

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: P232788

Luminaire Tested: **CTN-8-6-D-E1-T2-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P232788  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-7)  
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-T2-7030  
Description: CELESTEON HIGH MAST LUMINAIRE  
(8) 70 CRI, 3000K LEDS AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 60862 lumens  
Efficiency: N/A  
Efficacy: 127.6 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type II - Short - Non-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

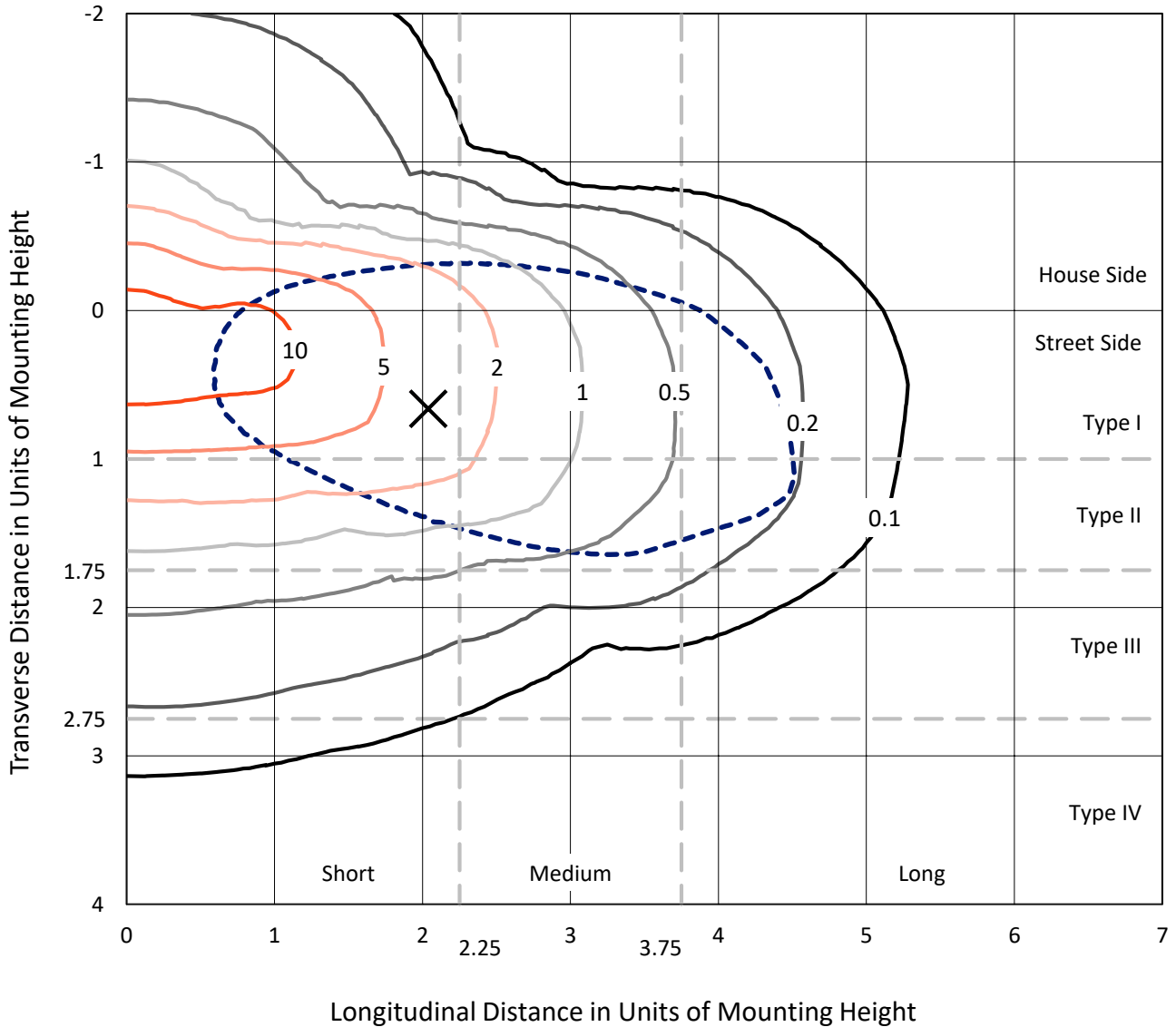


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### Iso-Footcandle Lines of Horizontal Illumination

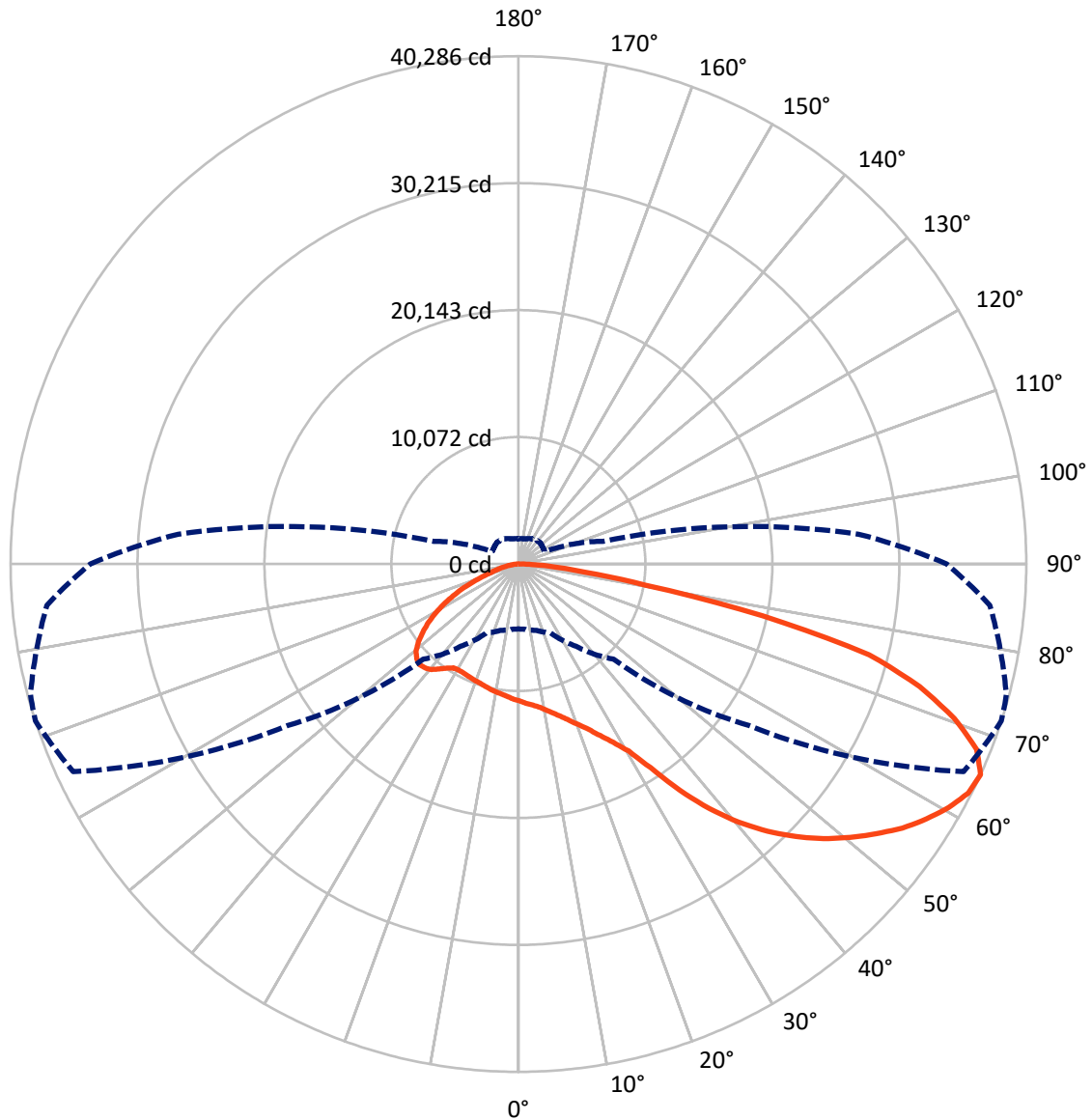
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 14.1 fc  
 Type II - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 72-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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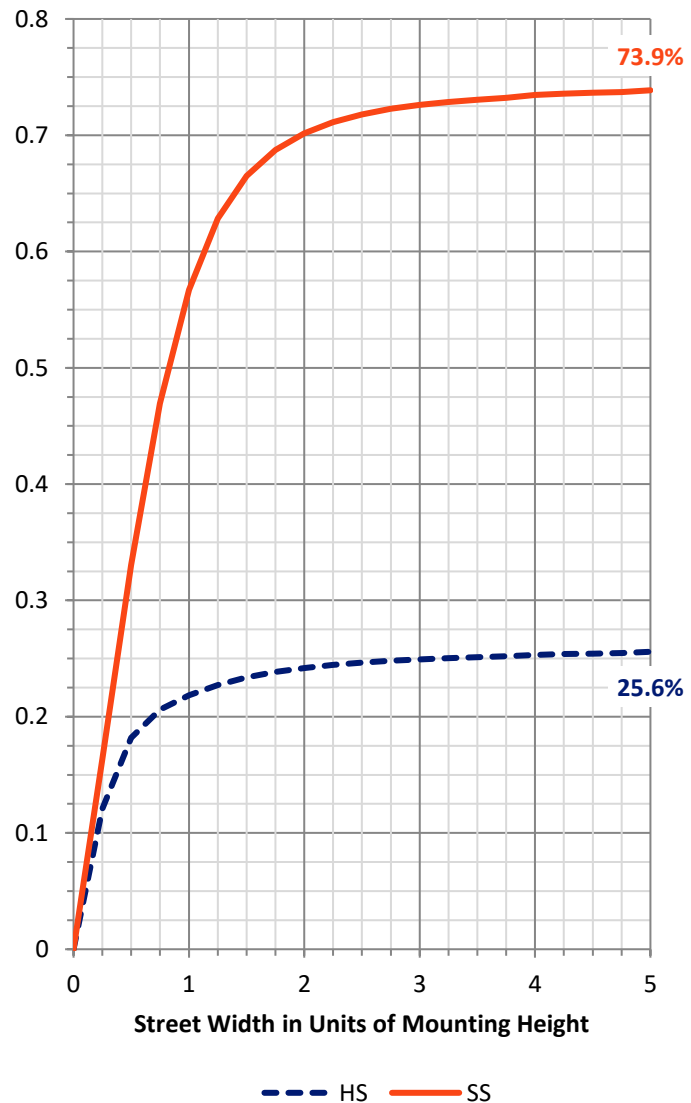
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	15854.0	0.0	15854.0
	% Fixture	26.0	0.0	26.0
<b>Street Side</b>	Lumens	45008.0	0.0	45008.0
	% Fixture	74.0	0.0	74.0
<b>Total</b>	Lumens	60862.0	0.0	60862.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1044.6	1.7
10°-20°	3183.9	5.2
20°-30°	5333.0	8.8
30°-40°	7740.9	12.7
40°-50°	10467.4	17.2
50°-60°	12218.3	20.1
60°-70°	12165.4	20.0
70°-80°	7377.0	12.1
80°-90°	1331.6	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°	60862.0	100.0
0°-180°	60862.0	100.0



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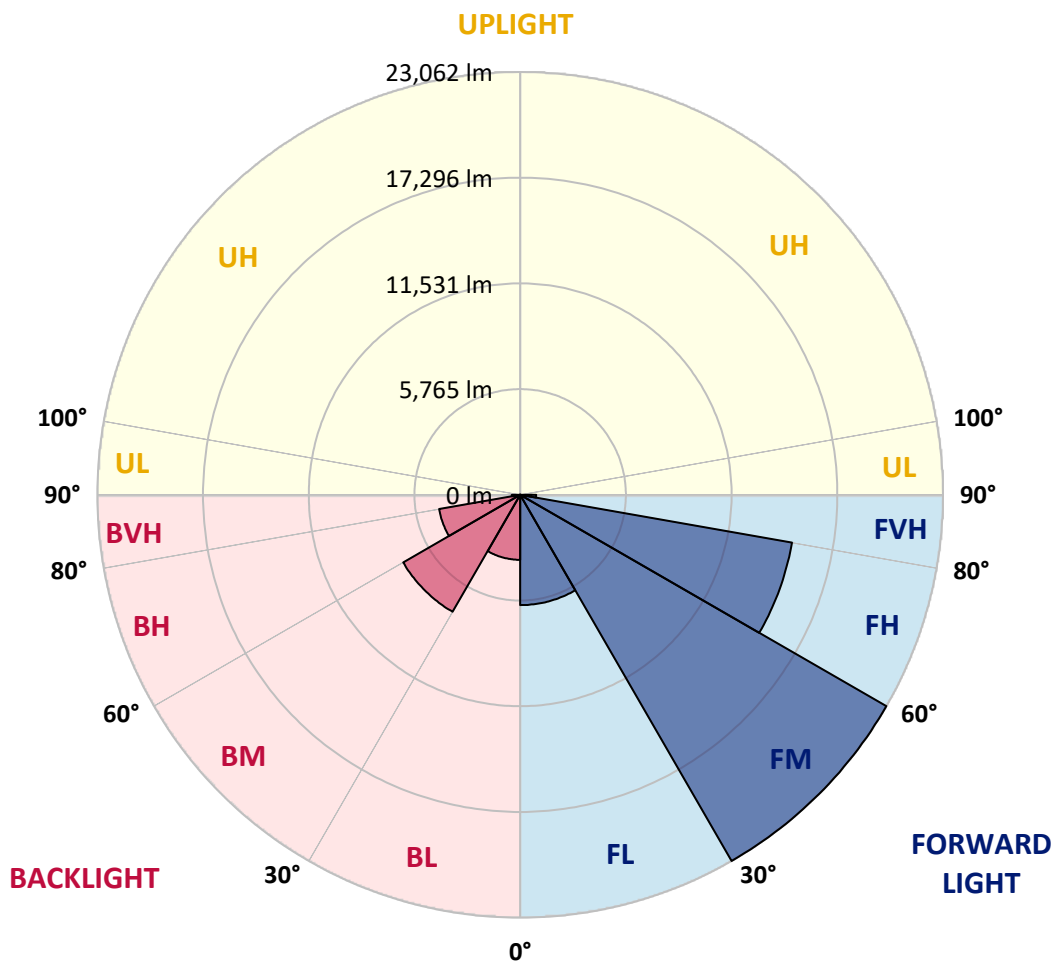
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	6015.3	9.9			
FM	(30°-60°)	23062.0	37.9			
FH	(60°-80°)	15054.7	24.7			G5
FVH	(80°-90°)	876.0	1.4			G5
BL	(0°-30°)	3546.2	5.8	B4/5000		
BM	(30°-60°)	7364.6	12.1	B4/8500		
BH	(60°-80°)	4487.6	7.4	B4/5000		G4/5000
BVH	(80°-90°)	455.7	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 II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	72°	75°	85°
0°	10863.4	10863.4	10863.4	10863.4	10863.4	10863.4	10863.4	10863.4	10863.4	10863.4	10863.4
2.5°	11428.6	11406.9	11414.1	11424.7	11294.9	11273.1	11165.8	11111.1	11051.2	11009.0	10914.2
5°	12016.8	12014.9	11968.1	11968.7	11765.2	11686.8	11488.5	11342.3	11215.2	11149.3	10951.7
7.5°	12550.4	12495.1	12490.4	12477.3	12247.4	12122.2	11859.4	11637.4	11443.1	11341.7	11035.4
10°	13051.7	13012.8	13013.5	12997.6	12761.8	12605.7	12289.5	12010.2	11750.7	11619.6	11173.7
12.5°	13586.5	13542.4	13535.2	13479.8	13263.1	13112.9	12767.1	12423.9	12109.7	11961.5	11383.2
15°	14135.2	14093.1	14072.0	14008.1	13766.4	13606.3	13316.5	12892.3	12534.6	12350.1	11658.5
17.5°	14641.1	14615.4	14579.9	14530.5	14319.0	14143.8	13854.0	13450.8	13023.3	12787.5	11975.3
20°	14953.4	14931.0	14954.7	14954.7	14832.8	14705.7	14413.9	14068.1	13606.3	13314.5	12339.6
22.5°	15192.5	15169.4	15274.8	15328.2	15340.7	15312.4	15025.8	14724.1	14243.3	13942.2	12790.2
25°	15251.1	15253.7	15432.2	15672.0	15849.9	15932.9	15712.2	15490.2	15075.2	14698.4	13406.0
27.5°	15234.0	15251.1	15479.7	15907.8	16334.0	16535.6	16455.9	16326.8	15998.1	15677.3	14228.8
30°	15208.9	15253.7	15555.4	16081.7	16698.3	17097.5	17177.2	17372.8	17211.4	16992.7	15533.7
32.5°	14898.0	14938.2	15370.3	16146.3	17008.5	17733.1	18161.9	18991.2	19254.1	19211.3	17553.3
35°	14170.2	14249.2	14890.1	15977.0	17247.6	18380.6	19398.3	21134.7	22044.4	21971.2	19883.1
37.5°	13428.4	13525.3	14294.0	15661.5	17355.7	19069.6	20751.3	23531.1	24630.5	24523.7	22122.1
40°	12755.9	12867.2	13643.2	15188.5	17326.7	19713.8	22172.8	25783.2	26933.3	26743.6	24118.6
42.5°	11978.6	12140.0	12846.8	14558.1	17100.7	20167.7	23579.2	27935.2	28976.6	28686.8	25935.4
45°	11254.7	11384.5	12063.6	13694.6	16756.2	20501.7	24865.6	29929.1	30834.8	30496.9	27609.1
47.5°	10470.2	10634.9	11317.3	12806.0	16071.8	20576.8	26043.4	31700.4	32552.7	32201.0	29170.3
50°	8400.5	8666.0	10207.4	11936.5	15009.3	20304.0	27089.4	33361.6	34096.8	33818.8	30785.4
52.5°	7324.2	7376.2	8156.1	10938.5	13715.6	19590.7	27844.3	34991.3	35548.6	35265.3	32214.8
55°	6842.7	6857.2	7206.3	9258.2	12460.8	18231.8	28209.9	36551.8	36970.7	36578.1	33567.8
57.5°	6348.0	6429.0	6780.1	7812.9	11281.1	16270.8	27956.3	37916.6	38166.3	37724.3	34810.1
60°	5938.9	6004.8	6355.2	7056.8	9986.7	13991.0	26774.5	39004.1	39224.2	38772.9	35976.1
62.5°	5568.1	5616.2	5887.5	6544.9	8817.5	11969.4	24569.2	39295.3	40033.7	39674.7	37053.7
65°	5147.2	5191.3	5442.9	6029.2	7961.8	10675.7	22350.7	38967.9	40286.0	40068.6	37538.5
67.5°	4647.2	4706.5	4933.7	5439.0	7080.5	9561.8	19731.6	38137.3	39209.7	38875.7	36493.1
70°	3990.5	4087.3	4344.8	4782.9	6050.9	8126.5	15740.5	35406.9	36680.9	36299.5	33701.5
72.5°	3146.0	3167.1	3353.5	3717.8	4792.1	6464.6	10623.0	29960.1	33287.2	33179.2	29811.9
75°	2345.7	2417.5	2716.5	2997.1	3501.0	4638.0	6457.3	21836.2	28738.8	28738.8	25124.5
77.5°	1914.2	1951.8	2150.7	2386.5	2730.3	3254.7	4105.1	12338.3	19808.7	21817.8	18884.5
80°	1495.9	1482.8	1496.6	1602.6	1927.4	2152.0	2729.0	6341.4	10233.7	11632.8	12370.6
82.5°	819.4	820.1	909.7	857.6	1063.2	1209.4	1655.3	3566.9	5347.4	5937.6	6627.3
85°	415.0	405.1	451.2	420.9	492.1	552.0	751.6	1771.9	2729.0	2958.3	3122.9
87.5°	148.2	141.0	162.0	194.3	181.8	193.0	259.5	637.0	1054.6	1128.4	1106.0
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°	10863.4	10863.4	10863.4	10863.4	10863.4	10863.4	10863.4	10863.4	10863.4	10863.4	10863.4
2.5°	10887.1	10823.9	10747.5	10683.6	10548.6	10478.1	10422.1	10437.9	10377.3	10289.7	10288.4
5°	10879.9	10759.4	10595.3	10459.6	10242.3	10130.3	10024.9	9997.2	9907.0	9820.0	9815.4
7.5°	10904.9	10744.9	10478.7	10262.0	9978.8	9804.2	9640.9	9577.0	9470.9	9379.4	9374.7
10°	10974.1	10762.6	10398.4	10098.0	9743.6	9504.5	9293.1	9164.6	9042.1	8947.9	8946.6
12.5°	11097.9	10815.3	10327.9	9936.0	9515.1	9198.2	8928.1	8762.1	8590.9	8521.1	8517.1
15°	11272.5	10892.4	10236.3	9720.6	9233.8	8872.8	8538.8	8319.5	8129.8	8062.6	8077.1
17.5°	11496.4	11018.2	10162.6	9482.8	8923.5	8488.1	8141.0	7920.3	7641.0	7579.1	7596.2
20°	11774.4	11212.5	10146.8	9265.4	8583.6	8065.2	7639.0	7482.9	7129.2	7046.2	7035.0
22.5°	12134.1	11441.8	10140.2	9032.9	8185.1	7579.1	7073.9	6875.6	6578.5	6438.9	6407.3
25°	12579.4	11707.2	10129.0	8800.4	7741.1	7025.1	6410.6	6131.9	5946.2	5734.7	5730.1
27.5°	13165.6	12063.6	10155.3	8569.8	7257.0	6378.9	5698.5	5360.6	5253.9	5116.9	5045.7
30°	14176.1	12698.6	10227.1	8291.2	6727.4	5635.3	4918.6	4662.3	4531.3	4392.3	4368.6
32.5°	15872.3	14072.7	10449.1	7989.5	6137.9	4831.0	4280.3	4012.2	3794.8	3723.0	3703.9
35°	17996.6	15704.3	11019.5	7666.7	5500.2	4194.0	3754.6	3400.9	3193.4	3176.3	3175.0
37.5°	19904.9	17444.6	11763.2	7268.9	4797.4	3739.5	3232.9	2928.0	2771.8	2787.7	2829.2
40°	21750.6	18988.6	12551.7	6872.3	4115.0	3258.6	2726.4	2580.2	2510.3	2567.0	2594.7
42.5°	23484.3	20398.9	13119.5	6334.1	3524.1	2742.2	2377.3	2463.6	2488.6	2535.4	2554.5
45°	25104.7	21844.1	13541.7	5686.0	2992.5	2377.9	2327.2	2476.1	2547.2	2583.5	2581.5
47.5°	26672.4	23225.4	13668.2	4829.0	2581.5	2337.8	2373.3	2458.3	2569.6	2636.2	2631.5
50°	28236.9	24482.2	13562.2	3958.2	2498.5	2415.5	2417.5	2403.6	2533.4	2587.4	2567.0
52.5°	29639.3	25656.1	12962.7	3312.6	2553.8	2497.2	2469.5	2399.7	2436.6	2474.1	2455.7
55°	30900.0	26635.6	12022.8	2994.5	2601.2	2549.9	2586.8	2451.1	2377.9	2346.3	2352.3
57.5°	32073.2	27391.1	10942.5	2796.9	2591.4	2537.3	2633.5	2437.2	2330.5	2197.5	2171.8
60°	33185.8	27887.1	9725.8	2626.3	2544.6	2518.9	2532.1	2437.9	2286.4	2113.8	2071.6
62.5°	33972.3	27913.5	8329.4	2474.1	2454.4	2490.6	2452.4	2418.8	2298.2	2167.2	2140.8
65°	33956.5	27093.4	6948.1	2299.6	2341.7	2414.8	2349.0	2237.6	2055.2	2016.3	2003.1
67.5°	32482.9	25017.8	5608.2	2040.7	2159.2	2312.7	2200.7	2019.6	1862.2	1816.1	1824.6
70°	29279.0	22083.2	4142.0	1654.0	1885.2	2138.8	2069.0	1867.4	1694.9	1658.6	1697.5
72.5°	25481.5	18970.2	2944.4	1311.5	1565.8	1892.5	1864.8	1690.9	1539.4	1554.6	1589.5
75°	21273.7	15100.9	2159.9	1128.4	1229.2	1613.2	1683.0	1571.7	1475.5	1523.6	1522.3
77.5°	15855.1	11151.9	1644.8	946.6	1017.7	1255.5	1483.4	1441.3	1703.4	2070.3	2082.2
80°	10418.8	7240.5	1109.9	777.3	832.6	942.0	1210.7	1388.6	1744.3	1511.7	1493.3
82.5°	5772.9	3842.9	688.4	604.7	625.1	683.1	877.4	1449.8	1281.2	1189.0	1193.6
85°	2559.7	1488.0	406.4	405.8	407.1	414.3	563.2	1099.4	901.1	872.8	887.3
87.5°	886.6	391.9	127.8	101.4	114.6	143.6	293.1	670.6	470.3	390.0	391.3
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)