

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: P232804

Luminaire Tested: **CTN-8-6-D-E1-T2-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P232804  
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-T2-7050  
Description: CELESTEON HIGH MAST LUMINAIRE  
(8) 70 CRI, 5000K LEDS AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 63174 lumens  
Efficiency: N/A  
Efficacy: 132.4 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type II - Short - Non-Cutoff  
BUG Rating: B4 - U0 - G5

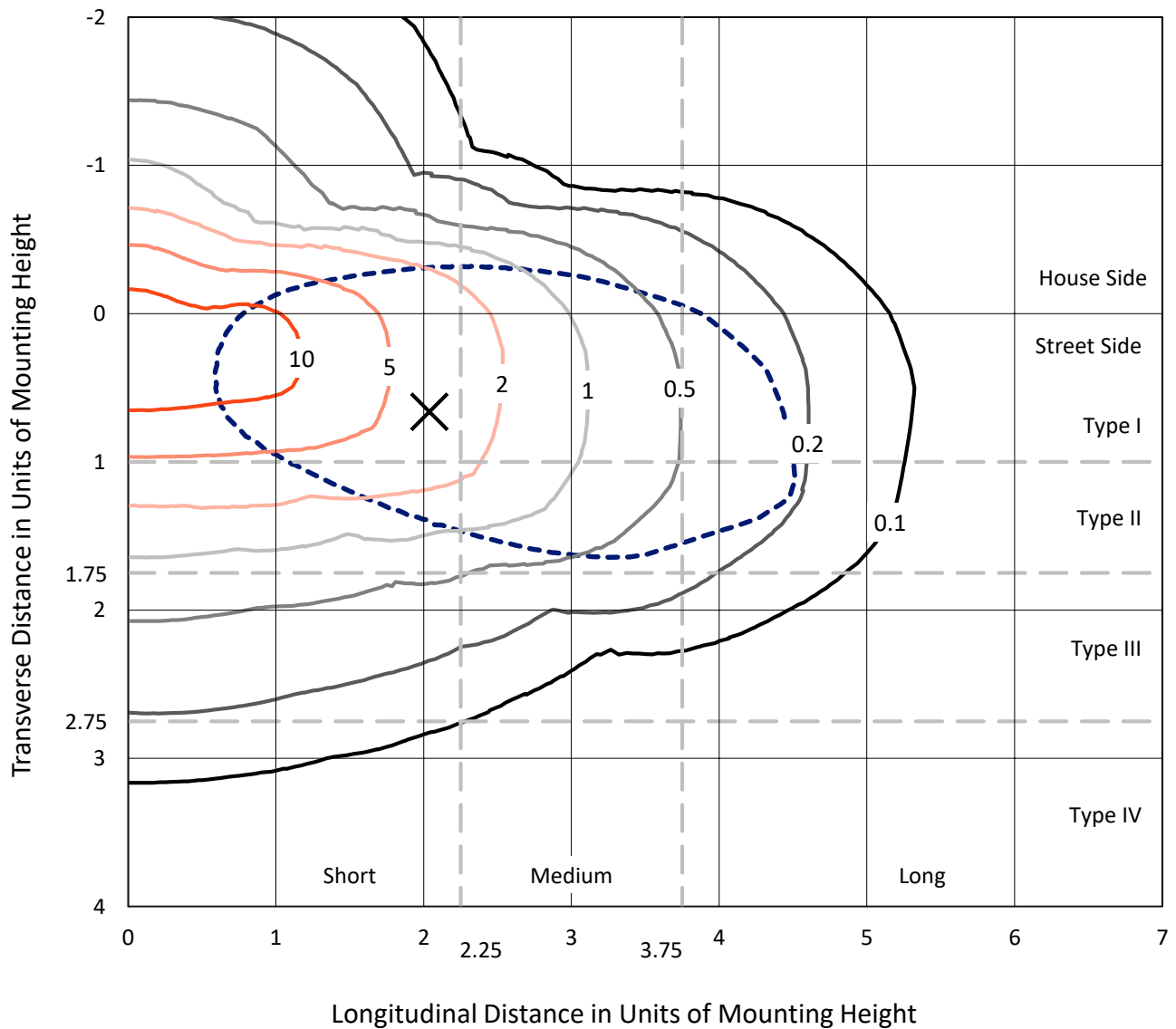
Input Watts (W): 477  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

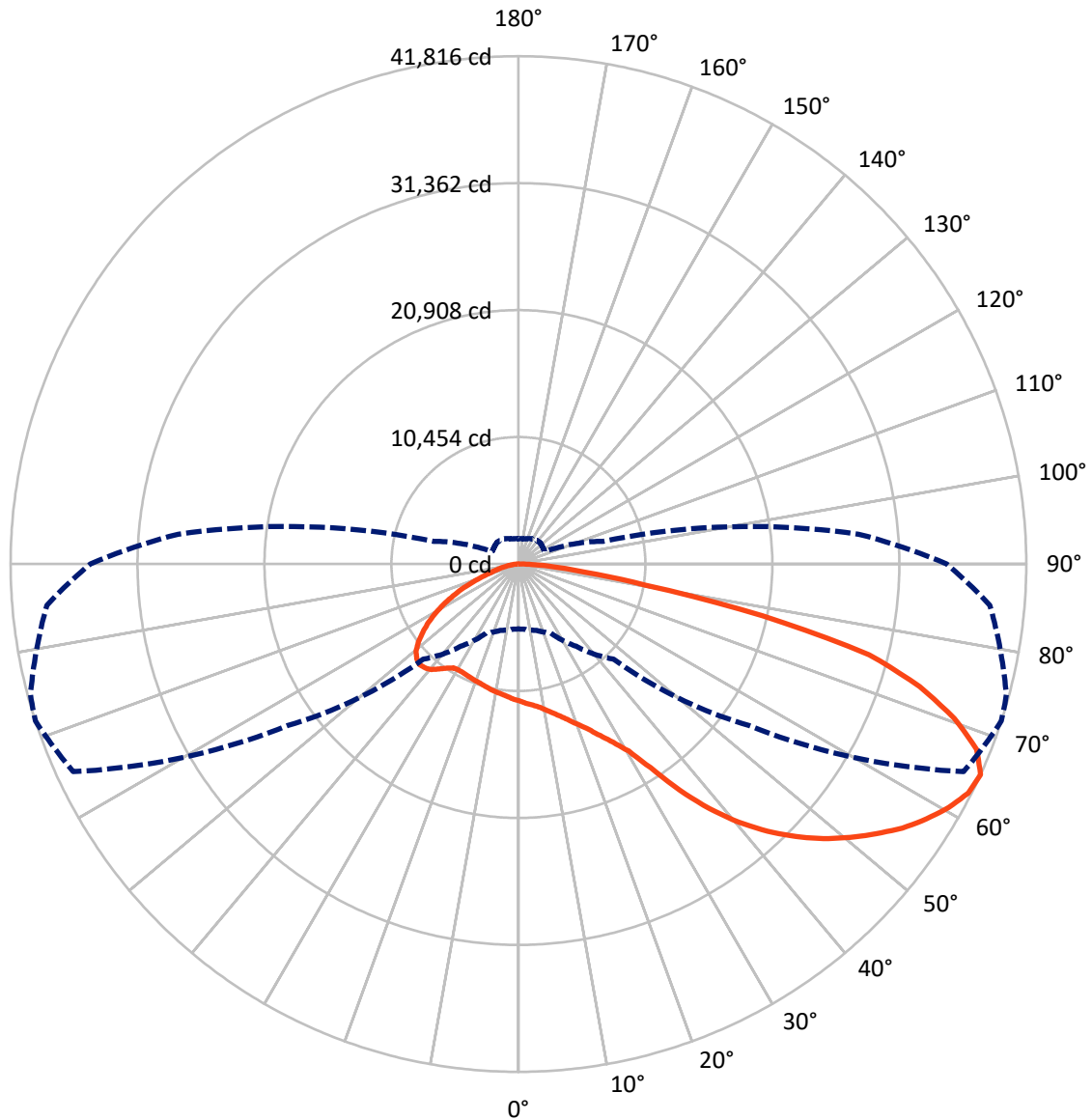


Based on 30 foot mounting height. Maximum calculated value = 14.7 fc  
 Type II - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



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

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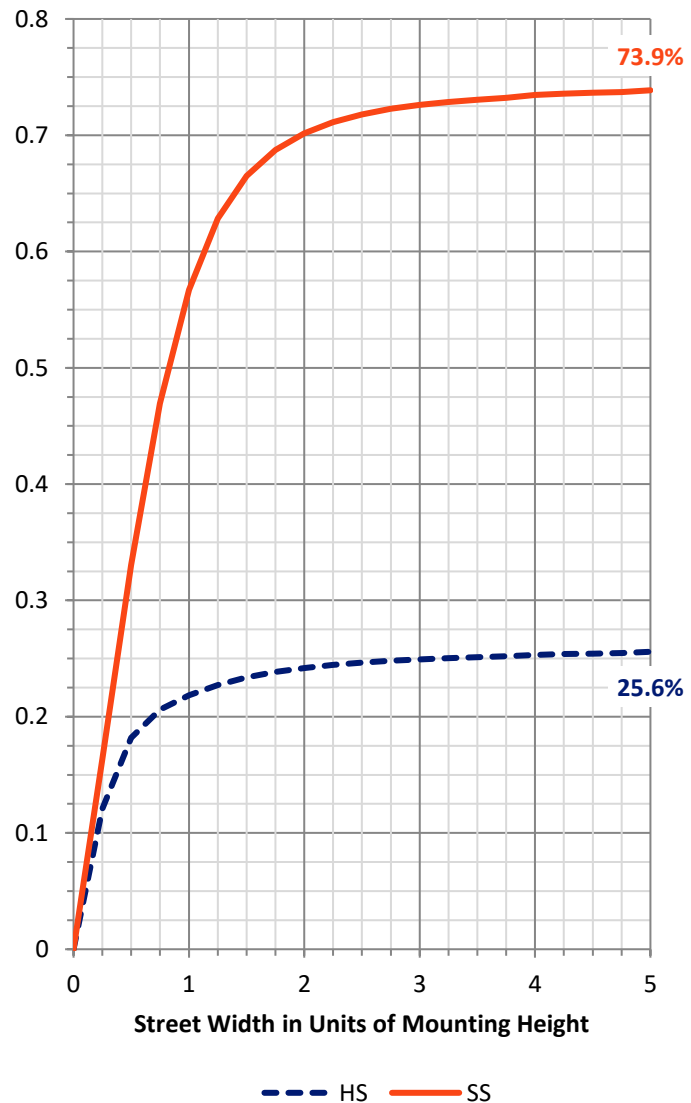
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	16456.3	0.0	16456.3
	% Fixture	26.0	0.0	26.0
<b>Street Side</b>	Lumens	46717.8	0.0	46717.8
	% Fixture	74.0	0.0	74.0
<b>Total</b>	Lumens	63174.0	0.0	63174.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1084.3	1.7
10°-20°	3304.8	5.2
20°-30°	5535.6	8.8
30°-40°	8035.0	12.7
40°-50°	10865.0	17.2
50°-60°	12682.4	20.1
60°-70°	12627.5	20.0
70°-80°	7657.2	12.1
80°-90°	1382.2	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°	63174.0	100.0
0°-180°	63174.0	100.0



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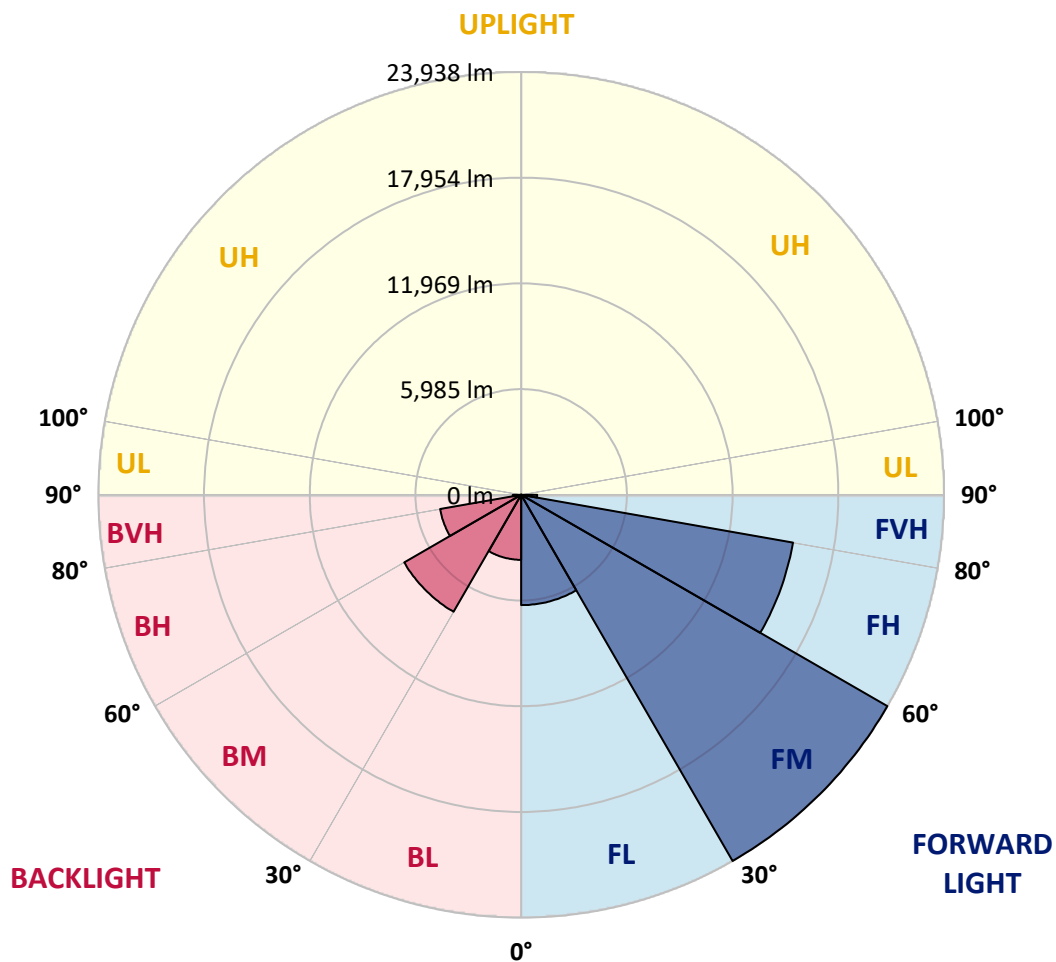
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	6243.8	9.9			
FM (30°-60°)	23938.1	37.9			
FH (60°-80°)	15626.6	24.7			G5
FVH (80°-90°)	909.2	1.4			G5
BL (0°-30°)	3680.9	5.8	B4/5000		
BM (30°-60°)	7644.3	12.1	B4/8500		
BH (60°-80°)	4658.1	7.4	B4/5000		G4/5000
BVH (80°-90°)	473.0	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 II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	72°	75°	85°
0°	11276.1	11276.1	11276.1	11276.1	11276.1	11276.1	11276.1	11276.1	11276.1	11276.1	11276.1
2.5°	11862.7	11840.2	11847.7	11858.6	11724.0	11701.4	11589.9	11533.2	11471.0	11427.2	11328.8
5°	12473.3	12471.3	12422.7	12423.4	12212.1	12130.8	11925.0	11773.2	11641.2	11572.8	11367.7
7.5°	13027.1	12969.7	12964.9	12951.2	12712.6	12582.7	12309.9	12079.5	11877.8	11772.5	11454.6
10°	13547.5	13507.1	13507.8	13491.4	13246.6	13084.6	12756.4	12466.5	12197.1	12061.0	11598.1
12.5°	14102.7	14056.8	14049.3	13991.9	13766.9	13611.1	13252.1	12895.9	12569.7	12415.9	11815.6
15°	14672.2	14628.4	14606.6	14540.2	14289.3	14123.2	13822.3	13382.0	13010.7	12819.3	12101.4
17.5°	15197.3	15170.6	15133.7	15082.4	14863.0	14681.1	14380.2	13961.8	13518.1	13273.3	12430.2
20°	15521.4	15498.2	15522.8	15522.8	15396.3	15264.3	14961.4	14602.5	14123.2	13820.3	12808.3
22.5°	15769.6	15745.7	15855.1	15910.4	15923.4	15894.0	15596.6	15283.5	14784.3	14471.9	13276.0
25°	15830.4	15833.2	16018.5	16267.3	16452.0	16538.1	16309.1	16078.6	15647.9	15256.8	13915.3
27.5°	15812.7	15830.4	16067.7	16512.1	16954.5	17163.7	17081.0	16947.0	16605.8	16272.8	14769.3
30°	15786.7	15833.2	16146.3	16692.6	17332.6	17746.9	17829.7	18032.7	17865.2	17638.2	16123.8
32.5°	15464.0	15505.7	15954.2	16759.6	17654.6	18406.7	18851.9	19712.7	19985.5	19941.0	18220.1
35°	14708.4	14790.5	15455.8	16583.9	17902.8	19078.9	20135.2	21937.5	22881.8	22805.9	20638.4
37.5°	13938.6	14039.1	14837.0	16256.4	18015.0	19794.0	21539.6	24425.0	25566.1	25455.3	22962.5
40°	13240.5	13356.0	14161.5	15765.5	17984.9	20462.7	23015.1	26762.6	27956.4	27759.5	25034.8
42.5°	12433.7	12601.2	13334.8	15111.2	17750.4	20933.8	24474.9	28996.4	30077.4	29776.5	26920.6
45°	11682.2	11816.9	12521.9	14214.8	17392.8	21280.5	25810.2	31066.0	32006.2	31655.4	28657.9
47.5°	10867.9	11038.9	11747.2	13292.4	16682.4	21358.4	27032.7	32904.6	33789.3	33424.2	30278.4
50°	8719.6	8995.2	10595.1	12389.9	15579.5	21075.4	28118.5	34629.0	35392.0	35103.5	31954.9
52.5°	7602.4	7656.4	8466.0	11354.1	14236.7	20334.9	28902.0	36320.5	36899.0	36605.0	33438.6
55°	7102.6	7117.6	7480.0	9609.9	12934.2	18924.3	29281.5	37940.3	38375.1	37967.6	34843.0
57.5°	6589.1	6673.2	7037.7	8109.7	11709.6	16888.9	29018.3	39357.0	39616.1	39157.3	36132.5
60°	6164.5	6232.9	6596.6	7324.8	10366.1	14522.5	27791.6	40485.8	40714.2	40245.8	37342.7
62.5°	5779.6	5829.5	6111.2	6793.6	9152.4	12424.1	25502.5	40788.0	41554.5	41181.9	38461.3
65°	5342.7	5388.5	5649.7	6258.2	8264.3	11081.2	23199.7	40448.2	41816.4	41590.7	38964.5
67.5°	4823.7	4885.3	5121.2	5645.6	7349.4	9925.1	20481.2	39586.0	40699.1	40352.5	37879.4
70°	4142.0	4242.6	4509.9	4964.6	6280.8	8435.2	16338.5	36752.0	38074.3	37678.4	34981.8
72.5°	3265.5	3287.4	3480.9	3859.0	4974.1	6710.1	11026.5	31098.2	34551.7	34439.6	30944.3
75°	2434.8	2509.3	2819.7	3111.0	3634.0	4814.2	6702.6	22665.7	29830.5	29830.5	26078.9
77.5°	1986.9	2025.9	2232.4	2477.2	2834.1	3378.3	4261.0	12807.0	20561.2	22646.6	19601.9
80°	1552.8	1539.1	1553.4	1663.5	2000.6	2233.8	2832.7	6582.3	10622.5	12074.7	12840.5
82.5°	850.6	851.2	944.2	890.2	1103.5	1255.3	1718.2	3702.4	5550.5	6163.2	6879.0
85°	430.8	420.5	468.4	436.9	510.7	573.0	780.1	1839.2	2832.7	3070.6	3241.6
87.5°	153.8	146.3	168.2	201.7	188.7	200.3	269.4	661.2	1094.7	1171.2	1148.0
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°	11276.1	11276.1	11276.1	11276.1	11276.1	11276.1	11276.1	11276.1	11276.1	11276.1	11276.1
2.5°	11300.7	11235.1	11155.8	11089.4	10949.3	10876.1	10818.0	10834.4	10771.5	10680.6	10679.2
5°	11293.2	11168.1	10997.8	10857.0	10631.3	10515.1	10405.7	10377.0	10283.3	10193.1	10188.3
7.5°	11319.2	11153.0	10876.8	10651.9	10357.9	10176.7	10007.1	9940.8	9830.7	9735.7	9730.9
10°	11391.0	11171.5	10793.4	10481.6	10113.8	9865.6	9646.1	9512.8	9385.6	9287.8	9286.4
12.5°	11519.5	11226.2	10720.2	10313.4	9876.5	9547.6	9267.3	9095.0	8917.2	8844.8	8840.7
15°	11700.7	11306.2	10625.2	10089.8	9584.6	9209.9	8863.2	8635.5	8438.6	8368.9	8383.9
17.5°	11933.2	11436.8	10548.6	9843.0	9262.5	8810.6	8450.2	8221.2	7931.3	7867.0	7884.8
20°	12221.7	11638.5	10532.2	9617.4	8909.7	8371.6	7929.2	7767.2	7400.0	7313.9	7302.3
22.5°	12595.0	11876.4	10525.4	9376.0	8496.1	7867.0	7342.6	7136.8	6828.4	6683.5	6650.7
25°	13057.2	12152.0	10513.7	9134.7	8035.2	7292.0	6654.1	6364.9	6172.0	5952.6	5947.8
27.5°	13665.7	12521.9	10541.1	8895.4	7532.7	6621.3	5915.0	5564.2	5453.4	5311.2	5237.4
30°	14714.6	13181.0	10615.6	8606.1	6983.0	5849.3	5105.4	4839.5	4703.4	4559.1	4534.5
32.5°	16475.2	14607.2	10846.0	8293.0	6371.0	5014.5	4442.9	4164.6	3939.0	3864.5	3844.6
35°	18680.2	16300.9	11438.2	7958.0	5709.2	4353.3	3897.3	3530.1	3314.7	3297.0	3295.6
37.5°	20661.0	18107.3	12210.1	7545.0	4979.6	3881.5	3355.8	3039.2	2877.1	2893.6	2936.6
40°	22576.8	19709.9	13028.5	7133.4	4271.3	3382.4	2830.0	2678.2	2605.7	2664.5	2693.2
42.5°	24376.4	21173.8	13617.9	6574.8	3658.0	2846.4	2467.6	2557.2	2583.1	2631.7	2651.5
45°	26058.4	22673.9	14056.2	5902.0	3106.2	2468.3	2415.6	2570.1	2644.0	2681.6	2679.5
47.5°	27685.7	24107.7	14187.4	5012.4	2679.5	2426.6	2463.5	2551.7	2667.2	2736.3	2731.5
50°	29309.5	25412.3	14077.4	4108.5	2593.4	2507.2	2509.3	2494.9	2629.6	2685.7	2664.5
52.5°	30765.2	26630.7	13455.2	3438.5	2650.8	2592.0	2563.3	2490.8	2529.1	2568.1	2549.0
55°	32073.9	27647.4	12479.5	3108.2	2700.1	2646.7	2685.0	2544.2	2468.3	2435.5	2441.6
57.5°	33291.6	28431.6	11358.2	2903.1	2689.8	2633.7	2733.6	2529.8	2419.0	2280.9	2254.3
60°	34446.4	28946.5	10095.3	2726.0	2641.3	2614.6	2628.3	2530.5	2373.2	2194.1	2150.3
62.5°	35262.8	28973.8	8645.8	2568.1	2547.6	2585.2	2545.5	2510.7	2385.5	2249.5	2222.1
65°	35246.4	28122.6	7212.0	2386.9	2430.7	2506.6	2438.2	2322.6	2133.2	2092.9	2079.2
67.5°	33716.9	25968.1	5821.3	2118.2	2241.3	2400.6	2284.3	2096.3	1932.9	1885.0	1893.9
70°	30391.2	22922.1	4299.3	1716.9	1956.8	2220.1	2147.6	1938.4	1759.2	1721.6	1762.0
72.5°	26449.5	19690.8	3056.3	1361.3	1625.2	1964.4	1935.6	1755.1	1597.9	1613.6	1649.8
75°	22081.8	15674.6	2242.0	1171.2	1275.8	1674.5	1746.9	1631.4	1531.6	1581.5	1580.1
77.5°	16457.4	11575.6	1707.3	982.5	1056.4	1303.2	1539.8	1496.0	1768.1	2149.0	2161.3
80°	10814.6	7515.6	1152.1	806.8	864.2	977.7	1256.7	1441.3	1810.5	1569.2	1550.0
82.5°	5992.2	3988.9	714.5	627.7	648.9	709.0	910.7	1504.9	1329.9	1234.1	1238.9
85°	2657.0	1544.6	421.9	421.2	422.5	430.1	584.6	1141.1	935.3	905.9	921.0
87.5°	920.3	406.8	132.6	105.3	119.0	149.1	304.3	696.0	488.2	404.8	406.1
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)