

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: P963185

Luminaire Tested: **NAV-SB2D-835-U-T4W**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963185
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-1)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-835-U-T4W
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: -

Summary

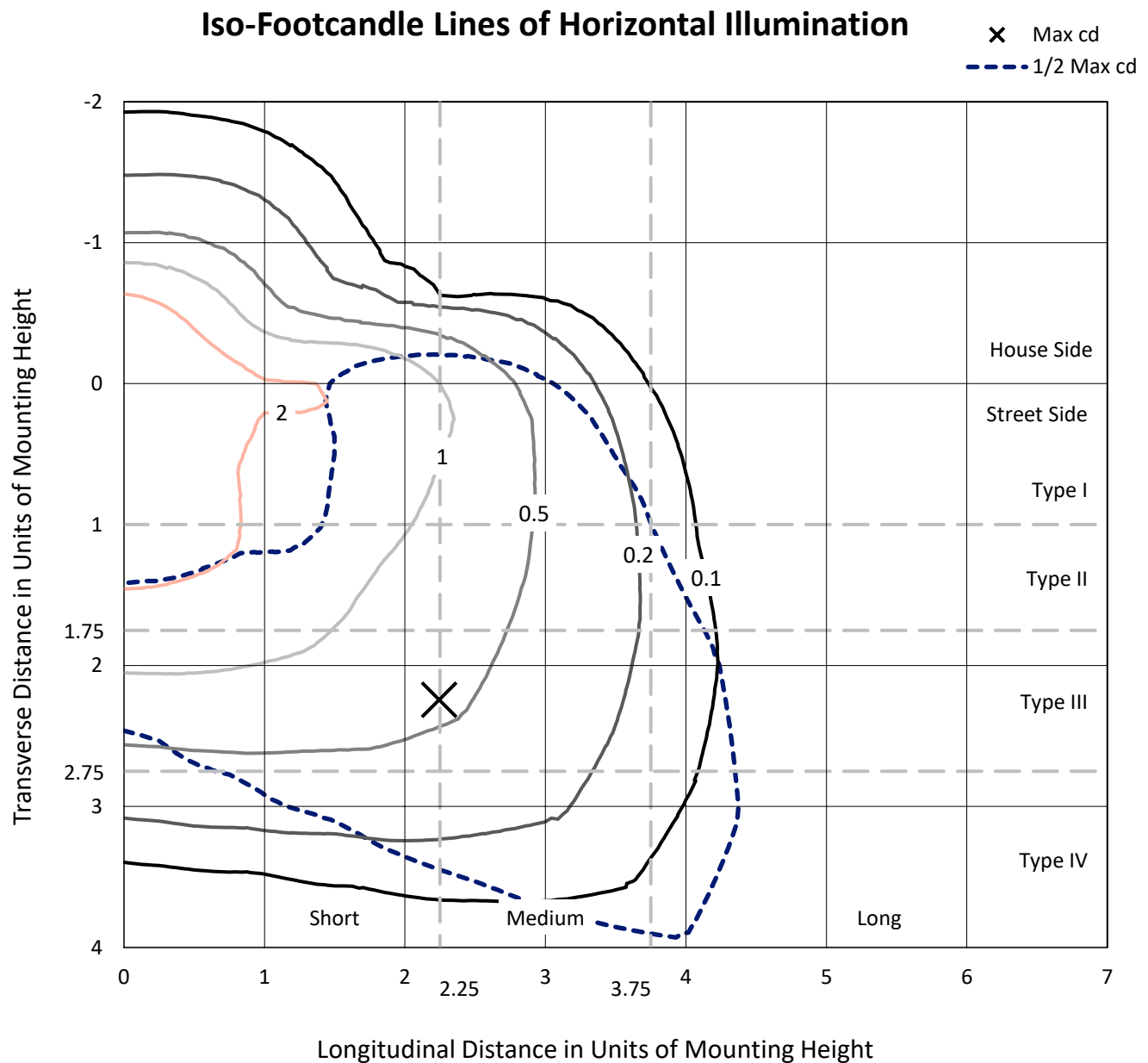
Lumens per Lamp: N/A
Luminaire Lumens: 19310 lumens
Efficiency: N/A
Efficacy: 130.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

Input Watts (W): 147.6
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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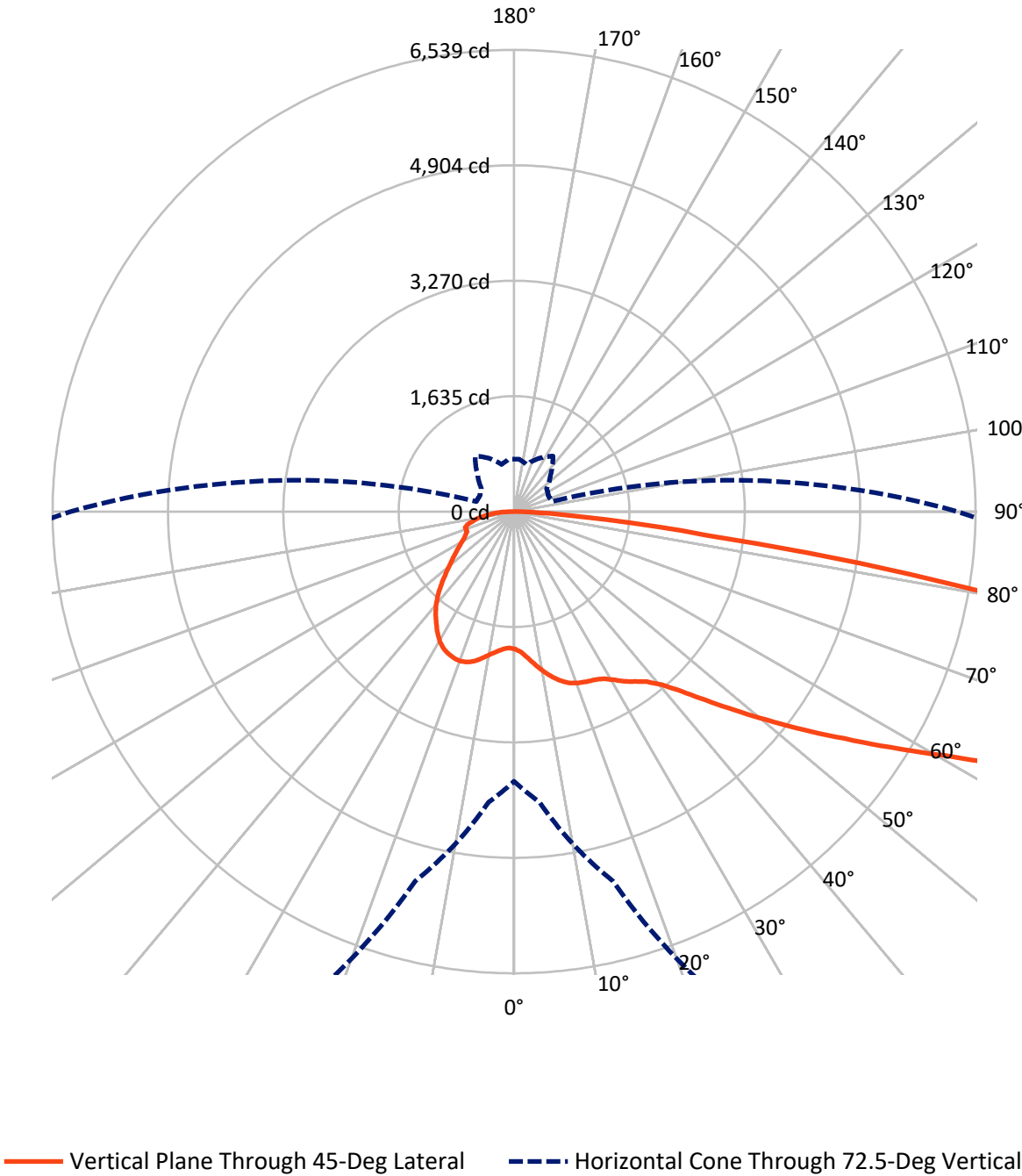


Based on 25 foot mounting height. Maximum calculated value = 3.9 fc

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	4365.3	0.0	4365.3
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	14944.6	0.0	14944.6
	% Fixture	77.4	0.0	77.4
Total	Lumens	19310.0	0.0	19310.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	198.3	1.0
10°-20°	661.0	3.4
20°-30°	1149.9	6.0
30°-40°	1648.5	8.5
40°-50°	2321.2	12.0
50°-60°	3555.4	18.4
60°-70°	5150.5	26.7
70°-80°	4113.0	21.3
80°-90°	512.3	2.7
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°	19310.0	100.0
0°-180°	19310.0	100.0

Coefficient of Utilization



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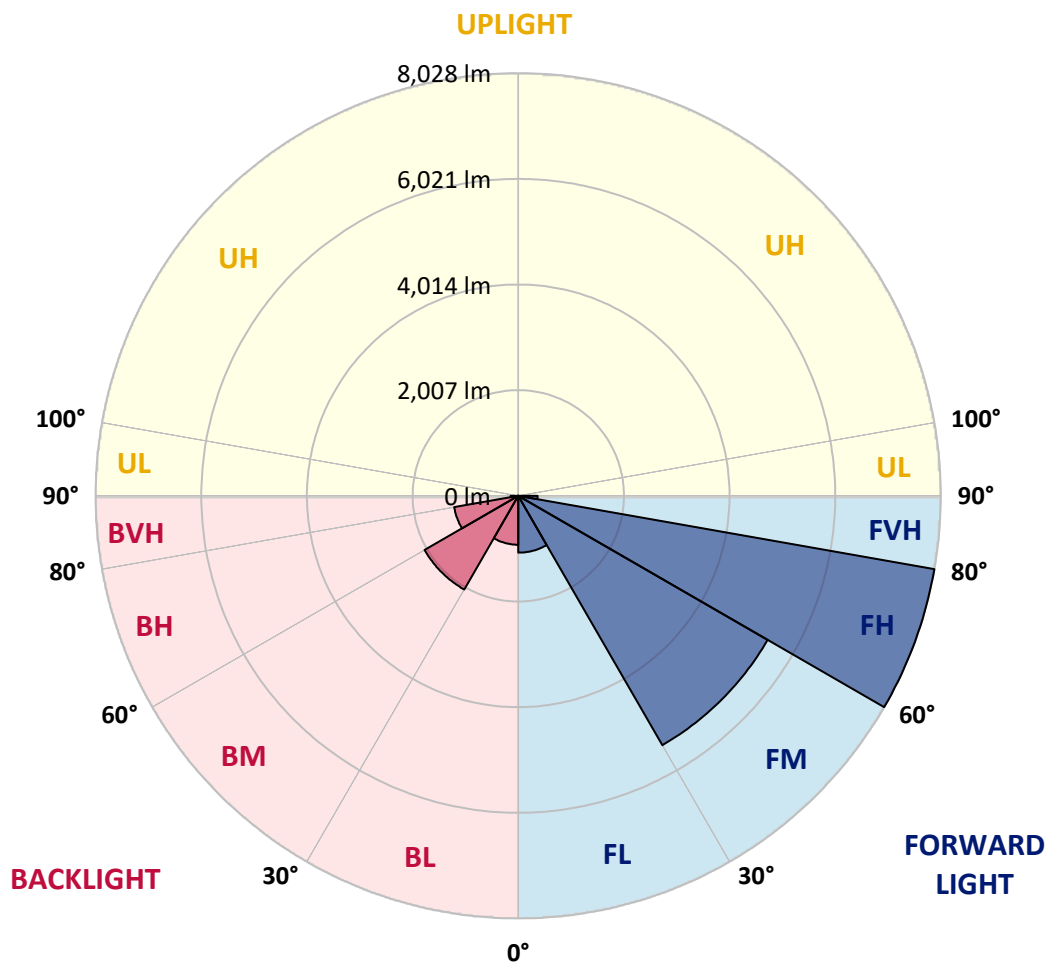
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1079.8	5.6			
FM	(30°-60°)	5469.6	28.3			
FH	(60°-80°)	8027.7	41.6			G4/12000
FVH	(80°-90°)	367.5	1.9			G3/500
BL	(0°-30°)	929.4	4.8	B2/1000		
BM	(30°-60°)	2055.4	10.6	B2/2500		
BH	(60°-80°)	1235.7	6.4	B3/2500		G3/2500
BVH	(80°-90°)	144.8	0.7			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1948.0	1948.0	1948.0	1948.0	1948.0	1948.0	1948.0	1948.0	1948.0	1948.0	1948.0
2.5°	2024.3	2037.5	2025.3	2014.1	2009.0	1995.8	1994.8	1986.7	1981.5	1967.3	1963.3
5°	2165.7	2182.9	2162.6	2140.3	2119.9	2087.4	2083.3	2059.9	2033.5	2003.0	1985.6
7.5°	2325.4	2340.7	2317.2	2283.7	2248.1	2194.2	2193.2	2150.4	2108.7	2056.9	2027.3
10°	2464.7	2485.1	2453.5	2407.8	2363.0	2302.0	2294.9	2246.1	2193.2	2126.1	2081.3
12.5°	2587.8	2602.1	2571.5	2515.7	2463.7	2402.7	2393.6	2339.7	2280.6	2204.4	2147.4
15°	2685.5	2703.8	2663.2	2603.1	2548.1	2488.2	2480.0	2431.2	2372.2	2291.8	2218.6
17.5°	2749.6	2764.8	2723.1	2656.0	2603.1	2553.3	2547.1	2506.4	2454.6	2373.2	2294.9
20°	2774.0	2790.3	2746.5	2678.3	2629.5	2590.9	2587.8	2558.3	2522.7	2448.5	2369.2
22.5°	2798.5	2813.6	2756.7	2685.5	2642.8	2618.4	2617.3	2598.0	2583.8	2522.7	2445.4
25°	2897.1	2901.2	2824.9	2722.1	2661.1	2639.7	2638.7	2637.7	2643.8	2596.0	2527.9
27.5°	2982.5	2981.5	2916.4	2819.8	2725.2	2680.4	2679.4	2689.6	2708.9	2669.2	2613.2
30°	3107.6	3096.4	3019.1	2918.5	2832.0	2762.8	2756.7	2747.5	2762.8	2731.3	2698.7
32.5°	3373.2	3337.5	3212.5	3033.4	2920.4	2867.5	2859.4	2802.5	2808.6	2789.2	2772.9
35°	3753.6	3706.8	3539.9	3251.1	3030.3	2955.1	2951.0	2878.8	2866.5	2849.3	2855.3
37.5°	4206.3	4148.3	3953.9	3566.4	3219.5	3056.8	3050.7	2985.6	2935.7	2917.5	2952.0
40°	4661.0	4587.7	4427.0	3951.0	3498.2	3226.7	3207.3	3108.6	3051.7	3021.2	3094.4
42.5°	5102.4	5041.4	4904.1	4382.3	3842.1	3474.9	3432.1	3263.3	3220.5	3192.1	3324.3
45°	5493.1	5438.1	5337.4	4843.0	4244.9	3812.6	3770.9	3495.2	3482.0	3482.0	3673.2
47.5°	5810.4	5798.2	5691.4	5313.0	4719.9	4197.1	4124.9	3817.7	3853.3	3908.2	4168.6
50°	6162.4	6128.8	6014.9	5775.9	5278.4	4637.6	4578.6	4213.4	4346.6	4497.2	4884.7
52.5°	6485.9	6504.1	6377.0	6258.0	5909.1	5128.9	5025.2	4680.3	4968.2	5217.4	5724.0
55°	6818.5	6819.5	6784.0	6767.7	6570.4	5672.0	5558.2	5241.8	5699.5	6008.8	6702.6
57.5°	7130.8	7132.9	7185.8	7329.2	7337.3	6298.7	6169.5	5931.5	6512.3	6827.6	7711.7
60°	7409.5	7423.8	7568.2	7903.9	8011.7	7016.8	6894.8	6746.2	7352.5	7670.0	8772.6
62.5°	7503.1	7555.0	7876.4	8353.5	8678.1	7897.8	7777.8	7689.2	8235.5	8530.6	9659.6
65°	7344.4	7463.4	8085.0	8724.8	9363.6	8944.6	8825.6	8728.9	9153.0	9430.7	10388.0
67.5°	6954.8	7108.4	8072.8	9114.4	10195.7	10203.9	10093.0	9866.1	10136.7	10243.5	10624.9
70°	5928.4	6158.3	7361.8	9259.8	11150.9	11926.1	11819.3	11235.3	11118.4	10601.6	9957.7
72.5°	3819.7	4128.9	5420.8	8062.5	11363.5	13546.5	13540.4	12471.3	11428.6	9905.8	7986.3
75°	1393.6	1582.8	2518.6	5060.7	9538.5	13464.1	13503.8	12259.7	10432.8	7651.6	4975.2
77.5°	507.6	555.4	821.9	1944.9	5866.4	10803.0	10885.4	9801.0	7425.8	3840.1	1971.4
80°	266.5	292.9	421.2	754.8	2513.6	6415.7	6544.8	5824.7	3490.1	1156.6	591.0
82.5°	147.5	159.7	236.0	409.9	1132.2	2743.5	2820.8	2301.0	1227.8	490.3	244.2
85°	79.3	84.5	110.9	223.8	553.4	951.1	972.5	687.7	489.3	287.9	118.0
87.5°	23.4	28.5	36.6	71.2	216.7	213.6	218.7	136.3	193.3	145.4	38.6
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°	1948.0	1948.0	1948.0	1948.0	1948.0	1948.0	1948.0	1948.0	1948.0	1948.0	1948.0
2.5°	1957.1	1954.1	1942.9	1937.9	1931.7	1930.7	1935.8	1936.8	1937.9	1938.9	1942.9
5°	1975.5	1965.3	1955.1	1949.0	1951.1	1952.1	1962.3	1969.3	1974.5	1978.6	1980.5
7.5°	2011.0	2003.0	1985.6	1984.6	1987.7	1996.8	2010.0	2026.3	2035.4	2042.6	2044.7
10°	2063.9	2048.7	2028.4	2031.4	2037.5	2050.7	2078.2	2091.4	2106.7	2119.9	2116.8
12.5°	2117.9	2104.6	2081.3	2083.3	2093.5	2116.8	2143.3	2159.6	2169.7	2180.0	2184.0
15°	2188.1	2164.7	2139.3	2139.3	2157.5	2182.9	2195.1	2208.4	2214.5	2225.7	2229.8
17.5°	2260.3	2229.8	2196.2	2194.2	2216.6	2228.8	2235.8	2237.9	2239.9	2252.1	2256.2
20°	2332.5	2299.0	2251.1	2247.1	2252.1	2250.1	2249.1	2247.1	2250.1	2265.4	2271.5
22.5°	2403.7	2365.1	2299.0	2280.6	2266.4	2247.1	2246.1	2245.1	2247.1	2262.3	2272.5
25°	2487.2	2440.3	2351.9	2296.9	2249.1	2222.6	2225.7	2226.7	2228.8	2241.0	2257.3
27.5°	2577.7	2525.8	2400.7	2291.8	2205.4	2187.0	2181.9	2185.0	2192.2	2211.4	2230.8
30°	2668.2	2607.2	2445.4	2271.5	2150.4	2125.0	2108.7	2115.8	2138.3	2157.5	2178.9
32.5°	2750.6	2689.6	2481.0	2226.7	2080.2	2040.6	2019.2	2028.4	2050.7	2057.9	2083.3
35°	2847.2	2778.1	2496.3	2155.5	2004.0	1942.9	1914.4	1901.2	1912.4	1905.3	1927.6
37.5°	2955.1	2882.8	2494.2	2061.9	1914.4	1844.3	1804.6	1754.7	1731.3	1706.9	1722.2
40°	3114.8	3011.0	2469.8	1949.0	1803.6	1739.4	1668.3	1583.8	1530.9	1483.2	1486.1
42.5°	3332.5	3189.0	2425.0	1824.9	1678.4	1618.4	1521.8	1423.1	1339.7	1260.3	1253.3
45°	3657.0	3422.0	2369.2	1692.7	1543.1	1484.1	1379.3	1268.5	1173.9	1072.1	1060.0
47.5°	4124.9	3735.3	2316.2	1542.1	1400.8	1346.8	1252.2	1149.4	1037.6	938.9	927.7
50°	4767.8	4184.9	2267.4	1395.6	1260.3	1219.6	1144.4	1039.7	926.7	847.4	842.2
52.5°	5585.6	4796.3	2247.1	1254.3	1129.1	1113.9	1053.8	956.2	849.4	782.3	777.2
55°	6524.5	5527.6	2247.1	1119.0	1014.1	1019.3	977.5	887.0	794.5	734.4	728.4
57.5°	7482.8	6268.2	2206.4	993.8	916.6	937.9	911.4	832.1	748.7	686.6	676.5
60°	8365.7	6888.7	2041.6	879.9	830.0	863.7	846.3	778.2	676.5	624.5	616.4
62.5°	9044.2	7238.7	1724.3	789.4	758.8	797.6	788.3	706.9	663.3	641.9	634.8
65°	9384.0	7181.7	1318.4	709.0	698.8	758.8	739.5	736.5	701.9	677.5	669.3
67.5°	9175.4	6691.4	956.2	650.1	664.3	723.2	797.6	809.7	745.6	697.8	689.7
70°	8261.0	5804.4	712.1	594.1	620.5	724.3	909.4	847.4	731.4	675.5	666.2
72.5°	6284.5	4328.4	552.4	535.0	563.5	729.4	959.3	830.0	690.7	746.6	740.6
75°	3593.9	2376.3	443.5	462.9	492.3	681.5	933.8	785.3	659.2	685.6	685.6
77.5°	1370.2	913.5	366.2	391.7	395.8	595.1	893.1	782.3	627.6	612.3	558.4
80°	475.1	357.0	303.1	311.3	306.2	529.0	856.5	680.5	513.7	459.8	444.5
82.5°	194.3	178.0	240.1	229.9	217.7	410.9	691.7	556.5	420.1	371.3	367.3
85°	84.5	113.0	158.7	139.4	126.2	284.8	554.4	471.0	355.1	306.2	305.1
87.5°	17.3	42.7	67.1	63.0	65.1	190.2	393.7	334.7	251.2	188.2	147.5
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)