

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: P591215

Luminaire Tested: **CTN-CA10-630-727-U-T1-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591215  
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-CA10-630-727-U-T1-SSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (10) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 45457 lumens  
Efficiency: N/A  
Efficacy: 72.0 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type I - Short  
BUG Rating: B5 - U0 - G5

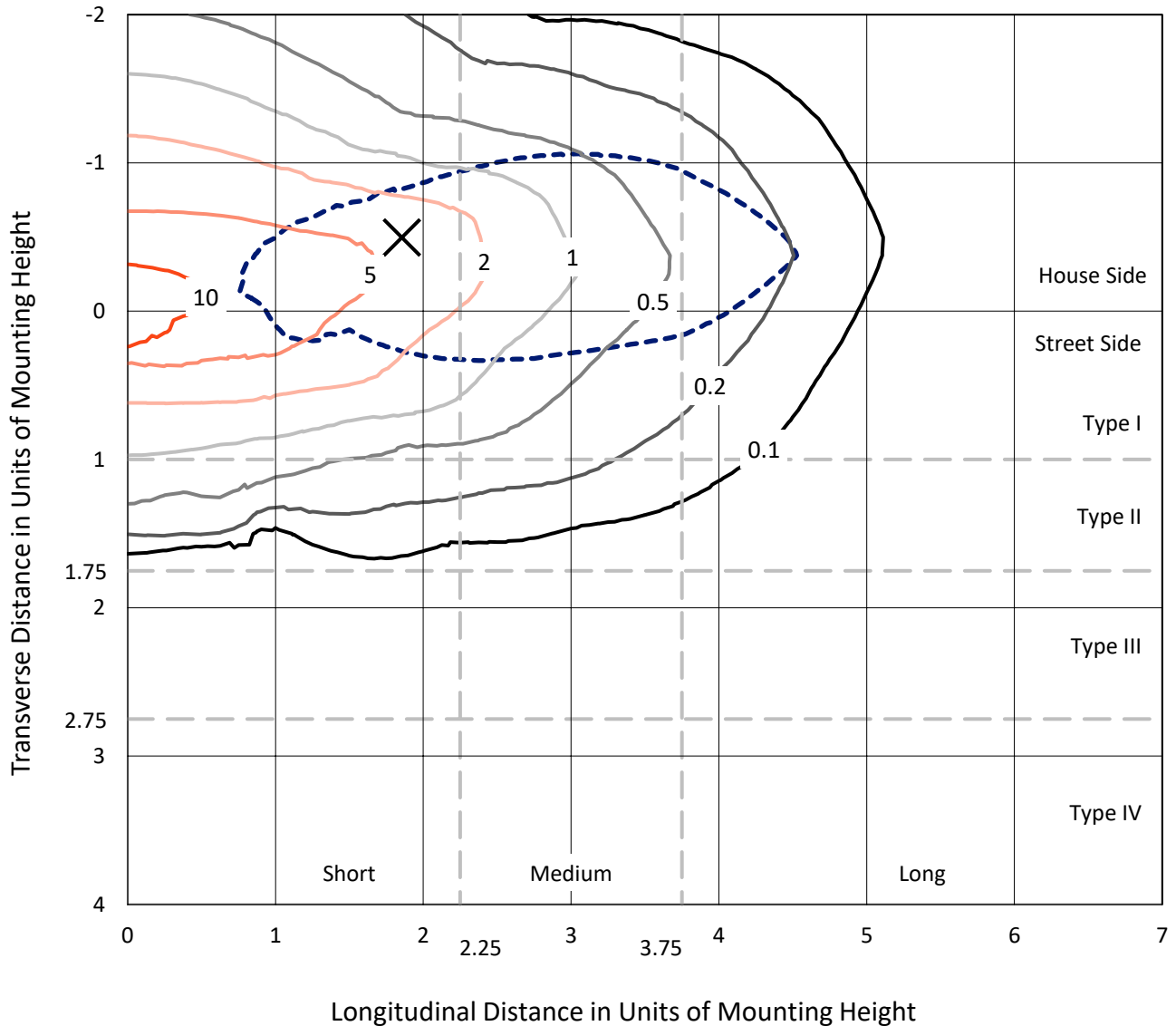
Input Watts (W): 631.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

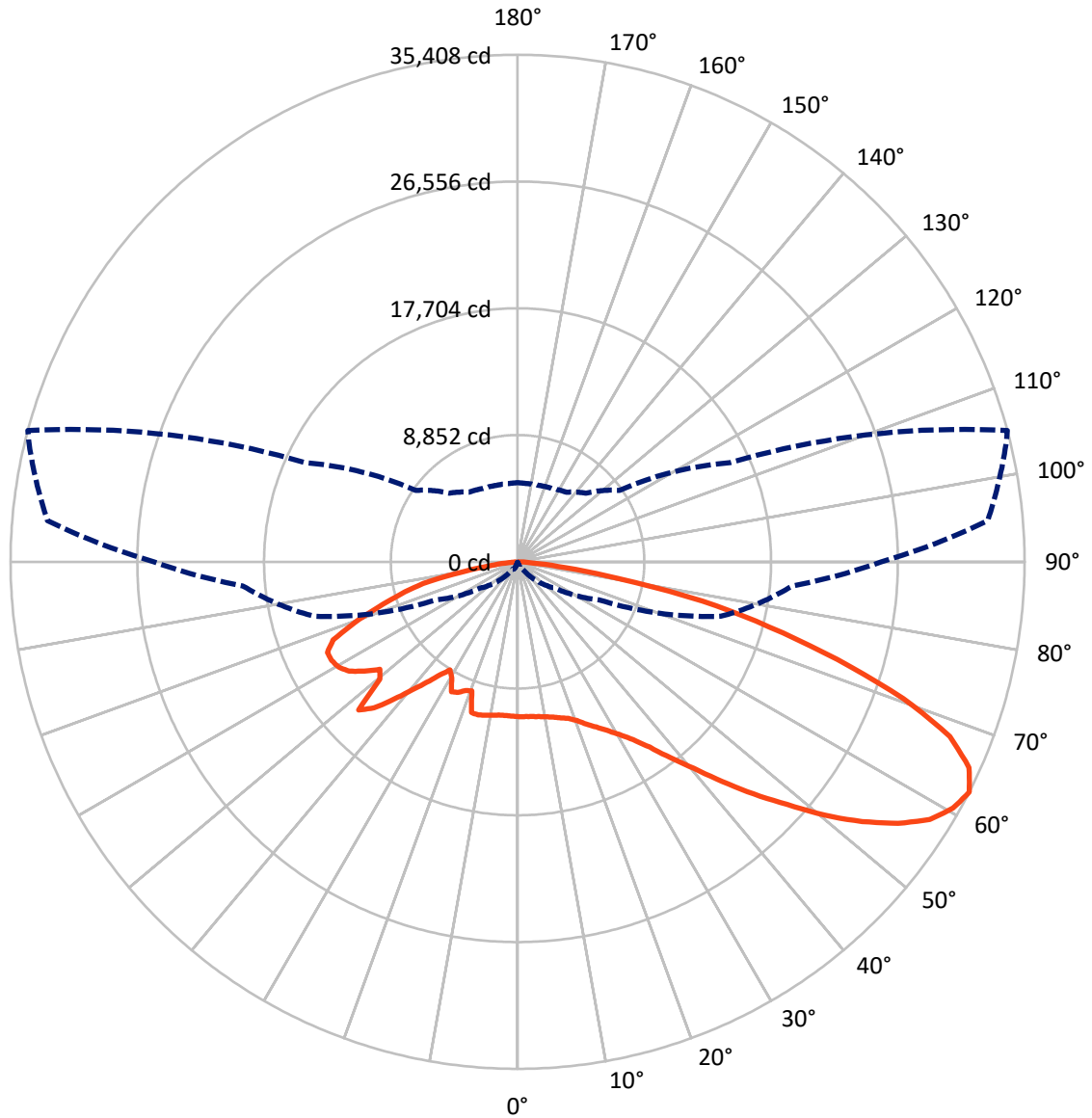
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 12 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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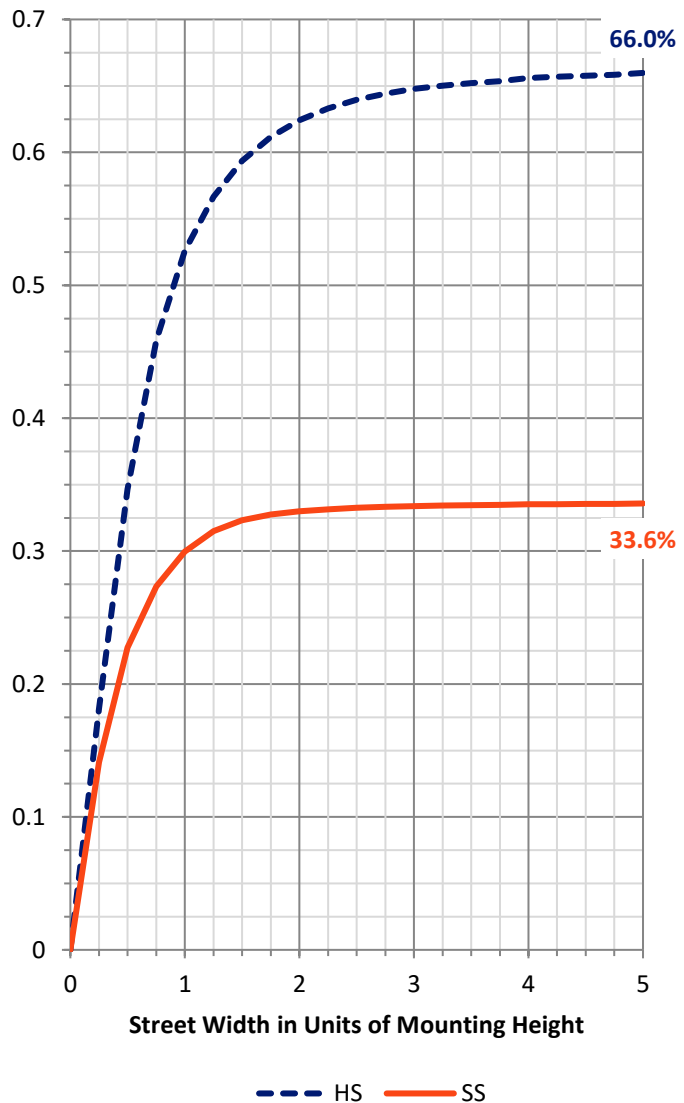
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	30246.6	0.0	30246.6
	% Fixture	66.5	0.0	66.5
<b>Street Side</b>	Lumens	15210.4	0.0	15210.4
	% Fixture	33.5	0.0	33.5
<b>Total</b>	Lumens	45457.0	0.0	45457.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1031.8	2.3
10°-20°	2914.3	6.4
20°-30°	4107.2	9.0
30°-40°	5580.2	12.3
40°-50°	7591.2	16.7
50°-60°	8993.3	19.8
60°-70°	8818.9	19.4
70°-80°	5562.2	12.2
80°-90°	858.0	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°	45457.0	100.0
0°-180°	45457.0	100.0

**Coefficient of Utilization**

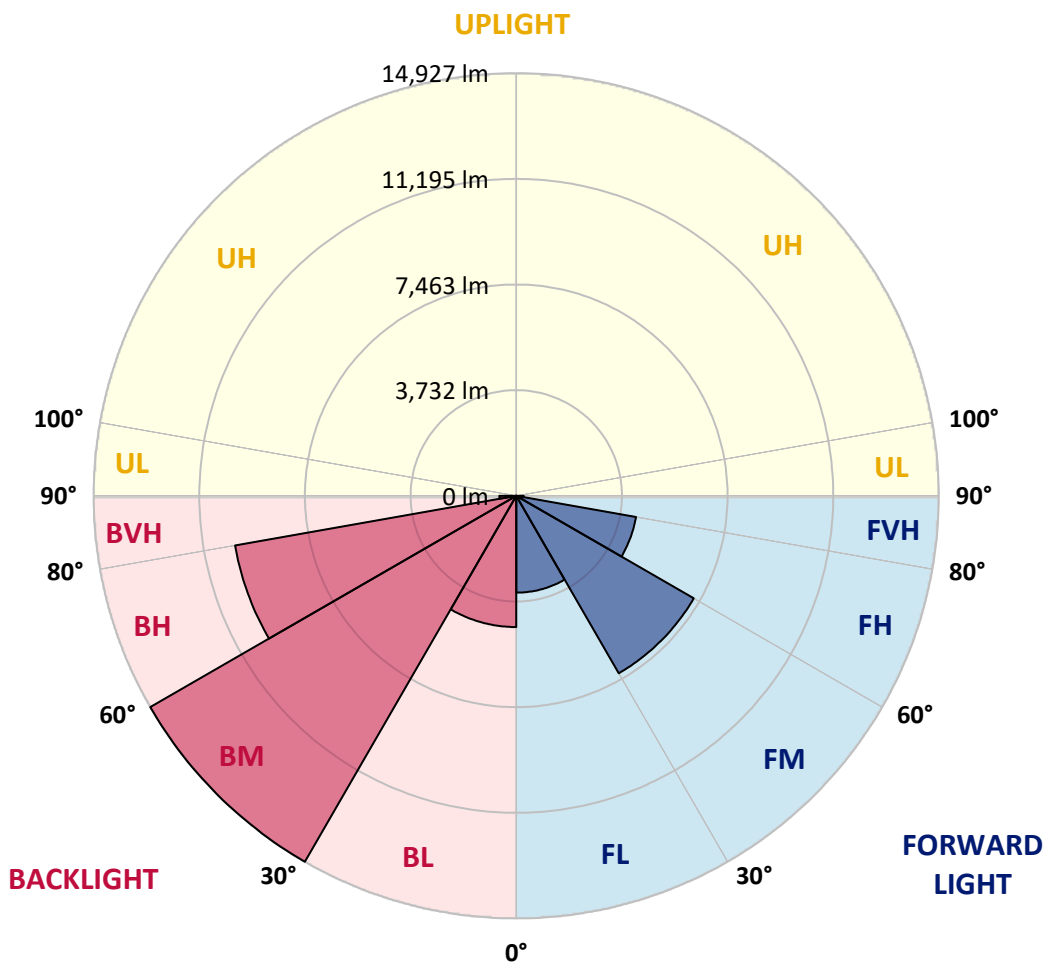


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3419.1	7.5			
FM (30°-60°)	7237.9	15.9			
FH (60°-80°)	4294.6	9.4			G2/5000
FVH (80°-90°)	258.8	0.6			G3/500
BL (0°-30°)	4634.1	10.2	B4/5000		
BM (30°-60°)	14926.8	32.8	B5		
BH (60°-80°)	10086.4	22.2	B5		G5
BVH (80°-90°)	599.2	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°	10813.5	10813.5	10813.5	10813.5	10813.5	10813.5	10813.5	10813.5	10813.5	10813.5	10813.5
2.5°	10820.7	10736.2	10796.6	10888.4	10750.7	10830.4	10697.6	10806.2	10779.7	10786.9	10837.6
5°	10736.2	10646.9	10719.3	10840.1	10704.8	10794.2	10685.5	10777.3	10767.6	10801.4	10842.5
7.5°	10656.5	10572.0	10646.9	10726.6	10656.5	10743.5	10661.4	10774.9	10782.1	10857.0	10890.8
10°	10572.0	10487.5	10559.9	10651.7	10593.7	10702.4	10668.6	10806.2	10859.4	10958.4	10987.4
12.5°	10386.1	10311.2	10371.6	10477.8	10487.5	10646.9	10668.6	10881.1	10946.3	11076.7	11120.2
15°	9268.0	9350.1	9671.3	9980.4	10113.2	10407.8	10569.6	10948.7	11040.5	11226.4	11294.0
17.5°	7498.0	7343.4	6843.6	6974.0	7708.1	8698.1	9072.4	10014.2	11009.1	11414.8	11501.7
20°	4431.2	4747.5	5725.5	6024.9	6295.4	7360.3	8618.4	9178.7	9560.2	11001.8	11786.7
22.5°	3653.6	3675.3	4375.6	5756.9	6061.2	6478.9	7452.1	9297.0	9690.6	9978.0	10852.1
25°	3388.0	3409.7	3530.4	4597.8	5894.5	6377.5	6804.9	8497.7	10026.3	10381.2	11064.6
27.5°	3175.5	3204.4	3315.5	3615.0	5496.1	6348.5	6889.4	7536.6	10176.0	10859.4	11499.3
30°	3016.1	3028.2	3141.7	3431.4	4155.9	6355.8	7012.6	7703.2	9321.1	11465.5	12107.8
32.5°	2871.2	2878.4	2996.8	3279.3	3716.4	5887.3	7198.5	8051.0	8901.0	11962.9	12943.3
35°	2760.1	2755.3	2861.5	3139.2	3573.9	4508.4	7406.2	8468.7	9572.3	11492.1	14189.4
37.5°	2653.9	2646.6	2738.4	2994.4	3448.3	4221.1	7164.7	8971.0	10535.8	11849.4	14088.0
40°	2571.8	2557.3	2634.6	2864.0	3317.9	4148.6	5643.4	9502.3	11593.5	13691.9	14940.4
42.5°	2499.3	2489.7	2554.9	2738.4	3185.1	4061.7	5259.4	9789.6	12909.5	15821.8	17145.1
45°	2390.7	2405.1	2477.6	2653.9	3042.7	3938.5	5298.1	7862.6	14302.9	17669.1	19342.6
47.5°	2344.8	2342.4	2388.2	2554.9	2919.5	3767.1	5271.5	7210.6	15179.5	19603.4	21494.2
50°	2272.3	2260.3	1970.5	2439.0	2793.9	3554.6	5160.4	7399.0	12631.8	21501.4	23469.5
52.5°	2137.1	1900.5	1724.2	2356.8	2665.9	3322.8	4911.7	7481.1	12197.2	21163.3	25167.1
55°	1135.0	1265.4	1632.4	2240.9	2516.2	3115.1	4547.1	7423.1	13136.5	16922.9	23363.2
57.5°	1007.0	1002.1	1038.4	1770.1	1311.2	2888.1	4107.6	7157.5	14025.2	17695.7	23800.3
60°	79.7	82.1	96.6	589.2	695.5	2033.3	3634.3	6829.1	14496.1	18608.5	24860.4
62.5°	38.6	43.5	58.0	526.4	635.1	1849.7	3206.9	6268.8	14694.1	19267.7	25384.4
65°	9.7	12.1	26.6	463.6	553.0	1646.9	2777.0	5612.0	14711.0	19294.3	25807.0
67.5°	7.2	12.1	26.6	420.2	504.7	1468.2	2400.3	5153.2	13991.4	19195.3	25594.5
70°	7.2	12.1	26.6	376.7	456.4	1272.6	2067.1	4704.0	12153.7	18825.8	24872.5
72.5°	7.2	14.5	26.6	330.8	400.9	1079.4	1755.6	4209.0	10200.1	17282.8	23264.2
75°	7.2	14.5	29.0	268.0	342.9	859.7	1441.6	3605.3	8483.2	14986.3	20598.3
77.5°	7.2	14.5	29.0	207.7	277.7	642.3	1091.5	2856.7	6768.7	11052.6	14471.9
80°	7.2	14.5	29.0	147.3	227.0	451.6	794.5	1948.7	4037.6	5810.0	7370.0
82.5°	7.2	14.5	29.0	106.3	164.2	326.0	490.2	961.1	1927.0	2789.1	3499.1
85°	4.8	12.1	26.6	70.0	86.9	198.0	292.2	427.4	577.1	763.1	1031.1
87.5°	4.8	7.2	16.9	26.6	36.2	70.0	108.7	96.6	108.7	227.0	326.0
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°	10813.5	10813.5	10813.5	10813.5	10813.5	10813.5	10813.5	10813.5	10813.5	10813.5	10813.5
2.5°	10830.4	10820.7	10823.2	10876.3	10830.4	10840.1	10760.4	10919.7	10905.3	10883.5	10946.3
5°	10842.5	10837.6	10857.0	10902.8	10832.8	10844.9	10770.0	10956.0	10910.1	10902.8	10977.7
7.5°	10902.8	10895.6	10914.9	10936.6	10859.4	10859.4	10794.2	10941.5	10914.9	10866.6	10951.1
10°	11011.5	10984.9	11004.3	11016.3	10898.0	10893.2	10772.4	10946.3	10878.7	10854.5	10963.2
12.5°	11163.6	11103.3	11132.2	11112.9	10956.0	10927.0	10765.2	10878.7	10794.2	10779.7	10878.7
15°	11368.9	11289.2	11310.9	11274.7	11076.7	10992.2	10731.4	10779.7	10644.5	10632.4	10704.8
17.5°	11559.7	11511.4	11499.3	11499.3	11267.5	11057.4	10700.0	10632.4	10453.7	10441.6	10477.8
20°	11905.0	11839.8	11832.5	11774.6	11431.7	11110.5	10649.3	10441.6	10176.0	10115.6	10183.2
22.5°	12016.1	12332.4	12310.7	12054.7	11569.3	11154.0	10545.4	10202.5	9837.9	9722.0	9755.8
25°	12346.9	12822.6	12784.0	12412.1	11709.4	11178.1	10419.9	9939.3	9437.1	9234.2	9241.5
27.5°	12870.9	13356.3	13329.7	12793.6	11883.2	11185.4	10279.8	9661.6	9038.6	8773.0	8794.7
30°	13537.4	14027.6	13989.0	13218.6	12146.5	11199.9	10173.6	9328.4	8674.0	8386.6	8381.8
32.5°	14464.7	14909.0	14795.5	13786.1	12462.8	11260.2	10033.5	9012.0	8340.7	8038.9	8014.7
35°	15865.3	16029.5	15889.4	14462.3	12798.5	11298.9	9808.9	8703.0	8031.6	7734.6	7712.9
37.5°	17758.5	17555.6	17367.3	15222.9	13146.2	11289.2	9524.0	8403.5	7766.0	7483.5	7483.5
40°	17944.4	19308.8	18961.0	16024.6	13460.1	11236.1	9253.5	8111.3	7551.1	7321.7	7357.9
42.5°	18816.2	21455.5	20967.7	16799.8	13687.1	11081.5	8963.8	7845.7	7350.7	7164.7	7179.2
45°	20958.1	23409.1	23124.2	17548.4	13810.3	10808.7	8628.1	7584.9	7126.1	6978.8	7007.8
47.5°	23261.8	25732.1	25314.4	18239.0	13742.6	10405.4	8270.7	7345.8	6891.9	6797.7	6850.8
50°	25440.0	28175.9	27828.2	18724.4	13443.2	9840.3	7889.2	7092.3	6708.3	6633.5	6660.0
52.5°	27577.1	30395.1	30134.3	18987.6	12844.3	9248.7	7536.6	6850.8	6536.9	6442.7	6478.9
55°	29339.9	32498.4	32244.9	18961.0	11943.6	8630.5	7186.5	6590.0	6363.0	6278.5	6307.5
57.5°	30716.3	34135.7	33954.6	18557.8	10895.6	8063.0	6790.4	6334.0	6133.6	6058.7	6082.9
60°	31947.9	35174.0	34939.8	17666.7	9784.8	7437.6	6382.3	6029.8	5863.1	5802.8	5841.4
62.5°	32957.2	35195.8	35408.3	16377.2	8695.7	6775.9	5928.3	5655.5	5534.7	5498.5	5522.7
65°	33215.6	34548.6	34652.4	14783.4	7592.1	6119.1	5382.6	5203.9	5153.2	5131.5	5179.8
67.5°	32858.2	33184.2	32566.0	13436.0	6585.2	5375.4	4793.4	4682.3	4713.7	4718.5	4781.3
70°	31935.8	29533.1	28579.2	12308.3	5645.8	4551.9	4146.2	4110.0	4194.5	4264.5	4310.4
72.5°	29583.8	24247.0	23339.1	10714.5	4450.5	3484.6	3264.8	3380.7	3351.7	3383.1	3465.2
75°	25468.9	18714.7	18152.1	8719.9	3390.4	2533.1	2238.5	2250.6	2286.8	2446.2	2533.1
77.5°	18142.4	13460.1	13209.0	6689.0	2245.8	1489.9	1540.6	1712.1	1762.8	1767.6	1828.0
80°	9613.3	7502.8	7162.3	3941.0	1485.1	1064.9	1159.1	1234.0	1301.6	1371.6	1388.5
82.5°	4332.2	3392.8	3298.6	1958.4	941.8	821.0	842.8	970.8	1026.3	1038.4	1050.4
85°	1683.1	1171.2	1115.6	813.8	618.2	555.4	615.8	746.2	799.3	775.2	767.9
87.5°	449.2	275.3	251.1	272.9	289.8	306.7	350.1	398.4	456.4	439.5	425.0
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)