

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: P965690

Luminaire Tested: **NAV-SB4A-750-U-T3R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965690
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-750-U-T3R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 5000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16230.9 lumens
Efficiency: N/A
Efficacy: 142.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G3

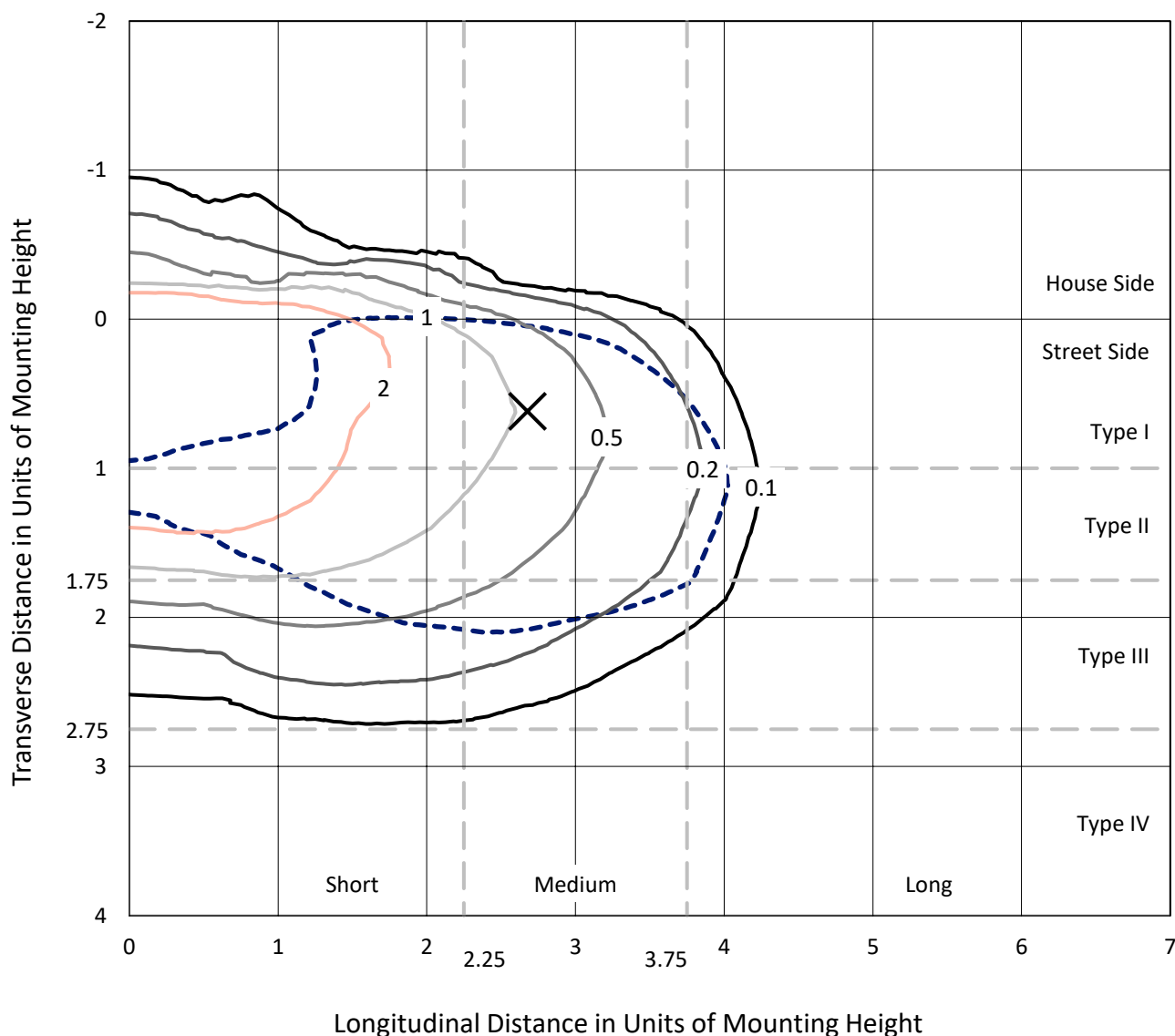
Input Watts (W): 114
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

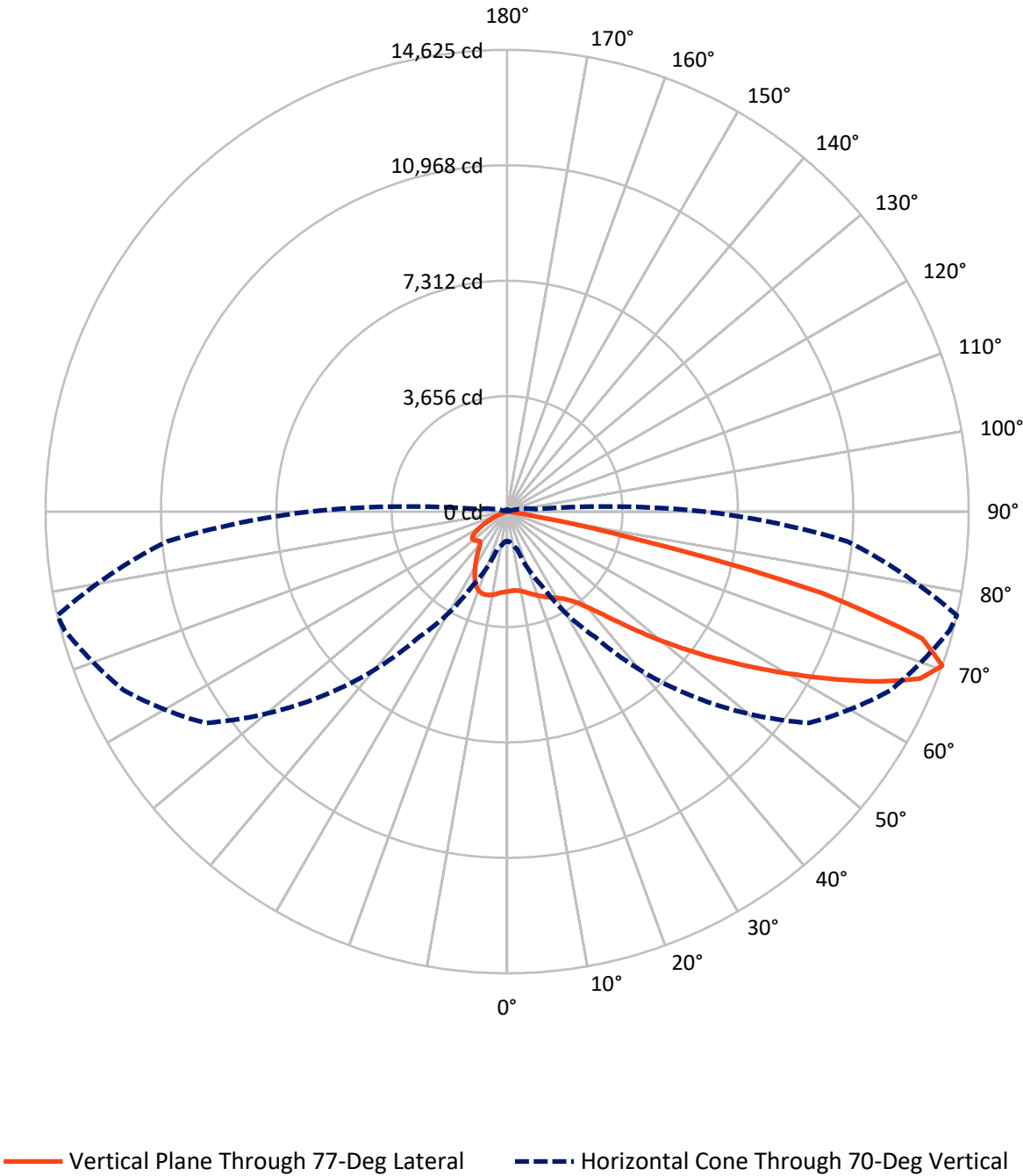
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1711.0	0.0	1711.0
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	14519.9	0.0	14519.9
	% Fixture	89.5	0.0	89.5
Total	Lumens	16230.9	0.0	16230.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	218.2	1.3
10°-20°	518.0	3.2
20°-30°	801.2	4.9
30°-40°	1453.7	9.0
40°-50°	2744.1	16.9
50°-60°	3965.0	24.4
60°-70°	4220.6	26.0
70°-80°	2236.6	13.8
80°-90°	73.4	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°	16230.9	100.0
0°-180°	16230.9	100.0

Coefficient of Utilization



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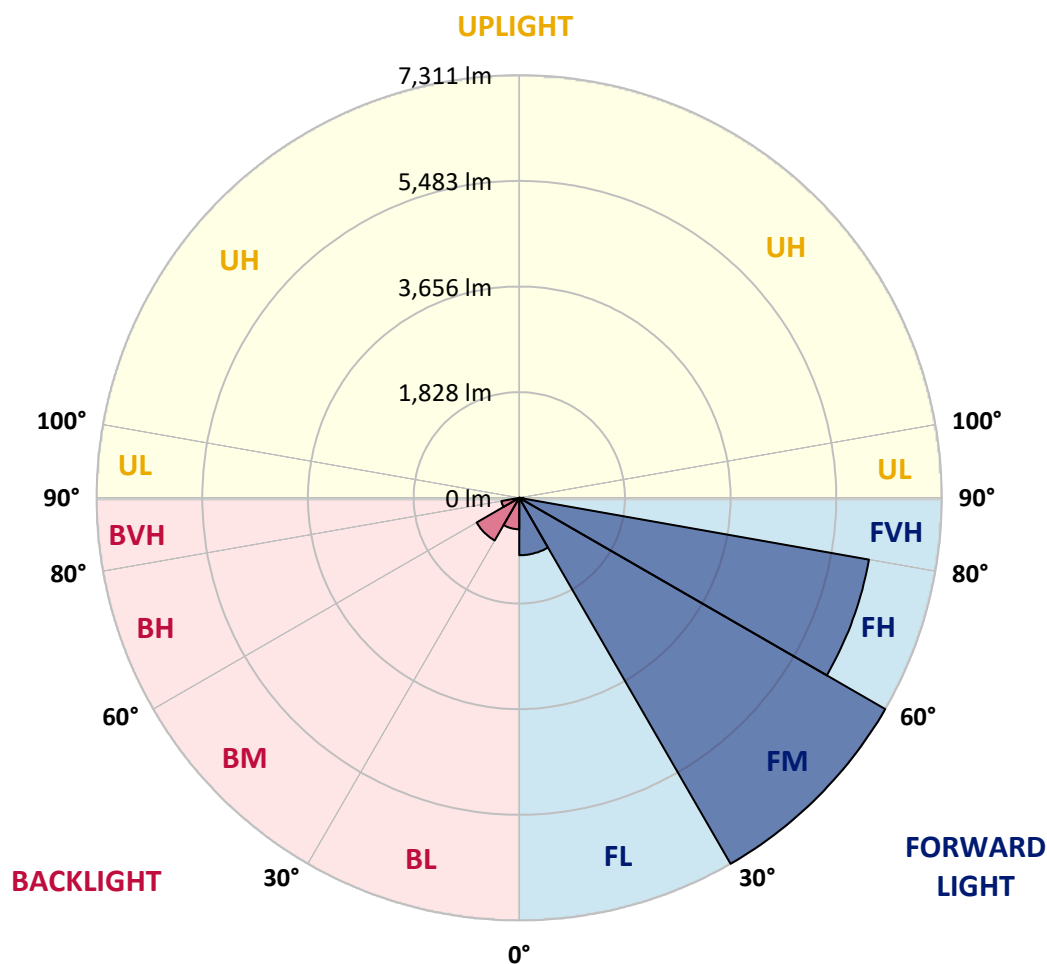
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	993.7	6.1			
FM	(30°-60°)	7311.1	45.0			
FH	(60°-80°)	6143.6	37.9			G3/7500
FVH	(80°-90°)	71.5	0.4			G1/100
BL	(0°-30°)	543.6	3.3	B2/1000		
BM	(30°-60°)	851.7	5.2	B1/1000		
BH	(60°-80°)	313.7	1.9	B1/500		G1/500
BVH	(80°-90°)	2.0	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 Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2531.8	2531.8	2531.8	2531.8	2531.8	2531.8	2531.8	2531.8	2531.8	2531.8	2531.8
2.5°	2377.0	2398.5	2395.4	2409.8	2414.9	2435.4	2455.9	2483.6	2514.3	2513.3	2533.8
5°	2242.7	2264.2	2269.4	2288.8	2313.4	2345.2	2387.2	2442.6	2500.0	2509.2	2550.2
7.5°	2083.8	2106.4	2119.7	2158.6	2203.8	2269.4	2338.0	2419.0	2514.3	2527.6	2606.6
10°	1925.0	1945.4	1962.9	2018.2	2090.0	2187.4	2299.1	2415.9	2544.0	2563.5	2675.2
12.5°	1826.6	1846.0	1865.5	1913.7	2002.8	2121.8	2273.4	2430.3	2593.2	2620.9	2768.5
15°	1791.7	1809.1	1824.5	1867.5	1950.6	2085.9	2268.3	2460.0	2655.8	2692.7	2881.3
17.5°	1796.8	1806.0	1816.3	1849.1	1930.1	2069.5	2277.5	2511.2	2729.6	2762.4	2994.0
20°	1826.6	1831.7	1832.7	1855.2	1927.0	2067.4	2296.0	2560.4	2799.3	2843.4	3105.7
22.5°	1864.5	1866.5	1864.5	1879.8	1946.5	2082.8	2320.6	2619.9	2877.2	2918.2	3218.5
25°	2041.8	2002.8	1953.6	1923.9	1979.3	2112.5	2357.5	2699.8	2962.2	3002.2	3328.2
27.5°	2592.2	2480.5	2304.2	2106.4	2046.9	2155.6	2408.8	2780.8	3048.4	3084.2	3446.0
30°	3486.0	3339.4	3040.1	2594.3	2264.2	2245.8	2475.4	2861.8	3139.6	3178.5	3572.1
32.5°	4381.9	4346.0	4000.6	3383.5	2753.1	2446.7	2586.1	2971.5	3260.5	3291.3	3742.3
35°	5287.9	5215.1	4932.2	4322.4	3506.5	2855.6	2770.6	3115.0	3419.4	3454.2	3990.3
37.5°	5981.8	5937.7	5762.4	5260.2	4400.3	3487.0	3086.3	3337.4	3650.0	3689.0	4308.1
40°	6594.7	6574.2	6514.8	6183.7	5399.6	4313.2	3577.2	3681.8	3969.8	4016.0	4697.6
42.5°	7076.5	7124.7	7158.5	7066.2	6429.7	5256.1	4237.3	4165.6	4415.7	4462.8	5193.6
45°	7569.5	7585.9	7722.2	7855.5	7452.7	6242.1	4981.4	4732.4	4970.1	5028.5	5788.1
47.5°	7886.2	7951.8	8191.7	8426.4	8312.6	7220.0	5780.9	5401.6	5612.8	5722.5	6454.3
50°	7909.8	8033.8	8363.9	8772.9	8938.9	8150.7	6650.1	6164.2	6388.7	6509.7	7165.7
52.5°	7517.2	7709.9	8221.4	8820.0	9277.2	8938.9	7549.0	6926.8	7214.9	7372.7	7903.7
55°	5763.5	6015.6	7685.3	8563.8	9290.5	9536.5	8424.4	7721.2	8135.3	8313.7	8701.1
57.5°	5021.4	5148.5	6042.3	8118.9	9043.5	9777.4	9215.7	8477.7	9136.7	9358.1	9454.5
60°	4177.9	4345.0	5067.5	7391.2	8708.3	9800.9	9914.7	9453.5	10222.2	10471.3	10145.3
62.5°	2839.2	3020.7	3739.2	6140.7	8250.1	9789.7	10487.7	10458.0	11428.6	11696.2	10730.6
65°	1758.9	1872.7	2346.2	5014.2	7609.5	9802.0	11087.3	11677.7	12701.7	12973.3	11183.7
67.5°	1389.9	1442.2	1689.2	3849.9	6505.6	9525.2	11685.9	12824.7	13899.9	14115.2	11322.0
70°	933.8	965.6	1229.0	2581.0	4840.0	8248.1	11674.6	13400.7	14517.0	14624.5	10817.7
72.5°	492.0	516.6	718.5	1195.1	2923.3	5862.9	9840.9	12711.9	13903.0	13741.0	9246.4
75°	246.0	287.0	483.8	606.8	1248.4	3269.7	6110.9	10022.3	10942.8	10315.5	5932.6
77.5°	186.5	225.5	399.7	399.7	434.6	1100.8	2588.1	5466.2	5041.9	4198.4	1741.5
80°	118.9	153.8	349.5	302.4	181.4	279.8	674.4	1531.4	1071.1	814.9	316.7
82.5°	69.7	100.4	291.1	199.9	101.5	103.5	190.6	326.0	277.8	216.3	97.4
85°	27.7	65.6	199.9	78.9	40.0	25.6	57.4	69.7	57.4	43.0	24.6
87.5°	0.0	15.4	34.8	0.0	3.1	2.0	4.1	5.1	5.1	4.1	8.2
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°	2531.8	2531.8	2531.8	2531.8	2531.8	2531.8	2531.8	2531.8	2531.8	2531.8	2531.8
2.5°	2543.0	2545.1	2551.2	2552.2	2537.9	2519.4	2512.3	2509.2	2496.9	2495.9	2497.9
5°	2573.8	2583.0	2573.8	2547.1	2483.6	2394.4	2326.8	2271.4	2221.2	2205.8	2196.6
7.5°	2635.3	2644.5	2616.8	2512.3	2352.4	2175.0	2015.2	1902.4	1800.9	1763.0	1747.6
10°	2723.4	2735.7	2648.6	2437.4	2154.5	1869.6	1599.0	1408.4	1259.7	1199.2	1173.6
12.5°	2834.1	2839.2	2666.0	2323.7	1897.3	1490.4	1107.0	903.0	770.8	721.6	706.2
15°	2956.1	2948.9	2668.1	2168.9	1546.7	1053.7	722.6	593.5	540.2	523.8	523.8
17.5°	3084.2	3054.5	2627.1	1945.4	1162.4	720.6	536.1	505.3	496.1	492.0	491.0
20°	3210.3	3143.7	2552.2	1653.3	834.4	538.1	486.9	477.6	472.5	470.5	468.4
22.5°	3325.1	3211.3	2424.1	1314.0	605.8	475.6	460.2	452.0	442.8	438.7	437.7
25°	3436.8	3250.3	2243.7	997.3	484.8	444.8	432.6	417.2	404.9	399.7	397.7
27.5°	3545.5	3274.9	2018.2	738.0	432.6	416.2	393.6	372.1	362.8	360.8	358.7
30°	3661.3	3283.1	1762.0	550.4	400.8	380.3	347.5	322.9	317.8	318.8	318.8
32.5°	3802.7	3295.4	1503.7	451.0	374.1	337.2	298.3	272.6	268.5	272.6	271.6
35°	3971.9	3320.0	1254.6	415.1	350.5	293.2	251.1	229.6	225.5	228.6	227.6
37.5°	4201.5	3360.0	1021.9	408.0	331.1	256.2	211.2	193.7	193.7	194.7	193.7
40°	4506.9	3466.6	813.8	402.8	320.8	228.6	178.4	171.2	174.2	176.3	176.3
42.5°	4878.9	3693.1	673.4	396.7	309.5	216.3	162.0	158.9	164.0	166.0	166.0
45°	5296.1	3980.1	624.2	386.4	299.3	224.5	154.8	150.7	156.8	157.8	158.9
47.5°	5727.6	4260.9	618.1	375.2	289.0	236.8	152.7	143.5	150.7	151.7	152.7
50°	6164.2	4444.4	624.2	357.7	272.6	236.8	153.8	136.3	142.5	145.5	146.6
52.5°	6604.0	4528.4	620.1	319.8	244.0	222.4	153.8	130.2	136.3	138.4	138.4
55°	7030.4	4512.0	557.6	263.4	207.0	196.8	149.6	125.0	129.1	130.2	130.2
57.5°	7367.6	4283.5	441.8	205.0	168.1	164.0	136.3	118.9	122.0	121.0	121.0
60°	7543.9	3781.2	315.7	157.8	132.2	129.1	119.9	110.7	112.7	107.6	106.6
62.5°	7545.9	3117.0	211.2	125.0	105.6	102.5	102.5	99.4	97.4	87.1	84.0
65°	7385.0	2380.0	140.4	99.4	85.1	79.9	86.1	85.1	77.9	63.6	61.5
67.5°	7020.1	1560.0	106.6	77.9	65.6	62.5	68.7	71.8	66.6	53.3	52.3
70°	6269.8	908.2	88.1	60.5	49.2	46.1	55.4	61.5	55.4	43.0	41.0
72.5°	5207.9	489.9	71.8	45.1	33.8	30.7	44.1	50.2	44.1	31.8	30.7
75°	3379.4	262.4	55.4	29.7	17.4	19.5	32.8	36.9	30.7	20.5	18.4
77.5°	1134.7	115.8	34.8	14.3	8.2	8.2	19.5	22.5	14.3	7.2	6.1
80°	253.2	48.2	14.3	6.1	3.1	3.1	4.1	4.1	2.0	0.0	0.0
82.5°	83.0	19.5	6.1	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	31.8	7.2	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	12.3	1.0	0.0	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)