

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: P969452

Luminaire Tested: **NAV-SB5D-830-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969452
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-14)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-830-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

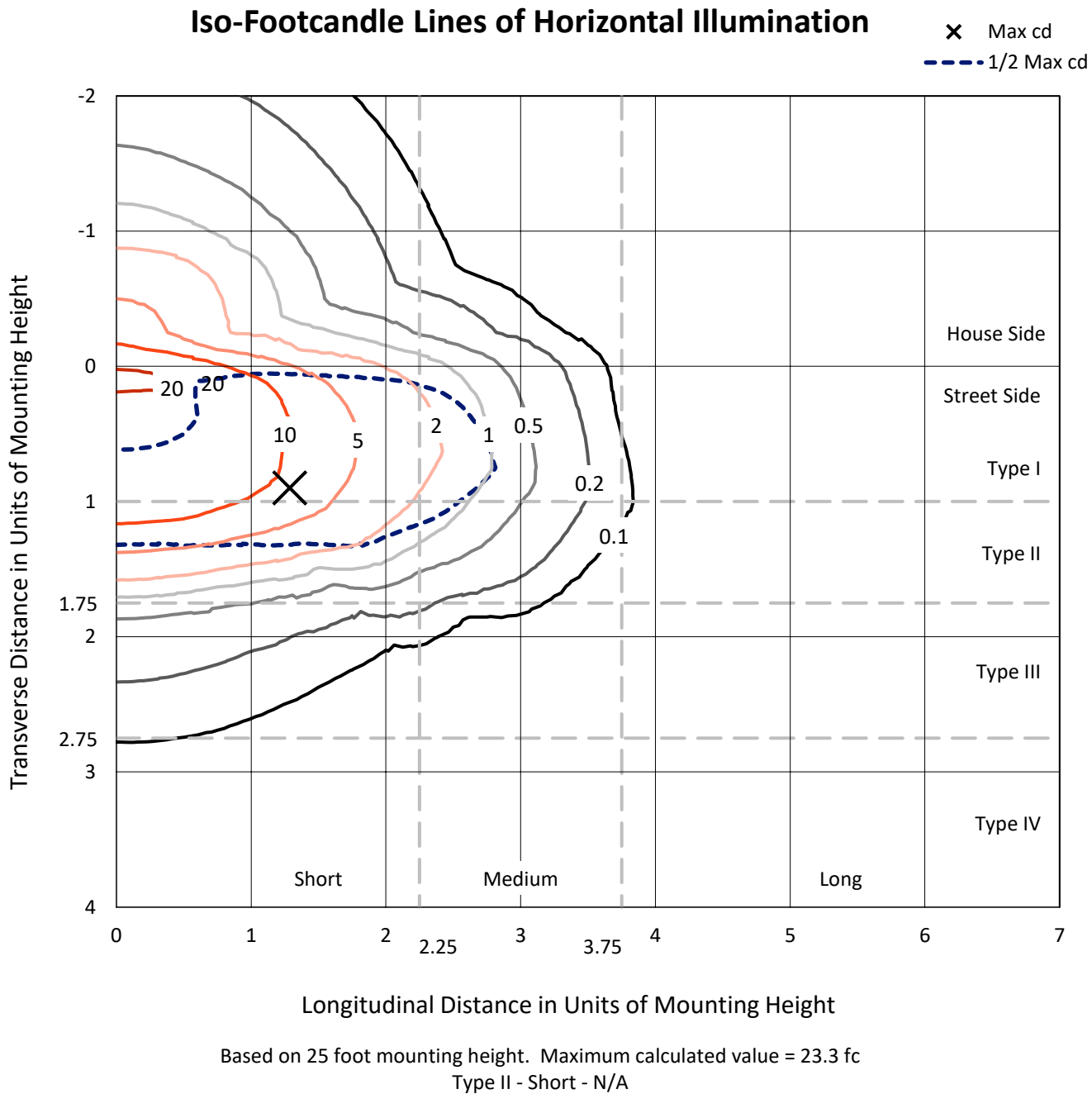
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 48149.4 lumens
Efficiency: N/A
Efficacy: 132.0 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

Input Watts (W): 364.9
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



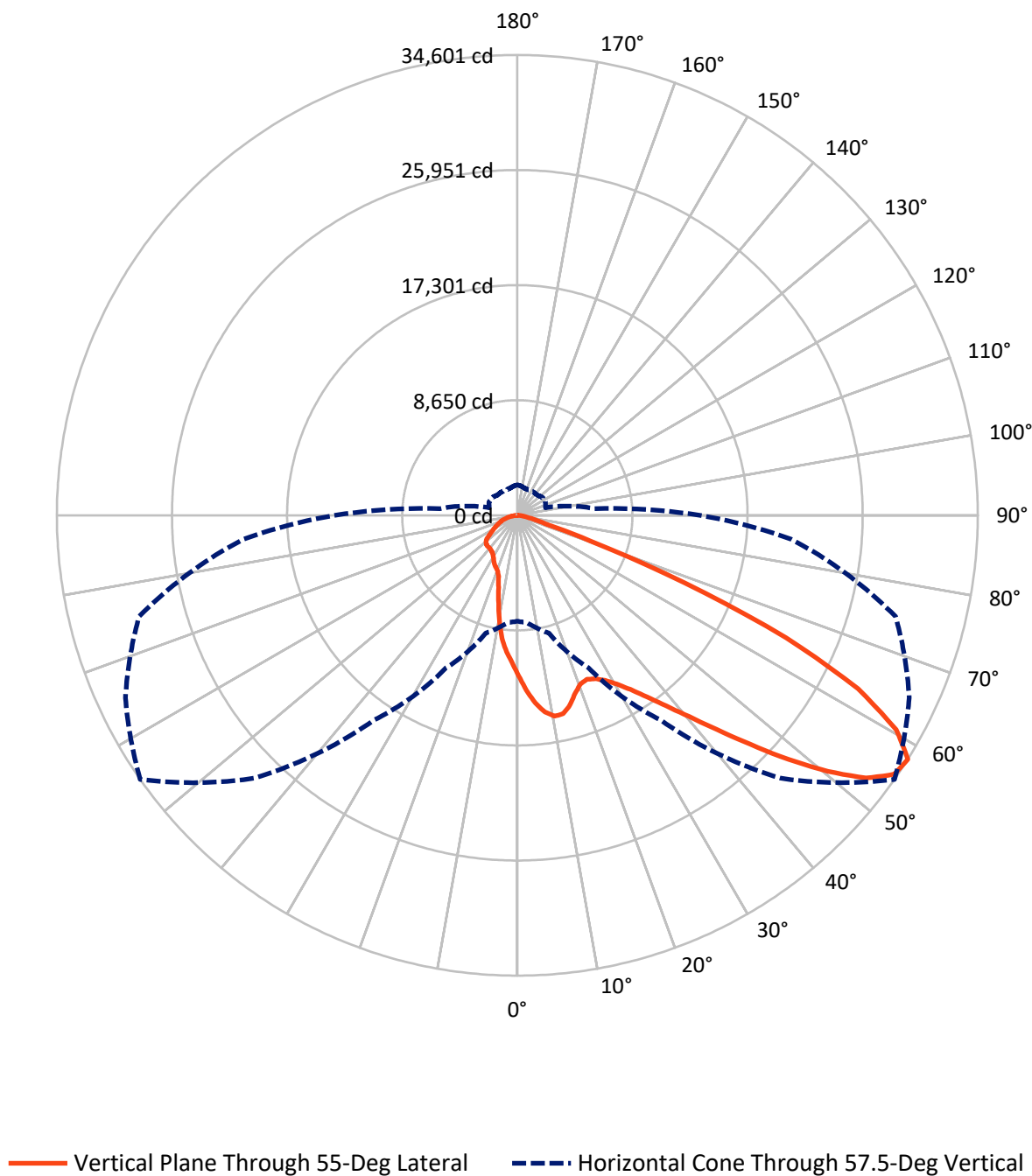
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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8712.4	0.0	8712.4
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	39437.0	0.0	39437.0
	% Fixture	81.9	0.0	81.9
Total	Lumens	48149.4	0.0	48149.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1119.5	2.3
10°-20°	2825.7	5.9
20°-30°	4509.1	9.4
30°-40°	7139.0	14.8
40°-50°	10927.0	22.7
50°-60°	11703.8	24.3
60°-70°	7362.9	15.3
70°-80°	2177.4	4.5
80°-90°	385.0	0.8
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°	48149.4	100.0
0°-180°	48149.4	100.0

Coefficient of Utilization



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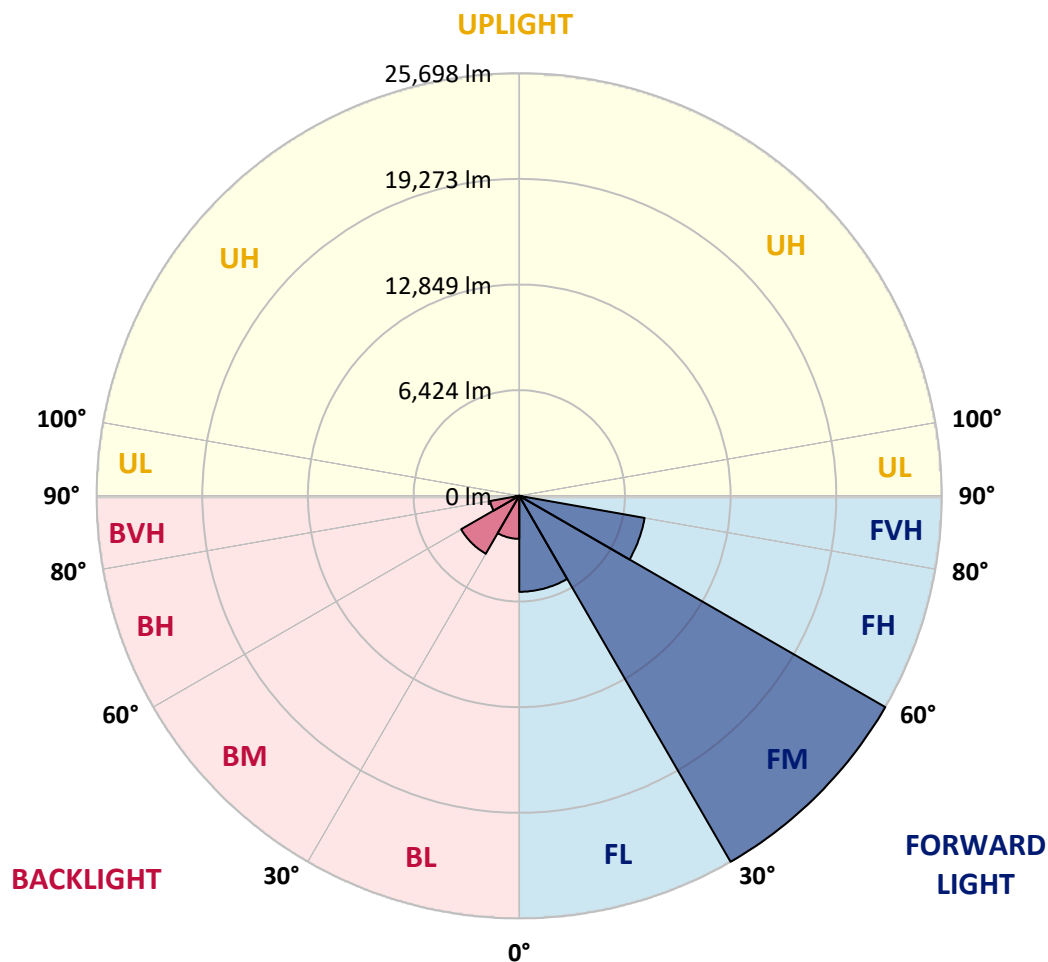
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	5835.7	12.1			
FM	(30°-60°)	25697.7	53.4			
FH	(60°-80°)	7741.0	16.1			G4/12000
FVH	(80°-90°)	162.7	0.3			G2/225
BL	(0°-30°)	2618.7	5.4	B4/5000		
BM	(30°-60°)	4072.1	8.5	B3/5000		
BH	(60°-80°)	1799.3	3.7	B3/2500		G3/2500
BVH	(80°-90°)	222.3	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	12064.7	12064.7	12064.7	12064.7	12064.7	12064.7	12064.7	12064.7	12064.7	12064.7	12064.7
2.5°	13841.9	13832.0	13886.7	13700.0	13573.0	13401.4	13174.8	12886.1	12574.9	12246.4	12104.5
5°	15088.9	15001.8	15059.1	14919.7	14780.3	14521.4	14185.4	13714.9	13140.0	12485.3	12136.8
7.5°	14892.3	14832.6	14979.5	15103.9	15208.4	15176.0	14929.6	14436.8	13695.0	12744.2	12238.9
10°	13306.8	13239.5	13446.2	13876.8	14509.0	15059.1	15357.8	15051.6	14262.6	13028.0	12338.4
12.5°	11907.8	11875.5	12012.4	12360.9	13062.8	14118.1	15302.9	15589.2	14852.5	13364.0	12472.9
15°	11310.5	11270.7	11357.7	11534.5	11982.6	12965.7	14805.2	15957.6	15432.4	13752.3	12686.9
17.5°	11178.5	11133.8	11171.1	11263.2	11552.0	12301.1	14053.5	16139.3	16037.3	14185.4	12866.2
20°	11422.5	11385.2	11390.1	11385.2	11586.8	12181.6	13530.7	16069.6	16564.9	14583.6	13040.4
22.5°	12012.4	11950.2	11952.6	11820.7	11930.3	12390.7	13393.9	15883.0	17035.4	14932.1	13172.3
25°	12973.2	12861.2	12883.6	12547.5	12517.7	12858.7	13607.9	15738.6	17503.3	15210.9	13197.2
27.5°	14287.5	14160.5	14093.2	13592.9	13354.0	13523.2	14043.5	15788.4	17946.4	15452.4	13135.0
30°	15930.2	15775.9	15639.0	14929.6	14496.5	14434.3	14720.5	16116.9	18469.2	15706.2	13028.0
32.5°	17944.0	17764.7	17515.8	16575.0	15965.1	15639.0	15596.7	16701.9	19081.4	16029.8	12973.2
35°	20340.9	20106.9	19753.5	18536.3	17764.7	17097.6	16751.7	17545.6	19920.3	16517.7	13035.4
37.5°	22810.1	22546.3	22222.7	20774.0	19825.7	18842.5	18160.4	18690.7	21037.9	17179.8	13199.7
40°	25087.7	24791.5	24490.2	23200.9	22182.8	20998.0	19885.4	20139.3	22404.3	17971.3	13478.4
42.5°	26431.8	26212.7	26098.2	25401.2	24614.8	23412.4	22031.0	21856.8	23940.2	18882.3	13797.1
45°	26372.0	26282.4	26635.9	26924.6	26737.9	26070.9	24545.1	23756.0	25480.9	19671.4	14090.8
47.5°	24963.2	25022.9	25812.0	27434.8	28149.3	28497.7	27407.5	25620.3	26820.0	20261.3	14222.7
50°	21130.0	21179.8	23006.7	26506.4	28512.6	30476.5	30247.5	27439.9	27858.0	20622.2	14192.9
52.5°	18095.8	18128.1	18912.2	23753.5	27312.9	31472.2	32806.4	29154.8	28617.2	20721.8	14026.1
55°	13630.3	13742.3	14621.0	18635.9	24191.5	30683.2	34364.6	30922.1	29097.6	20731.8	13851.8
57.5°	7962.6	8084.6	9169.9	12649.6	18802.7	27932.7	34601.0	32490.2	29423.6	20652.1	13747.3
60°	3900.4	3952.7	4425.6	6648.4	11594.2	22633.4	32699.3	33249.4	29605.4	20609.8	13742.3
62.5°	2628.5	2621.0	2640.9	3280.6	5712.5	14541.4	28736.7	31920.2	29508.3	20447.9	13692.6
65°	2260.1	2232.8	2158.0	2302.5	2959.6	6650.9	22202.7	27952.6	28769.0	20042.2	13351.5
67.5°	1954.0	1956.4	1958.9	1914.1	2113.2	3069.1	13568.1	22018.5	26115.7	18120.7	12037.3
70°	1618.0	1640.3	1650.2	1650.2	1722.4	2013.7	5792.2	15091.4	20599.8	14207.8	9695.1
72.5°	1473.5	1426.3	1431.2	1406.3	1406.3	1533.3	2332.3	8555.1	12978.1	7992.5	5916.6
75°	1202.2	1232.2	1237.1	1219.6	1162.5	1169.8	1384.0	3589.2	5553.1	3315.5	2924.7
77.5°	1037.9	1037.9	1048.0	1035.5	990.7	876.2	923.4	1391.4	1889.2	1359.0	1461.1
80°	833.8	831.4	873.7	898.5	828.9	647.2	589.9	769.2	838.9	597.4	759.2
82.5°	405.7	430.6	599.8	684.5	629.8	467.9	360.9	478.0	448.0	263.8	341.0
85°	236.5	224.1	268.9	380.8	360.9	258.9	174.2	248.9	234.0	134.4	136.9
87.5°	74.7	69.7	54.7	129.5	104.6	72.2	47.3	72.2	64.7	29.8	29.8
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	12064.7	12064.7	12064.7	12064.7	12064.7	12064.7	12064.7	12064.7	12064.7	12064.7
2.5°	11927.7	11634.1	11342.9	11076.5	10914.7	10810.2	10705.6	10588.7	10543.9	10476.6
5°	11808.3	11240.8	10735.4	10299.9	9904.2	9593.0	9279.3	9025.4	8910.9	8988.1
7.5°	11738.6	10917.2	10138.1	9339.1	8569.9	7955.1	7420.0	7044.1	6874.9	6917.2
10°	11676.4	10551.2	9364.0	8102.0	6996.9	6235.2	5687.6	5401.3	5294.3	5316.7
12.5°	11619.1	10140.6	8430.6	6770.3	5595.5	5092.7	4935.9	4938.3	4958.3	4973.2
15°	11609.2	9645.2	7387.7	5605.4	4838.8	4806.4	4975.8	5082.8	5140.0	5157.4
17.5°	11594.2	9052.9	6324.8	4811.5	4654.6	4873.7	5030.5	5100.2	5145.0	5147.4
20°	11534.5	8301.2	5344.1	4433.1	4614.8	4804.0	4901.0	4955.8	4993.2	5005.6
22.5°	11350.3	7464.8	4579.9	4263.8	4455.5	4607.4	4721.9	4784.1	4806.4	4821.4
25°	11019.3	6528.9	4052.2	4102.0	4234.0	4425.6	4517.7	4530.2	4522.7	4545.1
27.5°	10586.1	5525.8	3723.7	3883.0	4052.2	4216.5	4266.4	4258.9	4243.9	4268.8
30°	10063.4	4624.8	3514.6	3636.6	3868.0	4017.4	4062.2	4044.8	4014.9	4042.3
32.5°	9510.9	3887.9	3342.8	3464.8	3716.2	3863.1	3907.9	3890.5	3868.0	3890.5
35°	8995.6	3372.8	3183.5	3350.3	3596.7	3741.1	3798.3	3800.9	3800.9	3828.3
37.5°	8522.7	3071.5	3051.6	3278.2	3514.6	3644.1	3726.2	3731.2	3624.1	3631.6
40°	8084.6	2944.6	2991.9	3230.9	3435.0	3559.4	3564.4	3285.6	3088.9	3084.0
42.5°	7726.1	2919.7	3009.3	3225.9	3377.7	3382.7	3031.7	2815.2	2760.4	2762.9
45°	7390.1	2912.2	3049.2	3225.9	3293.1	2922.2	2685.7	2628.5	2633.4	2653.4
47.5°	7014.3	2882.4	3056.7	3181.1	3049.2	2598.6	2528.9	2504.1	2494.0	2499.1
50°	6603.6	2775.4	2962.0	3091.5	2631.0	2459.3	2372.2	2364.7	2377.1	2384.6
52.5°	6170.5	2601.1	2800.2	2929.7	2439.3	2337.3	2240.2	2257.7	2312.4	2329.8
55°	5886.7	2397.0	2586.2	2606.1	2304.9	2222.8	2140.6	2180.5	2282.5	2314.9
57.5°	5812.1	2180.5	2342.2	2319.9	2133.1	2123.2	2073.4	2108.2	2237.7	2285.0
60°	5789.6	1986.3	2103.3	2085.9	1966.4	2013.7	2001.2	2018.6	2063.4	2078.4
62.5°	5615.4	1832.0	1889.2	1864.4	1817.0	1899.2	1929.0	1891.7	1926.6	1944.0
65°	5172.4	1707.5	1680.2	1662.8	1682.6	1757.3	1817.0	1742.4	1774.7	1824.5
67.5°	4440.5	1538.2	1463.6	1483.5	1545.7	1585.6	1662.8	1578.1	1605.5	1690.1
70°	3591.8	1324.2	1257.0	1314.3	1374.0	1456.1	1468.6	1411.3	1476.0	1570.6
72.5°	2541.4	1107.6	1060.4	1177.3	1197.3	1304.3	1276.9	1249.6	1339.2	1371.4
75°	1762.3	893.6	866.2	955.8	1028.0	1120.1	1100.1	1132.5	1321.7	1336.6
77.5°	1115.1	694.4	677.0	734.3	833.8	935.9	968.2	1336.6	2257.7	2347.2
80°	647.2	517.7	497.8	542.6	629.8	724.4	933.4	1640.3	1488.5	1471.1
82.5°	360.9	356.0	331.1	343.5	420.7	522.8	1319.2	1155.0	938.4	968.2
85°	169.2	209.1	179.2	171.8	236.5	612.3	881.2	659.6	438.1	428.1
87.5°	44.8	39.9	39.9	44.8	99.5	527.7	351.0	281.3	166.8	161.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)