

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: P966099

Luminaire Tested: **NAV-SB4B-727-U-T4W**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P966099  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4B-727-U-T4W  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21414.3 lumens  
Efficiency: N/A  
Efficacy: 145.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G4

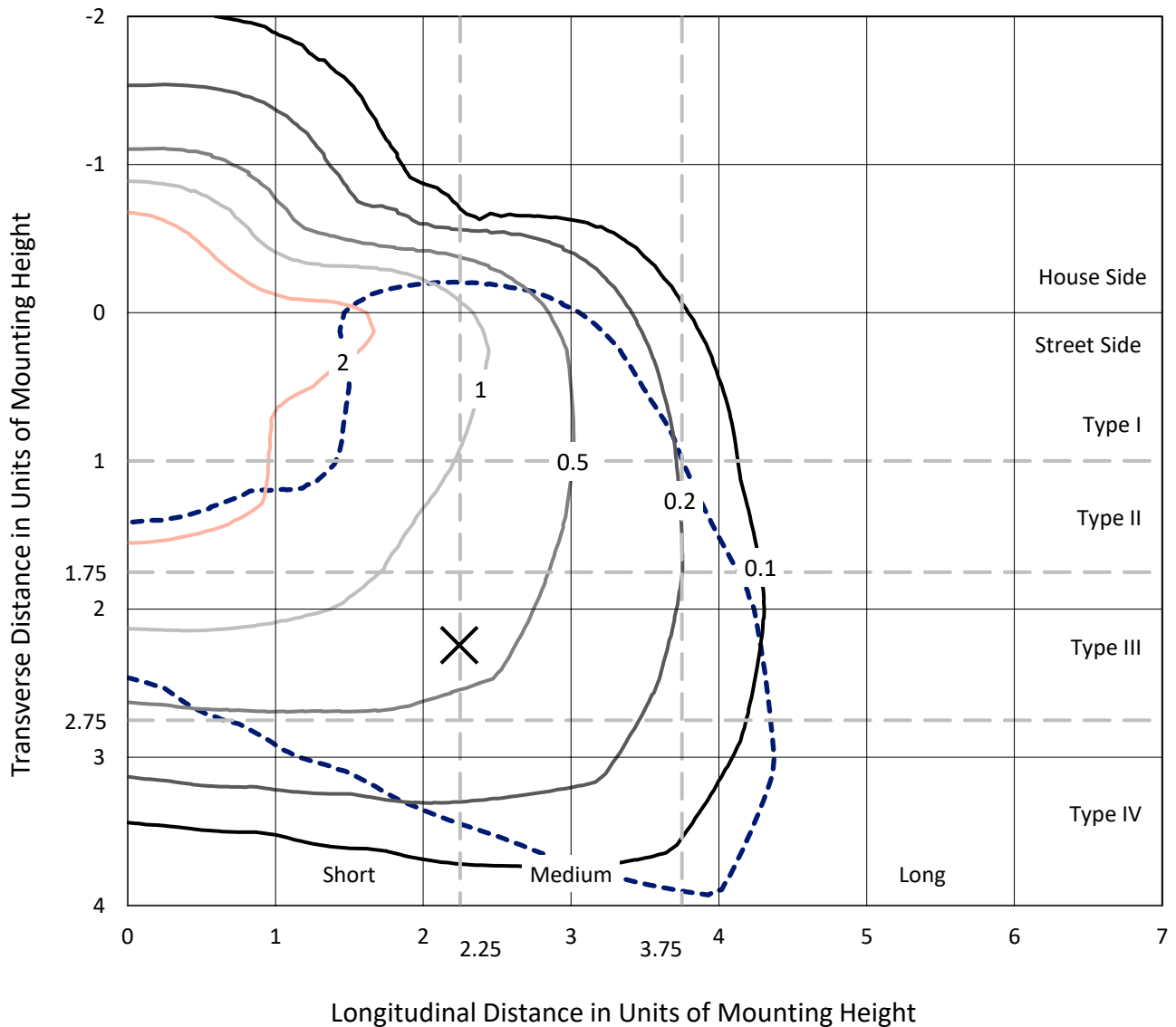
Input Watts (W): 147  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

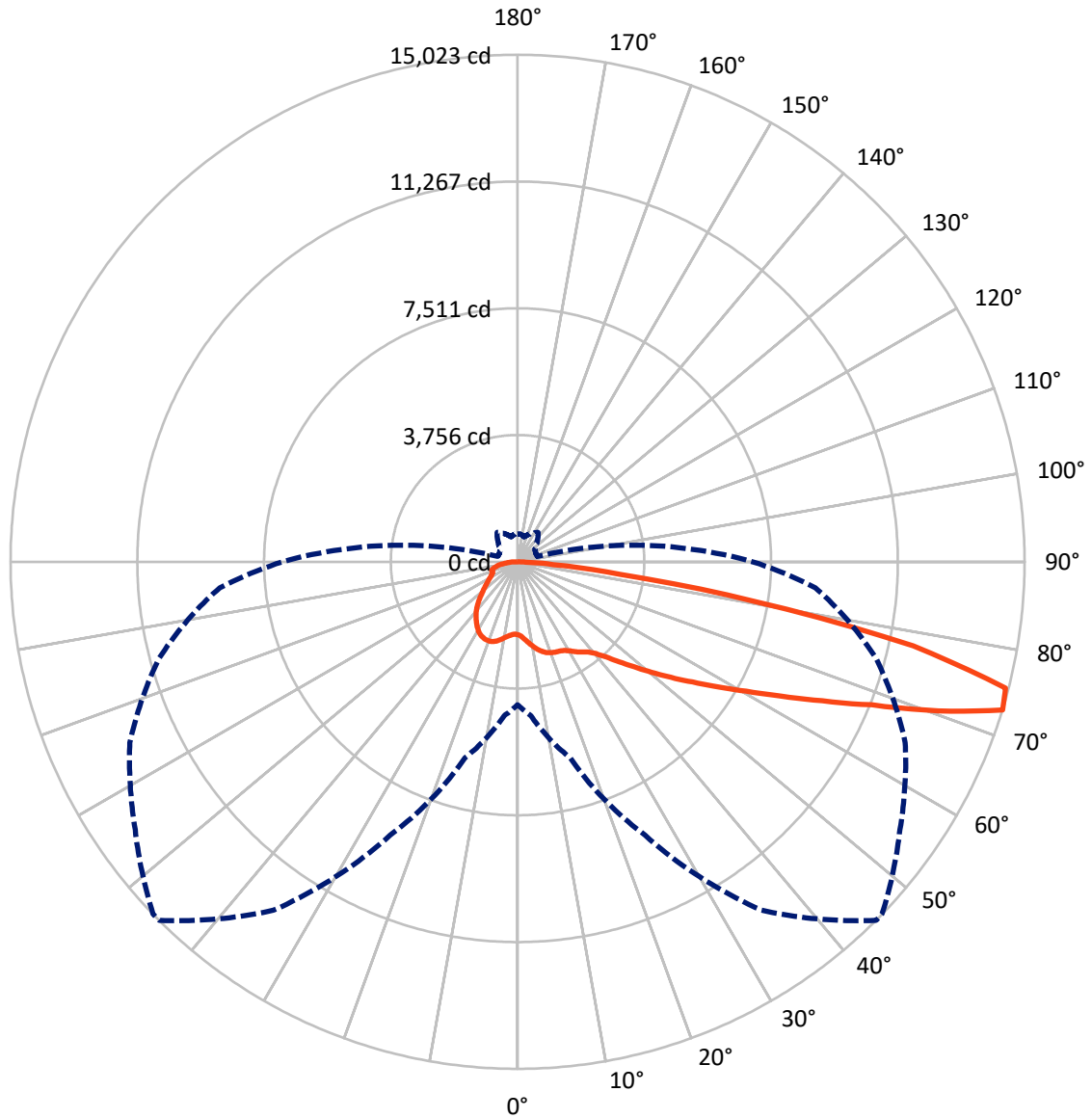
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 72.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4841.0	0.0	4841.0
	% Fixture	22.6	0.0	22.6
<b>Street Side</b>	Lumens	16573.3	0.0	16573.3
	% Fixture	77.4	0.0	77.4
<b>Total</b>	Lumens	21414.3	0.0	21414.3
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	219.9	1.0
10°-20°	733.1	3.4
20°-30°	1275.3	6.0
30°-40°	1828.1	8.5
40°-50°	2574.1	12.0
50°-60°	3942.8	18.4
60°-70°	5711.8	26.7
70°-80°	4561.2	21.3
80°-90°	568.1	2.7
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°	21414.3	100.0
0°-180°	21414.3	100.0

**Coefficient of Utilization**

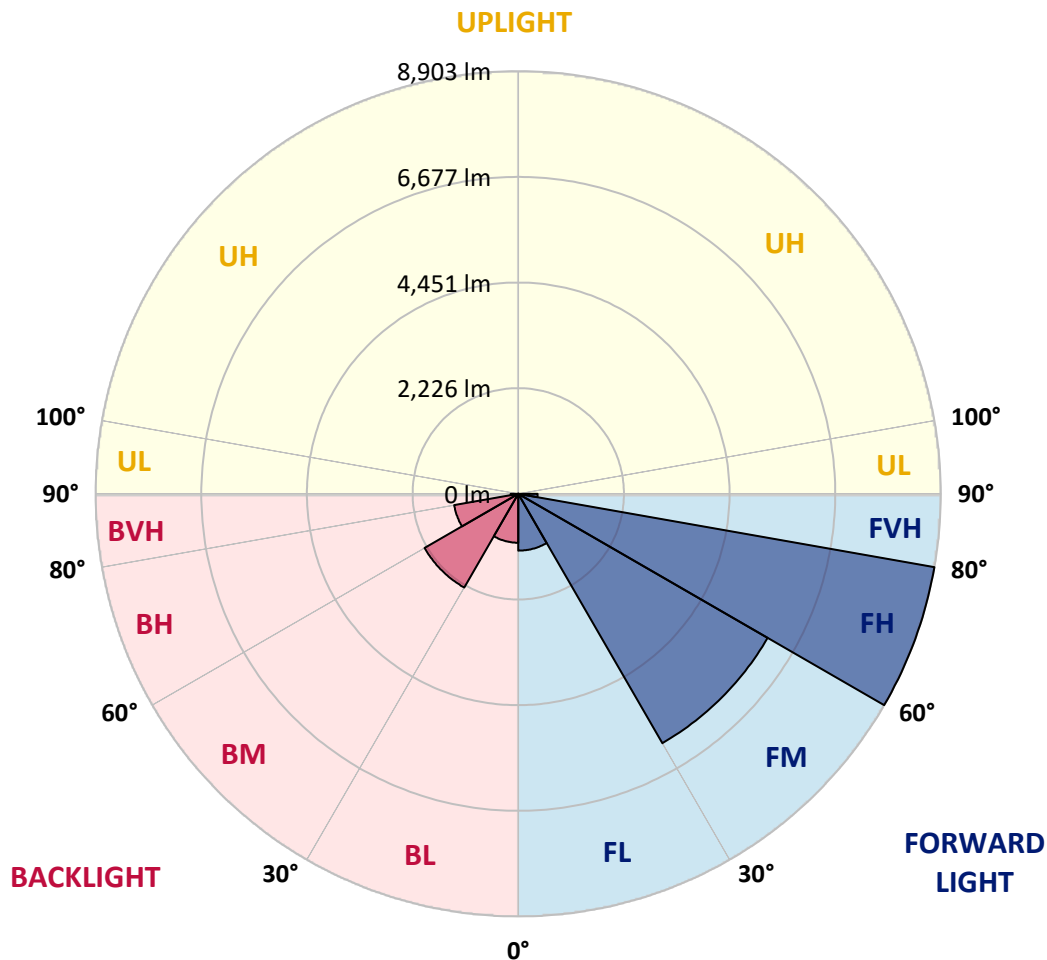


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1197.5	5.6			
FM (30°-60°)	6065.6	28.3			
FH (60°-80°)	8902.6	41.6			G4/12000
FVH (80°-90°)	407.5	1.9			G3/500
BL (0°-30°)	1030.7	4.8	B3/2500		
BM (30°-60°)	2279.4	10.6	B2/2500		
BH (60°-80°)	1370.4	6.4	B3/2500		G3/2500
BVH (80°-90°)	160.5	0.7			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 IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	2160.3	2160.3	2160.3	2160.3	2160.3	2160.3	2160.3	2160.3	2160.3	2160.3	2160.3
2.5°	2244.9	2259.5	2246.0	2233.6	2227.9	2213.3	2212.2	2203.1	2197.5	2181.7	2177.2
5°	2401.7	2420.8	2398.3	2373.5	2350.9	2314.9	2310.4	2284.4	2255.0	2221.2	2202.0
7.5°	2578.8	2595.7	2569.8	2532.6	2493.1	2433.2	2432.1	2384.8	2338.5	2281.0	2248.2
10°	2733.4	2755.9	2721.0	2670.2	2620.5	2552.9	2545.0	2490.9	2432.1	2357.7	2308.1
12.5°	2869.9	2885.7	2851.8	2789.7	2732.2	2664.6	2654.3	2594.6	2529.2	2444.5	2381.4
15°	2978.1	2998.4	2953.3	2886.8	2825.8	2759.3	2750.3	2696.2	2630.7	2541.6	2460.3
17.5°	3049.2	3066.2	3019.9	2945.4	2886.8	2831.5	2824.7	2779.6	2722.1	2631.8	2545.0
20°	3076.3	3094.4	3045.8	2970.2	2916.1	2873.3	2869.9	2837.1	2797.6	2715.3	2627.3
22.5°	3103.4	3120.3	3057.2	2978.1	2930.8	2903.7	2902.6	2881.2	2865.4	2797.6	2711.9
25°	3212.8	3217.3	3132.7	3018.7	2951.1	2927.4	2926.3	2925.1	2931.9	2878.9	2803.3
27.5°	3307.6	3306.4	3234.2	3127.1	3022.1	2972.5	2971.4	2982.6	3004.1	2960.1	2898.1
30°	3446.3	3433.9	3348.2	3236.4	3140.6	3063.9	3057.2	3046.9	3063.9	3028.9	2992.8
32.5°	3740.7	3701.3	3562.5	3363.9	3238.7	3180.1	3171.0	3107.9	3114.7	3093.2	3075.2
35°	4162.6	4110.8	3925.7	3605.3	3360.6	3277.1	3272.6	3192.5	3178.9	3159.8	3166.5
37.5°	4664.7	4600.3	4384.8	3955.1	3570.4	3389.9	3383.1	3311.0	3255.7	3235.3	3273.7
40°	5168.9	5087.7	4909.4	4381.5	3879.5	3578.3	3556.9	3447.4	3384.2	3350.4	3431.6
42.5°	5658.5	5590.8	5438.5	4859.8	4260.8	3853.6	3806.1	3618.9	3571.5	3539.9	3686.6
45°	6091.7	6030.8	5919.1	5370.8	4707.5	4228.0	4181.8	3876.1	3861.5	3861.5	4073.6
47.5°	6443.7	6430.1	6311.6	5892.0	5234.4	4654.5	4574.4	4233.7	4273.2	4334.1	4622.9
50°	6834.0	6796.7	6670.4	6405.3	5853.7	5142.9	5077.5	4672.6	4820.3	4987.2	5417.0
52.5°	7192.6	7213.0	7072.0	6940.0	6553.0	5687.8	5572.7	5190.3	5509.6	5785.9	6347.7
55°	7561.5	7562.7	7523.2	7505.2	7286.3	6290.2	6163.8	5813.0	6320.7	6663.6	7433.0
57.5°	7907.9	7910.1	7968.8	8127.8	8136.9	6985.1	6841.9	6577.8	7222.0	7571.7	8552.0
60°	8217.0	8232.8	8393.0	8765.2	8884.8	7781.5	7646.2	7481.5	8153.8	8505.8	9728.6
62.5°	8320.7	8378.3	8734.7	9263.8	9623.7	8758.4	8625.4	8527.2	9133.0	9460.1	10712.3
65°	8144.8	8276.8	8966.0	9675.6	10384.1	9919.2	9787.3	9680.1	10150.6	10458.5	11520.0
67.5°	7712.7	7883.1	8952.5	10107.6	11306.8	11315.8	11192.9	10941.4	11241.4	11359.9	11782.9
70°	6574.5	6829.5	8163.9	10269.0	12366.1	13225.7	13107.3	12459.7	12330.0	11757.0	11042.8
72.5°	4235.9	4578.9	6011.6	8941.2	12601.9	15022.7	15015.9	13830.3	12674.0	10985.3	8856.6
75°	1545.5	1755.3	2793.1	5612.2	10578.1	14931.4	14975.4	13595.7	11569.7	8485.5	5517.5
77.5°	562.9	615.9	911.5	2156.9	6505.7	11980.3	12071.6	10869.1	8235.1	4258.6	2186.2
80°	295.5	324.9	467.0	837.0	2787.5	7114.8	7258.1	6459.4	3870.5	1282.7	655.4
82.5°	163.6	177.1	261.7	454.6	1255.5	3042.4	3128.2	2551.7	1361.6	543.8	270.7
85°	87.9	93.6	123.0	248.2	613.7	1054.7	1078.4	762.6	542.6	319.3	130.9
87.5°	25.9	31.6	40.6	78.9	240.3	236.9	242.5	151.2	214.3	161.3	42.8
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°	2160.3	2160.3	2160.3	2160.3	2160.3	2160.3	2160.3	2160.3	2160.3	2160.3	2160.3
2.5°	2170.4	2167.1	2154.7	2149.0	2142.2	2141.1	2146.8	2147.9	2149.0	2150.1	2154.7
5°	2190.7	2179.5	2168.2	2161.4	2163.7	2164.8	2176.1	2184.0	2189.6	2194.1	2196.4
7.5°	2230.2	2221.2	2202.0	2200.9	2204.3	2214.4	2229.1	2247.1	2257.3	2265.1	2267.5
10°	2288.9	2272.0	2249.4	2252.7	2259.5	2274.3	2304.7	2319.4	2336.3	2350.9	2347.6
12.5°	2348.7	2334.0	2308.1	2310.4	2321.6	2347.6	2376.9	2394.9	2406.2	2417.5	2422.0
15°	2426.5	2400.5	2372.4	2372.4	2392.7	2420.8	2434.4	2449.0	2455.8	2468.3	2472.8
17.5°	2506.6	2472.8	2435.5	2433.2	2458.1	2471.7	2479.6	2481.8	2484.1	2497.6	2502.1
20°	2586.7	2549.5	2496.5	2492.0	2497.6	2495.4	2494.2	2492.0	2495.4	2512.3	2519.0
22.5°	2665.7	2622.8	2549.5	2529.2	2513.4	2492.0	2490.9	2489.7	2492.0	2508.9	2520.2
25°	2758.2	2706.3	2608.1	2547.2	2494.2	2464.9	2468.3	2469.4	2471.7	2485.2	2503.3
27.5°	2858.6	2801.0	2662.3	2541.6	2445.6	2425.4	2419.7	2423.1	2431.0	2452.4	2473.9
30°	2959.0	2891.3	2711.9	2519.0	2384.8	2356.6	2338.5	2346.4	2371.2	2392.7	2416.3
32.5°	3050.3	2982.6	2751.4	2469.4	2307.0	2262.9	2239.2	2249.4	2274.3	2282.2	2310.4
35°	3157.5	3080.8	2768.3	2390.4	2222.3	2154.7	2123.1	2108.4	2120.8	2112.9	2137.7
37.5°	3277.1	3197.0	2766.1	2286.7	2123.1	2045.2	2001.2	1946.0	1920.0	1893.0	1909.9
40°	3454.2	3339.1	2739.0	2161.4	2000.1	1929.0	1850.0	1756.4	1697.8	1644.7	1648.1
42.5°	3695.6	3536.6	2689.4	2023.8	1861.3	1794.8	1687.7	1578.2	1485.7	1397.7	1389.8
45°	4055.5	3794.9	2627.3	1877.2	1711.3	1645.8	1529.7	1406.7	1301.9	1189.0	1175.5
47.5°	4574.4	4142.3	2568.6	1710.2	1553.4	1493.6	1388.7	1274.7	1150.7	1041.2	1028.8
50°	5287.4	4641.0	2514.5	1547.7	1397.7	1352.6	1269.1	1152.9	1027.7	939.7	934.1
52.5°	6194.3	5318.9	2492.0	1390.9	1252.1	1235.2	1168.7	1060.4	942.0	867.5	861.8
55°	7235.6	6130.0	2492.0	1240.9	1124.7	1130.4	1084.1	983.7	881.0	814.5	807.7
57.5°	8298.2	6951.2	2446.8	1102.2	1016.4	1040.1	1010.8	922.8	830.2	761.5	750.2
60°	9277.4	7639.4	2264.0	975.8	920.6	957.8	938.6	862.9	750.2	692.7	683.6
62.5°	10029.8	8027.5	1912.1	875.4	841.5	884.4	874.2	784.0	735.5	711.9	704.0
65°	10406.6	7964.2	1462.0	786.3	775.0	841.5	820.1	816.7	778.4	751.3	742.3
67.5°	10175.4	7420.6	1060.4	720.9	736.7	802.1	884.4	898.0	826.9	773.9	764.9
70°	9161.1	6436.9	789.7	658.8	688.1	803.2	1008.5	939.7	811.1	749.1	738.9
72.5°	6969.3	4800.0	612.5	593.4	624.9	808.8	1063.7	920.6	766.0	828.0	821.2
75°	3985.5	2635.2	491.8	513.3	546.0	755.8	1035.6	870.8	731.0	760.3	760.3
77.5°	1519.6	1013.0	406.1	434.3	438.8	659.9	990.5	867.5	696.1	679.1	619.3
80°	526.8	396.0	336.2	345.2	339.6	586.6	949.9	754.7	569.7	509.9	493.0
82.5°	215.5	197.4	266.2	254.9	241.4	455.7	767.1	617.0	465.9	411.7	407.2
85°	93.6	125.3	176.0	154.6	139.9	315.9	614.8	522.3	393.7	339.6	338.5
87.5°	19.2	47.4	74.4	69.9	72.2	210.9	436.5	371.2	278.6	208.7	163.6
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)