

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: P591407

Luminaire Tested: **CTN-CA10-630-740-U-T1-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591407  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-2)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-630-740-U-T1-SSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE, 120D 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: 53682 lumens  
Efficiency: N/A  
Efficacy: 85.0 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type I - Short  
BUG Rating: B5 - U0 - G5

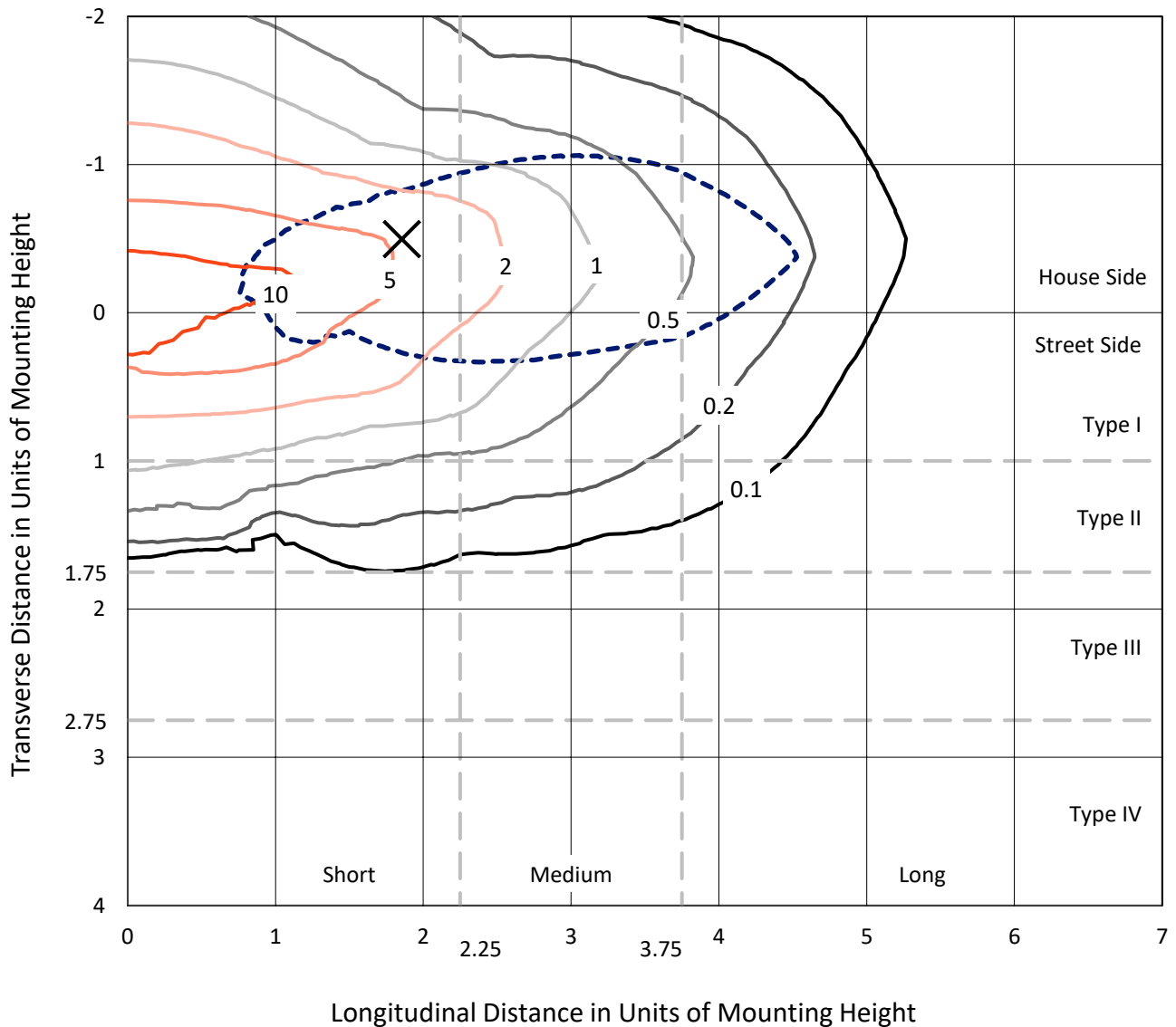
Input Watts (W): 631.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

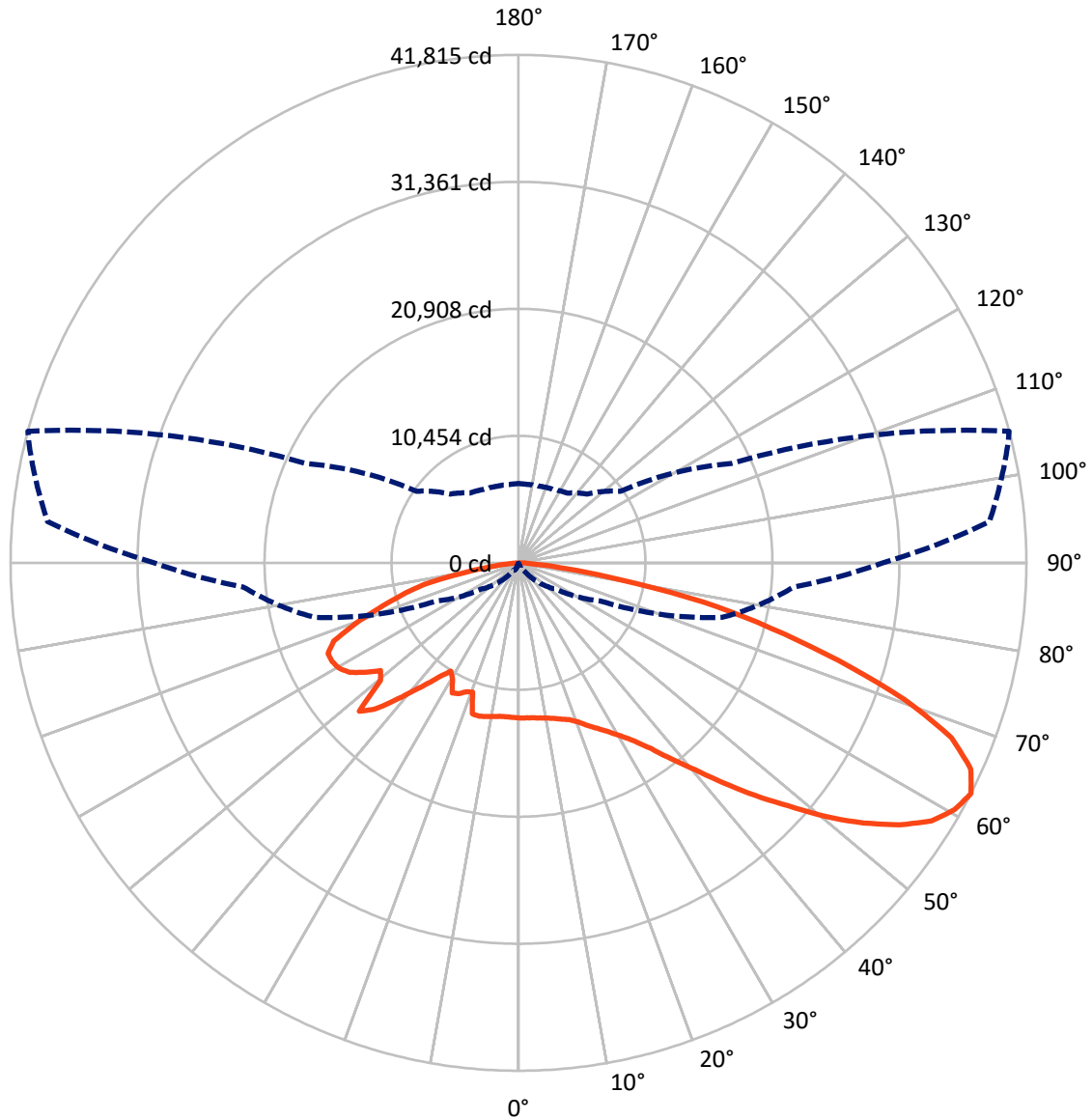
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 14.2 fc  
 Type I - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 105-Deg Lateral    - - - Horizontal Cone Through 62.5-Deg Vertical

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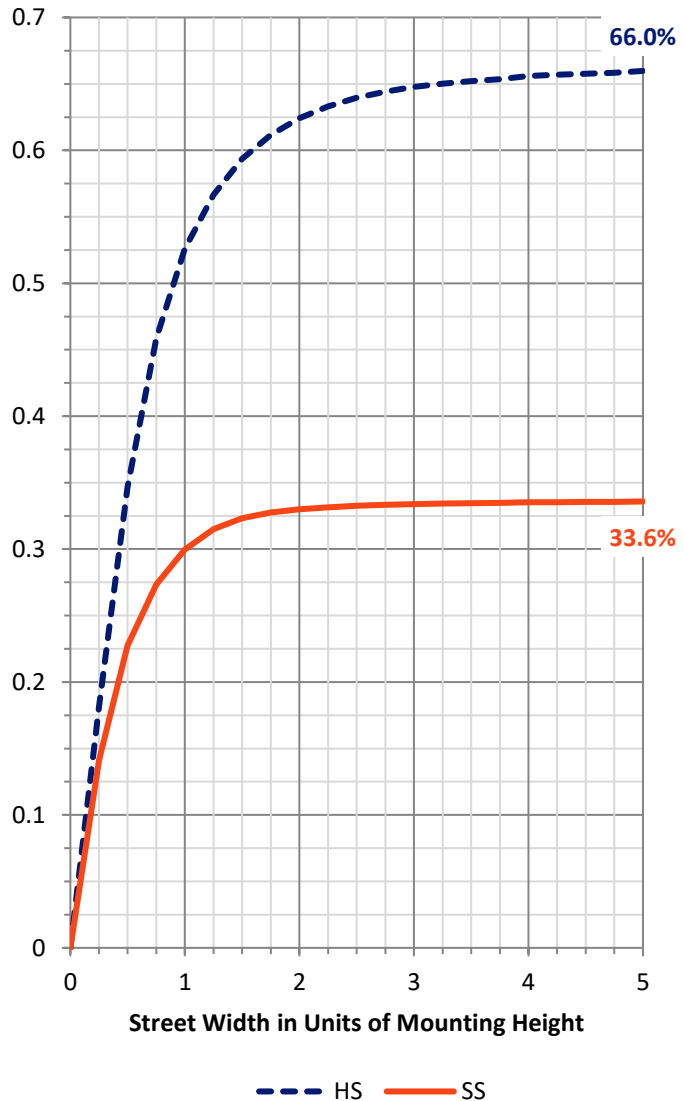
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	35719.4	0.0	35719.4
	% Fixture	66.5	0.0	66.5
<b>Street Side</b>	Lumens	17962.6	0.0	17962.6
	% Fixture	33.5	0.0	33.5
<b>Total</b>	Lumens	53682.0	0.0	53682.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1218.5	2.3
10°-20°	3441.6	6.4
20°-30°	4850.3	9.0
30°-40°	6589.9	12.3
40°-50°	8964.8	16.7
50°-60°	10620.5	19.8
60°-70°	10414.6	19.4
70°-80°	6568.6	12.2
80°-90°	1013.3	1.9
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°	53682.0	100.0
0°-180°	53682.0	100.0

**Coefficient of Utilization**

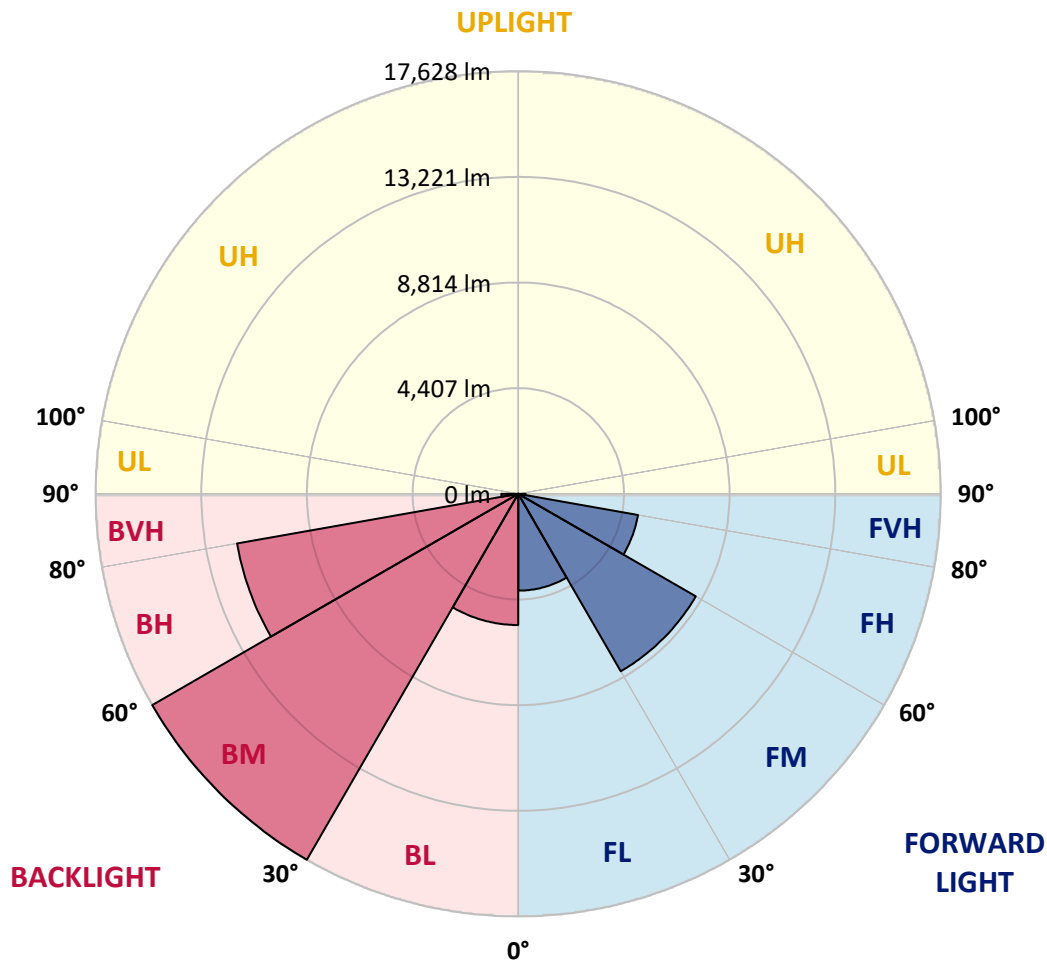


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4037.8	7.5			
FM (30°-60°)	8547.5	15.9			
FH (60°-80°)	5071.7	9.4			G3/7500
FVH (80°-90°)	305.7	0.6			G3/500
BL (0°-30°)	5472.6	10.2	B5		
BM (30°-60°)	17627.7	32.8	B5		
BH (60°-80°)	11911.5	22.2	B5		G5
BVH (80°-90°)	707.6	1.3			G4/750
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G5**  
 Type I Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	12770.1	12770.1	12770.1	12770.1	12770.1	12770.1	12770.1	12770.1	12770.1	12770.1	12770.1
2.5°	12778.6	12678.8	12750.1	12858.5	12695.9	12790.0	12633.2	12761.5	12730.2	12738.7	12798.6
5°	12678.8	12573.3	12658.9	12801.5	12641.8	12747.3	12618.9	12727.3	12715.9	12755.8	12804.3
7.5°	12584.7	12484.9	12573.3	12667.4	12584.7	12687.4	12590.4	12724.5	12733.0	12821.4	12861.3
10°	12484.9	12385.1	12470.7	12579.0	12510.6	12638.9	12599.0	12761.5	12824.3	12941.2	12975.4
12.5°	12265.3	12176.9	12248.2	12373.7	12385.1	12573.3	12599.0	12849.9	12926.9	13080.9	13132.3
15°	10945.0	11041.9	11421.2	11786.2	11943.1	12291.0	12482.1	12929.8	13038.2	13257.7	13337.6
17.5°	8854.6	8672.1	8081.8	8235.8	9102.8	10272.0	10714.0	11826.2	13001.1	13480.2	13582.8
20°	5232.9	5606.5	6761.5	7115.1	7434.5	8692.1	10177.9	10839.5	11290.0	12992.5	13919.3
22.5°	4314.7	4340.3	5167.4	6798.5	7157.9	7651.2	8800.5	10979.2	11444.0	11783.4	12815.7
25°	4001.0	4026.7	4169.2	5429.7	6961.1	7531.4	8036.2	10035.3	11840.4	12259.6	13066.7
27.5°	3750.0	3784.3	3915.4	4269.1	6490.6	7497.2	8136.0	8900.3	12017.2	12824.3	13580.0
30°	3561.8	3576.1	3710.1	4052.3	4907.8	7505.8	8281.5	9097.0	11007.7	13540.1	14298.6
32.5°	3390.7	3399.3	3539.0	3872.7	4388.8	6952.5	8501.0	9507.7	10511.5	14127.5	15285.3
35°	3259.5	3253.8	3379.3	3707.3	4220.6	5324.2	8746.3	10001.0	11304.3	13571.4	16756.8
37.5°	3134.1	3125.5	3233.9	3536.2	4072.3	4984.8	8461.1	10594.2	12442.1	13993.5	16637.0
40°	3037.1	3020.0	3111.2	3382.2	3918.3	4899.3	6664.5	11221.6	13691.2	16169.4	17643.7
42.5°	2951.5	2940.1	3017.1	3233.9	3761.4	4796.6	6211.1	11561.0	15245.4	18684.6	20247.3
45°	2823.2	2840.3	2925.9	3134.1	3593.2	4651.2	6256.7	9285.3	16890.9	20866.2	22842.4
47.5°	2769.0	2766.2	2820.4	3017.1	3447.8	4448.7	6225.3	8515.3	17926.0	23150.4	25383.3
50°	2683.5	2669.2	2327.0	2880.3	3299.5	4197.8	6094.2	8737.7	14917.4	25391.9	27716.1
52.5°	2523.8	2244.3	2036.1	2783.3	3148.3	3924.0	5800.4	8834.7	14404.1	24992.6	29720.8
55°	1340.3	1494.3	1927.8	2646.4	2971.5	3678.7	5369.8	8766.2	15513.5	19985.0	27590.6
57.5°	1189.2	1183.5	1226.2	2090.3	1548.5	3410.7	4850.8	8452.6	16562.9	20897.5	28106.7
60°	94.1	97.0	114.1	695.8	821.3	2401.2	4291.9	8064.7	17119.0	21975.5	29358.7
62.5°	45.6	51.3	68.4	621.7	750.0	2184.4	3787.1	7403.1	17352.8	22754.0	29977.5
65°	11.4	14.3	31.4	547.5	653.0	1944.9	3279.5	6627.4	17372.8	22785.4	30476.5
67.5°	8.6	14.3	31.4	496.2	596.0	1733.9	2834.6	6085.6	16523.0	22668.5	30225.6
70°	8.6	14.3	31.4	444.9	539.0	1502.9	2441.1	5555.2	14352.8	22232.2	29372.9
72.5°	8.6	17.1	31.4	390.7	473.4	1274.7	2073.2	4970.6	12045.7	20409.9	27473.7
75°	8.6	17.1	34.2	316.5	404.9	1015.2	1702.5	4257.6	10018.2	17697.9	24325.3
77.5°	8.6	17.1	34.2	245.2	327.9	758.6	1289.0	3373.6	7993.4	13052.4	17090.5
80°	8.6	17.1	34.2	174.0	268.1	533.3	938.2	2301.4	4768.1	6861.3	8703.5
82.5°	8.6	17.1	34.2	125.5	193.9	385.0	578.9	1135.0	2275.7	3293.8	4132.2
85°	5.7	14.3	31.4	82.7	102.7	233.8	345.1	504.8	681.6	901.1	1217.7
87.5°	5.7	8.6	20.0	31.4	42.8	82.7	128.3	114.1	128.3	268.1	385.0
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):**

	95°	104°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	12770.1	12770.1	12770.1	12770.1	12770.1	12770.1	12770.1	12770.1	12770.1	12770.1	12770.1
2.5°	12790.0	12778.6	12781.5	12844.2	12790.0	12801.5	12707.3	12895.6	12878.5	12852.8	12926.9
5°	12804.3	12798.6	12821.4	12875.6	12792.9	12807.2	12718.8	12938.3	12884.2	12875.6	12964.0
7.5°	12875.6	12867.0	12889.9	12915.5	12824.3	12824.3	12747.3	12921.2	12889.9	12832.8	12932.6
10°	13003.9	12972.6	12995.4	13009.6	12869.9	12864.2	12721.6	12926.9	12847.1	12818.6	12946.9
12.5°	13183.6	13112.3	13146.5	13123.7	12938.3	12904.1	12713.1	12847.1	12747.3	12730.2	12847.1
15°	13426.0	13331.9	13357.5	13314.8	13080.9	12981.1	12673.1	12730.2	12570.5	12556.2	12641.8
17.5°	13651.3	13594.2	13580.0	13580.0	13306.2	13058.1	12636.1	12556.2	12345.2	12330.9	12373.7
20°	14059.1	13982.1	13973.5	13905.1	13500.1	13120.9	12576.2	12330.9	12017.2	11945.9	12025.8
22.5°	14190.3	14563.8	14538.2	14235.9	13662.7	13172.2	12453.5	12048.6	11618.0	11481.1	11521.0
25°	14580.9	15142.7	15097.1	14657.9	13828.1	13200.7	12305.3	11737.8	11144.6	10905.1	10913.6
27.5°	15199.8	15773.0	15741.6	15108.5	14033.4	13209.3	12139.9	11409.8	10674.1	10360.4	10386.0
30°	15986.8	16565.8	16520.1	15610.4	14344.2	13226.4	12014.4	11016.3	10243.4	9904.1	9898.4
32.5°	17081.9	17606.6	17472.6	16280.6	14717.8	13297.7	11849.0	10642.7	9849.9	9493.4	9464.9
35°	18735.9	18929.8	18764.4	17079.1	15114.2	13343.3	11583.8	10277.7	9484.9	9134.1	9108.5
37.5°	20971.7	20732.1	20509.7	17977.4	15524.9	13331.9	11247.3	9924.1	9171.2	8837.5	8837.5
40°	21191.3	22802.5	22391.9	18924.1	15895.6	13269.1	10927.9	9579.0	8917.4	8646.5	8689.2
42.5°	22220.8	25337.7	24761.6	19839.5	16163.7	13086.6	10585.7	9265.3	8680.7	8461.1	8478.2
45°	24750.2	27644.8	27308.3	20723.6	16309.1	12764.4	10189.3	8957.3	8415.5	8241.5	8275.7
47.5°	27470.8	30388.1	29894.8	21539.2	16229.2	12288.1	9767.2	8675.0	8138.9	8027.6	8090.4
50°	30043.1	33274.1	32863.4	22112.4	15875.6	11620.8	9316.6	8375.6	7922.1	7833.7	7865.1
52.5°	32566.9	35894.8	35586.9	22423.2	15168.4	10922.2	8900.3	8090.4	7719.7	7608.4	7651.2
55°	34648.6	38378.7	38079.3	22391.9	14104.7	10192.1	8486.8	7782.4	7514.3	7414.5	7448.7
57.5°	36274.1	40312.2	40098.3	21915.6	12867.0	9522.0	8019.1	7480.1	7243.4	7155.0	7183.5
60°	37728.5	41538.4	41261.8	20863.3	11555.2	8783.4	7537.1	7120.8	6924.0	6852.7	6898.4
62.5°	38920.5	41564.1	41815.0	19340.5	10269.1	8002.0	7001.0	6678.8	6536.2	6493.4	6521.9
65°	39225.7	40799.8	40922.5	17458.3	8965.9	7226.3	6356.5	6145.5	6085.6	6059.9	6117.0
67.5°	38803.6	39188.6	38458.6	15867.1	7776.7	6348.0	5660.7	5529.5	5566.6	5572.3	5646.4
70°	37714.2	34876.8	33750.3	14535.3	6667.4	5375.5	4896.4	4853.7	4953.5	5036.2	5090.4
72.5°	34936.7	28634.3	27562.1	12653.2	5255.8	4115.1	3855.6	3992.4	3958.2	3995.3	4092.2
75°	30077.3	22101.0	21436.5	10297.6	4003.8	2991.5	2643.6	2657.8	2700.6	2888.8	2991.5
77.5°	21425.1	15895.6	15599.0	7899.3	2652.1	1759.5	1819.4	2021.9	2081.8	2087.5	2158.8
80°	11352.8	8860.4	8458.3	4654.0	1753.8	1257.6	1368.8	1457.2	1537.1	1619.8	1639.7
82.5°	5116.0	4006.7	3895.5	2312.8	1112.2	969.6	995.3	1146.4	1212.0	1226.2	1240.5
85°	1987.7	1383.1	1317.5	961.0	730.0	655.9	727.2	881.2	943.9	915.4	906.9
87.5°	530.4	325.1	296.6	322.2	342.2	362.2	413.5	470.5	539.0	519.0	501.9
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)