

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: P965559

Luminaire Tested: **NAV-SB4A-727-U-T2-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965559
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-727-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12481.4 lumens
Efficiency: N/A
Efficacy: 109.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

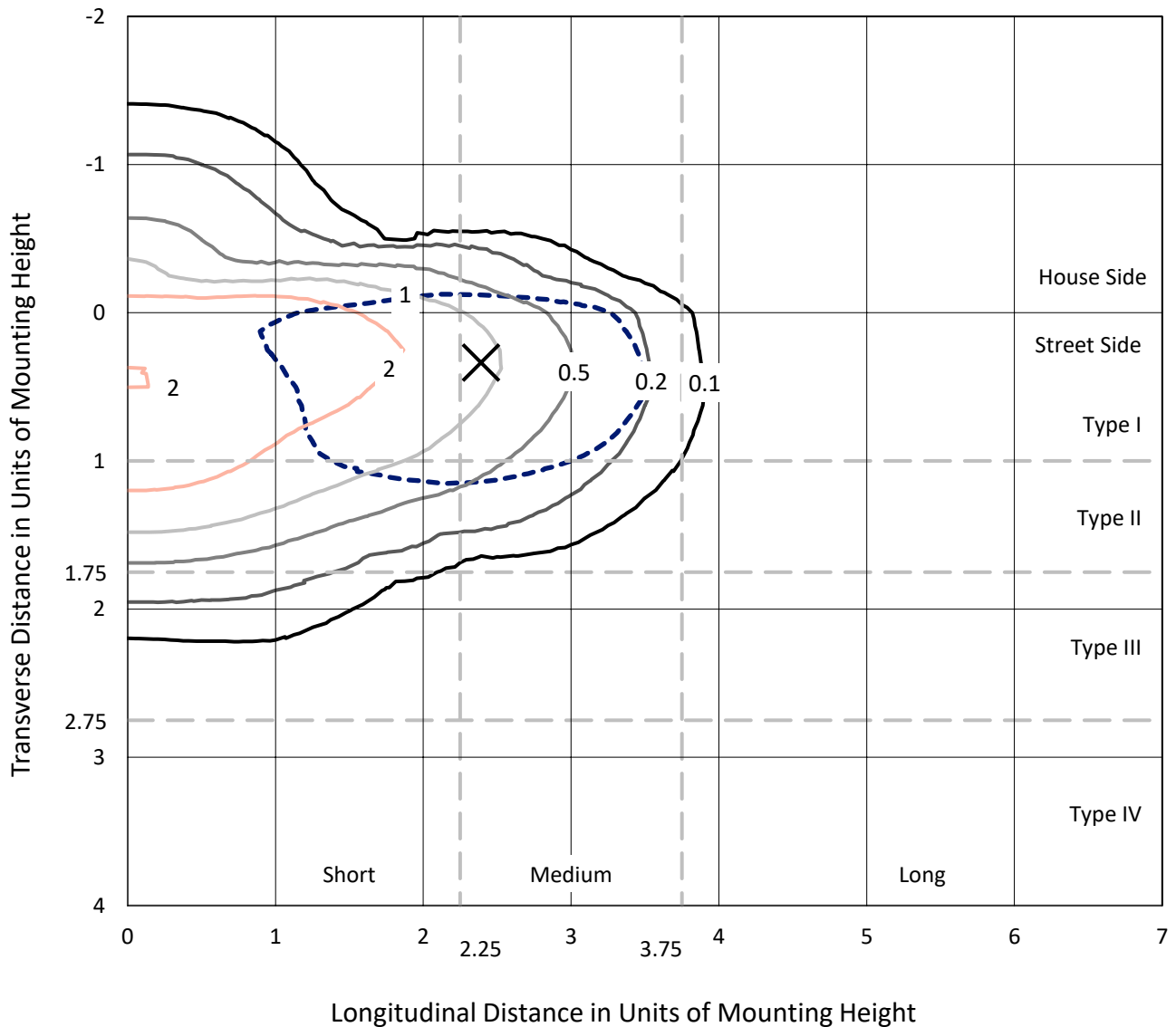
Input Watts (W): 114
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

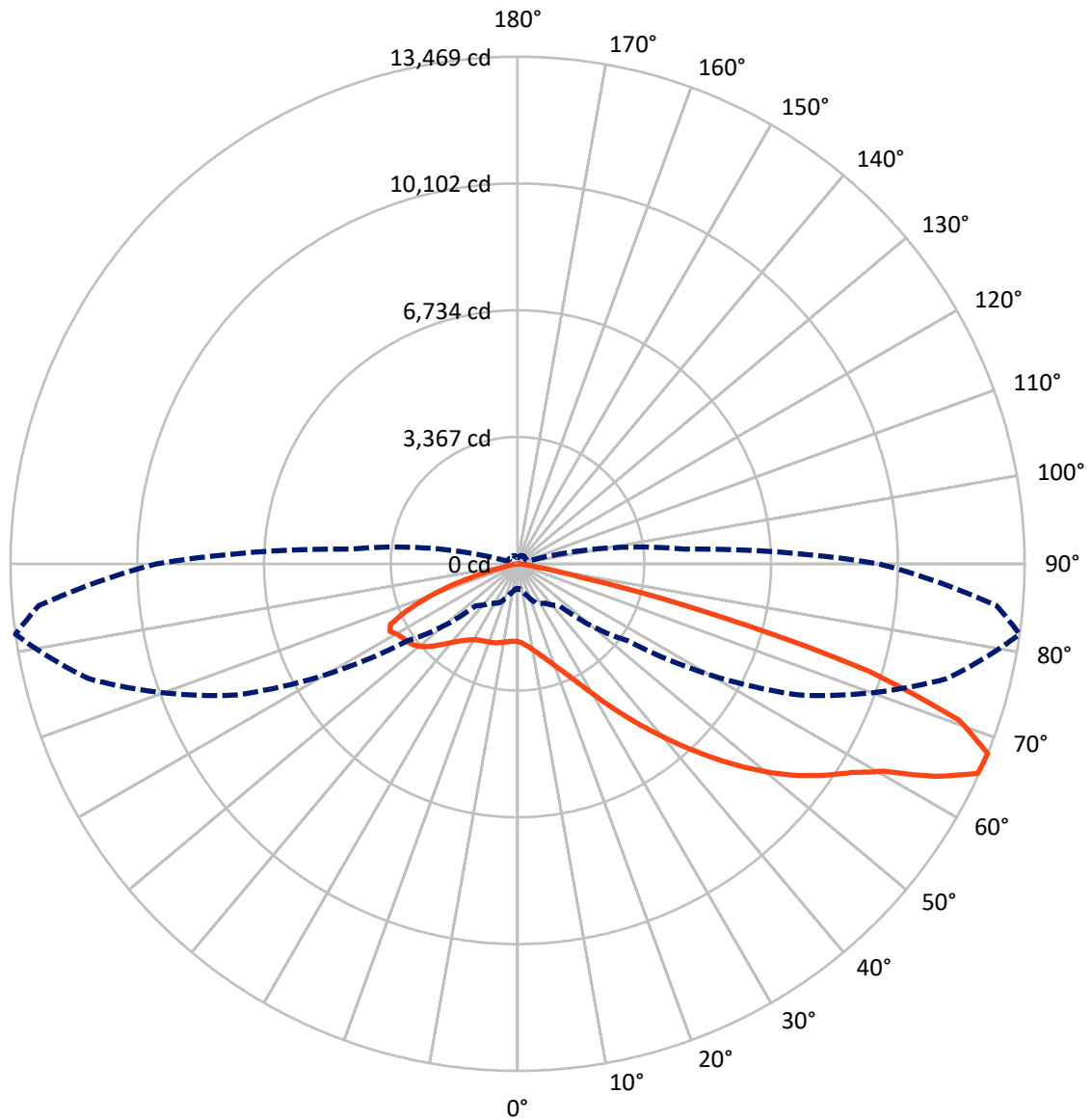
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2260.9	0.0	2260.9
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	10220.5	0.0	10220.5
	% Fixture	81.9	0.0	81.9
Total	Lumens	12481.4	0.0	12481.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.2	1.5
10°-20°	478.7	3.8
20°-30°	766.7	6.1
30°-40°	1355.8	10.9
40°-50°	2375.6	19.0
50°-60°	3168.4	25.4
60°-70°	2949.6	23.6
70°-80°	1132.0	9.1
80°-90°	70.3	0.6
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°	12481.4	100.0
0°-180°	12481.4	100.0

Coefficient of Utilization

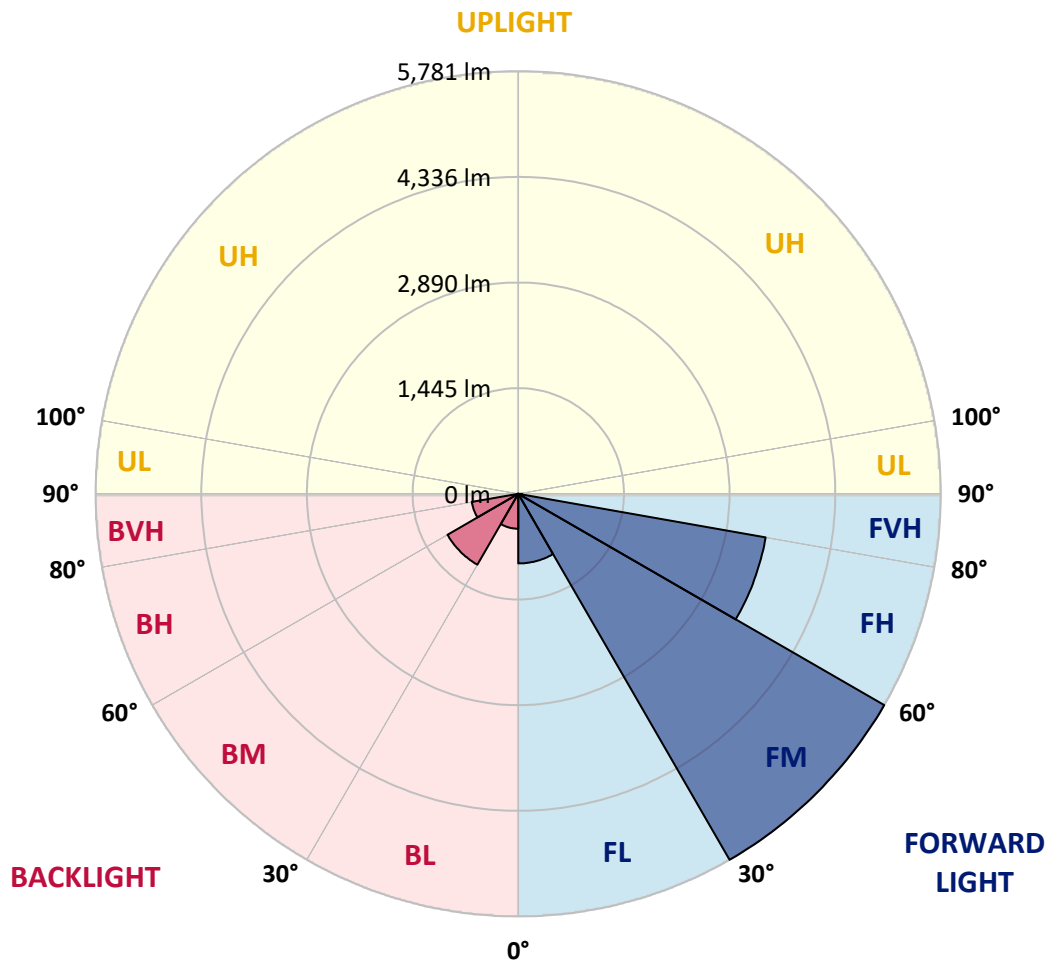


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	952.2	7.6			
FM (30°-60°)	5780.9	46.3			
FH (60°-80°)	3436.3	27.5			G2/5000
FVH (80°-90°)	51.1	0.4			G1/100
BL (0°-30°)	477.5	3.8	B1/500		
BM (30°-60°)	1118.9	9.0	B2/2500		
BH (60°-80°)	645.3	5.2	B2/1000		G2/1000
BVH (80°-90°)	19.2	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2
 Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2067.7	2067.7	2067.7	2067.7	2067.7	2067.7	2067.7	2067.7	2067.7	2067.7	2067.7
2.5°	2185.5	2198.0	2190.8	2187.2	2181.0	2172.0	2164.8	2142.4	2119.0	2103.7	2098.3
5°	2229.5	2242.1	2241.2	2244.8	2249.3	2251.9	2250.2	2225.0	2191.8	2165.7	2150.4
7.5°	2191.8	2206.1	2217.8	2235.8	2267.2	2300.5	2316.7	2311.3	2277.1	2241.2	2222.3
10°	2084.8	2100.1	2128.0	2170.2	2236.7	2308.6	2368.8	2396.7	2375.1	2335.6	2309.5
12.5°	1889.0	1904.2	1959.0	2050.7	2162.1	2287.0	2402.1	2476.6	2482.0	2442.5	2411.9
15°	1668.8	1684.1	1742.4	1857.5	2027.3	2227.7	2420.0	2561.1	2608.7	2574.6	2537.7
17.5°	1532.2	1545.6	1589.7	1682.2	1859.2	2109.0	2413.8	2651.0	2759.7	2732.8	2688.7
20°	1490.9	1502.5	1523.1	1587.9	1735.2	1985.9	2372.4	2735.4	2922.4	2907.1	2857.6
22.5°	1534.8	1545.6	1552.0	1580.7	1673.2	1905.1	2320.3	2821.7	3111.1	3112.8	3052.7
25°	1636.4	1647.2	1640.0	1657.9	1698.4	1880.0	2300.5	2923.2	3348.3	3368.0	3299.8
27.5°	1803.6	1804.4	1787.4	1786.5	1792.7	1917.7	2321.1	3032.0	3647.6	3684.4	3599.9
30°	2138.8	2125.2	2059.6	1988.7	1956.3	2030.9	2378.7	3160.5	4000.7	4066.3	3960.3
32.5°	2655.5	2635.7	2515.2	2345.4	2174.6	2213.3	2482.0	3307.0	4385.4	4504.0	4374.5
35°	3216.2	3210.8	3085.0	2832.5	2534.1	2473.0	2650.0	3499.2	4805.0	4993.7	4840.0
37.5°	3737.4	3734.7	3662.8	3365.4	3002.3	2835.1	2919.6	3750.9	5254.3	5527.5	5346.0
40°	4213.7	4221.8	4149.9	3883.9	3518.1	3299.8	3286.3	4061.8	5753.9	6108.9	5893.2
42.5°	4625.2	4634.2	4561.5	4364.7	4027.6	3813.8	3736.5	4442.9	6241.8	6733.4	6478.2
45°	4904.7	4960.5	4949.6	4792.4	4550.7	4328.7	4277.5	4920.9	6798.1	7395.7	7096.5
47.5°	4983.9	5035.0	5115.9	5137.5	4990.1	4771.7	4832.9	5497.0	7360.7	8059.0	7718.4
50°	4788.8	4836.5	5004.5	5228.2	5330.7	5263.3	5372.9	6114.3	7936.7	8720.3	8328.5
52.5°	4404.2	4452.7	4664.8	5018.8	5436.7	5648.8	5914.8	6722.7	8494.8	9346.7	8906.3
55°	3848.0	3899.2	4171.4	4572.2	5234.6	5807.9	6366.8	7330.1	9006.1	9910.1	9427.5
57.5°	3091.3	3129.0	3412.1	3972.8	4725.9	5649.7	6700.2	7993.4	9487.7	10463.6	9944.2
60°	2014.7	2048.0	2376.9	3002.3	3883.0	5121.3	6766.6	8732.9	10127.6	11183.5	10640.7
62.5°	1339.9	1362.3	1557.3	2016.5	2734.5	4106.8	6377.5	9323.3	11065.7	12436.1	11835.0
65°	919.3	941.8	1136.7	1456.7	1766.7	2716.6	5258.8	9245.1	11915.8	13431.0	12720.1
67.5°	656.0	674.9	840.2	1142.2	1278.8	1578.0	3564.8	8245.8	11793.6	13468.7	12767.7
70°	470.0	480.7	617.4	889.6	1016.4	948.0	1982.4	6306.6	10326.2	12437.0	11795.4
72.5°	328.9	332.5	428.7	677.5	818.7	692.0	943.5	4204.7	7810.0	9761.8	9144.4
75°	222.8	227.3	288.4	496.9	656.9	528.4	499.7	2254.7	4584.8	5403.5	4843.6
77.5°	136.6	138.4	186.0	339.7	491.6	402.6	321.7	955.2	1773.9	1741.6	1484.5
80°	77.3	77.3	118.6	211.2	335.2	259.7	225.6	406.2	561.6	493.3	434.9
82.5°	43.2	44.1	86.3	131.2	221.9	153.6	124.0	187.8	242.6	214.7	187.0
85°	17.9	19.8	53.0	62.0	106.1	76.4	50.3	79.1	89.9	79.9	58.4
87.5°	1.8	2.7	16.2	11.7	12.6	15.3	7.2	15.3	12.6	12.6	9.0
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°	2067.7	2067.7	2067.7	2067.7	2067.7	2067.7	2067.7	2067.7	2067.7	2067.7	2067.7
2.5°	2081.3	2067.7	2033.6	1994.0	1942.0	1916.7	1882.6	1859.2	1839.5	1841.3	1823.4
5°	2121.6	2087.5	2011.2	1915.9	1797.2	1712.8	1622.9	1561.0	1510.6	1499.8	1475.6
7.5°	2177.4	2123.5	1989.5	1817.9	1617.6	1465.6	1329.9	1242.8	1180.8	1161.0	1141.2
10°	2249.3	2171.1	1961.7	1694.8	1406.4	1213.2	1067.5	999.3	957.0	942.7	931.9
12.5°	2332.8	2225.9	1924.8	1544.8	1188.9	1002.9	910.3	876.2	862.6	858.2	855.5
15°	2438.0	2294.2	1869.2	1366.8	1004.7	874.3	834.9	830.4	832.1	830.4	829.4
17.5°	2562.9	2368.8	1778.4	1183.5	880.7	808.7	794.4	798.0	802.5	801.6	799.8
20°	2699.4	2442.5	1662.4	1020.8	796.2	762.1	754.0	757.6	761.2	759.3	758.4
22.5°	2854.9	2521.6	1533.9	894.1	739.5	718.9	709.9	710.8	710.8	707.2	705.4
25°	3041.0	2608.7	1399.1	804.3	696.5	680.3	669.5	665.8	660.5	649.7	647.9
27.5°	3262.9	2701.3	1269.8	741.4	662.3	647.0	634.5	625.5	611.9	594.0	592.2
30°	3512.8	2813.6	1160.1	701.8	635.3	620.0	605.7	592.2	572.5	549.9	548.2
32.5°	3806.6	2934.1	1080.1	675.8	611.1	594.9	577.8	561.6	540.1	517.6	518.5
35°	4157.1	3079.6	1033.4	657.8	592.2	570.6	551.8	533.8	517.6	497.8	496.0
37.5°	4537.2	3234.2	1019.1	648.8	579.6	546.3	524.8	512.2	510.4	498.8	497.8
40°	4953.2	3417.5	1029.8	643.4	566.1	523.0	499.7	496.9	501.4	480.7	481.6
42.5°	5393.5	3635.0	1047.8	637.1	547.2	499.7	477.1	477.1	473.6	444.8	444.8
45°	5869.9	3885.7	1065.8	621.9	524.8	476.3	459.2	452.9	437.7	409.8	408.9
47.5°	6349.8	4140.9	1079.2	594.0	497.8	456.5	441.3	426.8	404.4	379.2	378.3
50°	6805.3	4370.1	1064.9	552.7	467.3	437.7	421.5	401.7	377.4	360.4	357.6
52.5°	7212.4	4568.6	1003.8	504.1	434.9	417.9	403.4	382.8	363.1	345.1	343.3
55°	7566.4	4729.5	896.0	458.3	406.2	400.8	386.4	360.4	333.4	318.2	316.3
57.5°	7906.1	4851.7	761.2	420.6	380.1	381.9	360.4	337.0	311.8	295.6	293.9
60°	8358.2	5015.2	624.5	385.5	352.3	357.6	334.3	317.2	285.8	265.1	262.4
62.5°	9080.7	5269.5	496.0	342.3	319.9	321.7	311.8	291.2	253.4	229.2	227.3
65°	9654.0	5176.1	390.9	295.6	283.1	285.8	285.8	263.3	222.8	195.0	192.3
67.5°	9589.3	4432.0	311.8	249.8	248.0	249.8	256.1	237.3	197.7	175.3	171.7
70°	8833.6	3525.3	249.8	207.6	215.7	211.2	229.2	216.6	177.9	155.5	152.7
72.5°	7207.9	2539.5	190.5	171.7	165.3	172.5	206.6	195.0	148.3	123.1	120.4
75°	4211.9	1355.2	142.0	135.7	119.5	143.8	183.3	166.3	113.3	90.7	88.0
77.5°	1371.3	472.7	104.2	99.7	89.0	115.9	156.3	140.2	92.6	71.9	69.2
80°	367.6	142.9	71.0	65.6	57.5	86.3	124.0	111.4	66.5	46.7	45.8
82.5°	147.4	60.2	41.3	36.8	31.5	59.3	98.0	89.9	49.4	29.6	29.6
85°	47.7	19.8	15.3	11.7	14.3	36.8	58.4	61.1	35.1	15.3	11.7
87.5°	6.3	2.7	2.7	3.6	2.7	6.3	17.9	17.1	9.8	1.8	0.0
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)