

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: P962591

Luminaire Tested: **NAV-SB2C-827-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962591
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-SB2C-827-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13704.2 lumens
Efficiency: N/A
Efficacy: 135.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G2

Input Watts (W): 100.9
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



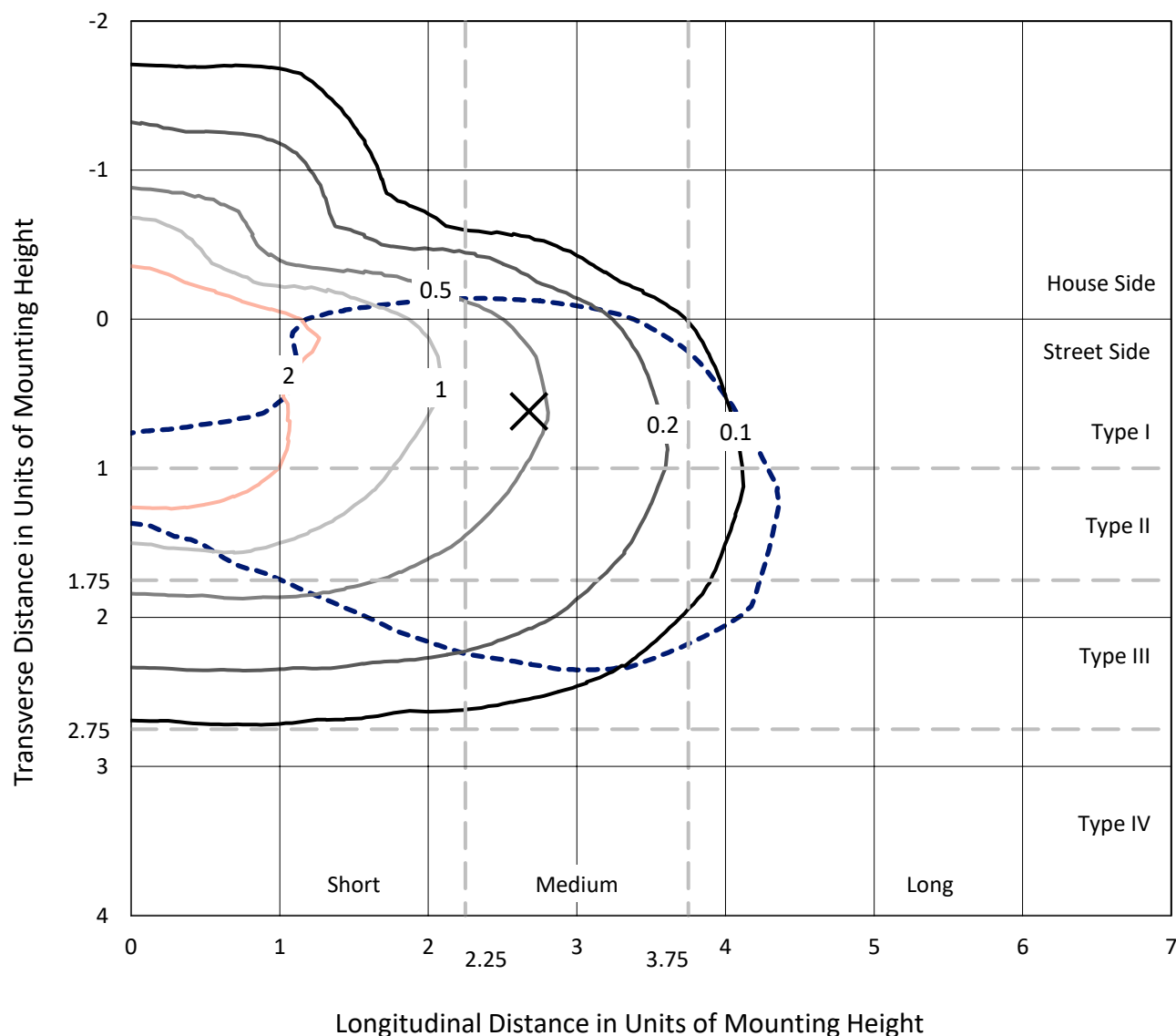
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

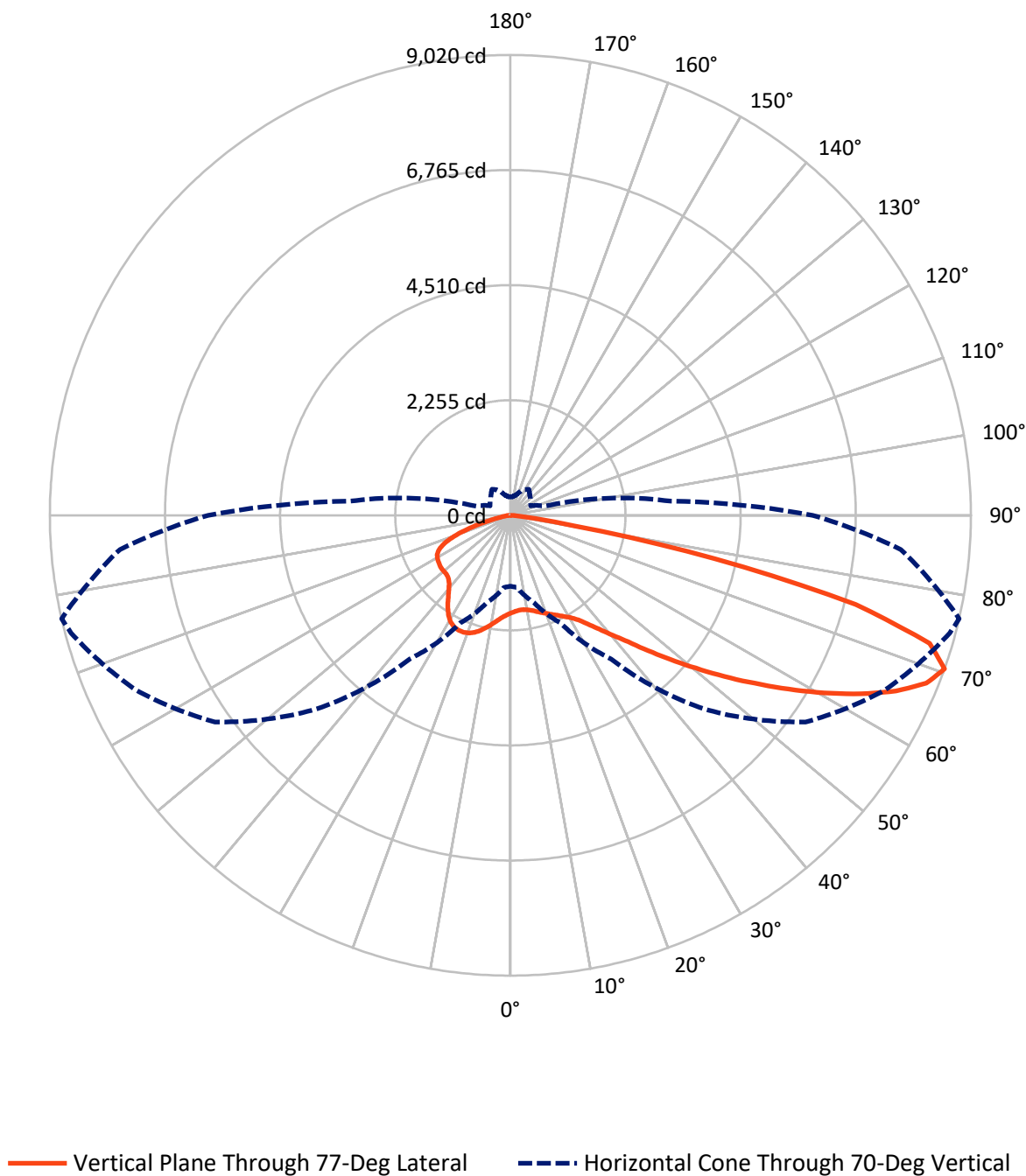
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.6 fc
Type III - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3001.0	0.0	3001.0
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	10703.2	0.0	10703.2
	% Fixture	78.1	0.0	78.1
Total	Lumens	13704.2	0.0	13704.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	182.3	1.3
10°-20°	526.3	3.8
20°-30°	900.0	6.6
30°-40°	1447.2	10.6
40°-50°	2259.5	16.5
50°-60°	3018.2	22.0
60°-70°	3216.9	23.5
70°-80°	1980.3	14.5
80°-90°	173.5	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°	13704.2	100.0
0°-180°	13704.2	100.0

Coefficient of Utilization



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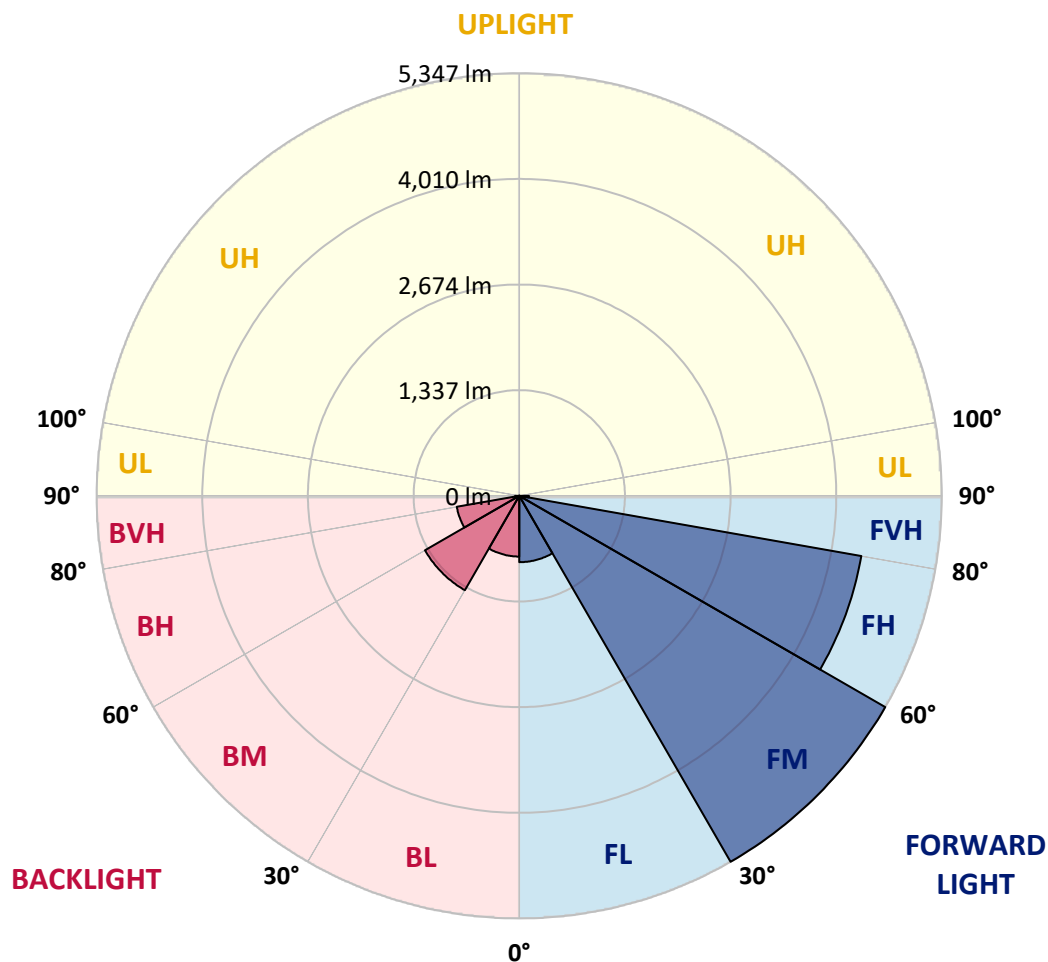
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	839.6	6.1			
FM	(30°-60°)	5347.1	39.0			
FH	(60°-80°)	4395.2	32.1			G2/5000
FVH	(80°-90°)	121.3	0.9			G2/225
BL	(0°-30°)	769.0	5.6	B2/1000		
BM	(30°-60°)	1377.8	10.1	B2/2500		
BH	(60°-80°)	802.0	5.9	B2/1000		G2/1000
BVH	(80°-90°)	52.2	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-G2

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	1911.8	1911.8	1911.8	1911.8	1911.8	1911.8	1911.8	1911.8	1911.8	1911.8	1911.8
2.5°	1762.4	1761.7	1770.8	1773.6	1790.5	1802.4	1824.8	1848.7	1879.5	1883.1	1902.1
5°	1660.6	1660.6	1671.2	1682.3	1704.2	1727.9	1762.4	1803.8	1857.1	1865.5	1912.5
7.5°	1574.3	1579.9	1589.1	1610.8	1636.0	1670.4	1723.0	1782.1	1852.2	1865.5	1941.4
10°	1504.8	1511.1	1522.3	1539.9	1577.8	1625.5	1694.3	1770.1	1864.2	1885.2	1983.5
12.5°	1483.1	1489.3	1495.7	1509.0	1544.1	1600.2	1682.3	1775.7	1892.9	1914.0	2041.0
15°	1533.6	1541.3	1536.4	1532.9	1551.1	1602.4	1688.0	1796.1	1928.7	1958.9	2111.9
17.5°	1650.0	1652.9	1641.6	1608.6	1605.9	1633.2	1714.6	1824.1	1973.6	2006.6	2183.5
20°	1838.1	1833.2	1810.0	1744.9	1707.6	1702.0	1760.2	1866.2	2020.0	2055.0	2260.7
22.5°	2093.7	2088.0	2041.7	1938.6	1855.8	1800.9	1826.2	1921.0	2071.9	2111.2	2335.8
25°	2412.3	2404.5	2336.5	2196.2	2067.6	1932.2	1916.0	1993.3	2135.8	2172.3	2414.4
27.5°	2784.3	2778.0	2704.3	2518.9	2333.7	2111.9	2027.7	2078.2	2202.4	2243.8	2502.8
30°	3184.4	3202.6	3072.0	2872.7	2638.2	2346.3	2177.9	2182.7	2288.7	2325.9	2610.3
32.5°	3654.6	3686.2	3529.0	3276.3	2956.2	2601.1	2367.3	2328.8	2414.4	2445.2	2745.7
35°	4120.6	4156.4	4025.9	3746.6	3378.1	2901.5	2565.3	2496.5	2581.5	2615.1	2925.4
37.5°	4523.5	4571.2	4503.8	4261.0	3829.4	3263.6	2823.6	2693.7	2787.1	2829.2	3166.8
40°	4841.4	4914.5	4909.5	4757.9	4361.4	3703.0	3151.4	2937.2	3042.6	3088.2	3459.5
42.5°	5099.7	5162.9	5217.7	5209.9	4916.5	4202.0	3536.7	3253.9	3333.8	3386.5	3788.6
45°	5278.0	5345.4	5463.2	5590.3	5450.6	4736.1	3978.1	3629.3	3702.3	3781.6	4181.0
47.5°	5437.3	5513.8	5666.8	5868.2	5904.0	5272.4	4461.7	4066.6	4133.2	4215.4	4574.7
50°	5451.4	5517.4	5754.6	6040.2	6226.2	5787.6	4981.1	4557.2	4619.7	4707.4	4996.6
52.5°	5112.4	5216.2	5630.3	6035.3	6374.3	6218.5	5497.0	5067.4	5137.6	5242.9	5433.1
55°	3968.3	4120.6	5266.0	5847.2	6321.7	6497.2	5987.5	5609.9	5699.8	5810.0	5872.4
57.5°	3418.1	3484.7	4180.3	5504.7	6081.6	6569.4	6401.6	6158.1	6302.7	6423.5	6337.1
60°	3072.0	3127.5	3538.8	4972.0	5765.8	6455.0	6721.7	6669.1	6919.0	7062.9	6812.3
62.5°	2701.5	2754.1	3128.2	4151.5	5361.5	6264.8	6923.9	7140.8	7550.7	7707.8	7260.1
65°	2333.7	2378.6	2737.3	3488.3	4847.7	6074.6	7028.4	7548.5	8135.2	8298.1	7632.0
67.5°	1923.8	1961.0	2300.0	2942.9	4223.1	5814.2	7080.4	7869.2	8644.1	8783.7	7815.9
70°	1388.3	1417.1	1767.3	2327.4	3439.1	5366.4	7059.3	8096.7	8908.0	9019.6	7676.9
72.5°	656.2	682.2	1093.5	1511.1	2429.1	4494.7	6633.3	7916.3	8639.9	8584.5	6826.3
75°	350.2	372.7	628.1	828.9	1283.0	3081.1	5428.2	6819.3	7255.2	6985.6	5044.9
77.5°	237.2	254.8	388.8	497.6	586.1	1462.7	3489.0	4721.5	4542.4	4097.4	2526.7
80°	188.1	206.3	318.7	336.9	283.5	528.5	1441.7	2185.6	1570.1	1255.6	718.7
82.5°	144.6	164.9	268.1	244.3	154.4	216.9	419.7	691.4	402.2	306.0	174.0
85°	88.5	110.2	210.5	155.8	87.0	98.9	142.5	192.3	122.8	102.5	62.4
87.5°	44.9	63.1	106.7	56.9	39.3	23.2	37.9	37.9	32.3	28.1	16.1
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°	1911.8	1911.8	1911.8	1911.8	1911.8	1911.8	1911.8	1911.8	1911.8	1911.8	1911.8
2.5°	1918.9	1932.9	1956.8	1979.3	1996.8	2013.6	2030.5	2039.6	2042.4	2053.7	2059.9
5°	1941.4	1967.3	2013.6	2057.2	2084.5	2101.4	2113.3	2120.3	2121.8	2125.2	2130.9
7.5°	1982.8	2024.2	2088.7	2132.2	2152.6	2151.2	2146.2	2128.7	2121.8	2115.4	2116.8
10°	2041.0	2095.7	2175.0	2205.3	2192.6	2159.0	2115.4	2064.1	2040.3	2017.1	2010.1
12.5°	2113.3	2182.7	2260.7	2259.3	2196.8	2110.5	2009.4	1930.8	1881.0	1845.2	1836.8
15°	2201.1	2281.0	2340.7	2293.0	2156.1	2001.0	1852.9	1750.4	1705.5	1666.2	1662.0
17.5°	2291.6	2377.2	2404.5	2282.5	2053.7	1838.8	1671.2	1590.4	1546.2	1525.1	1531.5
20°	2380.0	2464.9	2442.5	2222.1	1897.8	1655.0	1505.5	1461.2	1452.1	1457.0	1455.0
22.5°	2473.3	2549.2	2450.2	2105.6	1699.2	1466.9	1384.8	1386.2	1406.5	1421.3	1424.7
25°	2568.9	2620.0	2429.9	1937.1	1485.8	1328.6	1308.3	1330.8	1370.7	1399.5	1407.2
27.5°	2660.8	2683.2	2385.6	1728.7	1302.7	1229.7	1233.2	1279.5	1339.9	1379.9	1389.7
30°	2764.6	2739.3	2300.7	1494.2	1175.6	1144.7	1174.2	1228.3	1288.6	1324.4	1332.8
32.5°	2881.9	2787.8	2165.9	1277.4	1085.8	1076.7	1125.0	1160.2	1186.8	1197.4	1202.9
35°	3027.8	2855.9	1993.3	1125.0	1005.1	1026.8	1073.2	1055.6	1045.1	1039.5	1045.1
37.5°	3217.4	2947.8	1791.2	1026.1	939.8	991.1	1009.9	955.2	913.8	893.5	898.4
40°	3445.4	3082.6	1596.7	949.7	898.4	960.1	927.1	861.2	808.5	779.7	781.9
42.5°	3698.8	3223.6	1433.2	892.1	875.2	934.9	866.1	787.5	702.5	693.4	702.5
45°	3964.8	3369.0	1321.6	847.9	864.0	913.1	831.0	704.0	643.6	680.8	700.5
47.5°	4230.8	3502.3	1254.2	814.9	858.3	888.6	800.1	657.6	614.8	668.9	694.1
50°	4527.0	3621.6	1224.1	791.0	852.1	878.7	753.8	645.8	584.7	620.4	647.1
52.5°	4821.1	3714.3	1201.6	767.1	843.0	871.0	731.3	631.7	548.2	550.2	565.0
55°	5114.4	3774.6	1177.0	735.5	822.6	854.1	729.2	616.2	520.8	511.0	517.9
57.5°	5427.5	3809.0	1146.9	700.5	787.5	811.4	727.1	604.3	512.4	496.2	498.4
60°	5746.2	3859.5	1107.5	657.6	740.5	760.1	722.2	600.1	507.5	480.1	482.2
62.5°	6031.8	3877.1	1060.5	616.9	680.1	709.6	711.7	596.6	494.2	447.1	447.1
65°	6219.2	3801.3	978.4	570.6	614.8	657.6	691.4	584.7	470.3	423.2	423.2
67.5°	6211.5	3585.1	849.9	511.0	551.7	600.1	661.8	564.3	441.5	393.7	395.9
70°	5922.3	3158.3	687.2	441.5	482.2	538.3	623.9	534.1	407.1	361.4	365.7
72.5°	5079.4	2472.0	499.1	360.1	401.5	474.5	574.8	497.6	372.0	332.7	330.6
75°	3628.6	1564.5	338.2	276.5	312.3	402.2	513.7	454.8	339.7	334.0	315.1
77.5°	1853.6	747.5	223.9	202.1	217.6	317.2	431.6	406.4	344.6	275.8	245.7
80°	602.9	275.8	141.0	137.6	144.6	211.3	334.0	333.4	261.1	187.4	165.6
82.5°	192.3	118.6	91.9	88.5	85.0	132.6	233.0	263.9	176.2	118.6	117.9
85°	76.5	70.9	54.0	49.8	35.8	62.4	122.1	175.5	131.2	85.6	87.7
87.5°	28.1	28.1	14.8	10.6	7.7	21.0	33.0	52.7	75.1	44.2	43.6
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)