

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: P965613

Luminaire Tested: **NAV-SB4A-735-U-SL3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965613
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-12)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-735-U-SL3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18009.2 lumens
Efficiency: N/A
Efficacy: 158.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - U0 - G3

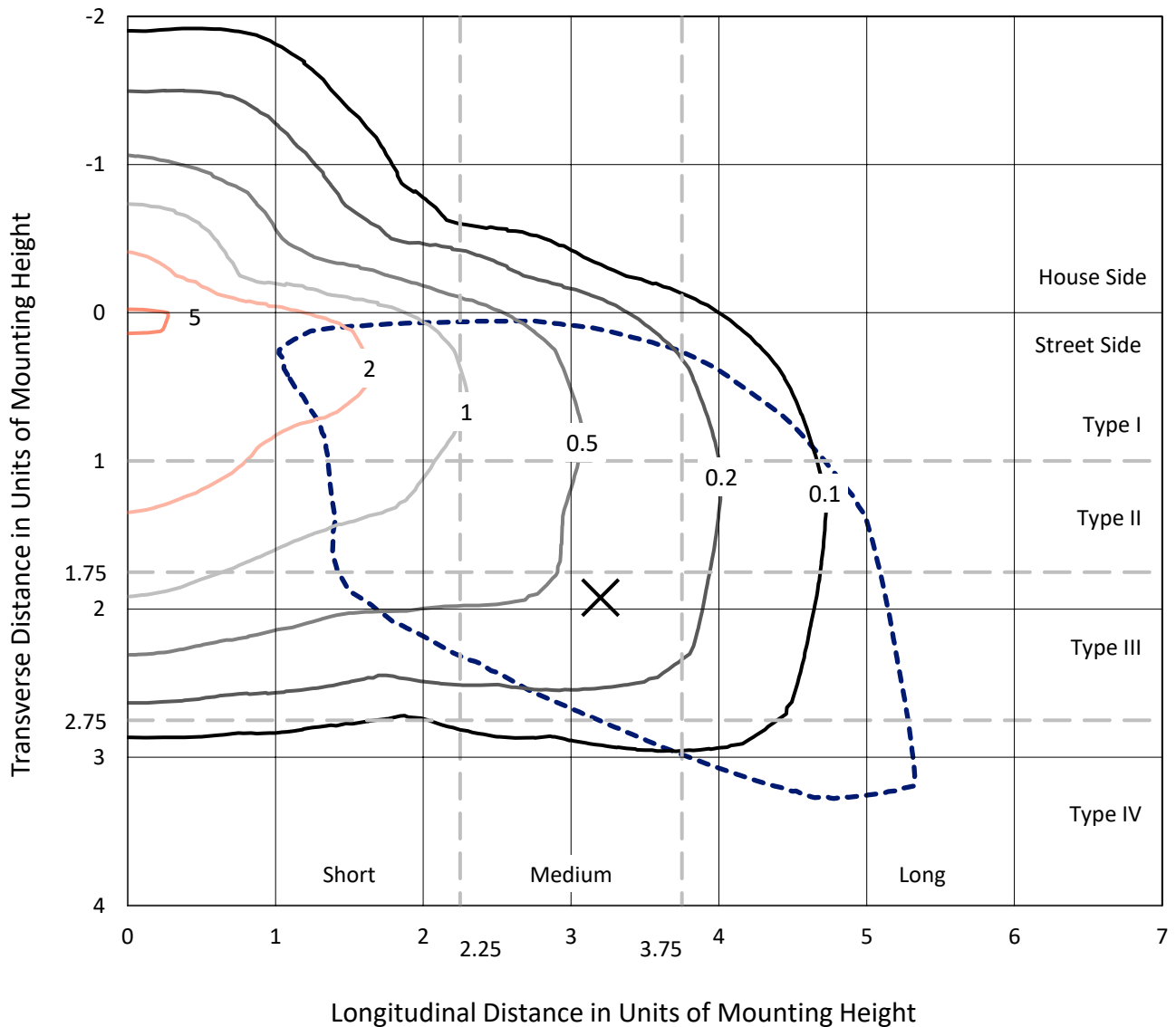
Input Watts (W): 114
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

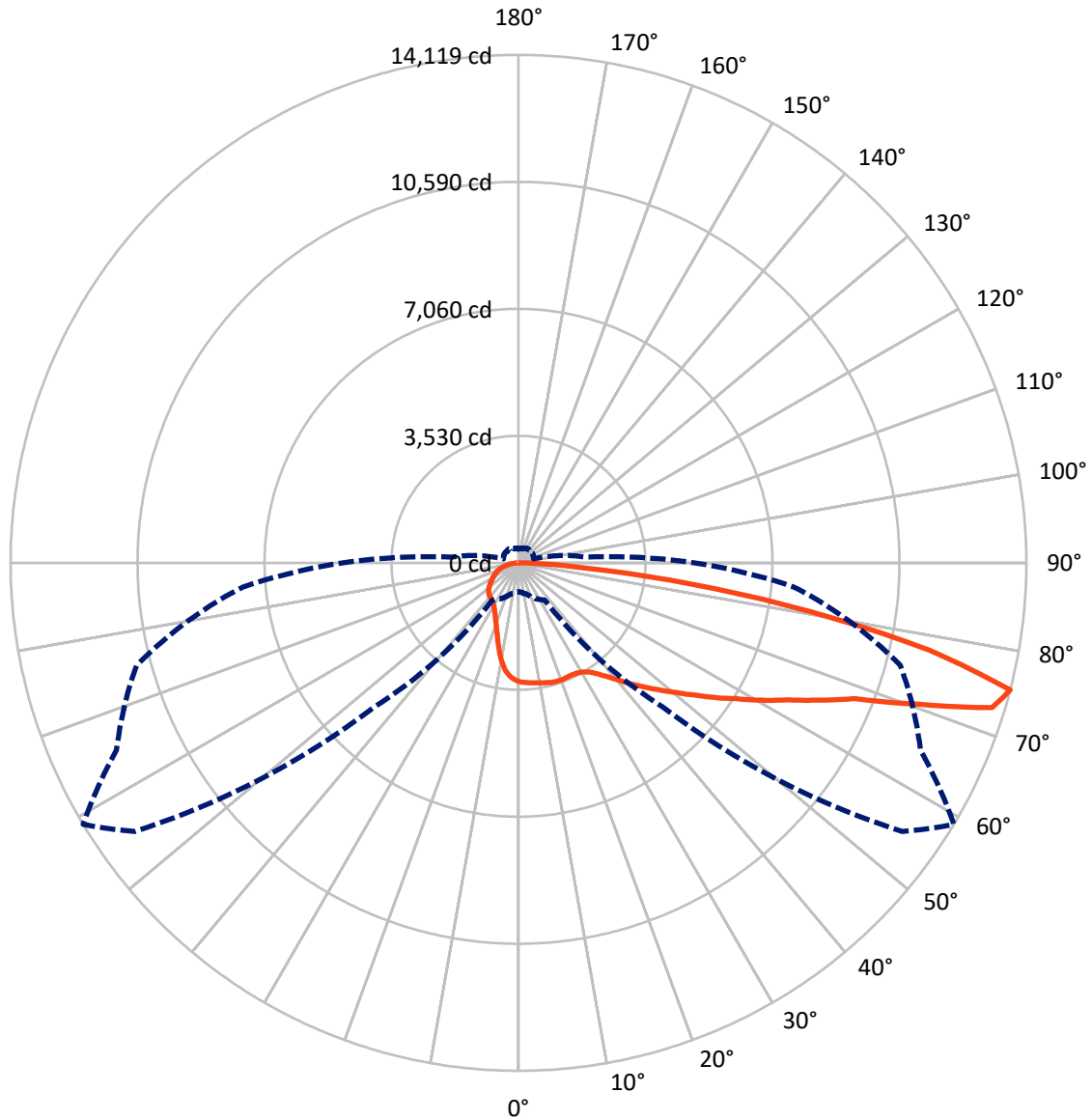
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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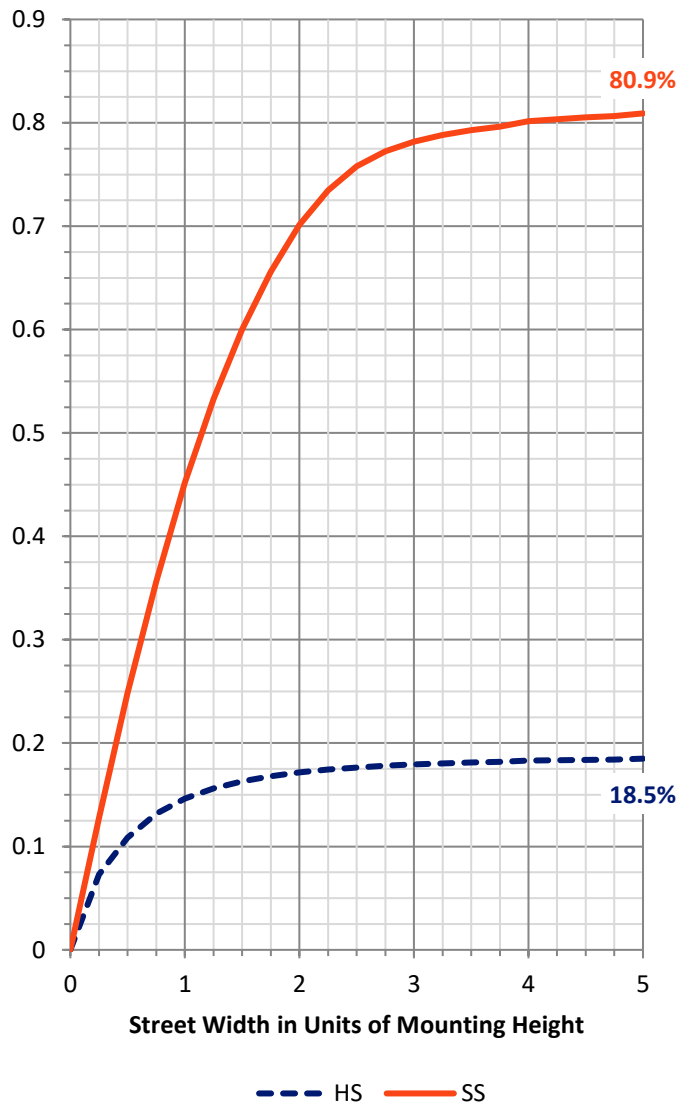
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3377.8	0.0	3377.8
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	14631.5	0.0	14631.5
	% Fixture	81.2	0.0	81.2
Total	Lumens	18009.2	0.0	18009.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	296.4	1.6
10°-20°	757.6	4.2
20°-30°	1150.7	6.4
30°-40°	1710.6	9.5
40°-50°	2543.9	14.1
50°-60°	3453.0	19.2
60°-70°	4215.6	23.4
70°-80°	3308.3	18.4
80°-90°	573.1	3.2
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°	18009.2	100.0
0°-180°	18009.2	100.0

Coefficient of Utilization

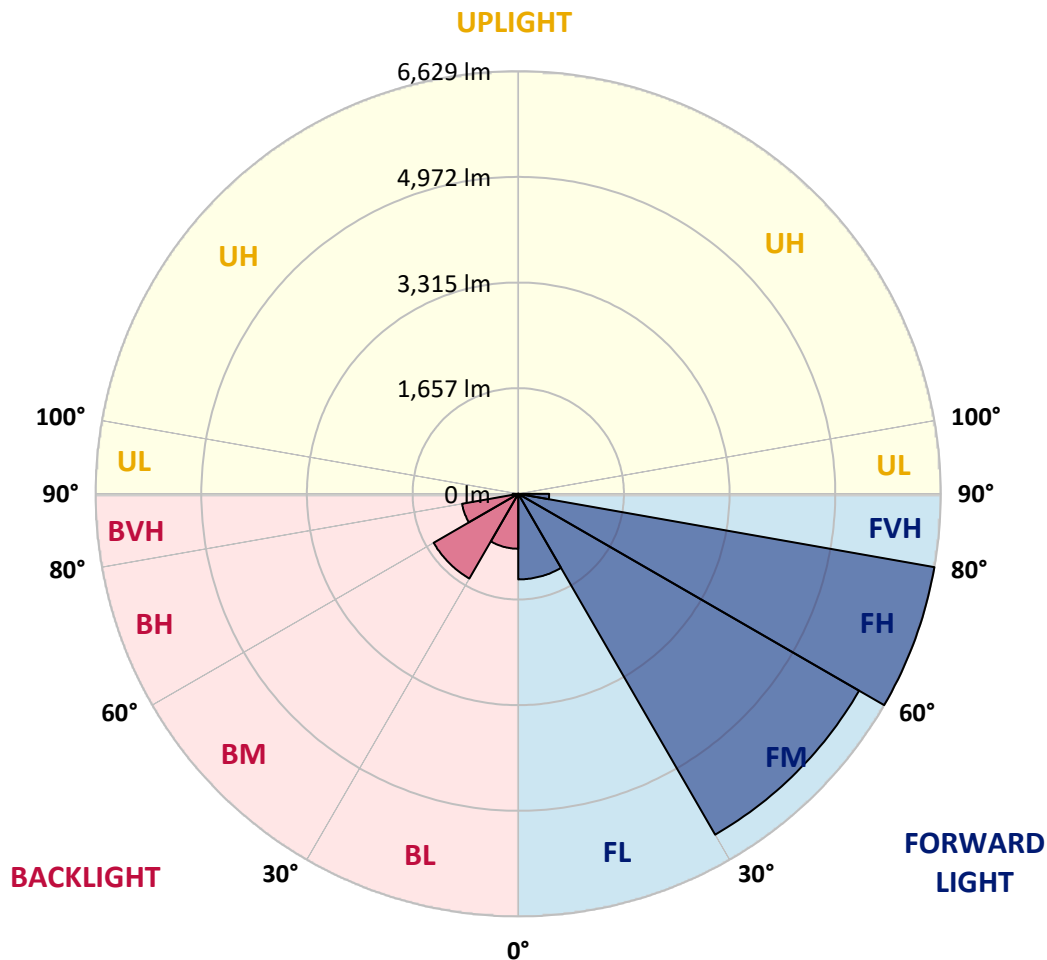


REPORT NUMBER: P965613
 CATALOG NUMBER: NAV-SB4A-735-U-SL3

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1342.8	7.5			
FM (30°-60°)	6174.3	34.3			
FH (60°-80°)	6629.0	36.8			G3/7500
FVH (80°-90°)	485.4	2.7			G3/500
BL (0°-30°)	862.0	4.8	B2/1000		
BM (30°-60°)	1533.2	8.5	B2/2500		
BH (60°-80°)	894.9	5.0	B2/1000		G2/1000
BVH (80°-90°)	87.7	0.5			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 IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	3305.5	3305.5	3305.5	3305.5	3305.5	3305.5	3305.5	3305.5	3305.5	3305.5	3305.5
2.5°	3333.6	3322.0	3333.6	3328.8	3326.8	3322.9	3324.0	3330.7	3326.8	3331.8	3315.3
5°	3311.4	3304.6	3316.2	3313.3	3325.9	3327.9	3340.5	3348.2	3353.0	3354.0	3341.4
7.5°	3274.6	3267.8	3284.2	3297.8	3324.9	3332.7	3358.8	3371.4	3378.2	3389.9	3371.4
10°	3139.9	3137.0	3177.7	3229.1	3292.9	3332.7	3372.5	3393.7	3404.3	3435.4	3414.1
12.5°	2901.6	2905.5	2958.8	3057.6	3185.4	3313.3	3387.9	3418.9	3435.4	3474.1	3464.4
15°	2673.9	2672.9	2731.0	2836.7	3015.9	3228.0	3395.6	3448.9	3477.0	3534.2	3526.4
17.5°	2542.1	2538.3	2579.0	2659.4	2826.0	3097.2	3376.2	3465.4	3525.5	3597.1	3590.4
20°	2517.9	2510.1	2531.4	2571.2	2689.4	2953.8	3325.9	3465.4	3564.2	3657.2	3653.4
22.5°	2606.1	2593.5	2584.7	2579.9	2632.2	2835.7	3268.7	3453.7	3621.4	3743.5	3736.6
25°	2783.4	2764.0	2719.4	2675.9	2660.3	2782.4	3218.4	3450.9	3706.6	3859.7	3834.5
27.5°	3070.2	3045.9	2955.8	2851.1	2757.2	2809.5	3196.1	3468.3	3800.6	3982.7	3932.4
30°	3425.7	3399.5	3286.2	3125.3	2956.8	2910.3	3224.1	3519.6	3920.7	4146.4	4047.6
32.5°	3744.4	3715.3	3618.5	3454.8	3227.1	3084.6	3313.3	3617.5	4109.6	4374.2	4221.1
35°	4027.3	3993.4	3906.2	3755.1	3558.4	3329.8	3474.1	3791.0	4378.0	4744.2	4456.5
37.5°	4304.4	4264.7	4169.7	4009.9	3872.3	3656.3	3695.9	4013.8	4734.6	5193.8	4768.4
40°	4614.4	4557.3	4441.9	4284.1	4150.3	4038.9	3987.6	4287.0	5096.9	5695.6	5157.9
42.5°	4914.8	4860.4	4722.9	4588.2	4420.6	4388.6	4325.7	4606.7	5493.1	6246.9	5553.1
45°	5238.4	5173.4	5006.8	4836.3	4730.7	4621.2	4653.2	4926.4	5881.7	6808.8	5967.9
47.5°	5541.6	5468.9	5272.2	5082.4	5024.2	4816.9	4953.5	5278.0	6285.6	7378.4	6378.6
50°	5705.3	5633.6	5469.9	5298.4	5252.8	5058.2	5279.1	5664.6	6708.9	7946.1	6772.9
52.5°	5841.9	5764.4	5550.3	5455.4	5441.7	5320.7	5680.1	6106.3	7132.4	8447.9	7153.7
55°	5987.2	5901.0	5627.8	5542.5	5604.5	5615.2	6155.7	6607.3	7579.9	8937.2	7513.0
57.5°	6154.8	6045.3	5702.4	5616.2	5763.4	5960.1	6702.2	7126.5	8019.8	9390.6	7832.7
60°	6312.8	6202.3	5845.8	5733.3	5934.9	6360.2	7329.0	7755.3	8517.8	9794.6	8135.0
62.5°	6343.7	6252.7	5960.1	5959.1	6167.4	6827.1	8071.1	8389.8	8952.8	10193.7	8406.3
65°	5807.0	5749.8	5576.4	5950.4	6500.7	7499.5	8897.5	9201.7	9505.8	10542.5	8644.6
67.5°	4419.7	4427.4	4414.9	5136.6	6231.4	8465.4	10094.0	10070.7	10188.9	10933.9	8918.8
70°	2020.9	2066.5	2362.9	3545.8	4992.3	8576.8	12072.2	11771.0	11046.3	11440.6	9156.1
72.5°	1091.8	1126.7	1247.8	1717.7	3001.3	7625.5	13550.7	13764.7	12186.5	11781.7	8895.6
75°	801.2	820.6	904.9	1091.8	1260.4	5667.5	13020.7	14119.4	12329.0	10986.3	7681.7
77.5°	599.7	608.4	677.2	865.1	645.2	2987.8	10404.0	11693.5	10554.1	9026.4	5674.3
80°	435.0	444.6	496.0	649.1	452.4	1092.9	7143.9	8207.7	7228.2	5753.7	2828.0
82.5°	300.3	304.2	326.5	441.8	315.8	424.4	4053.5	4813.0	4035.1	2018.9	763.4
85°	181.1	186.0	195.7	257.7	179.3	201.5	1749.7	1809.7	1206.1	482.5	237.4
87.5°	74.6	79.4	87.2	108.5	70.7	56.2	288.7	362.3	225.7	141.4	73.6
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: P965613
 CATALOG NUMBER: NAV-SB4A-735-U-SL3

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3305.5	3305.5	3305.5	3305.5	3305.5	3305.5	3305.5	3305.5	3305.5	3305.5	3305.5
2.5°	3310.4	3303.6	3285.2	3260.0	3236.7	3207.7	3195.1	3184.5	3174.7	3156.4	3147.7
5°	3330.7	3312.4	3262.9	3199.0	3126.4	3046.9	2969.4	2916.1	2870.6	2836.7	2808.6
7.5°	3361.8	3326.8	3236.7	3106.0	2939.4	2768.8	2614.8	2505.3	2423.0	2393.0	2340.6
10°	3393.7	3352.1	3195.1	2964.5	2676.8	2414.3	2209.8	2097.5	2031.5	2010.2	1977.3
12.5°	3431.5	3370.5	3130.2	2767.9	2383.2	2095.5	1917.3	1851.4	1817.4	1805.8	1808.7
15°	3486.7	3386.0	3032.4	2521.8	2103.3	1863.0	1747.7	1702.2	1684.8	1683.8	1687.7
17.5°	3528.4	3388.9	2880.2	2258.3	1888.2	1722.5	1627.6	1610.2	1621.8	1639.2	1646.0
20°	3574.9	3362.7	2680.7	2018.0	1737.1	1599.5	1559.7	1571.4	1599.5	1624.7	1633.4
22.5°	3607.8	3315.3	2439.4	1831.1	1606.3	1528.8	1526.8	1551.0	1566.5	1579.1	1586.0
25°	3636.9	3234.8	2183.7	1674.1	1498.8	1486.1	1507.5	1499.7	1489.0	1499.7	1506.4
27.5°	3658.2	3107.9	1955.1	1536.5	1423.2	1457.0	1444.5	1427.0	1426.1	1431.9	1441.6
30°	3651.5	2938.4	1767.1	1405.7	1369.9	1402.8	1372.8	1369.9	1366.9	1369.9	1380.6
32.5°	3651.5	2745.6	1622.8	1315.6	1336.0	1323.4	1320.5	1313.7	1302.1	1301.1	1313.7
35°	3671.8	2552.8	1498.8	1267.2	1307.9	1277.9	1279.8	1263.3	1239.1	1227.4	1239.1
37.5°	3713.5	2397.8	1375.7	1243.9	1258.5	1257.5	1249.8	1221.7	1179.1	1142.3	1154.8
40°	3814.2	2352.3	1291.4	1233.3	1235.2	1246.8	1226.5	1172.3	1075.3	1015.3	1023.1
42.5°	3972.1	2428.8	1273.0	1207.1	1219.8	1231.3	1191.7	1065.7	996.9	961.0	961.0
45°	4172.7	2562.5	1312.7	1169.3	1183.0	1203.2	1085.1	1025.0	993.9	995.0	999.8
47.5°	4426.5	2702.9	1386.3	1136.4	1129.7	1141.2	1014.3	977.5	934.9	945.6	972.7
50°	4720.0	2845.4	1456.1	1091.8	1070.5	1032.8	968.8	933.9	879.7	854.4	861.3
52.5°	5037.8	2983.0	1484.2	1037.6	1006.6	963.0	937.8	895.1	829.3	787.6	786.7
55°	5339.1	3107.9	1453.2	972.7	942.7	908.8	904.9	878.7	808.0	749.9	749.9
57.5°	5623.9	3212.6	1375.7	906.8	877.7	857.4	883.6	870.9	781.9	707.2	703.4
60°	5865.2	3284.2	1263.3	840.0	819.6	808.9	848.7	844.8	745.0	661.7	658.8
62.5°	6056.9	3312.4	1139.3	776.0	771.2	751.8	800.2	800.2	698.5	617.2	614.2
65°	6207.1	3285.2	1013.4	713.0	722.7	693.6	741.2	735.3	649.1	577.4	573.5
67.5°	6339.8	3196.1	873.8	651.1	673.3	636.5	679.2	665.5	594.8	537.7	533.8
70°	6399.0	2988.8	714.9	589.1	616.1	580.4	617.2	591.9	533.8	495.1	487.3
72.5°	5924.2	2484.0	562.8	524.1	547.3	518.3	550.3	521.2	467.9	450.5	435.9
75°	4901.1	1864.0	433.1	453.4	470.9	448.5	469.9	448.5	400.2	412.7	376.9
77.5°	3559.4	1258.5	331.3	378.8	386.5	374.9	393.3	369.1	325.5	322.6	308.1
80°	1770.0	737.3	259.6	299.4	296.4	288.7	310.1	298.4	261.6	277.1	274.2
82.5°	512.5	315.8	188.9	210.2	204.4	206.3	221.8	227.7	341.0	338.1	345.8
85°	160.8	124.0	113.4	117.3	111.4	114.3	130.8	259.6	240.3	140.5	152.1
87.5°	41.6	42.6	28.1	30.0	31.0	36.8	41.6	158.0	75.5	49.4	52.3
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)