

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: P883574

Luminaire Tested: **NAV-SB4A-727-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883574
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-727-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16331 lumens
Efficiency: N/A
Efficacy: 143.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G3

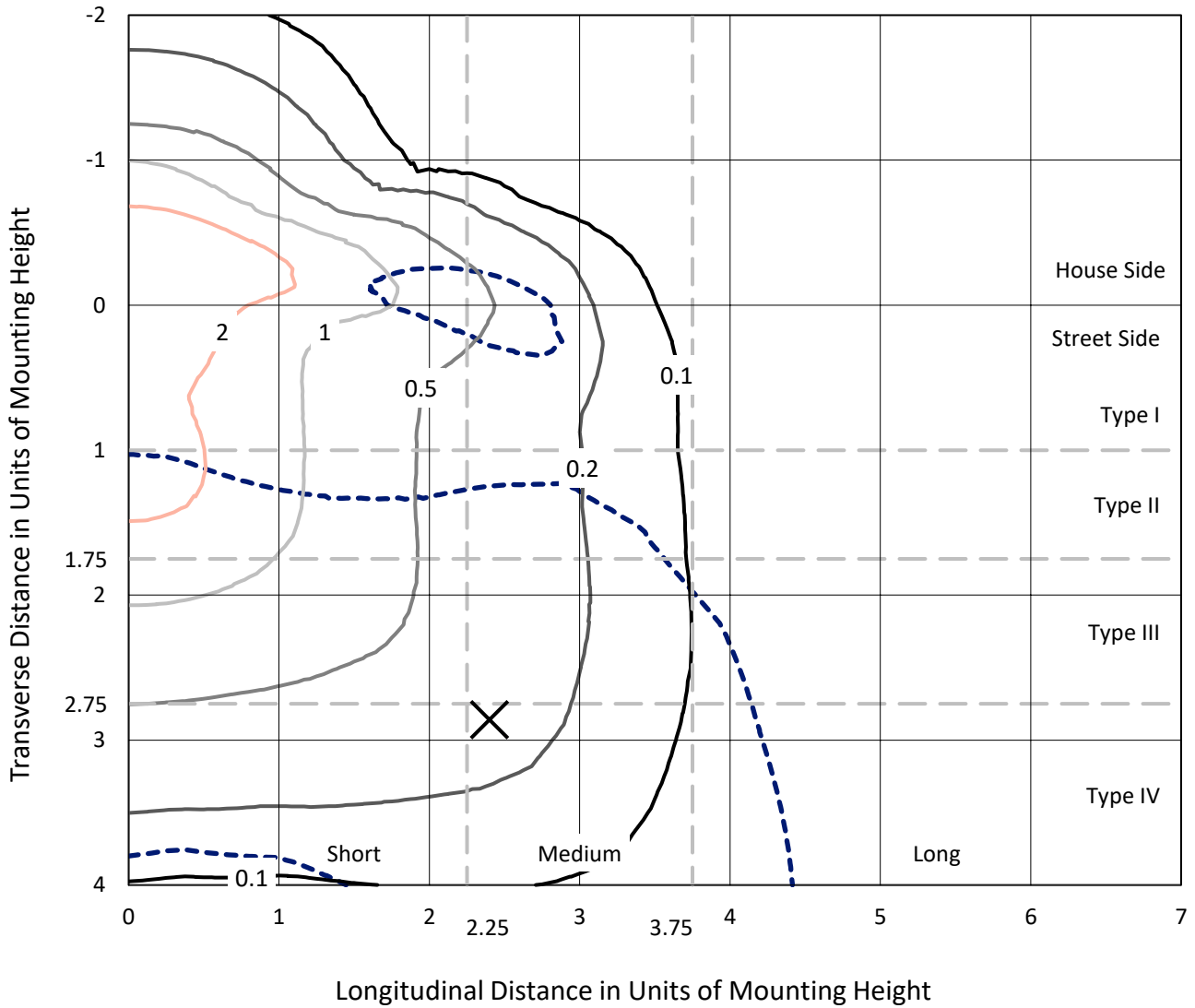
Input Watts (W): 114
Input Voltage (V): 120.0
Input Current (Ain): 0.952
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 8.206
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

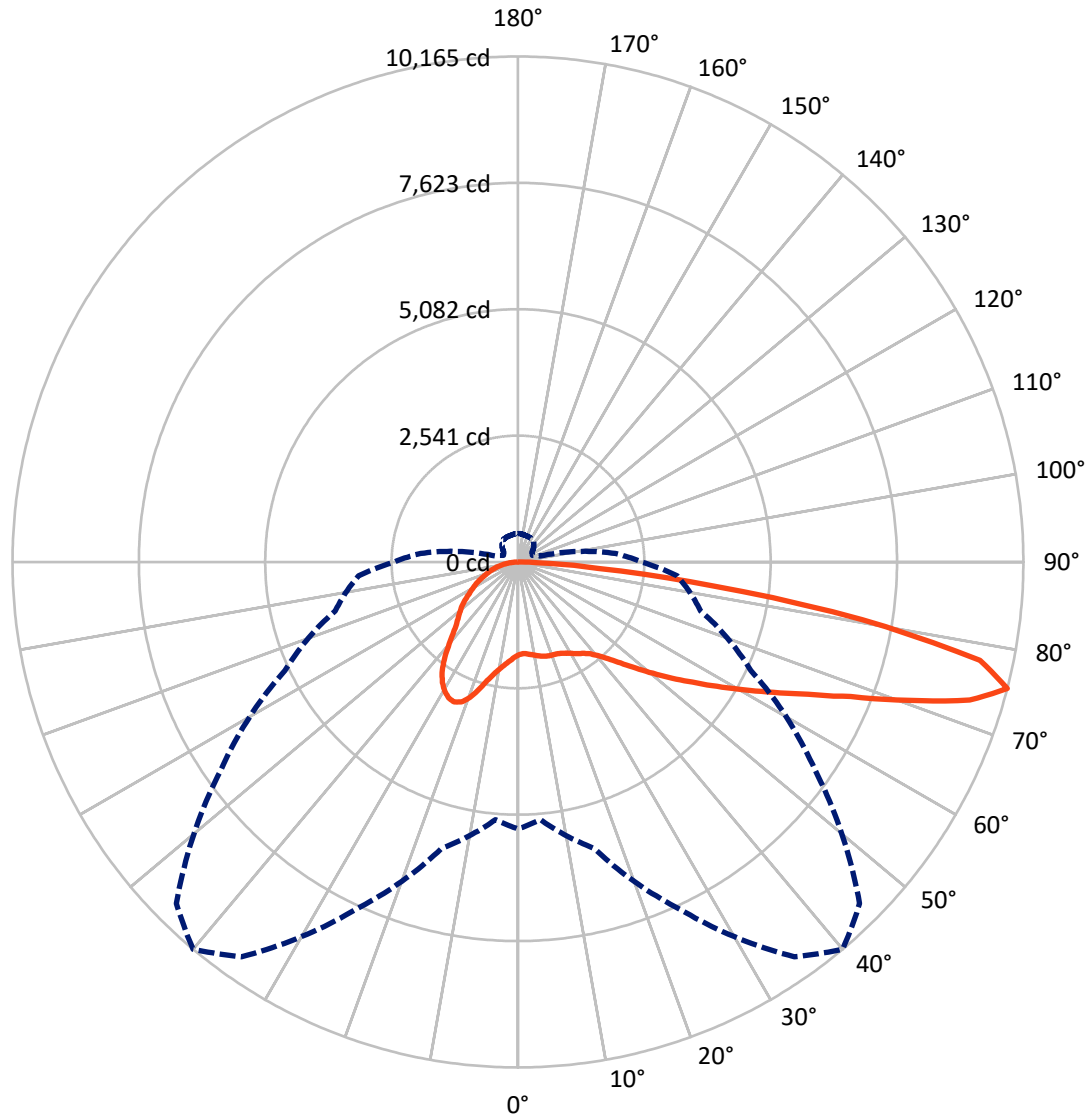
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.9 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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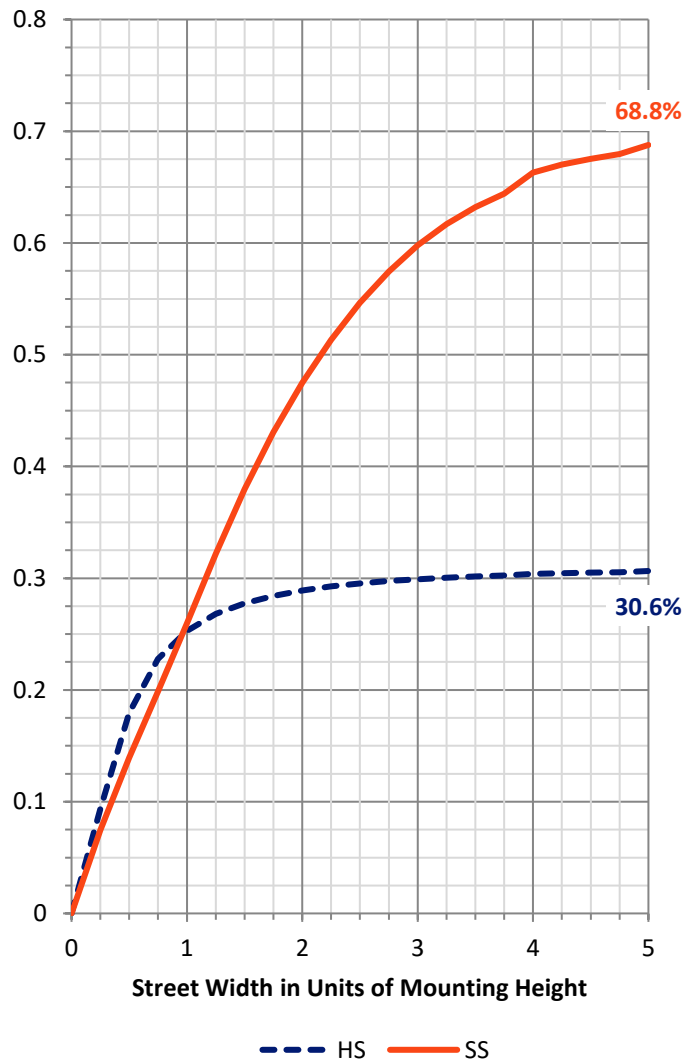
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5059.9	0.0	5059.9
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	11271.1	0.0	11271.1
	% Fixture	69.0	0.0	69.0
Total	Lumens	16331.0	0.0	16331.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.4	1.1
10°-20°	625.9	3.8
20°-30°	1142.8	7.0
30°-40°	1620.8	9.9
40°-50°	2188.5	13.4
50°-60°	2944.1	18.0
60°-70°	3736.8	22.9
70°-80°	3391.4	20.8
80°-90°	494.4	3.0
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°	16331.0	100.0
0°-180°	16331.0	100.0



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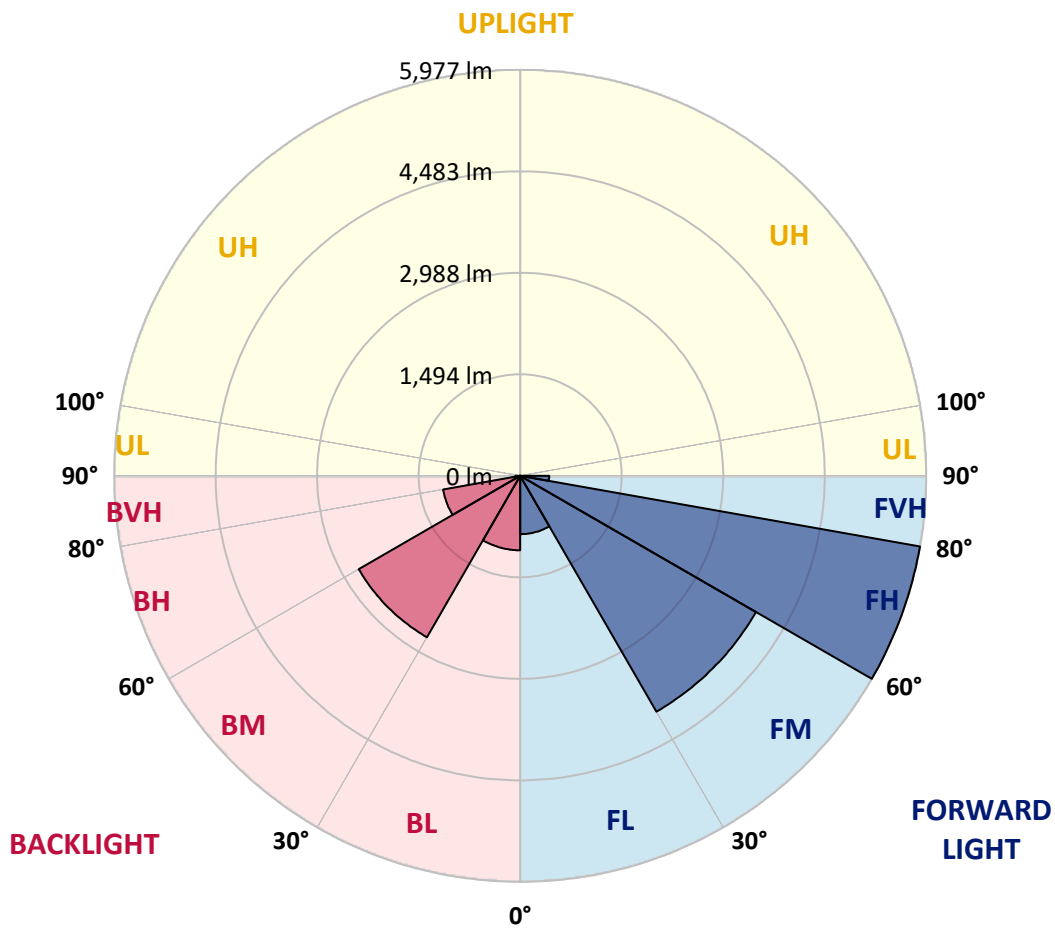
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	859.0	5.3			
FM (30°-60°)	4008.9	24.5			
FH (60°-80°)	5976.9	36.6			G3/7500
FVH (80°-90°)	426.3	2.6			G3/500
BL (0°-30°)	1096.0	6.7	B3/2500		
BM (30°-60°)	2744.5	16.8	B3/5000		
BH (60°-80°)	1151.3	7.0	B3/2500		G3/2500
BVH (80°-90°)	68.1	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1867.5	1867.5	1867.5	1867.5	1867.5	1867.5	1867.5	1867.5	1867.5	1867.5	1867.5
2.5°	1838.9	1849.3	1846.7	1843.2	1843.2	1844.1	1843.2	1849.3	1855.3	1861.4	1870.9
5°	1857.9	1868.3	1863.1	1858.8	1855.3	1854.5	1851.9	1851.0	1854.5	1862.3	1875.3
7.5°	1895.2	1905.6	1897.8	1890.0	1883.1	1879.6	1876.1	1870.9	1868.3	1872.7	1890.9
10°	1936.8	1947.2	1937.6	1923.8	1912.5	1908.2	1904.7	1899.5	1896.1	1898.7	1918.6
12.5°	1978.3	1988.7	1975.7	1956.7	1942.0	1939.4	1935.0	1933.3	1932.4	1931.6	1951.5
15°	2017.3	2026.0	2009.5	1987.0	1971.4	1967.1	1962.8	1965.3	1969.7	1974.9	1997.4
17.5°	2047.6	2056.3	2032.0	2002.6	1987.9	1986.1	1983.5	1992.2	2004.3	2017.3	2045.0
20°	2075.4	2084.0	2052.8	2013.0	1995.7	1995.7	1996.5	2014.7	2032.0	2051.1	2089.2
22.5°	2114.3	2121.3	2083.1	2028.6	2003.5	2005.2	2012.1	2030.3	2052.0	2078.0	2130.8
25°	2172.4	2177.6	2130.8	2058.0	2029.4	2034.6	2040.7	2049.4	2070.2	2100.5	2171.5
27.5°	2265.9	2270.2	2208.7	2110.0	2066.7	2075.4	2084.0	2078.0	2087.5	2113.5	2204.4
30°	2397.6	2400.2	2322.2	2191.4	2129.9	2134.3	2136.0	2110.9	2092.7	2113.5	2227.8
32.5°	2553.5	2552.6	2459.9	2290.2	2201.8	2197.5	2182.8	2133.4	2090.9	2109.1	2248.6
35°	2795.1	2785.6	2666.1	2428.8	2283.2	2256.4	2221.7	2158.5	2099.6	2104.8	2266.8
37.5°	3195.3	3165.9	3000.4	2655.7	2404.5	2336.1	2285.0	2199.2	2118.7	2103.1	2288.4
40°	3646.6	3609.3	3427.5	2966.6	2586.4	2476.4	2394.1	2257.3	2149.8	2110.9	2320.5
42.5°	4181.9	4129.1	3933.3	3333.0	2816.8	2657.4	2533.6	2330.9	2195.8	2136.0	2363.8
45°	4839.3	4769.2	4492.0	3746.2	3107.0	2894.8	2729.3	2442.6	2265.9	2184.5	2428.8
47.5°	5503.7	5521.0	5126.9	4219.1	3455.2	3187.5	2974.4	2610.6	2368.1	2262.4	2533.6
50°	6209.6	6221.7	5758.3	4743.2	3850.1	3518.4	3249.9	2798.6	2510.2	2373.3	2690.3
52.5°	6760.5	6762.2	6331.7	5291.5	4261.6	3882.2	3547.0	3013.4	2674.7	2520.6	2899.1
55°	7105.2	7100.9	6733.6	5810.3	4734.5	4264.2	3876.1	3257.7	2875.7	2693.8	3161.5
57.5°	7355.6	7342.6	7010.8	6256.4	5238.6	4715.5	4248.6	3534.9	3113.0	2900.0	3507.1
60°	7450.8	7443.0	7198.8	6641.8	5768.7	5214.4	4678.2	3844.9	3382.4	3143.3	3951.5
62.5°	7487.2	7501.9	7383.3	7015.1	6336.1	5767.0	5150.3	4215.7	3685.6	3418.8	4420.1
65°	7615.4	7642.3	7618.0	7503.7	6977.0	6414.0	5776.5	4656.6	4016.4	3714.2	4909.5
67.5°	7869.2	7896.0	7906.4	8088.3	7760.1	7220.4	6557.8	5205.7	4403.6	4020.8	5277.6
70°	7863.1	7855.3	8039.0	8553.5	8740.6	8336.9	7611.1	5881.3	4865.3	4275.4	5324.4
72.5°	7157.2	7094.8	7528.8	8548.3	9556.5	9502.8	8897.3	6752.7	5263.7	4306.6	4620.2
75°	5369.4	5203.1	5969.7	7703.8	9692.5	10164.6	9715.0	7293.2	5169.3	3805.1	3215.2
77.5°	2296.2	2129.1	3032.5	5702.9	8674.7	9501.9	8964.9	6362.9	4126.5	2516.2	1579.0
80°	601.1	600.3	916.4	2585.5	5899.5	7016.9	6155.9	4109.1	2357.7	899.1	435.7
82.5°	248.6	242.5	336.9	1005.6	2882.6	3937.6	3213.5	1832.8	851.4	243.4	144.7
85°	92.7	91.8	163.7	347.3	1016.9	1624.1	1175.4	468.6	212.2	118.7	65.0
87.5°	26.0	25.1	35.5	120.4	247.7	375.9	201.0	77.1	59.8	46.8	19.1
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°	1867.5	1867.5	1867.5	1867.5	1867.5	1867.5	1867.5	1867.5	1867.5	1867.5	1867.5
2.5°	1873.5	1877.9	1885.7	1891.7	1899.5	1908.2	1920.3	1928.1	1935.9	1941.1	1937.6
5°	1881.3	1890.9	1910.8	1930.7	1954.1	1975.7	2000.9	2019.1	2033.8	2038.1	2039.8
7.5°	1898.7	1914.2	1948.0	1981.8	2019.1	2054.6	2090.9	2122.1	2147.2	2156.8	2157.6
10°	1929.0	1949.8	1997.4	2045.0	2094.4	2149.0	2195.8	2240.8	2276.3	2291.0	2291.9
12.5°	1967.1	1993.1	2055.4	2121.3	2189.7	2265.0	2325.7	2381.1	2425.3	2445.2	2445.2
15°	2016.5	2050.2	2129.9	2218.3	2318.7	2423.6	2500.6	2562.1	2611.5	2635.8	2634.0
17.5°	2070.2	2115.2	2215.7	2349.1	2492.8	2630.6	2720.7	2765.7	2816.8	2840.2	2839.3
20°	2122.1	2177.6	2321.3	2515.4	2706.8	2853.2	2925.9	2938.1	2941.5	2944.1	2951.1
22.5°	2175.8	2250.3	2453.9	2725.0	2930.3	3031.6	3042.0	2990.0	2917.3	2883.5	2893.0
25°	2234.7	2333.5	2627.1	2956.3	3122.6	3134.7	3055.0	2928.5	2790.8	2727.6	2737.1
27.5°	2291.9	2429.6	2835.0	3177.1	3261.1	3154.6	2983.1	2803.8	2637.5	2570.8	2578.6
30°	2349.1	2539.6	3064.5	3370.3	3324.4	3105.2	2869.6	2669.5	2502.4	2432.2	2440.0
32.5°	2407.1	2667.8	3328.7	3509.7	3313.1	3000.4	2728.4	2518.8	2371.6	2298.0	2307.5
35°	2472.9	2825.5	3579.0	3586.0	3237.8	2846.2	2542.2	2338.7	2210.5	2151.6	2164.6
37.5°	2558.7	3025.5	3799.9	3605.0	3106.1	2620.2	2311.0	2125.6	2019.9	1993.1	2012.1
40°	2665.2	3266.3	3968.8	3574.7	2911.2	2345.6	2058.0	1909.9	1850.1	1856.2	1877.0
42.5°	2803.8	3535.7	4087.5	3496.7	2640.1	2062.4	1836.3	1770.5	1799.0	1823.3	1845.8
45°	2984.0	3815.5	4161.1	3364.2	2333.5	1822.4	1705.5	1721.1	1742.7	1745.3	1762.7
47.5°	3214.4	4098.7	4209.6	3164.1	2020.8	1653.5	1622.3	1625.8	1621.5	1603.3	1617.1
50°	3501.9	4374.2	4252.9	2899.1	1754.9	1547.9	1506.3	1494.2	1434.4	1375.5	1383.3
52.5°	3829.4	4627.1	4271.1	2569.9	1547.9	1459.5	1391.9	1315.7	1204.0	1185.8	1191.9
55°	4193.1	4861.0	4224.3	2165.4	1373.8	1346.0	1243.8	1152.0	1139.9	1124.3	1126.9
57.5°	4628.0	5113.0	4129.1	1714.2	1195.3	1213.5	1113.9	1124.3	1102.6	1078.4	1074.1
60°	5103.5	5373.7	3961.9	1302.7	1010.8	1048.1	1080.1	1079.3	1073.2	1053.3	1046.3
62.5°	5531.4	5545.2	3632.7	997.8	848.9	919.9	1007.4	1006.5	1001.3	990.0	985.7
65°	5786.0	5519.3	3083.6	785.6	715.5	814.2	908.6	915.5	916.4	915.5	915.5
67.5°	5741.0	5215.2	2330.0	625.4	605.5	706.8	810.7	820.3	827.2	828.9	830.7
70°	5231.7	4547.4	1519.3	498.9	507.6	612.4	718.1	727.6	733.6	740.6	744.0
72.5°	4077.9	3343.4	869.6	403.6	421.8	531.0	626.2	637.5	641.0	654.0	659.2
75°	2485.1	1966.2	469.5	317.9	346.5	453.9	535.3	548.3	554.4	569.9	571.7
77.5°	1181.5	851.4	267.6	247.7	278.9	370.7	452.1	466.9	450.4	459.1	452.1
80°	399.3	316.2	168.9	188.8	213.1	289.3	362.1	376.8	342.1	340.4	336.9
82.5°	139.5	128.2	107.4	125.6	137.7	207.0	273.7	292.8	254.7	253.8	241.7
85°	54.6	52.0	59.8	68.4	82.3	127.3	180.2	189.7	156.8	126.5	124.7
87.5°	11.3	12.1	14.7	15.6	25.1	44.2	65.0	79.7	63.2	53.7	49.4
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)