

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: P967927

Luminaire Tested: **NAV-SB5A-835-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967927
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-835-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16594.7 lumens
Efficiency: N/A
Efficacy: 117.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G4

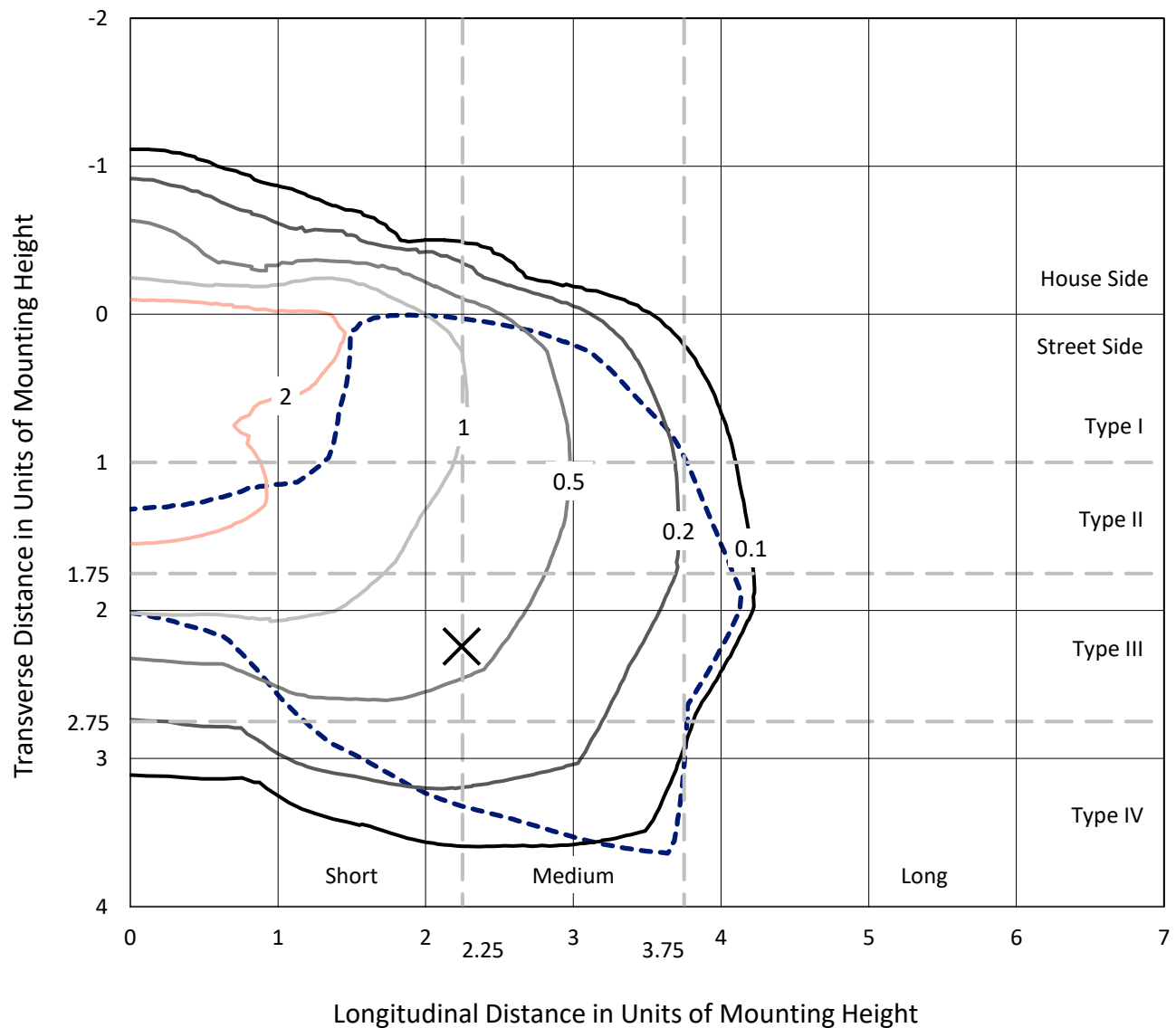
Input Watts (W): 141.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

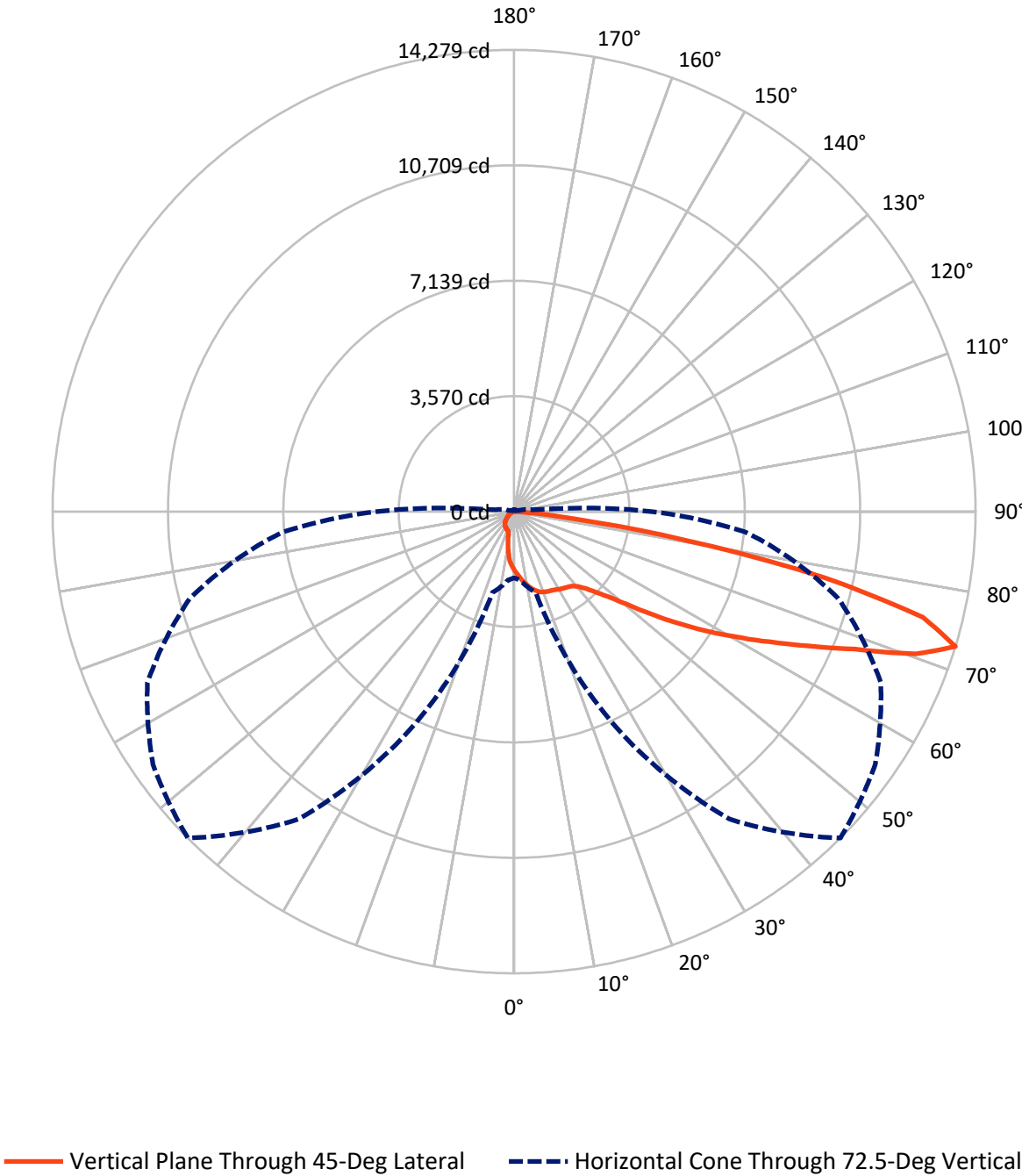
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1743.6	0.0	1743.6
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	14851.1	0.0	14851.1
	% Fixture	89.5	0.0	89.5
Total	Lumens	16594.7	0.0	16594.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.3	1.0
10°-20°	500.6	3.0
20°-30°	822.1	5.0
30°-40°	1165.9	7.0
40°-50°	1927.1	11.6
50°-60°	3461.9	20.9
60°-70°	4807.0	29.0
70°-80°	3486.8	21.0
80°-90°	252.1	1.5
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°	16594.7	100.0
0°-180°	16594.7	100.0

Coefficient of Utilization



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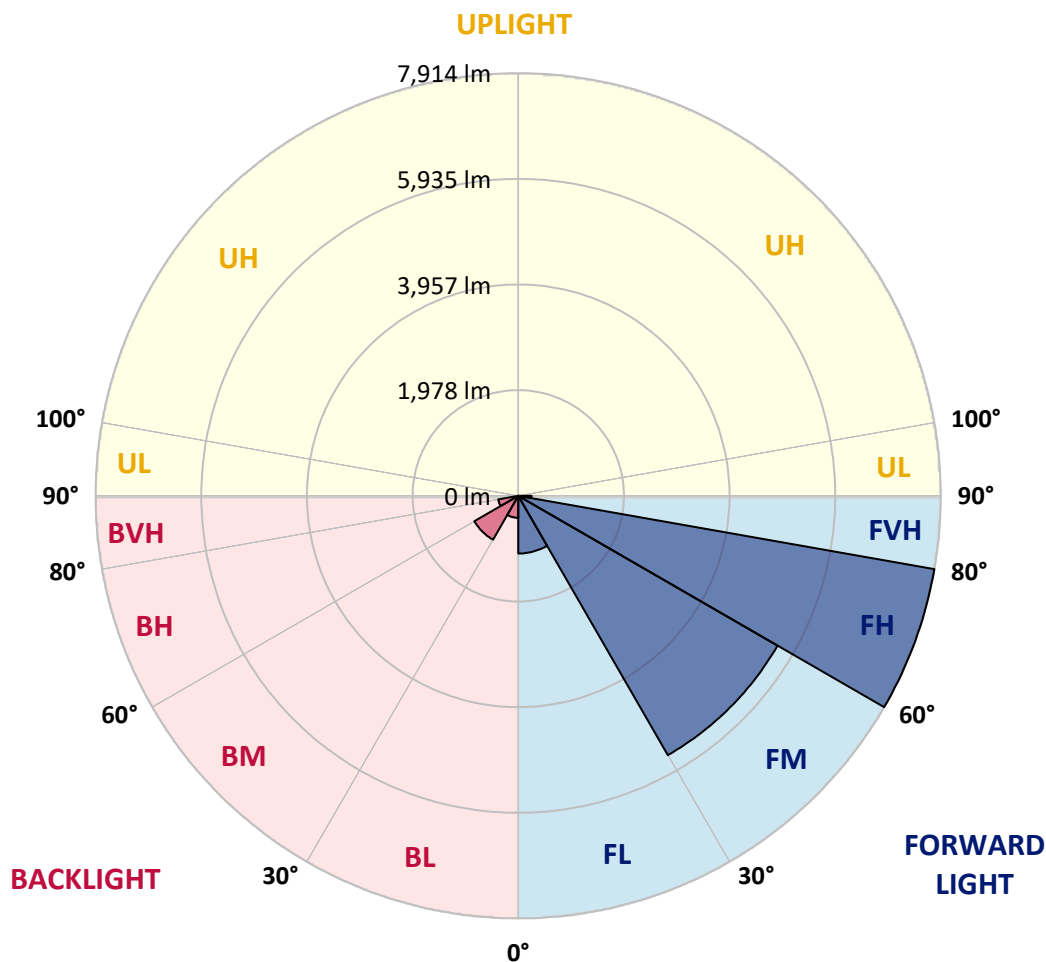
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1081.0	6.5			
FM	(30°-60°)	5606.6	33.8			
FH	(60°-80°)	7913.6	47.7			G4/12000
FVH	(80°-90°)	250.0	1.5			G3/500
BL	(0°-30°)	413.0	2.5	B1/500		
BM	(30°-60°)	948.3	5.7	B1/1000		
BH	(60°-80°)	380.2	2.3	B1/500		G1/500
BVH	(80°-90°)	2.1	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1817.9	1817.9	1817.9	1817.9	1817.9	1817.9	1817.9	1817.9	1817.9	1817.9	1817.9
2.5°	1985.6	1989.0	1986.8	1973.1	1950.5	1938.1	1931.3	1908.7	1893.9	1867.9	1840.7
5°	2168.0	2181.6	2173.6	2146.5	2103.4	2072.9	2063.8	2017.3	1975.5	1926.7	1870.1
7.5°	2361.7	2368.5	2353.8	2318.7	2260.8	2208.8	2200.9	2136.3	2069.5	1994.6	1917.7
10°	2529.3	2537.3	2514.6	2463.6	2397.9	2333.4	2322.0	2250.7	2171.4	2079.6	1981.1
12.5°	2669.8	2677.7	2648.3	2587.1	2514.6	2447.8	2436.4	2361.7	2274.5	2172.5	2050.2
15°	2776.2	2791.0	2751.3	2685.6	2607.5	2540.7	2535.0	2461.3	2376.5	2263.1	2132.9
17.5°	2838.5	2853.3	2815.9	2736.6	2669.8	2613.1	2606.4	2545.2	2465.9	2357.2	2213.3
20°	2848.8	2862.3	2822.7	2753.6	2698.1	2652.8	2649.4	2605.2	2547.4	2443.3	2300.5
22.5°	2818.1	2835.1	2798.9	2743.4	2704.9	2681.1	2676.6	2651.7	2618.8	2530.4	2382.1
25°	2786.5	2800.1	2772.8	2724.1	2703.7	2701.5	2704.9	2700.4	2693.6	2618.8	2477.2
27.5°	2784.2	2798.9	2768.3	2721.9	2710.5	2734.4	2737.8	2759.3	2764.9	2699.2	2569.0
30°	2803.5	2813.6	2784.2	2735.5	2729.8	2784.2	2785.3	2823.9	2832.9	2767.2	2659.6
32.5°	2845.4	2856.7	2827.3	2755.9	2747.9	2823.9	2827.3	2878.2	2893.0	2839.7	2754.7
35°	2943.9	2957.5	2923.5	2812.5	2784.2	2861.2	2871.4	2931.4	2960.9	2916.7	2853.3
37.5°	3189.7	3150.0	3103.6	2926.9	2866.9	2920.1	2937.1	3007.4	3059.4	3008.5	2971.1
40°	3800.2	3675.6	3530.6	3121.7	3011.9	3045.9	3059.4	3129.6	3201.0	3151.2	3133.0
42.5°	4716.5	4569.3	4336.0	3570.3	3230.5	3247.5	3257.7	3318.8	3419.6	3380.0	3384.6
45°	5533.3	5480.1	5242.2	4336.0	3639.4	3555.5	3568.0	3599.7	3748.1	3733.4	3762.9
47.5°	6160.8	6130.2	5946.7	5215.0	4330.3	3932.7	3967.9	3982.6	4196.7	4248.7	4328.1
50°	6643.3	6632.0	6467.7	5996.6	5233.1	4488.9	4501.4	4469.6	4790.2	4919.4	5070.0
52.5°	7098.6	7137.2	7015.9	6722.6	6197.0	5217.2	5215.0	5065.4	5498.1	5693.0	5950.1
55°	7509.9	7523.4	7535.9	7463.4	7166.6	6046.4	6024.8	5780.2	6319.3	6520.9	6799.6
57.5°	7896.1	7901.7	8012.7	8161.2	8175.8	6936.7	6897.0	6603.7	7216.4	7360.3	7531.4
60°	8155.5	8181.6	8416.0	8828.3	9008.4	7855.3	7833.8	7534.8	8129.4	8196.2	8164.5
62.5°	7781.7	7940.3	8531.5	9349.3	9794.5	8873.6	8863.4	8582.5	9089.9	9035.6	8763.8
65°	6298.9	6567.4	7607.2	9701.6	10565.9	10010.9	10025.5	9726.5	10076.6	9899.9	9250.8
67.5°	4406.3	4689.4	5919.5	9729.9	11427.8	11346.3	11431.2	10962.3	11124.3	10727.9	9366.3
70°	3047.0	3193.1	3993.9	9120.6	12099.5	13185.8	13183.6	12480.1	12166.3	11105.1	8777.3
72.5°	2049.1	2124.9	2593.9	7235.7	11605.7	14278.9	14213.2	13640.0	12517.5	10385.8	7171.1
75°	864.3	919.7	1200.7	4066.4	9181.7	13063.5	12885.7	12054.2	11122.1	8178.2	4474.2
77.5°	274.1	297.9	473.4	1455.5	5057.6	9819.4	9631.4	7527.9	7454.3	4102.7	1635.6
80°	130.3	151.8	266.2	584.5	1990.1	5340.7	5314.6	3415.1	3206.7	1107.8	328.5
82.5°	56.7	66.8	147.3	312.6	890.3	1905.2	1943.7	1162.1	961.7	420.2	100.9
85°	18.1	23.8	68.0	143.8	376.1	473.4	467.8	276.3	387.3	228.8	35.2
87.5°	0.0	0.0	22.7	32.8	38.5	27.2	30.5	23.8	107.6	63.4	12.5
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°	1817.9	1817.9	1817.9	1817.9	1817.9	1817.9	1817.9	1817.9	1817.9	1817.9	1817.9
2.5°	1827.1	1808.9	1777.2	1747.7	1721.7	1695.7	1679.8	1657.1	1654.9	1654.9	1660.5
5°	1839.5	1810.0	1753.5	1693.4	1624.3	1558.6	1492.9	1429.5	1409.1	1394.4	1401.2
7.5°	1875.7	1829.3	1739.8	1625.4	1494.0	1350.2	1249.4	1140.6	1098.7	1076.0	1079.4
10°	1927.8	1864.5	1728.5	1528.0	1315.1	1119.1	975.3	857.4	812.1	792.9	792.9
12.5°	1985.6	1907.5	1708.2	1406.8	1119.1	884.7	744.2	689.8	683.1	683.1	683.1
15°	2054.7	1959.6	1673.0	1264.1	914.1	700.0	650.2	652.4	659.3	663.8	663.8
17.5°	2126.1	2015.0	1617.6	1104.4	732.9	629.8	630.9	634.3	640.0	644.5	644.5
20°	2203.1	2070.6	1543.9	934.5	628.6	609.4	612.7	616.2	620.7	623.0	624.1
22.5°	2285.8	2122.7	1456.6	767.9	593.6	592.4	593.6	597.0	602.6	602.6	604.9
25°	2374.1	2180.5	1357.0	646.8	575.4	575.4	577.7	579.9	584.5	584.5	585.6
27.5°	2464.7	2233.7	1251.6	583.3	559.5	558.4	558.4	561.8	564.1	565.2	566.3
30°	2564.4	2296.0	1146.3	569.8	547.1	541.4	538.0	540.3	542.5	543.7	545.9
32.5°	2666.4	2356.1	1052.3	575.4	534.6	524.5	513.1	510.9	510.9	515.4	518.8
35°	2779.7	2421.8	979.8	594.7	527.9	499.5	481.4	471.2	472.3	479.1	482.6
37.5°	2915.6	2501.0	926.6	611.6	523.3	471.2	441.8	429.3	421.4	429.3	427.0
40°	3093.4	2617.6	888.1	625.2	517.6	438.4	398.7	378.3	363.6	368.2	365.8
42.5°	3355.0	2801.2	873.3	626.4	505.2	399.9	354.5	327.4	305.9	307.0	302.5
45°	3722.1	3091.2	949.3	611.6	478.0	357.9	308.1	271.8	258.3	254.8	250.3
47.5°	4224.9	3513.6	1124.7	581.1	438.4	317.1	262.8	232.2	222.0	216.4	213.0
50°	4899.0	4056.2	1319.6	547.1	398.7	278.6	225.4	206.1	199.4	193.7	192.6
52.5°	5680.5	4606.7	1479.3	513.1	359.1	244.7	201.6	190.3	184.6	180.1	179.0
55°	6397.5	4986.1	1470.3	476.8	320.5	217.5	184.6	177.8	171.1	166.5	164.2
57.5°	6843.8	5039.4	1212.0	437.3	276.3	196.0	168.8	164.2	156.3	150.7	149.5
60°	7048.8	4735.8	849.5	385.1	232.2	175.6	151.8	149.5	139.3	131.4	129.1
62.5°	7086.2	4171.8	566.3	320.5	193.7	156.3	134.8	131.4	117.8	104.2	97.4
65°	6934.4	3365.3	392.0	250.3	165.3	135.9	115.5	108.8	94.0	80.5	75.8
67.5°	6454.1	2362.8	273.0	180.1	140.4	107.6	91.7	89.5	78.2	66.8	63.4
70°	5574.1	1346.7	182.3	134.8	111.0	73.6	72.5	74.7	63.4	54.3	49.8
72.5°	4273.7	616.2	113.3	98.5	75.8	49.8	57.8	58.9	48.7	40.8	36.3
75°	2515.8	263.9	71.3	63.4	38.5	32.8	41.9	43.0	32.8	26.0	22.7
77.5°	856.3	99.6	45.3	37.4	19.3	18.1	27.2	27.2	18.1	10.1	7.9
80°	194.9	37.4	22.7	14.8	9.0	7.9	9.0	7.9	4.5	1.1	0.0
82.5°	55.5	14.8	9.0	5.6	3.4	3.4	1.1	0.0	0.0	0.0	0.0
85°	15.9	6.8	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.8	1.1	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)