

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: P883778

Luminaire Tested: **NAV-SB4B-740-U-T3-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883778  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4B-740-U-T3-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

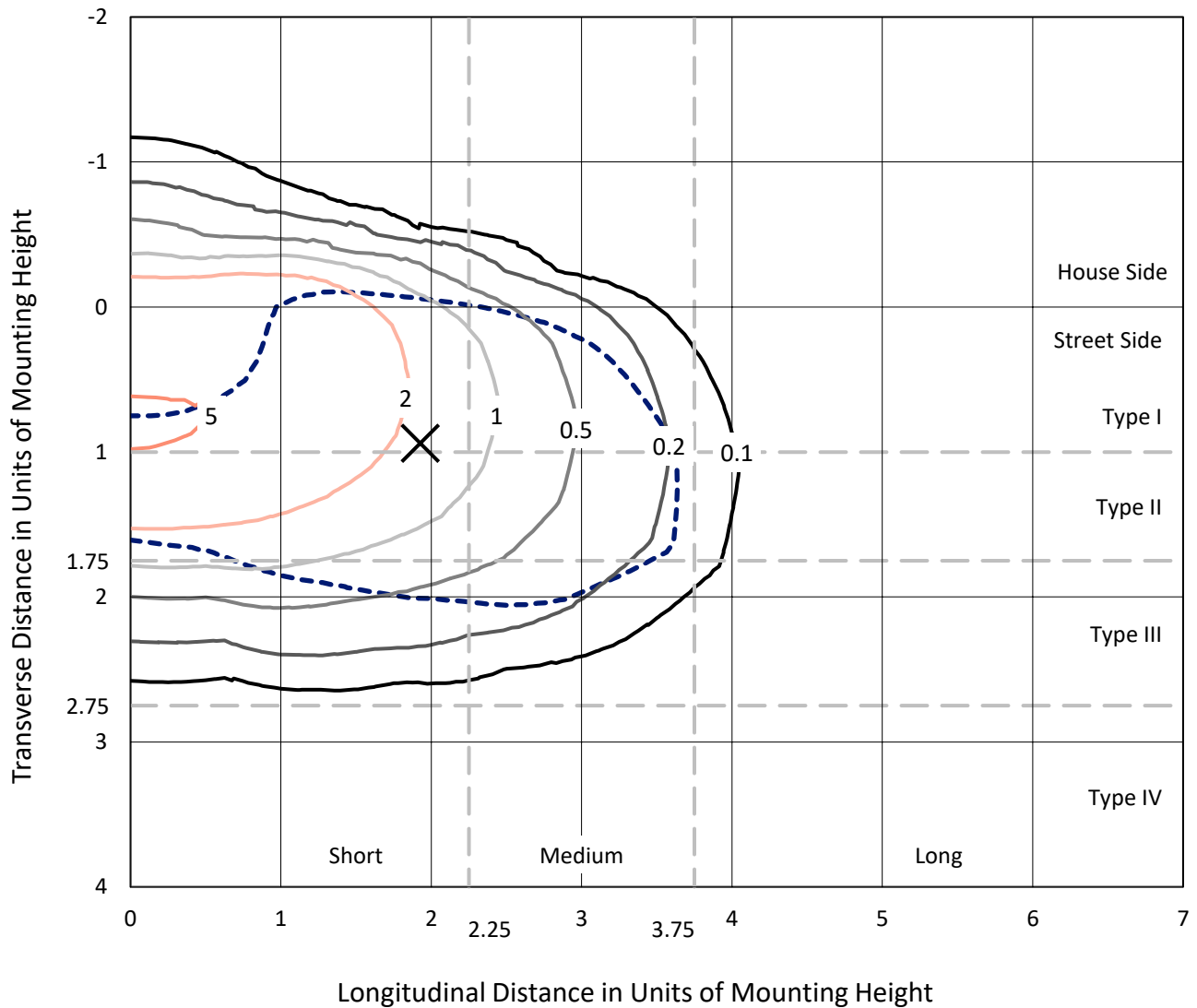
Lumens per Lamp: N/A  
Luminaire Lumens: 19296 lumens  
Efficiency: N/A  
Efficacy: 131.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 147  
Input Voltage (V): 120.0  
Input Current (Ain): 1.255  
Voltage Rise (V): NR  
Power Factor: 0.988  
Total Harmonic Distortion (THDi): 13.593  
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

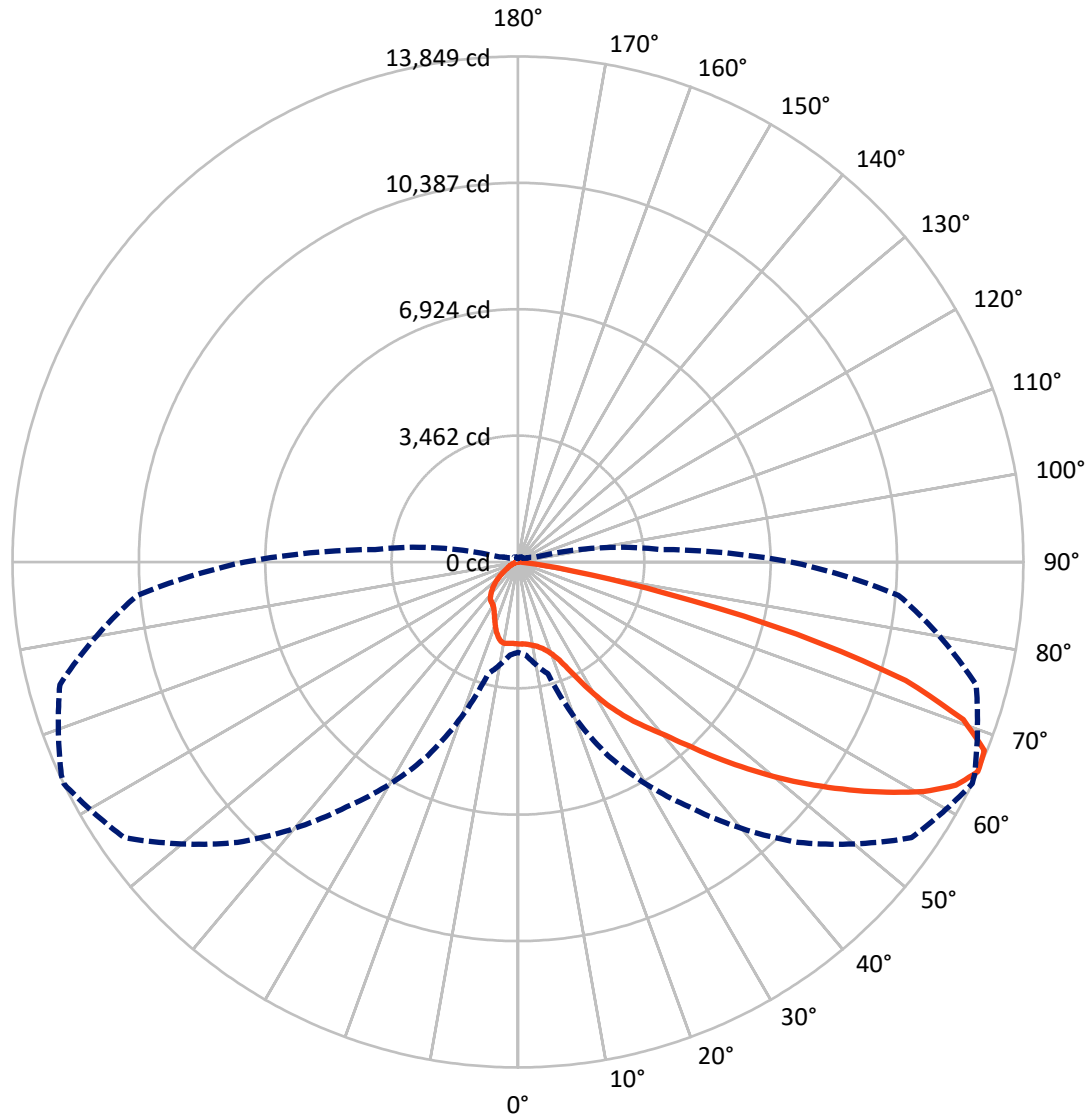
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.6 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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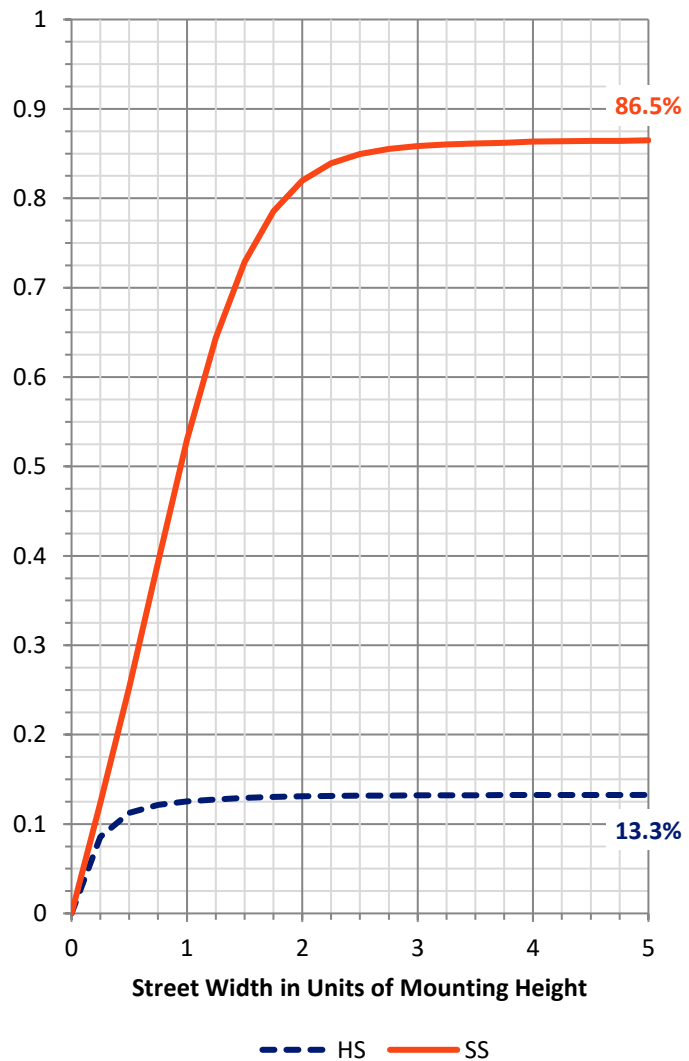
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2580.5	0.0	2580.5
	% Fixture	13.4	0.0	13.4
<b>Street Side</b>	Lumens	16715.5	0.0	16715.5
	% Fixture	86.6	0.0	86.6
<b>Total</b>	Lumens	19296.0	0.0	19296.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	207.1	1.1
10°-20°	561.6	2.9
20°-30°	1064.2	5.5
30°-40°	2153.4	11.2
40°-50°	3668.4	19.0
50°-60°	4988.8	25.9
60°-70°	4684.7	24.3
70°-80°	1876.9	9.7
80°-90°	90.9	0.5
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°	19296.0	100.0
0°-180°	19296.0	100.0

**Coefficient of Utilization**



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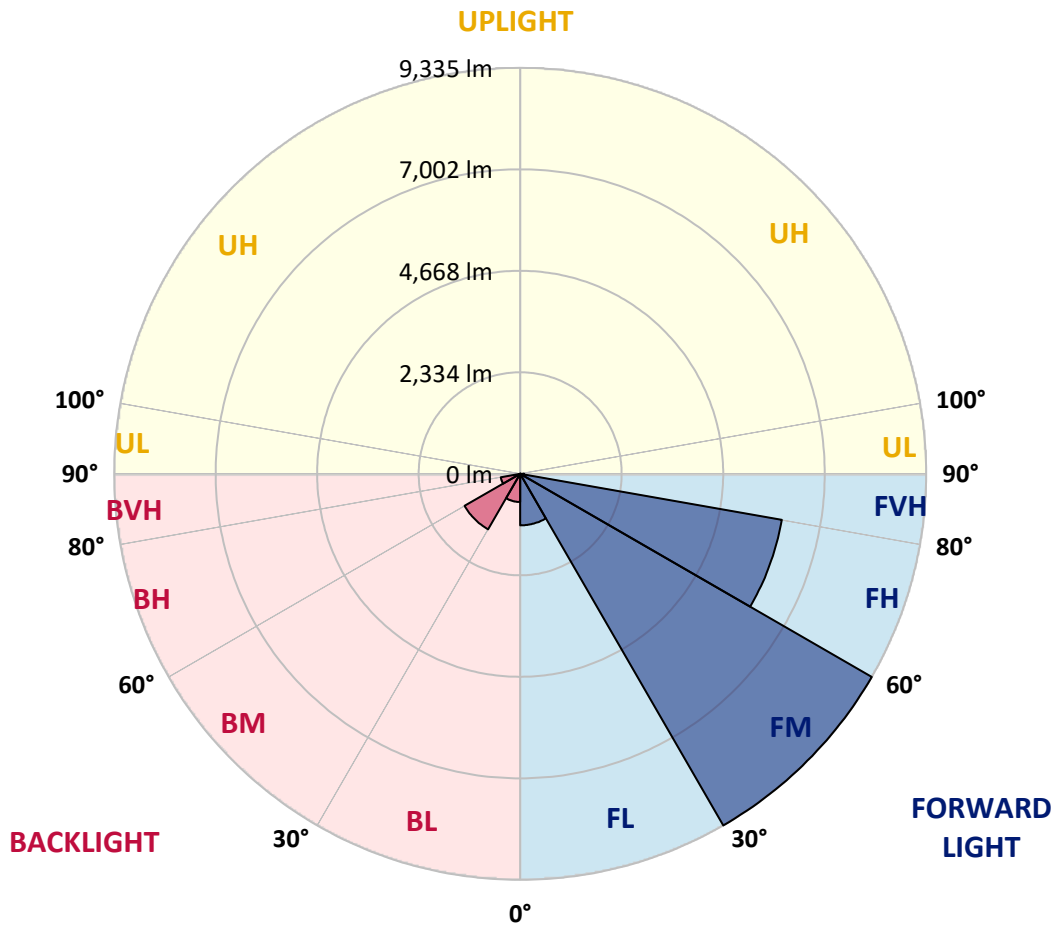
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1185.0	6.1			
FM (30°-60°)	9335.4	48.4			
FH (60°-80°)	6108.7	31.7			G3/7500
FVH (80°-90°)	86.5	0.4			G1/100
BL (0°-30°)	647.9	3.4	B2/1000		
BM (30°-60°)	1475.2	7.6	B2/2500		
BH (60°-80°)	452.9	2.3	B1/500		G1/500
BVH (80°-90°)	4.4	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	2244.3	2244.3	2244.3	2244.3	2244.3	2244.3	2244.3	2244.3	2244.3	2244.3	2244.3
2.5°	2236.6	2252.1	2248.2	2244.3	2243.0	2245.6	2246.9	2245.6	2245.6	2245.6	2246.9
5°	2193.9	2206.8	2206.8	2215.9	2228.8	2244.3	2256.0	2258.6	2261.1	2265.0	2263.7
7.5°	2112.4	2122.7	2130.5	2160.2	2192.6	2234.0	2268.9	2287.0	2289.6	2303.8	2309.0
10°	2056.8	2069.7	2082.6	2113.7	2160.2	2222.3	2281.8	2325.8	2332.3	2365.9	2381.4
12.5°	2054.2	2067.1	2083.9	2117.6	2171.9	2237.9	2310.3	2373.7	2385.3	2434.5	2466.8
15°	2081.3	2096.9	2112.4	2153.8	2212.0	2292.2	2369.8	2448.7	2460.3	2530.2	2565.1
17.5°	2137.0	2157.7	2169.3	2210.7	2272.8	2362.0	2464.2	2554.8	2565.1	2646.6	2690.6
20°	2246.9	2271.5	2275.4	2309.0	2369.8	2465.5	2587.1	2699.7	2712.6	2805.7	2854.9
22.5°	2474.6	2509.5	2478.5	2495.3	2549.6	2645.3	2777.3	2919.6	2937.7	3043.7	3087.7
25°	2875.6	2924.7	2844.5	2816.1	2839.4	2939.0	3104.5	3284.3	3305.0	3390.4	3412.4
27.5°	3663.4	3600.0	3478.4	3359.4	3289.5	3346.4	3532.7	3755.2	3781.1	3863.9	3838.0
30°	4528.8	4473.1	4308.8	4045.0	3879.4	3870.3	4042.4	4290.7	4320.5	4399.4	4320.5
32.5°	5395.4	5342.4	5163.9	4839.2	4552.0	4409.7	4528.8	4804.3	4819.8	4870.3	4753.8
35°	6247.9	6193.6	6015.1	5682.6	5329.5	5006.1	4982.8	5293.2	5298.4	5351.5	5178.1
37.5°	7105.5	7060.2	6870.1	6544.1	6196.1	5749.9	5533.8	5756.3	5762.8	5814.5	5634.7
40°	7717.4	7736.8	7606.1	7353.9	7055.1	6567.4	6152.2	6249.2	6210.4	6297.0	6189.7
42.5°	8242.6	8281.4	8167.5	8040.8	7867.4	7438.0	6918.0	6901.1	6839.0	6885.6	6774.4
45°	8696.6	8728.9	8626.7	8597.0	8593.1	8291.7	7754.9	7654.0	7567.3	7558.3	7425.0
47.5°	8863.5	8925.6	8969.5	9069.1	9263.2	9136.4	8620.3	8463.8	8366.7	8295.6	8084.7
50°	8926.9	8992.8	9142.9	9432.6	9891.8	9946.2	9481.8	9305.9	9186.9	9057.5	8747.0
52.5°	8841.5	8959.2	9161.0	9648.7	10314.8	10595.5	10308.4	10154.4	10018.6	9807.8	9347.3
55°	8338.3	8456.0	8868.6	9646.1	10525.7	11050.9	11089.7	11021.1	10868.5	10536.0	9832.3
57.5°	7277.6	7452.2	8105.4	9317.5	10521.8	11442.8	11855.5	11904.6	11733.9	11257.8	10213.9
60°	5808.1	6044.8	6841.6	8589.2	10197.1	11655.0	12526.8	12772.6	12591.5	11969.3	10523.1
62.5°	4052.7	4327.0	5081.1	7448.3	9454.6	11502.3	13017.1	13471.1	13334.0	12605.7	10642.1
65°	2472.0	2560.0	3167.9	5861.1	8192.1	10863.3	13168.4	13848.8	13803.6	12995.1	10466.2
67.5°	1646.7	1720.4	1895.1	4019.1	6359.1	9586.6	12806.2	13782.9	13795.8	12931.7	9822.0
70°	992.2	1055.5	1169.4	2337.5	4121.3	7588.0	11684.7	12942.1	13017.1	12084.4	8600.9
72.5°	408.8	451.5	554.9	1059.4	2134.4	4815.9	9304.6	11111.7	11286.3	10160.9	6601.0
75°	231.5	253.5	326.0	531.7	926.2	2244.3	5636.0	7888.1	8145.5	7003.3	3971.2
77.5°	153.9	164.3	210.9	344.1	521.3	765.8	2408.6	4109.6	4601.2	3825.1	1719.1
80°	103.5	112.5	144.9	230.3	338.9	328.6	767.1	1522.5	1873.1	1314.3	419.1
82.5°	69.9	71.1	103.5	151.3	214.7	159.1	226.4	473.4	595.0	380.3	159.1
85°	40.1	38.8	76.3	88.0	95.7	66.0	68.6	142.3	186.3	160.4	90.5
87.5°	5.2	7.8	29.8	23.3	12.9	14.2	14.2	24.6	36.2	38.8	19.4
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°	2244.3	2244.3	2244.3	2244.3	2244.3	2244.3	2244.3	2244.3	2244.3	2244.3	2244.3
2.5°	2246.9	2245.6	2241.7	2237.9	2228.8	2223.6	2226.2	2223.6	2222.3	2223.6	2228.8
5°	2263.7	2259.8	2249.5	2236.6	2218.5	2196.5	2182.2	2161.5	2142.1	2130.5	2133.1
7.5°	2309.0	2305.1	2290.9	2254.7	2196.5	2104.6	2020.5	1946.8	1891.2	1858.8	1860.1
10°	2381.4	2375.0	2353.0	2272.8	2120.1	1919.6	1752.8	1614.4	1523.8	1481.1	1477.2
12.5°	2466.8	2459.1	2420.2	2256.0	1975.3	1662.2	1432.0	1278.0	1194.0	1156.4	1152.6
15°	2567.7	2557.4	2481.0	2175.8	1764.4	1377.6	1166.8	1051.7	997.3	963.7	965.0
17.5°	2693.2	2675.1	2526.3	2055.5	1535.5	1160.3	1003.8	917.1	869.3	836.9	834.3
20°	2856.2	2826.4	2562.5	1911.9	1324.6	1023.2	893.8	821.4	785.2	756.7	751.6
22.5°	3083.8	3041.2	2606.5	1756.7	1175.8	928.8	812.4	759.3	729.6	697.2	692.1
25°	3365.8	3315.4	2660.9	1613.1	1073.7	847.3	752.9	708.9	673.9	636.4	632.6
27.5°	3760.4	3669.8	2725.5	1495.4	985.7	777.4	698.5	649.4	609.3	578.2	571.8
30°	4200.2	4051.4	2782.4	1424.2	905.5	712.8	627.4	578.2	540.7	518.7	514.8
32.5°	4616.7	4414.9	2820.0	1393.2	833.1	639.0	549.8	496.7	468.3	461.8	465.7
35°	5010.0	4743.5	2816.1	1363.4	768.4	565.3	473.4	419.1	397.1	401.0	401.0
37.5°	5462.7	5094.0	2788.9	1316.8	715.3	498.0	407.5	359.6	340.2	341.5	346.7
40°	5989.2	5498.9	2772.1	1228.9	657.1	435.9	353.1	314.3	300.1	294.9	293.6
42.5°	6550.6	5890.9	2774.7	1129.3	584.7	380.3	315.6	283.3	270.4	266.5	265.2
45°	7114.6	6264.7	2778.6	1025.8	508.4	337.6	288.5	261.3	253.5	248.4	248.4
47.5°	7644.9	6582.9	2706.1	914.5	433.3	305.3	266.5	248.4	241.9	235.4	235.4
50°	8139.1	6795.1	2531.5	785.2	373.8	279.4	249.7	236.7	230.3	223.8	223.8
52.5°	8523.3	6828.7	2243.0	652.0	332.4	260.0	239.3	227.7	219.9	213.4	212.1
55°	8694.0	6617.8	1833.0	527.8	300.1	243.2	229.0	217.3	208.3	201.8	200.5
57.5°	8650.0	6174.2	1429.4	424.3	269.1	226.4	216.0	208.3	197.9	187.6	186.3
60°	8434.0	5580.4	1077.5	353.1	240.6	208.3	201.8	195.3	181.1	165.6	163.0
62.5°	8060.2	4834.0	768.4	292.3	209.6	187.6	185.0	179.8	159.1	130.6	128.1
65°	7488.4	3927.2	517.4	243.2	179.8	164.3	165.6	156.5	129.4	97.0	94.4
67.5°	6652.8	2871.7	331.2	199.2	150.1	137.1	138.4	133.2	110.0	82.8	78.9
70°	5588.2	1901.5	216.0	151.3	120.3	106.1	113.8	115.1	93.1	67.3	64.7
72.5°	4096.7	1122.8	151.3	112.5	88.0	73.7	93.1	95.7	75.0	50.4	47.9
75°	2334.9	532.9	113.8	81.5	54.3	51.7	72.4	72.4	51.7	33.6	31.0
77.5°	980.5	222.5	80.2	53.0	31.0	29.8	49.2	45.3	25.9	15.5	15.5
80°	283.3	99.6	42.7	25.9	12.9	11.6	19.4	14.2	6.5	2.6	2.6
82.5°	111.2	44.0	16.8	10.3	5.2	5.2	2.6	0.0	0.0	0.0	0.0
85°	66.0	18.1	7.8	3.9	1.3	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	16.8	3.9	2.6	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)