

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: P964203

Luminaire Tested: **NAV-SB3B-830-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P964203
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3B-830-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15974.6 lumens
Efficiency: N/A
Efficacy: 146.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G3

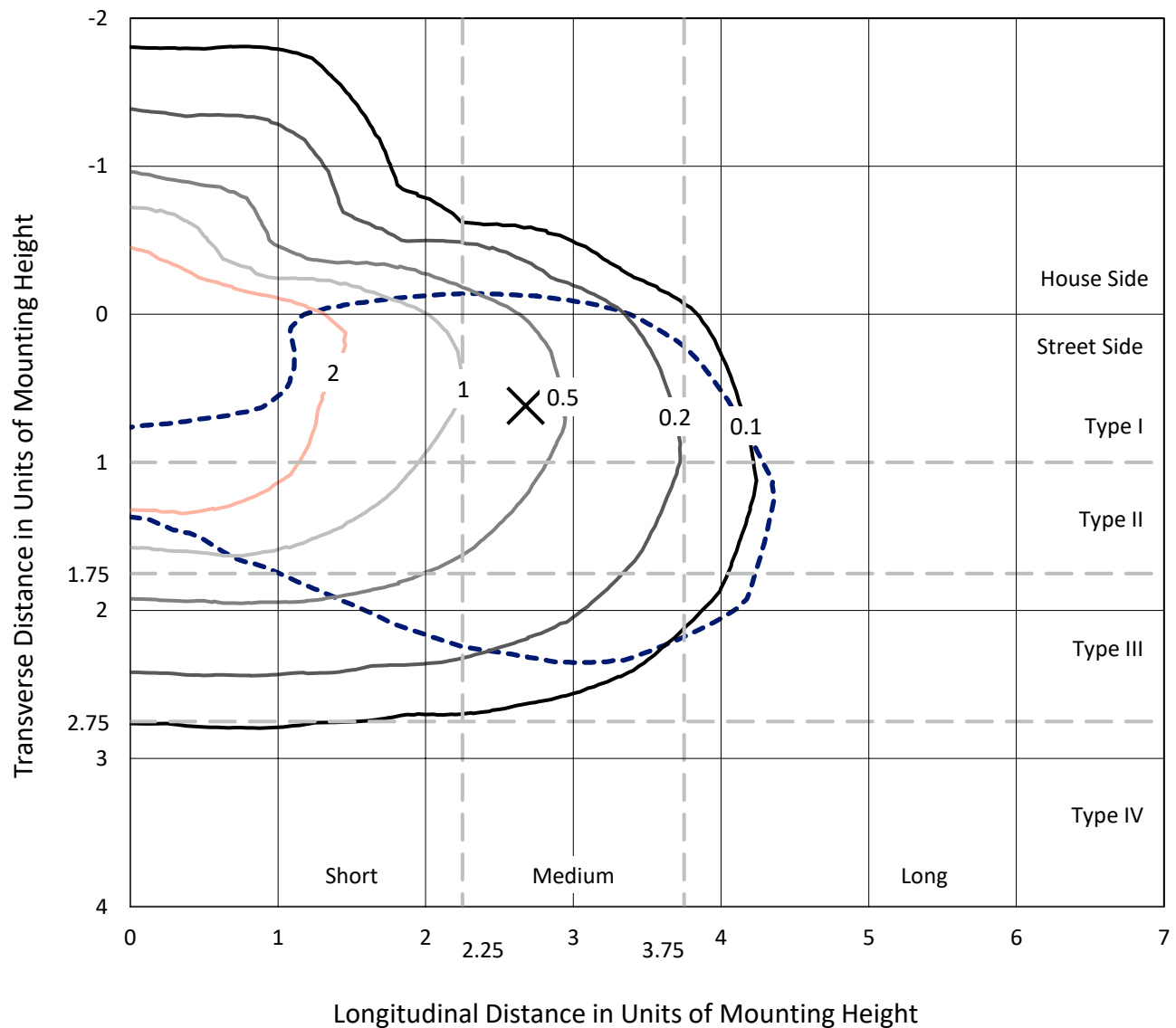
Input Watts (W): 109.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P964203
 CATALOG NUMBER: NAV-SB3B-830-U-T3R

Iso-Footcandle Lines of Horizontal Illumination

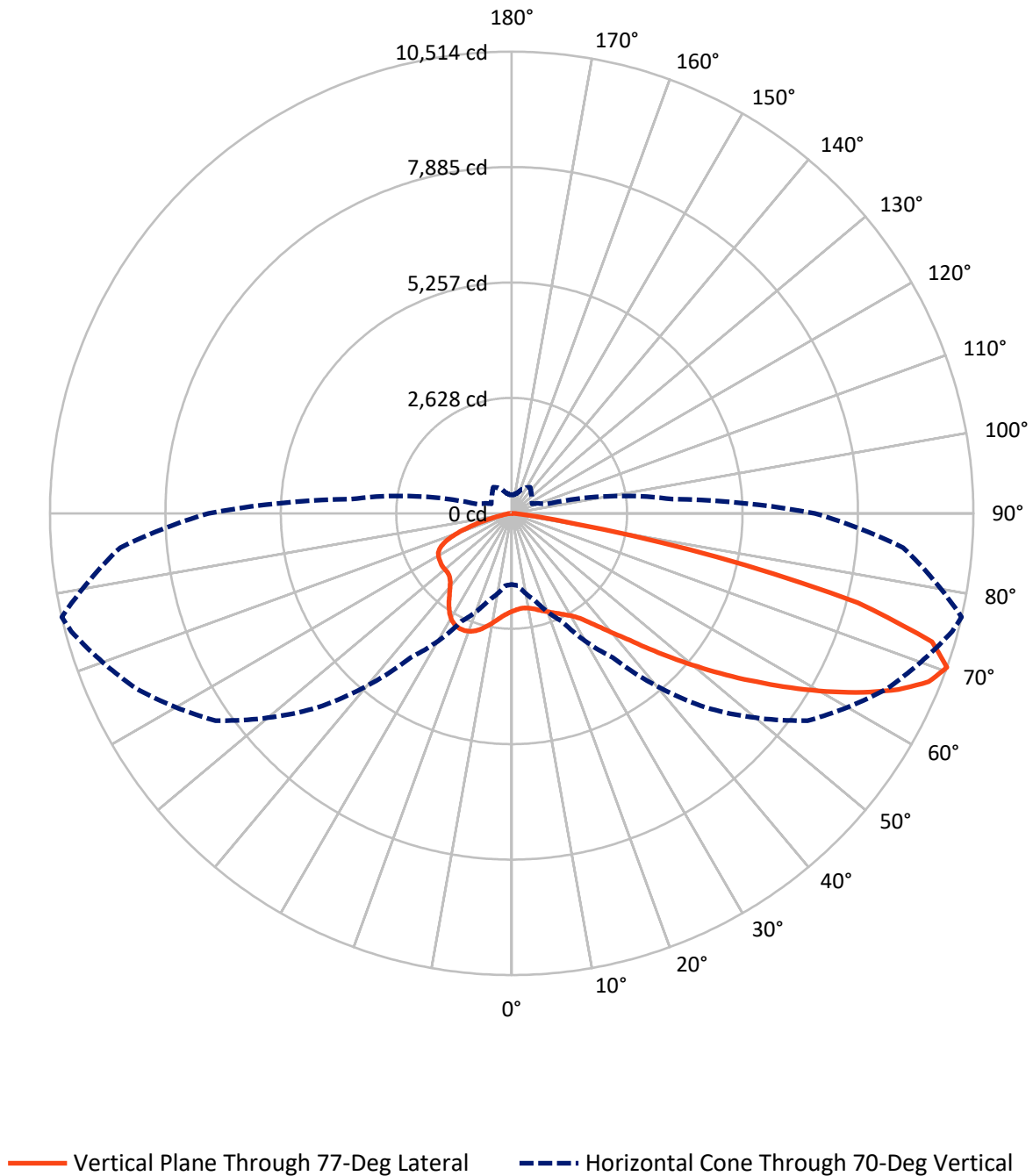
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 fc
 Type III - Medium - N/A

REPORT NUMBER: P964203
CATALOG NUMBER: NAV-SB3B-830-U-T3R

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3498.2	0.0	3498.2
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	12476.4	0.0	12476.4
	% Fixture	78.1	0.0	78.1
Total	Lumens	15974.6	0.0	15974.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	212.5	1.3
10°-20°	613.4	3.8
20°-30°	1049.1	6.6
30°-40°	1687.0	10.6
40°-50°	2633.9	16.5
50°-60°	3518.2	22.0
60°-70°	3749.9	23.5
70°-80°	2308.4	14.5
80°-90°	202.3	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°	15974.6	100.0
0°-180°	15974.6	100.0

Coefficient of Utilization



REPORT NUMBER: P964203

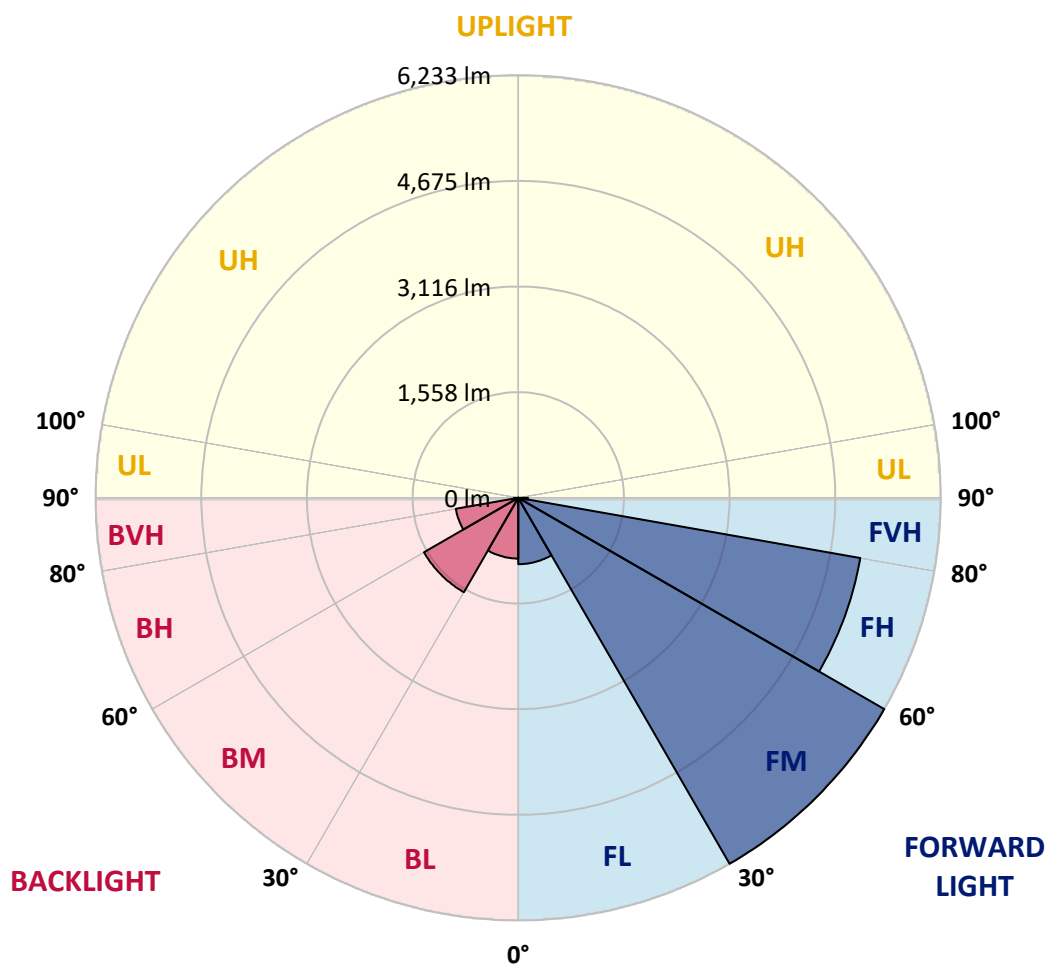
CATALOG NUMBER: NAV-SB3B-830-U-T3R

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	978.7	6.1			
FM	(30°-60°)	6233.0	39.0			
FH	(60°-80°)	5123.3	32.1			G3/7500
FVH	(80°-90°)	141.4	0.9			G2/225
BL	(0°-30°)	896.3	5.6	B2/1000		
BM	(30°-60°)	1606.1	10.1	B2/2500		
BH	(60°-80°)	934.9	5.9	B2/1000		G2/1000
BVH	(80°-90°)	60.8	0.4			G1/100
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



REPORT NUMBER: P964203

CATALOG NUMBER: NAV-SB3B-830-U-T3R

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2228.6	2228.6	2228.6	2228.6	2228.6	2228.6	2228.6	2228.6	2228.6	2228.6	2228.6
2.5°	2054.3	2053.5	2064.1	2067.4	2087.1	2100.9	2127.2	2155.0	2190.9	2195.0	2217.2
5°	1935.7	1935.7	1948.0	1961.0	1986.4	2014.2	2054.3	2102.6	2164.8	2174.6	2229.4
7.5°	1835.1	1841.6	1852.3	1877.6	1907.1	1947.2	2008.5	2077.3	2159.1	2174.6	2263.0
10°	1754.1	1761.5	1774.6	1795.0	1839.2	1894.8	1975.0	2063.3	2173.0	2197.5	2312.1
12.5°	1728.8	1736.0	1743.4	1759.0	1799.9	1865.4	1961.0	2069.9	2206.5	2231.0	2379.1
15°	1787.6	1796.6	1790.9	1786.8	1808.1	1867.9	1967.6	2093.6	2248.2	2283.4	2461.7
17.5°	1923.4	1926.7	1913.6	1875.1	1871.9	1903.8	1998.7	2126.4	2300.6	2339.0	2545.2
20°	2142.7	2137.0	2110.0	2033.9	1990.5	1984.0	2051.8	2175.5	2354.6	2395.5	2635.2
22.5°	2440.5	2434.0	2379.9	2259.7	2163.2	2099.3	2128.8	2239.2	2415.1	2460.9	2722.8
25°	2812.0	2803.0	2723.6	2559.9	2410.2	2252.3	2233.5	2323.5	2489.6	2532.2	2814.3
27.5°	3245.6	3238.2	3152.3	2936.3	2720.4	2461.7	2363.5	2422.5	2567.3	2615.6	2917.5
30°	3711.9	3733.2	3580.9	3348.7	3075.4	2735.0	2538.7	2544.4	2668.0	2711.3	3042.6
32.5°	4260.0	4296.9	4113.6	3819.0	3445.9	3032.1	2759.6	2714.6	2814.3	2850.4	3200.6
35°	4803.3	4845.0	4692.9	4367.2	3937.7	3382.2	2990.3	2910.1	3009.1	3048.4	3410.0
37.5°	5272.9	5328.6	5249.9	4966.9	4463.8	3804.3	3291.4	3140.0	3248.8	3297.9	3691.4
40°	5643.5	5728.6	5722.9	5546.2	5083.9	4316.5	3673.4	3423.9	3546.6	3599.8	4032.6
42.5°	5944.6	6018.2	6082.0	6073.0	5731.1	4898.2	4122.5	3792.9	3886.2	3947.5	4416.3
45°	6152.4	6231.0	6368.4	6516.4	6353.7	5520.8	4637.2	4230.6	4315.7	4408.1	4873.7
47.5°	6338.1	6427.3	6605.6	6840.4	6882.2	6145.8	5200.8	4740.3	4818.0	4913.7	5332.7
50°	6354.5	6431.4	6707.9	7040.9	7257.7	6746.3	5806.3	5312.2	5384.9	5487.2	5824.4
52.5°	5959.3	6080.4	6563.1	7035.2	7430.3	7248.7	6407.7	5907.0	5988.8	6111.5	6333.2
55°	4625.7	4803.3	6138.5	6815.9	7368.9	7573.5	6979.5	6539.4	6644.0	6772.6	6845.4
57.5°	3984.3	4062.1	4872.8	6416.6	7089.2	7657.8	7462.2	7178.4	7346.9	7487.6	7387.0
60°	3580.9	3645.6	4125.0	5795.7	6721.0	7524.4	7835.3	7773.9	8065.2	8232.9	7940.9
62.5°	3149.0	3210.4	3646.4	4839.3	6249.7	7302.7	8071.0	8323.7	8801.5	8984.7	8462.8
65°	2720.4	2772.6	3190.7	4066.2	5650.8	7081.0	8192.8	8799.1	9483.0	9672.8	8896.4
67.5°	2242.5	2285.9	2681.0	3430.5	4922.8	6777.4	8253.4	9172.9	10076.2	10239.0	9110.8
70°	1618.3	1651.8	2060.0	2713.0	4008.9	6255.5	8228.8	9438.0	10383.8	10513.8	8948.8
72.5°	765.0	795.2	1274.7	1761.5	2831.6	5239.4	7732.2	9227.8	10071.2	10006.7	7957.2
75°	408.3	434.4	732.3	966.3	1495.6	3591.6	6327.4	7949.0	8457.1	8142.9	5880.7
77.5°	276.5	296.9	453.3	580.0	683.2	1705.0	4067.0	5503.6	5294.9	4776.3	2945.3
80°	219.2	240.6	371.5	392.7	330.6	616.0	1680.5	2547.6	1830.1	1463.6	837.7
82.5°	168.5	192.3	312.5	284.7	180.0	252.8	489.2	805.9	468.8	356.7	202.8
85°	103.1	128.4	245.5	181.6	101.5	115.3	166.0	224.2	143.2	119.4	72.8
87.5°	52.4	73.6	124.3	66.3	45.8	27.0	44.2	44.2	37.6	32.7	18.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P964203

CATALOG NUMBER: NAV-SB3B-830-U-T3R

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2228.6	2228.6	2228.6	2228.6	2228.6	2228.6	2228.6	2228.6	2228.6	2228.6	2228.6
2.5°	2236.8	2253.2	2280.9	2307.2	2327.6	2347.2	2366.8	2377.5	2380.8	2393.9	2401.3
5°	2263.0	2293.2	2347.2	2398.0	2429.9	2449.5	2463.4	2471.6	2473.2	2477.3	2483.9
7.5°	2311.3	2359.5	2434.8	2485.5	2509.2	2507.6	2501.8	2481.4	2473.2	2465.8	2467.5
10°	2379.1	2443.0	2535.4	2570.6	2555.8	2516.6	2465.8	2406.2	2378.3	2351.4	2343.1
12.5°	2463.4	2544.4	2635.2	2633.6	2560.8	2460.1	2342.3	2250.7	2192.6	2150.9	2141.0
15°	2565.7	2659.0	2728.4	2672.9	2513.3	2332.5	2159.9	2040.5	1988.1	1942.3	1937.4
17.5°	2671.3	2771.0	2803.0	2660.6	2393.9	2143.5	1948.0	1853.9	1802.4	1777.9	1785.1
20°	2774.3	2873.3	2847.1	2590.2	2212.3	1929.2	1754.9	1703.3	1692.7	1698.4	1696.0
22.5°	2883.1	2971.5	2856.2	2454.4	1980.7	1709.9	1614.2	1615.8	1639.6	1656.7	1660.8
25°	2994.3	3054.1	2832.4	2258.1	1732.0	1548.8	1525.0	1551.2	1597.9	1631.4	1640.4
27.5°	3101.5	3127.8	2780.8	2015.0	1518.4	1433.4	1437.5	1491.5	1561.8	1608.4	1619.9
30°	3222.6	3193.2	2681.8	1741.8	1370.4	1334.3	1368.8	1431.7	1502.1	1543.9	1553.6
32.5°	3359.2	3249.7	2524.8	1489.0	1265.7	1255.0	1311.5	1352.4	1383.4	1395.7	1402.3
35°	3529.5	3329.0	2323.5	1311.5	1171.6	1196.9	1250.9	1230.5	1218.2	1211.7	1218.2
37.5°	3750.4	3436.2	2087.9	1196.1	1095.5	1155.2	1177.3	1113.5	1065.2	1041.5	1047.2
40°	4016.3	3593.2	1861.3	1106.9	1047.2	1119.2	1080.8	1003.9	942.5	909.0	911.4
42.5°	4311.6	3757.8	1670.6	1039.9	1020.2	1089.8	1009.6	918.0	819.0	808.3	819.0
45°	4621.6	3927.1	1540.6	988.3	1007.2	1064.4	968.6	820.6	750.2	793.6	816.5
47.5°	4931.7	4082.5	1462.1	949.9	1000.6	1035.8	932.6	766.6	716.7	779.7	809.1
50°	5277.0	4221.6	1426.8	922.1	993.2	1024.3	878.6	752.7	681.5	723.2	754.3
52.5°	5619.8	4329.6	1400.7	894.2	982.6	1015.3	852.5	736.4	639.0	641.4	658.6
55°	5961.8	4399.9	1372.1	857.4	958.9	995.7	850.0	718.3	607.1	595.6	603.8
57.5°	6326.6	4440.0	1336.8	816.5	918.0	945.8	847.6	704.4	597.3	578.4	580.9
60°	6698.1	4498.9	1291.0	766.6	863.2	886.0	841.8	699.5	591.5	559.6	562.1
62.5°	7031.1	4519.4	1236.3	719.1	792.7	827.2	829.6	695.5	575.9	521.1	521.1
65°	7249.5	4431.1	1140.5	665.1	716.7	766.6	805.9	681.5	548.2	493.3	493.3
67.5°	7240.5	4179.0	990.8	595.6	643.1	699.5	771.5	657.7	514.7	459.0	461.5
70°	6903.5	3681.6	800.9	514.7	562.1	627.5	727.3	622.6	474.5	421.4	426.3
72.5°	5920.8	2881.5	581.7	419.7	468.0	553.1	670.0	580.0	433.6	387.8	385.3
75°	4229.8	1823.6	394.3	322.4	364.1	468.8	598.9	530.1	396.0	389.4	367.4
77.5°	2160.7	871.4	261.0	235.6	253.6	369.8	503.2	473.7	401.7	321.5	286.4
80°	702.7	321.5	164.4	160.3	168.5	246.3	389.4	388.6	304.3	218.4	193.1
82.5°	224.2	138.3	107.2	103.1	99.0	154.7	271.6	307.6	205.3	138.3	137.5
85°	89.2	82.6	63.0	58.1	41.7	72.8	142.4	204.5	153.0	99.8	102.3
87.5°	32.7	32.7	17.2	12.3	9.0	24.5	38.4	61.4	87.5	51.6	50.7
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)