

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: P883596

Luminaire Tested: **NAV-SB4A-735-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883596
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-735-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13275 lumens
Efficiency: N/A
Efficacy: 116.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

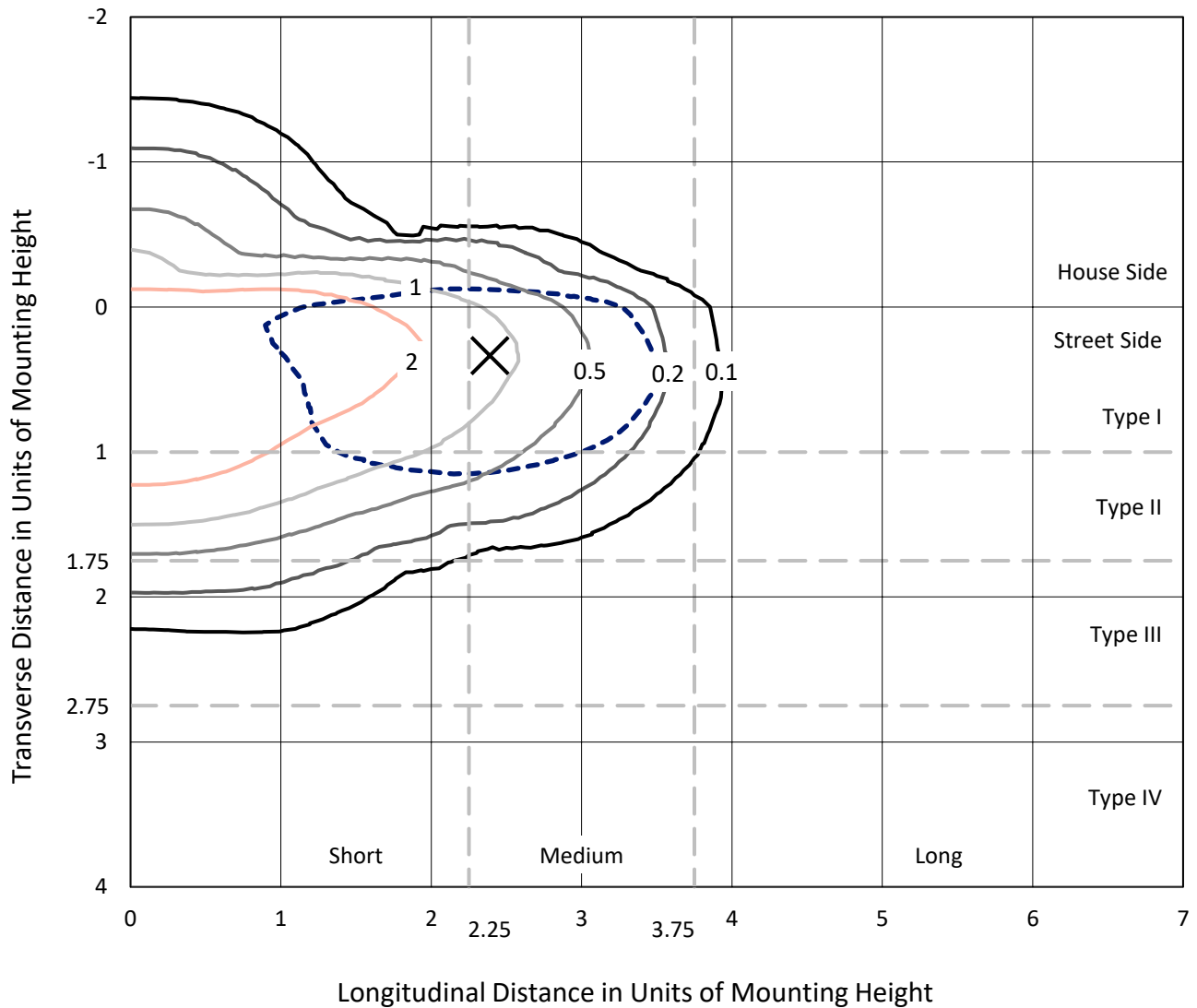
Input Watts (W): 114
Input Voltage (V): 120.0
Input Current (Ain): 0.952
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 8.206
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P883596
 CATALOG NUMBER: NAV-SB4A-735-U-T2-HSS

Iso-Footcandle Lines of Horizontal Illumination

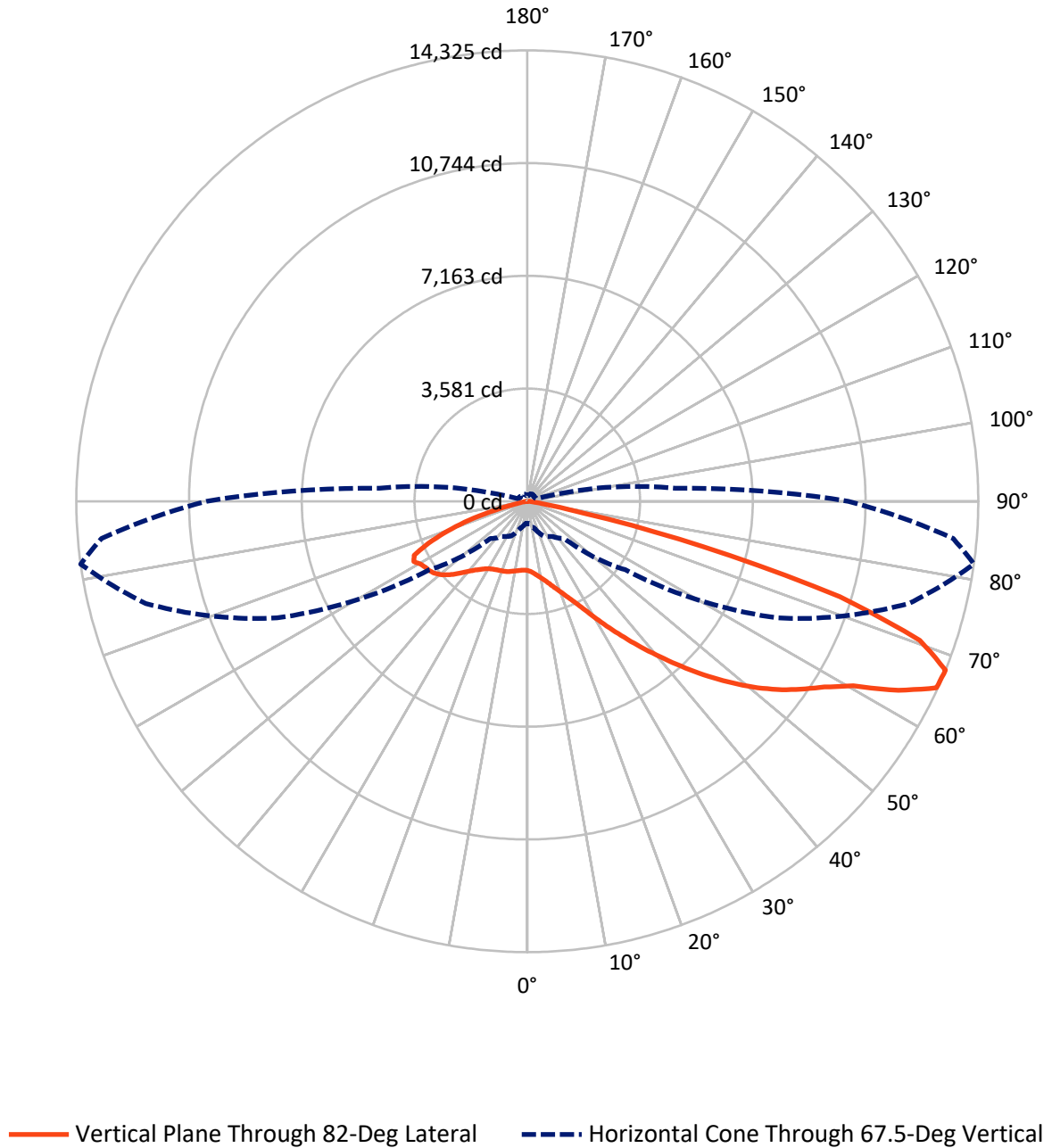
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 fc
 Type II - Medium - N/A

REPORT NUMBER: P883596
CATALOG NUMBER: NAV-SB4A-735-U-T2-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P883596
 CATALOG NUMBER: NAV-SB4A-735-U-T2-HSS

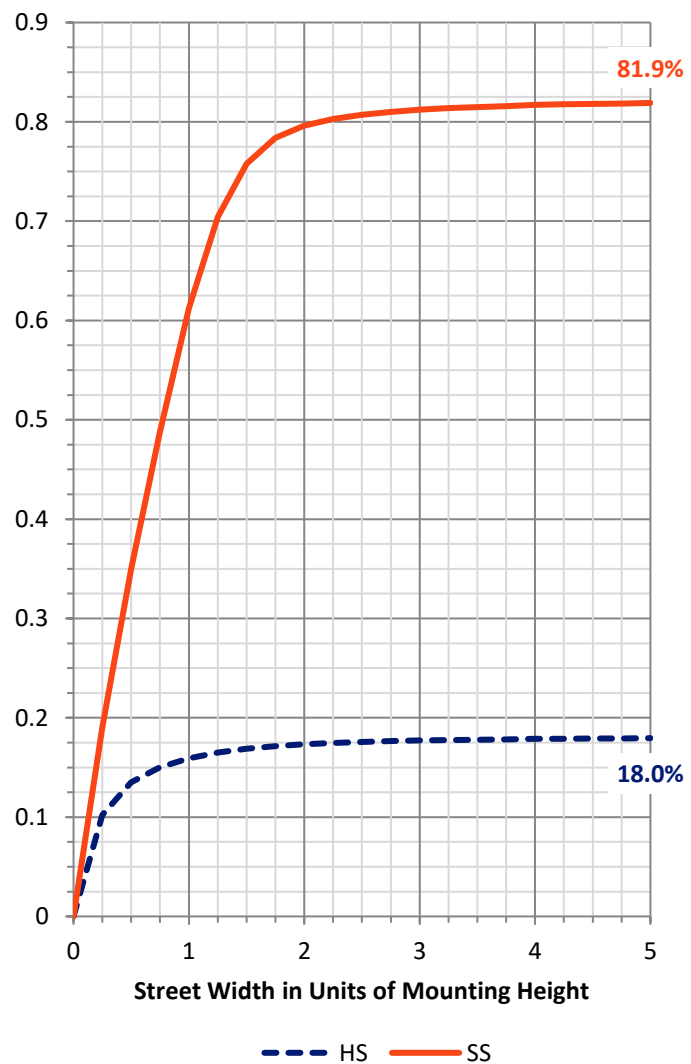
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2404.7	0.0	2404.7
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	10870.3	0.0	10870.3
	% Fixture	81.9	0.0	81.9
Total	Lumens	13275.0	0.0	13275.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.9	1.5
10°-20°	509.2	3.8
20°-30°	815.5	6.1
30°-40°	1442.1	10.9
40°-50°	2526.6	19.0
50°-60°	3369.8	25.4
60°-70°	3137.1	23.6
70°-80°	1204.0	9.1
80°-90°	74.8	0.6
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°	13275.0	100.0
0°-180°	13275.0	100.0

Coefficient of Utilization



REPORT NUMBER: P883596

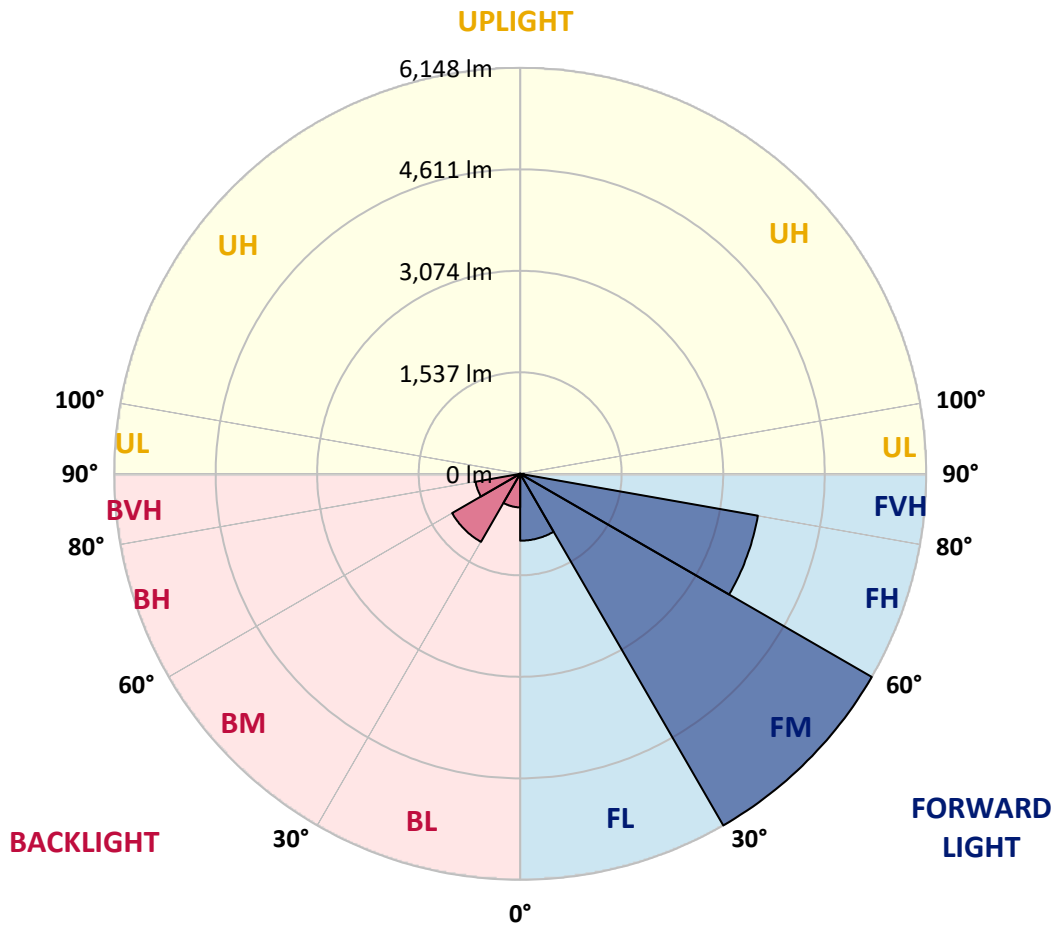
CATALOG NUMBER: NAV-SB4A-735-U-T2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1012.7	7.6			
FM (30°-60°)	6148.4	46.3			
FH (60°-80°)	3654.8	27.5			G2/5000
FVH (80°-90°)	54.4	0.4			G1/100
BL (0°-30°)	507.9	3.8	B2/1000		
BM (30°-60°)	1190.0	9.0	B2/2500		
BH (60°-80°)	686.3	5.2	B2/1000		G2/1000
BVH (80°-90°)	20.4	0.2			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 II Medium



REPORT NUMBER: P883596
 CATALOG NUMBER: NAV-SB4A-735-U-T2-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2199.2	2199.2	2199.2	2199.2	2199.2	2199.2	2199.2	2199.2	2199.2	2199.2	2199.2
2.5°	2324.4	2337.8	2330.2	2326.3	2319.6	2310.1	2302.4	2278.5	2253.7	2237.4	2231.7
5°	2371.3	2384.6	2383.7	2387.5	2392.3	2395.2	2393.2	2366.5	2331.1	2303.4	2287.1
7.5°	2331.1	2346.4	2358.8	2377.9	2411.4	2446.8	2464.0	2458.2	2421.9	2383.7	2363.6
10°	2217.4	2233.6	2263.3	2308.2	2378.9	2455.4	2519.4	2549.0	2526.1	2484.0	2456.3
12.5°	2009.0	2025.3	2083.6	2181.1	2299.6	2432.4	2554.8	2634.1	2639.8	2597.8	2565.3
15°	1774.9	1791.1	1853.2	1975.6	2156.2	2369.3	2573.9	2723.9	2774.6	2738.3	2699.1
17.5°	1629.6	1643.9	1690.8	1789.2	1977.5	2243.2	2567.2	2819.5	2935.2	2906.5	2859.7
20°	1585.6	1598.0	1620.0	1688.8	1845.6	2112.2	2523.2	2909.4	3108.2	3091.9	3039.3
22.5°	1632.4	1643.9	1650.6	1681.2	1779.6	2026.2	2467.8	3001.1	3308.9	3310.8	3246.7
25°	1740.5	1751.9	1744.3	1763.4	1806.4	1999.5	2446.8	3109.1	3561.2	3582.2	3509.6
27.5°	1918.2	1919.2	1901.0	1900.1	1906.8	2039.6	2468.7	3224.8	3879.5	3918.6	3828.8
30°	2274.7	2260.4	2190.6	2115.1	2080.7	2160.0	2529.9	3361.4	4255.1	4324.8	4212.1
32.5°	2824.3	2803.3	2675.2	2494.6	2313.0	2354.1	2639.8	3517.2	4664.1	4790.3	4652.7
35°	3420.7	3415.0	3281.1	3012.6	2695.3	2630.3	2818.6	3721.8	5110.5	5311.2	5147.8
37.5°	3975.0	3972.2	3895.7	3579.3	3193.2	3015.4	3105.3	3989.4	5588.4	5878.9	5685.9
40°	4481.6	4490.2	4413.7	4130.8	3741.8	3509.6	3495.2	4320.1	6119.8	6497.3	6267.9
42.5°	4919.3	4928.9	4851.5	4642.2	4283.7	4056.3	3974.1	4725.3	6638.8	7161.6	6890.1
45°	5216.6	5275.8	5264.4	5097.1	4840.0	4603.9	4549.4	5233.8	7230.4	7866.0	7547.7
47.5°	5300.7	5355.2	5441.2	5464.1	5307.4	5075.1	5140.1	5846.4	7828.7	8571.3	8209.1
50°	5093.3	5143.9	5322.7	5560.6	5669.6	5597.9	5714.5	6503.0	8441.3	9274.8	8858.0
52.5°	4684.2	4735.8	4961.4	5338.0	5782.4	6007.9	6290.9	7150.1	9034.9	9940.9	9472.6
55°	4092.6	4147.1	4436.7	4862.9	5567.3	6177.1	6771.6	7796.2	9578.7	10540.2	10026.9
57.5°	3287.8	3328.0	3629.0	4225.4	5026.4	6008.9	7126.2	8501.5	10091.0	11128.9	10576.5
60°	2142.8	2178.2	2528.0	3193.2	4129.9	5446.9	7196.9	9288.1	10771.5	11894.5	11317.2
62.5°	1425.0	1448.9	1656.3	2144.7	2908.4	4367.9	6783.1	9916.1	11769.3	13226.8	12587.4
65°	977.7	1001.6	1209.0	1549.3	1879.0	2889.3	5593.1	9832.9	12673.5	14284.9	13528.9
67.5°	697.7	717.8	893.6	1214.8	1360.1	1678.3	3791.5	8770.1	12543.5	14325.0	13579.5
70°	499.9	511.3	656.6	946.2	1081.0	1008.3	2108.4	6707.6	10982.7	13227.8	12545.4
72.5°	349.8	353.6	455.9	720.6	870.7	735.9	1003.6	4472.0	8306.6	10382.5	9725.9
75°	237.0	241.8	306.8	528.5	698.7	562.0	531.4	2398.0	4876.3	5747.0	5151.6
77.5°	145.3	147.2	197.8	361.3	522.8	428.2	342.2	1016.0	1886.7	1852.3	1578.9
80°	82.2	82.2	126.2	224.6	356.5	276.2	239.9	432.0	597.4	524.7	462.6
82.5°	45.9	46.8	91.8	139.5	236.1	163.4	131.9	199.8	258.1	228.4	198.8
85°	19.1	21.0	56.4	65.9	112.8	81.2	53.5	84.1	95.6	85.1	62.1
87.5°	1.9	2.9	17.2	12.4	13.4	16.2	7.6	16.2	13.4	13.4	9.6
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: P883596
 CATALOG NUMBER: NAV-SB4A-735-U-T2-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2199.2	2199.2	2199.2	2199.2	2199.2	2199.2	2199.2	2199.2	2199.2	2199.2	2199.2
2.5°	2213.6	2199.2	2162.9	2120.8	2065.4	2038.6	2002.3	1977.5	1956.5	1958.4	1939.2
5°	2256.6	2220.2	2139.0	2037.7	1911.5	1821.7	1726.1	1660.2	1606.6	1595.2	1569.4
7.5°	2315.8	2258.5	2116.1	1933.5	1720.4	1558.9	1414.5	1321.8	1255.9	1234.9	1213.8
10°	2392.3	2309.1	2086.4	1802.6	1495.8	1290.3	1135.5	1062.8	1017.9	1002.6	991.1
12.5°	2481.2	2367.4	2047.3	1643.0	1264.5	1066.6	968.2	931.9	917.5	912.8	909.9
15°	2593.0	2440.1	1988.0	1453.7	1068.5	930.0	887.9	883.1	885.0	883.1	882.2
17.5°	2725.8	2519.4	1891.5	1258.7	936.7	860.2	844.9	848.7	853.5	852.5	850.6
20°	2871.1	2597.8	1768.2	1085.8	846.8	810.5	801.9	805.7	809.5	807.6	806.7
22.5°	3036.5	2681.9	1631.5	951.0	786.6	764.6	755.1	756.0	756.0	752.2	750.3
25°	3234.3	2774.6	1488.1	855.4	740.7	723.5	712.0	708.2	702.5	691.0	689.1
27.5°	3470.4	2873.0	1350.5	788.5	704.4	688.2	674.8	665.2	650.9	631.8	629.8
30°	3736.1	2992.5	1233.9	746.5	675.7	659.5	644.2	629.8	608.8	584.9	583.0
32.5°	4048.6	3120.6	1148.8	718.7	649.9	632.7	614.6	597.4	574.4	550.5	551.5
35°	4421.4	3275.4	1099.1	699.6	629.8	606.9	586.8	567.7	550.5	529.5	527.6
37.5°	4825.7	3439.8	1083.8	690.1	616.5	581.1	558.2	544.8	542.9	530.5	529.5
40°	5268.2	3634.8	1095.3	684.3	602.1	556.3	531.4	528.5	533.3	511.3	512.3
42.5°	5736.5	3866.1	1114.4	677.6	582.1	531.4	507.5	507.5	503.7	473.1	473.1
45°	6243.1	4132.7	1133.5	661.4	558.2	506.6	488.4	481.7	465.5	435.8	434.9
47.5°	6753.4	4404.2	1147.9	631.8	529.5	485.5	469.3	454.0	430.1	403.3	402.4
50°	7238.0	4647.9	1132.6	587.8	497.0	465.5	448.3	427.2	401.4	383.3	380.4
52.5°	7671.0	4859.1	1067.6	536.2	462.6	444.4	429.1	407.2	386.1	367.0	365.1
55°	8047.6	5030.2	952.9	487.4	432.0	426.3	411.0	383.3	354.6	338.3	336.4
57.5°	8408.8	5160.2	809.5	447.3	404.3	406.2	383.3	358.4	331.7	314.4	312.5
60°	8889.6	5334.1	664.3	410.0	374.7	380.4	355.5	337.4	303.9	282.0	279.1
62.5°	9658.0	5604.6	527.6	364.1	340.3	342.2	331.7	309.7	269.5	243.7	241.8
65°	10267.8	5505.2	415.8	314.4	301.1	303.9	303.9	280.0	237.0	207.4	204.5
67.5°	10199.0	4713.8	331.7	265.7	263.8	265.7	272.4	252.3	210.3	186.4	182.6
70°	9395.2	3749.5	265.7	220.8	229.4	224.6	243.7	230.3	189.2	165.3	162.5
72.5°	7666.2	2701.0	202.6	182.6	175.9	183.5	219.8	207.4	157.7	130.9	128.1
75°	4479.7	1441.3	151.0	144.3	127.1	152.9	195.0	176.8	120.4	96.5	93.7
77.5°	1458.5	502.7	110.9	106.1	94.6	123.3	166.3	149.1	98.4	76.5	73.6
80°	390.9	152.0	75.5	69.8	61.2	91.8	131.9	118.5	70.7	49.7	48.7
82.5°	156.7	64.0	44.0	39.2	33.5	63.1	104.2	95.6	52.6	31.5	31.5
85°	50.7	21.0	16.2	12.4	15.3	39.2	62.1	65.0	37.3	16.2	12.4
87.5°	6.7	2.9	2.9	3.8	2.9	6.7	19.1	18.2	10.5	1.9	0.0
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)