	10800.1
47.5°	13779.6	14055.1	13966.0	13911.3	13870.2	14032.9	14758.5	14366.5	14270.7	14065.4	11601.1
50°	12283.8	12805.8	12961.5	13307.3	13704.2	14253.5	15259.8	15203.4	15328.3	15121.2	12576.4
52.5°	9698.0	10416.8	11320.4	12186.3	13194.3	14180.0	15810.9	16404.7	16931.8	16818.8	14127.0
55°	8005.6	8328.9	9023.8	10611.9	12205.1	13870.2	16059.0	17375.0	18523.3	18422.3	15302.6
57.5°	6704.9	6994.2	7422.0	8748.3	10709.4	13166.9	16213.0	17967.1	19613.5	19603.1	16462.9
60°	5310.2	5616.6	6054.7	6994.2	8962.2	11951.8	16178.8	18641.4	21004.7	21090.3	17878.2
62.5°	3735.8	4072.9	4559.0	5435.2	7177.3	10377.4	15480.6	19129.2	22642.5	22875.2	19580.9
65°	2455.7	2678.2	3044.5	3800.8	5347.8	8352.9	14147.5	19192.4	24394.9	24788.5	21179.3
67.5°	1721.6	1807.2	2022.7	2433.5	3525.3	6405.4	12023.8	18537.0	25563.7	26006.9	21872.4
70°	1343.4	1386.2	1495.7	1660.0	2214.4	4307.4	9213.7	16832.6	25313.8	25775.9	21148.5
72.5°	1160.3	1201.3	1242.4	1263.0	1485.4	2659.4	6241.2	14073.9	22960.8	23274.0	18388.1
75°	1052.5	1062.7	1097.0	1090.1	1132.9	1725.0	3602.4	10254.2	18116.1	18008.2	13574.2
77.5°	884.8	898.4	954.9	946.4	1006.2	1179.1	1870.5	6617.7	11744.8	11012.3	7555.5
80°	749.6	756.4	818.1	807.7	874.5	853.9	954.9	3373.0	4981.6	4220.1	2178.5
82.5°	260.1	321.7	624.6	643.5	667.4	516.8	551.0	1375.9	1521.4	1165.4	456.9
85°	126.6	135.2	318.3	451.8	450.1	260.1	268.7	491.2	479.2	376.5	152.3
87.5°	20.5	25.6	37.6	176.3	140.3	68.5	92.5	95.8	99.2	85.6	34.2
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°	3889.9	3889.9	3889.9	3889.9	3889.9	3889.9	3889.9	3889.9	3889.9	3889.9	3889.9
2.5°	3932.6	3847.0	3667.3	3501.4	3371.3	3246.4	3176.2	3116.3	3082.1	3075.2	3075.2
5°	4038.7	3862.4	3535.6	3260.1	3080.3	2946.9	2876.8	2832.3	2810.0	2796.3	2794.6
7.5°	4191.0	3932.6	3467.2	3153.9	2965.7	2869.9	2833.9	2827.1	2825.4	2827.1	2832.3
10°	4401.6	4047.3	3460.3	3128.3	2970.9	2917.8	2916.1	2917.8	2924.6	2926.4	2928.1
12.5°	4629.1	4165.4	3487.7	3150.5	3035.8	3006.8	3001.6	3000.0	3005.1	3008.5	3010.2
15°	4877.3	4321.1	3533.9	3198.4	3107.8	3076.9	3071.8	3061.6	3059.8	3058.1	3056.4
17.5°	5132.3	4475.2	3585.2	3249.8	3153.9	3111.2	3092.3	3068.4	3049.6	3044.5	3049.6
20°	5390.7	4627.4	3621.1	3275.5	3157.4	3097.4	3059.8	3018.7	2986.2	2967.5	2974.2
22.5°	5666.2	4786.5	3643.4	3268.6	3126.6	3044.5	2976.0	2928.1	2878.4	2845.9	2847.7
25°	5934.9	4925.2	3641.7	3232.6	3066.7	2962.2	2875.0	2813.4	2745.0	2710.7	2710.7
27.5°	6193.3	5050.1	3598.9	3169.4	2981.1	2864.8	2760.3	2686.7	2620.0	2587.5	2585.8
30°	6460.3	5154.5	3532.2	3076.9	2880.1	2751.8	2637.1	2573.8	2513.9	2483.2	2481.4
32.5°	6725.5	5250.4	3438.1	2962.2	2763.8	2640.6	2527.6	2469.4	2433.5	2433.5	2435.2
35°	7006.2	5317.1	3313.1	2828.8	2640.6	2522.5	2433.5	2399.3	2395.8	2375.3	2370.2
37.5°	7302.2	5359.8	3160.8	2691.9	2519.0	2407.8	2380.5	2339.4	2305.1	2260.6	2253.8
40°	7613.7	5402.7	2977.7	2549.9	2390.7	2329.1	2317.1	2262.4	2164.8	2055.3	2039.9
42.5°	7991.8	5431.7	2787.7	2407.8	2255.5	2235.0	2252.1	2157.9	2002.2	1920.1	1921.8
45°	8430.0	5479.6	2613.1	2267.5	2116.9	2116.9	2188.8	2065.6	1937.2	1885.9	1894.4
47.5°	8998.2	5590.9	2450.6	2113.4	1988.6	2022.7	2048.5	1954.4	1882.4	1819.2	1817.4
50°	9819.6	5857.9	2282.9	1957.7	1891.0	1959.5	1923.5	1868.8	1784.9	1733.6	1728.5
52.5°	10839.5	6015.3	2134.0	1817.4	1807.2	1875.6	1824.3	1772.9	1709.6	1641.1	1627.5
55°	11534.3	6044.4	2009.1	1714.7	1750.7	1743.8	1725.0	1678.8	1644.6	1553.9	1555.5
57.5°	12311.3	6102.5	1906.4	1653.1	1714.7	1639.5	1632.6	1593.3	1548.8	1487.2	1466.6
60°	13240.4	6193.3	1817.4	1629.1	1684.0	1571.0	1536.8	1521.4	1476.8	1446.1	1454.6
62.5°	14253.5	6275.5	1726.7	1632.6	1648.0	1504.3	1452.9	1447.8	1420.4	1410.1	1410.1
65°	14944.9	6051.2	1613.8	1629.1	1591.5	1435.8	1370.7	1369.1	1346.8	1343.4	1341.7
67.5°	14703.6	5341.1	1461.4	1581.3	1533.3	1367.4	1295.5	1288.6	1259.5	1261.3	1261.3
70°	13495.5	4328.0	1251.0	1463.2	1461.4	1305.7	1216.8	1194.5	1155.2	1161.9	1168.8
72.5°	11229.7	3207.0	968.6	1266.4	1346.8	1249.3	1126.1	1090.1	1040.5	1047.3	1045.6
75°	8109.9	2180.2	705.1	963.5	1172.3	1182.5	1037.1	975.5	915.5	925.8	929.3
77.5°	4149.9	1235.5	518.5	664.0	920.7	1074.7	956.6	874.5	860.8	956.6	942.9
80°	1353.6	619.5	359.4	465.5	604.1	879.7	838.6	744.5	741.0	763.2	655.4
82.5°	403.8	261.8	231.0	306.4	333.7	674.2	723.9	563.0	484.3	509.9	527.1
85°	138.6	126.6	131.8	152.3	159.2	395.3	506.6	373.1	352.5	388.5	383.3
87.5°	32.5	44.5	37.6	34.2	34.2	95.8	196.8	155.7	215.7	143.7	138.6
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)