

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: P884247

Luminaire Tested: **NAV-SB5A-722-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884247
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-722-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2200K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17973 lumens
Efficiency: N/A
Efficacy: 126.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

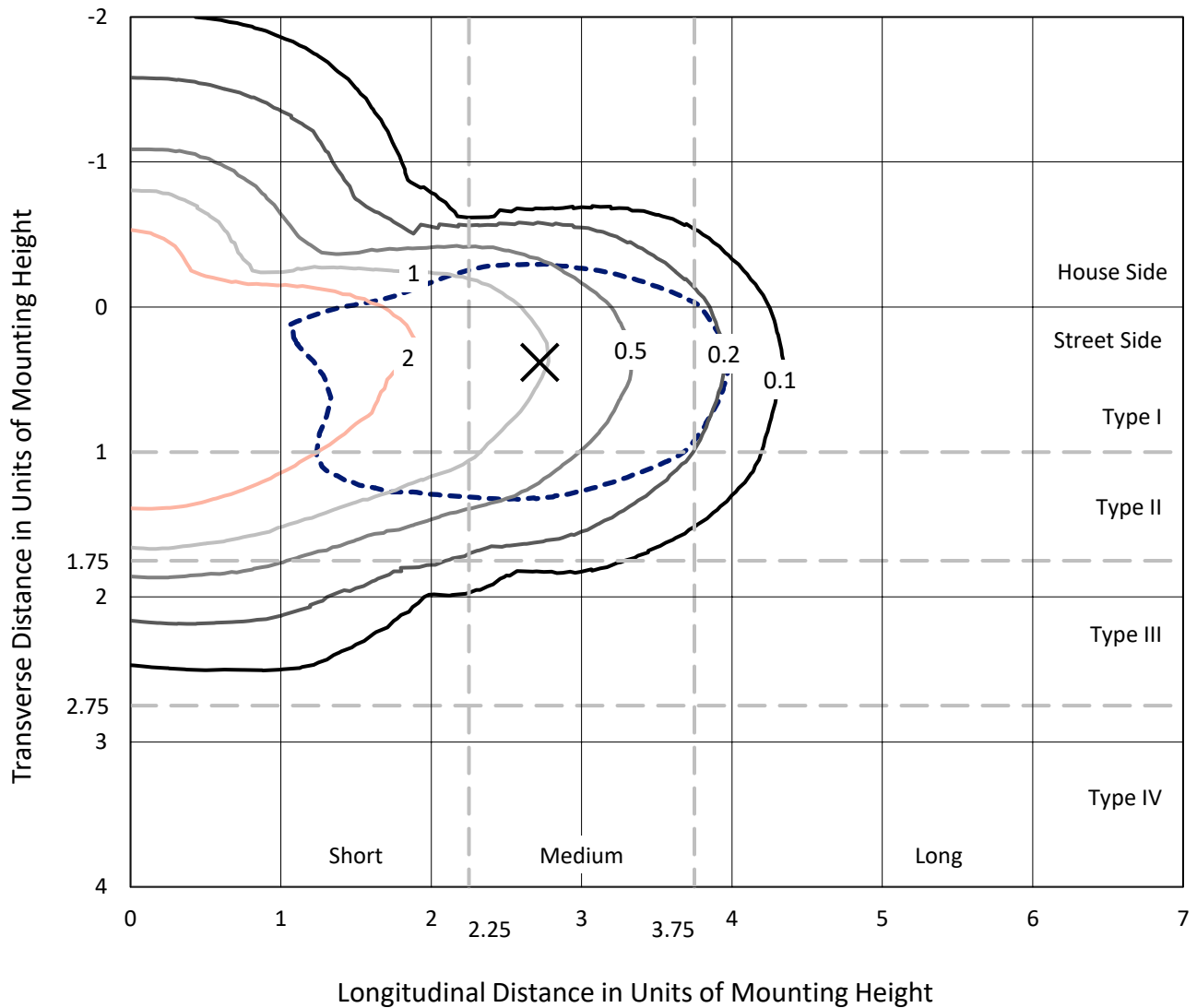
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

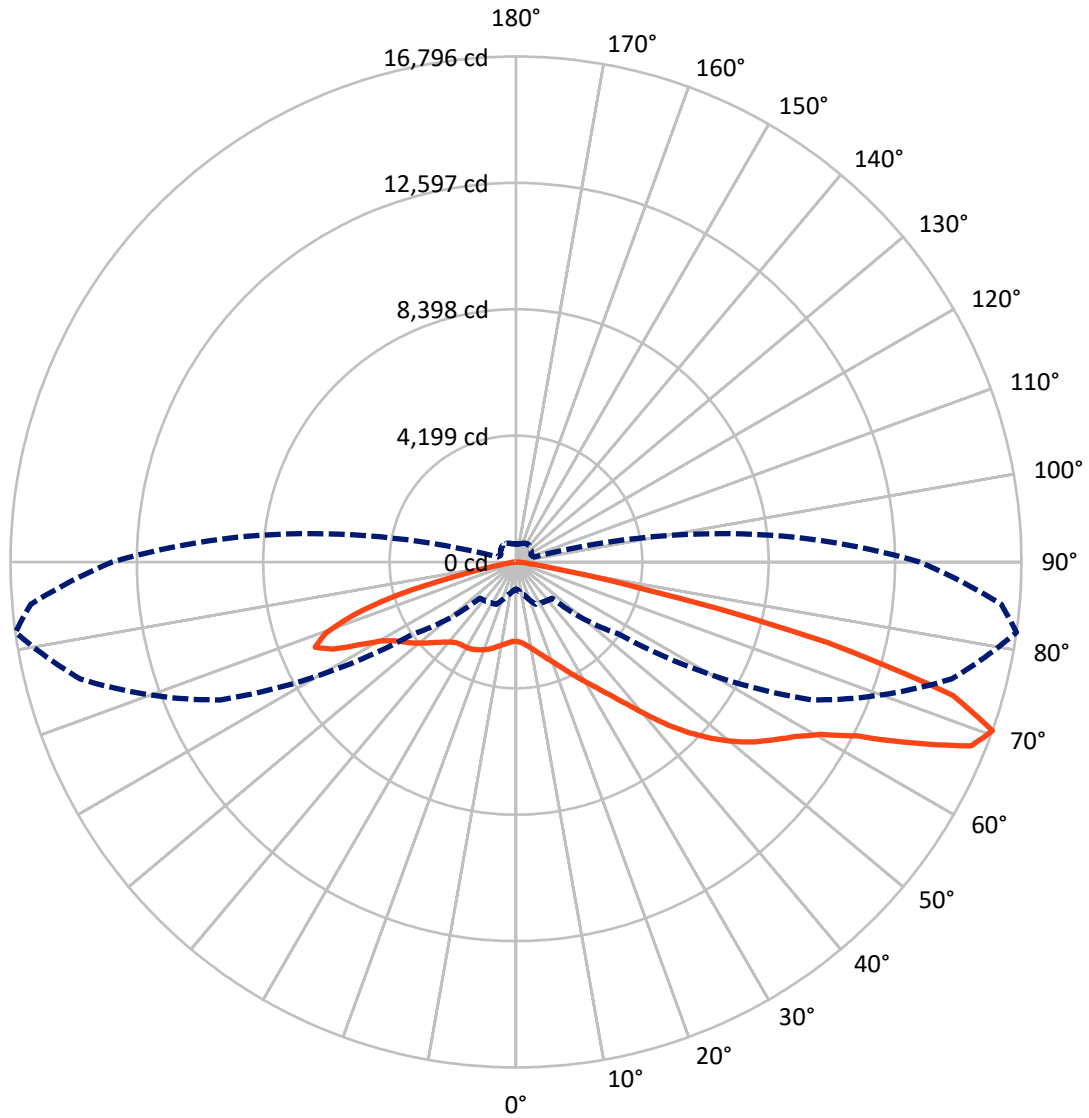
✕ Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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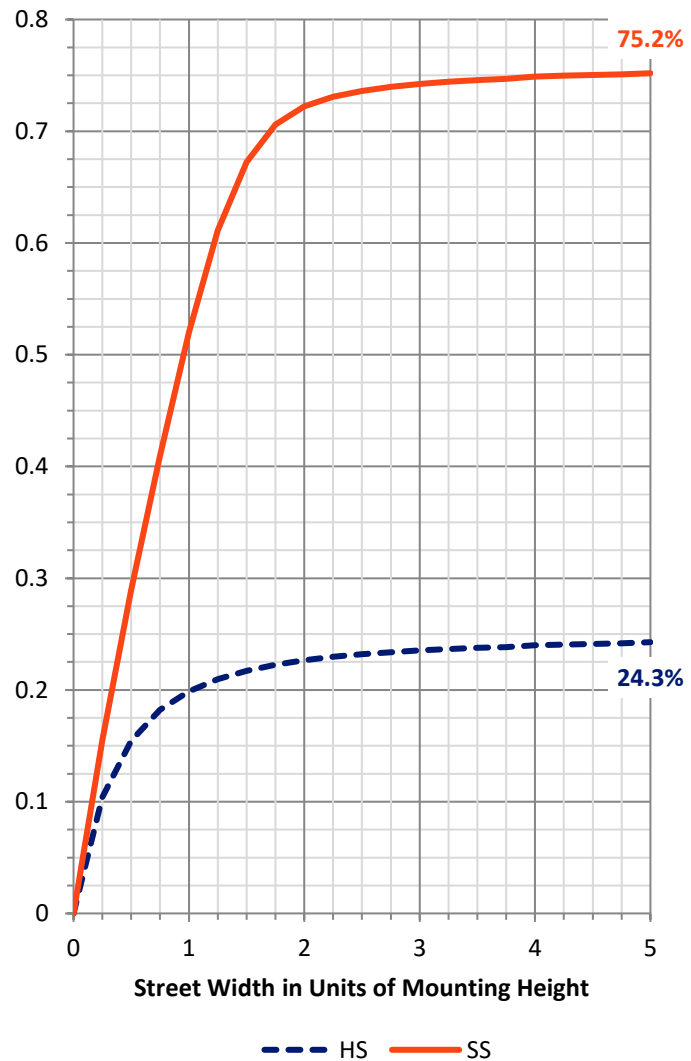
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4430.8	0.0	4430.8
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	13542.2	0.0	13542.2
	% Fixture	75.3	0.0	75.3
Total	Lumens	17973.0	0.0	17973.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	248.8	1.4
10°-20°	714.8	4.0
20°-30°	1195.8	6.7
30°-40°	1868.2	10.4
40°-50°	2975.2	16.6
50°-60°	4140.4	23.0
60°-70°	4331.1	24.1
70°-80°	2263.7	12.6
80°-90°	235.1	1.3
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°	17973.0	100.0
0°-180°	17973.0	100.0



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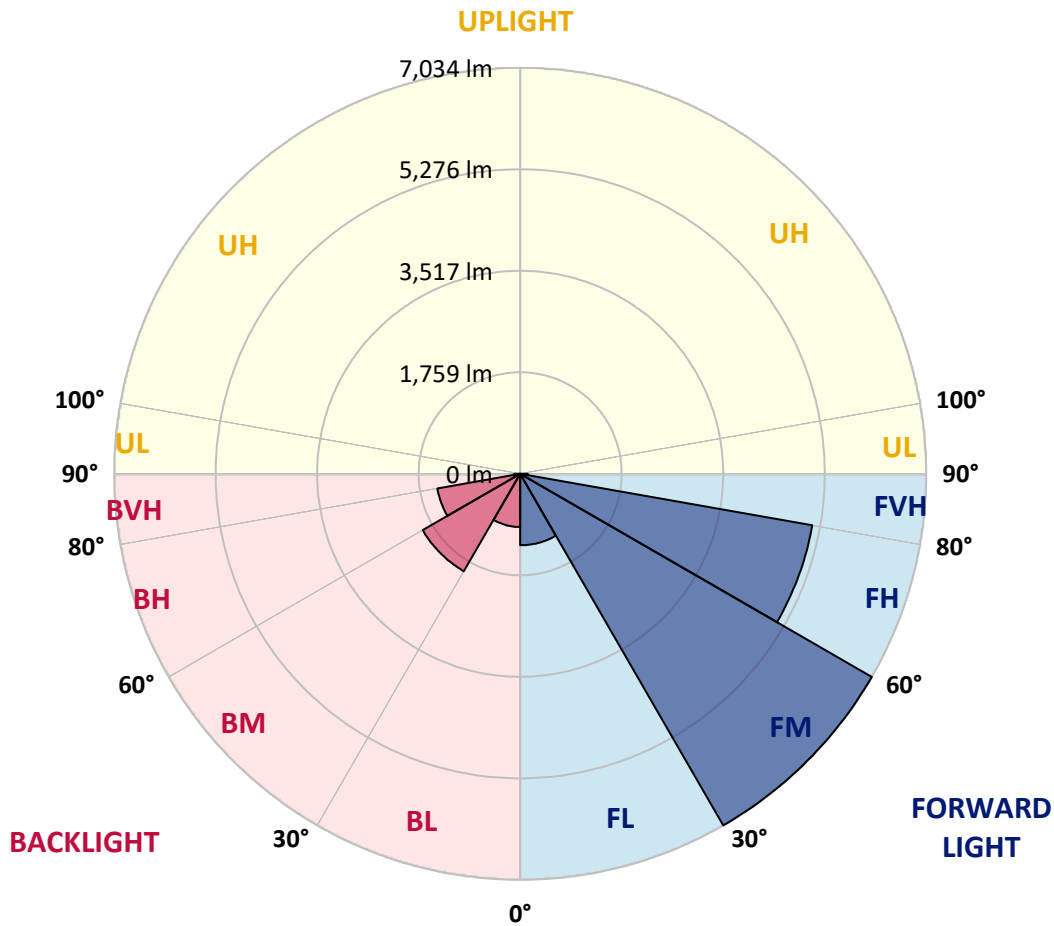
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1237.6	6.9			
FM (30°-60°)	7034.5	39.1			
FH (60°-80°)	5138.5	28.6			G3/7500
FVH (80°-90°)	131.6	0.7			G2/225
BL (0°-30°)	921.8	5.1	B2/1000		
BM (30°-60°)	1949.4	10.8	B2/2500		
BH (60°-80°)	1456.2	8.1	B3/2500		G3/2500
BVH (80°-90°)	103.5	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2635.1	2635.1	2635.1	2635.1	2635.1	2635.1	2635.1	2635.1	2635.1	2635.1	2635.1
2.5°	2698.0	2713.3	2708.5	2703.7	2703.7	2697.1	2696.1	2686.6	2678.9	2666.5	2663.7
5°	2732.3	2748.6	2746.6	2750.5	2762.9	2765.7	2768.6	2762.9	2747.6	2732.3	2725.7
7.5°	2701.8	2719.9	2725.7	2748.6	2786.7	2821.0	2846.8	2857.3	2843.0	2821.0	2810.5
10°	2598.8	2618.9	2638.9	2693.2	2761.0	2842.0	2910.7	2951.7	2948.8	2927.9	2909.7
12.5°	2390.0	2410.9	2453.9	2559.7	2683.7	2826.8	2954.6	3040.4	3070.0	3054.7	3023.2
15°	2223.1	2241.2	2273.6	2382.3	2543.5	2761.0	2970.8	3137.7	3213.0	3204.4	3166.3
17.5°	2218.3	2225.9	2246.0	2297.5	2421.4	2658.0	2953.6	3233.0	3377.0	3376.1	3328.4
20°	2302.2	2305.1	2316.5	2327.0	2397.6	2579.8	2909.7	3312.2	3561.1	3561.1	3509.6
22.5°	2418.6	2416.7	2428.1	2418.6	2452.9	2573.1	2882.1	3381.8	3766.2	3781.4	3716.6
25°	2593.1	2583.6	2580.7	2558.8	2565.4	2635.1	2912.6	3461.0	4009.3	4040.8	3959.8
27.5°	2825.8	2810.5	2800.1	2749.5	2732.3	2762.9	3006.1	3556.3	4280.2	4334.6	4231.6
30°	3129.1	3101.4	3086.2	2998.4	2936.4	2941.2	3147.2	3683.2	4563.4	4651.2	4520.5
32.5°	3543.0	3500.1	3459.1	3315.1	3201.6	3164.4	3329.4	3858.7	4870.5	5010.7	4842.9
35°	4006.5	3972.2	3928.3	3706.1	3531.5	3445.7	3575.4	4103.8	5230.1	5452.3	5233.9
37.5°	4452.8	4423.2	4444.2	4144.8	3919.7	3794.8	3897.8	4432.8	5673.5	6001.6	5724.1
40°	4914.4	4891.5	4894.4	4608.3	4346.0	4205.8	4288.8	4845.7	6181.9	6654.9	6313.5
42.5°	5416.0	5398.9	5341.7	5088.0	4793.3	4662.6	4738.9	5322.6	6727.4	7398.8	6960.1
45°	5977.8	5967.3	5913.9	5623.0	5285.4	5138.5	5241.5	5849.0	7275.8	8098.8	7609.6
47.5°	6463.2	6471.8	6465.1	6220.0	5870.0	5654.5	5777.5	6398.4	7786.0	8756.9	8232.3
50°	6696.9	6741.7	6807.5	6731.2	6513.8	6294.4	6318.2	6928.6	8272.4	9373.9	8829.3
52.5°	6574.8	6659.7	6839.0	6961.0	7045.0	6999.2	6935.3	7455.1	8730.1	9930.9	9393.9
55°	6119.9	6239.1	6536.6	6831.3	7259.5	7592.4	7676.3	8038.7	9176.5	10421.1	9928.0
57.5°	5291.1	5484.7	5751.8	6347.8	7068.8	7879.4	8540.4	8848.4	9649.5	10944.6	10486.9
60°	3870.1	4129.5	4461.4	5348.3	6401.2	7725.9	9275.7	10092.0	10321.9	11622.7	11214.5
62.5°	2476.8	2637.0	2942.2	3777.6	4987.8	6939.1	9500.7	11646.6	11461.5	12734.7	12305.6
65°	1695.7	1798.7	2078.1	2547.3	3224.5	5165.2	8898.0	12812.0	13271.7	14497.2	14171.0
67.5°	1232.2	1310.4	1548.8	1959.8	2101.0	3056.6	6904.8	12758.6	15031.2	16313.0	15805.6
70°	898.4	953.7	1154.0	1548.8	1616.5	1700.4	4182.9	10845.4	14993.1	16795.6	16188.1
72.5°	665.7	703.8	838.3	1201.7	1308.5	1148.3	2070.5	7882.3	12883.5	15191.4	14704.1
75°	481.6	510.2	609.4	919.4	1047.2	874.5	1032.9	4606.4	8986.7	10686.2	10772.0
77.5°	368.1	390.1	454.9	673.3	838.3	656.1	640.9	2119.1	4261.1	4282.1	4522.4
80°	295.6	310.0	345.2	474.0	642.8	491.2	417.7	855.5	1346.6	1139.7	1195.9
82.5°	217.4	241.3	291.8	332.8	459.7	338.6	254.6	432.0	512.1	440.6	444.4
85°	124.0	140.2	176.4	238.4	293.7	207.0	145.9	191.7	238.4	195.5	174.5
87.5°	43.9	57.2	62.0	93.5	127.8	85.8	56.3	55.3	78.2	58.2	48.6
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°	2635.1	2635.1	2635.1	2635.1	2635.1	2635.1	2635.1	2635.1	2635.1	2635.1	2635.1
2.5°	2654.1	2649.4	2630.3	2604.5	2577.8	2552.1	2543.5	2525.4	2513.0	2506.3	2513.9
5°	2707.5	2692.3	2647.5	2590.2	2530.2	2465.3	2419.5	2377.6	2347.0	2318.4	2329.9
7.5°	2783.8	2757.1	2679.9	2579.8	2472.9	2365.2	2285.1	2224.0	2183.0	2156.3	2162.0
10°	2872.5	2831.5	2713.3	2563.5	2398.5	2244.1	2149.6	2097.2	2071.4	2057.1	2060.9
12.5°	2974.6	2916.4	2747.6	2526.3	2285.1	2108.6	2043.8	2028.5	2029.5	2030.4	2032.3
15°	3100.5	3019.4	2775.3	2445.3	2137.2	2004.7	1993.2	2018.0	2043.8	2056.2	2055.2
17.5°	3242.6	3128.1	2780.0	2311.8	1992.3	1937.9	1974.2	2027.6	2066.7	2083.8	2087.6
20°	3395.2	3238.8	2745.7	2122.9	1873.1	1883.6	1948.4	2017.1	2060.0	2081.9	2087.6
22.5°	3569.7	3357.0	2663.7	1924.6	1775.8	1824.4	1900.7	1967.5	2012.3	2034.2	2040.0
25°	3769.0	3489.6	2534.9	1757.7	1691.9	1757.7	1834.0	1889.3	1925.5	1945.5	1951.3
27.5°	3990.3	3627.9	2363.3	1625.1	1618.4	1689.0	1751.9	1794.9	1813.9	1829.2	1834.9
30°	4212.5	3753.8	2155.4	1525.0	1554.5	1621.3	1666.1	1685.2	1690.9	1693.8	1700.4
32.5°	4452.8	3862.5	1937.0	1442.0	1493.5	1555.5	1582.2	1590.8	1564.1	1545.9	1551.7
35°	4743.7	3978.8	1723.3	1376.2	1433.4	1486.8	1495.4	1487.8	1456.3	1419.1	1421.0
37.5°	5103.2	4123.8	1552.6	1329.5	1377.1	1412.4	1401.9	1400.0	1402.9	1359.0	1361.9
40°	5543.8	4312.6	1427.7	1293.2	1331.4	1339.0	1309.4	1325.6	1339.9	1273.2	1275.1
42.5°	6033.1	4540.6	1348.5	1268.4	1293.2	1275.1	1229.3	1247.4	1245.5	1157.8	1156.8
45°	6531.9	4788.5	1320.9	1250.3	1257.9	1221.7	1171.1	1175.9	1135.9	1056.7	1059.6
47.5°	7027.8	5054.6	1338.0	1235.0	1214.1	1173.0	1133.9	1113.0	1053.8	994.7	994.7
50°	7514.2	5334.0	1401.0	1204.5	1154.0	1130.1	1101.5	1064.3	1001.4	950.8	947.0
52.5°	7965.3	5615.4	1471.6	1154.0	1078.6	1092.9	1074.8	1031.9	969.9	918.4	919.4
55°	8392.5	5896.7	1499.2	1084.4	1008.1	1060.5	1050.0	970.9	896.5	854.5	850.7
57.5°	8857.9	6235.3	1468.7	995.7	950.8	1023.3	983.3	895.5	852.6	821.1	818.3
60°	9502.6	6766.5	1402.9	886.0	896.5	968.0	899.3	863.1	816.4	781.1	779.2
62.5°	10573.6	7757.4	1297.0	777.3	832.6	886.0	859.3	823.0	775.4	741.0	741.0
65°	12156.8	9134.5	1097.7	692.4	761.1	805.9	816.4	780.1	730.5	694.3	696.2
67.5°	13492.0	9998.6	830.7	621.8	687.6	741.0	770.6	735.3	682.8	647.6	648.5
70°	13418.5	9371.0	634.2	552.2	622.8	677.1	715.3	687.6	631.3	598.0	600.8
72.5°	11918.4	7839.4	513.1	481.6	557.0	610.4	656.1	635.2	577.9	545.5	545.5
75°	8755.9	5564.8	410.1	410.1	474.9	540.7	591.3	577.9	525.5	502.6	495.9
77.5°	3690.8	2334.7	321.4	340.5	394.8	464.5	527.4	532.2	486.4	515.0	467.3
80°	981.4	643.7	245.1	268.0	310.0	383.4	458.7	456.8	407.2	380.5	353.8
82.5°	373.8	253.7	174.5	188.8	224.1	293.7	363.4	374.8	325.2	281.3	281.3
85°	144.0	108.7	107.8	113.5	130.7	194.6	274.7	284.2	245.1	207.9	214.6
87.5°	37.2	32.4	40.1	38.1	60.1	104.0	157.4	163.1	149.7	86.8	124.0
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)