

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: P232796

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P232796  
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  
Description: CELESTEON HIGH MAST LUMINAIRE  
(8) 70 CRI, 4000K LEDS AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 62543 lumens  
Efficiency: N/A  
Efficacy: 131.1 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type II - Short - Non-Cutoff  
BUG Rating: B4 - U0 - G5

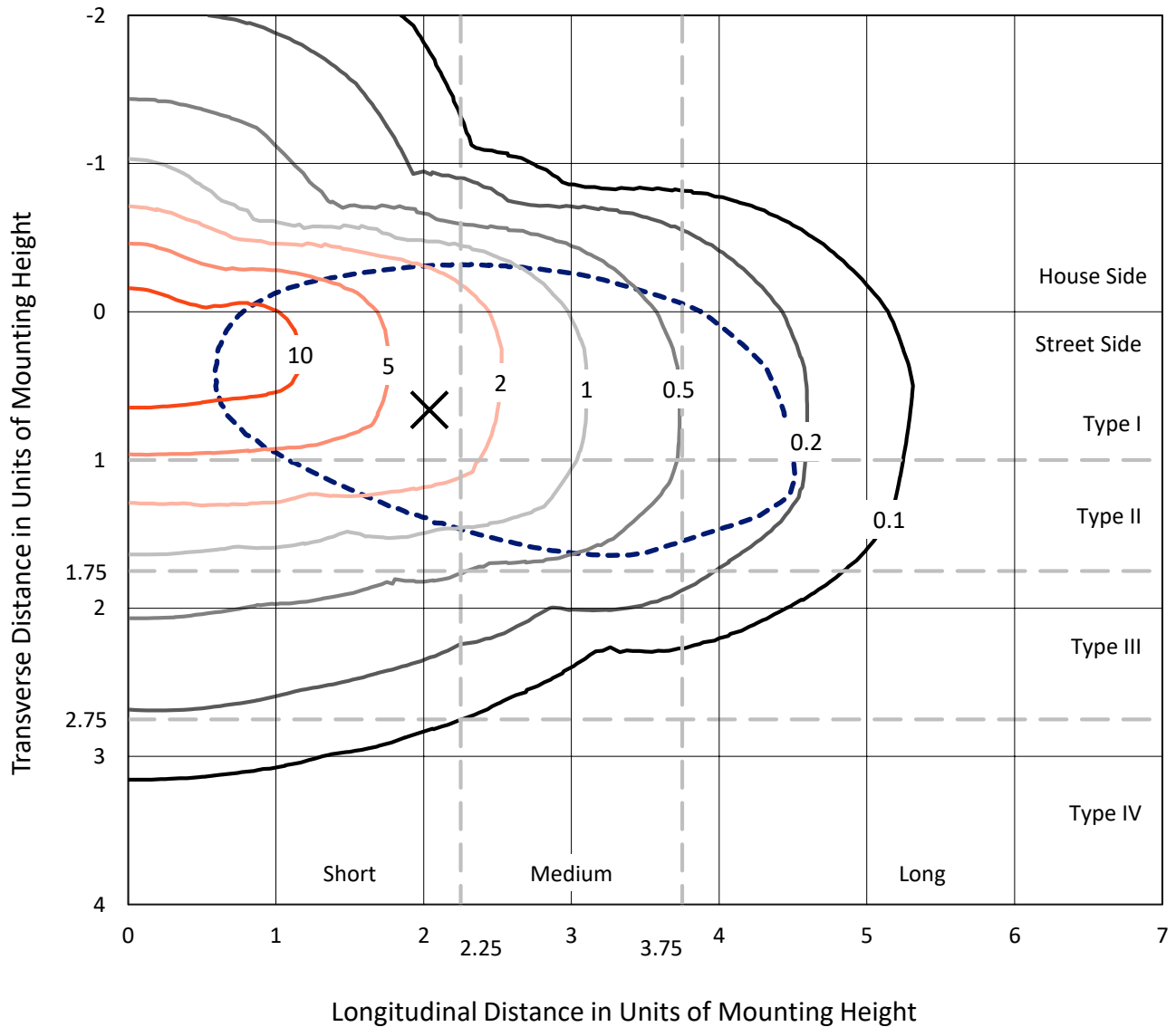
Input Watts (W): 477  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P232796  
 CATALOG NUMBER: CTN-8-6-D-E1-T2

### Iso-Footcandle Lines of Horizontal Illumination

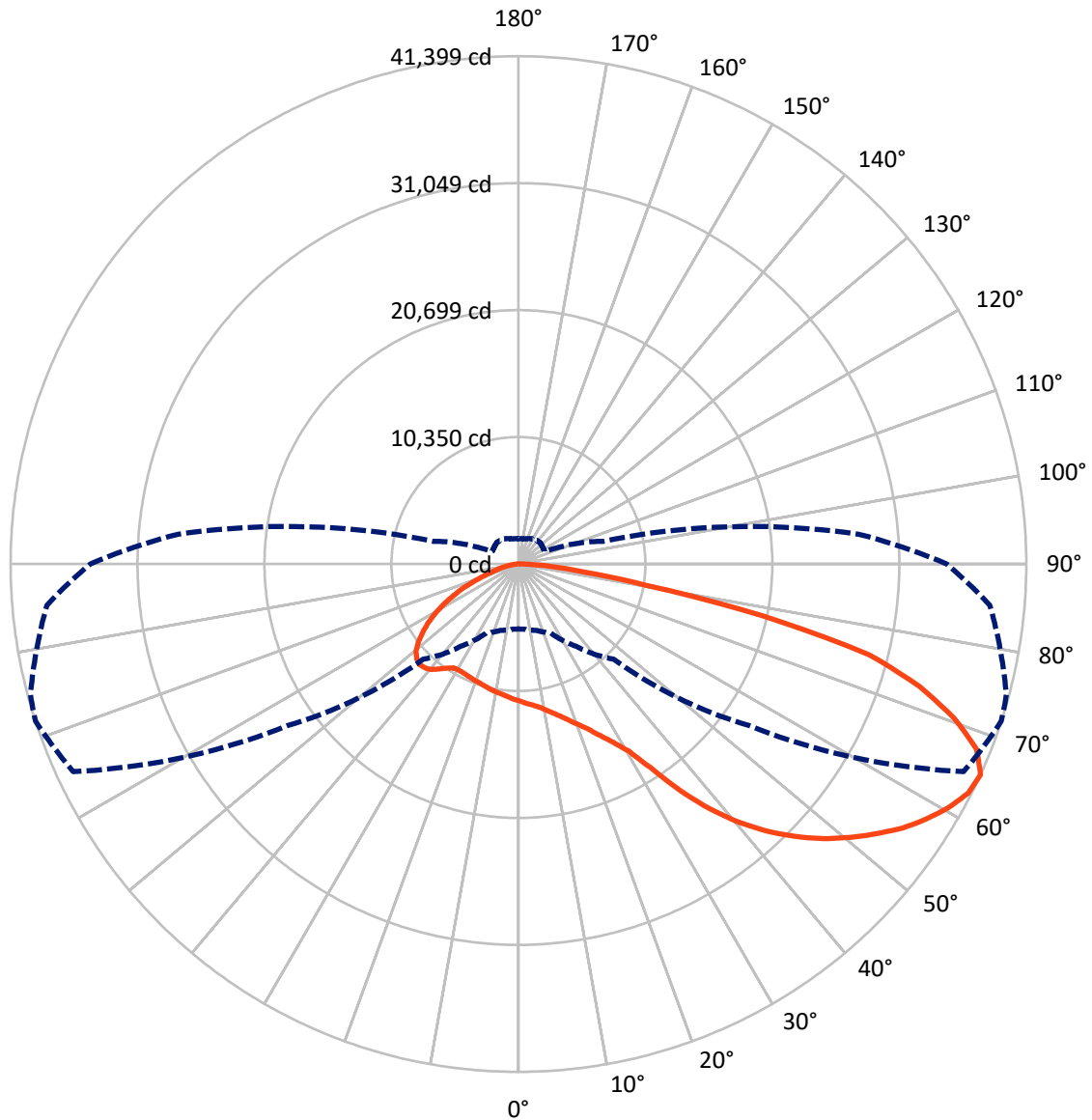
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 14.5 fc  
 Type II - Short - Non-Cutoff

REPORT NUMBER: P232796  
CATALOG NUMBER: CTN-8-6-D-E1-T2

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P232796

CATALOG NUMBER: CTN-8-6-D-E1-T2

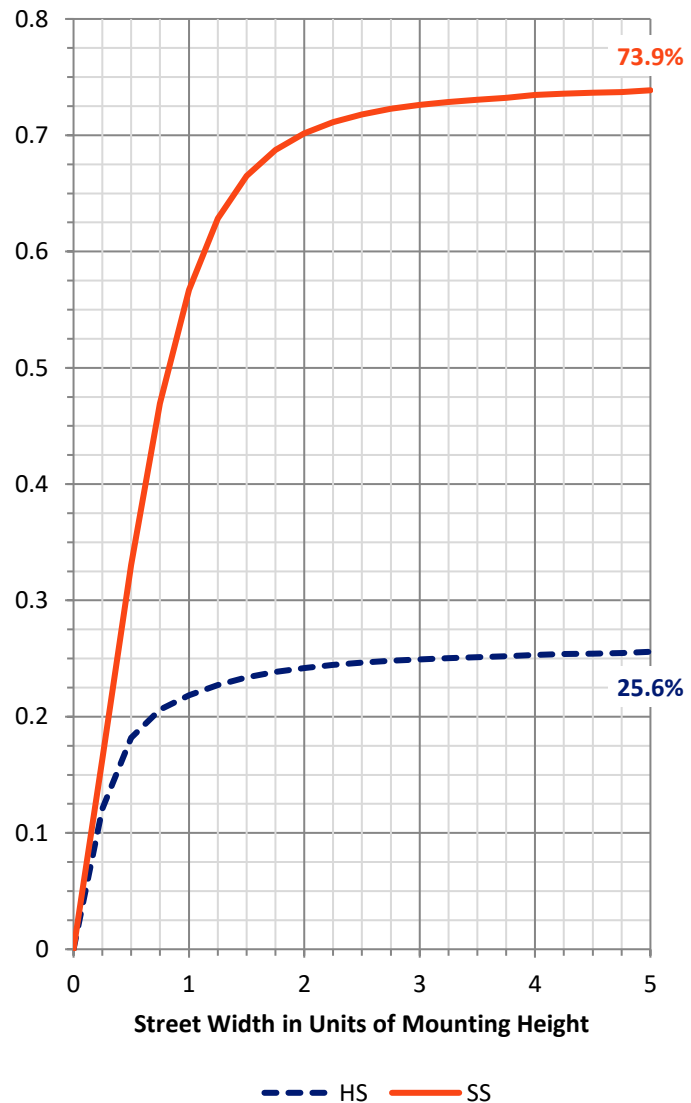
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	16291.9	0.0	16291.9
	% Fixture	26.0	0.0	26.0
<b>Street Side</b>	Lumens	46251.1	0.0	46251.1
	% Fixture	74.0	0.0	74.0
<b>Total</b>	Lumens	62543.0	0.0	62543.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1073.4	1.7
10°-20°	3271.8	5.2
20°-30°	5480.3	8.8
30°-40°	7954.7	12.7
40°-50°	10756.5	17.2
50°-60°	12555.7	20.1
60°-70°	12501.4	20.0
70°-80°	7580.7	12.1
80°-90°	1368.4	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°	62543.0	100.0
0°-180°	62543.0	100.0



REPORT NUMBER: P232796

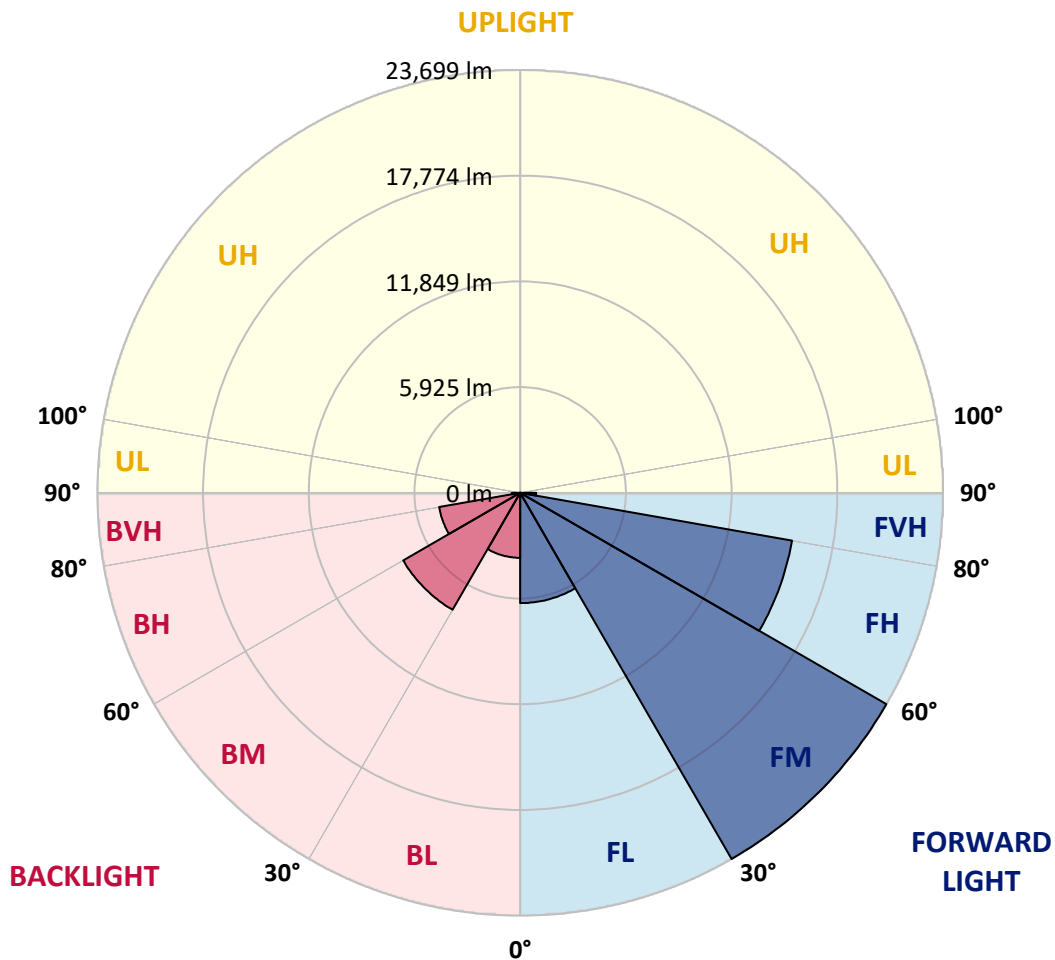
CATALOG NUMBER: CTN-8-6-D-E1-T2

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	6181.5	9.9			
FM (30°-60°)	23699.0	37.9			
FH (60°-80°)	15470.5	24.7			G5
FVH (80°-90°)	900.2	1.4			G5
BL (0°-30°)	3644.1	5.8	B4/5000		
BM (30°-60°)	7568.0	12.1	B4/8500		
BH (60°-80°)	4611.5	7.4	B4/5000		G4/5000
BVH (80°-90°)	468.3	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





REPORT NUMBER: P232796

CATALOG NUMBER: CTN-8-6-D-E1-T2

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	72°	75°	85°
0°	11163.5	11163.5	11163.5	11163.5	11163.5	11163.5	11163.5	11163.5	11163.5	11163.5	11163.5
2.5°	11744.3	11721.9	11729.4	11740.2	11606.8	11584.5	11474.2	11418.0	11356.4	11313.1	11215.6
5°	12348.7	12346.7	12298.6	12299.3	12090.2	12009.6	11805.9	11655.6	11524.9	11457.3	11254.2
7.5°	12897.0	12840.2	12835.4	12821.9	12585.6	12457.0	12187.0	11958.8	11759.2	11654.9	11340.1
10°	13412.1	13372.2	13372.9	13356.6	13114.3	12953.9	12629.0	12342.0	12075.3	11940.6	11482.3
12.5°	13961.8	13916.4	13909.0	13852.1	13629.4	13475.1	13119.7	12767.1	12444.2	12291.9	11697.6
15°	14525.7	14482.3	14460.7	14395.0	14146.6	13982.1	13684.3	13248.3	12880.8	12691.2	11980.5
17.5°	15045.5	15019.1	14982.6	14931.8	14714.5	14534.5	14236.6	13822.4	13383.0	13140.7	12306.1
20°	15366.4	15343.4	15367.7	15367.7	15242.5	15111.8	14812.0	14456.6	13982.1	13682.2	12680.4
22.5°	15612.1	15588.4	15696.7	15751.5	15764.4	15735.3	15440.8	15130.8	14636.7	14327.3	13143.4
25°	15672.3	15675.0	15858.5	16104.9	16287.6	16372.9	16146.2	15918.0	15491.6	15104.4	13776.3
27.5°	15654.7	15672.3	15907.2	16347.2	16785.2	16992.3	16910.4	16777.7	16439.9	16110.3	14621.8
30°	15629.0	15675.0	15985.1	16525.9	17159.5	17569.7	17651.6	17852.6	17686.8	17462.1	15962.7
32.5°	15309.5	15350.8	15794.8	16592.2	17478.3	18222.9	18663.6	19515.8	19785.9	19741.9	18038.1
35°	14561.5	14642.8	15301.4	16418.3	17724.0	18888.3	19934.1	21718.4	22653.2	22578.1	20432.3
37.5°	13799.3	13898.8	14688.8	16094.0	17835.0	19596.3	21324.5	24181.0	25310.7	25201.1	22733.1
40°	13108.2	13222.6	14020.0	15608.0	17805.2	20258.3	22785.2	26495.3	27677.2	27482.2	24784.8
42.5°	12309.5	12475.3	13201.6	14960.2	17573.1	20724.7	24230.4	28706.8	29776.9	29479.1	26651.7
45°	11565.6	11698.9	12396.8	14072.8	17219.0	21067.9	25552.4	30755.7	31686.5	31339.2	28371.7
47.5°	10759.4	10928.6	11629.9	13159.7	16515.7	21145.1	26762.7	32575.9	33451.8	33090.4	29976.0
50°	8632.5	8905.3	10489.3	12266.2	15423.9	20864.8	27837.6	34283.1	35038.5	34752.9	31635.7
52.5°	7526.5	7580.0	8381.4	11240.6	14094.5	20131.8	28613.3	35957.7	36530.4	36239.3	33104.6
55°	7031.7	7046.6	7405.3	9513.9	12805.0	18735.3	28989.0	37561.3	37991.8	37588.4	34495.0
57.5°	6523.3	6606.6	6967.4	8028.7	11592.6	16720.2	28728.4	38963.9	39220.4	38766.2	35771.6
60°	6103.0	6170.6	6530.8	7251.7	10262.5	14377.4	27514.1	40081.4	40307.5	39843.8	36969.7
62.5°	5721.9	5771.3	6050.2	6725.7	9061.0	12300.0	25247.8	40380.6	41139.4	40770.5	38077.1
65°	5289.3	5334.7	5593.2	6195.7	8181.7	10970.6	22968.0	40044.2	41398.7	41175.3	38575.3
67.5°	4775.5	4836.5	5070.0	5589.2	7276.0	9825.9	20276.6	39190.6	40292.6	39949.4	37501.1
70°	4100.7	4200.2	4464.8	4915.0	6218.0	8350.9	16175.3	36384.9	37694.0	37302.1	34632.4
72.5°	3232.9	3254.5	3446.1	3820.4	4924.5	6643.1	10916.4	30787.6	34206.6	34095.6	30635.3
75°	2410.4	2484.2	2791.5	3079.9	3597.7	4766.1	6635.7	22439.3	29532.6	29532.6	25818.4
77.5°	1967.1	2005.7	2210.1	2452.4	2805.8	3344.6	4218.5	12679.1	20355.8	22420.4	19406.1
80°	1537.2	1523.7	1537.9	1646.9	1980.6	2211.4	2804.4	6516.5	10516.4	11954.1	12712.2
82.5°	842.1	842.7	934.8	881.3	1092.5	1242.8	1701.1	3665.4	5495.1	6101.6	6810.3
85°	426.4	416.3	463.7	432.5	505.6	567.2	772.3	1820.9	2804.4	3040.0	3209.2
87.5°	152.3	144.9	166.5	199.7	186.8	198.3	266.7	654.6	1083.7	1159.5	1136.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P232796  
 CATALOG NUMBER: CTN-8-6-D-E1-T2

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	11163.5	11163.5	11163.5	11163.5	11163.5	11163.5	11163.5	11163.5	11163.5	11163.5	11163.5
2.5°	11187.8	11122.9	11044.3	10978.7	10839.9	10767.5	10710.0	10726.2	10663.9	10573.9	10572.5
5°	11180.4	11056.5	10888.0	10748.5	10525.2	10410.1	10301.8	10273.3	10180.6	10091.3	10086.5
7.5°	11206.1	11041.6	10768.2	10545.5	10254.4	10075.0	9907.1	9841.5	9732.5	9638.4	9633.7
10°	11277.2	11059.9	10685.6	10376.9	10012.7	9767.0	9549.7	9417.7	9291.8	9195.0	9193.7
12.5°	11404.5	11114.1	10613.2	10210.4	9777.9	9452.3	9174.7	9004.2	8828.2	8756.4	8752.3
15°	11583.8	11193.3	10519.1	9989.1	9488.8	9117.9	8774.7	8549.3	8354.3	8285.3	8300.2
17.5°	11814.0	11322.5	10443.3	9744.7	9170.0	8722.6	8365.8	8139.1	7852.1	7788.4	7806.0
20°	12099.6	11522.2	10427.0	9521.3	8820.7	8288.0	7850.0	7689.6	7326.1	7240.8	7229.3
22.5°	12469.2	11757.8	10420.2	9282.4	8411.2	7788.4	7269.3	7065.5	6760.2	6616.7	6584.2
25°	12926.8	12030.6	10408.7	9043.4	7955.0	7219.2	6587.6	6301.3	6110.4	5893.1	5888.4
27.5°	13529.3	12396.8	10435.8	8806.5	7457.4	6555.1	5855.9	5508.6	5399.0	5258.2	5185.1
30°	14567.6	13049.3	10509.6	8520.2	6913.2	5790.9	5054.4	4791.1	4656.4	4513.6	4489.2
32.5°	16310.6	14461.3	10737.7	8210.2	6307.4	4964.4	4398.5	4123.0	3899.6	3825.9	3806.2
35°	18493.7	16138.0	11323.9	7878.5	5652.1	4309.8	3858.3	3494.8	3281.6	3264.0	3262.7
37.5°	20454.6	17926.4	12088.1	7469.6	4929.9	3842.8	3322.2	3008.8	2848.4	2864.7	2907.3
40°	22351.3	19513.1	12898.4	7062.1	4228.6	3348.6	2801.7	2651.4	2579.7	2637.9	2666.3
42.5°	24132.9	20962.3	13481.9	6509.1	3621.4	2817.9	2442.9	2531.6	2557.3	2605.4	2625.0
45°	25798.1	22447.4	13915.8	5843.0	3075.2	2443.6	2391.5	2544.5	2617.6	2654.8	2652.8
47.5°	27409.1	23866.9	14045.7	4962.4	2652.8	2402.3	2438.9	2526.2	2640.6	2709.0	2704.2
50°	29016.8	25158.4	13936.7	4067.5	2567.5	2482.2	2484.2	2470.0	2603.4	2658.9	2637.9
52.5°	30457.9	26364.7	13320.8	3404.1	2624.4	2566.1	2537.7	2466.0	2503.9	2542.4	2523.5
55°	31753.5	27371.2	12354.8	3077.2	2673.1	2620.3	2658.2	2518.8	2443.6	2411.1	2417.2
57.5°	32959.1	28147.6	11244.7	2874.1	2662.9	2607.4	2706.3	2504.5	2394.9	2258.1	2231.7
60°	34102.4	28657.3	9994.5	2698.8	2614.9	2588.5	2602.0	2505.2	2349.5	2172.2	2128.9
62.5°	34910.6	28684.4	8559.4	2542.4	2522.1	2559.4	2520.1	2485.6	2361.7	2227.0	2199.9
65°	34894.3	27841.7	7140.0	2363.1	2406.4	2481.5	2413.8	2299.4	2111.9	2072.0	2058.5
67.5°	33380.1	25708.8	5763.1	2097.0	2218.9	2376.6	2261.5	2075.4	1913.6	1866.2	1875.0
70°	30087.6	22693.2	4256.4	1699.7	1937.3	2197.9	2126.2	1919.0	1741.7	1704.4	1744.4
72.5°	26185.3	19494.1	3025.8	1347.7	1609.0	1944.7	1916.3	1737.6	1581.9	1597.5	1633.4
75°	21861.2	15518.0	2219.6	1159.5	1263.1	1657.7	1729.5	1615.1	1516.3	1565.7	1564.3
77.5°	16293.0	11460.0	1690.2	972.7	1045.8	1290.2	1524.4	1481.1	1750.5	2127.5	2139.7
80°	10706.6	7440.5	1140.6	798.7	855.6	968.0	1244.1	1426.9	1792.4	1553.5	1534.5
82.5°	5932.4	3949.0	707.4	621.4	642.4	701.9	901.6	1489.9	1316.6	1221.8	1226.5
85°	2630.4	1529.1	417.6	417.0	418.3	425.8	578.8	1129.8	926.0	896.9	911.8
87.5°	911.1	402.8	131.3	104.2	117.8	147.6	301.2	689.1	483.3	400.7	402.1
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)