

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: P965608

Luminaire Tested: **NAV-SB4A-735-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965608
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-SB4A-735-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18741.1 lumens
Efficiency: N/A
Efficacy: 164.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G2

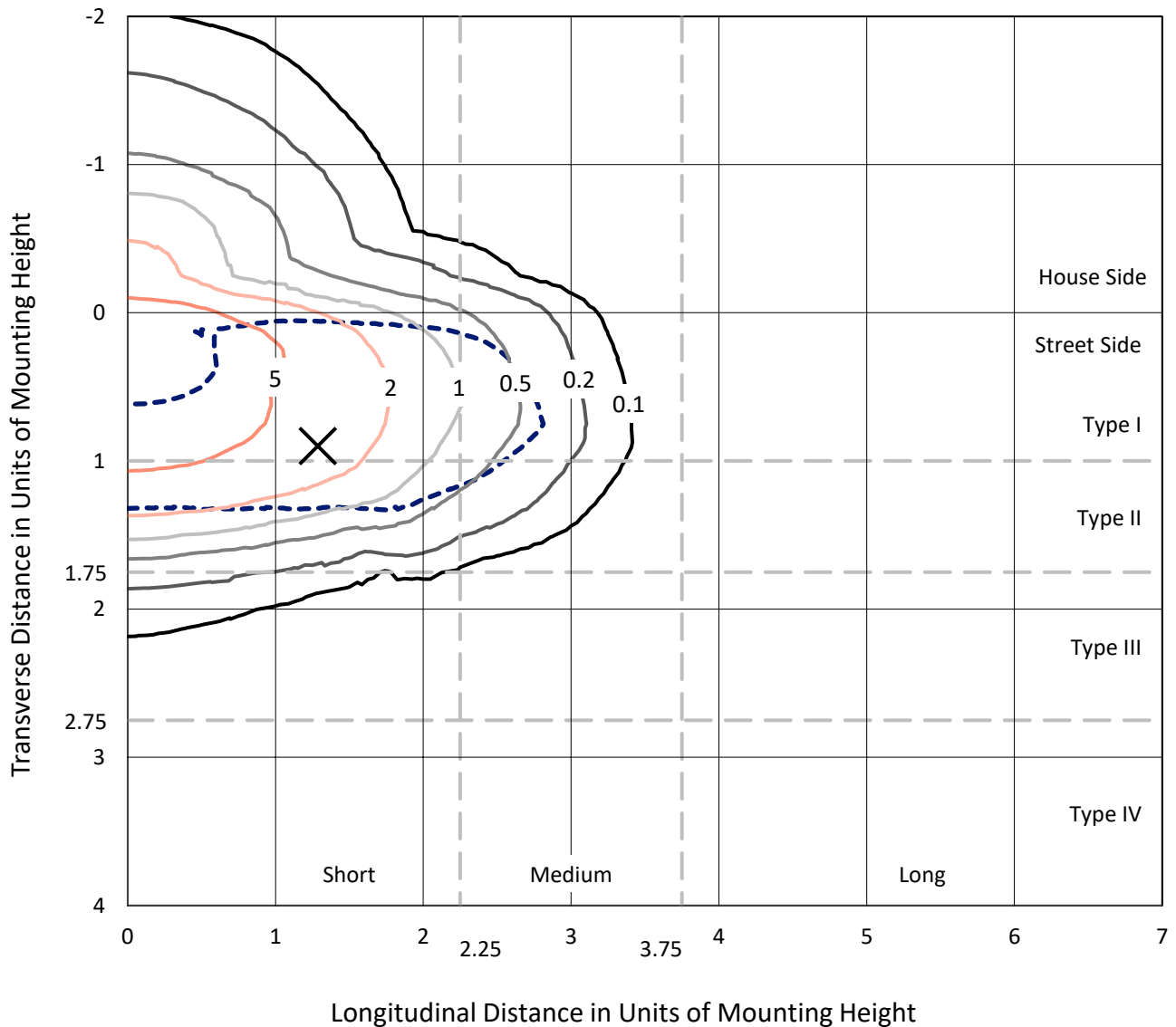
Input Watts (W): 114
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

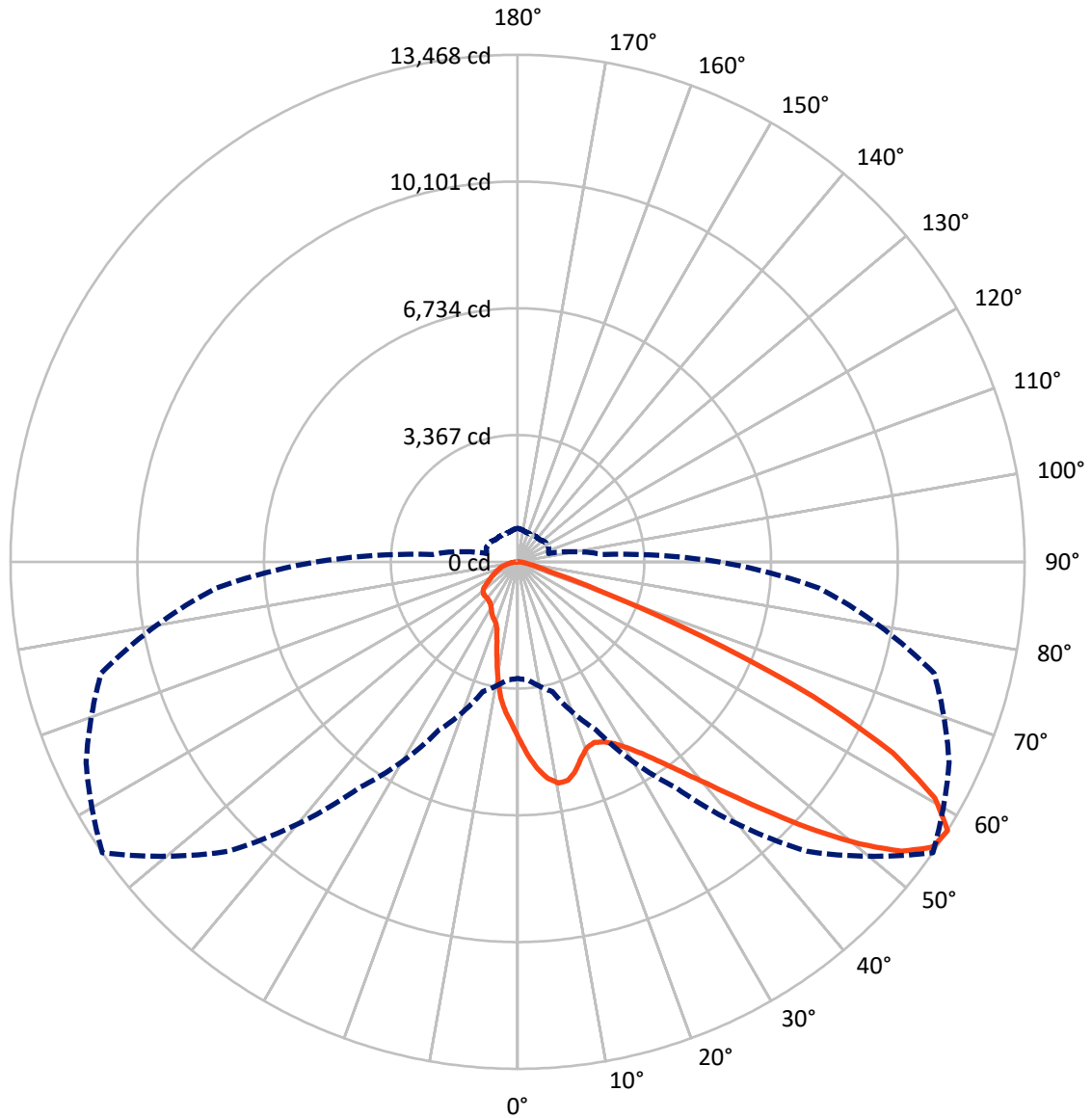
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.1 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

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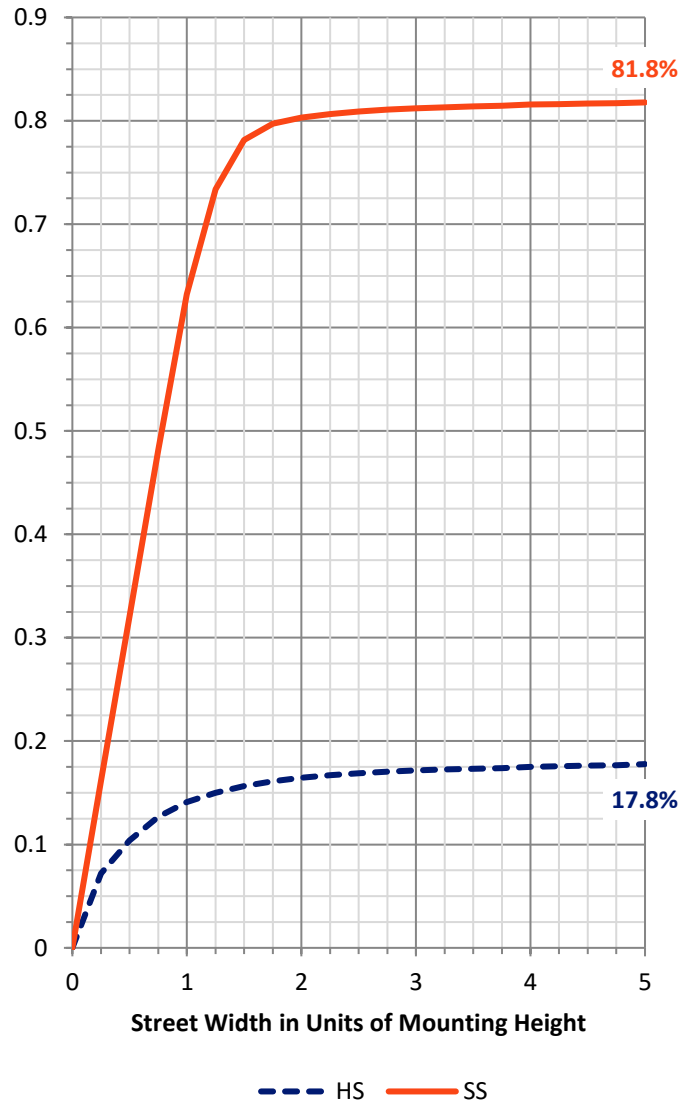
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3391.1	0.0	3391.1
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	15350.0	0.0	15350.0
	% Fixture	81.9	0.0	81.9
Total	Lumens	18741.1	0.0	18741.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	435.7	2.3
10°-20°	1099.9	5.9
20°-30°	1755.1	9.4
30°-40°	2778.7	14.8
40°-50°	4253.1	22.7
50°-60°	4555.5	24.3
60°-70°	2865.9	15.3
70°-80°	847.5	4.5
80°-90°	149.9	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°	18741.1	100.0
0°-180°	18741.1	100.0

Coefficient of Utilization

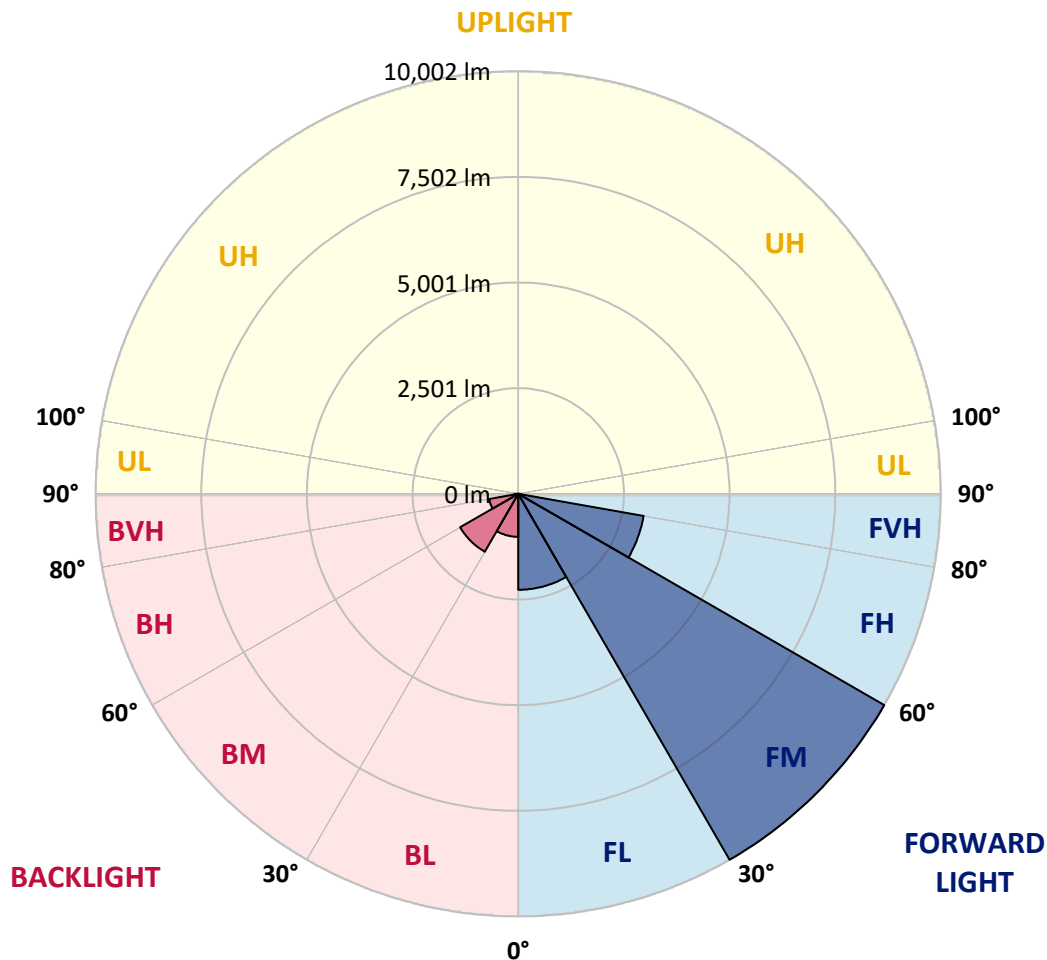


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2271.4	12.1			
FM (30°-60°)	10002.3	53.4			
FH (60°-80°)	3013.0	16.1			G2/5000
FVH (80°-90°)	63.3	0.3			G1/100
BL (0°-30°)	1019.3	5.4	B3/2500		
BM (30°-60°)	1585.0	8.5	B2/2500		
BH (60°-80°)	700.3	3.7	B2/1000		G2/1000
BVH (80°-90°)	86.5	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G2
 Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4695.9	4695.9	4695.9	4695.9	4695.9	4695.9	4695.9	4695.9	4695.9	4695.9	4695.9
2.5°	5387.6	5383.8	5405.1	5332.5	5283.1	5216.1	5128.0	5015.6	4894.5	4766.7	4711.4
5°	5873.0	5839.1	5861.5	5807.1	5752.9	5652.2	5521.4	5338.2	5114.4	4859.6	4724.0
7.5°	5796.5	5773.2	5830.4	5878.9	5919.6	5907.0	5811.0	5619.3	5330.5	4960.4	4763.7
10°	5179.3	5153.2	5233.6	5401.2	5647.3	5861.5	5977.7	5858.5	5551.4	5070.9	4802.4
12.5°	4634.8	4622.2	4675.5	4811.2	5084.4	5495.2	5956.4	6067.8	5781.0	5201.7	4854.8
15°	4402.4	4386.9	4420.7	4489.5	4664.0	5046.6	5762.5	6211.2	6006.7	5352.8	4938.1
17.5°	4351.0	4333.6	4348.2	4383.9	4496.4	4788.0	5470.0	6281.9	6242.1	5521.4	5007.8
20°	4445.9	4431.4	4433.3	4431.4	4509.9	4741.4	5266.6	6254.8	6447.6	5676.3	5075.7
22.5°	4675.5	4651.3	4652.3	4600.9	4643.6	4822.8	5213.3	6182.1	6630.6	5812.0	5127.0
25°	5049.6	5005.9	5014.6	4883.8	4872.2	5005.0	5296.6	6125.9	6812.8	5920.5	5136.7
27.5°	5561.0	5511.6	5485.5	5290.7	5197.8	5263.7	5466.1	6145.3	6985.3	6014.5	5112.5
30°	6200.5	6140.5	6087.2	5811.0	5642.4	5618.2	5729.6	6273.2	7188.7	6113.3	5070.9
32.5°	6984.2	6914.5	6817.7	6451.5	6214.1	6087.2	6070.7	6500.9	7427.0	6239.3	5049.6
35°	7917.3	7826.2	7688.6	7214.9	6914.5	6654.9	6520.2	6829.3	7753.5	6429.1	5073.8
37.5°	8878.3	8775.6	8649.7	8085.8	7716.7	7334.1	7068.6	7274.9	8188.5	6686.9	5137.7
40°	9764.9	9649.6	9532.3	9030.5	8634.2	8173.0	7740.0	7838.8	8720.4	6994.9	5246.2
42.5°	10288.0	10202.7	10158.2	9886.9	9580.8	9112.8	8575.2	8507.3	9318.2	7349.6	5370.2
45°	10264.8	10229.9	10367.5	10479.8	10407.1	10147.5	9553.6	9246.5	9917.9	7656.6	5484.6
47.5°	9716.4	9739.7	10046.7	10678.4	10956.4	11092.1	10667.8	9972.1	10439.1	7886.2	5535.9
50°	8224.4	8243.8	8954.9	10317.0	11097.9	11862.3	11773.3	10680.4	10843.2	8026.8	5524.2
52.5°	7043.4	7056.0	7361.1	9245.5	10631.0	12249.9	12769.1	11347.9	11138.6	8065.5	5459.4
55°	5305.3	5348.9	5690.9	7253.6	9416.1	11942.8	13375.6	12035.8	11325.6	8069.4	5391.5
57.5°	3099.3	3146.7	3569.2	4923.6	7318.5	10872.2	13467.7	12646.1	11452.5	8038.4	5350.8
60°	1518.1	1538.5	1722.6	2587.7	4512.8	8809.6	12727.5	12941.6	11523.3	8021.9	5348.9
62.5°	1023.1	1020.2	1028.0	1276.9	2223.4	5659.8	11185.1	12424.2	11485.4	7958.9	5329.5
65°	879.7	869.0	840.0	896.2	1151.9	2588.7	8642.0	10880.0	11197.7	7801.0	5196.8
67.5°	760.6	761.5	762.5	745.1	822.6	1194.5	5281.1	8570.2	10164.9	7053.0	4685.3
70°	629.8	638.5	642.4	642.4	670.5	783.8	2254.5	5874.0	8018.1	5530.1	3773.5
72.5°	573.6	555.1	557.1	547.3	547.3	596.8	907.8	3329.8	5051.5	3110.9	2302.9
75°	467.9	479.6	481.5	474.7	452.4	455.3	538.6	1397.1	2161.4	1290.5	1138.4
77.5°	404.0	404.0	407.8	403.0	385.6	341.0	359.5	541.6	735.3	529.0	568.7
80°	324.5	323.6	340.1	349.7	322.7	251.9	229.6	299.4	326.5	232.5	295.5
82.5°	158.0	167.6	233.5	266.4	245.1	182.1	140.5	186.0	174.4	102.7	132.7
85°	92.0	87.2	104.7	148.2	140.5	100.8	67.9	96.9	91.0	52.3	53.3
87.5°	29.1	27.2	21.3	50.4	40.7	28.1	18.4	28.1	25.2	11.6	11.6
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°	4695.9	4695.9	4695.9	4695.9	4695.9	4695.9	4695.9	4695.9	4695.9	4695.9
2.5°	4642.6	4528.3	4415.0	4311.3	4248.3	4207.6	4166.9	4121.4	4104.0	4077.8
5°	4596.1	4375.2	4178.5	4009.0	3854.9	3733.9	3611.8	3513.0	3468.4	3498.4
7.5°	4569.0	4249.2	3946.0	3635.1	3335.7	3096.4	2888.0	2741.8	2675.9	2692.4
10°	4544.7	4106.9	3644.7	3153.5	2723.4	2426.9	2213.8	2102.4	2060.7	2069.4
12.5°	4522.5	3947.0	3281.4	2635.2	2177.9	1982.2	1921.2	1922.2	1929.9	1935.7
15°	4518.6	3754.2	2875.4	2181.8	1883.4	1870.8	1936.7	1978.4	2000.6	2007.5
17.5°	4512.8	3523.6	2461.7	1872.8	1811.7	1897.0	1958.0	1985.1	2002.5	2003.6
20°	4489.5	3231.0	2080.0	1725.5	1796.2	1869.8	1907.6	1928.9	1943.5	1948.3
22.5°	4417.9	2905.6	1782.7	1659.6	1734.2	1793.3	1837.8	1862.1	1870.8	1876.6
25°	4289.0	2541.3	1577.3	1596.6	1648.0	1722.6	1758.4	1763.3	1760.3	1769.0
27.5°	4120.4	2150.8	1449.4	1511.4	1577.3	1641.2	1660.6	1657.6	1651.9	1661.5
30°	3916.9	1800.1	1368.0	1415.4	1505.5	1563.7	1581.2	1574.3	1562.7	1573.4
32.5°	3701.9	1513.3	1301.1	1348.6	1446.5	1503.6	1521.1	1514.2	1505.5	1514.2
35°	3501.3	1312.7	1239.1	1304.0	1399.9	1456.1	1478.5	1479.4	1479.4	1490.0
37.5°	3317.3	1195.6	1187.8	1275.9	1368.0	1418.4	1450.4	1452.3	1410.6	1413.5
40°	3146.7	1146.2	1164.5	1257.6	1337.0	1385.4	1387.3	1278.9	1202.3	1200.4
42.5°	3007.2	1136.4	1171.3	1255.6	1314.7	1316.6	1180.1	1095.7	1074.4	1075.4
45°	2876.5	1133.5	1186.8	1255.6	1281.8	1137.4	1045.4	1023.1	1025.0	1032.8
47.5°	2730.2	1121.9	1189.7	1238.2	1186.8	1011.5	984.3	974.7	970.8	972.7
50°	2570.3	1080.2	1152.9	1203.2	1024.1	957.2	923.3	920.3	925.3	928.1
52.5°	2401.7	1012.4	1089.9	1140.3	949.5	909.7	872.0	878.7	900.1	906.8
55°	2291.3	933.0	1006.7	1014.3	897.2	865.2	833.2	848.7	888.4	901.0
57.5°	2262.2	848.7	911.6	902.9	830.2	826.5	807.1	820.6	870.9	889.4
60°	2253.5	773.2	818.7	811.9	765.4	783.8	778.9	785.8	803.2	808.9
62.5°	2185.7	713.1	735.3	725.7	707.2	739.2	750.8	736.4	749.9	756.7
65°	2013.2	664.6	653.9	647.2	655.0	684.0	707.2	678.1	690.7	710.1
67.5°	1728.4	598.7	569.7	577.4	601.7	617.2	647.2	614.3	624.9	657.8
70°	1398.0	515.4	489.2	511.6	534.7	566.7	571.6	549.3	574.5	611.3
72.5°	989.1	431.1	412.8	458.3	466.0	507.7	497.0	486.4	521.2	533.8
75°	685.9	347.8	337.1	372.1	400.2	435.9	428.2	440.9	514.4	520.3
77.5°	434.0	270.3	263.5	285.8	324.5	364.3	376.9	520.3	878.7	913.6
80°	251.9	201.5	193.7	211.3	245.1	282.0	363.3	638.5	579.3	572.6
82.5°	140.5	138.6	128.8	133.7	163.7	203.5	513.5	449.6	365.2	376.9
85°	65.9	81.4	69.8	66.8	92.0	238.3	343.0	256.8	170.6	166.7
87.5°	17.4	15.5	15.5	17.4	38.7	205.4	136.6	109.5	64.9	62.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)