

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: P884417

Luminaire Tested: **NAV-SB5B-722-U-T2**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884417  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5B-722-U-T2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 2200K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

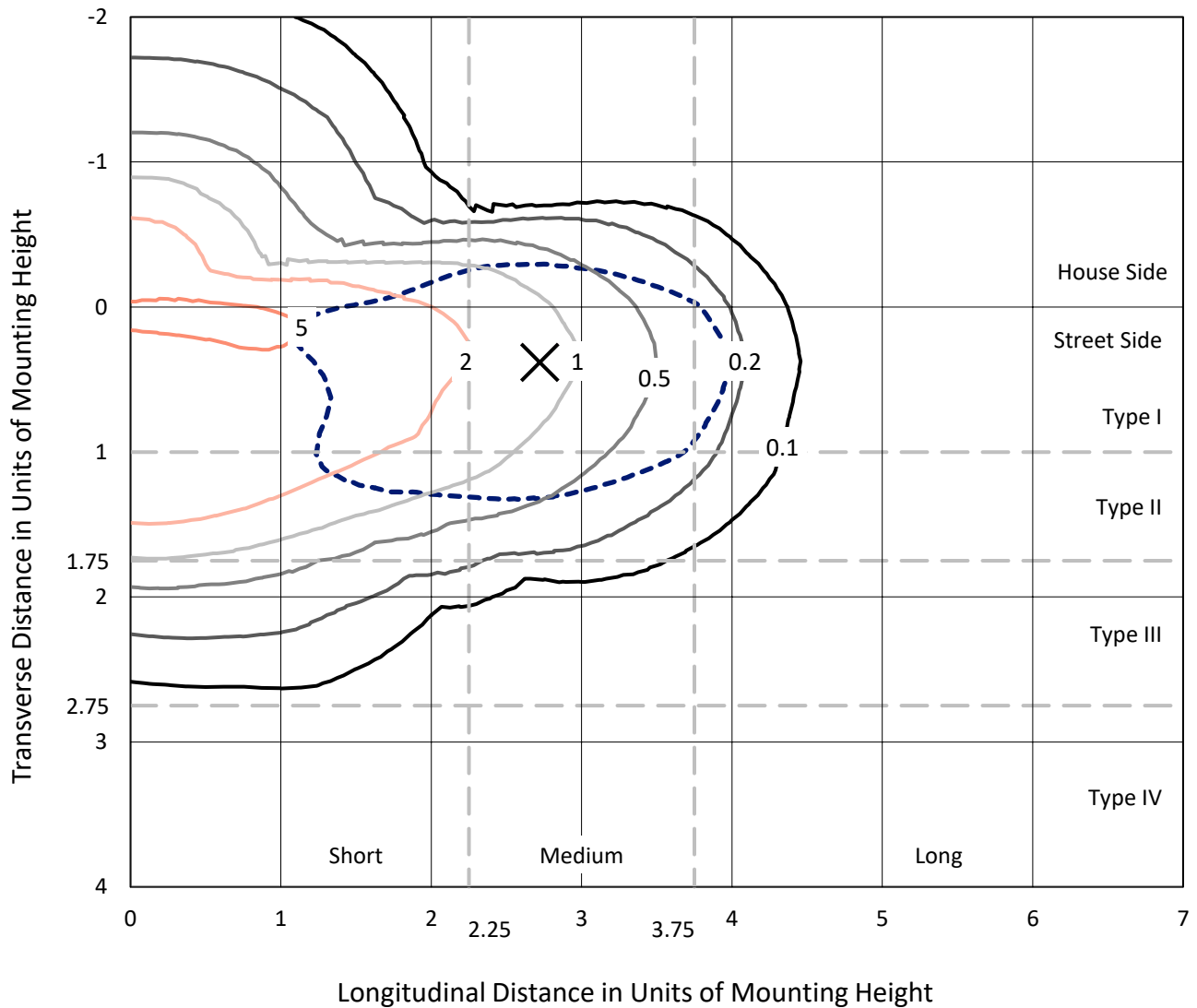
Lumens per Lamp: N/A  
Luminaire Lumens: 22561 lumens  
Efficiency: N/A  
Efficacy: 123.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G3  
  
Input Watts (W): 182.7  
Input Voltage (V): 120.0  
Input Current (Ain): 1.547  
Voltage Rise (V): NR  
Power Factor: 0.992  
Total Harmonic Distortion (THDi): 11.125  
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

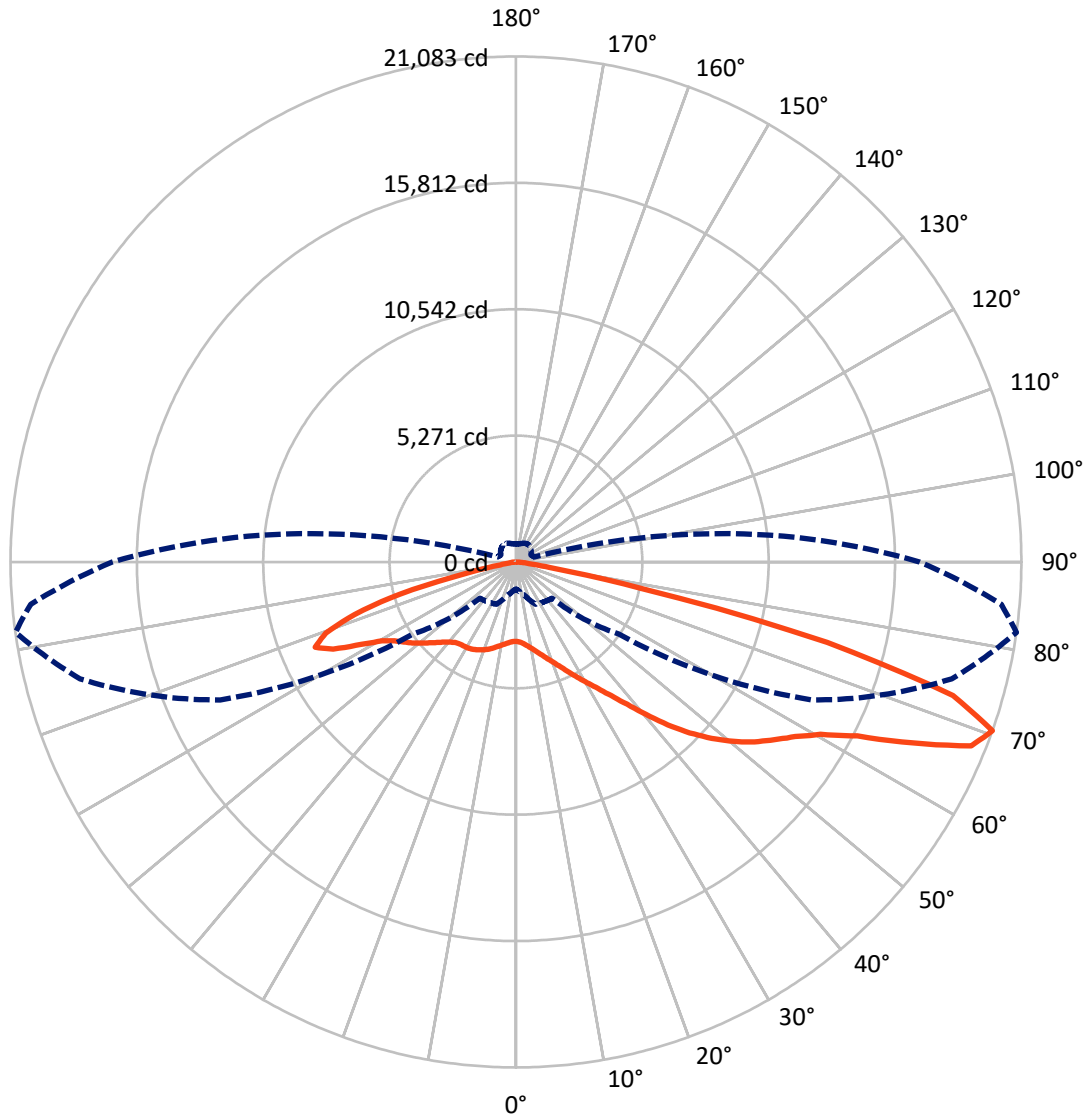
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5561.8	0.0	5561.8
	% Fixture	24.7	0.0	24.7
<b>Street Side</b>	Lumens	16999.2	0.0	16999.2
	% Fixture	75.3	0.0	75.3
<b>Total</b>	Lumens	22561.0	0.0	22561.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	312.3	1.4
10°-20°	897.3	4.0
20°-30°	1501.1	6.7
30°-40°	2345.0	10.4
40°-50°	3734.7	16.6
50°-60°	5197.4	23.0
60°-70°	5436.7	24.1
70°-80°	2841.5	12.6
80°-90°	295.1	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°	22561.0	100.0
0°-180°	22561.0	100.0

**Coefficient of Utilization**



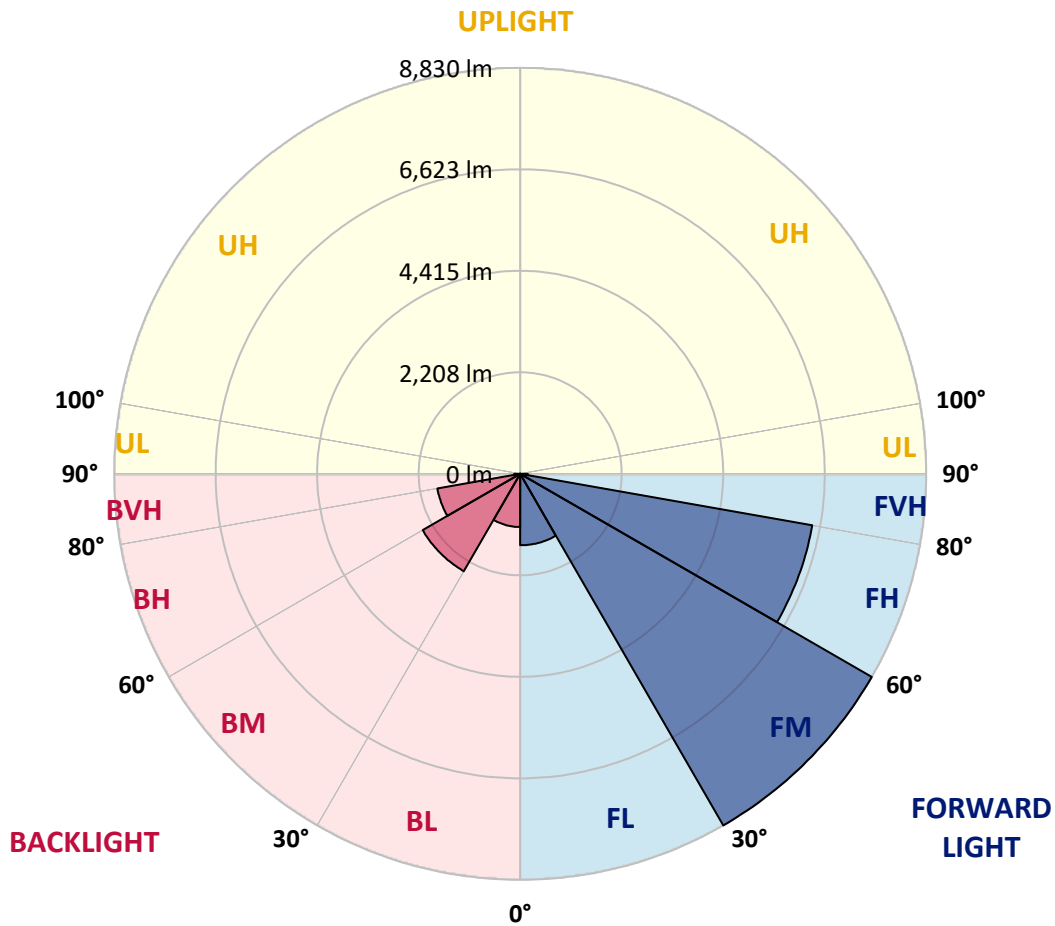
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1553.6	6.9			
FM (30°-60°)	8830.2	39.1			
FH (60°-80°)	6450.3	28.6			G3/7500
FVH (80°-90°)	165.2	0.7			G2/225
BL (0°-30°)	1157.1	5.1	B3/2500		
BM (30°-60°)	2447.0	10.8	B2/2500		
BH (60°-80°)	1827.9	8.1	B3/2500		G3/2500
BVH (80°-90°)	129.9	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-G3**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	3307.7	3307.7	3307.7	3307.7	3307.7	3307.7	3307.7	3307.7	3307.7	3307.7	3307.7
2.5°	3386.7	3405.9	3399.9	3393.9	3393.9	3385.5	3384.3	3372.4	3362.8	3347.2	3343.6
5°	3429.8	3450.2	3447.8	3452.6	3468.1	3471.7	3475.3	3468.1	3449.0	3429.8	3421.5
7.5°	3391.5	3414.3	3421.5	3450.2	3498.1	3541.2	3573.5	3586.7	3568.7	3541.2	3528.0
10°	3262.2	3287.4	3312.5	3380.8	3465.7	3567.5	3653.7	3705.2	3701.6	3675.2	3652.5
12.5°	3000.1	3026.4	3080.3	3213.1	3368.8	3548.4	3708.8	3816.5	3853.6	3834.5	3795.0
15°	2790.6	2813.3	2854.0	2990.5	3192.8	3465.7	3729.1	3938.6	4033.2	4022.4	3974.5
17.5°	2784.6	2794.1	2819.3	2883.9	3039.6	3336.5	3707.6	4058.3	4239.1	4237.9	4178.1
20°	2889.9	2893.5	2907.9	2921.0	3009.6	3238.3	3652.5	4157.7	4470.2	4470.2	4405.5
22.5°	3036.0	3033.6	3047.9	3036.0	3079.1	3229.9	3617.8	4245.1	4727.5	4746.7	4665.3
25°	3255.1	3243.1	3239.5	3212.0	3220.3	3307.7	3656.1	4344.5	5032.8	5072.3	4970.6
27.5°	3547.2	3528.0	3514.8	3451.4	3429.8	3468.1	3773.4	4464.2	5372.8	5441.0	5311.8
30°	3927.8	3893.1	3874.0	3763.8	3686.0	3692.0	3950.6	4623.4	5728.4	5838.5	5674.5
32.5°	4447.4	4393.5	4342.1	4161.3	4018.8	3972.1	4179.2	4843.7	6113.8	6289.8	6079.1
35°	5029.2	4986.1	4931.1	4652.1	4433.0	4325.3	4488.1	5151.3	6565.2	6844.1	6570.0
37.5°	5589.5	5552.4	5578.7	5202.8	4920.3	4763.5	4892.8	5564.4	7121.8	7533.7	7185.3
40°	6168.9	6140.2	6143.8	5784.6	5455.4	5279.4	5383.6	6082.7	7759.9	8353.7	7925.1
42.5°	6798.6	6777.1	6705.2	6386.8	6016.9	5852.9	5948.6	6681.3	8444.7	9287.5	8736.8
45°	7503.7	7490.6	7423.5	7058.4	6634.6	6450.2	6579.5	7342.1	9133.1	10166.2	9552.1
47.5°	8113.1	8123.9	8115.5	7807.8	7368.5	7097.9	7252.3	8031.7	9773.5	10992.2	10333.8
50°	8406.4	8462.7	8545.3	8449.5	8176.5	7901.2	7931.1	8697.3	10384.1	11766.8	11083.2
52.5°	8253.2	8359.7	8584.8	8738.0	8843.3	8785.9	8705.7	9358.1	10958.7	12465.9	11791.9
55°	7682.1	7831.8	8205.3	8575.2	9112.7	9530.5	9635.9	10090.8	11519.0	13081.3	12462.3
57.5°	6641.8	6884.8	7220.0	7968.2	8873.3	9890.9	10720.5	11107.2	12112.8	13738.5	13163.9
60°	4858.0	5183.7	5600.3	6713.6	8035.3	9698.1	11643.5	12668.2	12956.8	14589.7	14077.3
62.5°	3109.0	3310.1	3693.2	4741.9	6261.1	8710.5	11926.0	14619.6	14387.3	15985.5	15446.8
65°	2128.5	2257.8	2608.6	3197.6	4047.6	6483.8	11169.4	16082.5	16659.5	18197.9	17788.4
67.5°	1546.7	1644.9	1944.2	2460.1	2637.3	3836.9	8667.4	16015.5	18868.3	20477.2	19840.4
70°	1127.7	1197.1	1448.6	1944.2	2029.2	2134.5	5250.7	13614.0	18820.4	21083.0	20320.4
72.5°	835.6	883.5	1052.3	1508.4	1642.5	1441.4	2599.0	9894.4	16172.3	19069.4	18457.7
75°	604.6	640.5	765.0	1154.1	1314.5	1097.8	1296.5	5782.2	11280.7	13414.1	13521.8
77.5°	462.1	489.6	571.0	845.2	1052.3	823.6	804.5	2660.1	5348.9	5375.2	5676.9
80°	371.1	389.1	433.4	595.0	806.9	616.5	524.4	1073.8	1690.4	1430.6	1501.2
82.5°	273.0	302.9	366.3	417.8	577.0	425.0	319.6	542.3	642.9	553.1	557.9
85°	155.6	176.0	221.5	299.3	368.7	259.8	183.2	240.6	299.3	245.4	219.1
87.5°	55.1	71.8	77.8	117.3	160.4	107.7	70.6	69.4	98.2	73.0	61.1
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°	3307.7	3307.7	3307.7	3307.7	3307.7	3307.7	3307.7	3307.7	3307.7	3307.7	3307.7
2.5°	3331.7	3325.7	3301.7	3269.4	3235.9	3203.6	3192.8	3170.1	3154.5	3146.1	3155.7
5°	3398.7	3379.6	3323.3	3251.5	3176.0	3094.6	3037.2	2984.5	2946.2	2910.3	2924.6
7.5°	3494.5	3461.0	3364.0	3238.3	3104.2	2968.9	2868.4	2791.8	2740.3	2706.8	2713.9
10°	3605.8	3554.3	3405.9	3217.9	3010.8	2816.9	2698.4	2632.5	2600.2	2582.3	2587.0
12.5°	3733.9	3660.9	3449.0	3171.2	2868.4	2646.9	2565.5	2546.3	2547.5	2548.7	2551.1
15°	3891.9	3790.2	3483.7	3069.5	2682.8	2516.4	2502.0	2533.2	2565.5	2581.1	2579.9
17.5°	4070.3	3926.7	3489.7	2901.9	2500.8	2432.6	2478.1	2545.1	2594.2	2615.8	2620.6
20°	4261.9	4065.5	3446.6	2664.9	2351.2	2364.4	2445.8	2532.0	2585.8	2613.4	2620.6
22.5°	4480.9	4214.0	3343.6	2415.8	2229.1	2290.1	2385.9	2469.7	2526.0	2553.5	2560.7
25°	4731.1	4380.4	3182.0	2206.3	2123.7	2206.3	2302.1	2371.6	2417.0	2442.2	2449.4
27.5°	5008.9	4554.0	2966.5	2039.9	2031.6	2120.2	2199.2	2253.0	2277.0	2296.1	2303.3
30°	5287.8	4712.0	2705.6	1914.2	1951.4	2035.2	2091.4	2115.4	2122.5	2126.1	2134.5
32.5°	5589.5	4848.5	2431.4	1810.1	1874.7	1952.6	1986.1	1996.8	1963.3	1940.6	1947.8
35°	5954.6	4994.5	2163.2	1727.5	1799.3	1866.4	1877.1	1867.6	1828.0	1781.4	1783.8
37.5°	6405.9	5176.5	1949.0	1668.8	1728.7	1773.0	1759.8	1757.4	1761.0	1705.9	1709.5
40°	6959.0	5413.5	1792.1	1623.3	1671.2	1680.8	1643.7	1664.0	1682.0	1598.2	1600.6
42.5°	7573.2	5699.6	1692.8	1592.2	1623.3	1600.6	1543.1	1565.9	1563.5	1453.3	1452.1
45°	8199.3	6010.9	1658.1	1569.5	1579.0	1533.5	1470.1	1476.1	1425.8	1326.4	1330.0
47.5°	8821.8	6344.9	1679.6	1550.3	1524.0	1472.5	1423.4	1397.1	1322.9	1248.6	1248.6
50°	9432.3	6695.7	1758.6	1512.0	1448.6	1418.6	1382.7	1336.0	1257.0	1193.6	1188.8
52.5°	9998.6	7048.8	1847.2	1448.6	1354.0	1371.9	1349.2	1295.3	1217.5	1152.9	1154.1
55°	10534.9	7402.0	1881.9	1361.2	1265.4	1331.2	1318.1	1218.7	1125.3	1072.6	1067.9
57.5°	11119.1	7827.0	1843.6	1249.8	1193.6	1284.5	1234.3	1124.1	1070.3	1030.7	1027.2
60°	11928.4	8493.8	1761.0	1112.2	1125.3	1215.1	1128.9	1083.4	1024.8	980.5	978.1
62.5°	13272.8	9737.6	1628.1	975.7	1045.1	1112.2	1078.6	1033.1	973.3	930.2	930.2
65°	15260.1	11466.3	1377.9	869.1	955.3	1011.6	1024.8	979.3	917.0	871.5	873.9
67.5°	16936.1	12550.9	1042.7	780.5	863.1	930.2	967.3	923.0	857.2	812.9	814.1
70°	16843.9	11763.2	796.1	693.1	781.7	850.0	897.9	863.1	792.5	750.6	754.2
72.5°	14960.8	9840.6	644.1	604.6	699.1	766.2	823.6	797.3	725.5	684.8	684.8
75°	10991.0	6985.4	514.8	514.8	596.2	678.8	742.2	725.5	659.6	630.9	622.5
77.5°	4633.0	2930.6	403.4	427.4	495.6	583.0	662.0	668.0	610.5	646.5	586.6
80°	1231.9	808.1	307.7	336.4	389.1	481.3	575.8	573.4	511.2	477.7	444.1
82.5°	469.3	318.4	219.1	237.0	281.3	368.7	456.1	470.5	408.2	353.2	353.2
85°	180.8	136.5	135.3	142.5	164.0	244.2	344.8	356.8	307.7	261.0	269.4
87.5°	46.7	40.7	50.3	47.9	75.4	130.5	197.5	204.7	188.0	108.9	155.6
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)