

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: P232692

Luminaire Tested: **CTN-8-6-D-E1-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232692
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-19)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-8-6-D-E1-T3-7030
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 3000K LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 61098 lumens
Efficiency: N/A
Efficacy: 128.1 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B4 - U0 - G5

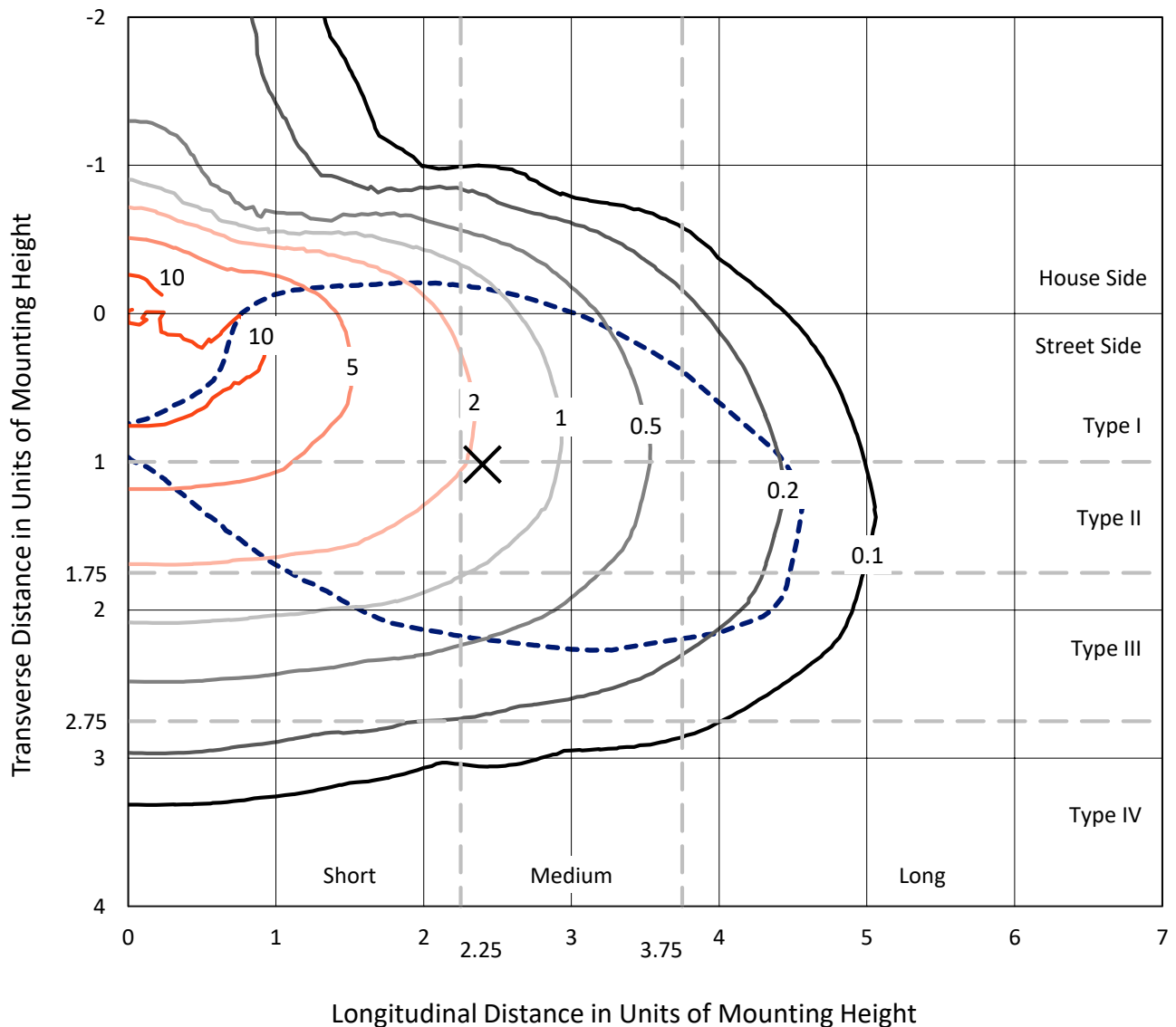
Input Watts (W): 477
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

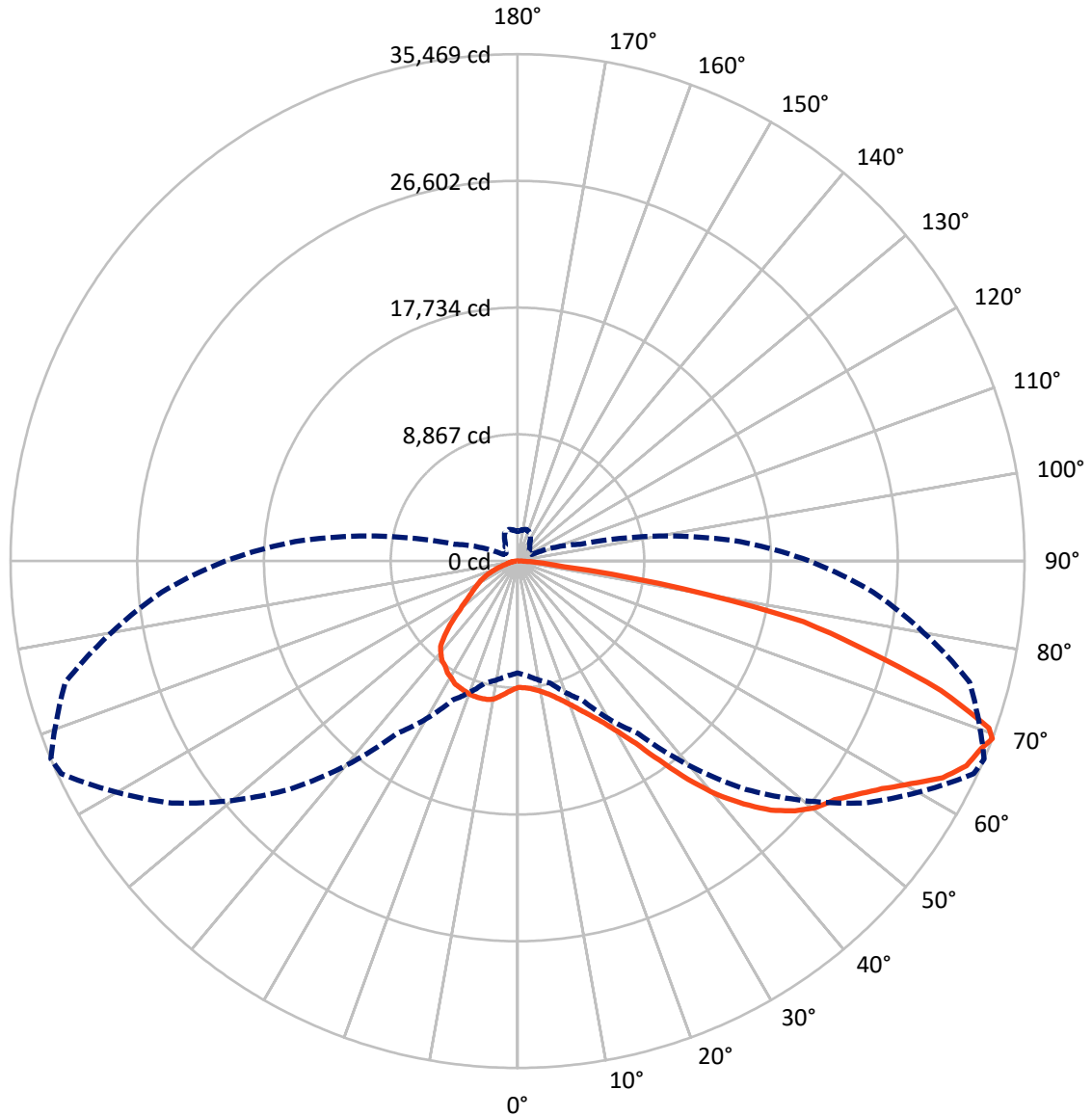
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 11.7 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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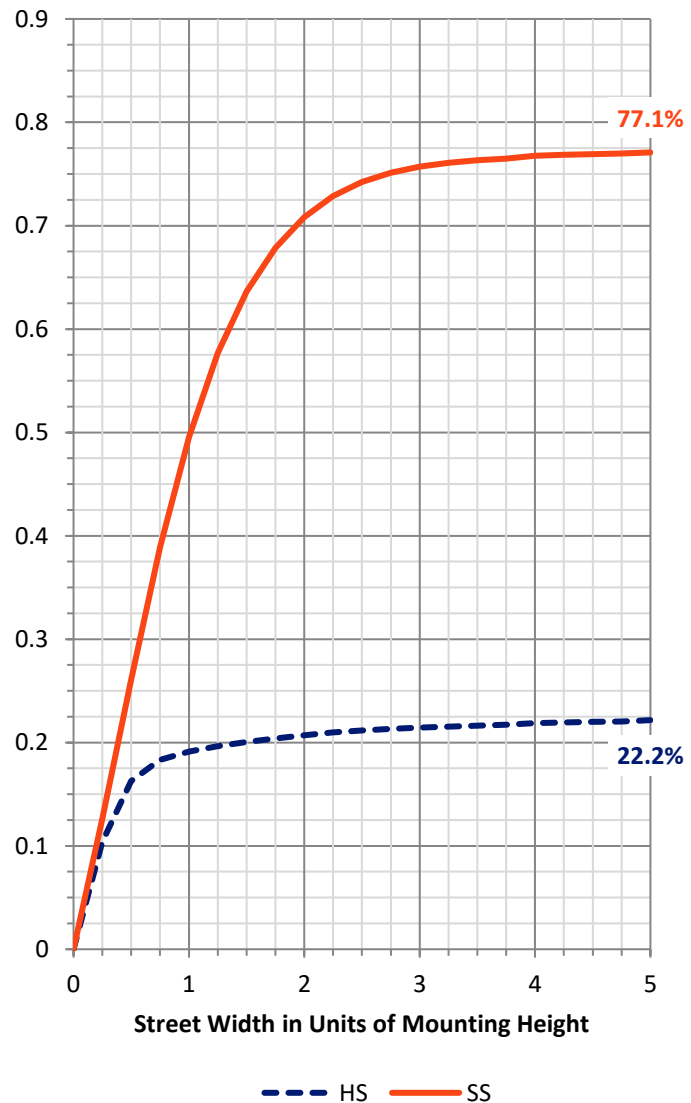
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13898.5	0.0	13898.5
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	47199.5	0.0	47199.5
	% Fixture	77.3	0.0	77.3
Total	Lumens	61098.0	0.0	61098.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	897.5	1.5
10°-20°	2882.7	4.7
20°-30°	5013.0	8.2
30°-40°	7551.4	12.4
40°-50°	10429.2	17.1
50°-60°	12447.3	20.4
60°-70°	13109.2	21.5
70°-80°	7690.0	12.6
80°-90°	1077.8	1.8
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°	61098.0	100.0
0°-180°	61098.0	100.0



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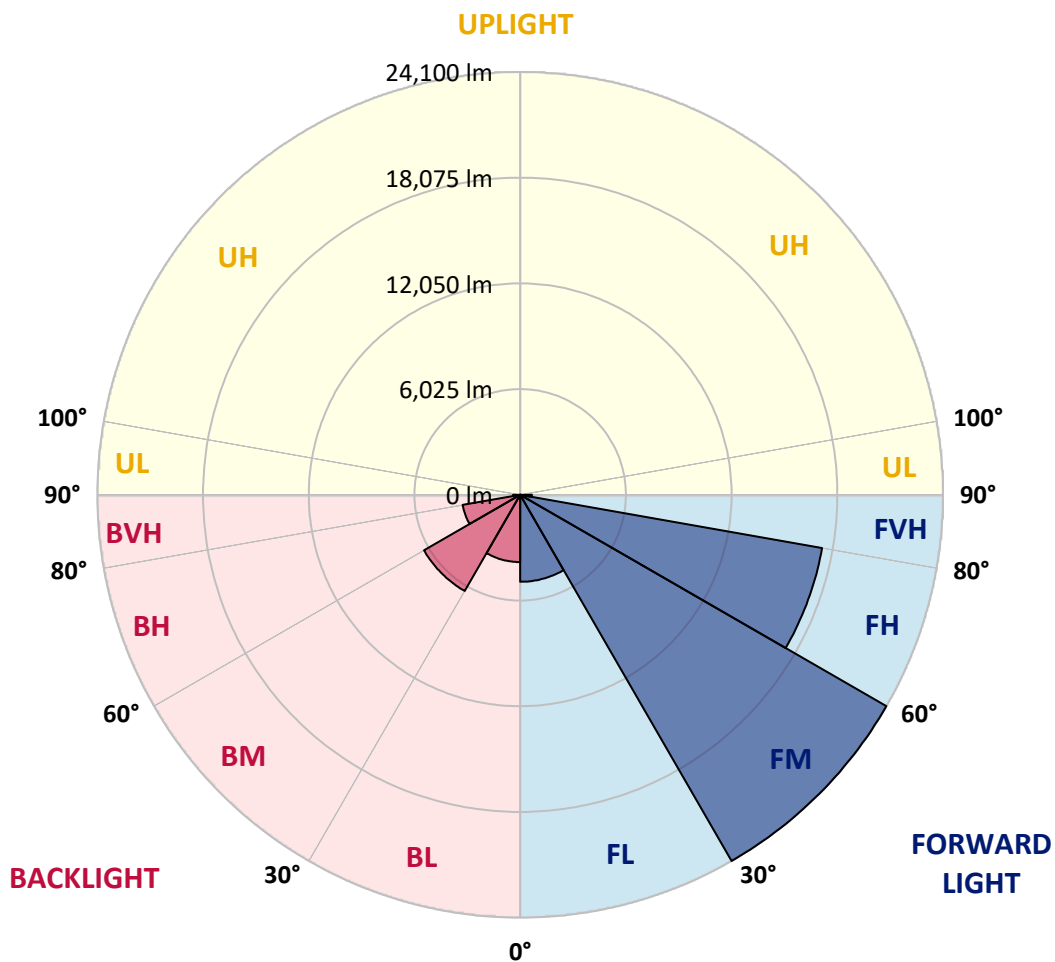
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4958.0	8.1			
FM	(30°-60°)	24100.3	39.4			
FH	(60°-80°)	17471.4	28.6			G5
FVH	(80°-90°)	669.8	1.1			G4/750
BL	(0°-30°)	3835.1	6.3	B4/5000		
BM	(30°-60°)	6327.5	10.4	B4/8500		
BH	(60°-80°)	3327.9	5.4	B4/5000		G4/5000
BVH	(80°-90°)	408.0	0.7			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	8841.8	8841.8	8841.8	8841.8	8841.8	8841.8	8841.8	8841.8	8841.8	8841.8	8841.8
2.5°	8878.9	8890.6	8878.9	8859.4	8794.8	8824.2	8798.7	8880.9	8875.0	8843.7	8900.4
5°	9086.2	9099.9	9074.5	9058.8	8959.1	8972.8	8918.0	8963.0	8947.4	8894.6	8982.6
7.5°	9424.6	9438.2	9407.0	9385.4	9244.6	9213.3	9113.6	9127.3	9098.0	9013.9	9115.6
10°	9880.2	9892.0	9839.2	9786.4	9606.4	9530.2	9363.9	9336.6	9293.5	9211.4	9315.0
12.5°	10371.1	10388.7	10324.2	10255.7	10046.5	9921.3	9684.7	9600.6	9547.8	9448.0	9561.5
15°	10897.2	10918.7	10852.2	10774.0	10543.2	10349.6	10054.3	9927.2	9876.3	9751.2	9821.6
17.5°	11587.6	11581.7	11526.9	11419.4	11143.6	10860.0	10496.3	10306.6	10271.4	10150.1	10167.7
20°	12387.5	12360.1	12309.2	12160.6	11861.4	11509.3	11034.1	10793.6	10758.4	10656.7	10549.1
22.5°	13255.8	13228.4	13179.5	12989.8	12694.5	12233.0	11663.8	11380.3	11333.3	11206.2	11026.3
25°	14110.4	14081.1	14053.7	13873.8	13586.3	13062.2	12377.7	12015.9	11994.4	11865.3	11534.8
27.5°	14998.3	14980.7	14988.5	14834.0	14546.6	14002.9	13226.5	12833.4	12796.2	12631.9	12182.1
30°	15911.6	15915.6	15989.9	15825.6	15561.6	15014.0	14243.4	13842.5	13848.4	13701.7	13044.6
32.5°	16729.1	16733.0	16899.3	16817.1	16672.4	16126.8	15418.8	15137.2	15193.9	15182.2	14509.4
35°	17319.8	17345.2	17716.8	17828.2	17773.5	17298.2	16871.9	16940.3	17120.3	17628.8	16922.7
37.5°	17875.2	17885.0	18360.2	18618.3	18821.7	18536.2	18450.2	19099.4	19383.0	20087.1	19042.7
40°	18035.5	18170.5	18770.9	19130.7	19604.0	19744.8	20181.0	21141.2	21475.6	21900.0	20470.4
42.5°	17888.9	18080.5	18833.5	19688.1	20345.2	21043.4	21843.3	22930.7	23233.8	23495.9	21837.4
45°	17581.8	17728.5	18510.8	19789.8	20980.8	22365.5	23288.6	24591.1	24864.9	24694.7	22905.3
47.5°	17173.1	17284.5	18156.8	19627.5	21489.3	23550.6	24612.6	25922.9	26122.4	25725.4	23630.8
50°	16605.9	16738.9	17712.8	19404.5	21862.9	24542.2	25676.5	26924.2	27092.4	26366.9	24342.7
52.5°	15905.8	16072.0	17204.4	19025.1	22142.5	25281.4	26419.7	27591.1	27761.3	27290.0	24905.9
55°	15111.8	15342.5	16508.1	18563.6	22162.1	25674.5	26883.2	28569.0	28811.5	28303.0	25398.8
57.5°	14306.0	14454.6	15688.7	17857.6	21794.4	25805.6	27438.6	29707.2	30061.2	29284.8	25936.6
60°	13322.3	13465.1	14687.4	16913.0	21061.0	26007.0	28549.4	31336.3	31617.9	30428.9	26394.2
62.5°	12158.6	12321.0	13429.8	15620.2	19975.6	26089.1	29681.8	33069.1	33391.8	31469.3	26658.3
65°	10680.1	10860.0	11871.1	14055.7	18424.7	25506.3	30170.7	34350.1	34516.3	32267.2	26544.8
67.5°	9064.7	9213.3	10019.1	12109.7	16279.3	23986.8	29914.5	34823.3	34991.5	32809.0	25866.2
69°	7828.7	8057.5	8832.0	10723.1	14736.3	22596.3	29523.4	35212.5	35468.7	32748.3	24974.4
70°	6839.1	7095.3	7795.5	9500.8	13425.9	21152.9	28795.8	34917.2	34989.6	32163.6	24170.6
72.5°	4322.1	4406.2	4725.0	5859.3	9446.1	16443.6	25199.3	30998.0	30978.4	28696.1	21100.1
75°	2135.6	2245.2	2849.5	3289.5	4654.6	10576.5	19834.8	25459.4	25463.3	24219.5	17347.1
77.5°	1282.9	1329.9	1484.4	2120.0	2659.8	4746.5	13463.1	20155.5	20464.5	19711.6	12483.3
80°	884.0	860.5	905.5	1042.4	1431.6	2495.5	5534.7	11394.0	11728.4	10817.0	5317.6
82.5°	696.2	676.7	690.4	725.6	682.5	1155.8	2341.0	3406.8	3307.1	2916.0	2043.7
85°	487.0	447.9	473.3	459.6	406.8	678.6	1138.2	1415.9	1406.2	1453.1	1112.8
87.5°	154.5	136.9	140.8	136.9	113.4	240.6	408.7	551.5	508.5	516.3	391.1
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°	8841.8	8841.8	8841.8	8841.8	8841.8	8841.8	8841.8	8841.8	8841.8	8841.8	8841.8
2.5°	8914.1	8898.5	8916.1	9008.0	8986.5	9066.7	9086.2	9217.3	9223.1	9211.4	9270.1
5°	9023.6	9039.3	9105.8	9252.5	9301.3	9473.5	9551.7	9712.0	9727.7	9733.6	9790.3
7.5°	9182.0	9209.4	9352.2	9543.9	9635.8	9860.7	9978.0	10175.5	10189.2	10210.8	10275.3
10°	9416.7	9455.8	9569.3	9831.3	9860.7	10038.6	10146.2	10316.4	10304.6	10334.0	10392.6
12.5°	9653.4	9674.9	9760.9	9940.9	9921.3	10095.4	10142.3	10253.8	10246.0	10244.0	10287.0
15°	9907.6	9870.5	9882.2	9950.6	9878.3	9985.8	9952.6	10034.7	9927.2	9884.1	9913.5
17.5°	10177.5	10087.5	9972.2	9921.3	9784.4	9766.8	9653.4	9614.3	9539.9	9516.5	9539.9
20°	10498.2	10306.6	10026.9	9880.2	9581.0	9426.5	9209.4	9082.3	8910.2	8923.9	8957.1
22.5°	10824.8	10555.0	10132.5	9739.4	9317.0	9004.1	8571.9	8456.5	8231.6	8165.1	8231.6
25°	11225.8	10864.0	10185.3	9614.3	8918.0	8360.7	7922.6	7513.8	7343.7	7177.4	7240.0
27.5°	11751.9	11262.9	10377.0	9459.8	8466.3	7723.1	7026.9	6498.8	6287.6	6109.6	6121.4
30°	12434.4	11796.8	10449.3	9135.1	7922.6	6848.9	5972.7	5386.0	5122.0	5049.6	5018.3
32.5°	13695.8	12657.3	10578.4	8898.5	7245.9	5898.4	4822.8	4193.0	4026.8	4058.1	4159.8
35°	15931.2	14458.6	10969.6	8403.7	6498.8	4861.9	3747.1	3260.2	3287.5	3344.3	3332.5
37.5°	17859.5	16083.7	11620.8	8055.6	5585.5	3682.6	2829.9	2571.8	2736.0	2847.5	2843.6
40°	19169.9	17268.9	12473.5	7404.3	4431.6	2624.6	2082.8	1940.1	2149.3	2387.9	2429.0
42.5°	20470.4	18346.5	12886.2	6827.4	3111.5	1852.1	1507.9	1545.0	1812.9	2037.8	2078.9
45°	21405.2	19128.8	13068.0	5798.7	1987.0	1417.9	1316.2	1453.1	1742.5	1920.5	1940.1
47.5°	22091.7	19717.4	12870.5	4691.7	1462.9	1296.6	1298.6	1472.6	1764.0	1965.5	1973.3
50°	22697.9	20132.1	12074.5	3659.1	1316.2	1255.6	1324.0	1529.4	1826.6	2030.0	2024.2
52.5°	23112.6	20253.3	11108.4	2998.1	1275.1	1232.1	1345.5	1582.2	1846.2	1983.1	1971.4
55°	23388.3	20071.4	10365.3	2468.1	1239.9	1230.1	1380.7	1648.7	1865.7	1920.5	1893.1
57.5°	23558.5	19703.8	9737.5	2121.9	1210.6	1230.1	1419.8	1674.1	1938.1	2037.8	2006.6
60°	23507.6	19539.5	8886.7	1838.4	1169.5	1234.1	1441.4	1711.2	2229.5	2464.2	2470.1
62.5°	23405.9	19218.7	8055.6	1613.5	1120.6	1257.5	1468.7	1926.4	2738.0	2739.9	2642.2
65°	22922.9	18252.6	6846.9	1410.1	1069.8	1263.4	1474.6	2280.4	3070.5	2812.3	2685.2
67.5°	21593.0	16838.6	5433.0	1220.4	1013.1	1228.2	1468.7	2231.5	2479.8	2219.7	2155.2
69°	20433.2	15612.4	4539.2	1106.9	972.0	1193.0	1474.6	2139.5	2296.0	2141.5	2082.8
70°	19588.4	14618.9	3856.7	1038.5	934.8	1175.4	1474.6	2106.3	2270.6	2123.9	2067.2
72.5°	16813.2	11483.9	2311.6	866.4	827.3	1106.9	1460.9	2055.4	2290.1	2165.0	2090.7
75°	12880.3	8352.8	1345.5	711.9	696.2	993.5	1388.6	2024.2	2356.6	2166.9	2004.6
77.5°	8253.1	3854.7	1003.3	578.9	565.2	860.5	1296.6	1922.5	2421.2	2272.5	2067.2
80°	2867.1	1748.4	749.0	457.6	438.1	704.1	1136.3	1732.8	2305.8	2321.4	2166.9
82.5°	1572.4	1151.9	530.0	340.3	322.7	442.0	884.0	1494.2	2133.7	2298.0	2309.7
85°	864.4	649.3	348.1	219.0	246.4	379.4	612.1	1161.7	1717.1	1996.8	2084.8
87.5°	350.1	234.7	136.9	86.1	101.7	150.6	207.3	594.5	1036.5	1337.7	1472.6
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)