

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: P967669

Luminaire Tested: **NAV-SB5A-727-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967669
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-727-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21942.2 lumens
Efficiency: N/A
Efficacy: 154.8 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

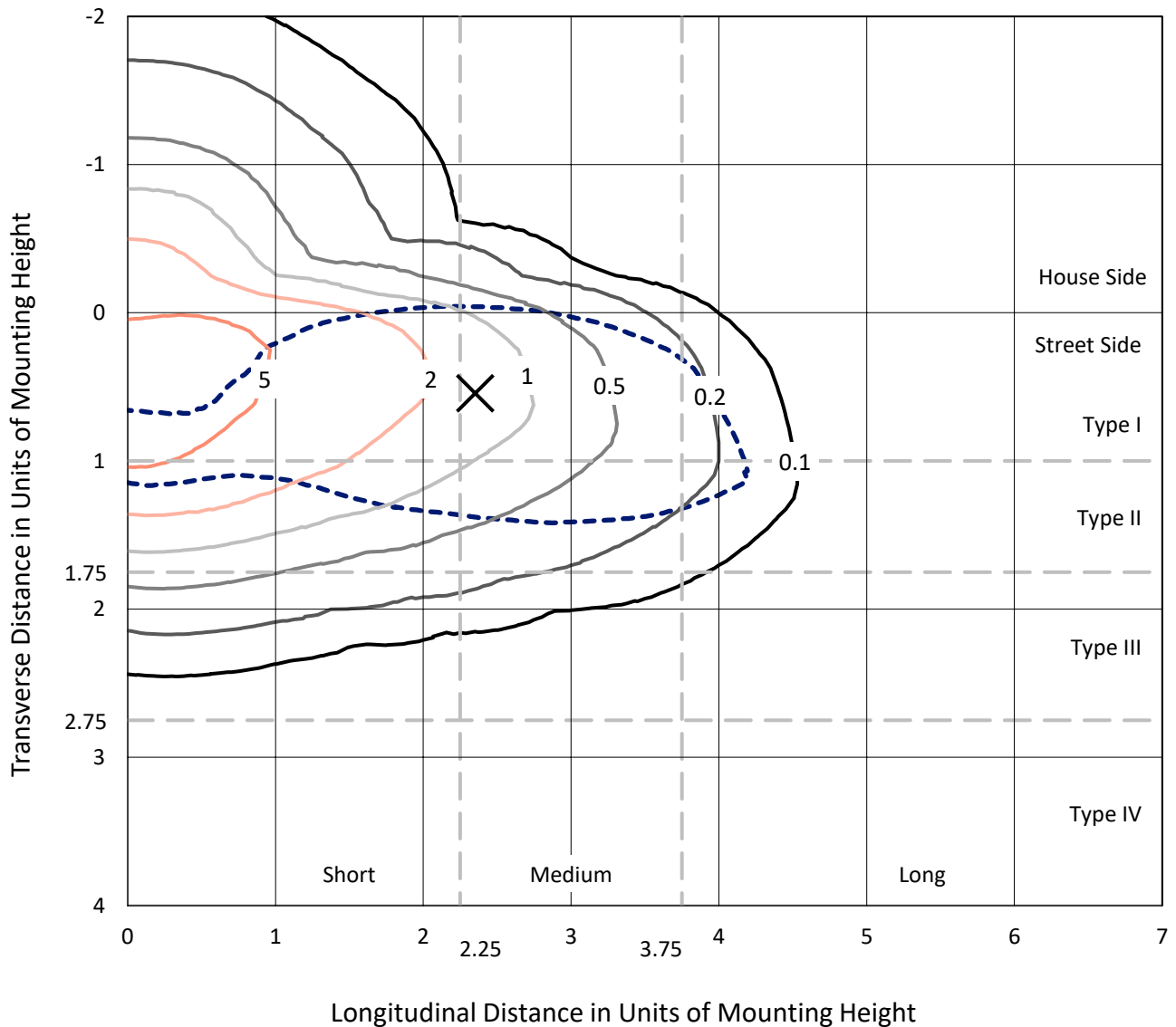
Input Watts (W): 141.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

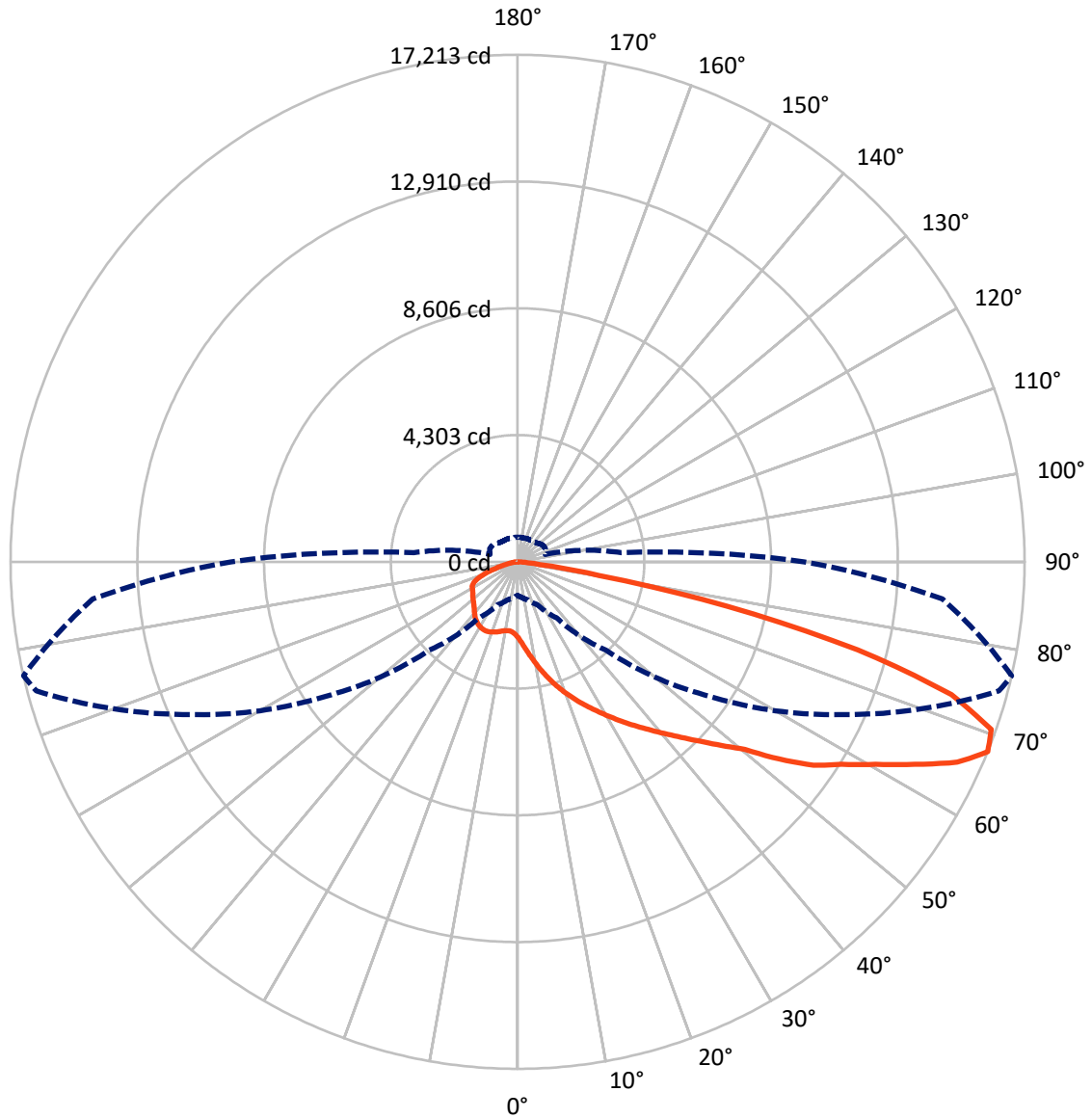
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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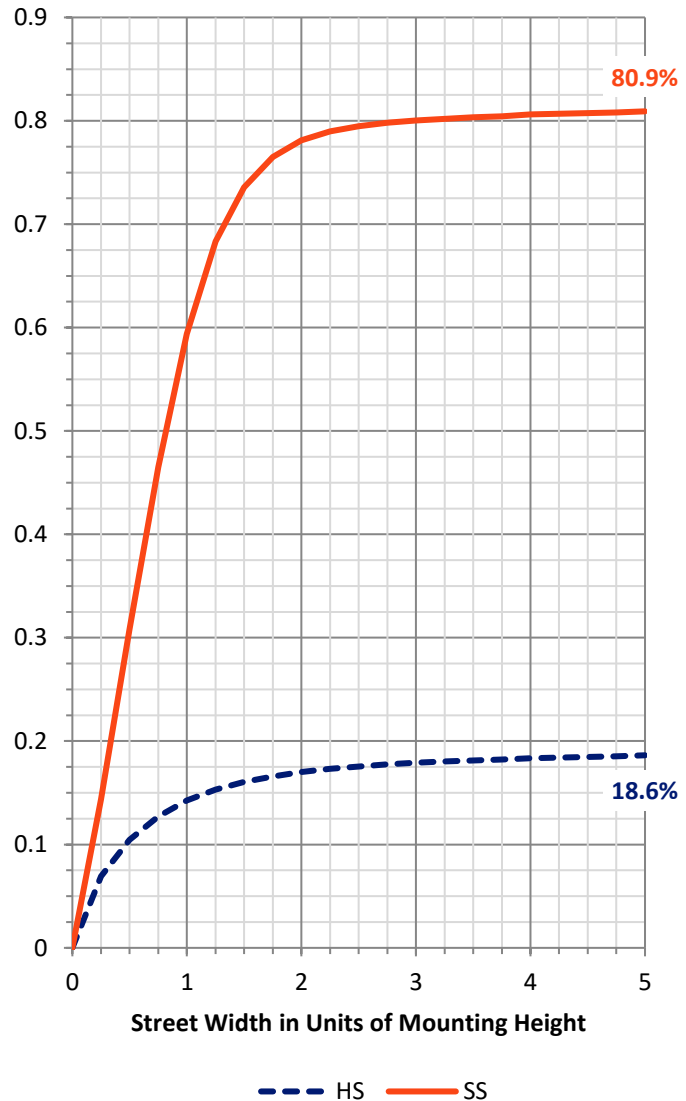
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4150.6	0.0	4150.6
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	17791.6	0.0	17791.6
	% Fixture	81.1	0.0	81.1
Total	Lumens	21942.2	0.0	21942.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	276.0	1.3
10°-20°	991.4	4.5
20°-30°	1871.8	8.5
30°-40°	3015.5	13.7
40°-50°	4124.6	18.8
50°-60°	4652.6	21.2
60°-70°	4342.6	19.8
70°-80°	2380.5	10.8
80°-90°	287.1	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°	21942.2	100.0
0°-180°	21942.2	100.0

Coefficient of Utilization

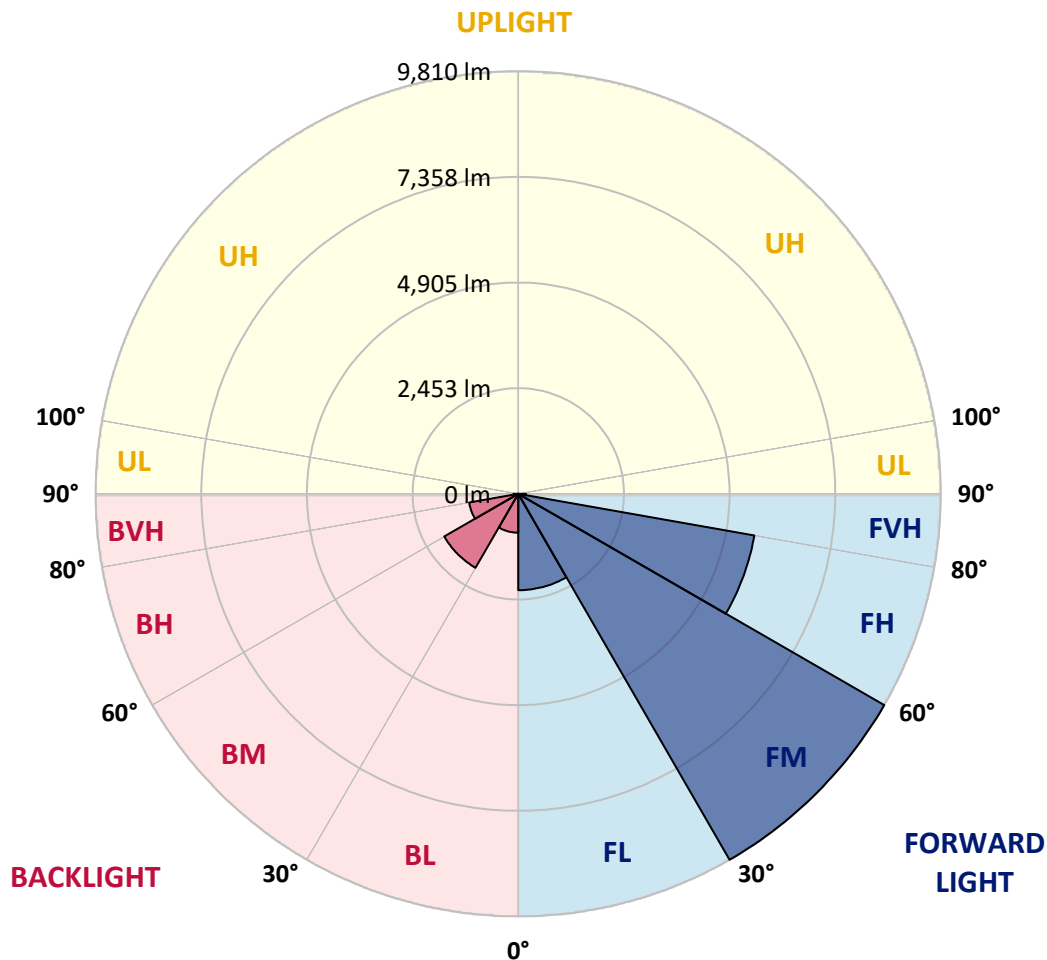


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2236.7	10.2			
FM (30°-60°)	9810.1	44.7			
FH (60°-80°)	5565.2	25.4			G3/7500
FVH (80°-90°)	179.6	0.8			G2/225
BL (0°-30°)	902.4	4.1	B2/1000		
BM (30°-60°)	1982.6	9.0	B2/2500		
BH (60°-80°)	1157.9	5.3	B3/2500		G3/2500
BVH (80°-90°)	107.6	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°	2574.5	2574.5	2574.5	2574.5	2574.5	2574.5	2574.5	2574.5	2574.5	2574.5	2574.5
2.5°	3223.5	3246.2	3217.9	3217.9	3122.7	3072.8	2977.7	2905.3	2775.0	2752.3	2666.2
5°	3810.2	3838.5	3798.9	3781.9	3669.8	3566.7	3407.0	3249.6	3017.4	2993.6	2790.9
7.5°	4264.4	4300.7	4265.5	4247.4	4147.8	4032.2	3845.3	3625.6	3298.2	3251.8	2958.5
10°	4634.7	4640.5	4629.1	4635.9	4557.8	4462.6	4271.2	4015.2	3606.4	3542.9	3161.2
12.5°	4844.4	4870.4	4893.0	4933.8	4920.2	4861.3	4689.2	4383.3	3932.5	3851.0	3382.1
15°	4942.9	4988.2	5039.1	5133.1	5209.0	5223.7	5092.4	4778.7	4264.4	4165.9	3605.2
17.5°	4978.0	5021.0	5101.4	5237.3	5400.4	5510.3	5451.5	5162.6	4592.8	4479.6	3839.6
20°	5155.8	5168.3	5216.9	5346.1	5522.8	5705.2	5749.3	5531.8	4918.0	4789.9	4082.1
22.5°	5536.3	5511.4	5525.1	5583.9	5710.8	5887.5	5988.3	5858.1	5252.1	5104.8	4326.7
25°	6165.0	6092.5	6020.0	5952.1	6016.6	6116.3	6230.7	6184.2	5602.0	5415.2	4573.7
27.5°	6958.9	6870.6	6710.9	6487.7	6409.6	6444.8	6495.7	6486.6	5926.0	5736.8	4828.5
30°	7740.5	7637.4	7447.1	7124.4	6918.2	6825.3	6786.8	6760.8	6278.2	6076.6	5085.5
32.5°	8364.6	8283.0	8096.2	7734.9	7435.8	7277.2	7149.3	7056.4	6646.3	6444.8	5357.4
35°	8910.5	8834.6	8620.6	8226.3	7901.3	7732.6	7564.9	7366.7	7029.1	6825.3	5649.6
37.5°	9408.9	9332.9	9039.6	8629.6	8302.3	8185.6	8036.1	7699.7	7413.1	7220.6	5958.8
40°	9723.8	9706.8	9432.7	8968.2	8628.4	8570.7	8520.9	8085.9	7839.0	7660.0	6298.6
42.5°	9804.1	9841.5	9624.0	9242.3	8918.4	8872.0	8988.6	8523.2	8317.0	8146.0	6683.7
45°	9610.5	9718.1	9575.3	9316.0	9124.6	9099.6	9403.2	9001.1	8846.0	8689.6	7148.1
47.5°	9120.0	9302.4	9243.6	9207.3	9180.1	9287.6	9767.9	9508.5	9445.1	9309.2	7678.2
50°	8130.1	8475.6	8578.6	8807.4	9070.2	9433.8	10099.7	10062.4	10145.0	10008.0	8323.8
52.5°	6418.7	6894.4	7492.4	8065.5	8732.7	9385.1	10464.5	10857.5	11206.3	11131.6	9349.9
55°	5298.5	5512.6	5972.5	7023.5	8078.0	9180.1	10628.7	11499.7	12259.7	12192.9	10128.1
57.5°	4437.7	4629.1	4912.3	5790.1	7088.1	8714.6	10730.6	11891.6	12981.2	12974.4	10896.1
60°	3514.6	3717.4	4007.3	4629.1	5931.7	7910.3	10708.0	12337.9	13902.1	13958.7	11832.7
62.5°	2472.6	2695.6	3017.4	3597.2	4750.3	6868.3	10245.9	12660.7	14986.0	15140.1	12959.7
65°	1625.3	1772.6	2014.9	2515.6	3539.5	5528.4	9363.6	12702.6	16145.8	16406.4	14017.6
67.5°	1139.4	1196.1	1338.8	1610.6	2333.2	4239.5	7958.0	12268.8	16919.5	17212.8	14476.3
70°	889.1	917.5	989.9	1098.7	1465.6	2850.8	6098.1	11140.7	16754.0	17059.9	13997.2
72.5°	767.9	795.1	822.3	835.9	983.2	1760.1	4130.8	9314.9	15196.6	15403.9	12170.2
75°	696.6	703.4	726.0	721.5	749.8	1141.7	2384.3	6786.8	11990.1	11918.8	8984.1
77.5°	585.6	594.6	632.0	626.4	666.0	780.4	1238.0	4379.9	7773.3	7288.6	5000.7
80°	496.1	500.6	541.4	534.6	578.8	565.2	632.0	2232.4	3297.1	2793.1	1441.9
82.5°	172.2	212.9	413.4	425.9	441.8	342.0	364.7	910.6	1007.0	771.3	302.4
85°	83.8	89.5	210.6	299.0	297.9	172.2	177.8	325.0	317.1	249.2	100.8
87.5°	13.6	17.0	24.9	116.6	92.9	45.3	61.2	63.4	65.7	56.7	22.7
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°	2574.5	2574.5	2574.5	2574.5	2574.5	2574.5	2574.5	2574.5	2574.5	2574.5	2574.5
2.5°	2602.8	2546.2	2427.3	2317.4	2231.3	2148.6	2102.2	2062.5	2039.9	2035.3	2035.3
5°	2673.0	2556.4	2340.1	2157.7	2038.7	1950.4	1903.9	1874.5	1859.8	1850.7	1849.6
7.5°	2773.9	2602.8	2294.8	2087.4	1962.9	1899.4	1875.6	1871.1	1870.0	1871.1	1874.5
10°	2913.2	2678.7	2290.2	2070.5	1966.3	1931.2	1930.1	1931.2	1935.7	1936.8	1938.0
12.5°	3063.8	2756.8	2308.3	2085.2	2009.3	1990.0	1986.7	1985.5	1988.9	1991.2	1992.3
15°	3228.0	2860.0	2338.9	2116.9	2056.9	2036.5	2033.1	2026.3	2025.2	2024.1	2022.9
17.5°	3396.7	2961.8	2372.9	2150.9	2087.4	2059.1	2046.7	2030.8	2018.3	2014.9	2018.3
20°	3567.8	3062.7	2396.7	2167.9	2089.8	2050.1	2025.2	1998.0	1976.5	1964.0	1968.5
22.5°	3750.2	3168.0	2411.4	2163.4	2069.4	2014.9	1969.6	1938.0	1905.1	1883.5	1884.8
25°	3928.0	3259.7	2410.3	2139.6	2029.7	1960.6	1902.8	1862.0	1816.7	1794.1	1794.1
27.5°	4099.1	3342.4	2382.0	2097.7	1973.0	1896.0	1827.0	1778.3	1734.1	1712.6	1711.4
30°	4275.7	3411.5	2337.8	2036.5	1906.2	1821.3	1745.4	1703.4	1663.9	1643.5	1642.4
32.5°	4451.3	3475.0	2275.5	1960.6	1829.2	1747.6	1672.9	1634.4	1610.6	1610.6	1611.7
35°	4637.0	3519.1	2192.8	1872.3	1747.6	1669.5	1610.6	1587.9	1585.7	1572.1	1568.8
37.5°	4833.0	3547.4	2092.0	1781.7	1667.3	1593.7	1575.5	1548.4	1525.7	1496.2	1491.7
40°	5039.1	3575.7	1970.8	1687.7	1582.3	1541.5	1533.6	1497.3	1432.7	1360.3	1350.1
42.5°	5289.4	3595.0	1845.1	1593.7	1492.8	1479.3	1490.6	1428.2	1325.2	1270.8	1271.9
45°	5579.4	3626.8	1729.6	1500.7	1401.1	1401.1	1448.6	1367.1	1282.2	1248.1	1253.9
47.5°	5955.5	3700.4	1622.0	1398.8	1316.1	1338.8	1355.8	1293.4	1245.9	1204.0	1202.8
50°	6499.1	3877.1	1511.0	1295.7	1251.5	1296.8	1273.0	1236.9	1181.3	1147.4	1144.0
52.5°	7174.2	3981.2	1412.4	1202.8	1196.1	1241.4	1207.3	1173.4	1131.5	1086.2	1077.2
55°	7634.0	4000.5	1329.7	1134.9	1158.7	1154.1	1141.7	1111.1	1088.4	1028.5	1029.6
57.5°	8148.2	4039.0	1261.8	1094.1	1134.9	1085.1	1080.6	1054.5	1025.0	984.3	970.7
60°	8763.2	4099.1	1202.8	1078.3	1114.5	1039.8	1017.1	1007.0	977.4	957.0	962.8
62.5°	9433.8	4153.4	1142.9	1080.6	1090.7	995.6	961.7	958.2	940.1	933.3	933.3
65°	9891.4	4005.0	1068.0	1078.3	1053.4	950.3	907.2	906.1	891.3	889.1	888.0
67.5°	9731.7	3535.0	967.3	1046.5	1014.9	905.0	857.4	852.9	833.6	834.8	834.8
70°	8932.1	2864.5	828.0	968.4	967.3	864.2	805.3	790.6	764.5	769.1	773.6
72.5°	7432.4	2122.6	641.0	838.1	891.3	826.9	745.3	721.5	688.7	693.2	692.1
75°	5367.6	1443.0	466.7	637.7	775.8	782.7	686.3	645.6	606.0	612.7	615.0
77.5°	2746.7	817.7	343.2	439.4	609.4	711.3	633.1	578.8	569.7	633.1	624.1
80°	896.0	410.0	237.9	308.1	399.9	582.2	555.0	492.7	490.5	505.1	433.8
82.5°	267.3	173.3	152.9	202.7	220.9	446.3	479.1	372.7	320.5	337.5	348.8
85°	91.7	83.8	87.2	100.8	105.4	261.7	335.3	246.9	233.3	257.1	253.7
87.5°	21.5	29.4	24.9	22.7	22.7	63.4	130.3	103.1	142.7	95.1	91.7
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)