

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: P968417

Luminaire Tested: **NAV-SB5B-830-U-T3-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968417
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-830-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20546.1 lumens
Efficiency: N/A
Efficacy: 112.5 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G3

Input Watts (W): 182.7
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



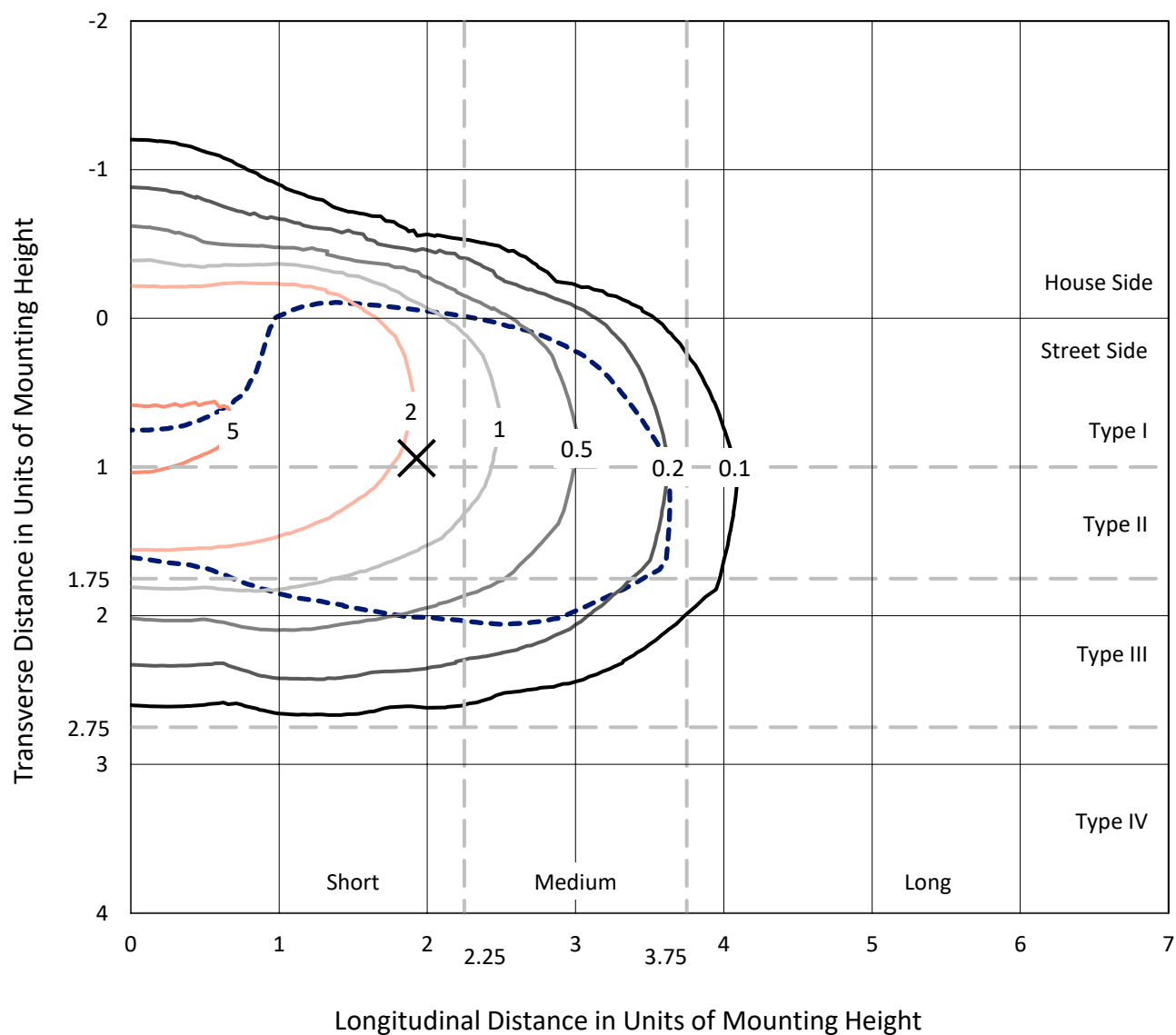
REPORT NUMBER: P968417

CATALOG NUMBER: NAV-SB5B-830-U-T3-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

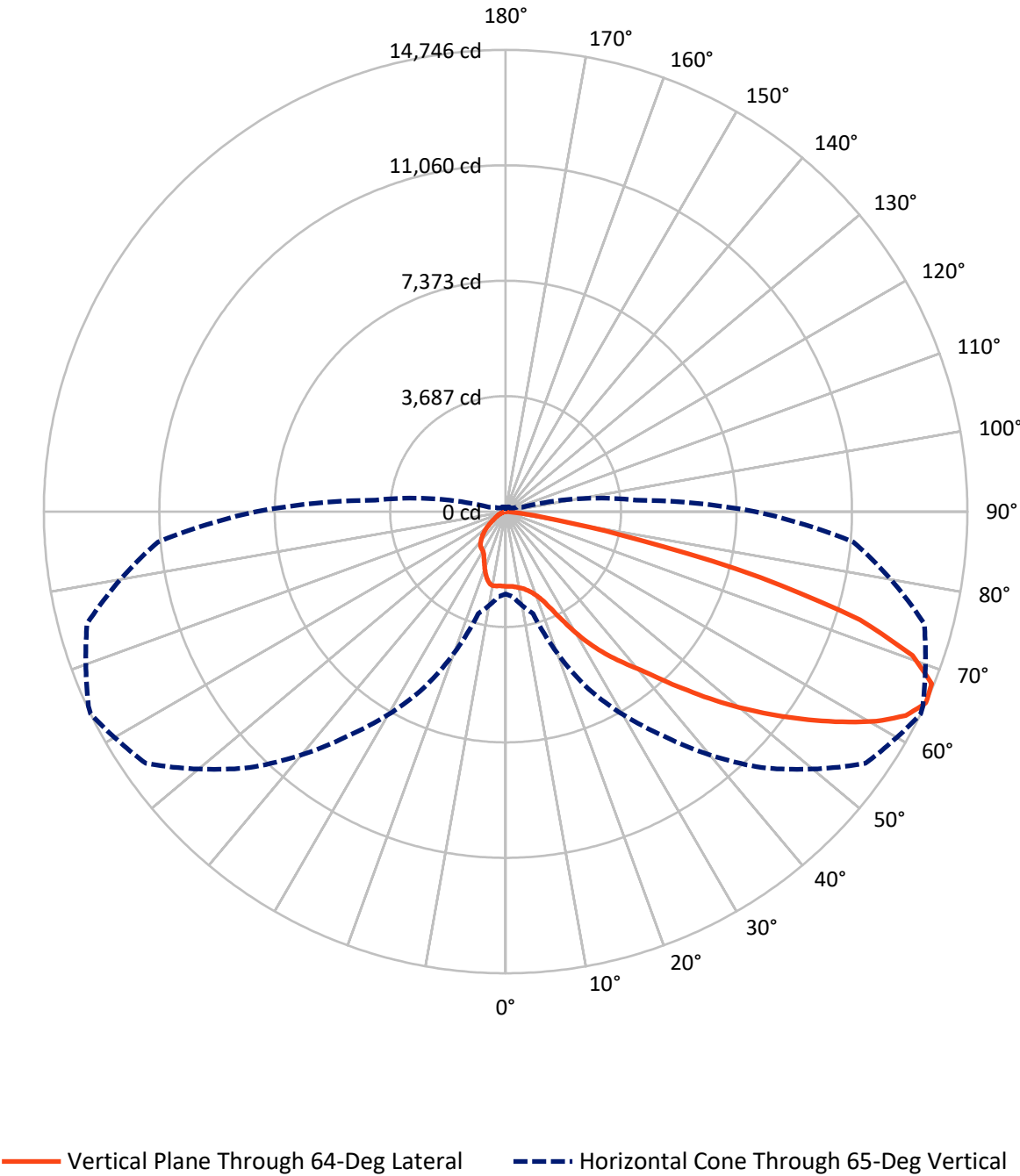


Based on 25 foot mounting height. Maximum calculated value = 6 fc

Type III - Short - N/A

REPORT NUMBER: P968417
CATALOG NUMBER: NAV-SB5B-830-U-T3-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P968417

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2747.6	0.0	2747.6
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	17798.5	0.0	17798.5
	% Fixture	86.6	0.0	86.6
Total	Lumens	20546.1	0.0	20546.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.5	1.1
10°-20°	598.0	2.9
20°-30°	1133.1	5.5
30°-40°	2293.0	11.2
40°-50°	3906.1	19.0
50°-60°	5312.0	25.9
60°-70°	4988.2	24.3
70°-80°	1998.5	9.7
80°-90°	96.8	0.5
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°	20546.1	100.0
0°-180°	20546.1	100.0

Coefficient of Utilization



REPORT NUMBER: P968417

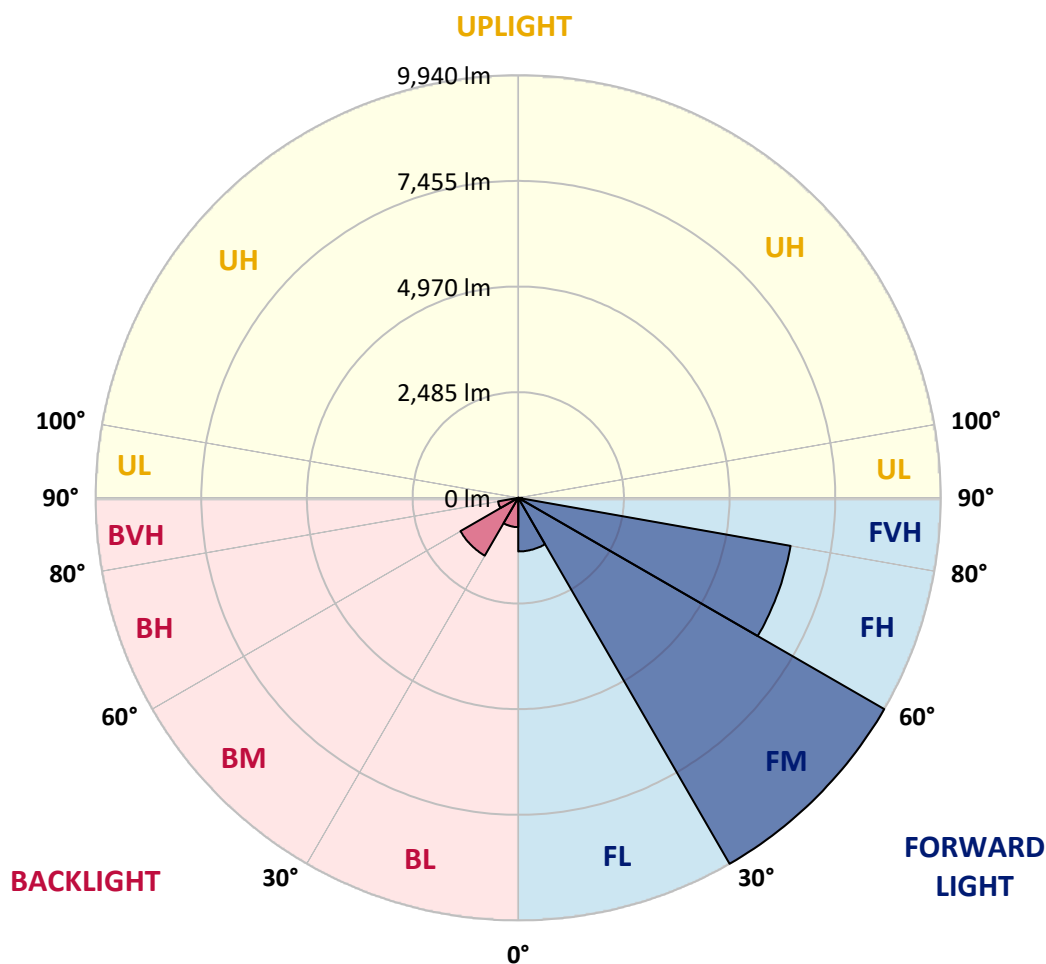
CATALOG NUMBER: NAV-SB5B-830-U-T3-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1261.8	6.1			
FM	(30°-60°)	9940.2	48.4			
FH	(60°-80°)	6504.4	31.7			G3/7500
FVH	(80°-90°)	92.1	0.4			G1/100
BL	(0°-30°)	689.9	3.4	B2/1000		
BM	(30°-60°)	1570.8	7.6	B2/2500		
BH	(60°-80°)	482.3	2.3	B1/500		G1/500
BVH	(80°-90°)	4.7	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type III Short



REPORT NUMBER: P968417

CATALOG NUMBER: NAV-SB5B-830-U-T3-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	2389.7	2389.7	2389.7	2389.7	2389.7	2389.7	2389.7	2389.7	2389.7	2389.7	2389.7
2.5°	2381.5	2398.0	2393.9	2389.7	2388.4	2391.1	2392.5	2391.1	2391.1	2391.1	2392.5
5°	2336.0	2349.8	2349.8	2359.4	2373.2	2389.7	2402.1	2404.9	2407.6	2411.7	2410.4
7.5°	2249.3	2260.2	2268.5	2300.2	2334.6	2378.7	2415.9	2435.2	2438.0	2453.1	2458.6
10°	2190.0	2203.8	2217.6	2250.6	2300.2	2366.3	2429.7	2476.5	2483.4	2519.2	2535.7
12.5°	2187.2	2201.0	2218.9	2254.8	2312.6	2382.8	2460.0	2527.4	2539.8	2592.2	2626.7
15°	2216.2	2232.8	2249.3	2293.3	2355.2	2440.7	2523.3	2607.4	2619.8	2694.1	2731.3
17.5°	2275.4	2297.4	2309.8	2353.9	2420.0	2515.0	2623.9	2720.2	2731.3	2818.1	2864.9
20°	2392.5	2418.7	2422.8	2458.6	2523.3	2625.2	2754.7	2874.5	2888.3	2987.5	3039.8
22.5°	2634.9	2672.1	2639.1	2656.9	2714.8	2816.7	2957.2	3108.7	3128.0	3240.9	3287.8
25°	3061.9	3114.3	3028.9	2998.5	3023.3	3129.3	3305.6	3497.1	3519.1	3610.0	3633.5
27.5°	3900.7	3833.2	3703.7	3577.0	3502.6	3563.2	3761.5	3998.5	4026.0	4114.1	4086.7
30°	4822.1	4763.0	4588.0	4307.0	4130.8	4121.1	4304.3	4568.7	4600.4	4684.5	4600.4
32.5°	5745.0	5688.5	5498.4	5152.7	4846.9	4695.4	4822.1	5115.6	5132.1	5185.8	5061.9
35°	6652.7	6594.8	6404.7	6050.8	5674.7	5330.4	5305.6	5636.2	5641.7	5698.2	5513.6
37.5°	7565.8	7517.7	7315.2	6968.1	6597.6	6122.4	5892.3	6129.3	6136.2	6191.2	5999.8
40°	8217.3	8238.0	8098.9	7830.3	7512.1	6992.9	6550.8	6654.1	6612.7	6705.0	6590.6
42.5°	8776.6	8817.9	8696.7	8561.7	8377.1	7919.9	7366.2	7348.2	7282.1	7331.7	7213.2
45°	9260.1	9294.5	9185.6	9154.0	9149.9	8828.9	8257.3	8149.9	8057.6	8048.0	7906.0
47.5°	9437.7	9503.8	9550.6	9656.7	9863.3	9728.4	9178.8	9012.1	8908.8	8833.0	8608.6
50°	9505.2	9575.4	9735.2	10043.8	10532.7	10590.6	10096.0	9908.8	9782.1	9644.3	9313.8
52.5°	9414.3	9539.7	9754.5	10273.8	10983.1	11282.0	10976.2	10812.3	10667.7	10443.2	9952.9
55°	8878.4	9003.8	9443.2	10271.0	11207.7	11766.8	11808.1	11735.1	11572.7	11218.6	10469.3
57.5°	7749.1	7935.0	8630.6	9921.2	11203.5	12184.2	12623.6	12675.9	12494.0	11987.2	10875.7
60°	6184.3	6436.4	7284.9	9145.7	10857.7	12410.1	13338.4	13600.1	13407.3	12744.7	11204.9
62.5°	4315.2	4607.3	5410.3	7930.8	10067.1	12247.5	13860.5	14343.8	14197.9	13422.4	11331.6
65°	2632.1	2725.8	3373.2	6240.8	8722.9	11567.1	14021.6	14746.1	14697.9	13837.0	11144.2
67.5°	1753.4	1831.9	2017.8	4279.5	6771.2	10207.7	13635.9	14675.8	14689.6	13769.5	10458.3
70°	1056.5	1123.9	1245.2	2488.9	4388.3	8079.7	12441.8	13780.5	13860.5	12867.3	9158.1
72.5°	435.2	480.7	590.9	1128.0	2272.6	5128.0	9907.3	11831.6	12017.5	10819.2	7028.7
75°	246.5	270.0	347.1	566.1	986.2	2389.7	6001.2	8399.2	8673.2	7457.1	4228.5
77.5°	163.9	175.0	224.5	366.3	555.0	815.4	2564.7	4375.9	4899.3	4072.8	1830.5
80°	110.2	119.8	154.3	245.2	360.9	349.8	816.8	1621.1	1994.4	1399.4	446.3
82.5°	74.4	75.7	110.2	161.1	228.7	169.4	241.1	504.1	633.6	405.0	169.4
85°	42.7	41.3	81.3	93.7	101.9	70.2	73.0	151.5	198.3	170.8	96.5
87.5°	5.5	8.3	31.7	24.8	13.7	15.2	15.2	26.1	38.5	41.3	20.7
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: P968417

CATALOG NUMBER: NAV-SB5B-830-U-T3-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2389.7	2389.7	2389.7	2389.7	2389.7	2389.7	2389.7	2389.7	2389.7	2389.7	2389.7
2.5°	2392.5	2391.1	2387.0	2382.8	2373.2	2367.6	2370.4	2367.6	2366.3	2367.6	2373.2
5°	2410.4	2406.3	2395.2	2381.5	2362.2	2338.7	2323.6	2301.5	2280.9	2268.5	2271.3
7.5°	2458.6	2454.5	2439.3	2400.8	2338.7	2241.0	2151.5	2073.0	2013.7	1979.3	1980.6
10°	2535.7	2528.9	2505.4	2420.0	2257.5	2044.1	1866.3	1718.9	1622.6	1577.1	1573.0
12.5°	2626.7	2618.4	2577.1	2402.1	2103.2	1769.9	1524.8	1360.8	1271.3	1231.3	1227.2
15°	2734.1	2723.0	2641.8	2316.7	1878.7	1466.9	1242.4	1119.8	1061.9	1026.1	1027.6
17.5°	2867.6	2848.4	2690.0	2188.7	1635.0	1235.5	1068.9	976.5	925.6	891.1	888.4
20°	3041.2	3009.5	2728.5	2035.8	1410.4	1089.5	951.7	874.6	836.1	805.8	800.2
22.5°	3283.6	3238.2	2775.4	1870.4	1252.0	988.9	865.0	808.5	776.8	742.4	736.9
25°	3583.9	3530.2	2833.2	1717.6	1143.2	902.2	801.7	754.8	717.6	677.6	673.5
27.5°	4004.0	3907.6	2902.1	1592.2	1049.6	827.8	743.7	691.5	648.7	615.7	608.7
30°	4472.3	4313.9	2962.8	1516.5	964.1	758.9	668.0	615.7	575.7	552.4	548.2
32.5°	4915.8	4701.0	3002.6	1483.4	887.0	680.4	585.4	528.9	498.6	491.7	495.9
35°	5334.5	5050.8	2998.5	1451.7	818.2	601.9	504.1	446.3	422.8	427.0	427.0
37.5°	5816.6	5424.1	2969.6	1402.2	761.7	530.3	433.9	382.9	362.2	363.7	369.1
40°	6377.2	5855.2	2951.7	1308.5	699.7	464.2	376.0	334.7	319.6	314.1	312.6
42.5°	6975.0	6272.5	2954.5	1202.4	622.6	405.0	336.1	301.7	287.8	283.7	282.4
45°	7575.5	6670.6	2958.6	1092.2	541.3	359.5	307.2	278.2	270.0	264.4	264.4
47.5°	8140.2	7009.4	2881.5	973.7	461.5	325.0	283.7	264.4	257.6	250.7	250.7
50°	8666.4	7235.3	2695.5	836.1	398.0	297.6	265.8	252.0	245.2	238.3	238.3
52.5°	9075.5	7271.1	2388.4	694.2	353.9	276.9	254.8	242.4	234.1	227.2	225.9
55°	9257.3	7046.6	1951.7	562.0	319.6	258.9	243.7	231.4	221.7	214.8	213.5
57.5°	9210.4	6574.1	1522.0	451.8	286.5	241.1	230.0	221.7	210.7	199.7	198.3
60°	8980.4	5941.9	1147.4	376.0	256.1	221.7	214.8	208.0	192.8	176.3	173.5
62.5°	8582.3	5147.2	818.2	311.3	223.1	199.7	197.0	191.5	169.4	139.1	136.3
65°	7973.6	4181.7	550.9	258.9	191.5	175.0	176.3	166.7	137.8	103.3	100.6
67.5°	7083.8	3057.8	352.6	212.1	159.8	146.0	147.4	141.9	117.1	88.1	84.0
70°	5950.2	2024.7	230.0	161.1	128.1	113.0	121.3	122.6	99.2	71.6	68.9
72.5°	4362.1	1195.6	161.1	119.8	93.7	78.5	99.2	101.9	79.8	53.7	50.9
75°	2486.1	567.4	121.3	86.8	57.8	55.1	77.2	77.2	55.1	35.8	33.1
77.5°	1044.1	236.9	85.4	56.5	33.1	31.7	52.4	48.2	27.6	16.5	16.5
80°	301.7	106.1	45.4	27.6	13.7	12.4	20.7	15.2	6.9	2.8	2.8
82.5°	118.5	46.8	17.9	11.1	5.5	5.5	2.8	0.0	0.0	0.0	0.0
85°	70.2	19.3	8.3	4.1	1.3	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	17.9	4.1	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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)