

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: P962924

Luminaire Tested: **NAV-SB2D-727-U-T2-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962924
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-727-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14127.6 lumens
Efficiency: N/A
Efficacy: 95.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

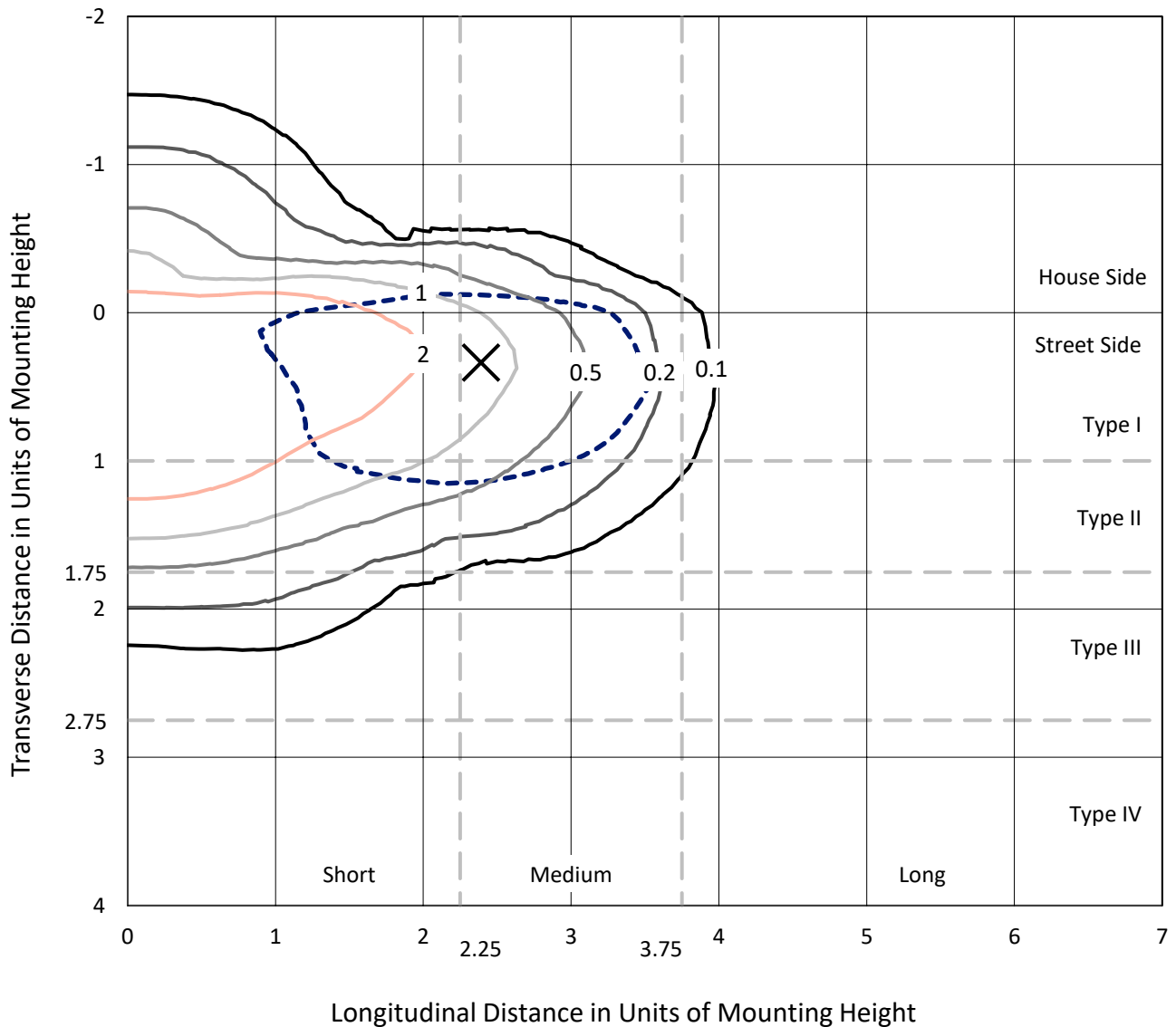
Input Watts (W): 147.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

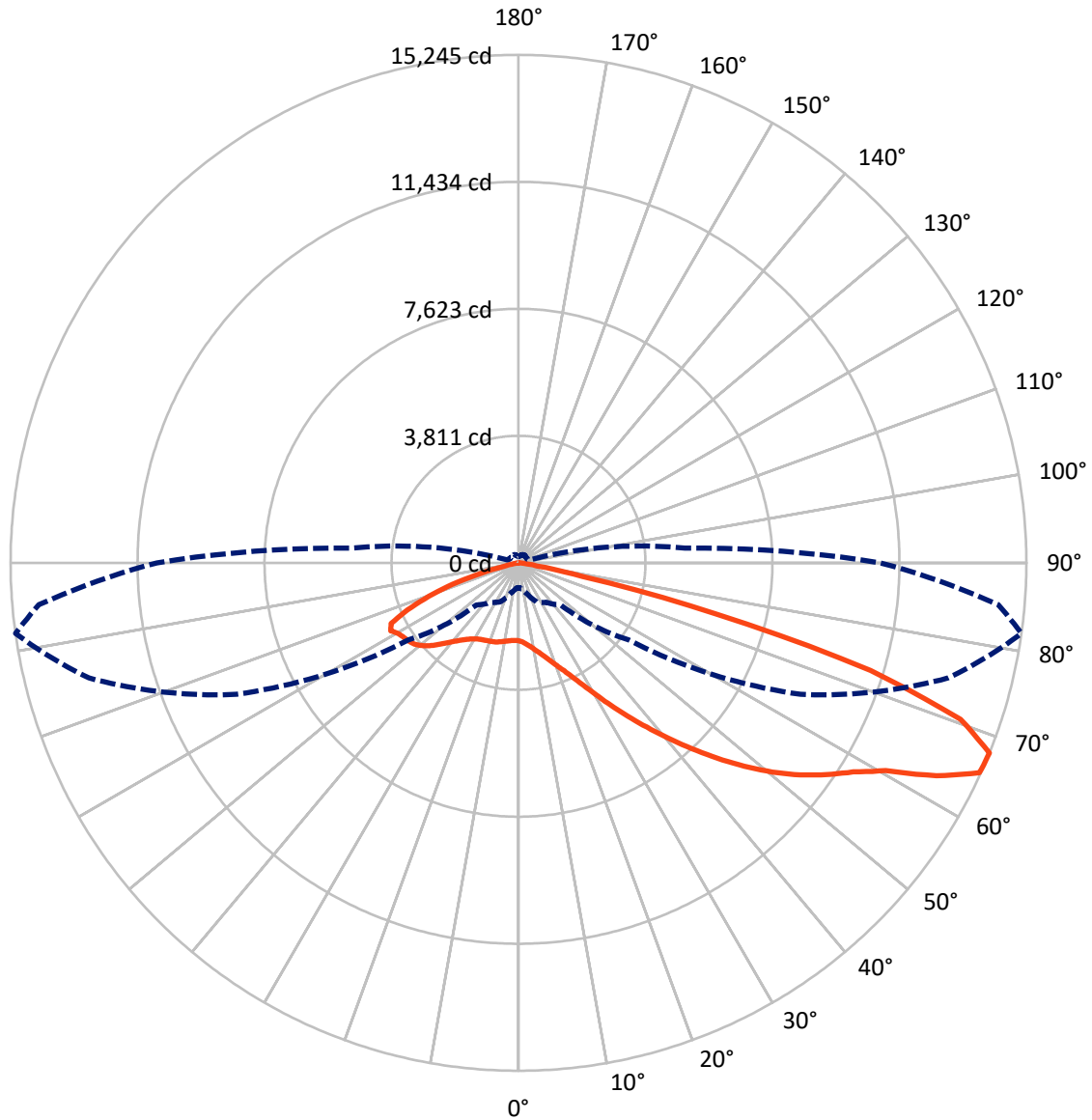
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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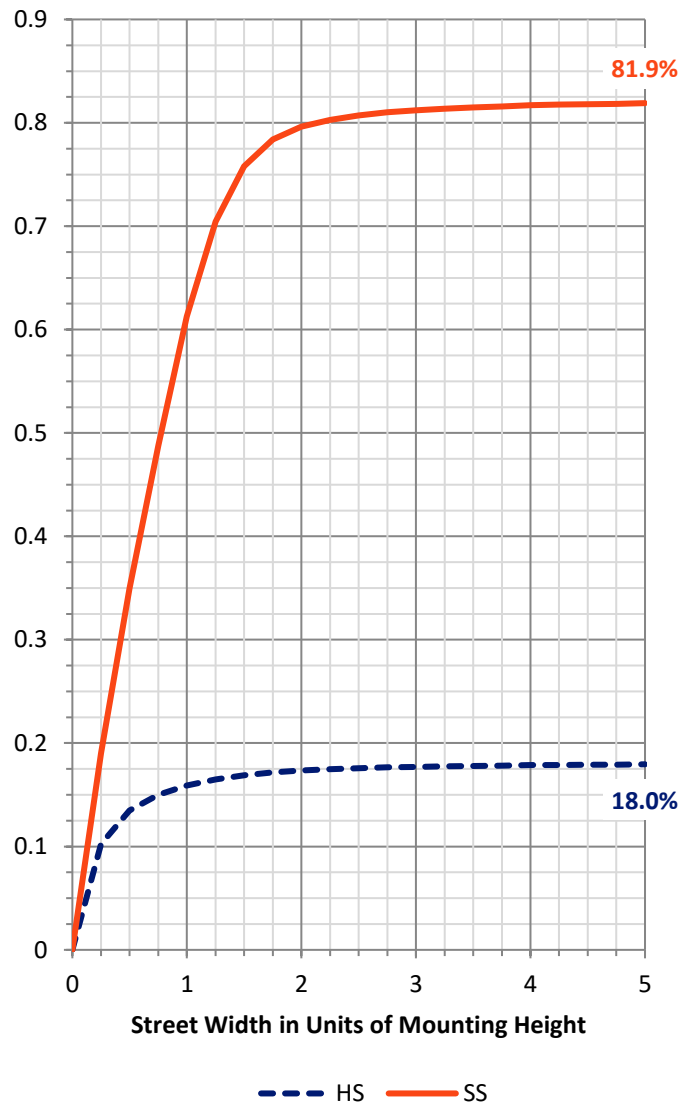
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2559.1	0.0	2559.1
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	11568.5	0.0	11568.5
	% Fixture	81.9	0.0	81.9
Total	Lumens	14127.6	0.0	14127.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.5	1.5
10°-20°	541.9	3.8
20°-30°	867.9	6.1
30°-40°	1534.7	10.9
40°-50°	2688.9	19.0
50°-60°	3586.2	25.4
60°-70°	3338.6	23.6
70°-80°	1281.4	9.1
80°-90°	79.6	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°	14127.6	100.0
0°-180°	14127.6	100.0

Coefficient of Utilization



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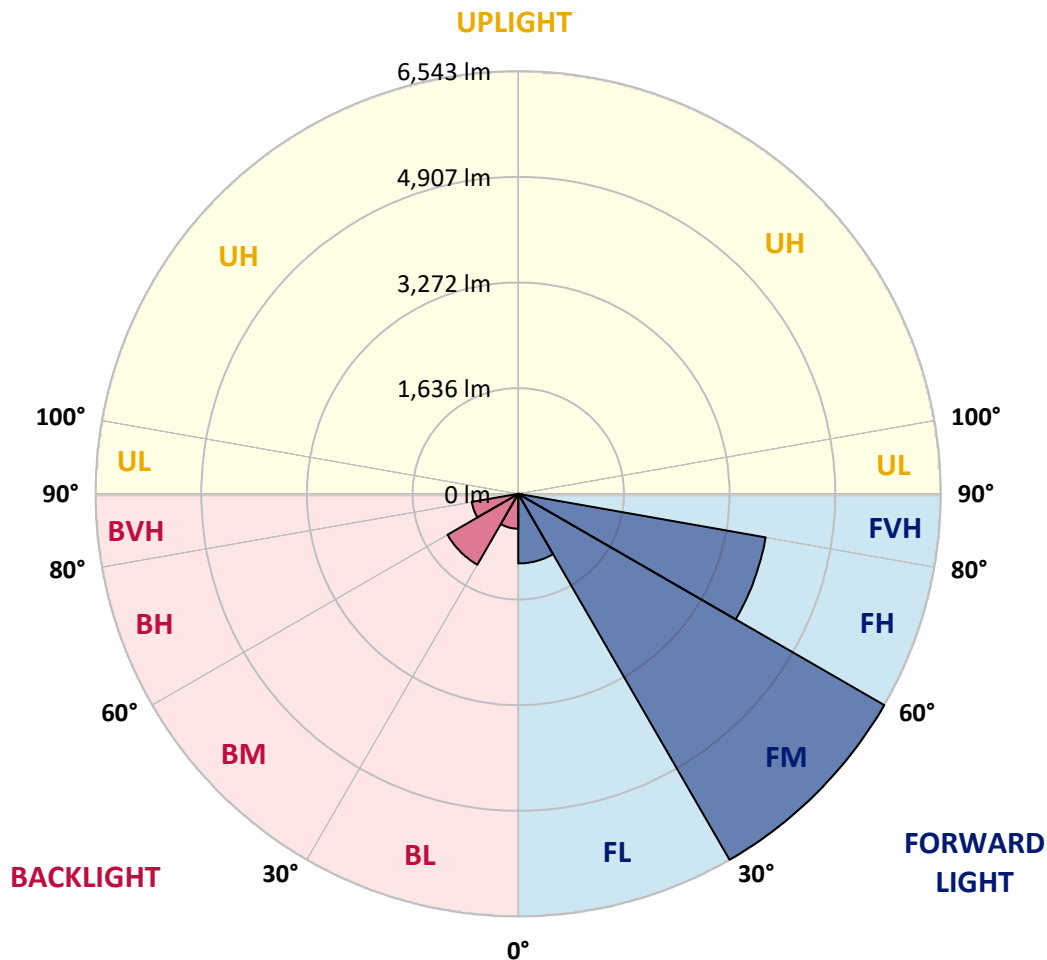
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1077.8	7.6			
FM (30°-60°)	6543.3	46.3			
FH (60°-80°)	3889.5	27.5			G2/5000
FVH (80°-90°)	57.9	0.4			G1/100
BL (0°-30°)	540.5	3.8	B2/1000		
BM (30°-60°)	1266.5	9.0	B2/2500		
BH (60°-80°)	730.4	5.2	B2/1000		G2/1000
BVH (80°-90°)	21.7	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



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2340.5	2340.5	2340.5	2340.5	2340.5	2340.5	2340.5	2340.5	2340.5	2340.5	2340.5
2.5°	2473.7	2488.0	2479.8	2475.8	2468.6	2458.5	2450.3	2424.8	2398.4	2381.2	2375.0
5°	2523.5	2537.8	2536.8	2540.9	2545.9	2549.0	2546.9	2518.4	2480.8	2451.3	2434.1
7.5°	2480.8	2497.1	2510.3	2530.6	2566.3	2603.9	2622.3	2616.1	2577.5	2536.8	2515.5
10°	2359.8	2377.1	2408.6	2456.4	2531.6	2613.0	2681.2	2712.8	2688.4	2643.6	2614.1
12.5°	2138.0	2155.4	2217.4	2321.1	2447.3	2588.6	2718.8	2803.3	2809.3	2764.6	2730.0
15°	1888.9	1906.1	1972.2	2102.5	2294.7	2521.5	2739.2	2898.9	2952.8	2914.2	2872.5
17.5°	1734.2	1749.5	1799.4	1904.1	2104.5	2387.2	2732.0	3000.6	3123.7	3093.1	3043.3
20°	1687.5	1700.7	1724.0	1797.3	1964.1	2247.9	2685.3	3096.2	3307.8	3290.5	3234.5
22.5°	1737.3	1749.5	1756.6	1789.1	1893.9	2156.4	2626.3	3193.9	3521.4	3523.4	3455.3
25°	1852.3	1864.5	1856.3	1876.7	1922.4	2127.9	2603.9	3308.8	3789.9	3812.3	3735.0
27.5°	2041.4	2042.4	2023.1	2022.1	2029.2	2170.6	2627.3	3431.9	4128.6	4170.3	4074.7
30°	2420.8	2405.6	2331.3	2251.0	2214.3	2298.8	2692.4	3577.4	4528.3	4602.6	4482.5
32.5°	3005.7	2983.3	2847.0	2654.7	2461.5	2505.2	2809.3	3743.1	4963.7	5097.9	4951.5
35°	3640.4	3634.2	3491.9	3206.1	2868.4	2799.2	2999.6	3960.8	5438.6	5652.3	5478.3
37.5°	4230.3	4227.3	4145.9	3809.2	3398.3	3209.1	3304.7	4245.5	5947.3	6256.5	6051.0
40°	4769.4	4778.5	4697.2	4396.1	3982.1	3735.0	3719.7	4597.5	6512.8	6914.5	6670.5
42.5°	5235.3	5245.4	5163.0	4940.3	4558.9	4316.8	4229.4	5028.8	7065.1	7621.5	7332.6
45°	5551.6	5614.6	5602.4	5424.5	5150.8	4899.6	4841.6	5570.0	7694.8	8371.2	8032.4
47.5°	5641.1	5699.1	5790.6	5815.0	5648.3	5401.0	5470.2	6221.9	8331.5	9121.8	8736.3
50°	5420.4	5474.3	5664.5	5917.7	6033.8	5957.4	6081.5	6920.7	8983.5	9870.4	9426.9
52.5°	4985.1	5039.9	5280.0	5680.8	6153.8	6393.8	6694.9	7609.3	9615.1	10579.3	10081.0
55°	4355.4	4413.4	4721.6	5175.2	5924.9	6573.8	7206.5	8296.9	10193.8	11217.1	10670.9
57.5°	3499.0	3541.7	3862.1	4496.8	5349.2	6394.8	7583.9	9047.6	10739.0	11843.7	11255.7
60°	2280.4	2318.0	2690.3	3398.3	4395.1	5796.8	7659.1	9884.7	11463.3	12658.4	12044.1
62.5°	1516.6	1542.0	1762.7	2282.5	3095.2	4648.4	7218.7	10552.9	12525.2	14076.3	13395.8
65°	1040.6	1066.0	1286.7	1648.8	1999.7	3074.8	5952.4	10464.4	13487.4	15202.3	14397.8
67.5°	742.5	763.8	951.0	1292.8	1447.4	1786.2	4035.0	9333.3	13349.1	15245.0	14451.7
70°	532.0	544.2	698.7	1007.0	1150.4	1073.1	2243.8	7138.3	11688.1	14077.4	13351.1
72.5°	372.3	376.4	485.1	766.9	926.6	783.2	1068.0	4759.3	8840.0	11049.3	10350.6
75°	252.3	257.4	326.5	562.5	743.5	598.1	565.5	2552.0	5189.5	6116.1	5482.4
77.5°	154.6	156.6	210.5	384.5	556.4	455.7	364.2	1081.3	2007.9	1971.3	1680.3
80°	87.4	87.4	134.3	239.0	379.4	294.0	255.3	459.7	635.7	558.4	492.3
82.5°	48.8	49.8	97.7	148.5	251.2	173.9	140.3	212.6	274.6	243.1	211.6
85°	20.3	22.3	60.0	70.2	120.0	86.4	57.0	89.5	101.7	90.5	66.1
87.5°	2.0	3.1	18.3	13.2	14.2	17.3	8.1	17.3	14.2	14.2	10.1
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°	2340.5	2340.5	2340.5	2340.5	2340.5	2340.5	2340.5	2340.5	2340.5	2340.5	2340.5
2.5°	2355.8	2340.5	2301.8	2257.0	2198.0	2169.6	2131.0	2104.5	2082.1	2084.1	2063.8
5°	2401.5	2362.8	2276.4	2168.6	2034.3	1938.7	1837.0	1766.8	1709.8	1697.6	1670.1
7.5°	2464.5	2403.5	2251.9	2057.7	1830.9	1659.0	1505.4	1406.7	1336.5	1314.2	1291.8
10°	2545.9	2457.4	2220.5	1918.4	1591.8	1373.2	1208.4	1131.1	1083.2	1067.0	1054.8
12.5°	2640.5	2519.4	2178.7	1748.4	1345.7	1135.2	1030.3	991.7	976.4	971.4	968.3
15°	2759.5	2596.7	2115.7	1547.1	1137.1	989.6	944.9	939.8	941.9	939.8	938.8
17.5°	2901.0	2681.2	2012.9	1339.6	996.8	915.4	899.1	903.2	908.4	907.3	905.3
20°	3055.5	2764.6	1881.7	1155.5	901.2	862.5	853.4	857.4	861.5	859.5	858.4
22.5°	3231.5	2854.1	1736.2	1012.1	837.1	813.7	803.5	804.5	804.5	800.5	798.5
25°	3442.1	2952.8	1583.7	910.3	788.3	770.0	757.8	753.7	747.6	735.4	733.4
27.5°	3693.3	3057.6	1437.3	839.2	749.7	732.4	718.1	708.0	692.7	672.3	670.3
30°	3976.1	3184.7	1313.1	794.4	719.1	701.8	685.5	670.3	647.9	622.5	620.4
32.5°	4308.7	3321.0	1222.6	764.9	691.7	673.3	654.1	635.7	611.3	585.9	586.9
35°	4705.4	3485.8	1169.7	744.6	670.3	645.9	624.5	604.2	585.9	563.5	561.5
37.5°	5135.6	3660.7	1153.4	734.4	656.1	618.4	594.0	579.7	577.7	564.5	563.5
40°	5606.5	3868.2	1165.6	728.3	640.8	591.9	565.5	562.5	567.5	544.2	545.2
42.5°	6104.9	4114.3	1186.0	721.2	619.4	565.5	540.1	540.1	536.1	503.5	503.5
45°	6644.0	4398.2	1206.3	703.9	594.0	539.0	519.8	512.6	495.4	463.8	462.8
47.5°	7187.2	4687.0	1221.6	672.3	563.5	516.7	499.4	483.2	457.8	429.3	428.2
50°	7702.9	4946.4	1205.3	625.6	528.9	495.4	477.0	454.7	427.2	407.8	404.9
52.5°	8163.6	5171.2	1136.1	570.6	492.3	472.9	456.7	433.3	410.9	390.6	388.6
55°	8564.4	5353.3	1014.1	518.8	459.7	453.7	437.4	407.8	377.4	360.1	358.0
57.5°	8948.9	5491.5	861.5	476.0	430.3	432.2	407.8	381.4	352.9	334.7	332.6
60°	9460.5	5676.8	706.9	436.3	398.7	404.9	378.4	359.1	323.5	300.0	297.0
62.5°	10278.3	5964.6	561.5	387.6	362.1	364.2	352.9	329.5	286.8	259.3	257.4
65°	10927.2	5858.8	442.5	334.7	320.4	323.5	323.5	298.1	252.3	220.7	217.7
67.5°	10854.0	5016.6	352.9	282.8	280.7	282.8	289.9	268.5	223.8	198.3	194.2
70°	9998.6	3990.3	282.8	234.9	244.2	239.0	259.3	245.2	201.4	176.0	172.9
72.5°	8158.6	2874.5	215.7	194.2	187.2	195.3	233.9	220.7	167.8	139.4	136.3
75°	4767.4	1533.9	160.7	153.5	135.3	162.8	207.5	188.2	128.1	102.7	99.6
77.5°	1552.2	535.0	118.0	112.9	100.7	131.2	177.0	158.7	104.8	81.4	78.3
80°	416.0	161.7	80.4	74.2	65.1	97.7	140.3	126.2	75.2	52.9	51.9
82.5°	166.8	68.2	46.7	41.7	35.6	67.1	110.9	101.7	56.0	33.5	33.5
85°	53.9	22.3	17.3	13.2	16.3	41.7	66.1	69.2	39.7	17.3	13.2
87.5°	7.1	3.1	3.1	4.1	3.1	7.1	20.3	19.4	11.2	2.0	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)