

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: P962903

Luminaire Tested: **NAV-SB2D-722-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962903
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-722-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 2200K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13046.2 lumens
Efficiency: N/A
Efficacy: 88.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

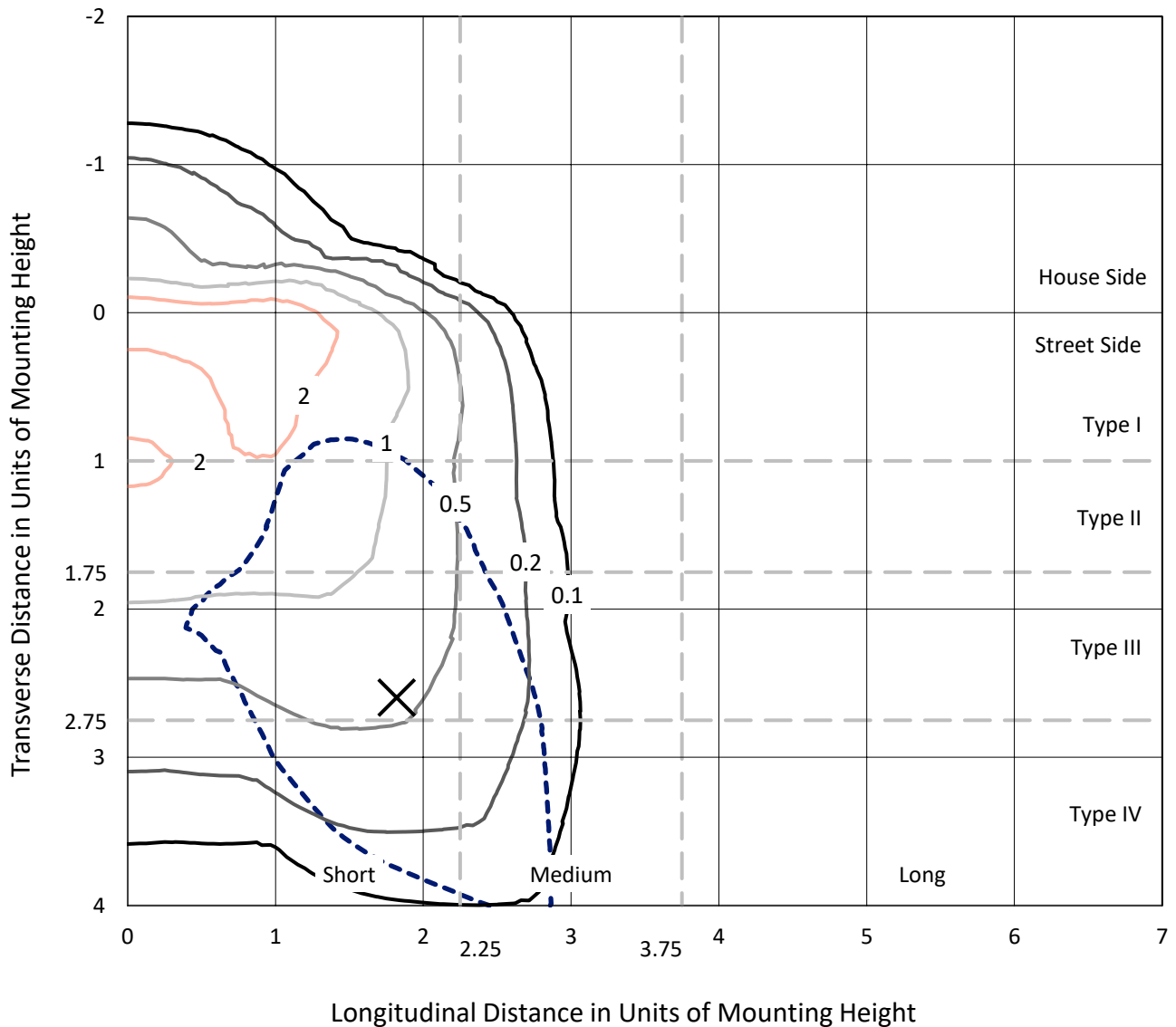
Input Watts (W): 147.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

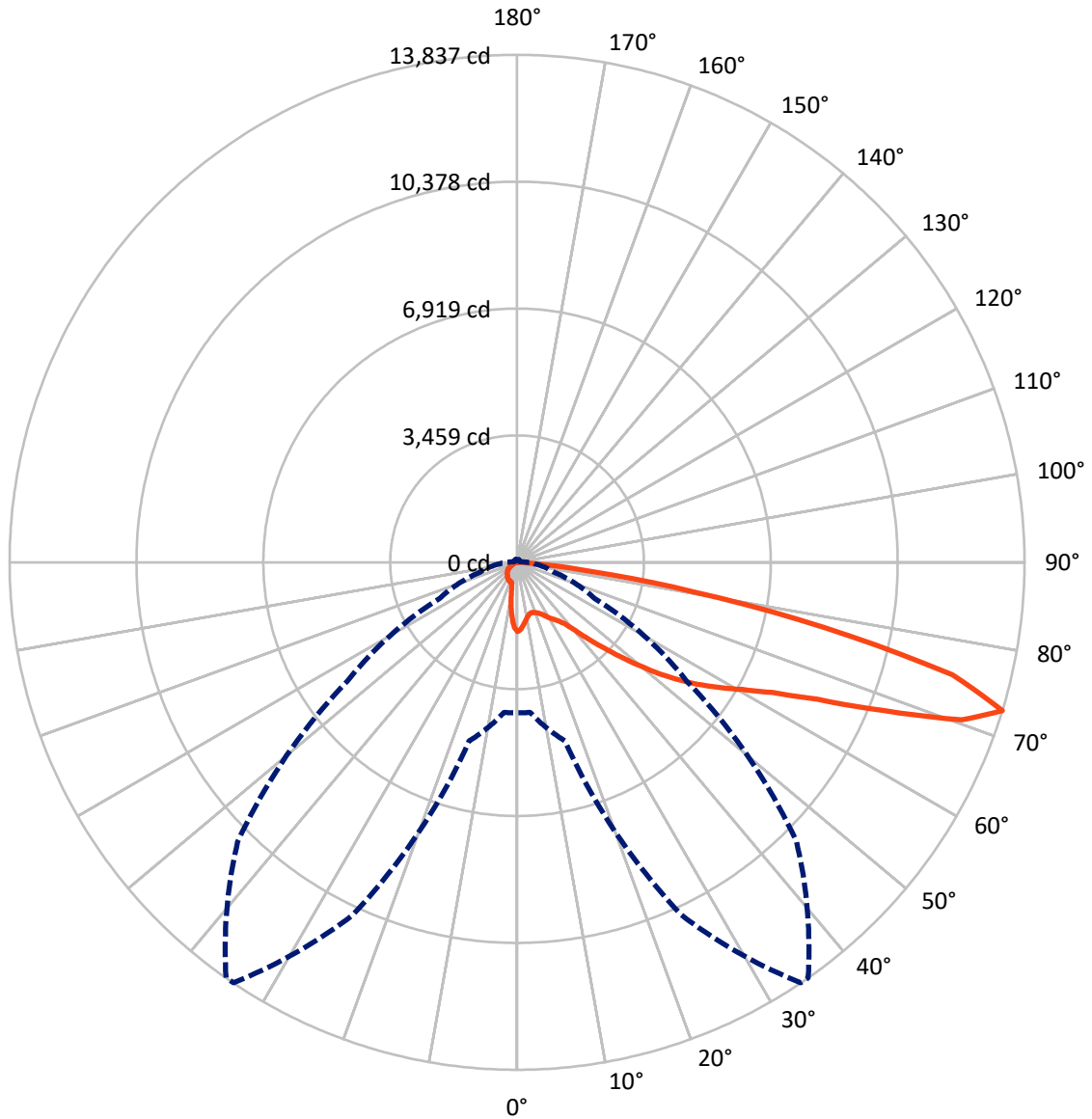
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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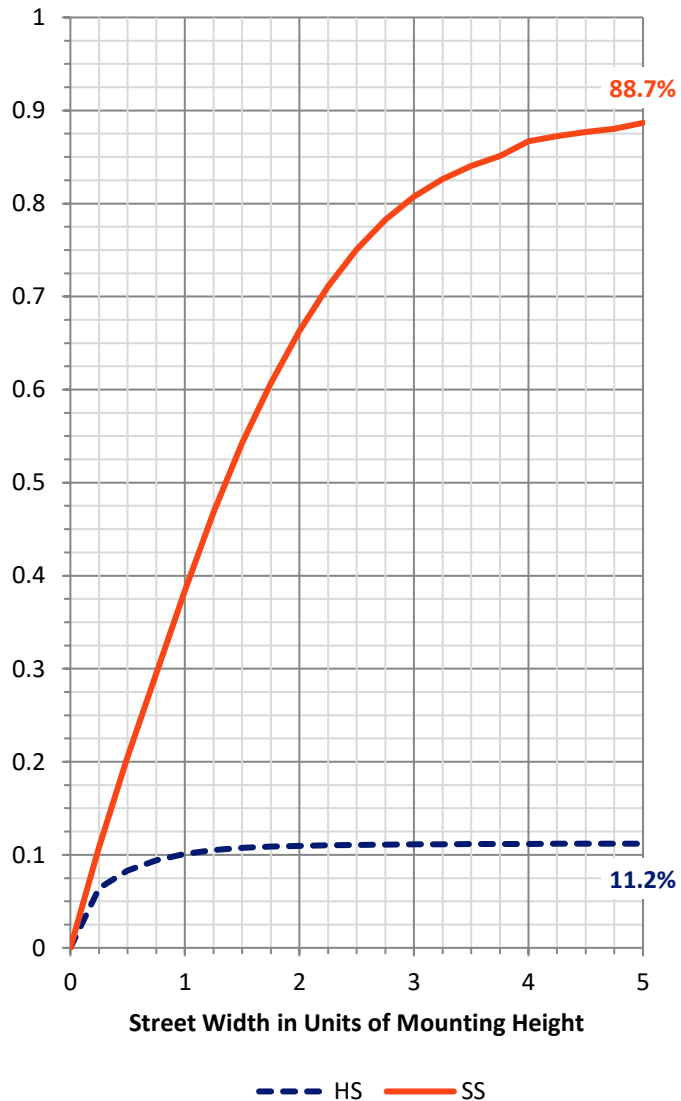
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1468.3	0.0	1468.3
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	11577.9	0.0	11577.9
	% Fixture	88.7	0.0	88.7
Total	Lumens	13046.2	0.0	13046.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.4	1.2
10°-20°	363.5	2.8
20°-30°	590.5	4.5
30°-40°	985.2	7.6
40°-50°	1864.0	14.3
50°-60°	2961.9	22.7
60°-70°	3664.1	28.1
70°-80°	2277.6	17.5
80°-90°	184.1	1.4
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°	13046.2	100.0
0°-180°	13046.2	100.0

Coefficient of Utilization



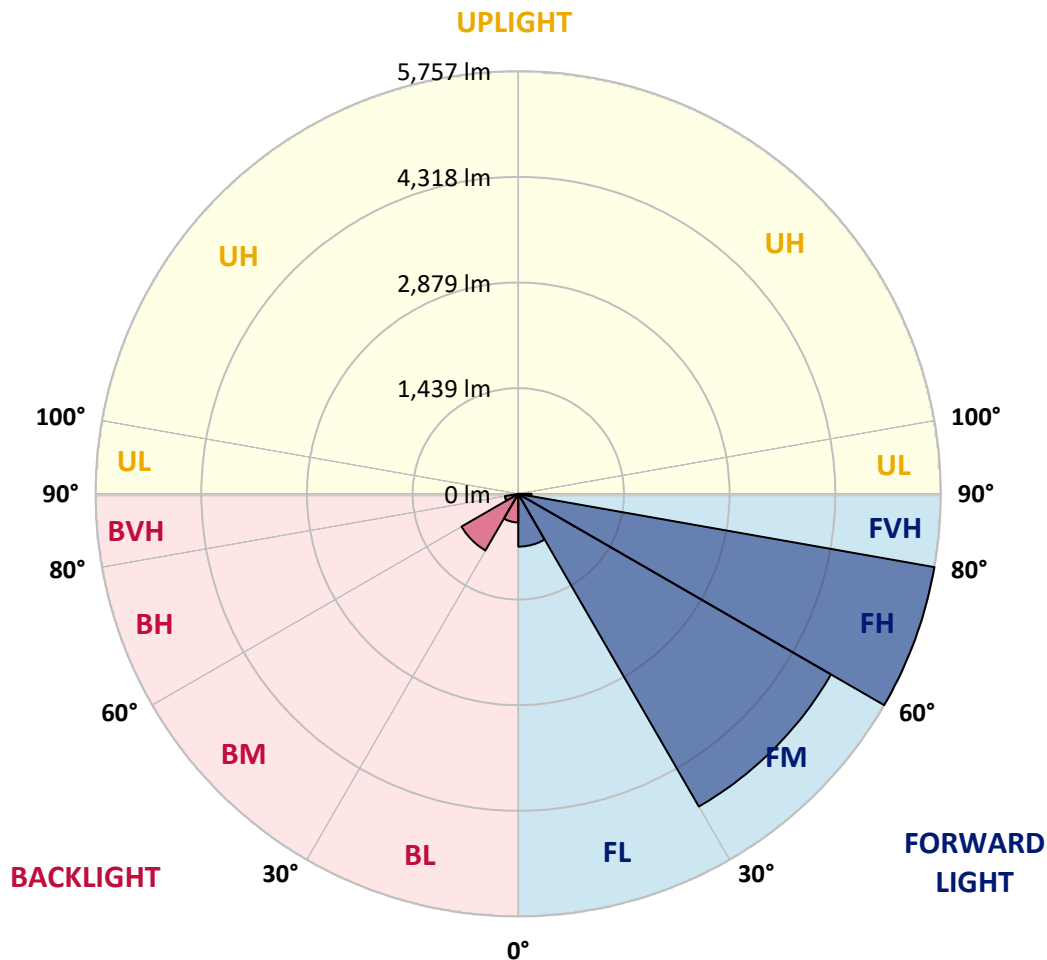
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	719.2	5.5			
FM (30°-60°)	4919.7	37.7			
FH (60°-80°)	5757.5	44.1			G3/7500
FVH (80°-90°)	181.6	1.4			G2/225
BL (0°-30°)	390.2	3.0	B1/500		
BM (30°-60°)	891.4	6.8	B1/1000		
BH (60°-80°)	184.3	1.4	B1/500		G1/500
BVH (80°-90°)	2.5	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	1890.8	1890.8	1890.8	1890.8	1890.8	1890.8	1890.8	1890.8	1890.8	1890.8	1890.8
2.5°	1806.7	1822.0	1824.9	1829.6	1829.6	1835.4	1844.9	1858.3	1880.4	1891.7	1899.4
5°	1665.2	1676.7	1691.0	1702.5	1724.5	1727.3	1764.6	1800.9	1851.7	1889.9	1916.6
7.5°	1522.8	1536.2	1555.3	1583.0	1611.7	1620.3	1676.7	1737.9	1818.1	1889.9	1934.8
10°	1422.4	1423.4	1440.6	1468.3	1514.2	1524.7	1593.6	1680.5	1780.9	1878.4	1952.0
12.5°	1366.0	1372.7	1380.4	1401.4	1445.4	1452.0	1525.7	1627.9	1743.6	1871.8	1972.1
15°	1366.0	1370.8	1375.6	1386.1	1421.5	1427.2	1492.2	1594.5	1724.5	1874.6	2004.6
17.5°	1380.4	1388.1	1384.2	1396.7	1433.9	1437.8	1495.1	1585.0	1723.5	1892.8	2054.3
20°	1414.8	1420.5	1412.9	1420.5	1457.8	1465.4	1524.7	1603.1	1739.8	1924.3	2116.4
22.5°	1469.2	1472.1	1454.0	1459.7	1497.9	1507.5	1576.3	1654.8	1779.0	1975.0	2199.5
25°	1538.1	1543.9	1516.1	1522.8	1559.1	1570.6	1649.9	1732.1	1841.1	2044.8	2305.7
27.5°	1617.4	1620.3	1596.4	1595.4	1642.3	1658.6	1738.8	1827.8	1924.3	2132.7	2439.5
30°	1708.3	1716.9	1693.9	1690.1	1749.4	1762.7	1842.1	1945.3	2046.6	2264.6	2629.7
32.5°	1779.9	1786.7	1773.2	1782.8	1843.1	1853.5	1967.3	2111.6	2238.8	2452.0	2888.9
35°	1883.2	1887.0	1856.4	1873.6	1942.5	1969.2	2138.5	2344.9	2480.6	2687.1	3227.2
37.5°	2256.9	2256.9	2127.0	2041.9	2107.8	2131.7	2372.7	2638.4	2778.9	3002.5	3653.6
40°	2774.2	2765.6	2575.3	2401.3	2392.7	2439.5	2706.2	3008.3	3164.2	3381.2	4133.4
42.5°	3325.7	3312.3	3053.3	2881.2	2852.5	2868.8	3091.5	3464.3	3623.0	3842.8	4649.6
45°	3815.2	3811.3	3574.3	3342.9	3291.3	3342.9	3572.3	3997.7	4111.5	4342.8	5164.9
47.5°	4225.3	4225.3	4052.2	3901.2	3874.4	3904.9	4223.3	4589.4	4578.9	4875.2	5666.7
50°	4697.5	4693.6	4529.2	4464.2	4492.0	4534.9	4972.8	5212.7	5062.6	5398.2	6115.0
52.5°	5028.2	5051.1	4994.7	4984.3	5125.7	5200.2	5733.6	5822.6	5495.6	5894.3	6450.6
55°	5290.1	5316.9	5381.9	5455.5	5727.9	5825.5	6470.7	6400.9	5858.0	6324.5	6643.7
57.5°	5661.1	5622.7	5723.2	5868.4	6309.2	6426.7	7184.7	6946.7	6149.5	6673.4	6664.8
60°	6111.3	6117.0	6134.2	6317.8	6889.4	7040.4	7888.3	7462.9	6336.9	6887.5	6431.5
62.5°	6652.4	6661.0	6696.3	6978.3	7668.4	7810.9	8637.8	7885.4	6422.9	6827.2	5829.3
65°	6615.0	6651.3	7046.2	8010.7	8852.9	8993.3	9512.5	8181.9	6292.9	6276.7	4746.2
67.5°	6026.2	6085.4	6746.0	9243.9	10638.6	10795.3	10569.7	8240.1	5731.8	4880.9	3096.2
70°	5253.8	5274.9	6069.2	10352.7	12706.2	12864.9	11516.1	7598.7	4349.5	2722.5	1387.0
72.5°	4102.9	4107.6	5039.7	10609.9	13828.5	13837.1	10773.4	5641.0	2339.2	1045.8	481.7
75°	2930.9	2902.2	3375.4	8604.4	12166.1	12263.6	8076.7	2646.0	893.8	494.3	240.0
77.5°	1571.5	1603.1	1910.0	5102.8	8404.6	8570.8	4406.9	762.8	455.0	336.5	158.7
80°	485.6	512.4	782.9	2336.3	4760.5	4861.0	1633.6	339.4	317.3	240.0	104.2
82.5°	152.9	158.7	365.2	981.7	1975.9	2021.8	473.1	192.2	217.0	158.7	61.2
85°	44.0	44.9	162.5	366.1	488.5	498.0	132.8	74.5	124.2	98.5	31.6
87.5°	4.8	15.3	61.2	61.2	43.0	42.0	14.3	16.3	35.4	12.4	5.7
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°	1890.8	1890.8	1890.8	1890.8	1890.8	1890.8	1890.8	1890.8	1890.8	1890.8	1890.8
2.5°	1894.6	1895.6	1883.2	1862.1	1839.3	1820.1	1796.2	1777.0	1763.7	1759.8	1766.6
5°	1908.0	1901.4	1866.0	1802.0	1725.5	1659.5	1585.9	1527.6	1489.3	1473.1	1478.9
7.5°	1928.1	1909.0	1831.6	1705.4	1559.1	1429.2	1297.2	1194.9	1130.0	1097.4	1102.2
10°	1945.3	1907.1	1774.2	1565.8	1342.1	1145.2	967.4	844.1	775.3	742.7	743.7
12.5°	1961.5	1906.1	1699.7	1400.5	1097.4	856.5	691.2	630.0	610.8	604.1	602.2
15°	1992.2	1909.0	1606.0	1211.1	853.6	647.2	586.9	586.0	589.8	587.9	586.9
17.5°	2034.2	1911.8	1499.9	1010.4	658.7	570.7	567.8	576.5	582.2	579.3	578.3
20°	2088.7	1923.3	1387.0	811.6	565.9	551.6	558.2	565.9	570.7	565.9	565.0
22.5°	2165.2	1943.4	1263.7	651.9	536.3	540.1	545.8	554.4	559.2	552.6	551.6
25°	2258.9	1975.0	1142.4	566.8	521.9	526.7	535.4	544.9	550.6	544.0	542.9
27.5°	2380.3	2025.6	1030.5	547.8	507.6	510.4	522.9	537.2	544.9	536.3	536.3
30°	2556.1	2108.8	934.0	556.4	499.0	492.3	509.5	529.6	538.2	530.5	529.6
32.5°	2789.4	2226.4	874.6	569.7	495.2	471.3	487.5	513.3	527.7	522.9	522.9
35°	3095.3	2405.2	851.8	585.1	492.3	449.3	460.7	488.5	513.3	518.1	518.1
37.5°	3466.2	2653.6	858.4	591.7	483.7	431.1	436.9	460.7	493.2	508.6	512.4
40°	3887.7	2943.3	896.7	585.1	474.2	415.8	416.8	434.9	463.6	486.6	494.3
42.5°	4322.7	3281.7	967.4	560.2	465.6	402.4	399.5	412.0	431.1	447.4	454.1
45°	4736.6	3629.6	1037.2	525.7	455.0	389.1	382.3	387.1	390.9	397.7	401.5
47.5°	5097.9	3874.4	1017.1	494.3	440.6	373.8	362.3	360.4	348.9	348.0	347.0
50°	5347.5	3927.9	903.3	462.7	419.6	356.6	338.4	327.0	306.9	297.2	298.3
52.5°	5426.9	3716.6	738.0	431.1	385.2	333.6	307.8	289.7	264.8	256.1	255.2
55°	5321.7	3302.8	589.8	392.9	337.4	303.0	274.4	250.4	230.4	219.9	219.9
57.5°	5064.5	2776.0	466.5	348.0	286.8	268.7	240.0	216.1	198.8	188.3	186.4
60°	4638.2	2204.4	369.0	294.4	244.7	231.3	201.7	186.4	171.1	158.7	155.8
62.5°	3991.0	1573.5	289.7	233.3	204.6	189.3	172.1	160.6	142.5	125.3	122.4
65°	3114.5	962.6	223.7	171.1	164.4	156.7	146.3	135.7	113.8	96.6	93.7
67.5°	1964.4	456.0	159.6	129.0	130.0	126.2	121.4	112.7	96.6	81.3	79.3
70°	865.1	220.8	105.2	98.5	96.6	96.6	100.3	97.5	82.2	67.9	65.0
72.5°	294.4	118.5	78.4	74.5	69.8	68.8	84.2	81.3	66.0	52.6	49.7
75°	154.0	79.3	57.4	53.5	42.0	50.6	66.9	63.1	46.8	34.4	31.6
77.5°	100.3	56.4	39.2	34.4	23.9	33.4	49.7	44.0	27.7	17.2	15.3
80°	63.1	37.3	23.0	16.3	11.5	18.1	26.8	19.2	10.6	3.8	2.9
82.5°	33.4	19.2	8.6	5.7	4.8	5.7	6.7	4.8	1.9	0.0	0.0
85°	13.4	6.7	2.9	1.9	0.9	0.0	1.9	0.9	0.0	0.0	0.0
87.5°	4.8	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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)