

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: P965621

Luminaire Tested: **NAV-SB4A-735-U-T2-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965621
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-735-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 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: 13456.2 lumens
Efficiency: N/A
Efficacy: 118.0 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



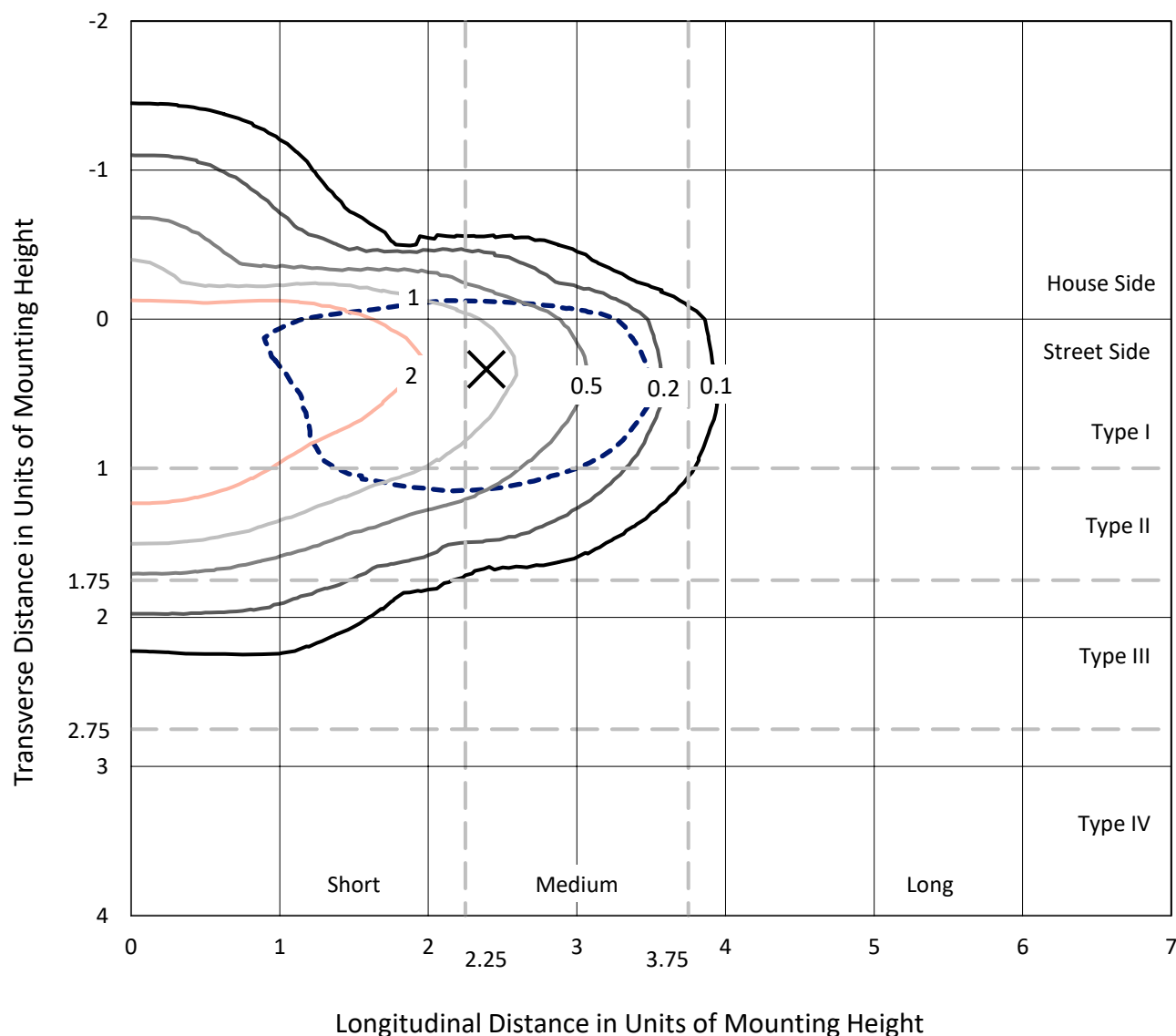
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

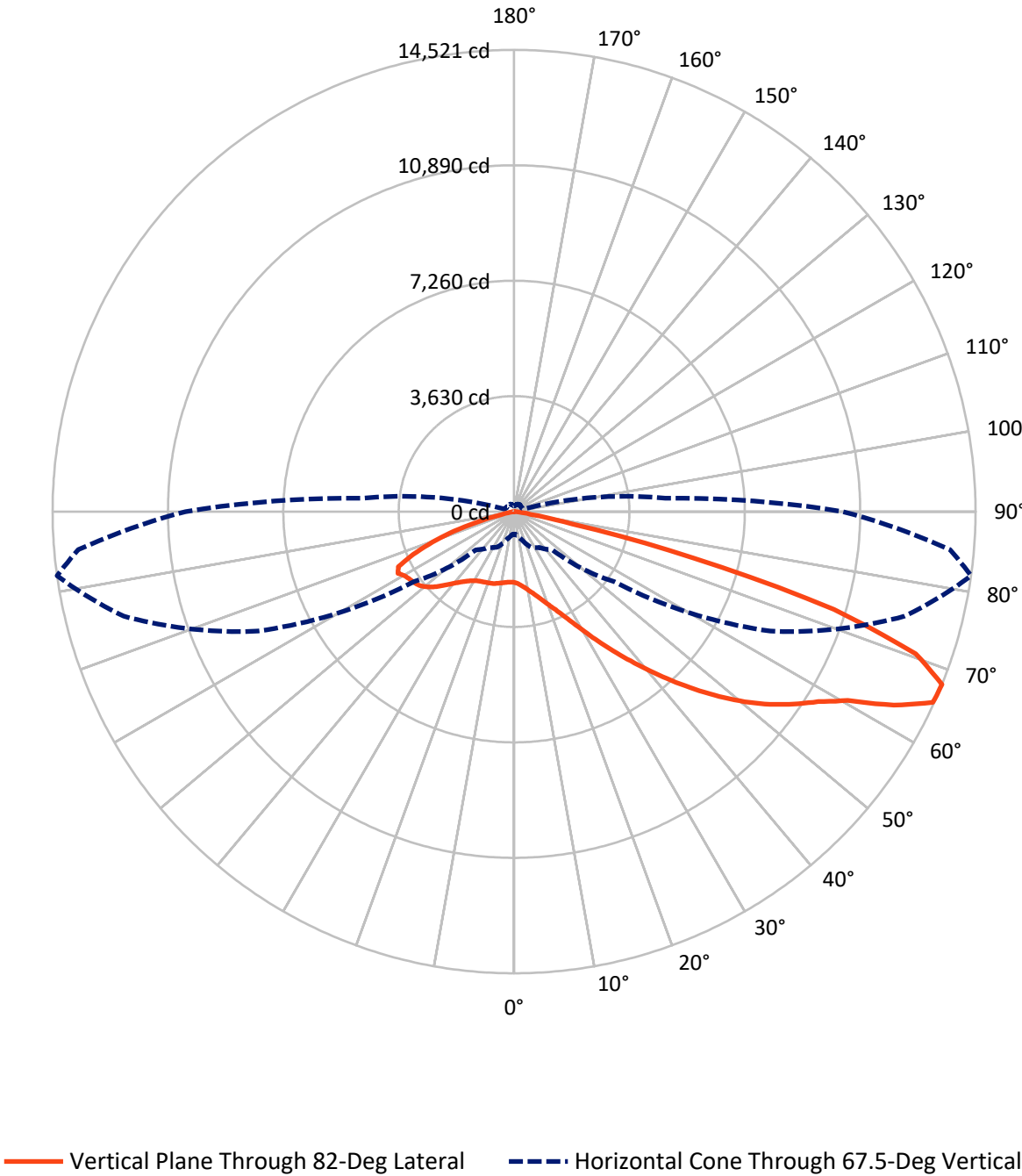
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 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	2437.5	0.0	2437.5
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	11018.7	0.0	11018.7
	% Fixture	81.9	0.0	81.9
Total	Lumens	13456.2	0.0	13456.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	198.6	1.5
10°-20°	516.1	3.8
20°-30°	826.6	6.1
30°-40°	1461.7	10.9
40°-50°	2561.1	19.0
50°-60°	3415.8	25.4
60°-70°	3179.9	23.6
70°-80°	1220.5	9.1
80°-90°	75.8	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°	13456.2	100.0
0°-180°	13456.2	100.0

Coefficient of Utilization



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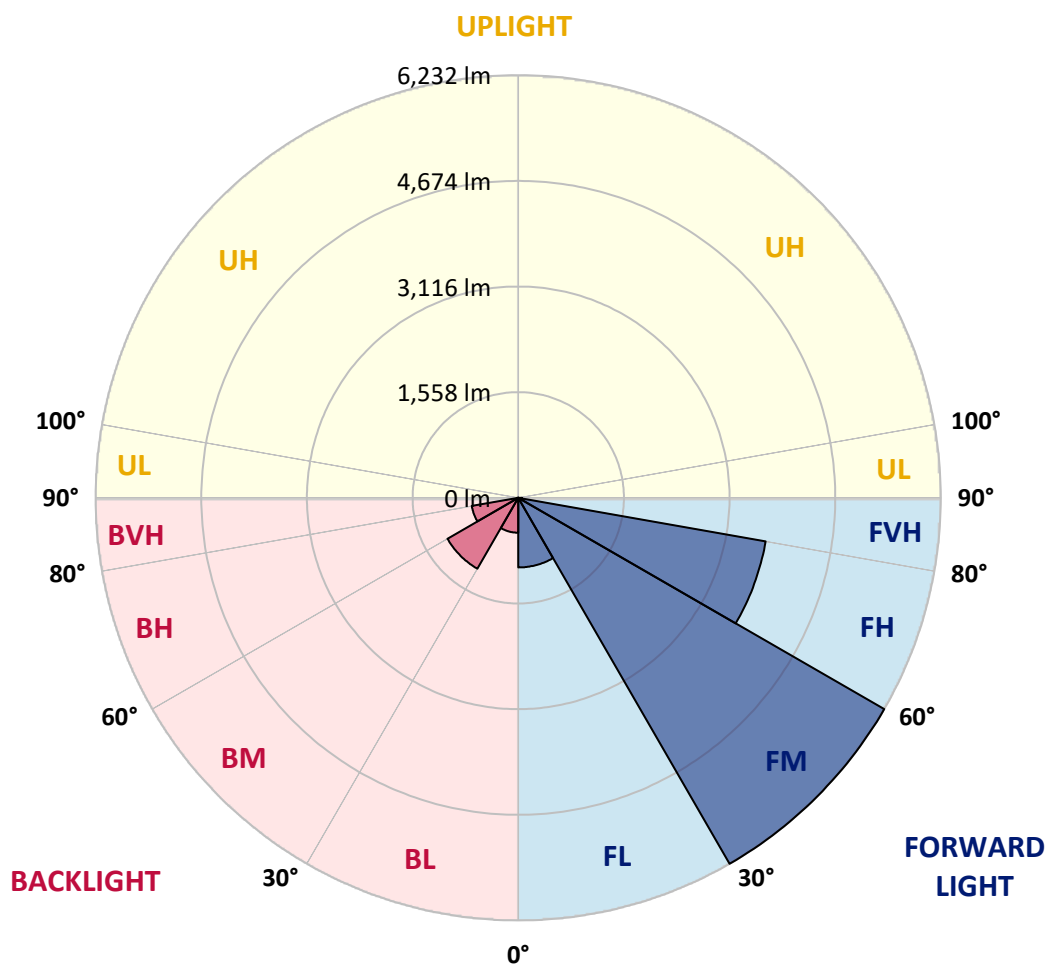
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1026.6	7.6			
FM	(30°-60°)	6232.4	46.3			
FH	(60°-80°)	3704.7	27.5			G2/5000
FVH	(80°-90°)	55.1	0.4			G1/100
BL	(0°-30°)	514.8	3.8	B2/1000		
BM	(30°-60°)	1206.3	9.0	B2/2500		
BH	(60°-80°)	695.7	5.2	B2/1000		G2/1000
BVH	(80°-90°)	20.7	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°	2229.3	2229.3	2229.3	2229.3	2229.3	2229.3	2229.3	2229.3	2229.3	2229.3	2229.3
2.5°	2356.2	2369.7	2362.0	2358.1	2351.4	2341.6	2333.8	2309.6	2284.4	2268.0	2262.2
5°	2403.6	2417.2	2416.2	2420.1	2424.9	2427.8	2425.9	2398.8	2362.9	2334.8	2318.3
7.5°	2362.9	2378.4	2391.0	2410.4	2444.3	2480.2	2497.6	2491.8	2455.0	2416.2	2395.8
10°	2247.6	2264.1	2294.2	2339.7	2411.4	2488.9	2553.8	2583.8	2560.6	2517.9	2489.8
12.5°	2036.5	2052.9	2112.0	2210.8	2331.0	2465.6	2589.7	2670.0	2675.9	2633.2	2600.3
15°	1799.1	1815.6	1878.5	2002.5	2185.6	2401.7	2609.0	2761.1	2812.5	2775.6	2735.9
17.5°	1651.8	1666.3	1713.8	1813.6	2004.5	2273.8	2602.3	2858.0	2975.3	2946.2	2898.7
20°	1607.3	1619.8	1642.2	1711.9	1870.7	2141.1	2557.7	2949.0	3150.5	3134.1	3080.8
22.5°	1654.8	1666.3	1673.1	1704.2	1803.9	2053.9	2501.5	3042.1	3354.0	3356.0	3291.1
25°	1764.2	1775.8	1768.1	1787.5	1831.1	2026.7	2480.2	3151.6	3609.8	3631.1	3557.5
27.5°	1944.4	1945.3	1927.0	1926.0	1932.7	2067.4	2502.4	3268.7	3932.4	3972.1	3881.1
30°	2305.7	2291.3	2220.6	2144.0	2109.1	2189.5	2564.4	3407.3	4313.2	4383.9	4269.5
32.5°	2862.8	2841.5	2711.7	2528.6	2344.5	2386.2	2675.9	3565.3	4727.8	4855.7	4716.1
35°	3467.4	3461.5	3325.9	3053.7	2732.0	2666.1	2857.0	3772.5	5180.2	5383.7	5218.1
37.5°	4029.3	4026.4	3948.9	3628.2	3236.8	3056.7	3147.7	4043.8	5664.7	5959.1	5763.5
40°	4542.8	4551.5	4474.0	4187.2	3792.9	3557.5	3542.9	4379.0	6203.3	6586.0	6353.5
42.5°	4986.5	4996.2	4917.6	4705.6	4342.2	4111.7	4028.4	4789.8	6729.3	7259.4	6984.1
45°	5287.8	5347.8	5336.3	5166.7	4906.1	4666.7	4611.6	5305.2	7329.1	7973.4	7650.7
47.5°	5373.0	5428.3	5515.4	5538.7	5379.8	5144.4	5210.3	5926.2	7935.6	8688.3	8321.2
50°	5162.8	5214.2	5395.3	5636.6	5747.0	5674.3	5792.5	6591.8	8556.6	9401.4	8979.0
52.5°	4748.1	4800.5	5029.1	5410.8	5861.4	6089.9	6376.7	7247.7	9158.2	10076.6	9601.9
55°	4148.5	4203.6	4497.2	4929.3	5643.3	6261.4	6864.0	7902.6	9709.4	10684.1	10163.8
57.5°	3332.7	3373.4	3678.6	4283.2	5095.0	6091.0	7223.5	8617.6	10228.7	11280.8	10720.9
60°	2172.1	2208.0	2562.5	3236.8	4186.2	5521.3	7295.1	9414.9	10918.5	12056.9	11471.7
62.5°	1444.5	1468.7	1679.0	2174.0	2948.1	4427.5	6875.7	10051.5	11930.0	13407.4	12759.3
65°	991.1	1015.4	1225.6	1570.4	1904.7	2928.7	5669.5	9967.1	12846.4	14479.9	13713.6
67.5°	707.2	727.5	905.8	1231.3	1378.6	1701.2	3843.2	8889.8	12714.7	14520.6	13764.9
70°	506.7	518.3	665.5	959.1	1095.7	1022.1	2137.2	6799.1	11132.6	13408.3	12716.7
72.5°	354.5	358.4	462.2	730.5	882.6	746.0	1017.2	4533.1	8420.0	10524.2	9858.7
75°	240.3	245.1	311.0	535.8	708.2	569.7	538.6	2430.8	4942.9	5825.5	5221.9
77.5°	147.3	149.2	200.6	366.2	529.9	434.0	346.9	1029.8	1912.4	1877.6	1600.4
80°	83.3	83.3	127.9	227.7	361.4	280.0	243.1	437.9	605.5	531.9	468.9
82.5°	46.5	47.5	93.0	141.4	239.3	165.6	133.7	202.4	261.6	231.5	201.5
85°	19.4	21.3	57.2	66.8	114.3	82.3	54.2	85.3	96.9	86.2	62.9
87.5°	1.9	2.9	17.4	12.6	13.5	16.5	7.8	16.5	13.5	13.5	9.7
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°	2229.3	2229.3	2229.3	2229.3	2229.3	2229.3	2229.3	2229.3	2229.3	2229.3	2229.3
2.5°	2243.7	2229.3	2192.4	2149.8	2093.6	2066.5	2029.7	2004.5	1983.2	1985.1	1965.7
5°	2287.4	2250.6	2168.2	2065.5	1937.7	1846.5	1749.7	1682.8	1628.6	1616.9	1590.8
7.5°	2347.5	2289.3	2144.9	1959.9	1743.8	1580.1	1433.9	1339.9	1273.0	1251.7	1230.4
10°	2424.9	2340.7	2114.9	1827.2	1516.2	1307.9	1151.0	1077.3	1031.8	1016.3	1004.7
12.5°	2515.0	2399.7	2075.2	1665.4	1281.8	1081.2	981.4	944.6	930.1	925.2	922.3
15°	2628.4	2473.4	2015.2	1473.5	1083.1	942.7	900.1	895.1	897.1	895.1	894.2
17.5°	2763.1	2553.8	1917.3	1275.9	949.5	872.0	856.4	860.3	865.1	864.2	862.2
20°	2910.3	2633.2	1792.3	1100.5	858.3	821.5	812.8	816.7	820.6	818.7	817.6
22.5°	3077.9	2718.5	1653.7	964.0	797.3	775.0	765.4	766.3	766.3	762.5	760.6
25°	3278.5	2812.5	1508.4	867.0	750.8	733.4	721.8	717.9	712.1	700.5	698.5
27.5°	3517.8	2912.2	1368.9	799.3	714.0	697.5	684.0	674.2	659.8	640.4	638.5
30°	3787.1	3033.4	1250.7	756.7	684.9	668.5	653.0	638.5	617.2	593.0	591.0
32.5°	4103.9	3163.1	1164.5	728.6	658.8	641.3	623.0	605.5	582.3	558.0	559.0
35°	4481.7	3320.1	1114.2	709.2	638.5	615.2	594.8	575.4	558.0	536.7	534.7
37.5°	4891.5	3486.7	1098.6	699.5	624.8	589.1	565.8	552.3	550.3	537.7	536.7
40°	5340.0	3684.4	1110.3	693.7	610.4	563.9	538.6	535.8	540.6	518.3	519.3
42.5°	5814.8	3918.9	1129.7	686.9	590.0	538.6	514.4	514.4	510.6	479.6	479.6
45°	6328.2	4189.2	1149.0	670.5	565.8	513.4	495.1	488.3	471.8	441.8	440.9
47.5°	6845.7	4464.3	1163.6	640.4	536.7	492.2	475.7	460.2	435.9	408.9	407.8
50°	7336.8	4711.3	1148.0	595.8	503.8	471.8	454.4	433.1	406.9	388.5	385.6
52.5°	7775.6	4925.4	1082.2	543.5	468.9	450.5	435.0	412.7	391.4	372.1	370.1
55°	8157.4	5098.9	965.9	494.0	437.9	432.1	416.6	388.5	359.5	343.0	341.0
57.5°	8523.6	5230.6	820.6	453.4	409.8	411.7	388.5	363.3	336.2	318.8	316.8
60°	9010.9	5407.0	673.3	415.6	379.8	385.6	360.4	341.9	308.1	285.8	282.9
62.5°	9789.9	5681.2	534.7	369.1	344.9	346.9	336.2	313.9	273.2	247.0	245.1
65°	10408.0	5580.4	421.5	318.8	305.1	308.1	308.1	283.8	240.3	210.2	207.4
67.5°	10338.2	4778.1	336.2	269.4	267.4	269.4	276.1	255.7	213.1	188.9	185.0
70°	9523.4	3800.7	269.4	223.8	232.5	227.7	247.0	233.5	191.8	167.6	164.7
72.5°	7770.8	2737.9	205.4	185.0	178.2	186.0	222.8	210.2	159.9	132.7	129.9
75°	4540.9	1460.9	153.0	146.3	128.8	155.0	197.6	179.3	122.1	97.9	94.9
77.5°	1478.4	509.6	112.3	107.5	95.9	124.9	168.6	151.1	99.8	77.5	74.6
80°	396.3	154.1	76.6	70.7	62.0	93.0	133.7	120.1	71.6	50.3	49.4
82.5°	158.9	64.9	44.6	39.8	33.9	64.0	105.6	96.9	53.3	32.0	32.0
85°	51.4	21.3	16.5	12.6	15.5	39.8	62.9	65.9	37.8	16.5	12.6
87.5°	6.8	2.9	2.9	3.9	2.9	6.8	19.4	18.4	10.7	1.9	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)