

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: P883938

Luminaire Tested: **NAV-SB4C-735-U-T3-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883938  
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-SB4C-735-U-T3-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 3500K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

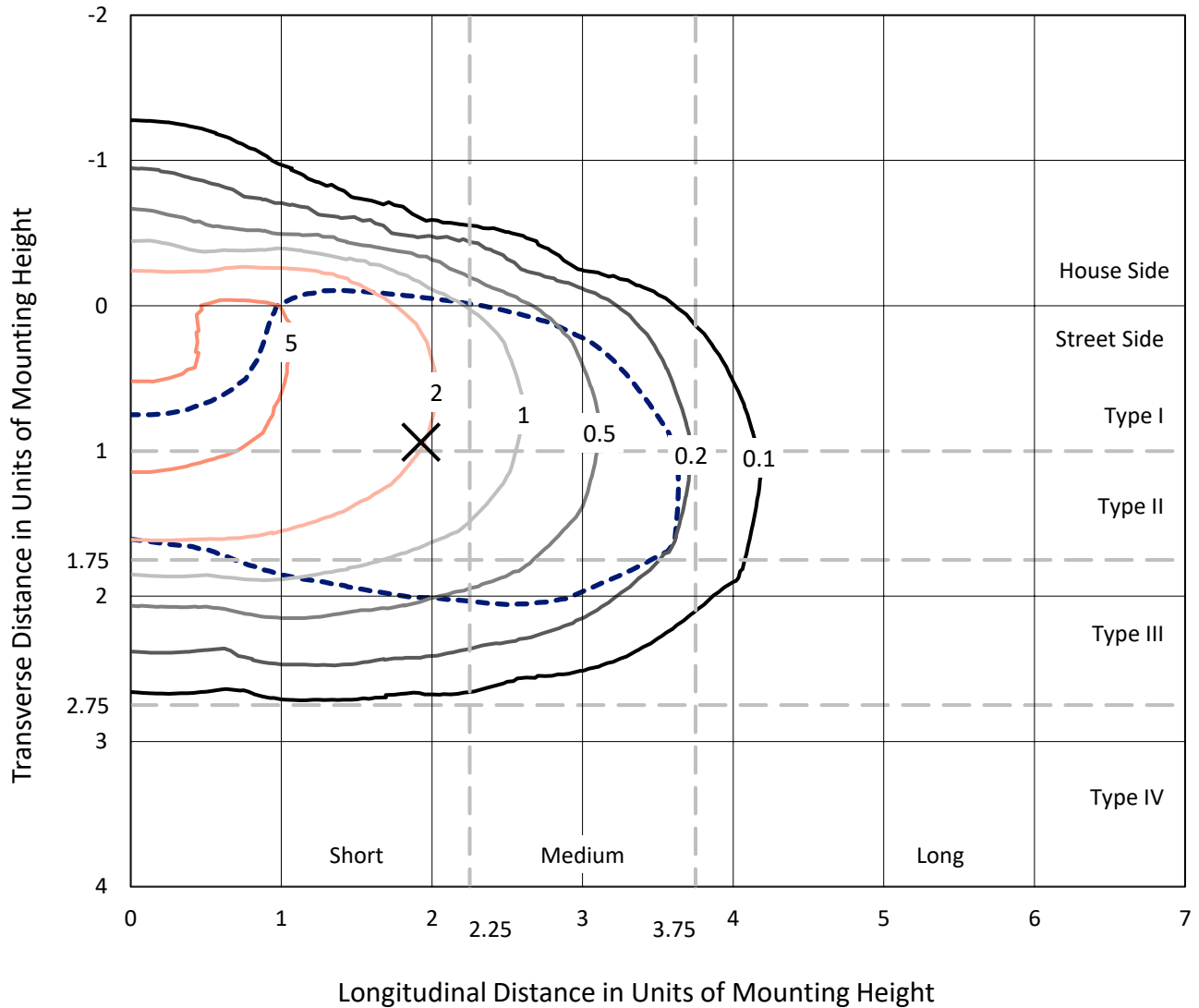
Lumens per Lamp: N/A  
Luminaire Lumens: 23803 lumens  
Efficiency: N/A  
Efficacy: 118.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G4  
  
Input Watts (W): 200.7  
Input Voltage (V): 120.0  
Input Current (Ain): 1.714  
Voltage Rise (V): NR  
Power Factor: 0.994  
Total Harmonic Distortion (THDi): 9.472  
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

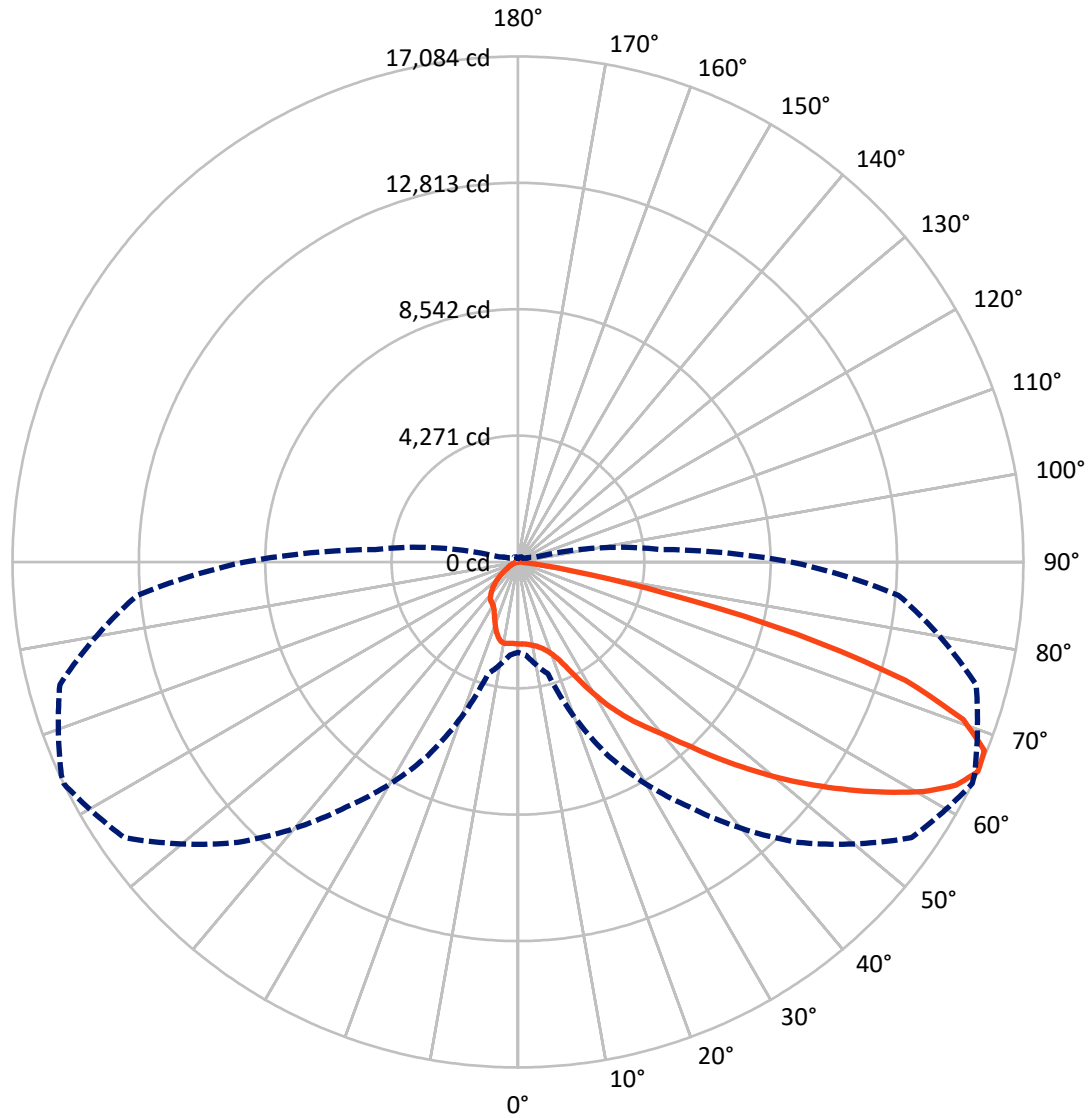
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7 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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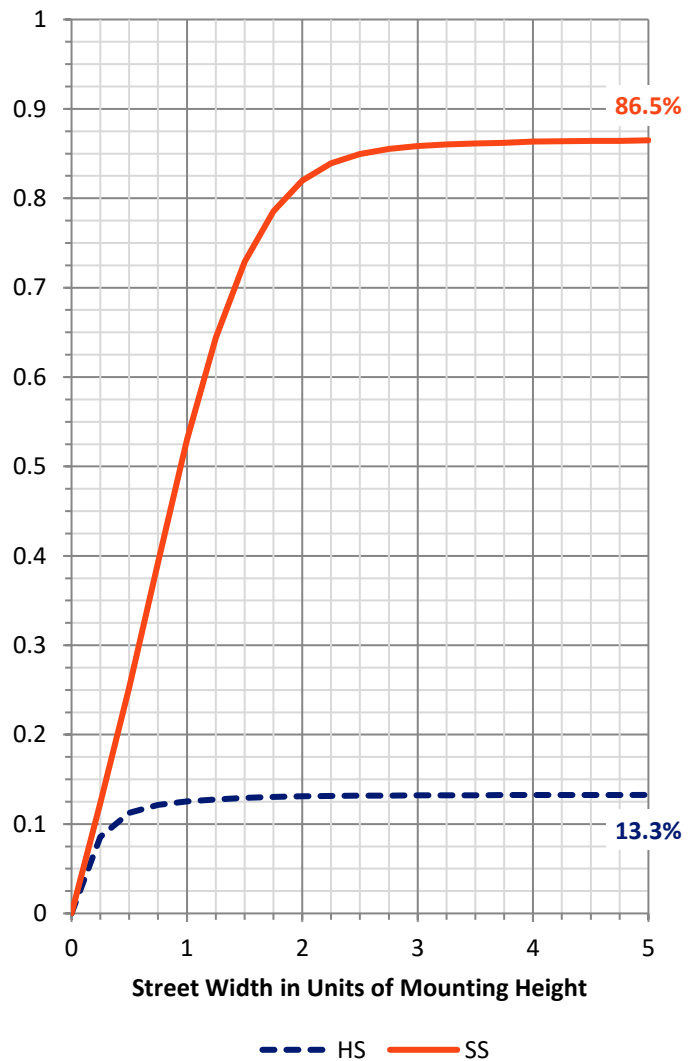
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3183.2	0.0	3183.2
	% Fixture	13.4	0.0	13.4
<b>Street Side</b>	Lumens	20619.8	0.0	20619.8
	% Fixture	86.6	0.0	86.6
<b>Total</b>	Lumens	23803.0	0.0	23803.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	255.4	1.1
10°-20°	692.8	2.9
20°-30°	1312.8	5.5
30°-40°	2656.4	11.2
40°-50°	4525.3	19.0
50°-60°	6154.0	25.9
60°-70°	5778.9	24.3
70°-80°	2315.3	9.7
80°-90°	112.2	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°	23803.0	100.0
0°-180°	23803.0	100.0

**Coefficient of Utilization**



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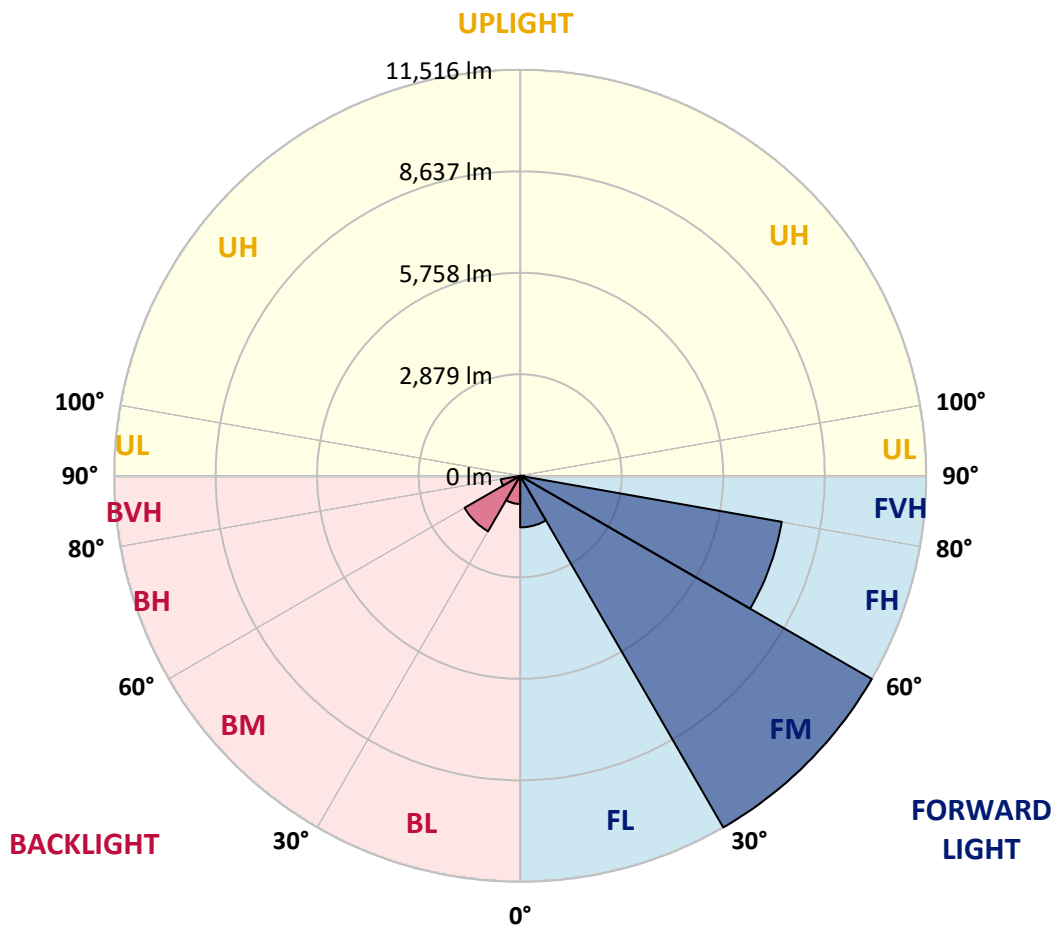
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1461.8	6.1			
FM (30°-60°)	11515.9	48.4			
FH (60°-80°)	7535.5	31.7			G4/12000
FVH (80°-90°)	106.7	0.4			G2/225
BL (0°-30°)	799.2	3.4	B2/1000		
BM (30°-60°)	1819.8	7.6	B2/2500		
BH (60°-80°)	558.7	2.3	B2/1000		G2/1000
BVH (80°-90°)	5.5	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G4**

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	2768.5	2768.5	2768.5	2768.5	2768.5	2768.5	2768.5	2768.5	2768.5	2768.5	2768.5
2.5°	2759.0	2778.1	2773.3	2768.5	2766.9	2770.1	2771.7	2770.1	2770.1	2770.1	2771.7
5°	2706.3	2722.3	2722.3	2733.4	2749.4	2768.5	2782.9	2786.1	2789.3	2794.1	2792.5
7.5°	2605.8	2618.5	2628.1	2664.8	2704.7	2755.8	2798.9	2821.2	2824.4	2841.9	2848.3
10°	2537.2	2553.1	2569.1	2607.4	2664.8	2741.4	2814.8	2869.1	2877.0	2918.5	2937.7
12.5°	2534.0	2549.9	2570.7	2612.2	2679.2	2760.6	2849.9	2928.1	2942.5	3003.1	3043.0
15°	2567.5	2586.6	2605.8	2656.8	2728.6	2827.6	2923.3	3020.7	3035.0	3121.2	3164.3
17.5°	2636.1	2661.6	2676.0	2727.0	2803.6	2913.7	3039.8	3151.5	3164.3	3264.8	3319.1
20°	2771.7	2802.0	2806.8	2848.3	2923.3	3041.4	3191.4	3330.2	3346.2	3461.1	3521.7
22.5°	3052.6	3095.7	3057.4	3078.1	3145.1	3263.2	3426.0	3601.5	3623.8	3754.7	3808.9
25°	3547.2	3607.9	3508.9	3473.8	3502.6	3625.4	3829.7	4051.5	4077.0	4182.3	4209.5
27.5°	4519.0	4440.8	4290.8	4144.0	4057.9	4128.1	4357.9	4632.3	4664.2	4766.3	4734.4
30°	5586.5	5517.9	5315.3	4989.7	4785.5	4774.3	4986.6	5292.9	5329.6	5427.0	5329.6
32.5°	6655.7	6590.2	6370.0	5969.5	5615.3	5439.7	5586.5	5926.4	5945.6	6007.8	5864.2
35°	7707.2	7640.2	7420.0	7009.9	6574.3	6175.4	6146.6	6529.6	6536.0	6601.4	6387.6
37.5°	8765.2	8709.3	8474.8	8072.6	7643.4	7092.9	6826.4	7100.9	7108.8	7172.7	6950.9
40°	9519.9	9543.9	9382.7	9071.5	8702.9	8101.4	7589.1	7708.8	7660.9	7767.9	7635.4
42.5°	10167.8	10215.7	10075.2	9918.9	9705.0	9175.3	8533.8	8513.0	8436.5	8493.9	8356.7
45°	10727.9	10767.8	10641.7	10605.0	10600.2	10228.4	9566.2	9441.7	9334.8	9323.7	9159.3
47.5°	10933.7	11010.3	11064.6	11187.4	11426.8	11270.4	10633.7	10440.7	10321.0	10233.2	9973.1
50°	11011.9	11093.3	11278.4	11635.8	12202.3	12269.3	11696.5	11479.5	11332.6	11173.1	10790.1
52.5°	10906.6	11051.8	11300.7	11902.3	12724.1	13070.4	12716.1	12526.2	12358.7	12098.6	11530.5
55°	10285.9	10431.1	10940.1	11899.1	12984.2	13632.0	13679.9	13595.3	13407.1	12997.0	12128.9
57.5°	8977.4	9192.8	9998.6	11493.8	12979.4	14115.5	14624.6	14685.2	14474.6	13887.4	12599.6
60°	7164.7	7456.7	8439.6	10595.4	12578.9	14377.2	15452.7	15755.9	15532.5	14765.0	12981.0
62.5°	4999.3	5337.6	6267.9	9188.0	11663.0	14188.9	16057.5	16617.6	16448.5	15550.1	13127.8
65°	3049.4	3157.9	3907.9	7230.1	10105.6	13400.7	16244.2	17083.5	17027.7	16030.4	12910.8
67.5°	2031.3	2122.3	2337.7	4957.8	7844.5	11825.7	15797.4	17002.2	17018.1	15952.2	12116.1
70°	1223.9	1302.1	1442.5	2883.4	5083.9	9360.4	14413.9	15965.0	16057.5	14907.0	10609.8
72.5°	504.2	556.9	684.6	1306.9	2632.9	5940.8	11477.9	13707.0	13922.5	12534.2	8142.8
75°	285.6	312.8	402.1	655.8	1142.5	2768.5	6952.5	9730.6	10048.1	8639.1	4898.8
77.5°	189.9	202.7	260.1	424.5	643.1	944.7	2971.2	5069.5	5675.9	4718.5	2120.7
80°	127.7	138.8	178.7	284.0	418.1	405.3	946.2	1878.1	2310.6	1621.2	517.0
82.5°	86.2	87.8	127.7	186.7	264.9	196.3	279.2	584.0	734.0	469.1	196.3
85°	49.5	47.9	94.1	108.5	118.1	81.4	84.6	175.5	229.8	197.9	111.7
87.5°	6.4	9.6	36.7	28.7	16.0	17.6	17.6	30.3	44.7	47.9	23.9
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°	2768.5	2768.5	2768.5	2768.5	2768.5	2768.5	2768.5	2768.5	2768.5	2768.5	2768.5
2.5°	2771.7	2770.1	2765.3	2760.6	2749.4	2743.0	2746.2	2743.0	2741.4	2743.0	2749.4
5°	2792.5	2787.7	2774.9	2759.0	2736.6	2709.5	2691.9	2666.4	2642.5	2628.1	2631.3
7.5°	2848.3	2843.5	2826.0	2781.3	2709.5	2596.2	2492.5	2401.5	2332.9	2293.0	2294.6
10°	2937.7	2929.7	2902.6	2803.6	2615.3	2368.0	2162.2	1991.4	1879.7	1827.1	1822.3
12.5°	3043.0	3033.4	2985.6	2782.9	2436.6	2050.5	1766.4	1576.5	1472.8	1426.6	1421.8
15°	3167.5	3154.7	3060.5	2684.0	2176.5	1699.4	1439.3	1297.3	1230.3	1188.8	1190.4
17.5°	3322.2	3299.9	3116.4	2535.6	1894.1	1431.3	1238.3	1131.3	1072.3	1032.4	1029.2
20°	3523.3	3486.6	3161.1	2358.4	1634.0	1262.2	1102.6	1013.3	968.6	933.5	927.1
22.5°	3804.1	3751.5	3215.3	2167.0	1450.5	1145.7	1002.1	936.7	900.0	860.1	853.7
25°	4152.0	4089.8	3282.4	1989.8	1324.4	1045.2	928.7	874.4	831.4	785.1	780.3
27.5°	4638.7	4527.0	3362.1	1844.6	1215.9	959.0	861.7	801.0	751.6	713.3	705.3
30°	5181.2	4997.7	3432.3	1756.9	1117.0	879.2	773.9	713.3	667.0	639.9	635.1
32.5°	5695.0	5446.1	3478.6	1718.6	1027.6	788.3	678.2	612.7	577.6	569.7	574.5
35°	6180.1	5851.4	3473.8	1681.9	947.8	697.3	584.0	517.0	489.9	494.7	494.7
37.5°	6738.6	6283.9	3440.3	1624.4	882.4	614.3	502.6	443.6	419.7	421.3	427.6
40°	7388.1	6783.3	3419.6	1515.9	810.6	537.8	435.6	387.8	370.2	363.8	362.2
42.5°	8080.6	7266.8	3422.8	1393.0	721.3	469.1	389.4	349.5	333.5	328.7	327.1
45°	8776.3	7728.0	3427.6	1265.4	627.1	416.5	355.8	322.3	312.8	306.4	306.4
47.5°	9430.6	8120.5	3338.2	1128.2	534.6	376.6	328.7	306.4	298.4	290.4	290.4
50°	10040.1	8382.2	3122.8	968.6	461.2	344.7	308.0	292.0	284.0	276.1	276.1
52.5°	10514.1	8423.7	2766.9	804.2	410.1	320.7	295.2	280.8	271.3	263.3	261.7
55°	10724.7	8163.6	2261.1	651.0	370.2	300.0	282.4	268.1	256.9	248.9	247.3
57.5°	10670.4	7616.3	1763.2	523.4	331.9	279.2	266.5	256.9	244.1	231.4	229.8
60°	10404.0	6883.8	1329.2	435.6	296.8	256.9	248.9	241.0	223.4	204.2	201.1
62.5°	9942.8	5963.1	947.8	360.6	258.5	231.4	228.2	221.8	196.3	161.2	158.0
65°	9237.5	4844.5	638.3	300.0	221.8	202.7	204.2	193.1	159.6	119.7	116.5
67.5°	8206.7	3542.4	408.5	245.7	185.1	169.1	170.7	164.4	135.6	102.1	97.3
70°	6893.4	2345.7	266.5	186.7	148.4	130.8	140.4	142.0	114.9	83.0	79.8
72.5°	5053.6	1385.1	186.7	138.8	108.5	91.0	114.9	118.1	92.6	62.2	59.0
75°	2880.2	657.4	140.4	100.5	67.0	63.8	89.4	89.4	63.8	41.5	38.3
77.5°	1209.5	274.5	98.9	65.4	38.3	36.7	60.6	55.8	31.9	19.1	19.1
80°	349.5	122.9	52.7	31.9	16.0	14.4	23.9	17.6	8.0	3.2	3.2
82.5°	137.2	54.3	20.7	12.8	6.4	6.4	3.2	0.0	0.0	0.0	0.0
85°	81.4	22.3	9.6	4.8	1.6	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	20.7	4.8	3.2	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)