

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: McGRAW-EDISON

Report Number: P591248

Luminaire Tested: **CTN-CA6-230-727-U-T4-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591248  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-11)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA6-230-727-U-T4-SSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (6) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15833 lumens  
Efficiency: N/A  
Efficacy: 69.5 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G3

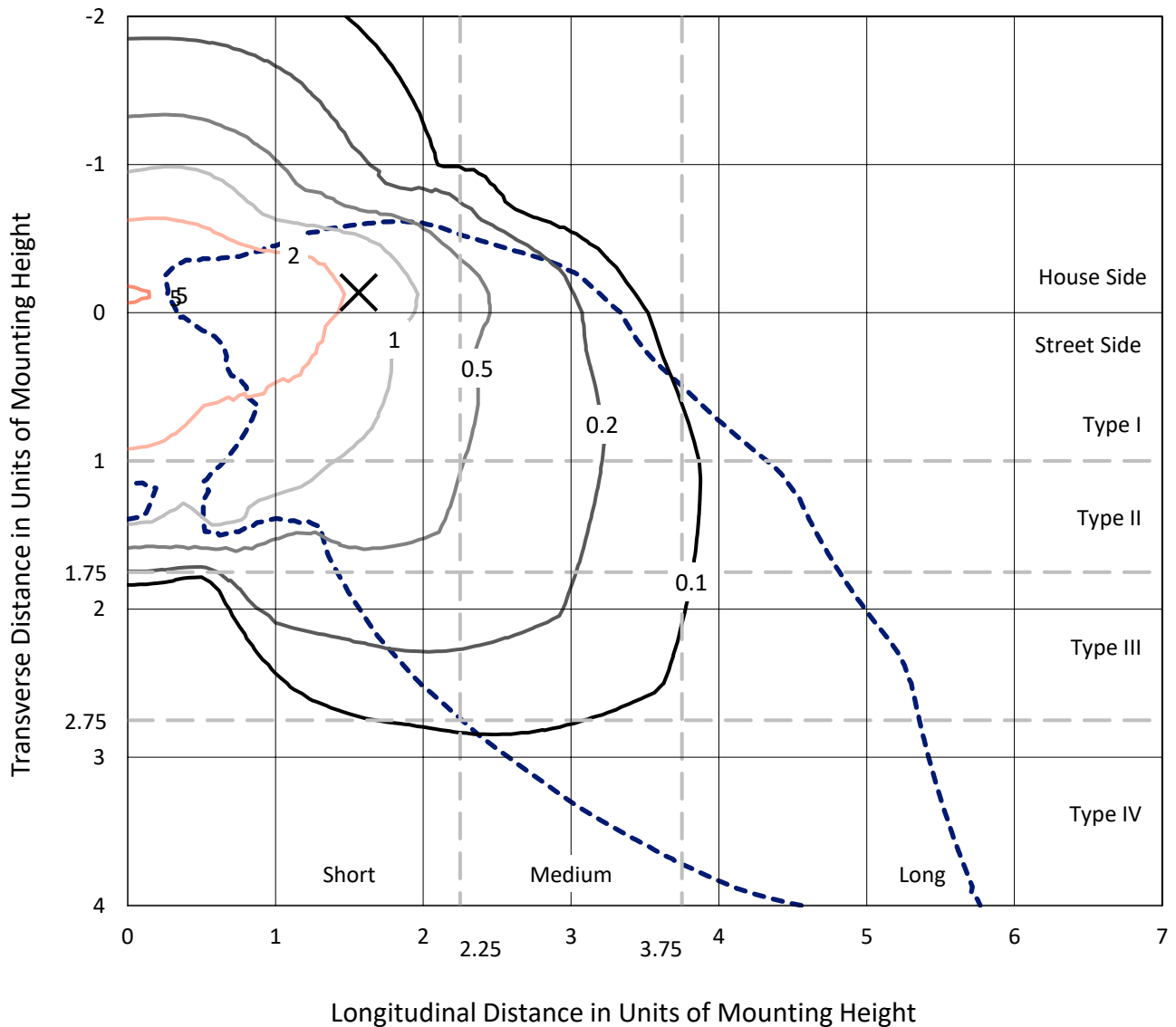
Input Watts (W): 227.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

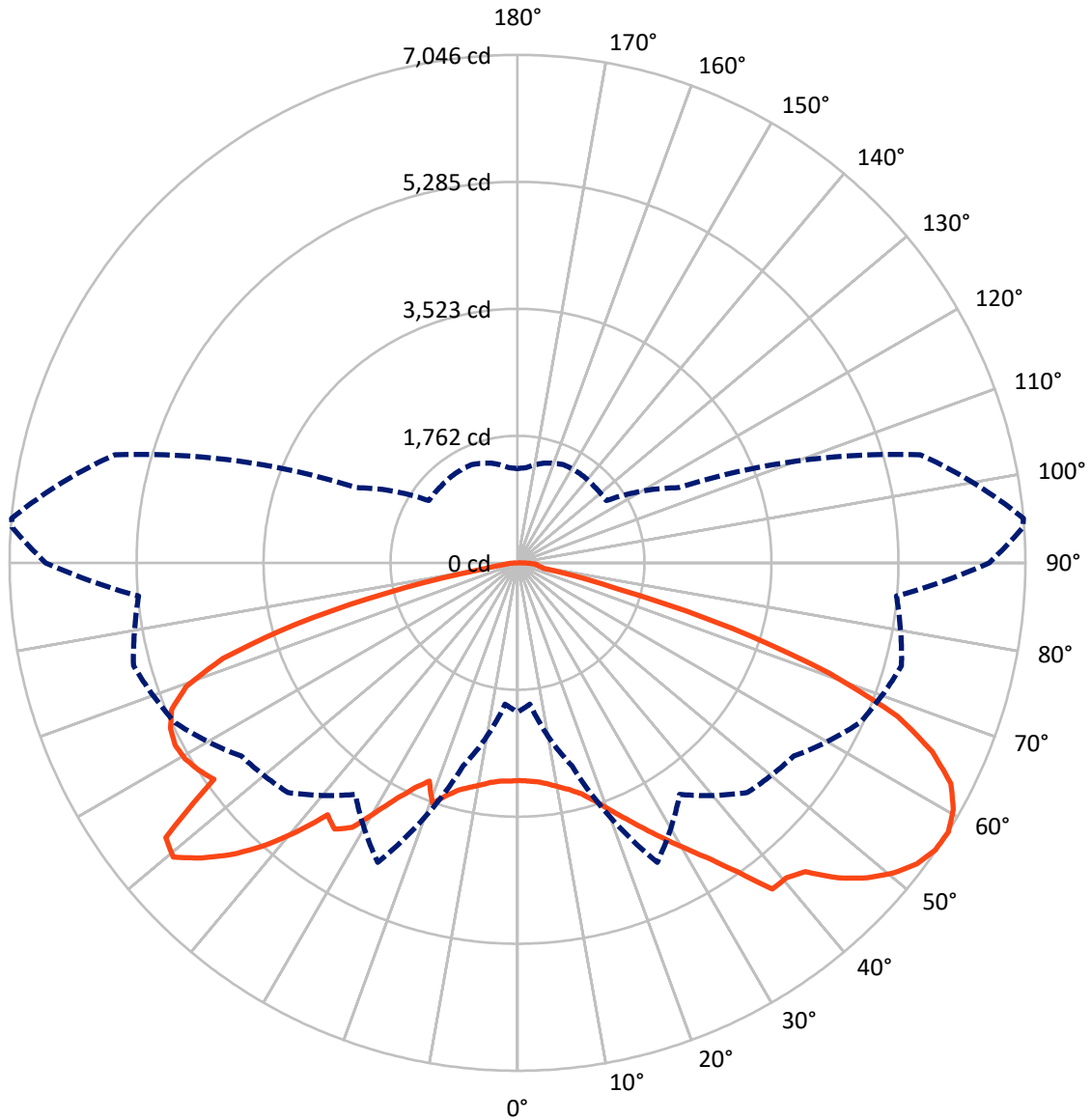
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.1 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 95-Deg Lateral      - - - Horizontal Cone Through 57.5-Deg Vertical

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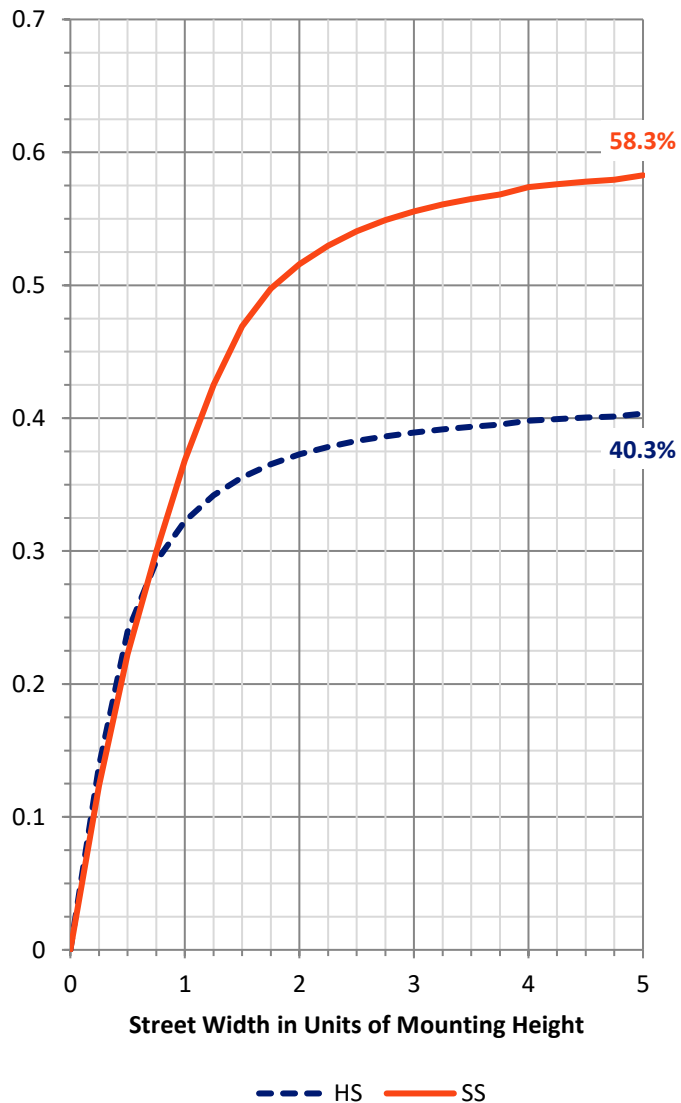
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6521.1	0.0	6521.1
	% Fixture	41.2	0.0	41.2
<b>Street Side</b>	Lumens	9311.9	0.0	9311.9
	% Fixture	58.8	0.0	58.8
<b>Total</b>	Lumens	15833.0	0.0	15833.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	295.0	1.9
10°-20°	902.1	5.7
20°-30°	1425.5	9.0
30°-40°	1969.7	12.4
40°-50°	2655.9	16.8
50°-60°	3128.6	19.8
60°-70°	2794.9	17.7
70°-80°	2086.9	13.2
80°-90°	574.4	3.6
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°	15833.0	100.0
0°-180°	15833.0	100.0

**Coefficient of Utilization**



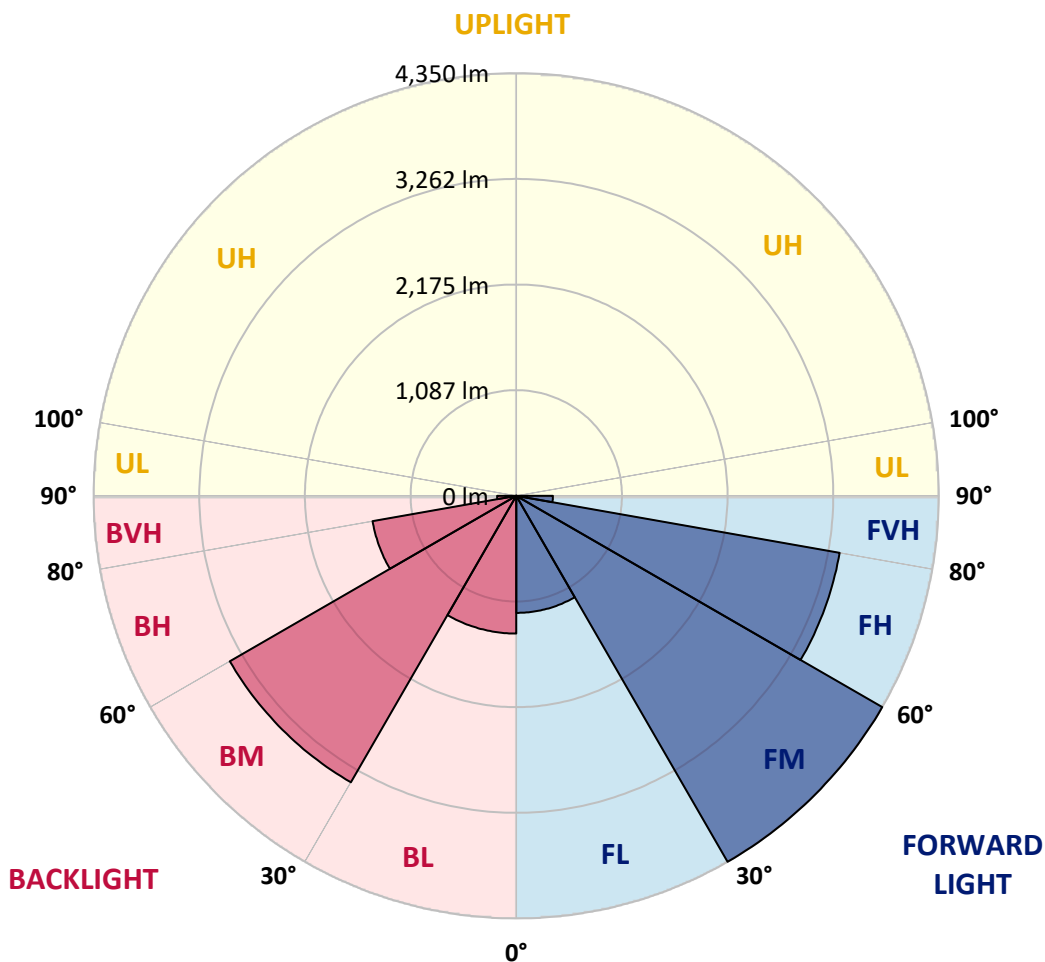
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 CATALOG NUMBER: CTN-CA6-230-727-U-T4-SSS-HM-EX120

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1205.1	7.6			
FM	(30°-60°)	4349.6	27.5			
FH	(60°-80°)	3379.8	21.3			G2/5000
FVH	(80°-90°)	377.3	2.4			G3/500
BL	(0°-30°)	1417.4	9.0	B3/2500		
BM	(30°-60°)	3404.5	21.5	B3/5000		
BH	(60°-80°)	1502.0	9.5	B3/2500		G3/2500
BVH	(80°-90°)	197.1	1.2			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3020.8	3020.8	3020.8	3020.8	3020.8	3020.8	3020.8	3020.8	3020.8	3020.8	3020.8
2.5°	2981.1	2962.2	2963.1	2989.3	2950.5	2978.4	2974.8	3018.1	3011.8	3028.9	3034.3
5°	2956.8	2940.6	2941.5	2974.8	2948.7	2973.9	2956.8	2996.5	3010.9	3037.0	3042.5
7.5°	2963.1	2948.7	2954.1	2985.6	2953.2	2978.4	2980.2	3017.2	3024.4	3069.5	3076.7
10°	2979.3	2964.0	2967.6	2992.9	2972.1	3017.2	3011.8	3060.5	3062.3	3125.4	3134.4
12.5°	2957.7	2946.9	2946.9	2978.4	2989.3	3034.3	3047.9	3098.4	3109.2	3182.2	3193.9
15°	2918.9	2900.9	2927.0	2973.9	2995.6	3064.1	3089.3	3165.1	3177.7	3253.5	3278.7
17.5°	2852.2	2842.3	2938.8	2953.2	2871.1	2923.4	3030.7	3242.6	3285.9	3375.2	3422.1
20°	2652.9	2541.1	2283.2	2330.1	2582.6	2771.0	2804.4	2906.3	3092.1	3536.6	3609.6
22.5°	1950.5	2046.9	2387.8	2415.7	2407.6	2563.6	2914.4	3012.7	3101.1	3264.3	3749.4
25°	2019.9	2014.5	2181.3	2535.7	2523.1	2552.8	2699.8	3177.7	3266.1	3428.4	3933.4
27.5°	2082.1	2086.6	2074.0	2407.6	2643.9	2674.5	2719.6	3046.1	3473.5	3659.2	4134.5
30°	2205.6	2186.7	2152.4	2151.5	2749.4	2794.5	2871.1	2980.2	3664.7	3959.5	4386.0
32.5°	2413.9	2392.3	2347.2	2276.0	2376.1	2918.9	3024.4	3163.3	3381.5	4328.3	4680.9
35°	2568.1	2552.8	2522.2	2472.6	2392.3	2981.1	3174.1	3358.1	3646.6	4481.6	5067.8
37.5°	2758.4	2736.8	2701.6	2640.3	2579.9	2555.5	3318.4	3579.0	4016.3	4377.9	5151.6
40°	2973.9	2961.3	2897.3	2817.9	2751.2	2683.6	3417.6	3867.5	4491.5	4843.2	5075.0
42.5°	3136.2	3126.3	3088.4	3024.4	2959.5	2916.2	3028.9	4221.9	5009.1	5293.2	5463.6
45°	3277.8	3267.0	3267.0	3249.9	3231.8	3235.4	3284.1	4476.2	5500.6	5677.3	5831.5
47.5°	3386.9	3368.0	3292.2	3307.6	3333.7	3412.2	3560.1	3891.9	5896.4	6003.8	6140.8
50°	3652.9	3624.1	3378.8	3435.6	3520.4	3646.6	3836.9	4254.4	5506.0	6282.4	6389.7
52.5°	3898.2	3764.7	2790.9	3624.1	3719.7	3906.3	4131.8	4646.6	5067.8	6192.2	6580.0
55°	3478.0	3341.8	2805.3	3970.3	3954.1	4189.5	4409.5	4968.6	5305.8	5172.4	6532.2
57.5°	2070.4	1967.6	2918.9	4585.3	3919.8	4506.0	4675.5	5243.6	5515.0	5276.1	6544.8
60°	1072.2	1127.2	1083.9	2713.3	3375.2	4644.8	4950.5	5508.7	5656.6	5353.6	6552.9
62.5°	144.3	103.7	43.3	1984.7	2398.6	3870.2	5295.9	5761.2	5760.3	5379.8	6496.1
65°	9.0	9.9	19.8	1974.8	2645.7	4591.6	5867.6	5965.0	5811.7	5333.8	6306.7
67.5°	3.6	4.5	18.0	1961.3	2854.9	4827.0	6540.3	6029.9	5817.1	5210.2	5891.0
70°	3.6	4.5	18.0	1826.9	2997.4	4868.5	6653.9	6005.6	5750.4	4906.3	5118.3
72.5°	4.5	5.4	16.2	1587.1	2910.8	4755.8	6468.1	5956.0	5511.4	4295.0	3973.9
75°	4.5	5.4	16.2	1282.3	2575.4	4509.6	6321.2	5541.2	4831.5	3209.3	2577.2
77.5°	3.6	4.5	16.2	1000.9	2147.0	3996.5	5734.1	4818.0	3820.7	1867.5	1018.1
80°	3.6	4.5	16.2	697.0	1635.7	3276.0	4671.0	3752.1	2148.8	533.8	286.8
82.5°	3.6	4.5	15.3	434.6	1156.9	2409.4	3192.1	1729.5	460.8	208.3	223.6
85°	3.6	3.6	11.7	212.8	739.4	1600.6	1590.7	289.5	183.1	135.3	169.5
87.5°	1.8	2.7	6.3	97.4	413.0	844.0	633.9	110.9	78.5	55.0	94.7
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):**

	94°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3020.8	3020.8	3020.8	3020.8	3020.8	3020.8	3020.8	3020.8	3020.8	3020.8	3020.8
2.5°	3036.1	3031.6	3044.3	3076.7	3074.9	3099.3	3080.3	3117.3	3123.6	3115.5	3128.1
5°	3052.4	3054.2	3088.4	3122.7	3110.1	3149.8	3157.9	3212.9	3214.7	3207.5	3223.7
7.5°	3093.0	3099.3	3133.5	3174.1	3192.1	3225.5	3221.0	3292.2	3285.9	3282.3	3301.3
10°	3149.8	3161.5	3198.5	3262.5	3254.4	3305.8	3282.3	3330.1	3328.3	3321.1	3341.8
12.5°	3219.2	3230.9	3277.8	3339.1	3340.0	3343.6	3324.7	3349.0	3340.9	3323.8	3340.0
15°	3313.0	3326.5	3390.5	3435.6	3396.8	3386.9	3350.8	3337.3	3306.7	3261.6	3275.1
17.5°	3460.9	3471.7	3543.8	3569.1	3502.3	3462.7	3359.9	3283.2	3196.7	3133.5	3145.3
20°	3647.5	3657.4	3716.1	3709.7	3620.5	3523.1	3363.5	3233.6	3072.2	2948.7	2945.1
22.5°	3853.1	3859.4	3915.3	3859.4	3700.7	3559.2	3356.3	3157.0	2885.6	2725.9	2708.8
25°	4079.5	4084.9	4084.0	3959.5	3746.7	3538.4	3289.5	3028.9	2680.9	2510.4	2492.4
27.5°	4332.8	4333.7	4234.6	4037.1	3726.9	3461.8	3160.6	2799.0	2493.3	2345.4	2331.9
30°	4602.5	4600.7	4372.5	4044.3	3650.2	3316.6	2961.3	2581.7	2324.7	2193.0	2174.1
32.5°	4909.9	4894.6	4495.2	4019.0	3510.5	3108.3	2704.3	2399.5	2192.1	2041.5	2013.6
35°	5304.0	5266.1	4599.8	3931.6	3303.1	2826.9	2466.2	2240.8	2064.1	1910.8	1882.8
37.5°	5791.8	5743.2	4763.9	3808.0	3064.1	2594.3	2291.3	2133.5	1972.1	1797.2	1761.1
40°	5651.2	5745.0	4959.5	3674.6	2833.3	2408.5	2188.5	2082.1	1916.2	1722.3	1688.0
42.5°	5868.5	5856.8	5227.4	3516.8	2611.4	2263.4	2147.0	2066.8	1886.4	1689.9	1650.2
45°	6238.2	6235.5	5515.9	3363.5	2395.0	2147.0	2115.5	2025.3	1844.0	1649.3	1606.0
47.5°	6538.5	6529.5	5791.8	3194.8	2194.8	2056.0	2051.4	1941.4	1768.3	1587.1	1547.4
50°	6747.7	6761.2	5945.1	3032.5	2005.5	1962.2	1945.0	1823.3	1661.9	1512.2	1481.6
52.5°	6912.7	6938.0	6011.9	3017.2	1839.5	1841.3	1811.6	1700.7	1574.4	1453.6	1421.1
55°	6993.9	7032.6	5943.3	2918.0	1677.2	1688.0	1659.2	1588.9	1514.0	1403.1	1379.7
57.5°	7027.2	7046.2	5784.6	2468.1	1503.2	1501.4	1510.4	1503.2	1432.9	1323.7	1306.6
60°	6970.4	6945.2	5439.3	1875.6	1326.5	1334.6	1392.3	1385.1	1322.8	1239.9	1216.4
62.5°	6795.5	6745.9	4807.2	1386.9	1184.9	1250.7	1312.0	1291.3	1215.5	1139.8	1121.8
65°	6461.8	6322.1	3830.6	1083.0	1117.3	1207.4	1264.2	1233.6	1147.0	1057.7	1046.9
67.5°	5863.1	5688.1	2514.0	971.2	1088.4	1170.5	1230.0	1178.6	1094.7	998.2	982.9
70°	4784.6	4592.5	1190.3	905.3	1023.5	1104.6	1147.9	1095.6	1009.9	913.5	902.6
72.5°	3336.4	3118.2	641.1	834.1	948.6	1019.0	1047.8	983.8	908.9	866.6	863.9
75°	1662.8	1421.1	581.6	761.1	852.1	913.5	962.2	918.0	852.1	774.6	754.8
77.5°	442.8	380.5	547.4	679.9	775.5	844.9	872.9	826.9	751.1	685.3	673.6
80°	307.5	313.8	511.3	563.6	676.3	738.5	764.7	706.1	668.2	603.3	585.2
82.5°	260.6	274.1	413.0	424.7	537.4	604.2	650.2	640.2	586.1	533.8	526.6
85°	244.4	259.7	264.2	294.0	385.0	463.5	542.8	547.4	511.3	444.6	422.9
87.5°	140.7	138.9	127.1	149.7	211.0	257.0	311.1	296.7	241.7	209.2	204.7
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)