

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: P591335

Luminaire Tested: **CTN-CA6-230-730-U-T1-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591335  
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-CA6-230-730-U-T1-SSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (6) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19682 lumens  
Efficiency: N/A  
Efficacy: 86.4 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type I - Short  
BUG Rating: B4 - U0 - G4

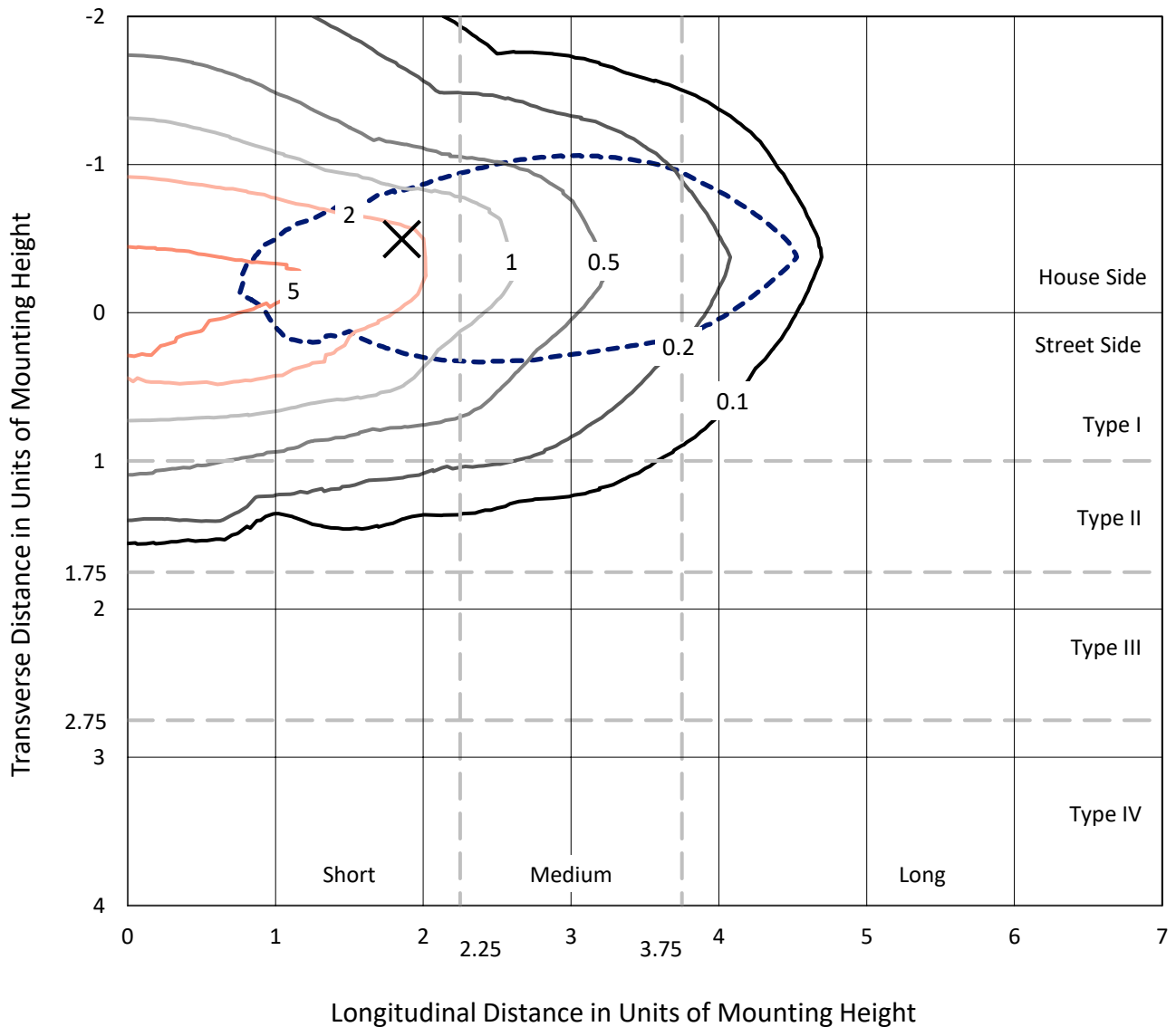
Input Watts (W): 227.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

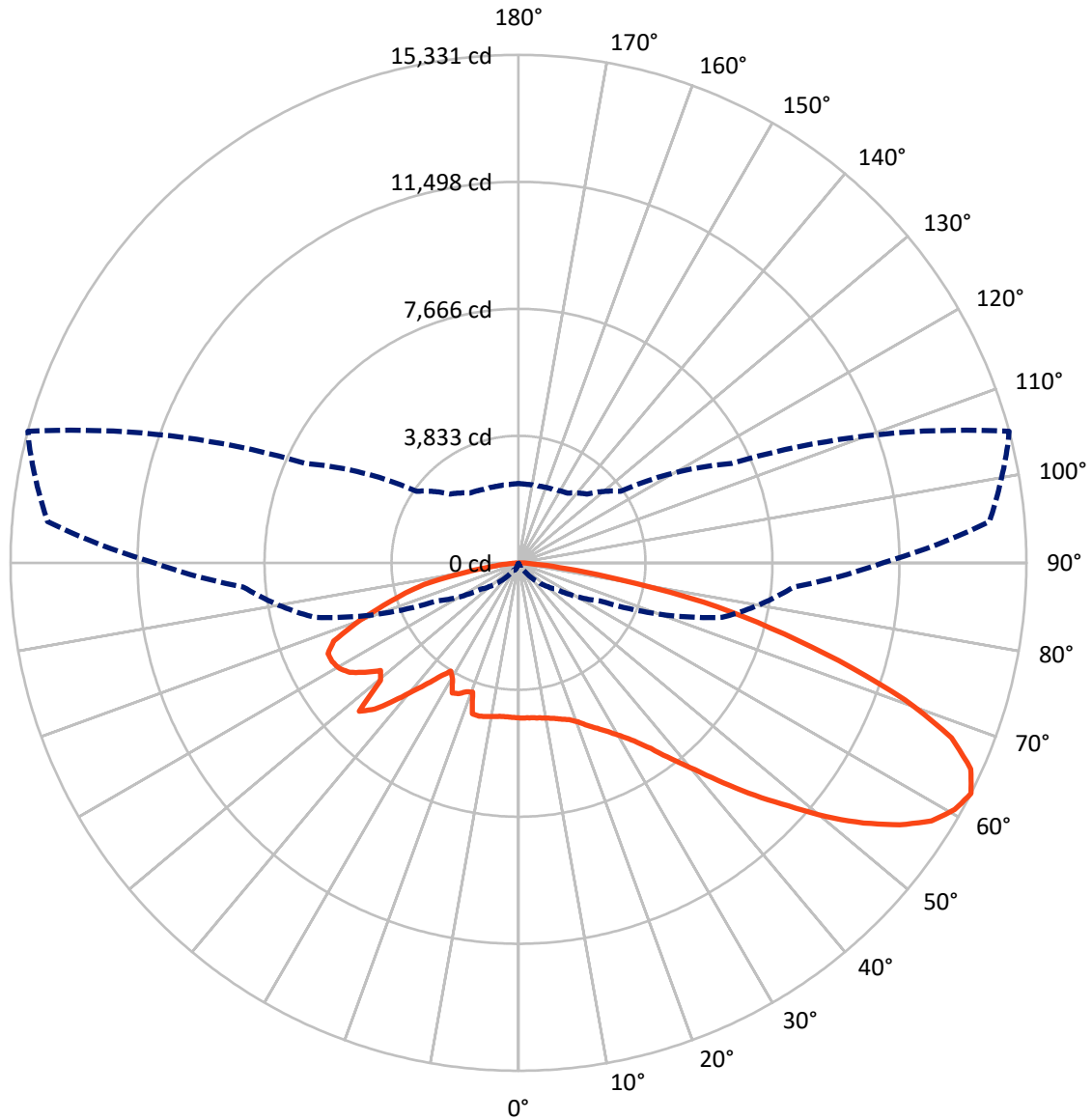
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.5 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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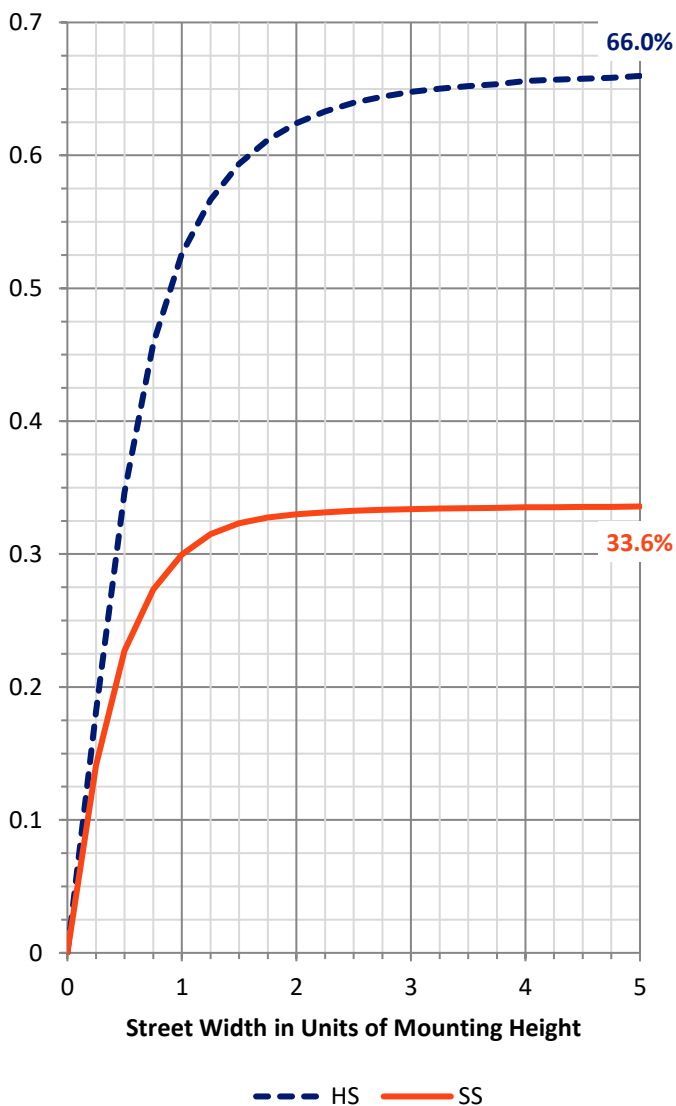
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	13096.2	0.0	13096.2
	% Fixture	66.5	0.0	66.5
<b>Street Side</b>	Lumens	6585.8	0.0	6585.8
	% Fixture	33.5	0.0	33.5
<b>Total</b>	Lumens	19682.0	0.0	19682.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	446.8	2.3
10°-20°	1261.8	6.4
20°-30°	1778.3	9.0
30°-40°	2416.1	12.3
40°-50°	3286.9	16.7
50°-60°	3893.9	19.8
60°-70°	3818.4	19.4
70°-80°	2408.3	12.2
80°-90°	371.5	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°	19682.0	100.0
0°-180°	19682.0	100.0

**Coefficient of Utilization**



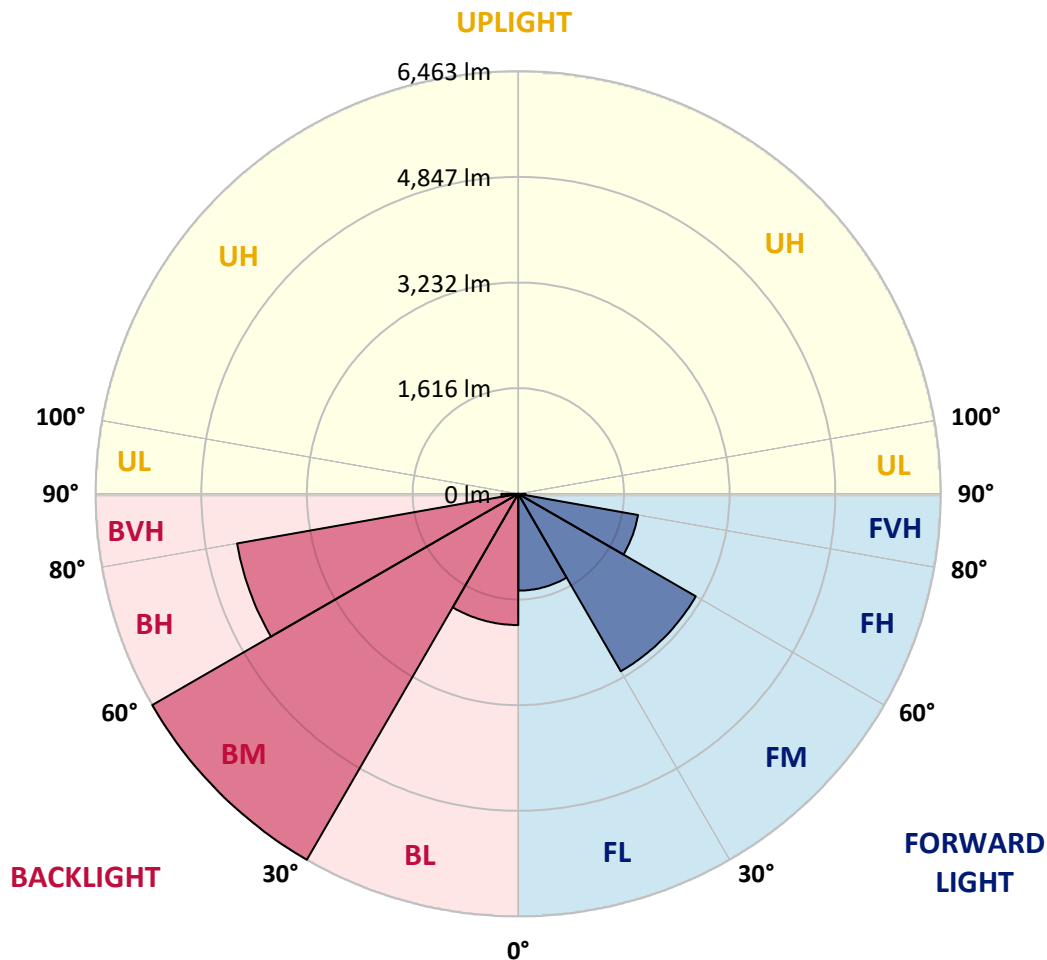
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1480.4	7.5			
FM (30°-60°)	3133.9	15.9			
FH (60°-80°)	1859.5	9.4			G2/5000
FVH (80°-90°)	112.1	0.6			G2/225
BL (0°-30°)	2006.5	10.2	B3/2500		
BM (30°-60°)	6463.0	32.8	B4/8500		
BH (60°-80°)	4367.2	22.2	B4/5000		G4/5000
BVH (80°-90°)	259.4	1.3			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G4**

Type I Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4682.0	4682.0	4682.0	4682.0	4682.0	4682.0	4682.0	4682.0	4682.0	4682.0	4682.0
2.5°	4685.2	4648.6	4674.7	4714.4	4654.8	4689.4	4631.8	4678.9	4667.4	4670.5	4692.5
5°	4648.6	4609.9	4641.3	4693.5	4635.0	4673.7	4626.6	4666.3	4662.2	4676.8	4694.6
7.5°	4614.1	4577.5	4609.9	4644.4	4614.1	4651.7	4616.2	4665.3	4668.4	4700.9	4715.5
10°	4577.5	4540.9	4572.2	4612.0	4586.9	4633.9	4619.3	4678.9	4701.9	4744.8	4757.3
12.5°	4497.0	4464.6	4490.7	4536.7	4540.9	4609.9	4619.3	4711.3	4739.5	4796.0	4814.8
15°	4012.9	4048.4	4187.5	4321.3	4378.8	4506.4	4576.4	4740.6	4780.3	4860.8	4890.1
17.5°	3246.5	3179.6	2963.1	3019.6	3337.4	3766.1	3928.2	4336.0	4766.7	4942.4	4980.0
20°	1918.6	2055.6	2479.0	2608.7	2725.8	3186.9	3731.6	3974.2	4139.4	4763.6	5103.4
22.5°	1581.9	1591.3	1894.6	2492.6	2624.4	2805.2	3226.6	4025.4	4195.8	4320.3	4698.8
25°	1466.9	1476.3	1528.6	1990.8	2552.2	2761.3	2946.4	3679.3	4341.2	4494.9	4790.8
27.5°	1374.9	1387.5	1435.6	1565.2	2379.7	2748.8	2983.0	3263.2	4406.0	4701.9	4979.0
30°	1305.9	1311.1	1360.3	1485.7	1799.4	2751.9	3036.3	3335.3	4035.9	4964.3	5242.5
32.5°	1243.2	1246.3	1297.5	1419.9	1609.1	2549.1	3116.8	3485.9	3853.9	5179.7	5604.2
35°	1195.1	1193.0	1239.0	1359.2	1547.4	1952.1	3206.7	3666.8	4144.6	4975.8	6143.7
37.5°	1149.1	1145.9	1185.7	1296.5	1493.1	1827.6	3102.2	3884.3	4561.8	5130.6	6099.8
40°	1113.5	1107.3	1140.7	1240.0	1436.6	1796.3	2443.5	4114.3	5019.7	5928.3	6468.9
42.5°	1082.2	1078.0	1106.2	1185.7	1379.1	1758.6	2277.2	4238.7	5589.6	6850.5	7423.5
45°	1035.1	1041.4	1072.7	1149.1	1317.4	1705.3	2294.0	3404.4	6192.9	7650.4	8375.0
47.5°	1015.2	1014.2	1034.1	1106.2	1264.1	1631.1	2282.5	3122.1	6572.4	8487.9	9306.6
50°	983.9	978.6	853.2	1056.0	1209.7	1539.1	2234.4	3203.6	5469.3	9309.7	10161.8
52.5°	925.3	822.9	746.5	1020.5	1154.3	1438.7	2126.7	3239.2	5281.1	9163.3	10896.9
55°	491.4	547.9	706.8	970.3	1089.5	1348.8	1968.8	3214.1	5687.9	7327.3	10115.8
57.5°	436.0	433.9	449.6	766.4	567.7	1250.5	1778.5	3099.0	6072.6	7661.9	10305.1
60°	34.5	35.5	41.8	255.1	301.1	880.4	1573.6	2956.9	6276.5	8057.1	10764.1
62.5°	16.7	18.8	25.1	227.9	275.0	800.9	1388.5	2714.3	6362.3	8342.5	10991.0
65°	4.2	5.2	11.5	200.7	239.4	713.1	1202.4	2429.9	6369.6	8354.1	11173.9
67.5°	3.1	5.2	11.5	181.9	218.5	635.7	1039.3	2231.2	6058.0	8311.2	11081.9
70°	3.1	5.2	11.5	163.1	197.6	551.0	895.0	2036.8	5262.3	8151.2	10769.3
72.5°	3.1	6.3	11.5	143.2	173.6	467.4	760.1	1822.4	4416.5	7483.1	10073.0
75°	3.1	6.3	12.5	116.1	148.5	372.2	624.2	1561.0	3673.1	6488.8	8918.7
77.5°	3.1	6.3	12.5	89.9	120.2	278.1	472.6	1236.9	2930.7	4785.5	6266.1
80°	3.1	6.3	12.5	63.8	98.3	195.5	344.0	843.8	1748.2	2515.6	3191.1
82.5°	3.1	6.3	12.5	46.0	71.1	141.2	212.2	416.1	834.4	1207.6	1515.0
85°	2.1	5.2	11.5	30.3	37.6	85.7	126.5	185.1	249.9	330.4	446.5
87.5°	2.1	3.1	7.3	11.5	15.7	30.3	47.1	41.8	47.1	98.3	141.2
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°	4682.0	4682.0	4682.0	4682.0	4682.0	4682.0	4682.0	4682.0	4682.0	4682.0	4682.0
2.5°	4689.4	4685.2	4686.2	4709.2	4689.4	4693.5	4659.0	4728.0	4721.8	4712.4	4739.5
5°	4694.6	4692.5	4700.9	4720.7	4690.4	4695.6	4663.2	4743.7	4723.9	4720.7	4753.1
7.5°	4720.7	4717.6	4725.9	4735.4	4701.9	4701.9	4673.7	4737.4	4725.9	4705.0	4741.6
10°	4767.8	4756.3	4764.6	4769.9	4718.6	4716.5	4664.3	4739.5	4710.3	4699.8	4746.9
12.5°	4833.6	4807.5	4820.0	4811.7	4743.7	4731.2	4661.1	4710.3	4673.7	4667.4	4710.3
15°	4922.5	4888.0	4897.4	4881.7	4796.0	4759.4	4646.5	4667.4	4608.8	4603.6	4635.0
17.5°	5005.1	4984.2	4979.0	4979.0	4878.6	4787.6	4632.9	4603.6	4526.2	4521.0	4536.7
20°	5154.6	5126.4	5123.3	5098.2	4949.7	4810.6	4610.9	4521.0	4406.0	4379.9	4409.1
22.5°	5202.7	5339.7	5330.3	5219.5	5009.3	4829.5	4566.0	4417.5	4259.6	4209.4	4224.1
25°	5346.0	5551.9	5535.2	5374.2	5069.9	4839.9	4511.6	4303.5	4086.1	3998.2	4001.4
27.5°	5572.9	5783.0	5771.5	5539.4	5145.2	4843.0	4451.0	4183.3	3913.5	3798.5	3807.9
30°	5861.4	6073.7	6056.9	5723.4	5259.2	4849.3	4405.0	4039.0	3755.7	3631.2	3629.2
32.5°	6262.9	6455.3	6406.2	5969.1	5396.2	4875.5	4344.3	3902.0	3611.4	3480.7	3470.2
35°	6869.4	6940.4	6879.8	6261.9	5541.5	4892.2	4247.1	3768.2	3477.5	3348.9	3339.5
37.5°	7689.1	7601.2	7519.7	6591.2	5692.0	4888.0	4123.7	3638.6	3362.5	3240.2	3240.2
40°	7769.6	8360.3	8209.8	6938.4	5828.0	4865.0	4006.6	3512.0	3269.5	3170.1	3185.8
42.5°	8147.0	9289.8	9078.6	7274.0	5926.3	4798.1	3881.1	3397.0	3182.7	3102.2	3108.5
45°	9074.4	10135.7	10012.3	7598.1	5979.6	4679.9	3735.8	3284.1	3085.5	3021.7	3034.2
47.5°	10071.9	11141.5	10960.6	7897.1	5950.3	4505.3	3581.1	3180.6	2984.0	2943.3	2966.3
50°	11015.0	12199.6	12049.1	8107.3	5820.7	4260.7	3415.9	3070.8	2904.6	2872.2	2883.7
52.5°	11940.3	13160.5	13047.6	8221.3	5561.4	4004.5	3263.2	2966.3	2830.3	2789.6	2805.2
55°	12703.6	14071.2	13961.4	8209.8	5171.4	3736.8	3111.6	2853.3	2755.1	2718.5	2731.0
57.5°	13299.6	14780.1	14701.7	8035.2	4717.6	3491.1	2940.1	2742.5	2655.7	2623.3	2633.8
60°	13832.8	15229.7	15128.3	7649.3	4236.6	3220.3	2763.4	2610.8	2538.6	2512.5	2529.2
62.5°	14269.8	15239.1	15331.1	7091.0	3765.1	2933.9	2566.9	2448.7	2396.4	2380.7	2391.2
65°	14381.7	14958.9	15003.8	6400.9	3287.3	2649.5	2330.6	2253.2	2231.2	2221.8	2242.7
67.5°	14227.0	14368.1	14100.5	5817.5	2851.3	2327.4	2075.4	2027.3	2040.9	2043.0	2070.2
70°	13827.6	12787.2	12374.2	5329.2	2444.5	1970.9	1795.2	1779.5	1816.1	1846.5	1866.3
72.5°	12809.2	10498.5	10105.4	4639.2	1927.0	1508.7	1413.6	1463.8	1451.2	1464.8	1500.4
75°	11027.6	8103.1	7859.5	3775.5	1468.0	1096.8	969.2	974.5	990.1	1059.2	1096.8
77.5°	7855.3	5828.0	5719.2	2896.2	972.4	645.1	667.1	741.3	763.3	765.4	791.5
80°	4162.4	3248.6	3101.1	1706.4	643.0	461.1	501.9	534.3	563.6	593.9	601.2
82.5°	1875.7	1469.0	1428.2	848.0	407.8	355.5	364.9	420.3	444.4	449.6	454.8
85°	728.8	507.1	483.1	352.4	267.7	240.5	266.6	323.1	346.1	335.6	332.5
87.5°	194.5	119.2	108.7	118.1	125.5	132.8	151.6	172.5	197.6	190.3	184.0
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)