

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: P591330

Luminaire Tested: **CTN-CA10-760-730-U-T3-SSS-HM-EX180**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591330  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-9)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-760-730-U-T3-SSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (10) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 54019 lumens  
Efficiency: N/A  
Efficacy: 70.9 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type II - Short  
BUG Rating: B5 - U0 - G4

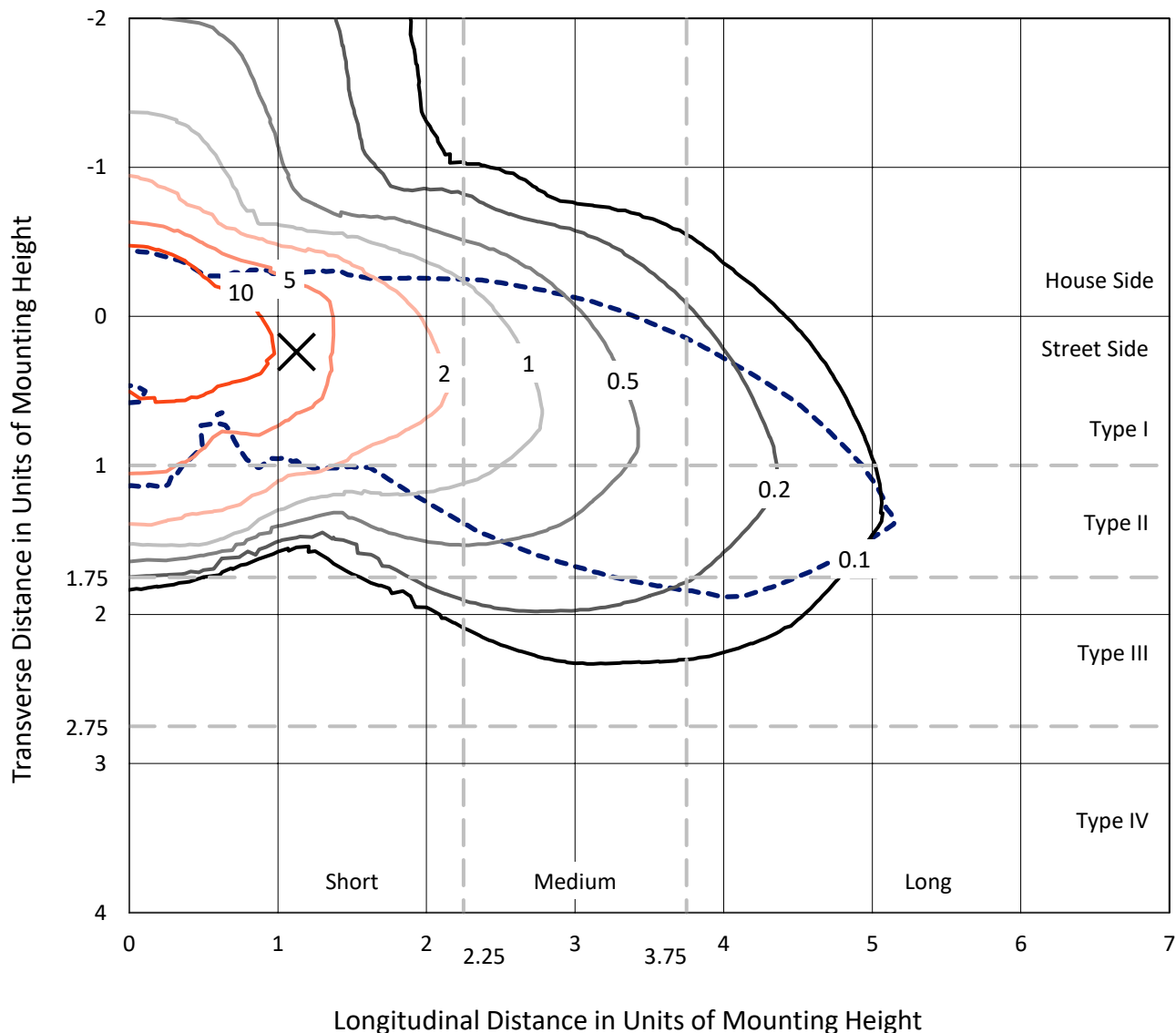
Input Watts (W): 761.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

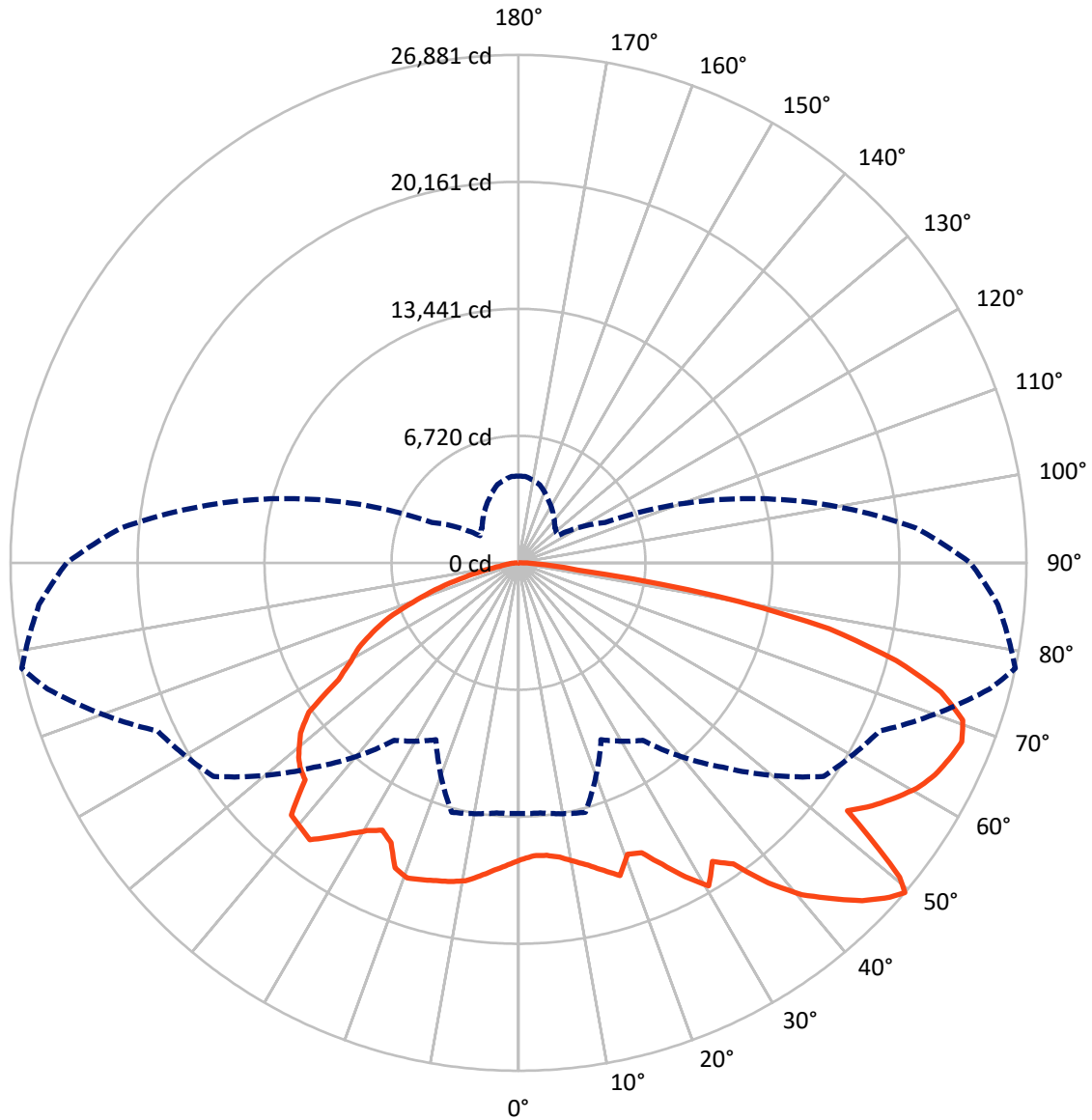
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 19.6 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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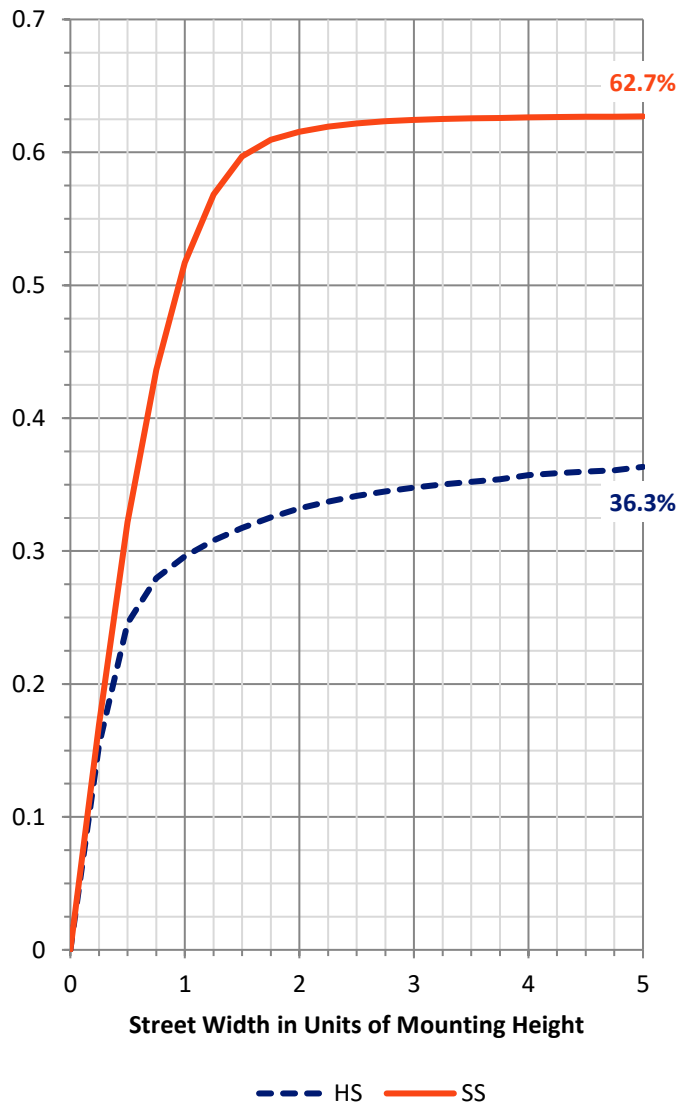
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	20204.3	0.0	20204.3
	% Fixture	37.4	0.0	37.4
<b>Street Side</b>	Lumens	33814.7	0.0	33814.7
	% Fixture	62.6	0.0	62.6
<b>Total</b>	Lumens	54019.0	0.0	54019.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1572.3	2.9
10°-20°	4826.5	8.9
20°-30°	6994.2	12.9
30°-40°	8594.3	15.9
40°-50°	9700.1	18.0
50°-60°	9217.5	17.1
60°-70°	6884.2	12.7
70°-80°	5112.6	9.5
80°-90°	1117.2	2.1
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°	54019.0	100.0
0°-180°	54019.0	100.0

**Coefficient of Utilization**

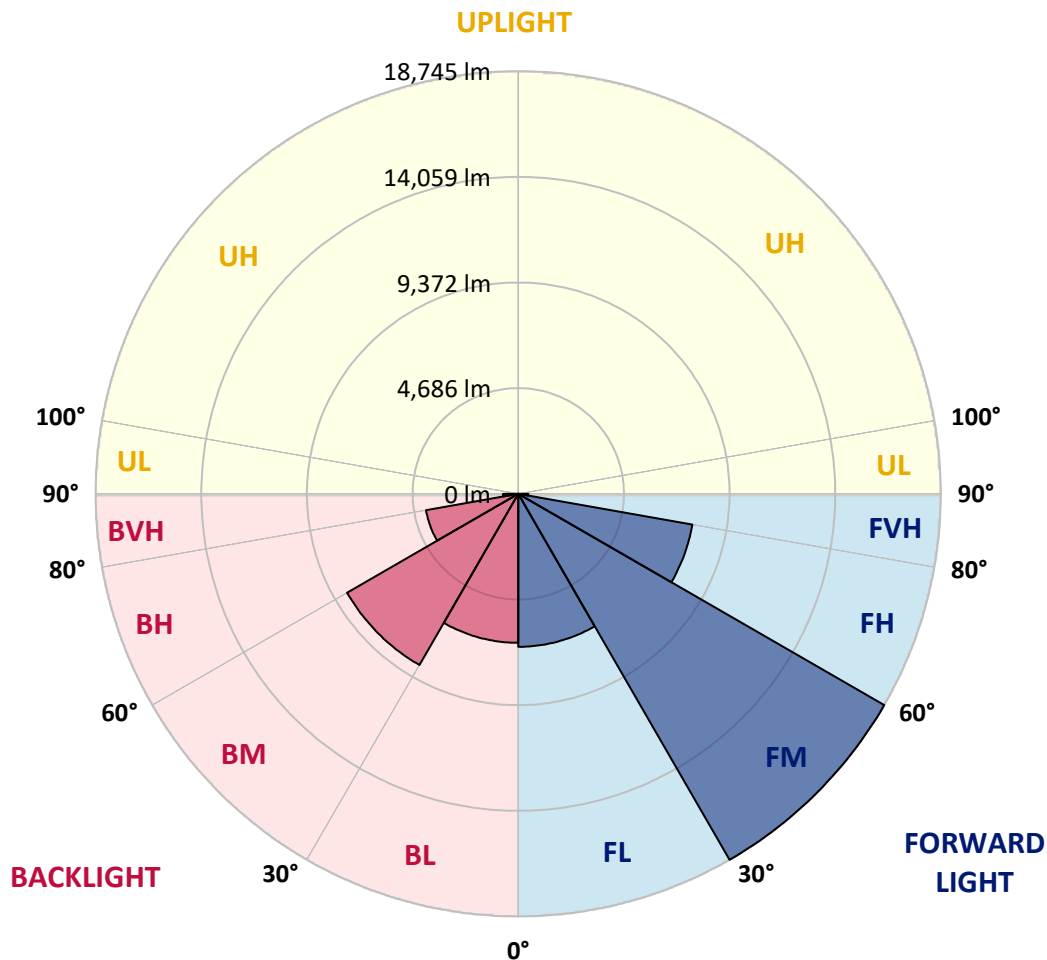


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	6785.1	12.6			
FM (30°-60°)	18744.8	34.7			
FH (60°-80°)	7843.2	14.5			G4/12000
FVH (80°-90°)	441.6	0.8			G3/500
BL (0°-30°)	6608.0	12.2	B5		
BM (30°-60°)	8767.2	16.2	B5		
BH (60°-80°)	4153.6	7.7	B4/5000		G4/5000
BVH (80°-90°)	675.6	1.3			G4/750
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G4**  
 Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	15708.4	15708.4	15708.4	15708.4	15708.4	15708.4	15708.4	15708.4	15708.4	15708.4	15708.4
2.5°	15369.0	15284.9	15307.6	15436.9	15187.9	15369.0	15294.6	15469.2	15527.4	15520.9	15773.1
5°	15495.1	15385.2	15417.5	15504.8	15233.2	15372.2	15314.0	15501.5	15550.0	15553.3	15895.9
7.5°	15957.4	15831.3	15799.0	15805.4	15550.0	15653.5	15504.8	15650.2	15737.5	15727.8	16109.3
10°	16629.8	16490.8	16419.7	16397.0	16086.7	16041.4	15860.4	15912.1	16041.4	16057.6	16445.5
12.5°	17321.6	17211.7	17108.3	17056.5	16629.8	16529.6	16264.5	16309.8	16406.7	16426.1	16830.2
15°	17932.6	17829.2	17813.0	17754.8	17321.6	17127.7	16807.6	16759.1	16833.5	16894.9	17247.3
17.5°	17334.6	17202.0	17118.0	17137.4	16917.5	16426.1	16228.9	16561.9	17182.6	17399.2	17732.2
20°	15647.0	15808.7	15740.8	15478.9	15242.9	16038.2	15870.1	15799.0	16183.7	16461.7	17266.7
22.5°	13746.1	13746.1	14392.7	14845.3	14935.8	15381.9	16300.1	16620.1	16662.1	16662.1	16429.4
25°	12242.8	12669.6	13765.5	15485.4	15495.1	15404.6	15659.9	17415.4	17706.3	17674.0	17282.8
27.5°	12824.7	12753.6	13490.7	14686.9	16377.6	16274.2	15776.3	16568.4	18967.2	18818.4	18317.4
30°	13338.8	13267.6	13400.2	14884.1	16629.8	17218.2	16791.4	16555.4	19035.0	19843.3	19542.6
32.5°	13820.5	13739.6	13891.6	14117.9	15824.8	18155.7	17855.1	17699.9	18065.2	18850.8	20929.5
35°	14208.4	14221.3	14395.9	14728.9	15511.2	17838.9	18921.9	18980.1	19620.2	19571.7	20622.4
37.5°	14496.1	14522.0	14673.9	15068.3	15359.3	14735.3	19937.0	20609.4	21595.5	21498.5	20725.8
40°	14512.3	14570.5	14874.4	15359.3	15702.0	13122.2	19749.5	22406.9	23383.2	23098.7	22138.6
42.5°	14211.6	14240.7	14748.3	15569.4	11916.3	13649.1	18314.1	24197.9	24634.3	24285.2	23218.4
45°	13943.3	13936.8	14480.0	15217.0	11260.0	14266.6	18275.3	23677.4	25785.2	25513.7	24152.7
47.5°	13565.1	13561.8	14092.0	11450.8	11402.3	14932.6	19238.7	20531.9	26738.9	26448.0	25002.9
49°	13261.2	13293.5	13668.5	10329.0	11466.9	15304.3	19707.5	21068.5	25804.6	26881.2	25474.9
50°	13096.3	13128.6	12213.7	10215.8	11486.3	15517.7	19953.2	21462.9	23224.8	26147.3	25778.8
52.5°	12346.3	12061.8	9469.0	9979.8	11492.8	15769.9	17156.8	22300.2	22135.4	21795.9	24408.1
55°	7438.8	8418.4	8573.5	9711.5	11389.3	11454.0	16759.1	23273.3	23202.2	22707.6	21016.8
57.5°	4509.8	4464.6	6620.9	8964.7	7626.3	9604.8	17415.4	24560.0	24139.7	23480.2	21375.6
60°	1590.6	1406.3	1419.2	1529.1	2838.4	7186.6	13891.6	18495.2	24333.7	24230.2	21702.2
62.5°	126.1	119.6	119.6	126.1	181.0	2699.4	11014.3	18553.4	25006.1	24737.8	21776.5
65°	16.2	16.2	16.2	35.6	93.8	2440.8	11030.5	18854.0	25507.2	25048.2	21579.3
67.5°	0.0	0.0	9.7	25.9	74.4	2159.5	10707.2	19031.8	25956.6	25306.8	21398.3
70°	0.0	0.0	6.5	22.6	64.7	1787.8	10312.8	19187.0	25746.5	24941.5	20486.6
72.5°	0.0	0.0	6.5	19.4	55.0	1180.0	9142.5	18039.3	24249.6	23376.8	18614.8
75°	0.0	0.0	6.5	16.2	51.7	672.4	7490.5	15938.0	21579.3	20654.7	15685.8
77.5°	0.0	0.0	3.2	12.9	45.3	368.5	5175.8	13193.3	17826.0	16810.8	11751.4
80°	0.0	0.0	3.2	12.9	42.0	252.2	2353.5	8570.3	11880.7	10610.2	6439.8
82.5°	0.0	0.0	3.2	12.9	32.3	171.3	950.5	2402.0	3675.8	3142.3	2049.6
85°	0.0	0.0	3.2	9.7	22.6	109.9	468.8	986.0	1483.9	1425.7	1037.7
87.5°	0.0	0.0	3.2	9.7	16.2	32.3	139.0	323.3	578.7	588.4	442.9
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°	15708.4	15708.4	15708.4	15708.4	15708.4	15708.4	15708.4	15708.4	15708.4	15708.4	15708.4
2.5°	15892.7	15921.8	16018.8	16164.3	16186.9	16384.1	16351.8	16720.3	16755.9	16843.2	16940.2
5°	16060.8	16161.0	16380.9	16713.9	16956.3	17253.7	17224.6	17641.7	17683.7	17661.1	17809.8
7.5°	16306.5	16455.2	16797.9	17247.3	17328.1	17696.6	17648.2	18010.2	18016.7	17968.2	18113.7
10°	16665.4	16839.9	17156.8	17412.2	17606.1	17829.2	17796.9	18120.1	18087.8	18032.9	18184.8
12.5°	17011.3	17108.3	17302.2	17602.9	17638.5	17729.0	17674.0	17974.7	17942.3	17864.8	18007.0
15°	17321.6	17370.1	17373.4	17522.1	17441.2	17509.1	17363.7	17580.3	17505.9	17476.8	17577.0
17.5°	17719.3	17628.8	17496.2	17486.5	17211.7	17118.0	16885.2	16943.4	16788.2	16775.3	16830.2
20°	17771.0	17958.5	17577.0	17182.6	16720.3	16484.3	16044.7	16047.9	15873.3	15805.4	15837.8
22.5°	16355.0	16817.3	17670.8	16917.5	16131.9	15601.8	15036.0	14864.7	14534.9	14395.9	14340.9
25°	16907.8	16306.5	16241.9	16471.4	15369.0	14560.8	13739.6	13235.3	12844.1	12527.3	12549.9
27.5°	17764.5	16982.2	15401.3	15495.1	14408.8	13274.1	12035.9	11324.7	10927.0	10619.9	10584.4
30°	18899.3	17916.5	15582.4	13429.3	13306.4	11657.7	10138.2	9352.6	8948.5	8838.6	8770.7
32.5°	20308.8	19028.6	15989.7	12957.3	11011.1	9908.7	8205.0	7571.3	7380.6	7370.9	7293.3
35°	21983.4	20499.5	16364.7	12330.1	9494.9	8069.2	6556.2	6139.2	6168.3	6171.5	6236.2
37.5°	20913.3	21889.7	16833.5	11735.3	8017.5	5996.9	5272.8	5010.9	5095.0	5230.8	5295.4
40°	20929.5	19927.3	17379.8	10742.8	6229.7	4574.5	4125.1	4066.9	4425.8	4700.6	4768.5
42.5°	21770.0	19798.0	17179.4	9611.3	4561.6	3478.6	3436.5	3750.1	4267.4	4574.5	4629.4
45°	22672.0	20412.2	14269.8	8007.8	3307.2	2941.9	3265.2	3701.6	4264.1	4590.7	4623.0
47.5°	23528.7	20800.2	13678.2	6258.8	2657.4	2773.8	3213.5	3701.6	4286.8	4619.7	4639.1
49°	23910.2	21113.8	13128.6	5062.6	2492.5	2709.1	3184.4	3708.1	4293.2	4577.7	4587.4
50°	24136.5	21291.6	12685.7	4694.1	2411.7	2667.1	3171.4	3717.8	4283.5	4529.2	4538.9
52.5°	24488.9	21579.3	11667.4	3740.4	2259.8	2570.1	3152.0	3756.6	4248.0	4393.4	4387.0
55°	20195.6	20169.8	10817.1	3139.1	2143.4	2482.8	3145.6	3788.9	4264.1	4412.8	4406.4
57.5°	19355.1	16561.9	9113.4	2566.9	2046.4	2408.5	3152.0	3837.4	4555.1	4813.7	4781.4
60°	19416.5	16309.8	7755.6	2227.4	1933.2	2347.1	3171.4	4054.0	5263.1	5524.9	5444.1
62.5°	19203.2	15692.3	6940.9	2001.1	1813.6	2292.1	3184.4	4354.7	5353.6	5376.2	5237.2
65°	18695.6	14916.4	5845.0	1752.2	1687.5	2240.4	3181.1	4464.6	4939.8	4755.5	4710.3
67.5°	17754.8	14092.0	4626.2	1535.6	1551.8	2162.8	3255.5	4273.8	4674.7	4526.0	4458.1
70°	16639.5	12333.3	3262.0	1335.2	1428.9	2075.5	3245.8	4228.6	4535.7	4315.9	4222.1
72.5°	14654.5	10367.8	2195.1	1150.9	1273.7	1975.3	3080.9	4092.8	4445.2	4299.7	4170.4
75°	11648.0	7758.9	1273.7	992.5	1121.8	1829.8	2919.3	4008.7	4493.7	4215.6	3947.3
77.5°	7962.5	4419.3	950.5	830.8	966.6	1642.3	2647.7	3727.5	4345.0	4105.7	3746.9
80°	3569.1	1597.0	727.4	675.7	811.4	1331.9	2282.4	3297.5	4115.4	4115.4	3863.3
82.5°	1419.2	1005.4	504.3	530.2	662.7	1015.1	1807.2	2844.9	3627.3	3792.1	4054.0
85°	801.7	588.4	323.3	384.7	507.6	785.6	1315.8	2211.3	2954.8	3274.9	3549.7
87.5°	316.8	223.1	129.3	216.6	294.2	404.1	575.4	1083.0	1590.6	1959.1	2166.0
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)