

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: P966064

Luminaire Tested: **NAV-SB4B-722-U-T3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966064
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-722-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2200K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19122.4 lumens
Efficiency: N/A
Efficacy: 130.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

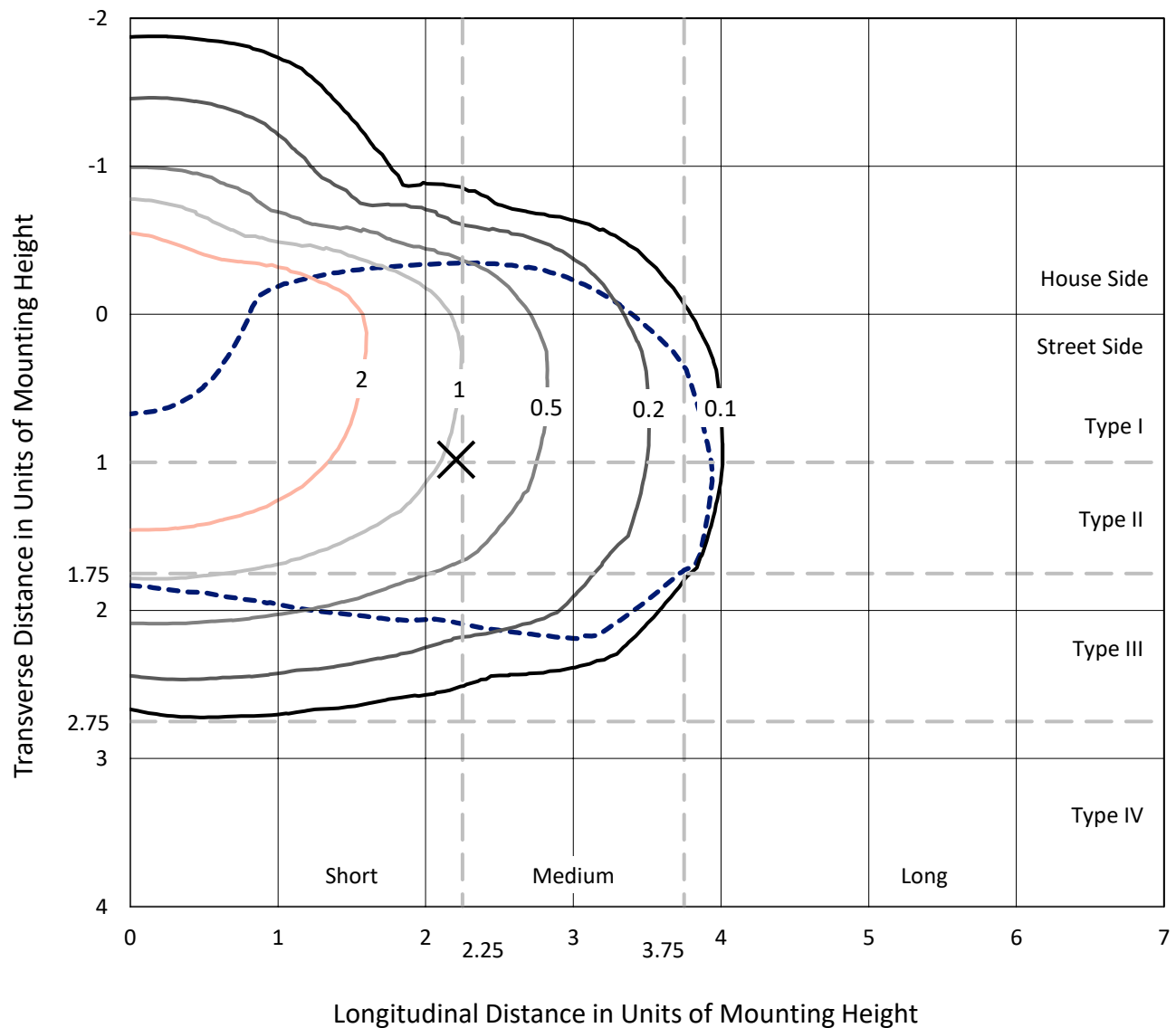
Input Watts (W): 147
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P966064
CATALOG NUMBER: NAV-SB4B-722-U-T3

Iso-Footcandle Lines of Horizontal Illumination

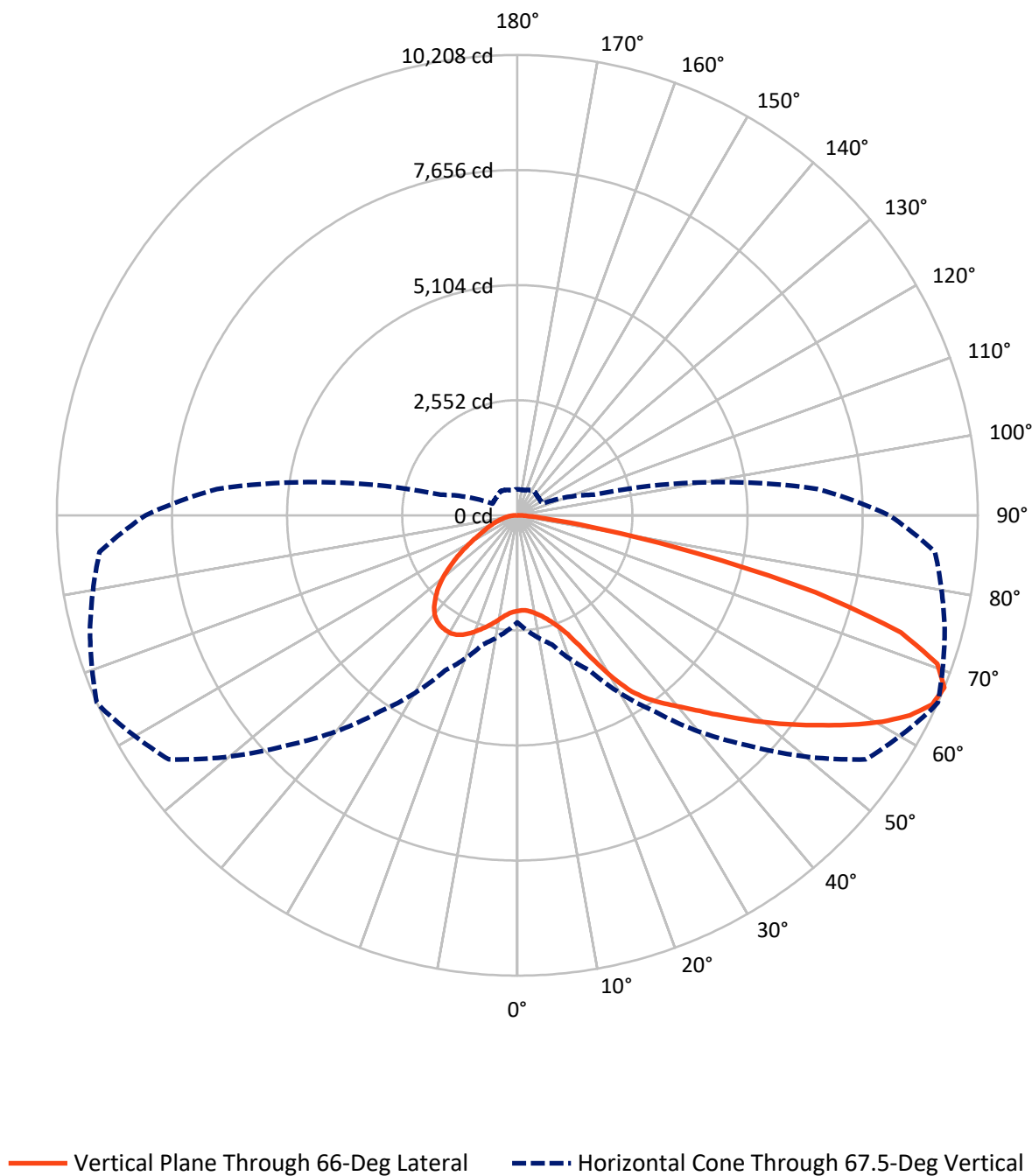
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 fc
Type III - Short - N/A

REPORT NUMBER: P966064
CATALOG NUMBER: NAV-SB4B-722-U-T3

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4754.7	0.0	4754.7
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	14367.7	0.0	14367.7
	% Fixture	75.1	0.0	75.1
Total	Lumens	19122.4	0.0	19122.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	210.3	1.1
10°-20°	694.7	3.6
20°-30°	1339.1	7.0
30°-40°	2347.9	12.3
40°-50°	3490.5	18.3
50°-60°	4424.6	23.1
60°-70°	4329.4	22.6
70°-80°	2065.2	10.8
80°-90°	220.7	1.2
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°	19122.4	100.0
0°-180°	19122.4	100.0

Coefficient of Utilization



REPORT NUMBER: P966064

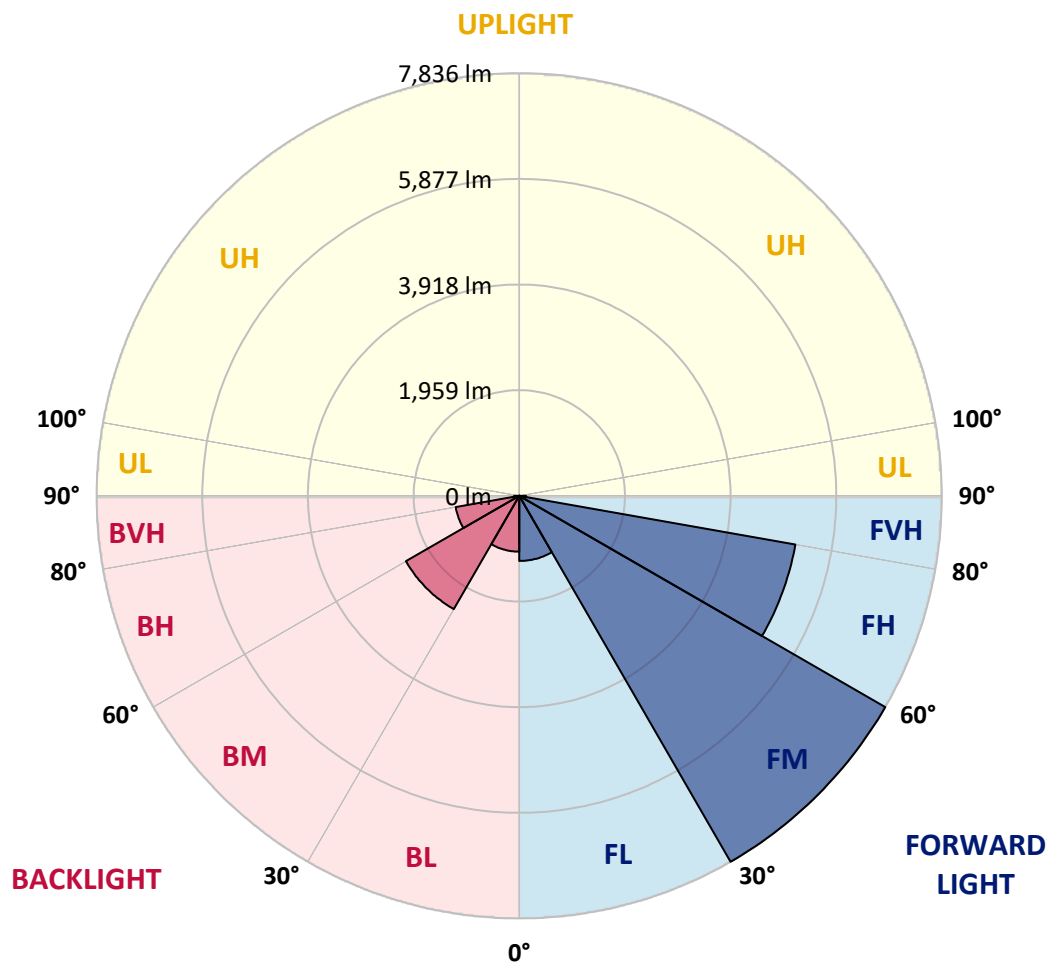
CATALOG NUMBER: NAV-SB4B-722-U-T3

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1208.3	6.3			
FM	(30°-60°)	7836.2	41.0			
FH	(60°-80°)	5198.0	27.2			G3/7500
FVH	(80°-90°)	125.1	0.7			G2/225
BL	(0°-30°)	1035.8	5.4	B3/2500		
BM	(30°-60°)	2426.9	12.7	B2/2500		
BH	(60°-80°)	1196.5	6.3	B3/2500		G3/2500
BVH	(80°-90°)	95.6	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Short



REPORT NUMBER: P966064

CATALOG NUMBER: NAV-SB4B-722-U-T3

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	2120.9	2120.9	2120.9	2120.9	2120.9	2120.9	2120.9	2120.9	2120.9	2120.9	2120.9
2.5°	2098.8	2110.9	2107.9	2102.9	2101.9	2103.8	2106.9	2109.9	2108.8	2113.9	2122.0
5°	2092.8	2104.8	2103.8	2103.8	2107.9	2115.9	2120.9	2126.0	2120.9	2127.0	2138.0
7.5°	2096.8	2105.9	2109.9	2113.9	2123.9	2139.0	2151.1	2162.1	2156.1	2163.2	2177.2
10°	2148.1	2155.1	2159.1	2159.1	2166.1	2183.2	2195.2	2215.3	2210.3	2221.4	2239.5
12.5°	2241.5	2248.5	2248.5	2244.5	2249.6	2260.5	2264.6	2286.7	2277.7	2295.8	2313.8
15°	2356.1	2370.1	2359.0	2352.0	2354.0	2365.1	2364.1	2381.2	2372.1	2387.1	2403.2
17.5°	2482.7	2500.7	2482.7	2481.6	2477.6	2489.6	2490.6	2505.7	2489.6	2500.7	2511.8
20°	2632.3	2657.4	2642.3	2647.4	2638.4	2643.4	2648.4	2670.5	2645.4	2653.4	2650.4
22.5°	2843.4	2873.5	2857.4	2876.5	2870.4	2866.4	2865.4	2904.6	2865.4	2868.5	2839.2
25°	3150.7	3186.9	3158.7	3184.9	3184.9	3198.0	3213.1	3263.3	3198.0	3178.8	3103.5
27.5°	3604.8	3641.0	3585.8	3601.8	3596.8	3629.0	3612.9	3737.5	3667.1	3636.0	3484.3
30°	4151.5	4215.7	4111.3	4107.2	4102.2	4153.4	4176.6	4259.0	4187.6	4156.5	3973.6
32.5°	4742.2	4809.5	4685.0	4648.8	4629.7	4660.8	4641.7	4708.0	4658.8	4610.6	4384.5
35°	5367.1	5433.4	5314.8	5244.5	5168.2	5102.9	5034.6	5051.6	5005.4	4932.1	4698.0
37.5°	5957.9	6079.5	5953.9	5878.5	5737.8	5610.2	5419.4	5339.9	5296.8	5229.4	4993.4
40°	6559.7	6629.0	6533.6	6469.3	6316.6	6116.6	5811.2	5643.4	5585.1	5519.8	5319.9
42.5°	7002.8	7069.1	7017.9	6973.7	6854.1	6622.0	6227.2	6017.2	5932.8	5859.4	5689.7
45°	7354.4	7403.7	7371.5	7387.6	7336.3	7111.2	6658.2	6418.0	6330.6	6241.2	6107.6
47.5°	7496.1	7548.3	7599.6	7695.0	7782.4	7616.7	7121.3	6852.0	6759.7	6668.2	6536.6
50°	7480.0	7533.2	7682.0	7884.9	8156.1	8100.9	7609.6	7314.2	7228.8	7124.4	7002.8
52.5°	7351.4	7411.7	7602.6	7940.2	8372.2	8463.6	8106.9	7791.4	7711.1	7586.5	7465.0
55°	7013.9	7050.0	7336.3	7814.6	8423.4	8716.8	8594.2	8299.8	8219.5	8045.6	7913.0
57.5°	6387.9	6440.2	6857.0	7475.9	8294.8	8888.6	9022.3	8834.4	8757.0	8506.8	8368.2
60°	5571.1	5654.5	6131.7	6907.4	7967.3	8887.6	9411.0	9359.8	9295.5	8961.0	8816.2
62.5°	4646.7	4743.2	5202.4	6103.6	7394.7	8635.4	9654.2	9799.8	9766.7	9379.9	9195.1
65°	3568.7	3635.1	4092.1	5063.7	6503.4	8093.9	9682.4	10100.2	10106.3	9698.3	9393.0
67.5°	2376.2	2567.0	2963.9	3799.8	5309.8	7208.7	9435.1	10149.6	10207.8	9807.9	9293.5
70°	1159.4	1410.6	1799.4	2469.5	3799.8	5851.4	8789.2	9745.6	9875.3	9488.4	8700.7
72.5°	481.2	562.6	774.6	1218.7	2181.2	3948.5	7491.1	8650.5	8890.6	8407.4	7315.2
75°	324.5	351.7	443.1	624.9	993.6	1947.1	5402.3	6450.2	6837.0	6349.7	5190.3
77.5°	250.2	267.2	322.5	437.1	590.8	736.5	2891.5	3887.2	4087.1	3783.7	2700.7
80°	196.9	210.0	241.1	318.5	418.9	393.8	985.6	1761.3	1876.8	1574.4	868.1
82.5°	170.8	175.8	172.8	216.0	278.3	230.1	323.5	650.1	717.4	520.4	283.3
85°	123.6	137.7	143.7	133.7	147.7	116.5	132.6	230.1	253.2	226.0	159.8
87.5°	50.2	74.3	91.4	86.4	54.2	33.1	41.2	67.3	77.4	84.4	52.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P966064

CATALOG NUMBER: NAV-SB4B-722-U-T3

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2120.9	2120.9	2120.9	2120.9	2120.9	2120.9	2120.9	2120.9	2120.9	2120.9	2120.9
2.5°	2123.0	2130.0	2135.0	2141.0	2145.0	2151.1	2163.2	2170.1	2171.2	2176.2	2175.2
5°	2142.0	2152.1	2163.2	2179.1	2197.3	2212.4	2235.4	2251.5	2257.6	2262.6	2261.6
7.5°	2183.2	2197.3	2217.4	2245.5	2271.6	2291.7	2319.9	2338.9	2358.0	2365.1	2366.1
10°	2244.5	2264.6	2293.7	2331.9	2360.1	2386.2	2415.3	2431.4	2450.5	2458.5	2462.6
12.5°	2320.9	2341.9	2380.2	2433.4	2459.5	2477.6	2487.7	2483.6	2487.7	2494.6	2496.7
15°	2408.2	2431.4	2474.6	2531.9	2549.9	2533.9	2511.8	2491.7	2488.6	2490.6	2497.7
17.5°	2511.8	2528.9	2579.1	2627.3	2614.3	2547.9	2499.7	2467.6	2451.5	2446.5	2453.4
20°	2656.4	2656.4	2697.6	2727.7	2640.4	2527.9	2452.5	2400.2	2367.0	2353.0	2350.0
22.5°	2832.3	2816.2	2842.3	2821.2	2635.4	2471.6	2367.0	2276.6	2226.4	2206.3	2203.3
25°	3055.3	3036.3	3029.2	2898.6	2599.2	2382.1	2212.4	2102.9	2058.6	2047.5	2049.6
27.5°	3391.8	3343.7	3252.2	2940.7	2532.9	2241.5	2031.5	1930.1	1905.0	1905.9	1909.0
30°	3840.0	3743.5	3519.4	2947.8	2424.3	2042.5	1846.6	1774.3	1762.3	1767.3	1784.3
32.5°	4254.9	4163.4	3792.7	2915.6	2257.6	1847.7	1680.9	1632.6	1614.6	1620.6	1628.6
35°	4580.4	4555.3	4046.0	2870.4	2052.6	1664.8	1532.2	1491.0	1455.8	1447.8	1453.8
37.5°	4887.9	4877.9	4235.8	2807.2	1849.6	1535.1	1412.7	1358.3	1307.1	1279.0	1280.0
40°	5225.4	5215.4	4360.5	2709.7	1669.8	1422.7	1305.1	1233.8	1170.4	1119.2	1124.2
42.5°	5605.2	5546.0	4419.7	2570.0	1517.1	1327.2	1217.7	1121.2	1037.8	990.7	993.6
45°	6020.1	5886.6	4418.7	2392.2	1388.5	1239.8	1124.2	987.6	910.3	866.0	864.1
47.5°	6460.3	6212.1	4364.4	2195.2	1263.9	1143.4	979.6	875.1	823.9	796.7	790.7
50°	6914.3	6516.5	4272.0	1969.2	1136.3	1033.8	889.2	817.8	778.7	753.5	744.5
52.5°	7341.4	6792.8	4160.5	1713.0	1006.8	927.3	849.0	793.8	752.6	724.4	712.4
55°	7738.2	7030.9	4002.7	1450.8	901.2	856.0	829.8	783.7	736.5	703.3	690.2
57.5°	8090.8	7185.7	3730.5	1204.7	825.8	806.8	809.7	766.6	712.4	684.2	666.1
60°	8384.2	7299.1	3327.6	976.6	764.5	758.5	778.7	734.4	671.2	639.0	624.9
62.5°	8560.1	7297.2	2833.3	799.7	712.4	714.3	737.5	694.2	630.0	599.8	590.8
65°	8545.0	7118.3	2290.8	684.2	662.2	664.1	694.2	650.1	595.8	577.7	576.7
67.5°	8242.5	6682.3	1757.3	608.8	606.8	615.9	651.1	619.9	574.7	572.7	575.7
70°	7423.8	5777.0	1265.9	548.6	549.6	562.6	608.8	600.9	563.6	567.6	566.6
72.5°	5952.9	4404.6	849.9	485.2	486.3	507.4	568.7	585.8	552.6	605.9	613.9
75°	3964.6	2746.9	546.5	418.0	418.9	446.1	533.5	556.6	522.4	603.8	608.8
77.5°	1905.0	1234.8	395.9	351.7	351.7	376.8	461.1	498.4	445.1	469.2	430.0
80°	658.0	464.2	311.5	283.3	277.3	294.4	388.8	432.0	383.8	353.6	331.6
82.5°	259.2	241.1	250.2	220.1	200.0	210.9	302.4	356.7	282.3	255.2	254.2
85°	148.7	156.7	176.8	145.7	115.5	129.6	222.0	256.2	213.0	187.9	191.9
87.5°	40.2	55.2	81.4	75.3	52.3	55.2	105.5	141.7	122.6	94.4	97.5
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)