

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: P591374

Luminaire Tested: **CTN-CA8-480-730-U-T2-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591374  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-5)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA8-480-730-U-T2-SSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (8) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 42739 lumens  
Efficiency: N/A  
Efficacy: 88.9 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type II - Short  
BUG Rating: B4 - U0 - G4

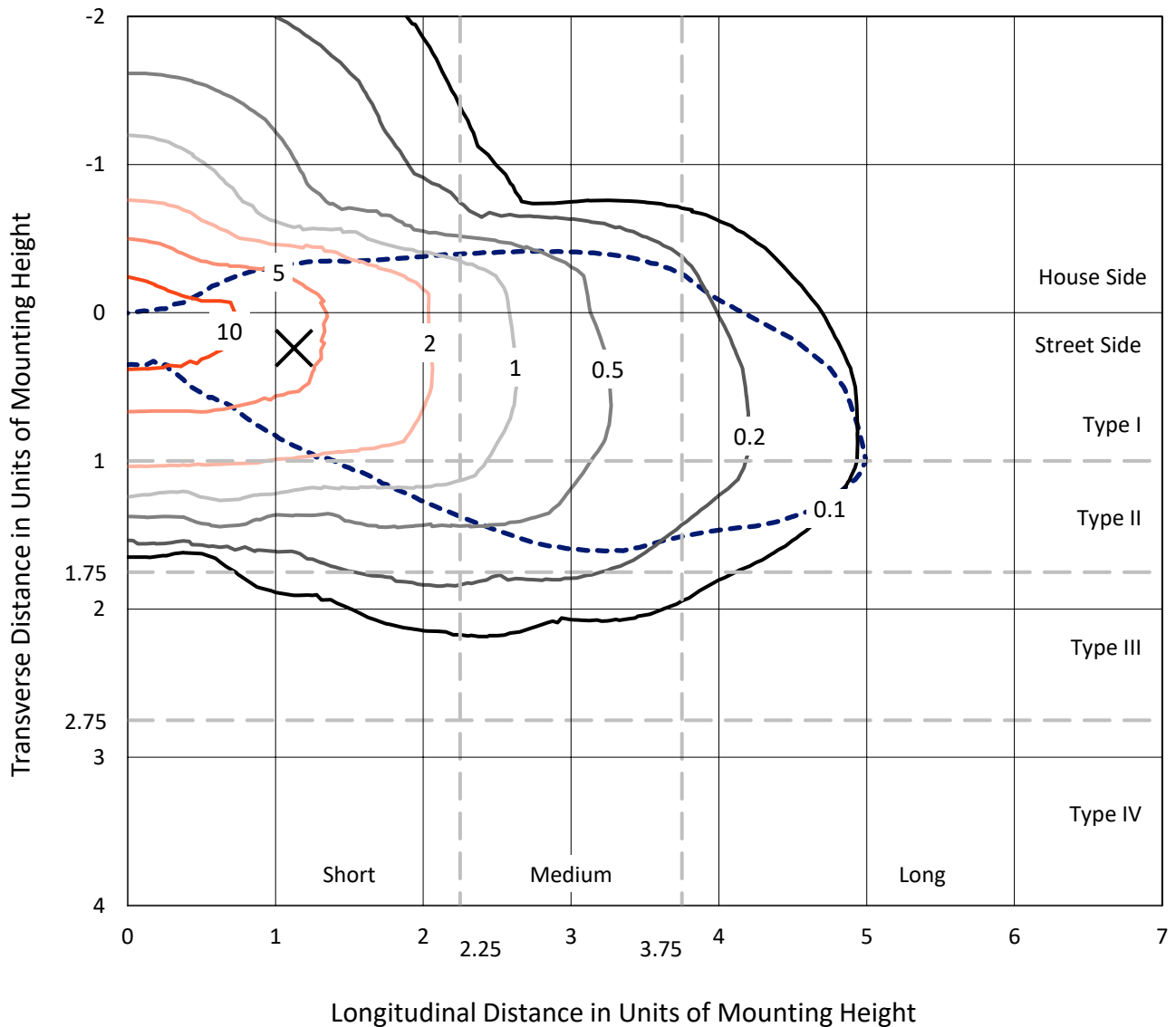
Input Watts (W): 480.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

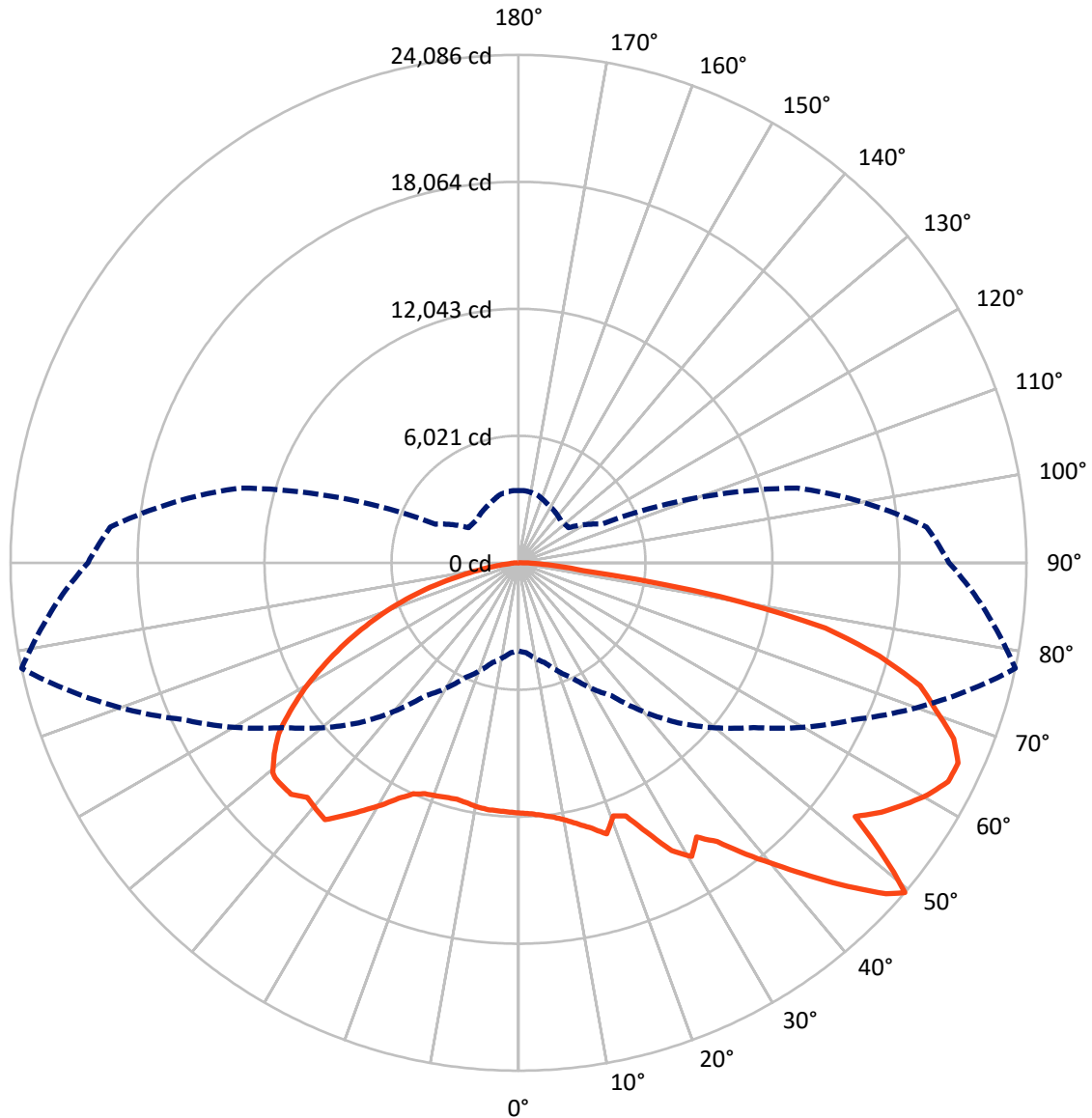
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 15.1 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral      - - - Horizontal Cone Through 49-Deg Vertical

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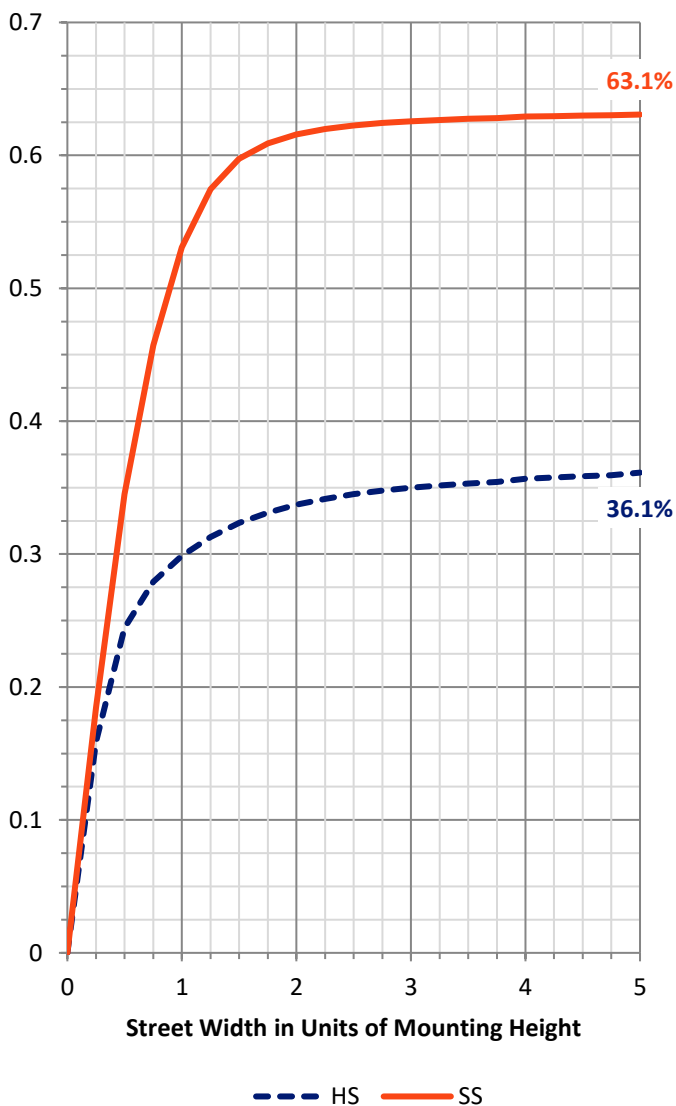
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	15824.7	0.0	15824.7
	% Fixture	37.0	0.0	37.0
<b>Street Side</b>	Lumens	26914.3	0.0	26914.3
	% Fixture	63.0	0.0	63.0
<b>Total</b>	Lumens	42739.0	0.0	42739.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1150.4	2.7
10°-20°	3385.5	7.9
20°-30°	4832.8	11.3
30°-40°	6221.4	14.6
40°-50°	7297.8	17.1
50°-60°	7528.6	17.6
60°-70°	6835.9	16.0
70°-80°	4539.9	10.6
80°-90°	946.6	2.2
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°	42739.0	100.0
0°-180°	42739.0	100.0

**Coefficient of Utilization**

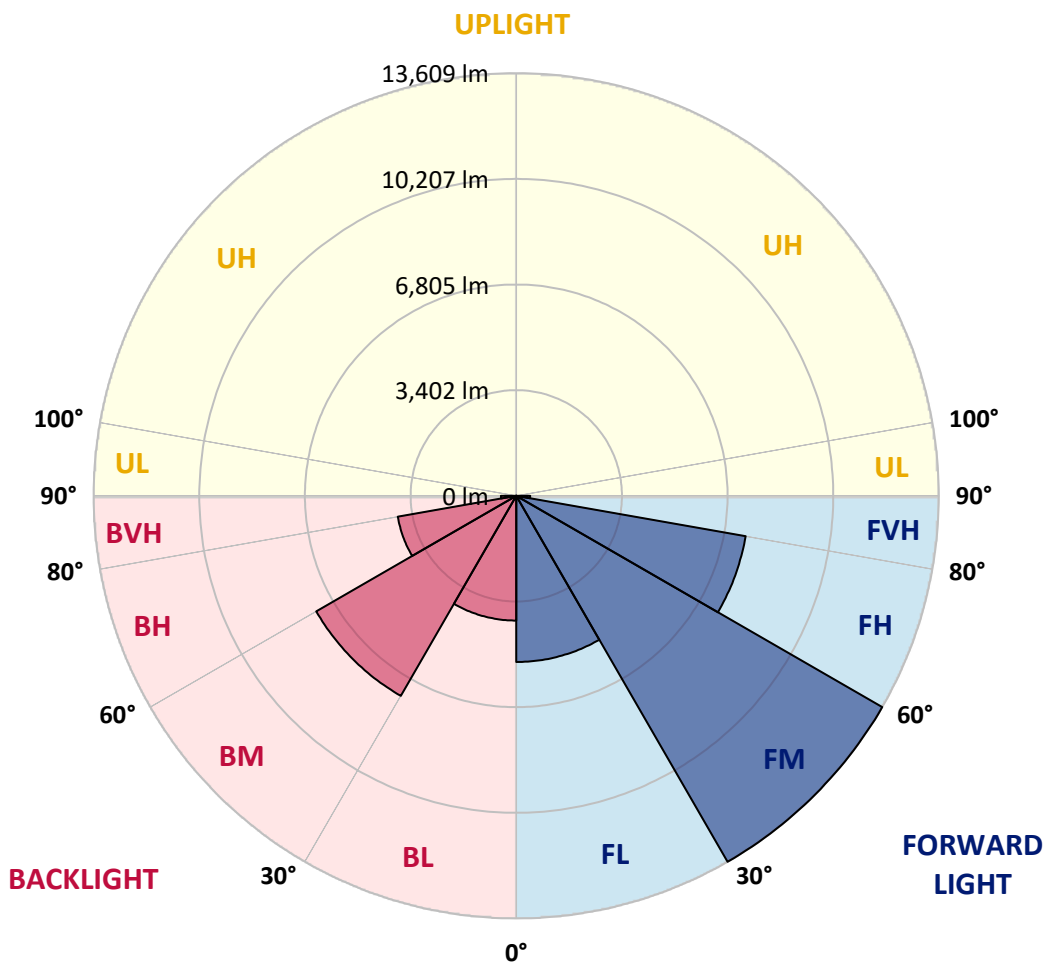


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	5351.5	12.5			
FM (30°-60°)	13609.4	31.8			
FH (60°-80°)	7502.3	17.6			G4/12000
FVH (80°-90°)	451.2	1.1			G3/500
BL (0°-30°)	4017.2	9.4	B4/5000		
BM (30°-60°)	7438.5	17.4	B4/8500		
BH (60°-80°)	3873.5	9.1	B4/5000		G4/5000
BVH (80°-90°)	495.5	1.2			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G4**  
 Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	11868.2	11868.2	11868.2	11868.2	11868.2	11868.2	11868.2	11868.2	11868.2	11868.2	11868.2
2.5°	12353.4	12258.5	12288.7	12340.5	12105.4	12157.2	12055.8	12096.8	11971.7	11924.3	11945.8
5°	13226.9	13125.5	13162.2	13179.4	12838.7	12700.7	12383.6	12316.8	12120.5	12034.2	12025.6
7.5°	13658.2	13548.2	13556.9	13567.6	13295.9	13315.3	13028.5	12685.6	12321.1	12189.5	12131.3
10°	14367.8	14214.6	14162.9	14141.3	13774.7	13621.6	13371.4	13183.8	12614.4	12416.0	12267.2
12.5°	14805.6	14693.4	14693.4	14671.9	14283.7	14165.0	13718.6	13520.2	12959.5	12724.4	12467.7
15°	14885.4	14809.9	14906.9	14887.5	14633.0	14495.0	14296.6	13882.5	13308.8	13065.1	12763.2
17.5°	13983.9	13783.3	13399.4	13457.7	13459.8	13740.2	13604.3	13889.0	13720.8	13522.4	13196.7
20°	11484.3	11553.3	12168.0	12019.2	11963.1	12558.3	13166.5	13183.8	12849.5	12817.1	13257.1
22.5°	10004.8	9759.0	10442.6	11436.8	11499.4	12295.2	13004.8	13858.8	13323.9	13037.1	12700.7
25°	8521.0	8611.6	9642.5	10930.0	11840.1	12017.0	12832.2	14195.2	14423.8	14158.6	13455.5
27.5°	8264.4	8260.1	8708.7	10136.4	12004.1	12668.3	12937.9	14005.5	15599.2	15450.4	14561.9
30°	8208.3	8173.8	8408.9	9595.0	11242.7	13254.9	13768.2	14149.9	15506.5	16168.6	15799.8
32.5°	7962.4	7932.3	8182.4	8803.5	10632.4	13684.1	14559.7	15129.1	15191.6	15504.3	17106.7
35°	7576.4	7600.1	7947.3	8622.4	9750.3	12653.2	15370.6	16231.1	16457.6	16241.9	16464.1
37.5°	7181.7	7207.6	7548.4	8314.0	9597.2	12221.9	15894.7	17296.5	17766.7	17535.9	16509.4
40°	6692.2	6733.1	7127.8	7988.3	9420.4	11249.2	14818.5	18506.4	19144.8	18842.9	17699.8
42.5°	6135.7	6153.0	6601.6	7492.3	9196.1	11307.4	13707.8	19623.6	20481.9	20315.9	18873.1
45°	5652.6	5652.6	6060.3	6853.9	8684.9	11197.5	13237.7	18791.1	22123.2	21888.1	20048.5
47.5°	4994.9	5053.1	5531.9	6319.1	8083.2	10943.0	13507.3	16921.3	23652.3	23456.0	21228.2
49°	4184.0	4283.2	4915.1	6025.8	7697.2	10731.6	13615.1	17581.2	22597.6	24085.8	21993.8
50°	3851.8	3903.6	3910.1	5816.6	7410.3	10539.7	13664.7	18088.0	20818.4	23070.0	22530.8
52.5°	3334.2	3008.6	2674.3	5236.4	6834.5	9830.1	13694.9	19464.0	20391.4	19988.1	22112.4
55°	1408.3	1844.0	2344.3	4283.2	6213.4	8952.4	13595.7	20975.8	21329.5	20885.2	18959.3
57.5°	1065.4	1134.4	1259.5	3323.4	4451.4	7951.7	13261.4	21933.4	22121.0	21616.4	19729.3
60°	155.3	159.6	224.3	1347.9	2549.2	5676.4	12058.0	21905.4	22709.8	22321.6	20393.5
62.5°	64.7	66.9	86.3	1104.2	1964.7	4369.4	11007.7	21538.7	23281.3	22865.1	21016.8
65°	10.8	12.9	36.7	977.0	1624.0	4082.6	9856.0	21612.0	23078.6	22906.0	21258.3
67.5°	8.6	10.8	34.5	877.8	1339.3	3737.5	8719.4	20445.3	22338.8	22263.4	20613.5
70°	8.6	10.8	36.7	793.7	1158.1	3293.2	7315.4	18829.9	20982.3	21012.5	19530.9
72.5°	10.8	10.8	36.7	709.5	1007.2	2814.5	5788.5	16673.3	19750.8	19916.9	17991.0
75°	10.8	10.8	34.5	616.8	864.8	2346.5	4168.9	12260.7	17712.8	17663.2	15778.2
77.5°	10.8	10.8	34.5	489.6	718.2	1930.2	2715.3	6905.7	14667.5	14876.7	13192.4
80°	10.8	10.8	34.5	358.0	562.9	1447.1	1645.5	3534.8	7830.9	9694.3	9075.3
82.5°	10.8	10.8	34.5	241.5	386.0	834.6	948.9	1790.0	2812.3	3081.9	3606.0
85°	8.6	8.6	25.9	144.5	198.4	295.5	457.2	953.3	1537.7	1606.7	1567.9
87.5°	4.3	4.3	12.9	51.8	86.3	107.8	204.9	383.9	565.0	578.0	502.5
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°	11868.2	11868.2	11868.2	11868.2	11868.2	11868.2	11868.2	11868.2	11868.2	11868.2	11868.2
2.5°	11945.8	11876.8	11814.3	11825.1	11691.3	11652.5	11503.7	11581.3	11505.9	11439.0	11501.5
5°	11965.2	11881.1	11766.8	11656.8	11350.6	11208.2	11029.2	11074.5	10973.2	10893.4	10962.4
7.5°	12021.3	11917.8	11740.9	11428.2	11063.7	10837.3	10634.6	10833.0	10809.3	10748.9	10820.0
10°	12047.2	11958.8	11654.7	11288.0	10779.1	10636.7	10453.4	10451.2	10457.7	10468.5	10539.7
12.5°	12116.2	11982.5	11501.5	11074.5	10602.2	10313.2	10179.5	10287.3	10093.2	9978.9	10028.5
15°	12280.1	12036.4	11398.0	10774.8	10328.3	10088.9	9661.9	9698.6	9657.6	9545.4	9595.0
17.5°	12603.6	12187.4	11393.7	10585.0	9978.9	9588.6	9215.5	9038.6	8982.6	8991.2	9034.3
20°	13000.4	12454.8	11402.3	10341.3	9614.5	9161.6	8585.7	8462.8	8277.3	8281.6	8292.4
22.5°	12748.1	12763.2	11406.7	10063.0	9159.4	8592.2	7981.9	7740.3	7598.0	7561.3	7615.2
25°	13431.8	13362.8	11473.5	9914.2	8680.6	7919.3	7280.9	6972.5	6759.0	6741.8	6802.2
27.5°	14341.9	14216.8	11818.6	9592.9	8173.8	7112.7	6420.4	6187.5	6004.2	5939.5	5982.6
30°	15448.3	15301.6	12295.2	9342.7	7490.1	6245.7	5652.6	5493.1	5311.9	5193.3	5204.1
32.5°	16604.2	16291.5	12784.8	9131.4	6789.2	5486.6	4979.8	4837.4	4623.9	4470.8	4507.5
35°	17768.8	17324.6	13330.4	8758.3	5933.0	4818.0	4408.2	4216.3	4041.6	3903.6	3879.9
37.5°	16847.9	18532.3	13858.8	8411.0	5262.3	4309.0	3845.4	3709.5	3606.0	3498.1	3496.0
40°	16923.4	17309.5	14171.5	7796.4	4513.9	3787.1	3321.3	3368.7	3411.9	3329.9	3329.9
42.5°	17671.8	17121.8	14046.4	6981.2	3957.5	3265.2	3051.7	3243.6	3379.5	3321.3	3319.1
45°	18726.4	18012.6	14259.9	6062.4	3416.2	2943.9	2976.2	3211.3	3388.1	3377.4	3373.0
47.5°	19845.7	19026.2	13850.2	4971.1	3043.1	2844.7	2976.2	3163.8	3375.2	3424.8	3414.0
49°	20421.6	19427.3	13686.3	4334.9	2894.3	2831.7	2980.5	3125.0	3351.5	3427.0	3416.2
50°	20773.1	19643.0	13474.9	3972.6	2814.5	2833.9	2989.2	3101.3	3329.9	3414.0	3407.5
52.5°	21564.6	19970.8	12426.8	3342.8	2685.1	2840.3	3045.2	3077.6	3250.1	3340.7	3388.1
55°	20758.0	20719.2	11089.6	3053.9	2616.0	2825.2	3068.9	3099.1	3183.3	3232.9	3269.5
57.5°	20632.9	21044.8	9405.3	2898.6	2555.7	2803.7	3040.9	3097.0	3146.6	3138.0	3122.9
60°	21029.7	21329.5	7669.1	2745.4	2486.6	2769.2	2948.2	3030.1	3045.2	3023.7	2989.2
62.5°	21092.3	21407.2	5894.2	2590.2	2411.2	2685.1	2812.3	2894.3	2894.3	2840.3	2827.4
65°	20801.1	20921.9	4343.5	2411.2	2320.6	2588.0	2652.7	2713.1	2741.1	2670.0	2674.3
67.5°	19966.5	19267.7	3297.6	2197.7	2210.6	2454.3	2499.6	2540.6	2547.0	2506.1	2501.7
70°	18288.6	17417.3	2357.2	1874.2	2010.0	2242.9	2312.0	2374.5	2352.9	2281.8	2271.0
72.5°	15758.8	14984.6	1602.4	1501.0	1768.5	2040.2	2083.3	2085.5	2042.4	2094.1	2130.8
75°	13556.9	11704.3	1194.8	1197.0	1416.9	1759.8	1893.6	1904.3	1923.8	2208.4	2266.7
77.5°	10772.6	7626.0	1018.0	944.6	1087.0	1464.4	1675.7	1753.4	2327.1	2523.3	2497.4
80°	6616.7	4578.6	789.3	748.4	884.2	1125.8	1440.7	1792.2	2374.5	2232.2	2156.7
82.5°	3099.1	2089.8	569.4	573.7	657.8	821.7	1138.7	2085.5	2051.0	1693.0	1671.4
85°	1199.1	722.5	345.1	390.4	442.1	556.4	873.5	2057.5	1593.8	1434.2	1328.5
87.5°	308.4	140.2	151.0	159.6	196.3	293.3	476.6	1078.3	838.9	735.4	722.5
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)