

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: P968383

Luminaire Tested: **NAV-SB5B-827-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968383
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-827-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19375.5 lumens
Efficiency: N/A
Efficacy: 106.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G3

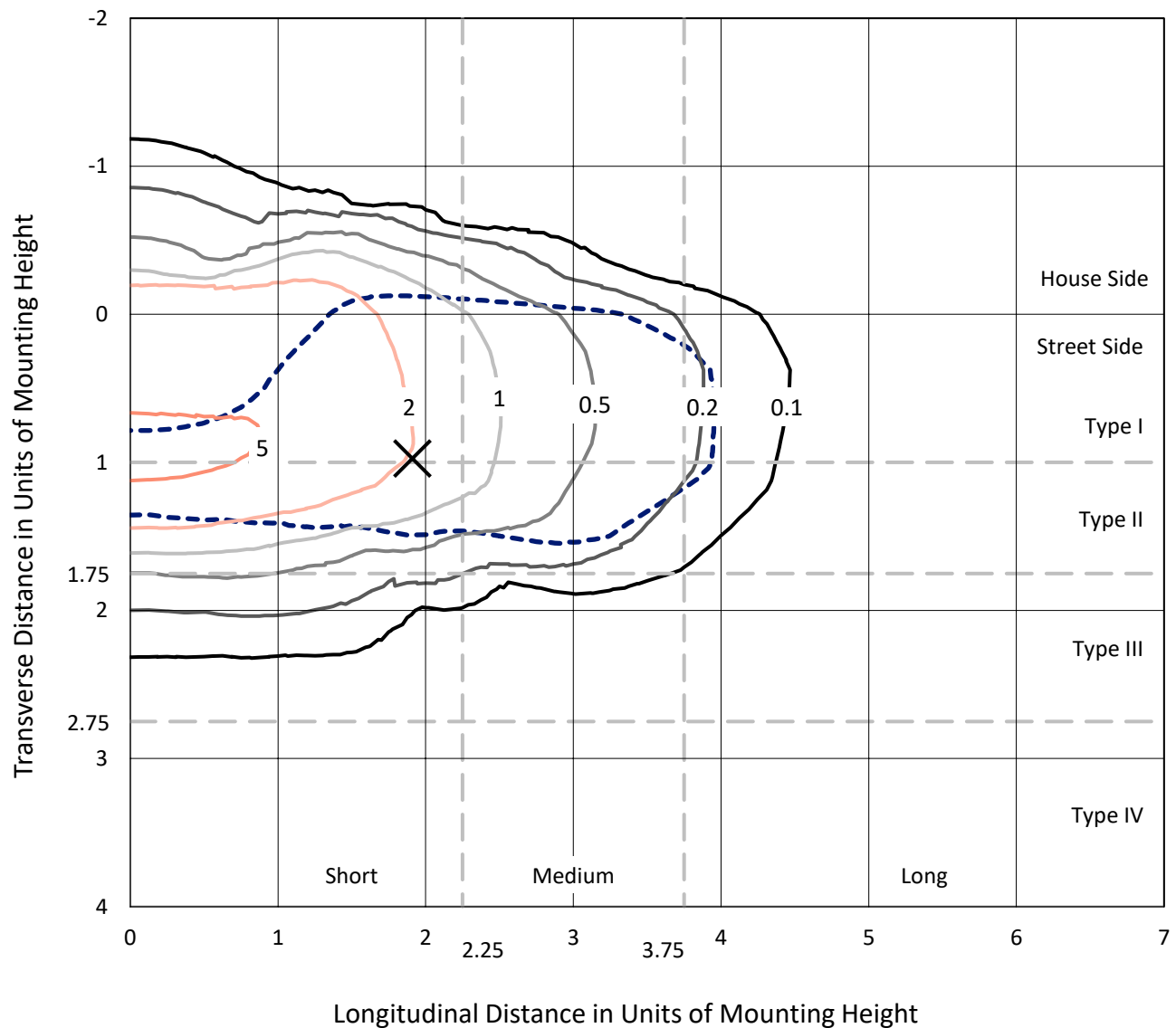
Input Watts (W): 182.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

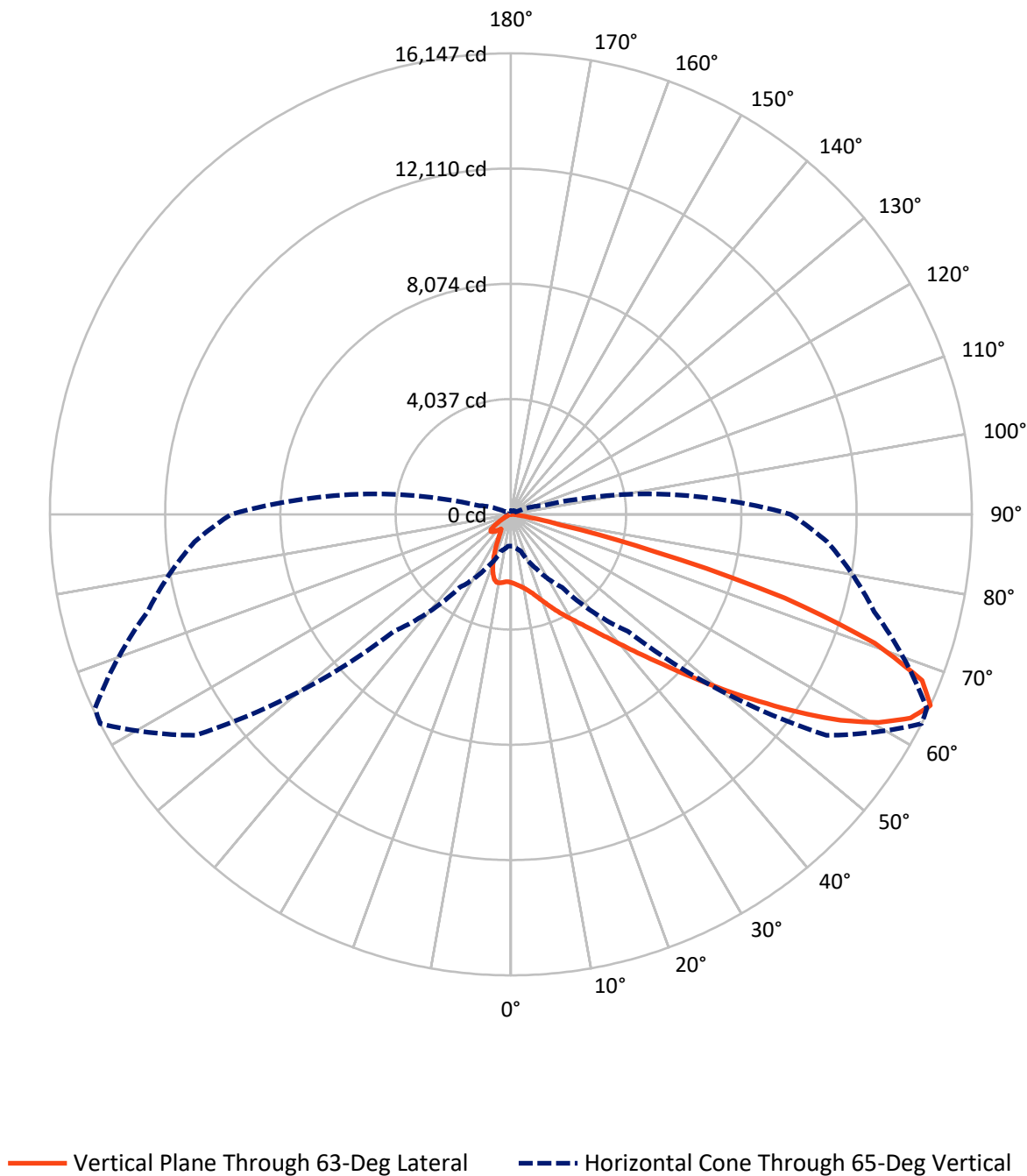
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.6 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2848.0	0.0	2848.0
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	16527.5	0.0	16527.5
	% Fixture	85.3	0.0	85.3
Total	Lumens	19375.5	0.0	19375.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	225.3	1.2
10°-20°	625.1	3.2
20°-30°	1088.5	5.6
30°-40°	1962.0	10.1
40°-50°	3891.2	20.1
50°-60°	5300.5	27.4
60°-70°	4230.8	21.8
70°-80°	1914.5	9.9
80°-90°	137.6	0.7
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°	19375.5	100.0
0°-180°	19375.5	100.0

Coefficient of Utilization



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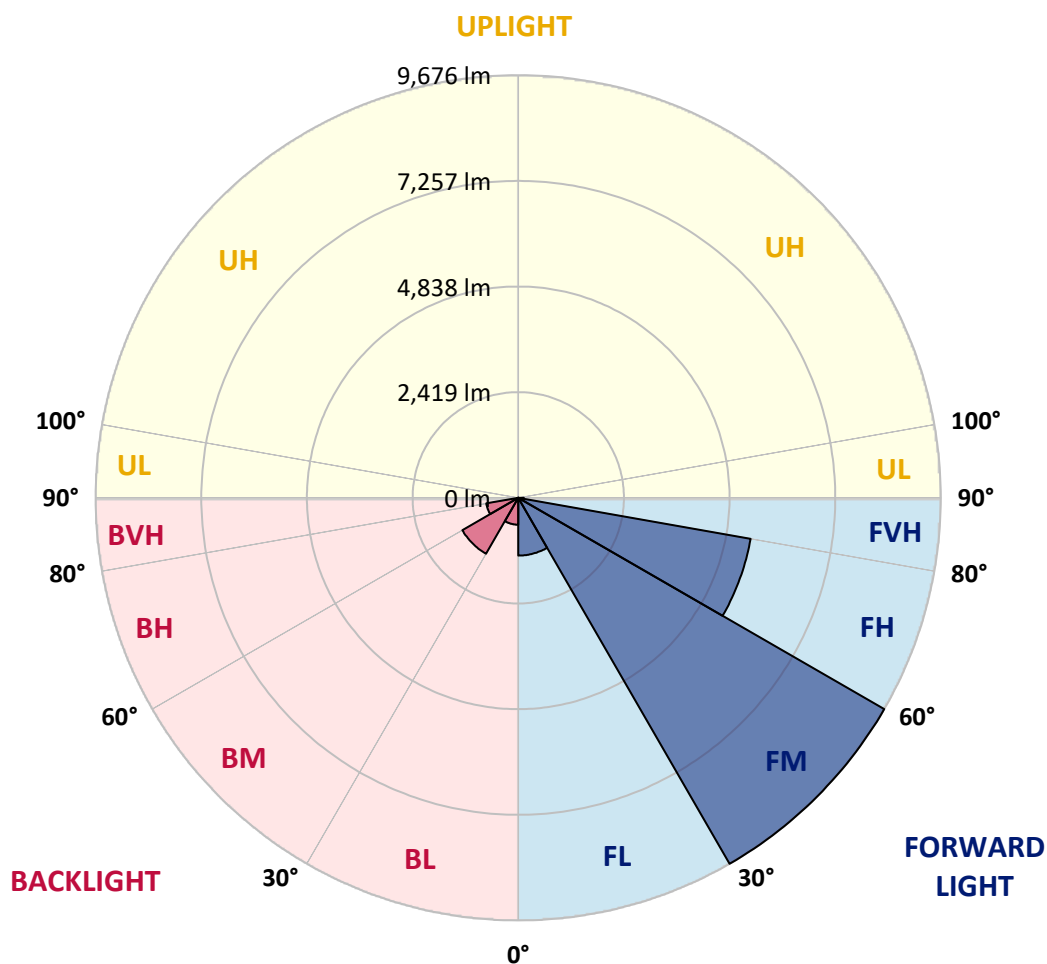
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1322.6	6.8			
FM	(30°-60°)	9675.7	49.9			
FH	(60°-80°)	5401.8	27.9			G3/7500
FVH	(80°-90°)	127.4	0.7			G2/225
BL	(0°-30°)	616.4	3.2	B2/1000		
BM	(30°-60°)	1478.0	7.6	B2/2500		
BH	(60°-80°)	743.5	3.8	B2/1000		G2/1000
BVH	(80°-90°)	10.2	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	2391.3	2391.3	2391.3	2391.3	2391.3	2391.3	2391.3	2391.3	2391.3	2391.3	2391.3
2.5°	2447.3	2440.6	2450.0	2446.0	2443.3	2438.0	2435.3	2432.6	2427.3	2423.3	2407.3
5°	2454.0	2450.0	2459.3	2467.3	2475.3	2483.3	2487.3	2492.6	2487.3	2476.6	2460.6
7.5°	2398.0	2395.3	2415.3	2439.3	2475.3	2505.9	2539.2	2557.9	2559.2	2555.2	2537.9
10°	2394.0	2387.3	2407.3	2436.6	2483.3	2537.9	2596.6	2636.6	2641.9	2659.3	2640.6
12.5°	2456.6	2450.0	2477.9	2509.9	2557.9	2615.3	2687.2	2743.2	2751.2	2775.2	2761.9
15°	2561.9	2552.6	2584.6	2625.9	2687.2	2752.5	2828.5	2879.1	2885.9	2915.2	2891.2
17.5°	2684.6	2675.2	2712.6	2756.5	2823.2	2912.5	3000.5	3056.4	3064.4	3083.1	3039.1
20°	2841.8	2829.8	2859.1	2899.2	2969.8	3076.4	3181.7	3261.8	3260.4	3260.4	3188.4
22.5°	3024.5	3005.8	3031.1	3063.1	3129.7	3259.1	3399.0	3493.7	3493.7	3456.3	3337.7
25°	3220.4	3201.8	3229.8	3259.1	3317.7	3464.3	3628.3	3745.6	3750.9	3686.9	3497.7
27.5°	3465.6	3441.6	3463.0	3497.7	3532.4	3681.6	3876.2	4012.2	4014.8	3916.2	3649.6
30°	3937.5	3869.6	3803.0	3765.5	3781.5	3929.5	4137.5	4288.1	4301.4	4165.5	3814.9
32.5°	4801.3	4788.0	4553.4	4246.8	4086.8	4196.1	4429.4	4610.7	4618.6	4444.1	4029.5
35°	6143.5	6127.6	5750.4	5166.5	4645.3	4553.4	4784.0	4998.5	4993.2	4796.0	4308.1
37.5°	7745.8	7731.1	7233.9	6452.8	5609.0	5093.2	5241.1	5466.4	5499.7	5241.1	4668.0
40°	9114.7	9060.1	8745.5	7992.3	6888.7	5989.0	5891.6	6040.9	6075.6	5769.0	5125.2
42.5°	10151.7	10105.1	9945.2	9474.6	8437.6	7313.9	6658.1	6715.4	6754.0	6386.2	5650.4
45°	10688.9	10678.2	10742.2	10698.2	10015.8	8940.0	7753.8	7515.2	7529.9	7069.9	6246.2
47.5°	10764.9	10759.5	11051.4	11464.7	11372.7	10774.2	9160.0	8512.2	8460.2	7841.8	6894.0
50°	10317.0	10306.4	10866.2	11640.6	12279.1	12315.2	10756.9	9635.9	9521.2	8640.1	7569.8
52.5°	8886.8	8884.1	9803.8	11092.9	12597.7	13664.1	12335.2	10870.2	10678.2	9485.2	8284.3
55°	6838.1	6887.4	7941.7	9465.3	12016.6	14313.2	13752.0	12240.4	11945.9	10335.7	8942.7
57.5°	4843.9	4915.9	5958.3	7315.2	10214.4	13929.3	14710.4	13613.4	13296.2	11183.5	9610.6
60°	2602.0	2665.9	3709.6	5329.2	7599.1	12497.7	15215.6	14805.1	14505.2	11988.5	10213.1
62.5°	1550.2	1571.5	2003.5	3440.3	5139.9	9547.9	15001.0	15712.8	15466.2	12664.4	10736.9
65°	1113.0	1117.0	1334.2	2100.7	3120.4	5801.0	13496.1	16147.3	16071.4	13173.5	11124.8
67.5°	937.1	934.4	1025.0	1395.6	2126.1	2905.9	10343.7	15532.8	15855.4	13496.1	11344.7
70°	803.8	807.8	914.4	1022.3	1598.2	1644.8	5142.5	13524.2	14211.9	13581.5	11331.4
72.5°	598.5	611.8	710.4	931.7	1206.3	1131.7	1775.5	10027.8	11271.4	12796.3	10743.5
75°	422.5	429.2	499.9	783.8	899.7	823.8	906.4	5183.8	6778.0	9810.5	8793.5
77.5°	325.2	337.2	378.5	547.9	886.4	578.5	554.5	1794.2	2756.5	5926.3	6028.9
80°	176.0	197.3	273.3	395.9	622.5	409.2	274.6	714.4	934.4	2771.2	2324.7
82.5°	90.6	101.3	190.6	285.3	354.5	357.2	135.9	297.2	385.2	855.8	318.6
85°	36.0	44.0	127.9	157.3	182.7	176.0	61.3	119.9	138.6	237.3	97.3
87.5°	8.0	13.3	46.6	36.0	34.6	37.3	14.7	28.0	26.6	28.0	17.3
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°	2391.3	2391.3	2391.3	2391.3	2391.3	2391.3	2391.3	2391.3	2391.3	2391.3	2391.3
2.5°	2406.0	2400.7	2386.0	2370.0	2351.4	2340.7	2334.0	2332.7	2323.4	2316.7	2323.4
5°	2446.0	2440.6	2412.6	2379.3	2343.4	2315.4	2288.7	2264.6	2230.0	2223.3	2220.7
7.5°	2525.9	2511.2	2465.9	2420.6	2352.7	2271.3	2172.7	2059.4	1958.1	1927.4	1912.8
10°	2624.6	2604.6	2547.2	2467.3	2316.7	2095.4	1856.8	1635.5	1459.6	1410.3	1391.6
12.5°	2736.5	2719.2	2643.3	2495.3	2166.0	1764.8	1399.6	1125.0	954.4	911.7	899.7
15°	2869.8	2844.5	2739.2	2452.6	1896.8	1340.9	961.0	798.5	737.1	729.1	721.1
17.5°	3011.1	2969.8	2824.5	2299.4	1534.2	953.0	742.4	695.8	669.1	661.1	657.1
20°	3140.4	3087.1	2875.1	2067.4	1146.4	742.4	665.1	634.5	610.5	601.2	595.8
22.5°	3269.7	3193.8	2875.1	1751.5	859.8	658.5	610.5	582.5	554.5	542.5	535.9
25°	3404.3	3303.1	2824.5	1399.6	691.8	603.8	558.5	527.9	503.9	489.2	483.9
27.5°	3535.0	3395.0	2708.6	1066.4	615.8	555.9	510.6	481.2	458.6	447.8	447.8
30°	3658.9	3485.6	2545.9	809.1	566.5	509.2	466.6	441.2	418.5	407.8	409.2
32.5°	3826.9	3600.3	2372.7	663.8	523.9	465.2	426.5	402.5	382.5	374.5	374.5
35°	4060.1	3769.5	2223.3	651.8	487.9	429.2	390.5	367.9	347.9	341.2	341.2
37.5°	4390.7	4042.8	2144.7	731.7	458.6	397.2	361.2	337.2	318.6	313.2	311.9
40°	4798.6	4413.4	2187.4	811.8	438.5	369.2	334.6	310.6	294.6	287.9	286.6
42.5°	5282.4	4870.6	2423.3	873.1	425.2	345.2	309.2	282.6	271.9	269.3	269.3
45°	5838.3	5373.2	2784.5	938.4	403.8	322.6	283.9	263.9	255.9	254.6	253.3
47.5°	6470.1	5925.0	3203.1	1019.7	382.5	301.2	263.9	250.6	244.0	241.3	241.3
50°	7096.6	6480.8	3633.6	1065.1	365.2	281.3	247.9	237.3	232.0	230.6	230.6
52.5°	7752.5	7052.6	3981.5	1022.3	350.5	265.3	234.6	226.6	221.3	220.0	220.0
55°	8377.6	7515.2	4041.5	867.8	321.2	249.3	220.0	216.0	209.3	209.3	208.0
57.5°	8916.1	7747.2	3617.6	637.1	291.9	225.3	205.3	201.3	196.0	194.6	193.3
60°	9410.6	7680.4	2792.5	429.2	259.9	201.3	186.7	184.0	178.7	172.0	170.7
62.5°	9689.2	7387.2	1910.1	279.9	228.0	176.0	165.3	164.0	152.0	138.6	135.9
65°	9794.5	6784.7	1191.7	204.0	190.6	150.6	142.6	139.9	122.6	107.9	106.6
67.5°	9702.5	5793.0	601.2	161.3	150.6	125.3	117.3	117.3	105.3	91.9	90.6
70°	9334.7	4342.7	253.3	129.3	115.9	95.9	95.9	101.3	89.3	74.6	73.3
72.5°	8536.2	2921.9	134.6	98.6	86.6	68.0	78.6	82.6	70.6	56.0	56.0
75°	6786.0	1782.2	93.3	73.3	54.6	48.0	60.0	62.6	48.0	37.3	36.0
77.5°	4641.3	1023.7	62.6	46.6	34.6	28.0	41.3	38.6	25.3	17.3	18.7
80°	2038.1	426.5	36.0	21.3	13.3	10.7	14.7	10.7	8.0	5.3	5.3
82.5°	238.6	99.9	13.3	8.0	5.3	2.7	1.3	0.0	0.0	0.0	0.0
85°	49.3	12.0	6.7	2.7	1.3	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	9.3	2.7	1.3	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)