

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: P967731

Luminaire Tested: **NAV-SB5A-735-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967731
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-735-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23657 lumens
Efficiency: N/A
Efficacy: 167.0 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

Input Watts (W): 141.7
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

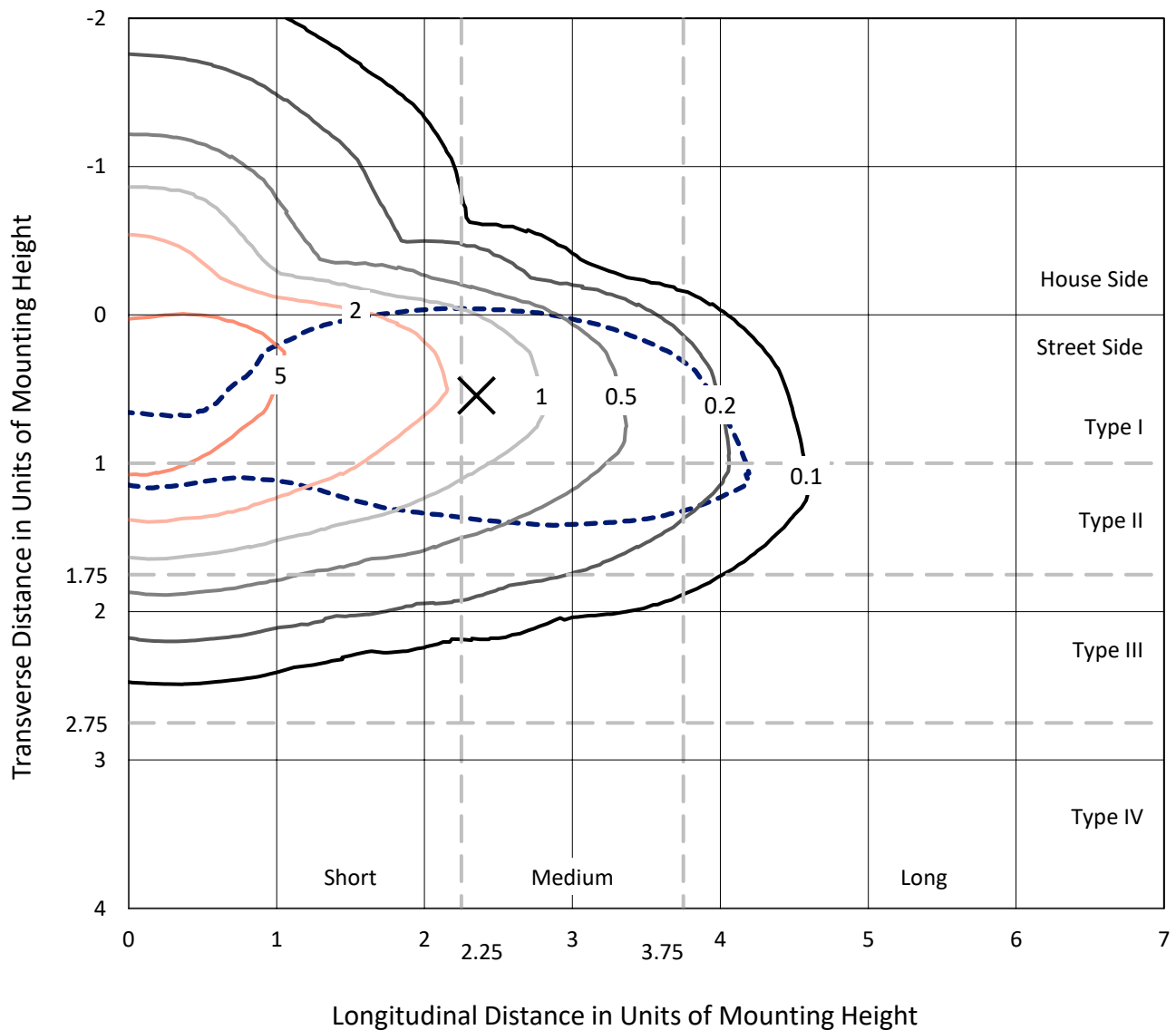


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Iso-Footcandle Lines of Horizontal Illumination

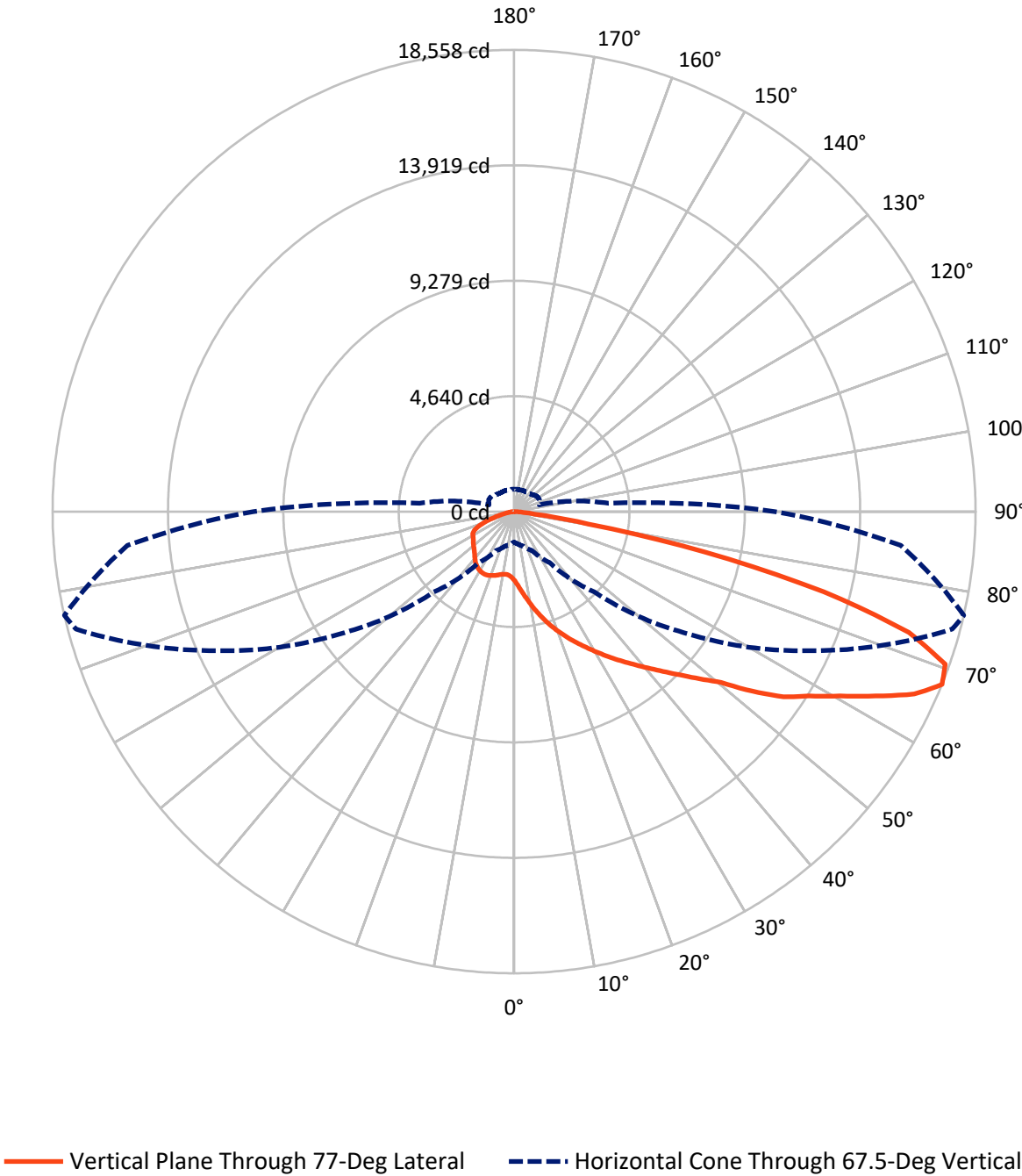
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.7 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4475.0	0.0	4475.0
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	19182.0	0.0	19182.0
	% Fixture	81.1	0.0	81.1
Total	Lumens	23657.0	0.0	23657.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	297.5	1.3
10°-20°	1068.9	4.5
20°-30°	2018.1	8.5
30°-40°	3251.1	13.7
40°-50°	4447.0	18.8
50°-60°	5016.2	21.2
60°-70°	4682.0	19.8
70°-80°	2566.5	10.8
80°-90°	309.6	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°	23657.0	100.0
0°-180°	23657.0	100.0

Coefficient of Utilization



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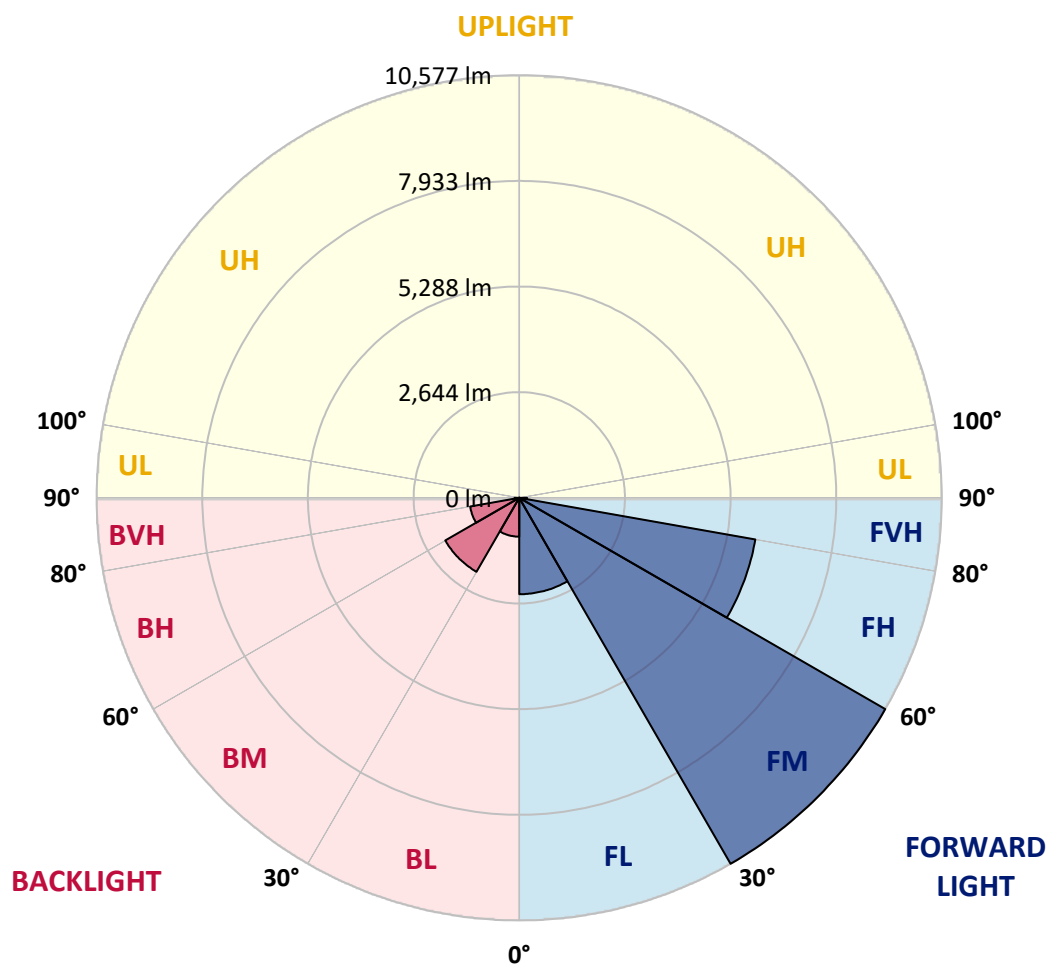
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2411.5	10.2			
FM	(30°-60°)	10576.8	44.7			
FH	(60°-80°)	6000.1	25.4			G3/7500
FVH	(80°-90°)	193.6	0.8			G2/225
BL	(0°-30°)	973.0	4.1	B2/1000		
BM	(30°-60°)	2137.6	9.0	B2/2500		
BH	(60°-80°)	1248.4	5.3	B3/2500		G3/2500
BVH	(80°-90°)	116.0	0.5			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°	77°	85°
0°	2775.7	2775.7	2775.7	2775.7	2775.7	2775.7	2775.7	2775.7	2775.7	2775.7	2775.7
2.5°	3475.5	3499.9	3469.3	3469.3	3366.7	3313.0	3210.4	3132.3	2991.9	2967.4	2874.6
5°	4108.0	4138.5	4095.8	4077.4	3956.6	3845.4	3673.3	3503.6	3253.1	3227.5	3009.0
7.5°	4597.6	4636.8	4598.9	4579.4	4471.9	4347.3	4145.8	3908.9	3556.0	3505.9	3189.7
10°	4997.0	5003.1	4990.9	4998.2	4914.0	4811.3	4605.0	4329.0	3888.1	3819.8	3408.2
12.5°	5222.9	5251.0	5275.5	5319.3	5304.7	5241.2	5055.6	4725.9	4239.9	4152.0	3646.4
15°	5329.2	5378.0	5432.9	5534.3	5616.1	5632.0	5490.3	5152.1	4597.6	4491.4	3887.0
17.5°	5367.0	5413.4	5500.2	5646.6	5822.5	5941.0	5877.5	5566.1	4951.8	4829.7	4139.8
20°	5558.8	5572.2	5624.7	5763.9	5954.4	6151.0	6198.6	5964.2	5302.3	5164.3	4401.0
22.5°	5969.1	5942.1	5956.8	6020.3	6157.1	6347.6	6456.3	6315.8	5662.5	5503.7	4664.9
25°	6646.8	6568.6	6490.5	6417.2	6486.8	6594.2	6717.6	6667.5	6039.9	5838.4	4931.1
27.5°	7502.8	7407.6	7235.4	6994.8	6910.6	6948.4	7003.3	6993.6	6389.1	6185.2	5205.8
30°	8345.4	8234.3	8029.1	7681.1	7458.8	7358.7	7317.2	7289.1	6768.9	6551.5	5483.0
32.5°	9018.3	8930.3	8728.9	8339.3	8016.9	7846.0	7708.0	7607.9	7165.8	6948.4	5776.1
35°	9606.9	9525.0	9294.3	8869.3	8518.8	8336.8	8156.1	7942.4	7578.5	7358.7	6091.2
37.5°	10144.2	10062.4	9746.1	9304.0	8951.1	8825.4	8664.1	8301.5	7992.5	7784.9	6424.5
40°	10483.7	10465.4	10169.8	9669.1	9302.8	9240.6	9186.8	8717.8	8451.6	8258.7	6790.9
42.5°	10570.4	10610.7	10376.2	9964.6	9615.4	9565.4	9691.2	9189.2	8967.0	8782.6	7206.1
45°	10361.5	10477.6	10323.7	10044.1	9837.6	9810.8	10138.1	9704.6	9537.3	9368.7	7706.8
47.5°	9832.8	10029.4	9965.9	9926.8	9897.5	10013.5	10531.3	10251.6	10183.3	10036.7	8278.2
50°	8765.5	9138.0	9249.1	9495.8	9779.1	10171.1	10889.1	10848.8	10938.0	10790.2	8974.3
52.5°	6920.3	7433.2	8078.0	8695.9	9415.1	10118.6	11282.3	11706.0	12082.2	12001.6	10080.7
55°	5712.6	5943.4	6439.2	7572.4	8709.3	9897.5	11459.4	12398.5	13217.9	13145.8	10919.6
57.5°	4784.5	4990.9	5296.2	6242.6	7642.0	9395.7	11569.3	12821.0	13995.8	13988.4	11747.6
60°	3789.2	4007.9	4320.5	4990.9	6395.2	8528.6	11544.9	13302.1	14988.6	15049.6	12757.5
62.5°	2665.8	2906.4	3253.1	3878.4	5121.5	7405.1	11046.6	13650.1	16157.2	16323.2	13972.5
65°	1752.3	1911.1	2172.5	2712.1	3816.2	5960.5	10095.3	13695.3	17407.7	17688.5	15113.1
67.5°	1228.5	1289.6	1443.4	1736.5	2515.6	4570.8	8579.9	13227.6	18241.7	18558.0	15607.7
70°	958.6	989.1	1067.3	1184.5	1580.1	3073.7	6574.8	12011.4	18063.5	18393.1	15091.1
72.5°	828.0	857.2	886.5	901.2	1060.0	1897.7	4453.6	10042.8	16384.3	16607.8	13121.4
75°	751.0	758.3	782.8	777.9	808.4	1230.9	2570.5	7317.2	12927.2	12850.3	9686.2
77.5°	631.3	641.1	681.4	675.3	718.0	841.4	1334.8	4722.3	8380.8	7858.2	5391.4
80°	534.8	539.8	583.7	576.4	624.0	609.4	681.4	2406.9	3554.8	3011.3	1554.5
82.5°	185.6	229.6	445.8	459.2	476.2	368.8	393.2	981.8	1085.6	831.6	326.1
85°	90.4	96.5	227.1	322.4	321.1	185.6	191.7	350.4	341.9	268.7	108.6
87.5°	14.7	18.3	26.9	125.8	100.1	48.9	65.9	68.4	70.8	61.1	24.4
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°	2775.7	2775.7	2775.7	2775.7	2775.7	2775.7	2775.7	2775.7	2775.7	2775.7	2775.7
2.5°	2806.2	2745.2	2616.9	2498.5	2405.7	2316.5	2266.5	2223.7	2199.3	2194.4	2194.4
5°	2882.0	2756.1	2522.9	2326.3	2198.1	2102.9	2052.8	2021.0	2005.1	1995.4	1994.1
7.5°	2990.6	2806.2	2474.0	2250.6	2116.3	2047.8	2022.2	2017.4	2016.2	2017.4	2021.0
10°	3140.8	2888.0	2469.2	2232.2	2119.9	2082.1	2080.9	2082.1	2087.0	2088.2	2089.4
12.5°	3303.3	2972.3	2488.7	2248.1	2166.3	2145.6	2141.9	2140.7	2144.4	2146.8	2148.0
15°	3480.3	3083.4	2521.7	2282.4	2217.6	2195.7	2192.0	2184.7	2183.5	2182.2	2181.0
17.5°	3662.2	3193.4	2558.3	2319.0	2250.6	2220.0	2206.6	2189.5	2176.1	2172.5	2176.1
20°	3846.6	3302.0	2584.0	2337.3	2253.1	2210.3	2183.5	2154.1	2131.0	2117.4	2122.4
22.5°	4043.3	3415.6	2599.8	2332.4	2231.0	2172.5	2123.6	2089.4	2054.0	2030.8	2032.1
25°	4235.0	3514.5	2598.7	2306.8	2188.3	2113.9	2051.5	2007.6	1958.8	1934.3	1934.3
27.5°	4419.4	3603.7	2568.1	2261.6	2127.3	2044.3	1969.7	1917.3	1869.6	1846.4	1845.2
30°	4609.9	3678.1	2520.5	2195.7	2055.2	1963.6	1881.8	1836.6	1793.9	1771.9	1770.7
32.5°	4799.2	3746.5	2453.3	2113.9	1972.2	1884.3	1803.7	1762.2	1736.5	1736.5	1737.7
35°	4999.4	3794.1	2364.2	2018.5	1884.3	1800.0	1736.5	1712.1	1709.6	1694.9	1691.4
37.5°	5210.7	3824.7	2255.5	1920.8	1797.5	1718.2	1698.6	1669.3	1644.9	1613.1	1608.2
40°	5432.9	3855.2	2124.8	1819.6	1706.0	1662.0	1653.4	1614.4	1544.8	1466.6	1455.6
42.5°	5702.8	3875.9	1989.3	1718.2	1609.5	1594.8	1607.1	1539.9	1428.7	1370.1	1371.3
45°	6015.4	3910.2	1864.7	1618.1	1510.5	1510.5	1561.9	1473.9	1382.3	1345.7	1351.9
47.5°	6420.9	3989.5	1748.8	1508.2	1419.0	1443.4	1461.8	1394.6	1343.3	1298.1	1296.8
50°	7007.0	4180.1	1629.0	1397.0	1349.4	1398.2	1372.6	1333.5	1273.7	1237.1	1233.4
52.5°	7734.9	4292.4	1522.7	1296.8	1289.6	1338.3	1301.8	1265.2	1220.0	1171.1	1161.3
55°	8230.6	4313.1	1433.7	1223.6	1249.3	1244.4	1230.9	1197.9	1173.5	1108.8	1110.1
57.5°	8785.1	4354.7	1360.4	1179.7	1223.6	1169.8	1165.0	1136.9	1105.2	1061.2	1046.5
60°	9448.1	4419.4	1296.8	1162.6	1201.6	1121.0	1096.6	1085.6	1053.9	1031.9	1038.0
62.5°	10171.1	4478.0	1232.2	1165.0	1176.0	1073.4	1036.8	1033.1	1013.5	1006.2	1006.2
65°	10664.4	4318.0	1151.6	1162.6	1135.7	1024.6	978.2	976.9	961.0	958.6	957.4
67.5°	10492.2	3811.3	1042.8	1128.3	1094.2	975.7	924.4	919.5	898.8	900.0	900.0
70°	9630.1	3088.3	892.7	1044.1	1042.8	931.7	868.3	852.4	824.3	829.1	834.0
72.5°	8013.2	2288.4	691.2	903.6	961.0	891.4	803.5	777.9	742.5	747.3	746.1
75°	5787.0	1555.7	503.1	687.5	836.5	843.8	740.0	696.1	653.3	660.6	663.1
77.5°	2961.3	881.7	370.0	473.9	657.0	766.9	682.6	624.0	614.3	682.6	672.8
80°	966.0	442.1	256.5	332.2	431.1	627.7	598.4	531.2	528.8	544.7	467.7
82.5°	288.2	186.9	164.8	218.6	238.1	481.1	516.6	401.8	345.6	363.9	376.1
85°	98.9	90.4	94.0	108.6	113.6	282.1	361.4	266.2	251.5	277.2	273.6
87.5°	23.2	31.8	26.9	24.4	24.4	68.4	140.4	111.1	153.9	102.6	98.9
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)