

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: P591423

Luminaire Tested: **CTN-CA10-760-740-U-T2-SSS-HM-EX180**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591423  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-6)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-760-740-U-T2-SSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (10) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 58466 lumens  
Efficiency: N/A  
Efficacy: 76.7 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type II - Short  
BUG Rating: B5 - U0 - G4

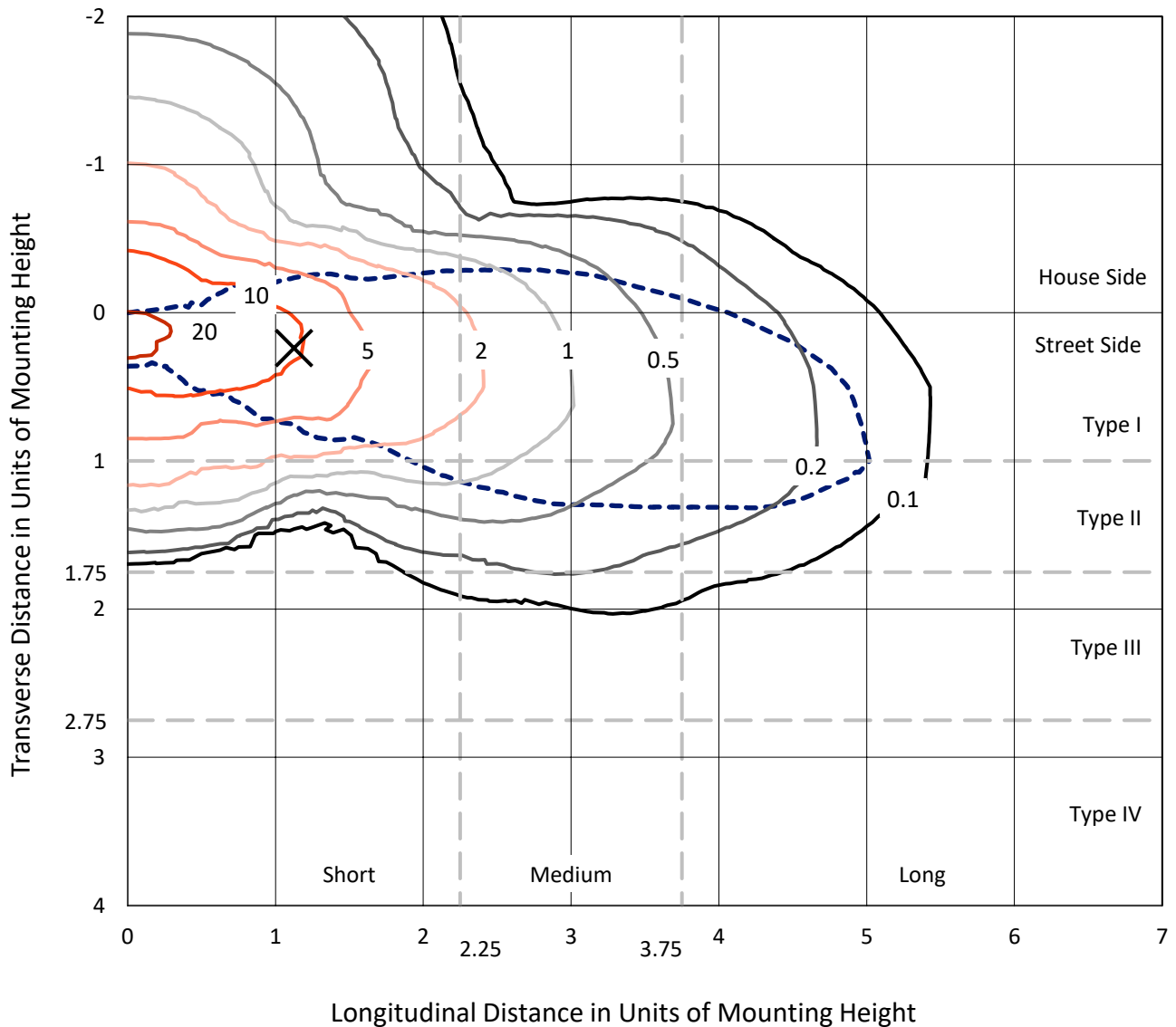
Input Watts (W): 761.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

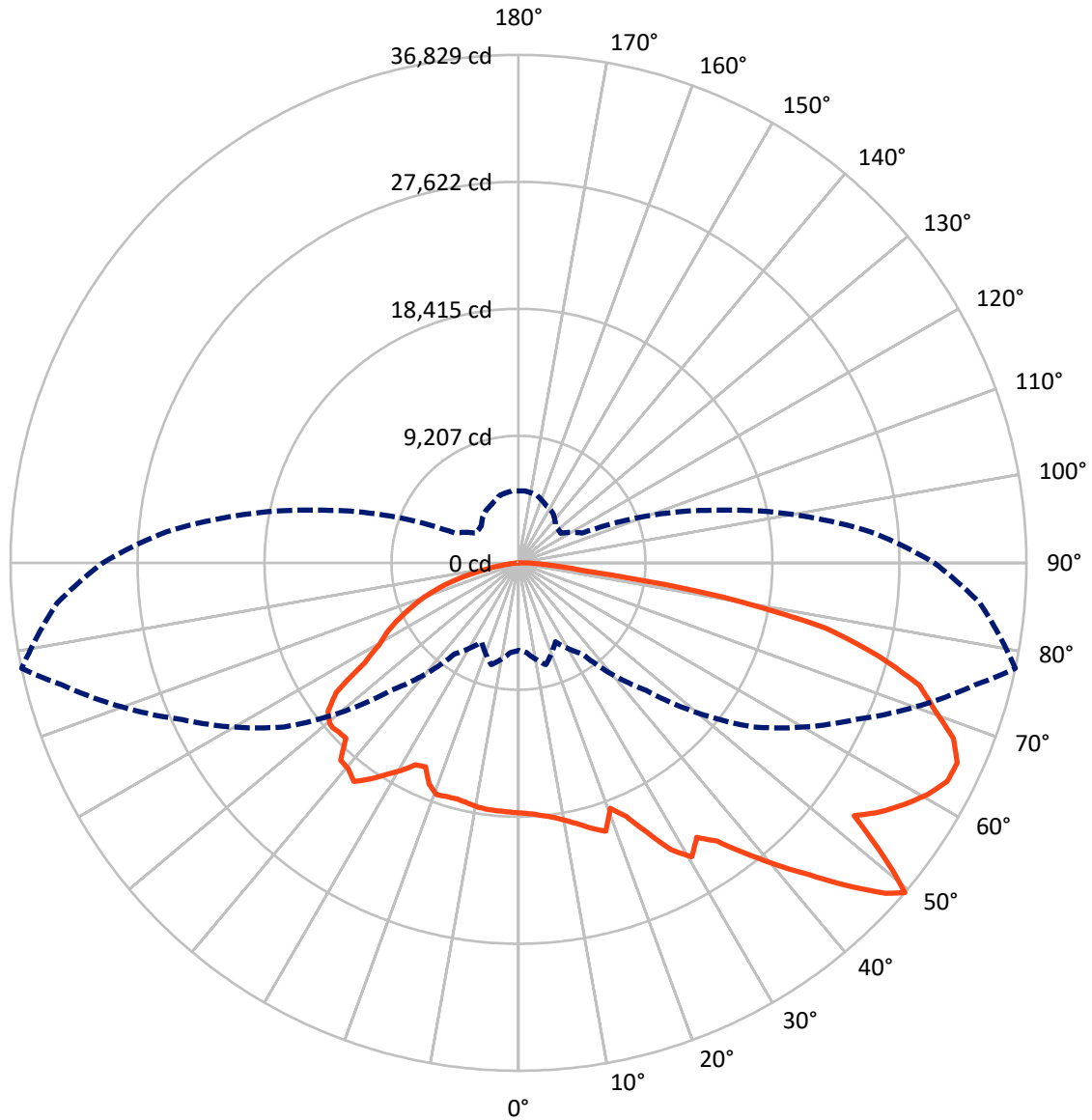
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 23.2 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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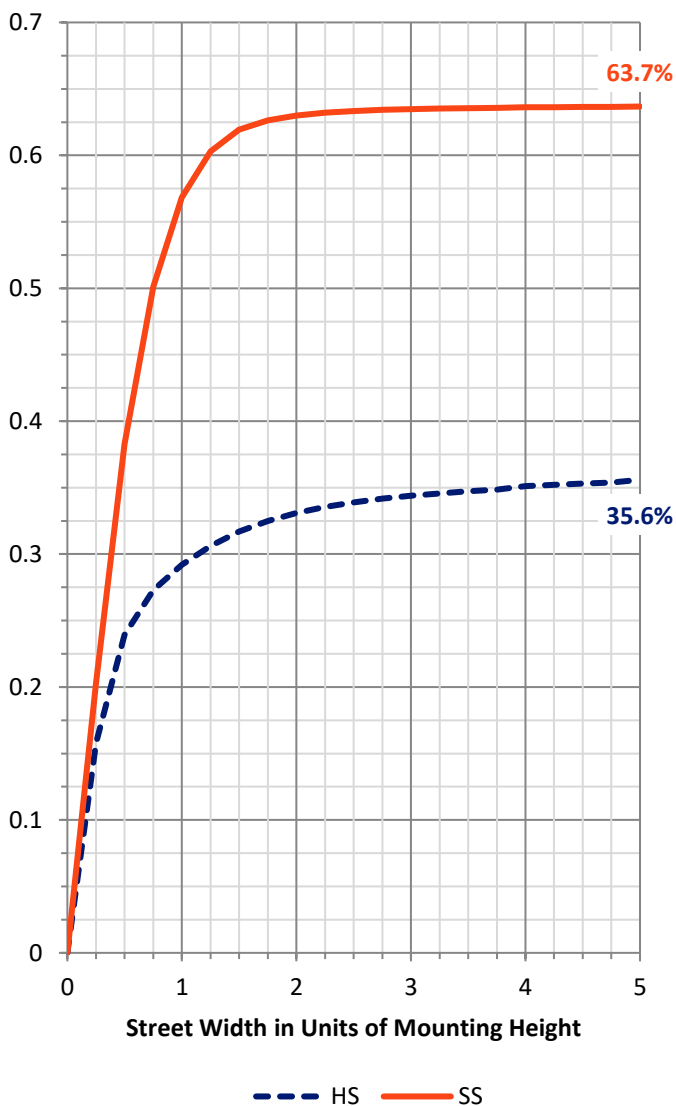
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	21358.6	0.0	21358.6
	% Fixture	36.5	0.0	36.5
<b>Street Side</b>	Lumens	37107.5	0.0	37107.5
	% Fixture	63.5	0.0	63.5
<b>Total</b>	Lumens	58466.0	0.0	58466.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1757.2	3.0
10°-20°	5167.8	8.8
20°-30°	7276.1	12.4
30°-40°	9120.8	15.6
40°-50°	10294.9	17.6
50°-60°	9892.0	16.9
60°-70°	8081.1	13.8
70°-80°	5669.1	9.7
80°-90°	1206.9	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°	58466.0	100.0
0°-180°	58466.0	100.0

**Coefficient of Utilization**

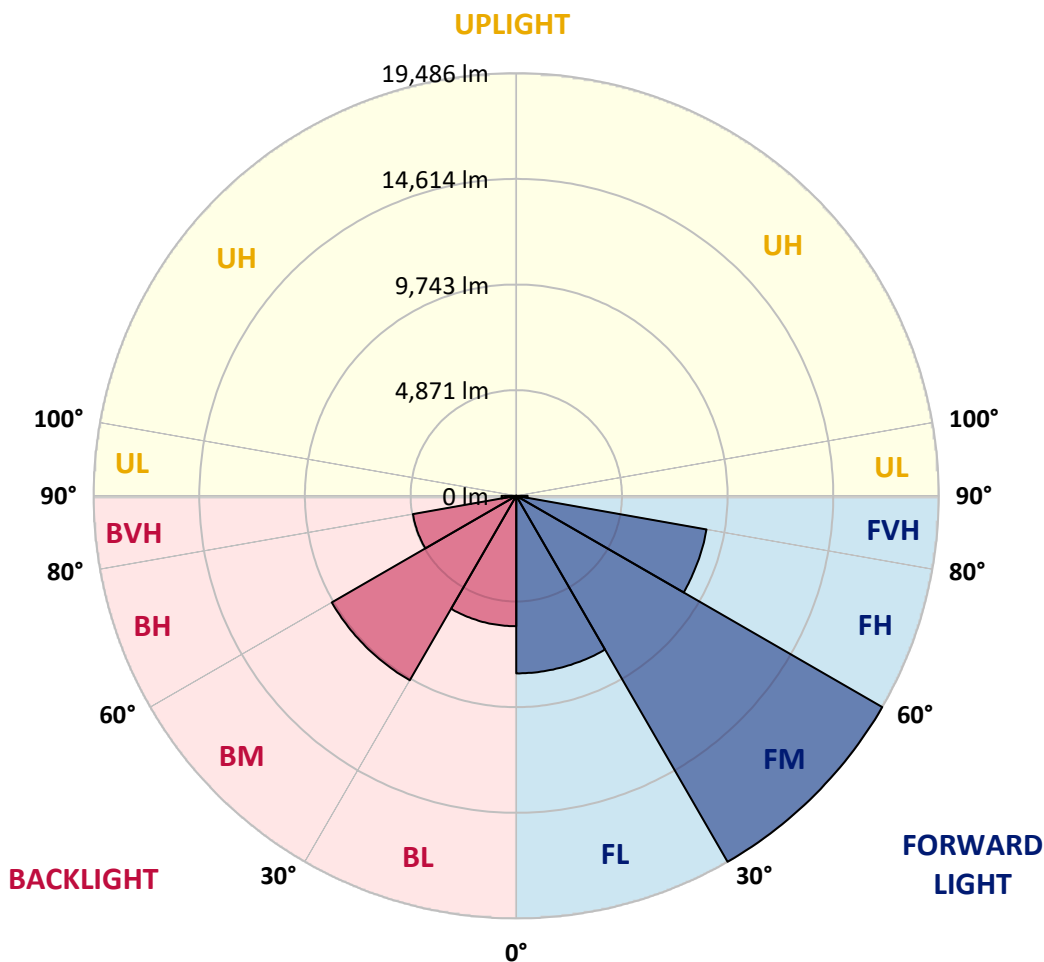


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	8186.9	14.0			
FM	(30°-60°)	19486.0	33.3			
FH	(60°-80°)	8909.0	15.2			G4/12000
FVH	(80°-90°)	525.5	0.9			G4/750
BL	(0°-30°)	6014.2	10.3	B5		
BM	(30°-60°)	9821.8	16.8	B5		
BH	(60°-80°)	4841.2	8.3	B4/5000		G4/5000
BVH	(80°-90°)	681.3	1.2			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°	18134.8	18134.8	18134.8	18134.8	18134.8	18134.8	18134.8	18134.8	18134.8	18134.8	18134.8
2.5°	18882.2	18707.7	18747.2	18839.4	18483.8	18582.5	18424.5	18493.6	18306.0	18227.0	18259.9
5°	20228.8	20024.6	20070.7	20116.8	19593.3	19369.4	18928.3	18826.2	18539.7	18408.0	18391.6
7.5°	20870.8	20660.1	20709.5	20709.5	20311.1	20347.3	19899.5	19425.4	18852.5	18645.1	18552.9
10°	21901.3	21664.3	21628.1	21565.5	21045.3	20814.8	20442.8	20166.2	19297.0	19000.7	18747.2
12.5°	22655.3	22470.9	22474.2	22405.1	21819.0	21651.1	20995.9	20670.0	19810.6	19451.8	19043.5
15°	22968.1	22836.4	22922.0	22714.6	22322.8	22072.5	21763.0	21239.5	20350.6	19981.8	19478.1
17.5°	21509.5	21272.5	20643.6	20752.3	20725.9	20801.7	20498.7	20808.2	20666.7	20465.8	20133.3
20°	18213.8	18464.0	18905.2	18513.4	18483.8	19468.2	20172.8	20077.3	19287.1	18994.1	19326.6
22.5°	15477.8	15171.6	16103.3	17496.0	17887.8	18892.0	20090.5	21229.7	20337.4	19962.1	18954.6
25°	13021.6	13331.1	14779.8	16886.9	18118.3	18414.6	19787.6	21931.0	22072.5	21664.3	20357.2
27.5°	12633.1	12629.8	13607.7	15649.0	18450.8	19379.3	19800.7	21582.0	23827.4	23547.5	22046.2
30°	12544.2	12498.1	12870.2	14937.8	17545.4	20245.2	21065.0	21690.6	23814.2	24749.3	23975.6
32.5°	12162.3	12126.1	12508.0	13479.3	16314.1	21071.6	22276.7	23099.8	23221.6	23731.9	25934.6
35°	11549.9	11635.5	12135.9	13209.3	15303.3	19445.2	23504.7	24792.1	25085.1	24785.5	24802.0
37.5°	10963.8	11029.7	11543.3	12728.6	14565.8	15816.9	24347.6	26418.6	27070.5	26728.0	25127.9
40°	10203.3	10295.5	10904.6	12218.3	14081.8	13650.5	23126.1	28328.2	29233.6	28795.7	26981.6
42.5°	9347.2	9390.0	10111.1	11378.7	10097.9	13722.9	21397.6	30079.8	31347.3	30912.7	28723.3
45°	8616.3	8642.7	9232.0	10038.7	9103.6	13607.7	20202.4	29250.1	33816.7	33382.1	30567.0
47.5°	7589.1	7776.7	8415.5	6940.5	8455.0	13324.5	20604.1	25937.9	36131.3	35808.6	32358.1
49°	6357.7	6525.6	7648.3	6321.5	8053.3	13071.0	20742.4	26905.8	34254.6	36829.3	33586.2
50°	5844.1	5965.9	5860.5	6100.9	7760.3	12814.2	20521.8	27686.1	31482.3	35271.9	34376.4
52.5°	5080.2	4727.9	4026.7	5478.6	7085.3	11813.3	16910.0	29783.4	31192.6	30481.4	32210.0
55°	2146.7	3058.7	3562.4	4494.2	6403.8	7170.9	15658.9	32068.4	32591.9	31874.1	28943.9
57.5°	1679.1	1712.1	1959.0	3345.1	3542.7	5554.4	15148.5	33049.5	33648.8	33026.5	30066.6
60°	246.9	243.6	322.7	385.2	879.1	2554.9	9900.4	23524.5	32476.7	34099.8	31093.8
62.5°	88.9	92.2	92.2	108.7	161.3	1119.4	7197.3	21947.4	33260.3	34886.7	31953.2
65°	6.6	9.9	16.5	36.2	85.6	1056.9	6384.0	22335.9	33006.7	34962.4	32371.3
67.5°	0.0	3.3	9.9	26.3	69.1	1040.4	5936.3	21680.7	31943.3	34001.1	31456.0
70°	0.0	0.0	6.6	23.0	62.6	1000.9	5156.0	19458.3	30040.2	32028.9	29790.0
72.5°	0.0	0.0	6.6	23.0	56.0	954.8	4237.4	17130.6	28308.4	30389.2	27373.4
75°	0.0	0.0	6.6	19.8	49.4	869.2	3098.2	12415.8	25358.4	26948.6	23942.6
77.5°	0.0	0.0	6.6	19.8	46.1	750.7	2094.0	7115.0	20864.2	22787.0	20116.8
80°	0.0	0.0	6.6	16.5	42.8	569.6	1185.3	3552.5	10904.6	14977.3	14378.1
82.5°	0.0	0.0	6.6	16.5	32.9	302.9	553.1	1550.7	4020.1	4744.4	5537.9
85°	0.0	0.0	6.6	13.2	26.3	75.7	187.7	737.5	2196.1	2439.7	2380.4
87.5°	0.0	0.0	6.6	13.2	19.8	29.6	62.6	210.7	813.2	908.7	777.0
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°	18134.8	18134.8	18134.8	18134.8	18134.8	18134.8	18134.8	18134.8	18134.8	18134.8	18134.8
2.5°	18253.3	18151.2	18055.8	18068.9	17841.7	17792.4	17578.4	17710.0	17621.2	17509.2	17581.6
5°	18292.8	18161.1	17993.2	17805.5	17308.4	17130.6	16834.3	16919.9	16801.3	16669.6	16738.8
7.5°	18378.4	18223.7	17947.1	17459.8	16880.4	16567.6	16225.2	16518.2	16482.0	16406.2	16482.0
10°	18414.6	18279.6	17808.8	17242.5	16439.2	16225.2	15965.1	15915.7	15925.5	15942.0	16053.9
12.5°	18510.1	18309.3	17584.9	16913.3	16182.4	15757.6	15500.8	15652.3	15339.5	15201.2	15260.5
15°	18743.9	18362.0	17410.4	16455.6	15728.0	15392.2	14760.0	14760.0	14681.0	14546.0	14585.5
17.5°	19214.7	18572.7	17364.3	16152.7	15221.0	14641.5	14062.0	13755.8	13670.2	13713.0	13739.4
20°	19468.2	18961.2	17341.3	15754.3	14651.4	13979.7	13100.6	12883.3	12596.9	12636.4	12682.5
22.5°	17943.8	17282.0	17305.1	15267.1	13946.8	13094.0	12132.7	11754.0	11579.5	11546.6	11635.5
25°	19030.3	17696.9	15639.1	15000.4	13173.1	12086.6	11112.0	10591.8	10325.1	10308.6	10364.6
27.5°	20472.4	18839.4	15408.6	13749.2	12350.0	10865.1	9788.4	9416.4	9153.0	9139.8	9149.7
30°	22151.6	20363.8	15981.5	12208.4	11233.8	9455.9	8599.9	8336.5	8096.1	7990.8	7994.1
32.5°	24018.4	21743.3	16534.6	11912.1	9004.8	8227.8	7562.7	7358.6	7029.4	6877.9	6835.1
35°	25766.7	23208.4	17226.1	11414.9	7813.0	7134.7	6667.2	6393.9	6137.1	6008.7	5965.9
37.5°	24225.8	24558.3	17838.5	11006.6	6904.3	5913.2	5784.8	5603.7	5472.0	5373.3	5356.8
40°	24578.1	22121.9	18200.6	10236.2	5965.9	5165.8	4958.4	5047.3	5182.3	5100.0	5096.7
42.5°	25753.5	22500.6	17871.4	9169.5	5221.8	4454.7	4513.9	4846.5	5129.6	5076.9	5083.5
45°	27435.9	23682.5	15336.2	7895.3	4500.8	4013.5	4398.7	4787.2	5142.8	5159.3	5159.3
47.5°	29177.6	25012.7	14865.4	6196.4	3970.7	3842.3	4378.9	4714.8	5123.0	5228.4	5215.2
49°	30142.3	25658.0	14733.7	5100.0	3733.6	3806.1	4375.7	4645.6	5083.5	5231.7	5215.2
50°	30705.3	26099.2	14486.7	4662.1	3595.3	3799.5	4378.9	4602.8	5044.0	5208.6	5202.1
52.5°	31887.3	26658.9	13624.1	3839.0	3259.5	3776.4	4431.6	4563.3	4922.2	5096.7	5162.5
55°	26349.4	25714.0	12175.5	3447.2	3108.1	3730.3	4431.6	4586.4	4816.8	4918.9	4981.5
57.5°	26675.4	21986.9	9574.4	3252.9	3006.0	3681.0	4362.5	4583.1	4760.9	4777.3	4757.6
60°	27669.7	22497.3	7138.0	3055.4	2887.5	3618.4	4214.3	4477.7	4612.7	4612.7	4553.4
62.5°	28265.6	22737.6	5709.1	2838.1	2762.4	3490.0	3993.7	4273.6	4375.7	4319.7	4309.8
65°	28413.8	22931.9	4141.9	2604.3	2620.8	3351.7	3766.6	4010.2	4151.8	4056.3	4076.0
67.5°	27903.4	21545.7	3025.8	2364.0	2459.5	3164.0	3542.7	3760.0	3862.0	3812.6	3822.5
70°	26016.9	20037.8	2130.2	1952.4	2199.4	2874.3	3259.5	3509.7	3562.4	3476.8	3490.0
72.5°	22984.5	17710.0	1343.3	1527.7	1936.0	2607.6	2927.0	3085.0	3094.9	3200.3	3256.2
75°	20018.1	14210.2	971.3	1205.0	1537.6	2229.0	2673.5	2821.6	2930.3	3457.1	3542.7
77.5°	16044.1	8991.7	826.4	951.5	1208.3	1850.4	2383.7	2610.9	3588.8	3848.9	3783.0
80°	9722.6	5584.0	622.3	750.7	1007.5	1422.3	2041.3	2689.9	3631.6	3387.9	3249.6
82.5°	4487.6	2426.5	421.4	612.4	800.1	1060.2	1610.0	3141.0	3111.4	2594.4	2568.1
85°	1613.3	717.8	230.5	437.9	559.7	730.9	1238.0	3111.4	2439.7	2179.6	2041.3
87.5°	411.6	128.4	95.5	214.0	283.2	388.5	675.0	1646.2	1267.6	1116.1	1076.6
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)