

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: P591201

Luminaire Tested: **CTN-CA10-210-727-U-T4-SSS-HM-EX180**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591201  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-12)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-210-727-U-T4-SSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (10) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12994 lumens  
Efficiency: N/A  
Efficacy: 61.0 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3

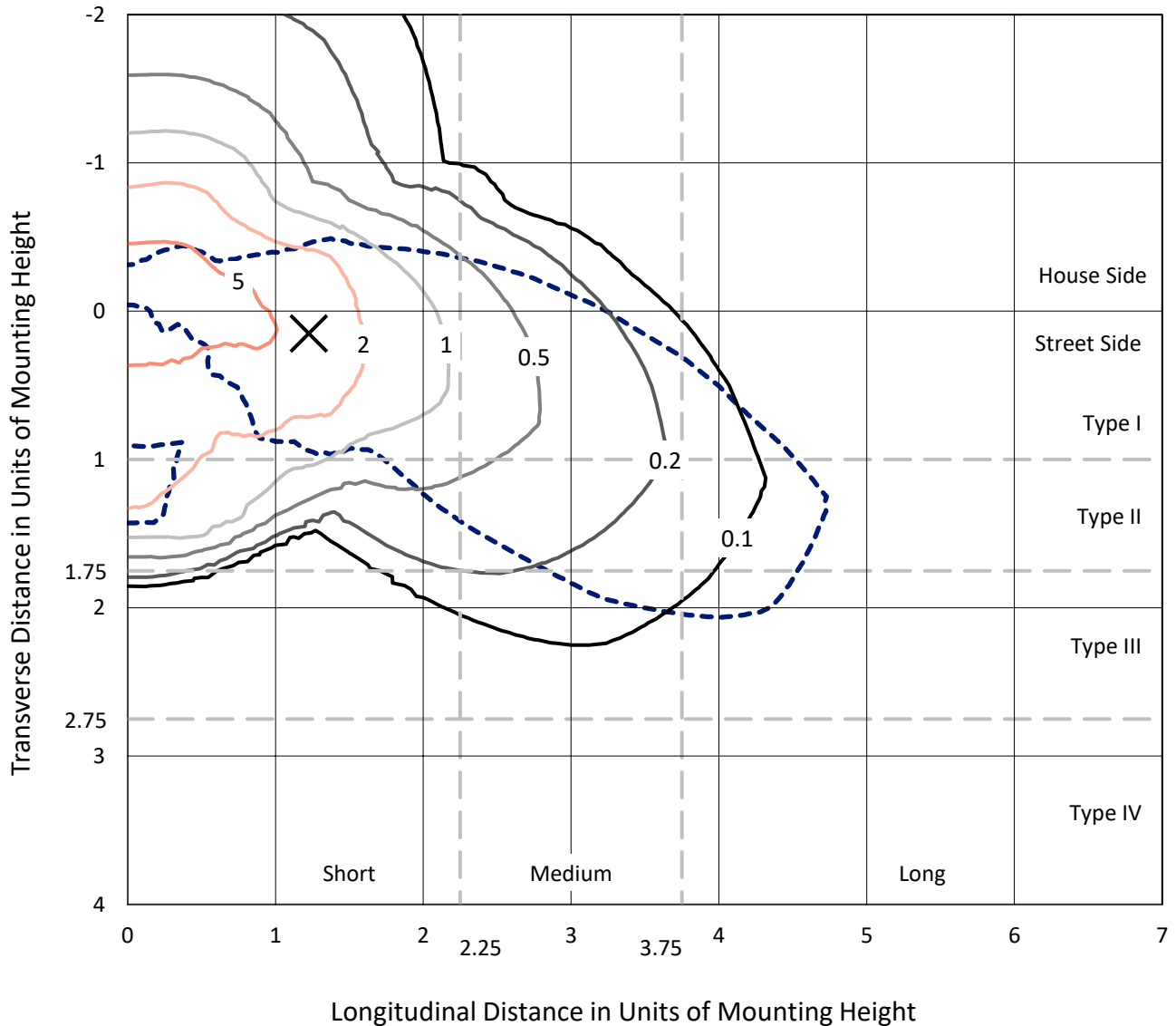
Input Watts (W): 212.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

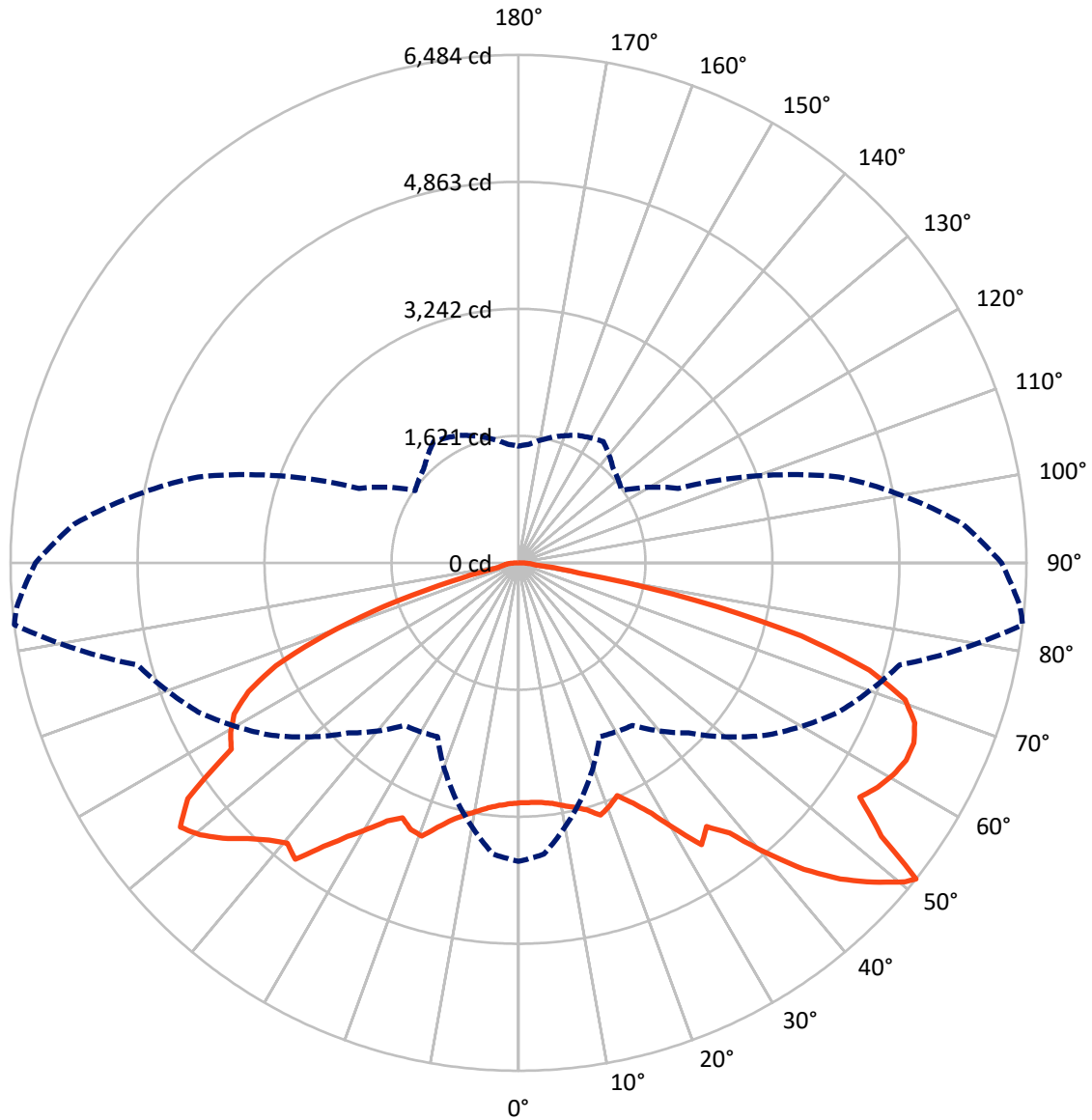
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 8.1 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 83-Deg Lateral      - - - Horizontal Cone Through 51-Deg Vertical

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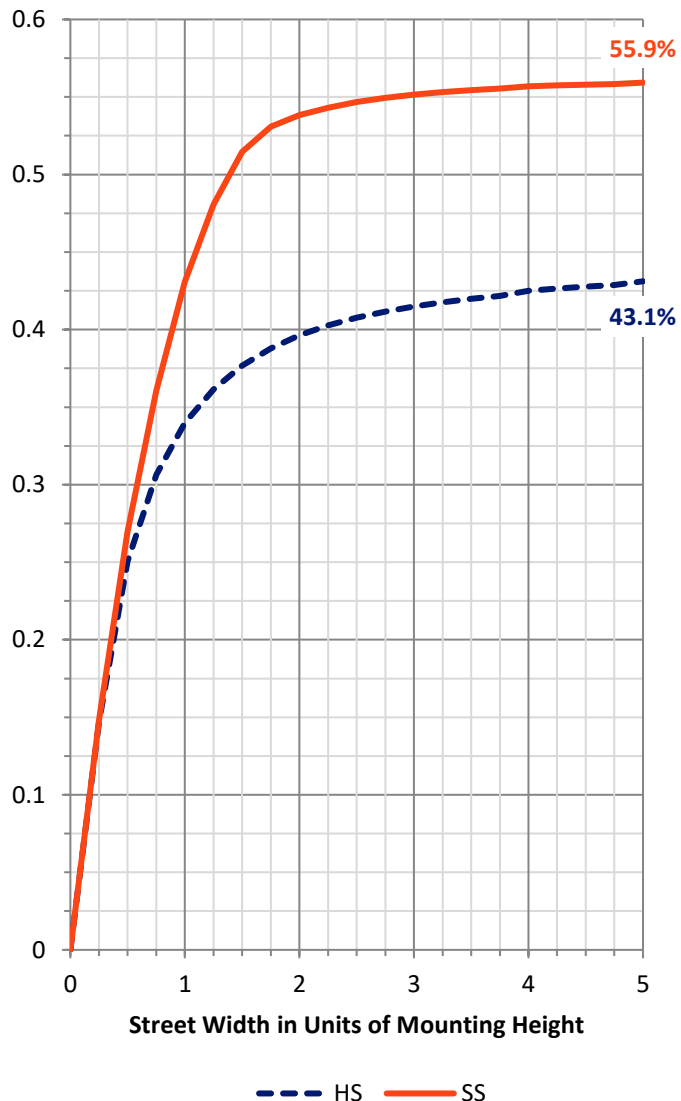
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5727.2	0.0	5727.2
	% Fixture	44.1	0.0	44.1
<b>Street Side</b>	Lumens	7266.8	0.0	7266.8
	% Fixture	55.9	0.0	55.9
<b>Total</b>	Lumens	12994.0	0.0	12994.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	299.2	2.3
10°-20°	910.5	7.0
20°-30°	1414.4	10.9
30°-40°	1892.5	14.6
40°-50°	2455.4	18.9
50°-60°	2615.0	20.1
60°-70°	1821.6	14.0
70°-80°	1270.9	9.8
80°-90°	314.4	2.4
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°	12994.0	100.0
0°-180°	12994.0	100.0

**Coefficient of Utilization**

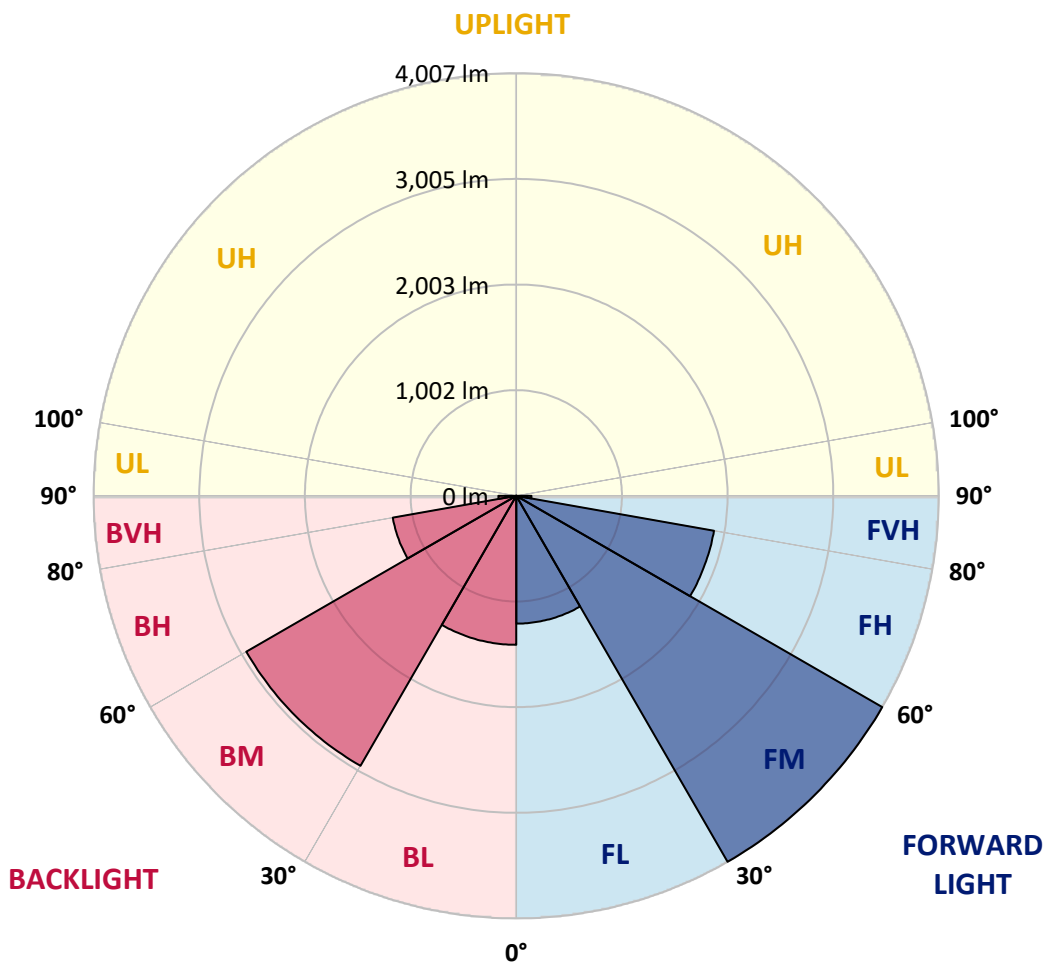


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1211.6	9.3			
FM (30°-60°)	4007.0	30.8			
FH (60°-80°)	1903.9	14.7			G2/5000
FVH (80°-90°)	144.4	1.1			G2/225
BL (0°-30°)	1412.6	10.9	B3/2500		
BM (30°-60°)	2955.9	22.7	B3/5000		
BH (60°-80°)	1188.6	9.1	B3/2500		G3/2500
BVH (80°-90°)	170.1	1.3			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 II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	83°	85°
0°	3062.7	3062.7	3062.7	3062.7	3062.7	3062.7	3062.7	3062.7	3062.7	3062.7	3062.7
2.5°	3026.2	3005.2	3007.0	3035.3	2997.9	3022.5	3018.9	3062.7	3054.5	3063.6	3070.0
5°	2999.7	2983.3	2983.3	3020.7	2994.2	3020.7	3002.4	3040.8	3053.6	3073.7	3081.0
7.5°	3005.2	2987.8	2995.1	3028.0	2998.8	3026.2	3025.3	3061.8	3066.4	3102.0	3113.9
10°	3020.7	3001.5	3005.2	3031.7	3015.2	3062.7	3054.5	3104.7	3104.7	3152.2	3170.5
12.5°	2988.7	2975.9	2983.3	3018.9	3033.5	3082.8	3093.8	3144.9	3152.2	3203.4	3226.2
15°	2954.0	2935.8	2959.5	3010.7	3035.3	3106.6	3130.3	3208.9	3219.8	3272.8	3298.4
17.5°	2786.0	2774.1	2817.9	2859.0	2872.7	2942.2	2988.7	3119.4	3276.5	3387.0	3417.1
20°	2451.6	2449.8	2368.5	2351.2	2564.0	2817.9	2849.9	2961.3	3143.1	3315.7	3376.9
22.5°	2047.0	2101.8	2365.8	2449.8	2444.3	2544.8	2954.0	3059.1	3139.5	3227.1	3263.7
25°	2047.0	2042.4	2198.6	2560.3	2561.3	2604.2	2695.5	3221.7	3298.4	3398.9	3428.1
27.5°	2111.8	2116.4	2106.4	2370.3	2687.3	2727.5	2766.8	3039.0	3509.4	3620.8	3669.2
30°	2221.5	2228.8	2188.6	2189.5	2729.3	2849.9	2924.8	3031.7	3656.5	3942.4	3964.3
32.5°	2437.9	2435.2	2385.0	2320.1	2395.0	2969.6	3079.2	3218.0	3424.4	4289.5	4340.6
35°	2610.6	2598.7	2564.0	2519.2	2420.6	2935.8	3226.2	3418.0	3681.1	4135.1	4405.5
37.5°	2802.4	2785.0	2745.8	2691.0	2601.4	2048.8	3371.5	3646.4	4054.7	4377.1	4394.5
40°	3018.9	2999.7	2945.8	2865.4	2751.2	2099.1	3436.3	3928.7	4541.6	4865.8	4863.1
42.5°	3185.1	3165.9	3137.6	3052.7	2418.8	2315.5	2997.0	4325.1	5068.6	5349.9	5326.2
45°	3325.8	3309.3	3312.1	3222.6	2269.0	2581.3	3338.6	4532.4	5565.5	5757.3	5726.3
47.5°	3435.4	3409.8	3340.4	2711.1	2327.4	2764.9	3616.3	3953.3	5984.8	6093.5	6058.8
50°	3702.1	3659.2	3246.3	2406.9	2475.4	2989.6	3880.2	4360.7	5451.3	6399.5	6338.3
51°	3810.8	3733.2	3111.1	2448.9	2533.8	3070.9	3841.0	4508.7	5035.7	6484.4	6429.6
52.5°	3925.0	3771.5	2740.3	2512.8	2605.1	3183.3	3262.8	4736.1	5151.7	5803.0	6126.4
55°	3311.2	3371.5	2829.8	2746.7	2740.3	2751.2	3332.2	5075.0	5393.8	5284.2	5220.2
57.5°	1947.4	1983.1	2874.6	3075.5	2371.3	2184.9	3515.8	5330.8	5603.0	5405.7	5334.4
60°	979.2	1024.9	1046.8	954.5	1278.8	1993.1	2961.3	3863.8	5730.8	5497.0	5411.1
62.5°	42.9	71.2	28.3	31.1	52.1	695.1	2175.8	3968.8	5838.6	5552.7	5439.5
65°	3.7	3.7	4.6	9.1	22.8	729.8	2421.5	4114.1	5882.5	5547.2	5395.6
67.5°	0.9	0.9	1.8	6.4	16.4	790.1	2710.1	4173.5	5884.3	5454.1	5268.7
70°	0.0	0.9	1.8	5.5	14.6	826.7	2773.2	4161.6	5809.4	5234.9	4980.0
72.5°	0.0	0.0	0.9	4.6	12.8	780.1	2700.1	4137.8	5553.6	4683.1	4321.4
75°	0.0	0.0	0.9	3.7	11.0	793.8	2707.4	3871.1	4849.4	3728.6	3289.3
77.5°	0.0	0.0	0.9	3.7	10.0	732.6	2479.0	3352.3	3832.7	2321.0	1840.6
80°	0.0	0.0	0.9	3.7	9.1	628.4	2038.8	2617.0	2144.7	787.4	507.9
82.5°	0.0	0.0	0.9	3.7	7.3	425.7	1354.6	1308.0	432.1	225.6	202.8
85°	0.0	0.0	0.9	2.7	5.5	253.9	678.7	178.1	167.2	143.4	129.7
87.5°	0.0	0.0	0.9	1.8	3.7	107.8	209.2	54.8	69.4	58.5	52.1
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°	3062.7	3062.7	3062.7	3062.7	3062.7	3062.7	3062.7	3062.7	3062.7	3062.7	3062.7
2.5°	3075.5	3075.5	3085.6	3119.4	3115.7	3143.1	3127.6	3161.4	3164.1	3157.7	3173.2
5°	3087.4	3098.3	3132.1	3167.8	3153.2	3193.3	3212.5	3257.3	3255.5	3250.0	3268.2
7.5°	3121.2	3144.0	3177.8	3220.7	3236.3	3269.2	3271.0	3332.2	3328.5	3325.8	3344.1
10°	3177.8	3208.0	3245.4	3310.3	3301.1	3348.6	3328.5	3373.3	3372.4	3370.5	3388.8
12.5°	3236.3	3280.1	3325.8	3388.8	3387.9	3389.7	3372.4	3395.2	3390.6	3377.9	3391.6
15°	3318.5	3376.9	3440.0	3485.6	3445.4	3437.2	3398.9	3385.2	3358.7	3322.1	3333.1
17.5°	3454.6	3512.1	3592.5	3617.2	3551.4	3514.0	3409.8	3334.0	3251.8	3196.1	3208.0
20°	3577.0	3683.9	3760.6	3758.8	3674.7	3576.1	3414.4	3286.5	3127.6	3019.8	3010.7
22.5°	3424.4	3604.4	3938.7	3899.4	3752.4	3612.6	3408.9	3210.7	2946.7	2779.6	2773.2
25°	3512.1	3515.8	3815.4	3978.0	3787.1	3597.1	3343.1	3078.3	2740.3	2566.7	2556.7
27.5°	3735.9	3715.8	3632.7	3893.9	3755.1	3517.6	3210.7	2852.6	2552.1	2401.4	2394.1
30°	4001.7	3939.6	3744.1	3486.6	3623.6	3363.2	3007.0	2621.5	2382.2	2245.2	2234.2
32.5°	4319.6	4189.0	3845.5	3441.8	3192.4	3130.3	2743.9	2438.9	2241.6	2099.1	2070.7
35°	4696.8	4501.4	3943.3	3366.0	2856.3	2785.0	2496.4	2274.4	2109.1	1964.8	1936.5
37.5°	4695.9	4899.6	4087.6	3261.8	2648.0	2397.7	2316.5	2164.8	2016.8	1842.4	1810.4
40°	4730.6	4737.0	4246.5	3160.5	2453.5	2198.6	2209.6	2110.9	1958.4	1766.6	1733.7
42.5°	5152.6	4842.1	4441.1	3024.4	2269.9	2051.6	2163.9	2091.7	1927.3	1730.9	1694.4
45°	5519.8	5161.8	4014.5	2875.5	2077.1	1937.4	2127.4	2047.0	1883.5	1688.0	1646.9
47.5°	5839.5	5415.7	4123.2	2615.1	1889.0	1844.2	2057.0	1961.1	1804.9	1623.2	1586.6
50°	6082.5	5625.8	4218.2	2265.3	1706.3	1751.0	1942.9	1845.1	1694.4	1547.3	1516.3
51°	6165.6	5693.4	4237.4	2249.8	1609.5	1707.2	1889.0	1794.0	1658.8	1518.1	1489.8
52.5°	6255.2	5781.1	4265.7	2284.5	1472.4	1635.0	1801.3	1718.2	1605.8	1485.2	1453.3
55°	5201.1	5432.2	4193.5	2211.4	1313.5	1491.6	1640.5	1603.1	1541.0	1434.1	1411.2
57.5°	5011.1	4596.4	3478.3	1872.5	1173.8	1320.8	1484.3	1509.0	1461.5	1352.8	1336.3
60°	5052.2	4554.3	3097.4	1396.6	1034.9	1168.3	1367.4	1389.3	1348.2	1266.0	1243.2
62.5°	5044.9	4446.6	2762.2	983.8	914.3	1088.8	1283.4	1292.5	1235.9	1167.4	1146.4
65°	4924.3	4199.0	2304.6	744.4	847.7	1045.0	1234.0	1238.6	1168.3	1080.6	1069.6
67.5°	4655.7	3807.2	1603.1	654.0	810.2	1011.2	1201.2	1181.1	1113.5	1021.2	1004.8
70°	4141.5	3102.0	749.0	601.9	753.6	949.1	1120.8	1097.0	1023.0	937.2	922.6
72.5°	3320.3	2155.7	355.3	550.8	694.2	871.4	1022.1	984.7	923.5	891.5	883.3
75°	2173.0	1012.1	296.9	496.0	615.7	777.3	937.2	923.5	866.8	802.9	771.8
77.5°	881.5	266.7	268.5	440.3	552.6	716.1	846.7	835.8	760.9	703.3	690.6
80°	222.0	200.0	245.7	363.5	481.4	623.9	742.6	711.6	684.2	622.0	601.9
82.5°	169.0	160.8	192.7	281.3	395.5	514.3	633.9	646.7	601.0	553.5	543.5
85°	117.8	146.1	116.9	200.0	293.2	405.6	531.6	554.5	523.4	469.5	433.0
87.5°	64.9	76.7	48.4	105.0	155.3	222.0	305.1	307.8	254.8	233.8	220.1
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)