

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: P884416

Luminaire Tested: **NAV-SB5B-722-U-T2-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884416  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5B-722-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 2200K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

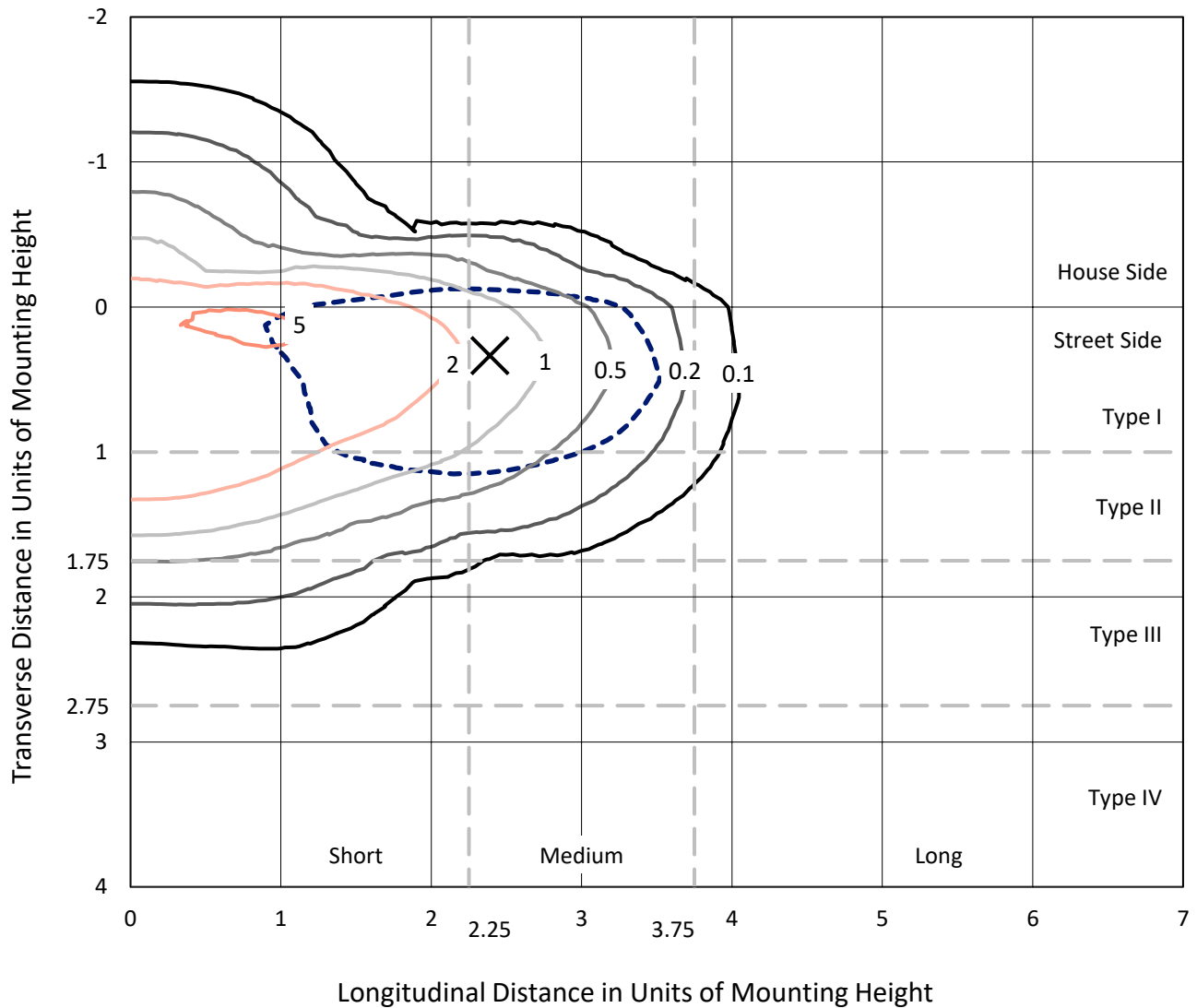
Lumens per Lamp: N/A  
Luminaire Lumens: 16627 lumens  
Efficiency: N/A  
Efficacy: 91.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 182.7  
Input Voltage (V): 120.0  
Input Current (Ain): 1.547  
Voltage Rise (V): NR  
Power Factor: 0.992  
Total Harmonic Distortion (THDi): 11.125  
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

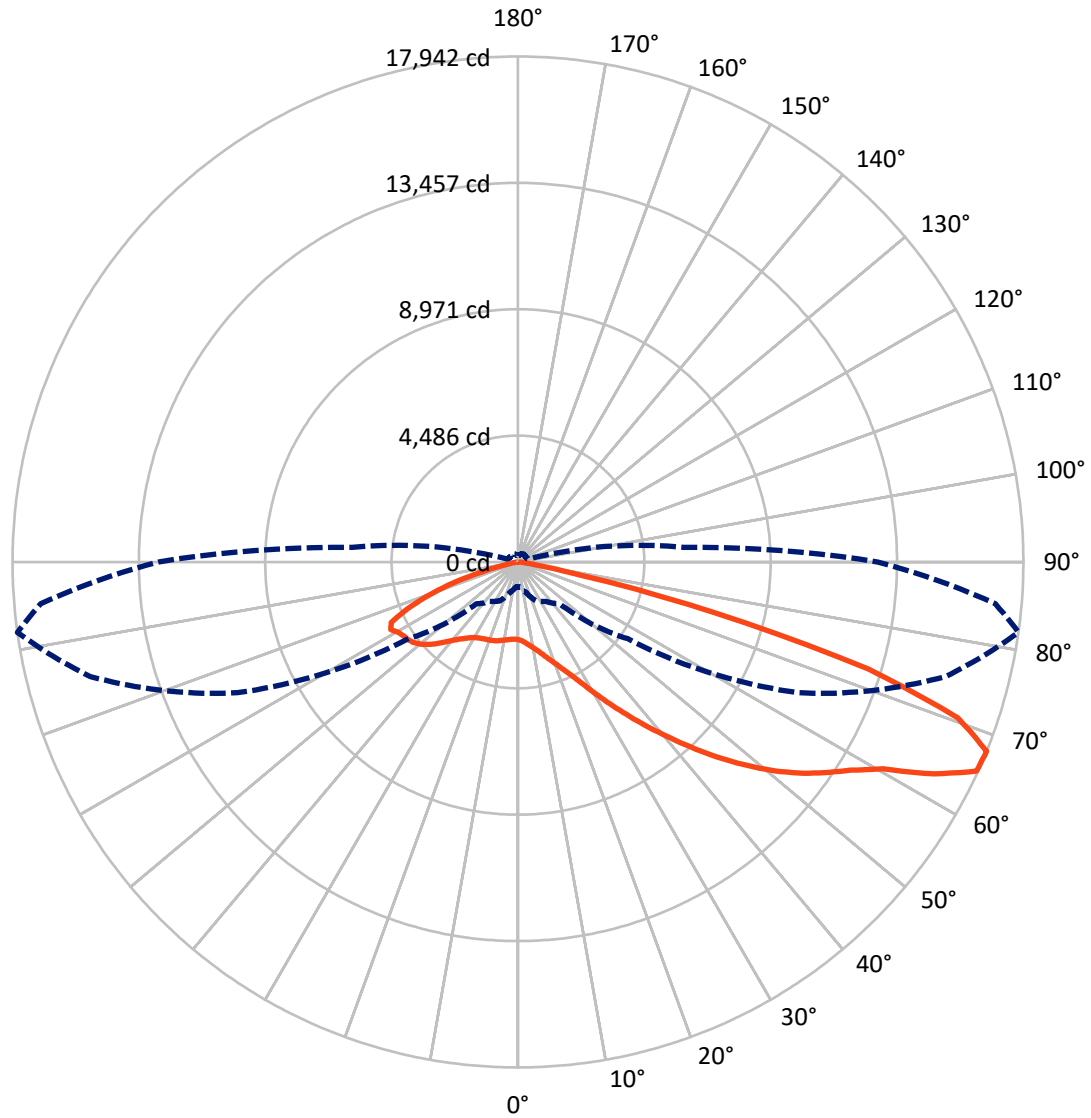
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.8 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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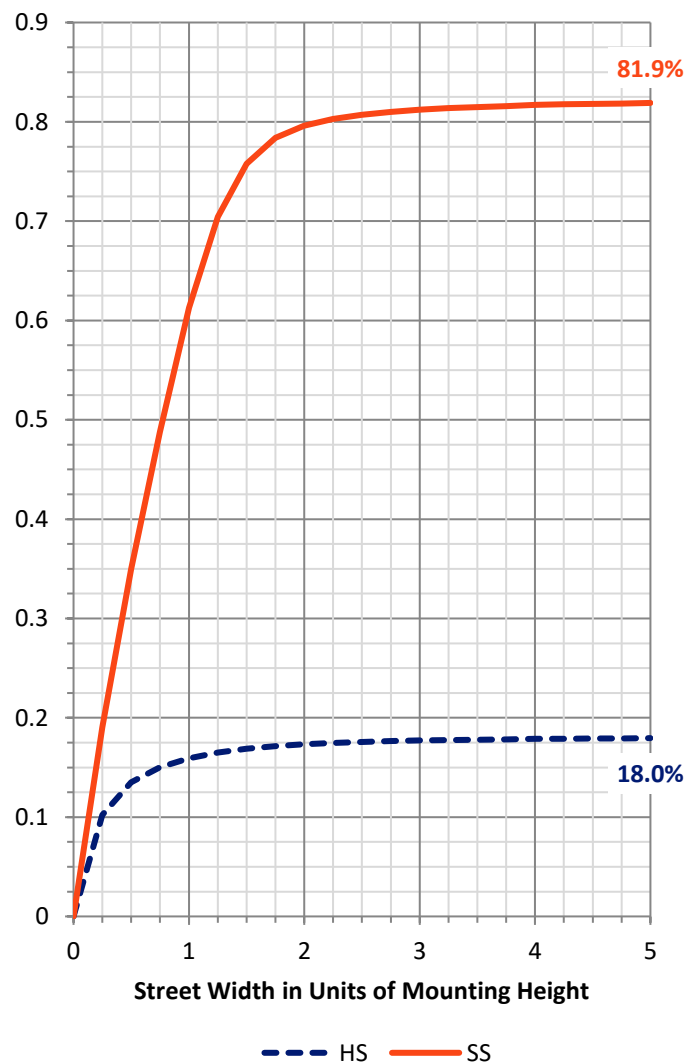
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3011.8	0.0	3011.8
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	13615.2	0.0	13615.2
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	16627.0	0.0	16627.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	245.4	1.5
10°-20°	637.7	3.8
20°-30°	1021.4	6.1
30°-40°	1806.2	10.9
40°-50°	3164.6	19.0
50°-60°	4220.7	25.4
60°-70°	3929.3	23.6
70°-80°	1508.0	9.1
80°-90°	93.7	0.6
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°	16627.0	100.0
0°-180°	16627.0	100.0

**Coefficient of Utilization**



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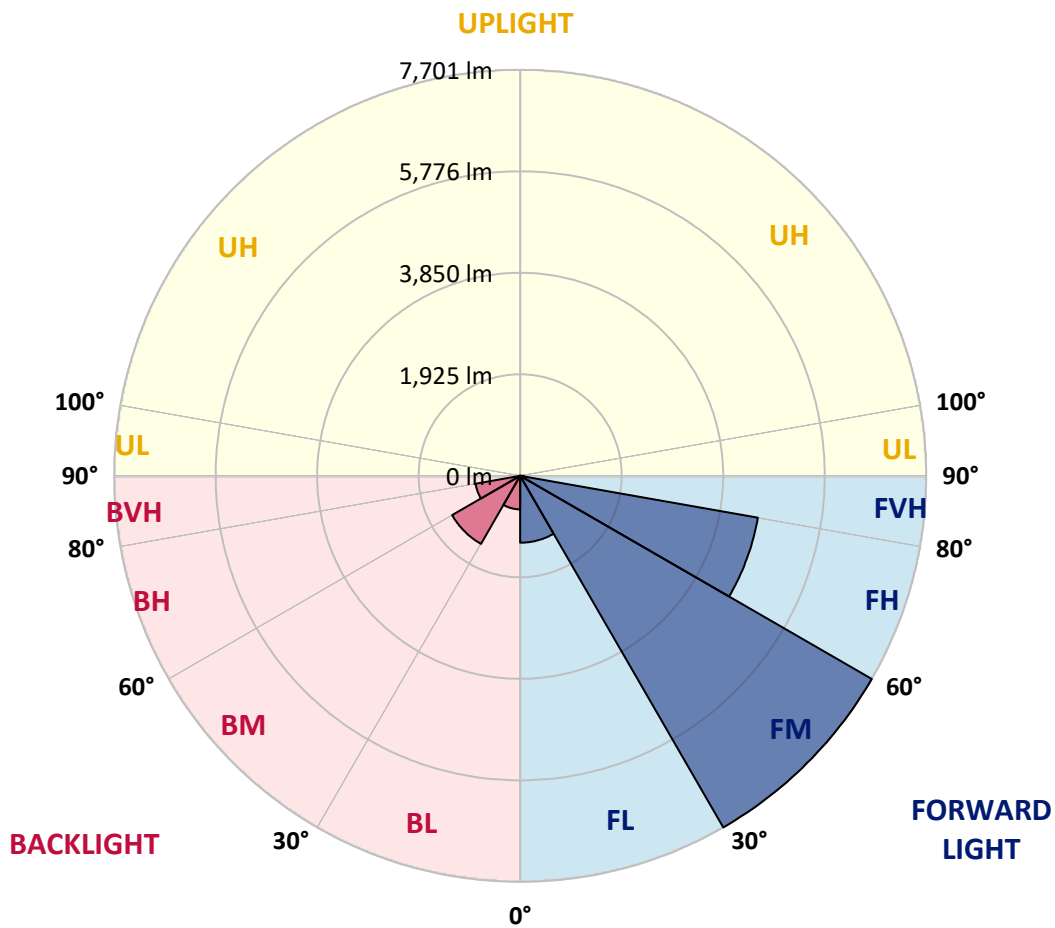
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1268.5	7.6			
FM (30°-60°)	7700.9	46.3			
FH (60°-80°)	4577.7	27.5			G2/5000
FVH (80°-90°)	68.1	0.4			G1/100
BL (0°-30°)	636.1	3.8	B2/1000		
BM (30°-60°)	1490.5	9.0	B2/2500		
BH (60°-80°)	859.6	5.2	B2/1000		G2/1000
BVH (80°-90°)	25.6	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2754.5	2754.5	2754.5	2754.5	2754.5	2754.5	2754.5	2754.5	2754.5	2754.5	2754.5
2.5°	2911.4	2928.1	2918.5	2913.7	2905.4	2893.4	2883.8	2853.9	2822.8	2802.4	2795.2
5°	2970.0	2986.8	2985.6	2990.4	2996.3	2999.9	2997.5	2964.0	2919.7	2885.0	2864.7
7.5°	2919.7	2938.9	2954.4	2978.4	3020.3	3064.6	3086.1	3078.9	3033.5	2985.6	2960.4
10°	2777.3	2797.6	2834.7	2891.0	2979.6	3075.4	3155.6	3192.7	3163.9	3111.3	3076.6
12.5°	2516.3	2536.7	2609.7	2731.8	2880.2	3046.6	3199.9	3299.2	3306.4	3253.7	3213.0
15°	2223.0	2243.4	2321.2	2474.4	2700.7	2967.6	3223.8	3411.7	3475.2	3429.7	3380.6
17.5°	2041.1	2059.0	2117.7	2241.0	2476.8	2809.6	3215.4	3531.5	3676.3	3640.4	3581.7
20°	1986.0	2001.6	2029.1	2115.3	2311.6	2645.6	3160.3	3644.0	3893.0	3872.6	3806.8
22.5°	2044.6	2059.0	2067.4	2105.7	2229.0	2537.9	3090.9	3758.9	4144.4	4146.8	4066.6
25°	2179.9	2194.3	2184.7	2208.7	2262.5	2504.3	3064.6	3894.2	4460.4	4486.7	4395.8
27.5°	2402.6	2403.8	2381.0	2379.8	2388.2	2554.6	3092.1	4039.0	4859.0	4908.1	4795.6
30°	2849.1	2831.1	2743.8	2649.2	2606.1	2705.5	3168.7	4210.2	5329.5	5416.9	5275.6
32.5°	3537.4	3511.1	3350.7	3124.4	2897.0	2948.5	3306.4	4405.3	5841.9	5999.9	5827.5
35°	4284.4	4277.2	4109.7	3773.3	3375.8	3294.4	3530.3	4661.5	6400.9	6652.3	6447.6
37.5°	4978.7	4975.2	4879.4	4483.1	3999.5	3776.9	3889.4	4996.7	6999.5	7363.4	7121.6
40°	5613.2	5624.0	5528.2	5173.9	4686.7	4395.8	4377.8	5410.9	7665.0	8137.9	7850.6
42.5°	6161.5	6173.5	6076.5	5814.3	5365.4	5080.5	4977.5	5918.5	8315.1	8969.9	8629.9
45°	6533.8	6608.0	6593.6	6384.1	6062.1	5766.4	5698.2	6555.3	9056.1	9852.1	9453.5
47.5°	6639.1	6707.4	6815.1	6843.8	6647.5	6356.6	6438.0	7322.7	9805.5	10735.6	10281.9
50°	6379.4	6442.8	6666.7	6964.7	7101.2	7011.4	7157.5	8145.1	10572.8	11616.7	11094.7
52.5°	5867.0	5931.6	6214.2	6685.8	7242.5	7525.0	7879.3	8955.5	11316.2	12451.1	11864.5
55°	5126.0	5194.2	5556.9	6090.9	6973.1	7736.9	8481.5	9764.8	11997.4	13201.6	12558.8
57.5°	4118.0	4168.3	4545.4	5292.4	6295.6	7526.2	8925.6	10648.2	12639.0	13939.1	13247.1
60°	2683.9	2728.2	3166.3	3999.5	5172.7	6822.3	9014.2	11633.4	13491.3	14897.9	14174.9
62.5°	1784.9	1814.8	2074.6	2686.3	3642.8	5470.8	8495.8	12419.9	14741.1	16566.7	15765.8
65°	1224.6	1254.6	1514.3	1940.5	2353.5	3618.8	7005.4	12315.8	15873.6	17891.9	16945.0
67.5°	873.9	899.0	1119.3	1521.5	1703.5	2102.1	4748.9	10984.6	15710.8	17942.2	17008.4
70°	626.1	640.4	822.4	1185.1	1353.9	1262.9	2640.8	8401.3	13755.9	16567.9	15713.2
72.5°	438.1	442.9	571.0	902.6	1090.6	921.8	1257.0	5601.2	10404.0	13004.1	12181.7
75°	296.9	302.9	384.3	662.0	875.1	703.9	665.6	3003.5	6107.6	7198.2	6452.4
77.5°	182.0	184.4	247.8	452.5	654.8	536.3	428.6	1272.5	2363.1	2320.0	1977.6
80°	103.0	103.0	158.0	281.3	446.5	346.0	300.5	541.1	748.2	657.2	579.4
82.5°	57.5	58.7	114.9	174.8	295.7	204.7	165.2	250.2	323.2	286.1	249.0
85°	23.9	26.3	70.6	82.6	141.3	101.8	67.0	105.3	119.7	106.5	77.8
87.5°	2.4	3.6	21.5	15.6	16.8	20.4	9.6	20.4	16.8	16.8	12.0
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°	2754.5	2754.5	2754.5	2754.5	2754.5	2754.5	2754.5	2754.5	2754.5	2754.5	2754.5
2.5°	2772.5	2754.5	2709.0	2656.4	2586.9	2553.4	2507.9	2476.8	2450.5	2452.9	2428.9
5°	2826.4	2780.9	2679.1	2552.2	2394.2	2281.7	2162.0	2079.4	2012.3	1998.0	1965.6
7.5°	2900.6	2828.8	2650.4	2421.7	2154.8	1952.5	1771.7	1655.6	1573.0	1546.7	1520.3
10°	2996.3	2892.2	2613.3	2257.7	1873.5	1616.1	1422.2	1331.2	1274.9	1255.8	1241.4
12.5°	3107.7	2965.2	2564.2	2057.8	1583.8	1336.0	1212.7	1167.2	1149.2	1143.2	1139.6
15°	3247.7	3056.2	2490.0	1820.8	1338.4	1164.8	1112.1	1106.1	1108.5	1106.1	1104.9
17.5°	3414.1	3155.6	2369.1	1576.6	1173.2	1077.4	1058.2	1063.0	1069.0	1067.8	1065.4
20°	3596.1	3253.7	2214.6	1359.9	1060.6	1015.1	1004.4	1009.2	1013.9	1011.6	1010.4
22.5°	3803.2	3359.1	2043.5	1191.1	985.2	957.7	945.7	946.9	946.9	942.1	939.7
25°	4051.0	3475.2	1863.9	1071.4	927.8	906.2	891.8	887.1	879.9	865.5	863.1
27.5°	4346.7	3598.5	1691.5	987.6	882.3	861.9	845.2	833.2	815.2	791.3	788.9
30°	4679.5	3748.1	1545.5	934.9	846.4	826.0	806.8	788.9	762.6	732.6	730.2
32.5°	5070.9	3908.5	1438.9	900.2	814.0	792.5	769.7	748.2	719.5	689.5	690.7
35°	5537.8	4102.5	1376.7	876.3	788.9	760.2	735.0	711.1	689.5	663.2	660.8
37.5°	6044.2	4308.4	1357.5	864.3	772.1	727.8	699.1	682.3	680.0	664.4	663.2
40°	6598.4	4552.6	1371.9	857.1	754.2	696.7	665.6	662.0	668.0	640.4	641.6
42.5°	7185.0	4842.3	1395.8	848.7	729.0	665.6	635.7	635.7	630.9	592.6	592.6
45°	7819.5	5176.3	1419.8	828.4	699.1	634.5	611.7	603.3	583.0	545.9	544.7
47.5°	8458.7	5516.2	1437.7	791.3	663.2	608.1	587.8	568.6	538.7	505.2	504.0
50°	9065.7	5821.5	1418.6	736.2	622.5	583.0	561.4	535.1	502.8	480.0	476.4
52.5°	9607.9	6086.1	1337.2	671.6	579.4	556.7	537.5	510.0	483.6	459.7	457.3
55°	10079.6	6300.3	1193.5	610.5	541.1	533.9	514.8	480.0	444.1	423.8	421.4
57.5°	10532.1	6463.2	1013.9	560.2	506.4	508.8	480.0	448.9	415.4	393.8	391.5
60°	11134.2	6681.0	832.0	513.6	469.3	476.4	445.3	422.6	380.7	353.1	349.6
62.5°	12096.7	7019.8	660.8	456.1	426.2	428.6	415.4	387.9	337.6	305.3	302.9
65°	12860.5	6895.3	520.7	393.8	377.1	380.7	380.7	350.8	296.9	259.8	256.2
67.5°	12774.3	5904.1	415.4	332.8	330.4	332.8	341.2	316.0	263.4	233.4	228.6
70°	11767.5	4696.2	332.8	276.5	287.3	281.3	305.3	288.5	237.0	207.1	203.5
72.5°	9602.0	3383.0	253.8	228.6	220.3	229.8	275.3	259.8	197.5	164.0	160.4
75°	5610.8	1805.2	189.1	180.8	159.2	191.5	244.2	221.5	150.8	120.9	117.3
77.5°	1826.8	629.7	138.9	132.9	118.5	154.4	208.3	186.7	123.3	95.8	92.2
80°	489.6	190.3	94.6	87.4	76.6	114.9	165.2	148.4	88.6	62.2	61.1
82.5°	196.3	80.2	55.1	49.1	41.9	79.0	130.5	119.7	65.8	39.5	39.5
85°	63.4	26.3	20.4	15.6	19.2	49.1	77.8	81.4	46.7	20.4	15.6
87.5°	8.4	3.6	3.6	4.8	3.6	8.4	23.9	22.7	13.2	2.4	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)