

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: P962905

Luminaire Tested: **NAV-SB2D-722-U-T4W-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P962905  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB2D-722-U-T4W-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 2200K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13272.7 lumens  
Efficiency: N/A  
Efficacy: 89.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G3

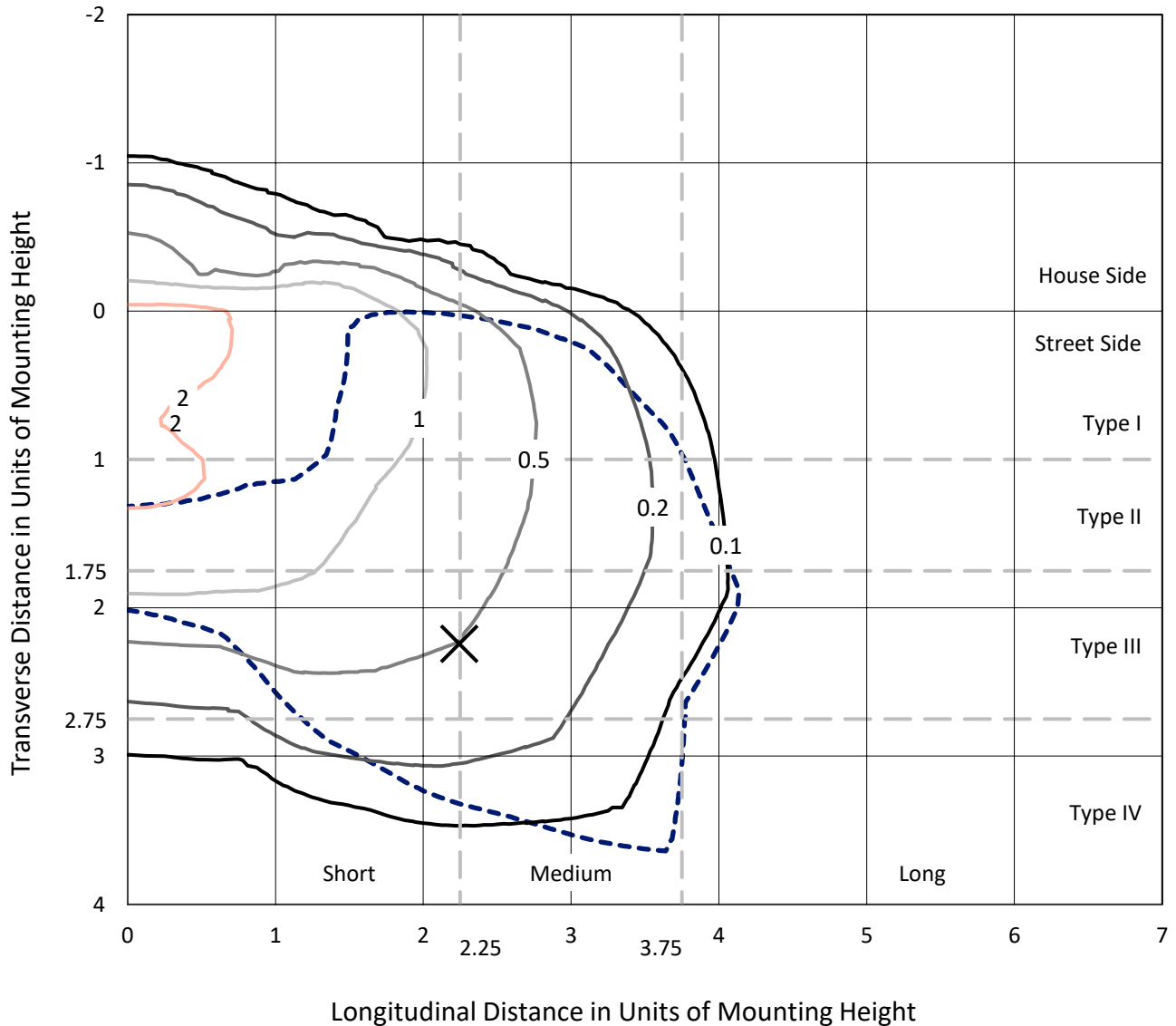
Input Watts (W): 147.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

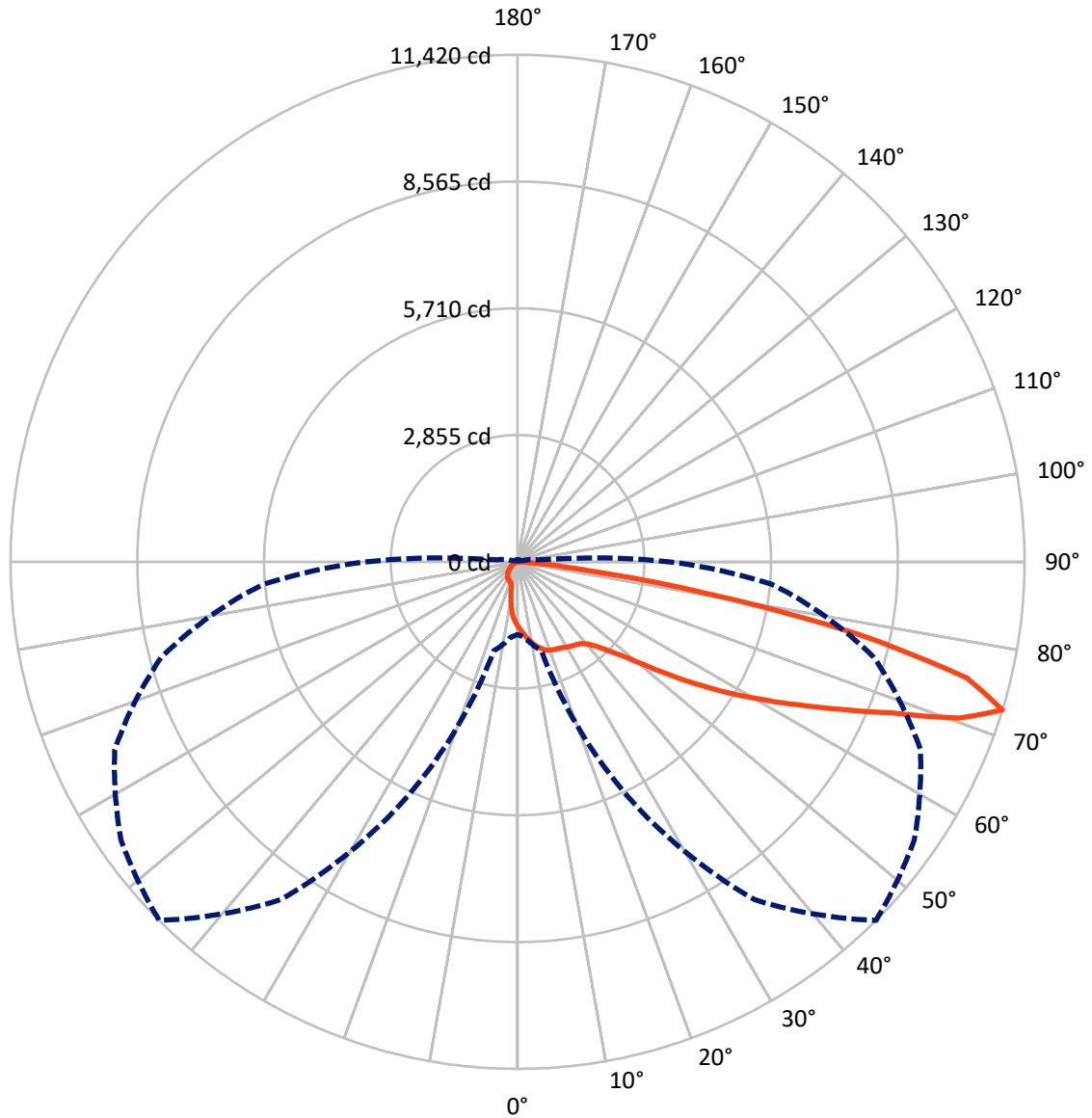
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 72.5-Deg Vertical

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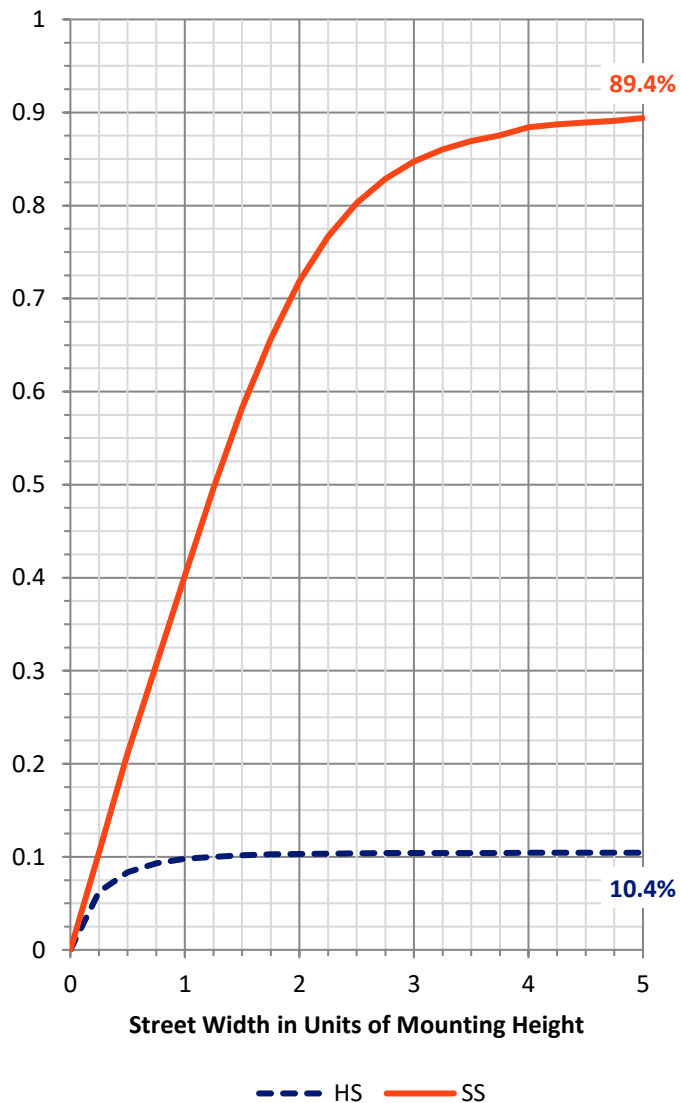
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1394.6	0.0	1394.6
	% Fixture	10.5	0.0	10.5
<b>Street Side</b>	Lumens	11878.1	0.0	11878.1
	% Fixture	89.5	0.0	89.5
<b>Total</b>	Lumens	13272.7	0.0	13272.7
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	137.0	1.0
10°-20°	400.4	3.0
20°-30°	657.5	5.0
30°-40°	932.5	7.0
40°-50°	1541.3	11.6
50°-60°	2768.8	20.9
60°-70°	3844.7	29.0
70°-80°	2788.8	21.0
80°-90°	201.6	1.5
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°	13272.7	100.0
0°-180°	13272.7	100.0

**Coefficient of Utilization**



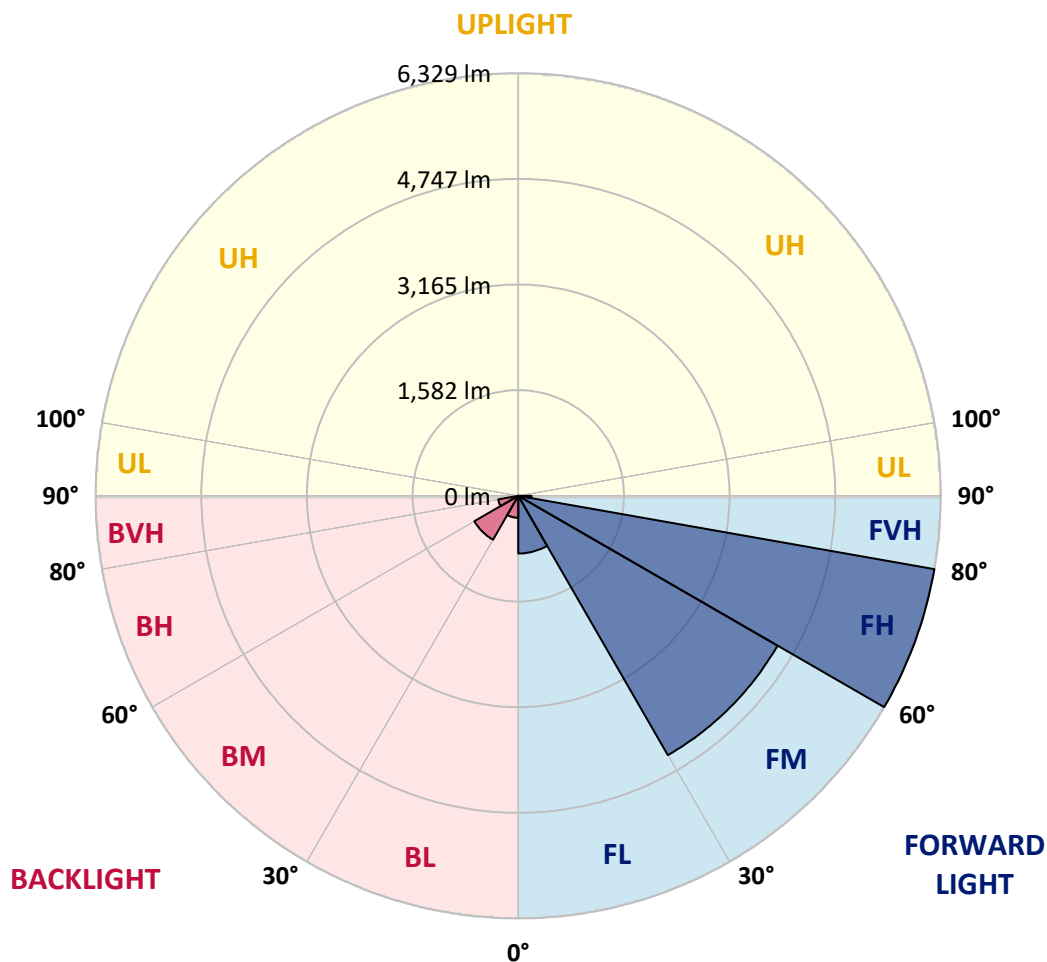
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	864.6	6.5			
FM (30°-60°)	4484.2	33.8			
FH (60°-80°)	6329.4	47.7			G3/7500
FVH (80°-90°)	199.9	1.5			G2/225
BL (0°-30°)	330.3	2.5	B1/500		
BM (30°-60°)	758.5	5.7	B1/1000		
BH (60°-80°)	304.1	2.3	B1/500		G1/500
BVH (80°-90°)	1.7	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°	35°	45°	46°	55°	65°	75°	85°
0°	1454.1	1454.1	1454.1	1454.1	1454.1	1454.1	1454.1	1454.1	1454.1	1454.1	1454.1
2.5°	1588.1	1590.9	1589.1	1578.2	1560.0	1550.1	1544.7	1526.5	1514.7	1493.9	1472.2
5°	1734.0	1744.9	1738.5	1716.8	1682.3	1657.9	1650.7	1613.5	1579.9	1541.0	1495.7
7.5°	1888.9	1894.3	1882.6	1854.5	1808.3	1766.6	1760.2	1708.7	1655.2	1595.4	1533.8
10°	2023.0	2029.3	2011.3	1970.5	1917.9	1866.2	1857.2	1800.1	1736.8	1663.4	1584.5
12.5°	2135.4	2141.6	2118.2	2069.2	2011.3	1957.7	1948.7	1888.9	1819.2	1737.6	1639.8
15°	2220.5	2232.2	2200.6	2148.0	2085.5	2032.1	2027.6	1968.6	1900.7	1810.0	1705.9
17.5°	2270.3	2282.1	2252.2	2188.8	2135.4	2090.1	2084.6	2035.6	1972.3	1885.3	1770.3
20°	2278.5	2289.3	2257.7	2202.4	2157.9	2121.8	2119.0	2083.7	2037.5	1954.2	1840.0
22.5°	2254.0	2267.6	2238.6	2194.2	2163.5	2144.4	2140.8	2120.8	2094.6	2023.9	1905.3
25°	2228.7	2239.5	2217.8	2178.8	2162.5	2160.7	2163.5	2159.8	2154.3	2094.6	1981.3
27.5°	2226.8	2238.6	2214.1	2177.0	2168.0	2186.9	2189.7	2206.9	2211.4	2158.9	2054.7
30°	2242.2	2250.4	2226.8	2187.9	2183.4	2226.8	2227.7	2258.6	2265.8	2213.3	2127.2
32.5°	2275.7	2284.8	2261.3	2204.2	2197.8	2258.6	2261.3	2302.0	2313.8	2271.2	2203.2
35°	2354.5	2365.5	2338.2	2249.5	2226.8	2288.4	2296.6	2344.6	2368.2	2332.8	2282.1
37.5°	2551.1	2519.4	2482.3	2341.0	2292.9	2335.6	2349.1	2405.3	2447.0	2406.2	2376.4
40°	3039.4	2939.8	2823.9	2496.8	2409.0	2436.1	2447.0	2503.2	2560.2	2520.4	2505.8
42.5°	3772.4	3654.6	3468.0	2855.5	2583.8	2597.4	2605.5	2654.4	2735.1	2703.3	2707.0
45°	4425.5	4383.0	4192.8	3468.0	2910.8	2843.8	2853.7	2879.1	2997.8	2986.0	3009.6
47.5°	4927.5	4903.0	4756.2	4171.0	3463.5	3145.5	3173.6	3185.3	3356.6	3398.2	3461.6
50°	5313.4	5304.4	5173.0	4796.1	4185.5	3590.3	3600.2	3574.9	3831.2	3934.6	4055.0
52.5°	5677.6	5708.4	5611.5	5376.8	4956.5	4172.8	4171.0	4051.4	4397.5	4553.4	4759.0
55°	6006.5	6017.4	6027.3	5969.3	5732.0	4836.0	4818.7	4623.1	5054.3	5215.6	5438.4
57.5°	6315.4	6319.9	6408.7	6527.4	6539.2	5548.0	5516.3	5281.7	5771.9	5886.9	6023.7
60°	6522.9	6543.7	6731.3	7061.0	7205.0	6282.7	6265.6	6026.4	6502.0	6555.5	6530.1
62.5°	6223.9	6350.7	6823.6	7477.8	7833.8	7097.2	7089.1	6864.4	7270.3	7226.8	7009.4
65°	5038.0	5252.7	6084.4	7759.5	8450.7	8006.8	8018.6	7779.4	8059.4	7918.0	7399.0
67.5°	3524.2	3750.7	4734.5	7782.1	9140.1	9074.9	9142.9	8767.8	8897.4	8580.3	7491.3
70°	2437.0	2553.9	3194.4	7294.7	9677.4	10546.2	10544.4	9981.8	9730.8	8881.9	7020.2
72.5°	1638.9	1699.6	2074.6	5787.3	9282.4	11420.4	11367.9	10909.5	10011.7	8306.7	5735.6
75°	691.3	735.6	960.3	3252.3	7343.6	10448.3	10306.2	9641.2	8895.6	6540.9	3578.5
77.5°	219.2	238.3	378.7	1164.2	4045.1	7853.8	7703.3	6021.0	5962.1	3281.3	1308.2
80°	104.1	121.4	212.9	467.5	1591.7	4271.6	4250.8	2731.4	2564.8	886.0	262.7
82.5°	45.3	53.4	117.8	250.0	712.1	1523.8	1554.6	929.5	769.2	336.1	80.7
85°	14.5	19.1	54.3	115.0	300.7	378.7	374.1	221.1	309.9	183.0	28.1
87.5°	0.0	0.0	18.1	26.2	30.9	21.7	24.5	19.1	86.1	50.7	9.9
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°	1454.1	1454.1	1454.1	1454.1	1454.1	1454.1	1454.1	1454.1	1454.1	1454.1	1454.1
2.5°	1461.3	1446.8	1421.5	1397.9	1377.1	1356.2	1343.6	1325.4	1323.6	1323.6	1328.1
5°	1471.3	1447.7	1402.4	1354.4	1299.2	1246.6	1194.0	1143.3	1127.0	1115.2	1120.6
7.5°	1500.3	1463.1	1391.5	1300.0	1194.9	1079.9	999.3	912.2	878.7	860.7	863.4
10°	1541.9	1491.2	1382.5	1222.1	1051.9	895.1	780.0	685.8	649.5	634.2	634.2
12.5°	1588.1	1525.6	1366.2	1125.2	895.1	707.6	595.2	551.8	546.3	546.3	546.3
15°	1643.4	1567.3	1338.1	1011.1	731.1	559.9	520.0	521.8	527.3	530.8	530.8
17.5°	1700.5	1611.7	1293.7	883.3	586.2	503.7	504.6	507.4	511.9	515.5	515.5
20°	1762.1	1656.1	1234.8	747.4	502.8	487.4	490.2	492.8	496.5	498.3	499.2
22.5°	1828.2	1697.7	1165.0	614.3	474.7	473.9	474.7	477.4	482.0	482.0	483.8
25°	1898.9	1743.9	1085.4	517.3	460.2	460.2	462.1	463.8	467.5	467.5	468.4
27.5°	1971.4	1786.6	1001.1	466.6	447.5	446.6	446.6	449.4	451.2	452.0	452.9
30°	2051.1	1836.4	916.9	455.7	437.6	433.1	430.3	432.1	434.0	434.9	436.6
32.5°	2132.6	1884.4	841.6	460.2	427.6	419.4	410.4	408.6	408.6	412.3	414.9
35°	2223.2	1936.9	783.6	475.6	422.2	399.5	385.0	376.9	377.8	383.2	385.9
37.5°	2331.9	2000.4	741.1	489.2	418.5	376.9	353.3	343.4	337.0	343.4	341.5
40°	2474.1	2093.7	710.2	500.1	414.0	350.7	318.9	302.6	290.8	294.5	292.6
42.5°	2683.4	2240.4	698.5	501.0	404.1	319.8	283.5	261.8	244.6	245.5	241.9
45°	2977.0	2472.3	759.2	489.2	382.3	286.3	246.4	217.4	206.5	203.9	200.2
47.5°	3379.2	2810.2	899.6	464.7	350.7	253.7	210.2	185.7	177.5	173.0	170.4
50°	3918.3	3244.2	1055.4	437.6	318.9	222.8	180.3	164.9	159.5	154.9	154.1
52.5°	4543.3	3684.5	1183.2	410.4	287.2	195.7	161.2	152.2	147.7	144.0	143.1
55°	5116.8	3988.0	1175.9	381.4	256.4	173.9	147.7	142.3	136.8	133.1	131.4
57.5°	5473.8	4030.6	969.3	349.7	221.1	156.7	135.0	131.4	125.0	120.5	119.6
60°	5637.7	3787.8	679.5	308.0	185.7	140.4	121.4	119.6	111.4	105.1	103.3
62.5°	5667.6	3336.6	452.9	256.4	154.9	125.0	107.8	105.1	94.2	83.3	77.9
65°	5546.3	2691.5	313.4	200.2	132.2	108.8	92.5	87.0	75.2	64.4	60.7
67.5°	5162.1	1889.8	218.3	144.0	112.3	86.1	73.4	71.5	62.5	53.4	50.7
70°	4458.2	1077.2	145.9	107.8	88.8	58.9	58.0	59.8	50.7	43.5	39.9
72.5°	3418.2	492.8	90.6	78.8	60.7	39.9	46.2	47.2	38.9	32.6	29.0
75°	2012.1	211.0	57.1	50.7	30.9	26.2	33.5	34.4	26.2	20.8	18.1
77.5°	684.9	79.7	36.3	29.9	15.4	14.5	21.7	21.7	14.5	8.2	6.4
80°	155.8	29.9	18.1	11.8	7.3	6.4	7.3	6.4	3.6	0.9	0.0
82.5°	44.4	11.8	7.3	4.5	2.8	2.8	0.9	0.0	0.0	0.0	0.0
85°	12.7	5.4	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.4	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)