

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: P883771

Luminaire Tested: **NAV-SB4B-735-U-T4FT**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883771  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4B-735-U-T4FT  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

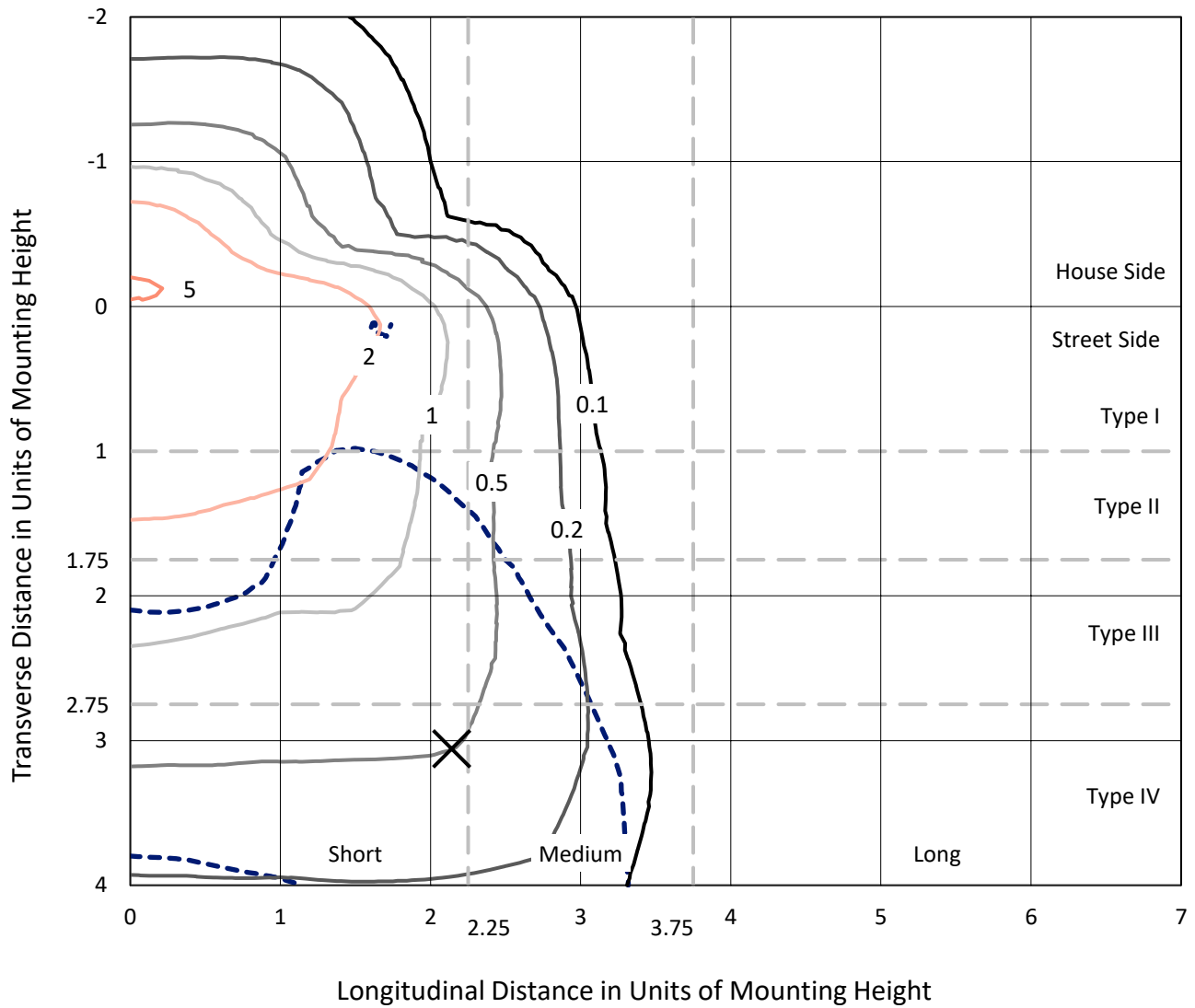
Lumens per Lamp: N/A  
Luminaire Lumens: 22555 lumens  
Efficiency: N/A  
Efficacy: 153.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G4  
  
Input Watts (W): 147  
Input Voltage (V): 120.0  
Input Current (Ain): 1.255  
Voltage Rise (V): NR  
Power Factor: 0.988  
Total Harmonic Distortion (THDi): 13.593  
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

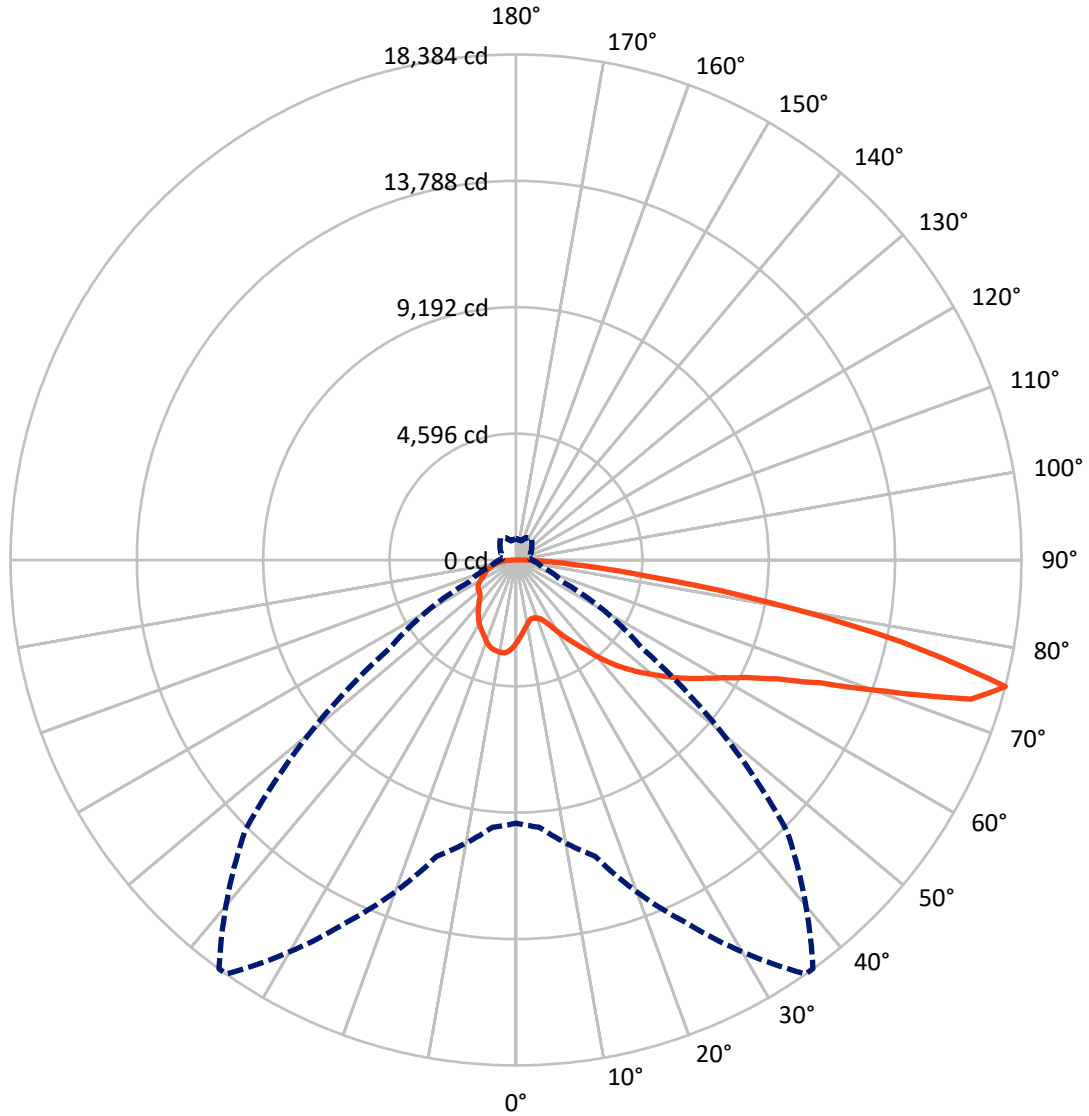
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral      - - - Horizontal Cone Through 75-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5367.5	0.0	5367.5
	% Fixture	23.8	0.0	23.8
<b>Street Side</b>	Lumens	17187.5	0.0	17187.5
	% Fixture	76.2	0.0	76.2
<b>Total</b>	Lumens	22555.0	0.0	22555.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	284.6	1.3
10°-20°	820.8	3.6
20°-30°	1378.4	6.1
30°-40°	2142.2	9.5
40°-50°	3179.6	14.1
50°-60°	4389.6	19.5
60°-70°	5325.6	23.6
70°-80°	4401.2	19.5
80°-90°	633.0	2.8
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°	22555.0	100.0
0°-180°	22555.0	100.0

**Coefficient of Utilization**



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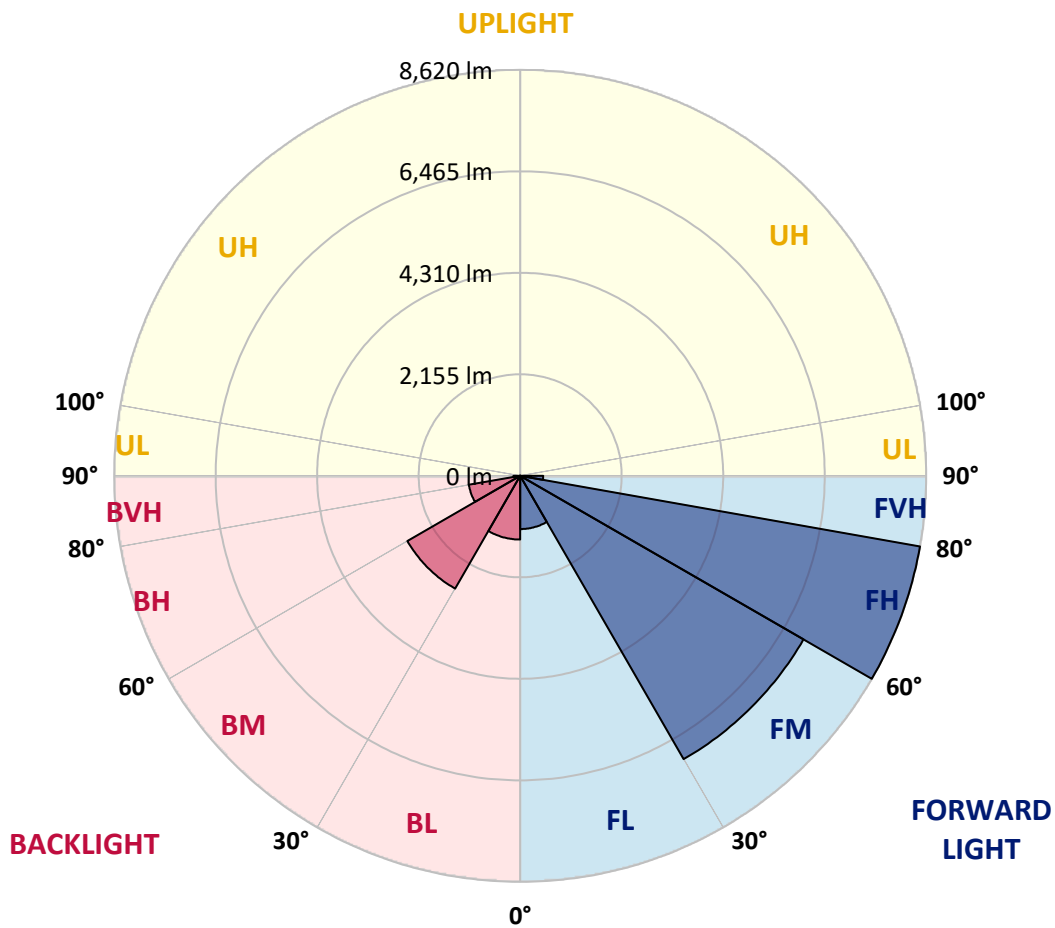
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1131.1	5.0			
FM (30°-60°)	6945.7	30.8			
FH (60°-80°)	8620.2	38.2			G4/12000
FVH (80°-90°)	490.5	2.2			G3/500
BL (0°-30°)	1352.7	6.0	B3/2500		
BM (30°-60°)	2765.7	12.3	B3/5000		
BH (60°-80°)	1106.6	4.9	B3/2500		G3/2500
BVH (80°-90°)	142.5	0.6			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°	36°	45°	55°	65°	75°	85°
0°	3005.6	3005.6	3005.6	3005.6	3005.6	3005.6	3005.6	3005.6	3005.6	3005.6	3005.6
2.5°	2771.5	2788.6	2795.9	2792.2	2810.5	2808.1	2833.7	2865.4	2909.3	2952.0	3014.1
5°	2558.1	2576.4	2592.3	2606.9	2642.3	2653.2	2693.5	2754.4	2834.9	2916.6	3019.0
7.5°	2359.4	2375.2	2399.6	2426.4	2486.2	2497.2	2564.2	2659.3	2771.5	2891.0	3032.4
10°	2197.2	2213.1	2238.7	2269.1	2343.5	2356.9	2442.3	2569.1	2715.4	2866.6	3047.1
12.5°	2127.7	2132.6	2147.2	2177.7	2242.3	2250.9	2344.7	2489.8	2660.5	2848.3	3069.0
15°	2124.0	2133.8	2135.0	2150.9	2204.5	2208.2	2294.7	2438.6	2626.4	2844.7	3101.9
17.5°	2160.6	2167.9	2157.0	2166.7	2211.8	2217.9	2286.2	2414.2	2615.4	2860.5	3158.0
20°	2258.2	2264.3	2231.3	2217.9	2250.9	2255.7	2322.8	2430.1	2626.4	2893.4	3234.8
22.5°	2465.5	2469.1	2388.6	2333.8	2336.2	2338.6	2397.2	2494.7	2669.1	2953.2	3332.4
25°	2788.6	2786.1	2658.1	2552.0	2491.1	2477.6	2516.7	2599.6	2741.0	3032.4	3458.0
27.5°	3166.6	3148.3	3020.2	2861.7	2728.8	2709.3	2700.8	2736.1	2843.4	3137.3	3611.6
30°	3593.3	3576.2	3438.5	3231.2	3047.1	3015.4	2934.9	2916.6	2995.9	3280.0	3825.0
32.5°	4061.5	4050.6	3886.0	3634.8	3388.5	3351.9	3216.5	3167.8	3230.0	3495.8	4122.5
35°	4454.2	4444.4	4307.8	4049.3	3748.2	3703.1	3565.3	3510.4	3542.1	3772.6	4511.5
37.5°	4809.0	4804.1	4687.0	4483.4	4172.5	4117.6	3962.8	3944.5	3938.4	4137.1	4983.3
40°	5138.2	5126.0	5004.1	4896.8	4666.3	4616.3	4479.8	4463.9	4417.6	4585.8	5517.4
42.5°	5502.8	5471.1	5294.3	5244.3	5182.1	5140.6	5058.9	5061.4	4958.9	5091.9	6083.2
45°	5800.3	5782.0	5600.3	5571.0	5638.1	5621.0	5691.8	5710.0	5511.3	5622.3	6670.9
47.5°	6119.7	6102.7	5949.0	5928.3	6110.0	6114.9	6364.8	6370.9	6050.2	6173.4	7259.8
50°	6513.6	6489.2	6336.8	6362.4	6566.0	6584.3	7041.5	7000.1	6546.5	6733.0	7843.8
52.5°	6773.3	6787.9	6755.0	6796.5	7074.5	7091.5	7707.3	7601.2	7037.9	7285.4	8416.9
55°	6964.7	6994.0	7096.4	7191.5	7611.0	7628.0	8335.2	8173.1	7445.1	7797.5	8955.9
57.5°	7211.0	7169.6	7361.0	7546.3	8120.6	8165.7	8946.1	8724.2	7806.0	8238.9	9325.3
60°	7564.6	7535.4	7684.1	7958.5	8691.3	8763.2	9592.3	9220.4	8070.6	8588.8	9397.2
62.5°	8281.6	8208.4	8231.6	8474.2	9410.7	9505.8	10321.5	9653.3	8202.3	8725.4	9011.9
65°	9353.3	9227.8	9110.7	9279.0	10423.9	10517.8	11144.5	9993.5	8153.5	8460.8	7988.9
67.5°	10703.1	10578.8	10434.9	10593.4	11916.3	11990.7	12160.2	10184.9	7769.5	7441.5	6180.7
70°	11816.4	11770.0	11942.0	12594.3	14300.1	14302.5	13462.4	10026.4	6717.2	5276.0	3576.2
72.5°	11668.8	11640.8	12546.7	14563.5	17304.5	17239.9	14695.2	8826.6	4524.9	2380.1	1340.0
75°	9572.8	9754.5	11157.9	14528.1	18383.6	18375.0	13940.4	5611.3	1871.6	986.4	692.6
77.5°	5133.3	5421.1	7243.9	10726.3	14351.3	14567.1	9800.8	1963.1	803.5	631.6	479.2
80°	1674.1	1925.3	2887.3	5461.3	9325.3	9285.1	4200.5	770.6	549.9	447.5	331.7
82.5°	710.9	740.1	1290.0	2578.8	4785.8	4711.4	1337.6	442.6	386.5	306.0	204.8
85°	278.0	310.9	569.4	1192.5	2072.8	2027.7	482.8	219.5	247.5	200.0	121.9
87.5°	91.4	111.0	203.6	408.5	645.0	621.8	118.3	75.6	107.3	91.4	43.9
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°	3005.6	3005.6	3005.6	3005.6	3005.6	3005.6	3005.6	3005.6	3005.6	3005.6	3005.6
2.5°	3031.2	3050.7	3073.9	3108.0	3137.3	3161.7	3187.3	3203.1	3209.2	3227.5	3226.3
5°	3053.2	3095.8	3153.1	3209.2	3264.1	3297.0	3326.3	3340.9	3354.3	3364.1	3366.5
7.5°	3089.7	3144.6	3234.8	3308.0	3354.3	3381.2	3400.7	3395.8	3400.7	3403.1	3406.8
10°	3121.4	3198.3	3305.6	3375.1	3410.4	3411.6	3406.8	3389.7	3381.2	3382.4	3384.8
12.5°	3159.2	3244.6	3360.4	3419.0	3428.7	3401.9	3381.2	3351.9	3340.9	3336.0	3333.6
15°	3210.5	3308.0	3420.2	3442.1	3417.7	3383.6	3348.2	3300.7	3276.3	3256.8	3262.9
17.5°	3272.6	3379.9	3466.5	3450.7	3398.2	3342.1	3284.8	3212.9	3162.9	3142.2	3143.4
20°	3359.2	3455.5	3501.9	3432.4	3353.1	3267.8	3170.2	3082.4	3036.1	3015.4	3012.9
22.5°	3464.1	3556.7	3536.0	3400.7	3288.5	3151.9	3030.0	2965.4	2942.2	2927.6	2930.0
25°	3589.7	3668.9	3560.4	3354.3	3182.4	2998.3	2904.4	2883.7	2872.7	2861.7	2861.7
27.5°	3753.0	3795.7	3578.7	3286.0	3016.6	2834.9	2800.8	2804.4	2800.8	2782.5	2786.1
30°	3968.9	3960.3	3595.8	3175.1	2826.4	2687.4	2689.8	2705.7	2708.1	2695.9	2702.0
32.5°	4253.0	4166.4	3604.3	3031.2	2644.7	2558.1	2560.6	2577.6	2589.8	2569.1	2578.8
35°	4596.8	4406.6	3590.9	2850.8	2504.5	2435.0	2416.7	2421.6	2425.2	2405.7	2419.1
37.5°	4998.0	4676.1	3531.1	2650.8	2388.6	2314.3	2275.2	2242.3	2222.8	2204.5	2216.7
40°	5438.1	4969.9	3421.4	2455.7	2259.4	2186.2	2127.7	2065.5	1999.7	1975.3	1986.3
42.5°	5899.0	5272.3	3288.5	2269.1	2110.6	2050.9	1988.7	1898.5	1799.7	1749.7	1755.8
45°	6377.0	5582.0	3158.0	2085.0	1958.2	1932.6	1860.7	1752.2	1644.9	1581.4	1576.6
47.5°	6845.2	5874.6	2966.6	1899.7	1815.6	1843.6	1787.5	1687.5	1568.0	1468.1	1457.1
50°	7292.7	6149.0	2653.2	1711.9	1699.7	1816.8	1763.1	1619.2	1482.7	1354.7	1343.7
52.5°	7736.5	6370.9	2252.1	1541.2	1637.5	1809.5	1731.4	1572.9	1405.9	1271.7	1257.1
55°	8113.3	6485.5	1865.5	1394.9	1547.3	1747.3	1693.6	1518.0	1297.3	1154.7	1142.5
57.5°	8327.9	6392.9	1543.7	1251.0	1422.9	1644.9	1629.0	1401.0	1168.1	1058.4	1043.7
60°	8235.2	6017.3	1280.3	1125.4	1304.7	1533.9	1516.8	1285.2	1069.3	965.7	951.1
62.5°	7724.3	5301.6	1071.8	1015.7	1197.4	1420.5	1404.6	1196.1	993.7	893.8	877.9
65°	6695.2	4312.7	909.6	924.2	1088.8	1283.9	1307.1	1121.8	934.0	836.4	820.6
67.5°	5106.5	3123.9	782.8	845.0	982.8	1149.8	1216.9	1068.1	884.0	791.3	776.7
70°	2910.5	1774.1	675.5	768.2	888.9	1025.4	1147.4	1025.4	830.4	753.5	743.8
72.5°	1103.5	814.5	584.1	691.4	798.6	920.6	1070.6	958.4	768.2	710.9	701.1
75°	588.9	496.3	491.4	601.1	695.0	818.2	974.2	892.5	721.8	751.1	775.5
77.5°	401.2	351.2	410.9	514.6	581.6	704.8	871.8	792.6	625.5	623.1	574.3
80°	278.0	248.7	334.1	414.6	449.9	592.6	760.9	680.4	509.7	475.5	454.8
82.5°	167.0	162.2	250.0	309.7	318.2	457.2	630.4	570.6	417.0	363.4	365.8
85°	91.4	96.3	159.7	181.7	185.3	319.5	493.8	441.4	320.7	269.5	271.9
87.5°	25.6	32.9	58.5	71.9	89.0	165.8	293.9	262.2	160.9	112.2	112.2
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)