

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: P591239

Luminaire Tested: **CTN-CA6-230-727-U-T1-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591239  
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-CA6-230-727-U-T1-SSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (6) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16974 lumens  
Efficiency: N/A  
Efficacy: 74.5 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type I - Short  
BUG Rating: B4 - U0 - G4

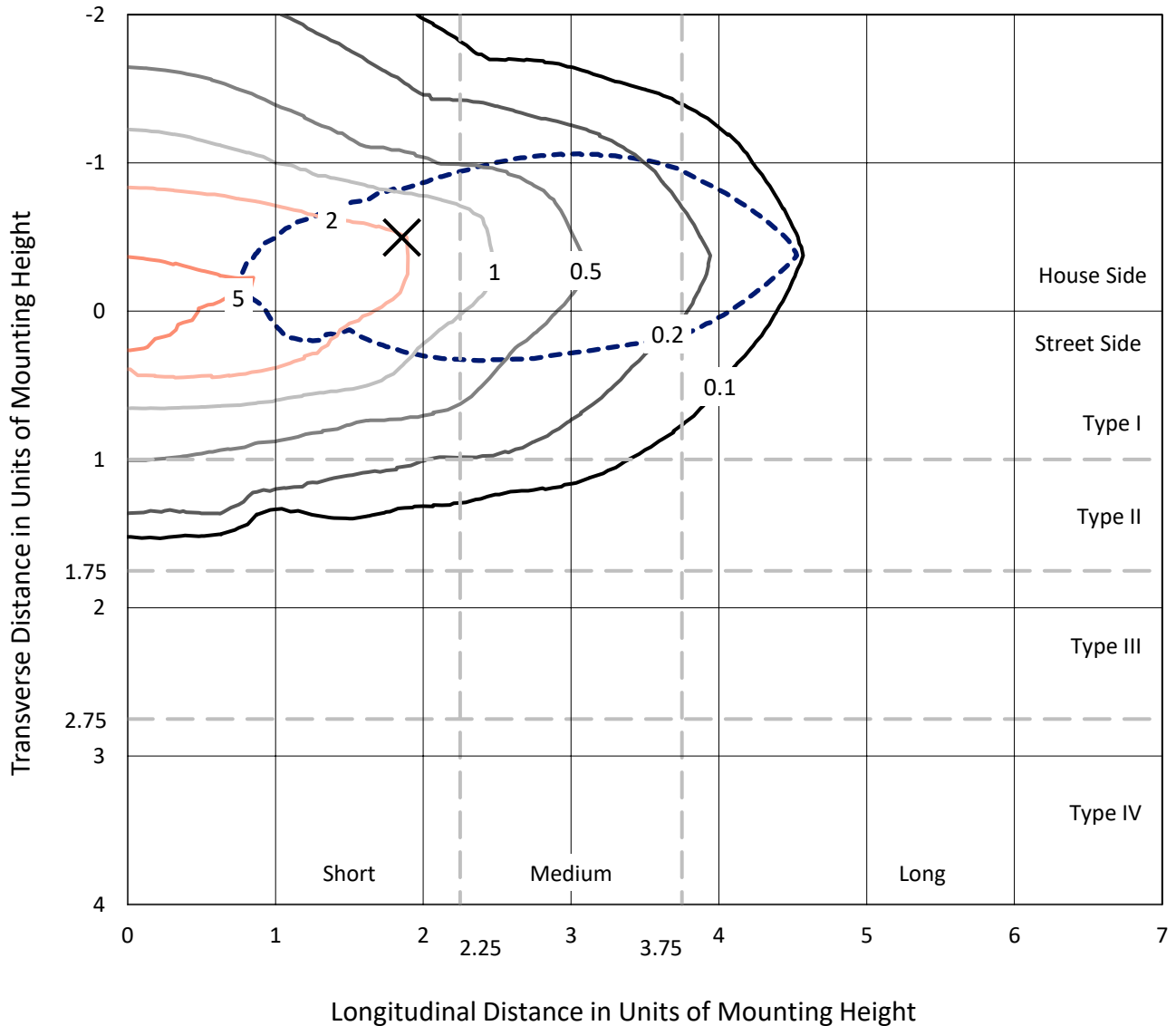
Input Watts (W): 227.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

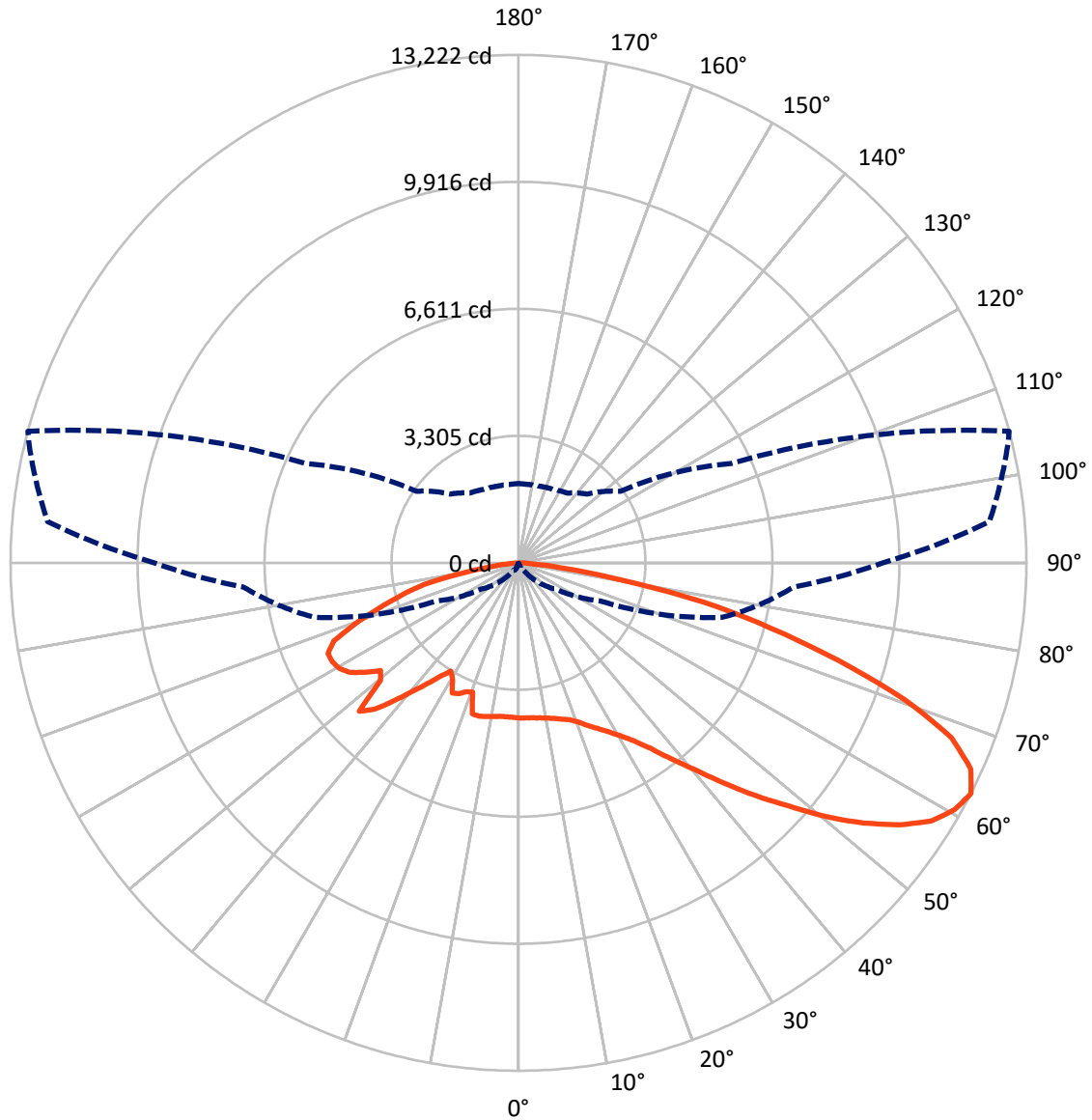
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.5 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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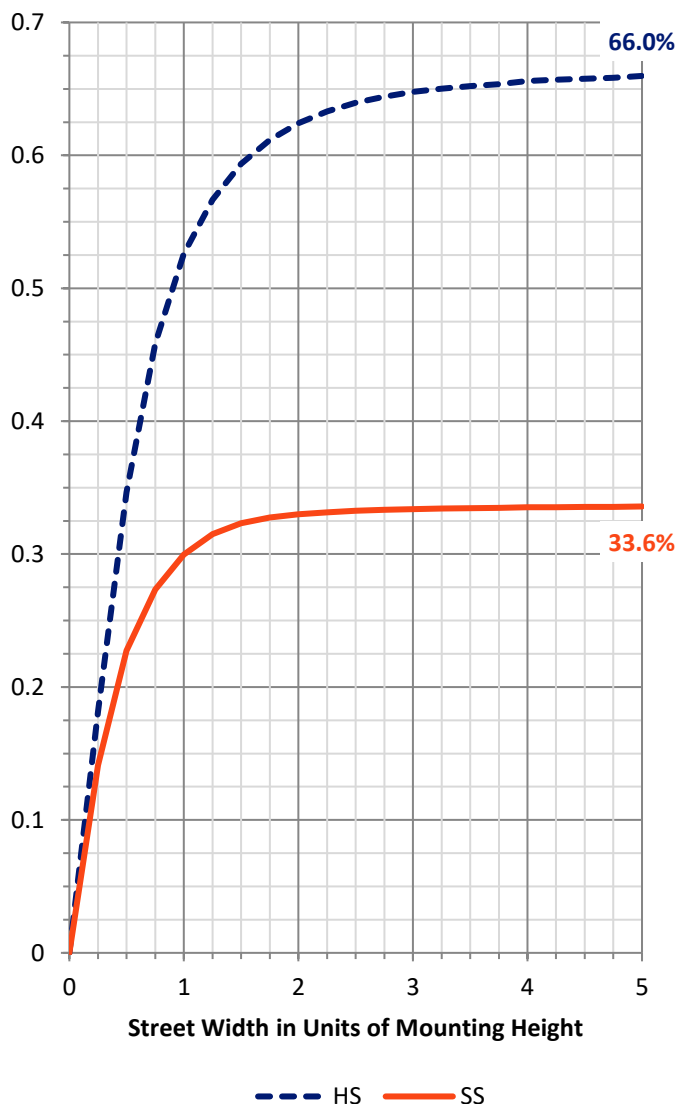
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	11294.3	0.0	11294.3
	% Fixture	66.5	0.0	66.5
<b>Street Side</b>	Lumens	5679.7	0.0	5679.7
	% Fixture	33.5	0.0	33.5
<b>Total</b>	Lumens	16974.0	0.0	16974.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	385.3	2.3
10°-20°	1088.2	6.4
20°-30°	1533.6	9.0
30°-40°	2083.7	12.3
40°-50°	2834.6	16.7
50°-60°	3358.2	19.8
60°-70°	3293.0	19.4
70°-80°	2077.0	12.2
80°-90°	320.4	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°	16974.0	100.0
0°-180°	16974.0	100.0

**Coefficient of Utilization**

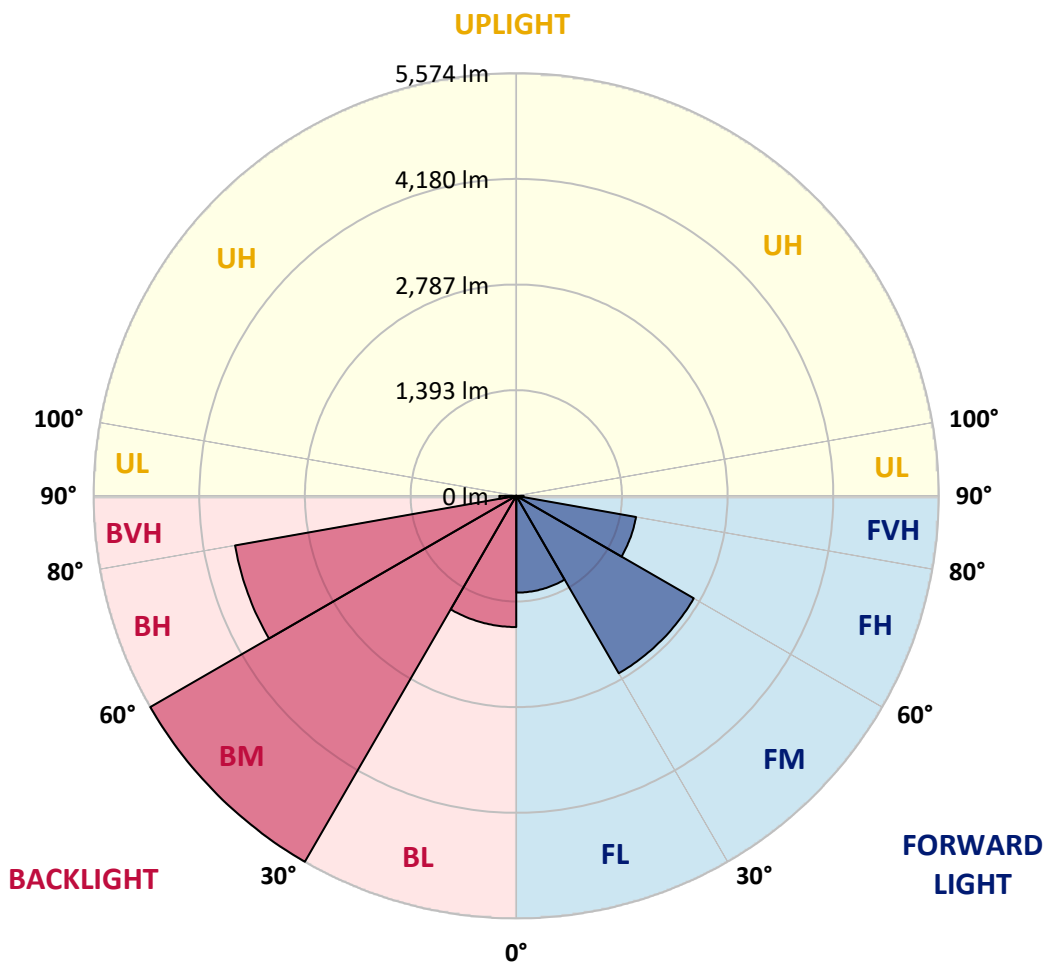


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1276.7	7.5			
FM (30°-60°)	2702.7	15.9			
FH (60°-80°)	1603.6	9.4			G1/1800
FVH (80°-90°)	96.6	0.6			G1/100
BL (0°-30°)	1730.4	10.2	B3/2500		
BM (30°-60°)	5573.8	32.8	B4/8500		
BH (60°-80°)	3766.3	22.2	B4/5000		G4/5000
BVH (80°-90°)	223.7	1.3			G2/225
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°	4037.8	4037.8	4037.8	4037.8	4037.8	4037.8	4037.8	4037.8	4037.8	4037.8	4037.8
2.5°	4040.5	4009.0	4031.5	4065.8	4014.4	4044.2	3994.6	4035.1	4025.2	4027.9	4046.9
5°	4009.0	3975.6	4002.7	4047.8	3997.3	4030.6	3990.1	4024.3	4020.7	4033.3	4048.7
7.5°	3979.2	3947.7	3975.6	4005.4	3979.2	4011.7	3981.0	4023.4	4026.1	4054.1	4066.7
10°	3947.7	3916.1	3943.2	3977.4	3955.8	3996.4	3983.7	4035.1	4055.0	4091.9	4102.8
12.5°	3878.2	3850.3	3872.8	3912.5	3916.1	3975.6	3983.7	4063.1	4087.4	4136.1	4152.4
15°	3460.8	3491.4	3611.3	3726.8	3776.3	3886.4	3946.8	4088.3	4122.6	4192.0	4217.3
17.5°	2799.8	2742.1	2555.4	2604.1	2878.2	3247.9	3387.7	3739.4	4110.9	4262.4	4294.8
20°	1654.6	1772.8	2137.9	2249.8	2350.7	2748.4	3218.2	3427.4	3569.9	4108.2	4401.2
22.5°	1364.3	1372.4	1633.9	2149.7	2263.3	2419.3	2782.7	3471.6	3618.5	3725.9	4052.3
25°	1265.1	1273.2	1318.3	1716.8	2201.1	2381.4	2541.0	3173.1	3743.9	3876.4	4131.6
27.5°	1185.7	1196.6	1238.0	1349.9	2052.3	2370.6	2572.6	2814.2	3799.8	4055.0	4293.9
30°	1126.2	1130.7	1173.1	1281.3	1551.8	2373.3	2618.6	2876.4	3480.6	4281.3	4521.2
32.5°	1072.1	1074.8	1119.0	1224.5	1387.7	2198.4	2688.0	3006.3	3323.7	4467.1	4833.1
35°	1030.7	1028.8	1068.5	1172.2	1334.5	1683.5	2765.5	3162.3	3574.4	4291.2	5298.4
37.5°	991.0	988.3	1022.5	1118.1	1287.6	1576.2	2675.4	3349.8	3934.1	4424.7	5260.6
40°	960.3	954.9	983.8	1069.4	1238.9	1549.1	2107.3	3548.2	4329.1	5112.7	5578.9
42.5°	933.3	929.7	954.0	1022.5	1189.4	1516.7	1963.9	3655.5	4820.5	5908.0	6402.1
45°	892.7	898.1	925.2	991.0	1136.2	1470.7	1978.3	2936.0	5340.8	6597.8	7222.7
47.5°	875.6	874.7	891.8	954.0	1090.2	1406.7	1968.4	2692.5	5668.1	7320.1	8026.1
50°	848.5	844.0	735.8	910.7	1043.3	1327.3	1926.9	2762.8	4716.8	8028.8	8763.7
52.5°	798.0	709.6	643.8	880.1	995.5	1240.7	1834.1	2793.5	4554.5	7902.6	9397.6
55°	423.8	472.5	609.6	836.8	939.6	1163.2	1697.9	2771.8	4905.3	6319.2	8724.0
57.5°	376.0	374.2	387.7	661.0	489.6	1078.4	1533.8	2672.7	5237.1	6607.7	8887.2
60°	29.8	30.7	36.1	220.0	259.7	759.2	1357.1	2550.0	5412.9	6948.6	9283.1
62.5°	14.4	16.2	21.6	196.6	237.1	690.7	1197.5	2340.8	5486.9	7194.7	9478.7
65°	3.6	4.5	9.9	173.1	206.5	615.0	1037.0	2095.6	5493.2	7204.6	9636.5
67.5°	2.7	4.5	9.9	156.9	188.5	548.2	896.3	1924.2	5224.5	7167.7	9557.2
70°	2.7	4.5	9.9	140.7	170.4	475.2	771.9	1756.5	4538.3	7029.7	9287.6
72.5°	2.7	5.4	9.9	123.5	149.7	403.1	655.5	1571.7	3808.8	6453.5	8687.0
75°	2.7	5.4	10.8	100.1	128.0	321.0	538.3	1346.2	3167.7	5596.0	7691.6
77.5°	2.7	5.4	10.8	77.5	103.7	239.9	407.6	1066.7	2527.5	4127.1	5403.9
80°	2.7	5.4	10.8	55.0	84.8	168.6	296.7	727.7	1507.7	2169.5	2752.0
82.5°	2.7	5.4	10.8	39.7	61.3	121.7	183.0	358.9	719.6	1041.5	1306.6
85°	1.8	4.5	9.9	26.1	32.5	73.9	109.1	159.6	215.5	284.9	385.0
87.5°	1.8	2.7	6.3	9.9	13.5	26.1	40.6	36.1	40.6	84.8	121.7
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°	4037.8	4037.8	4037.8	4037.8	4037.8	4037.8	4037.8	4037.8	4037.8	4037.8	4037.8
2.5°	4044.2	4040.5	4041.4	4061.3	4044.2	4047.8	4018.0	4077.5	4072.1	4064.0	4087.4
5°	4048.7	4046.9	4054.1	4071.2	4045.1	4049.6	4021.6	4091.0	4073.9	4071.2	4099.2
7.5°	4071.2	4068.5	4075.7	4083.8	4055.0	4055.0	4030.6	4085.6	4075.7	4057.7	4089.2
10°	4111.8	4101.9	4109.1	4113.6	4069.4	4067.6	4022.5	4087.4	4062.2	4053.2	4093.7
12.5°	4168.6	4146.0	4156.9	4149.7	4091.0	4080.2	4019.8	4062.2	4030.6	4025.2	4062.2
15°	4245.2	4215.5	4223.6	4210.1	4136.1	4104.6	4007.2	4025.2	3974.7	3970.2	3997.3
17.5°	4316.5	4298.4	4293.9	4293.9	4207.4	4128.9	3995.5	3970.2	3903.5	3899.0	3912.5
20°	4445.4	4421.1	4418.4	4396.7	4268.7	4148.8	3976.5	3899.0	3799.8	3777.2	3802.5
22.5°	4486.9	4605.0	4596.9	4501.3	4320.1	4165.0	3937.8	3809.7	3673.6	3630.3	3642.9
25°	4610.4	4788.1	4773.6	4634.8	4372.4	4174.0	3890.9	3711.4	3523.9	3448.1	3450.8
27.5°	4806.1	4987.3	4977.4	4777.2	4437.3	4176.7	3838.6	3607.7	3375.1	3275.9	3284.0
30°	5055.0	5238.0	5223.6	4935.9	4535.6	4182.1	3798.9	3483.3	3238.9	3131.6	3129.8
32.5°	5401.2	5567.1	5524.8	5147.8	4653.7	4204.7	3746.6	3365.2	3114.5	3001.8	2992.8
35°	5924.2	5985.5	5933.2	5400.3	4779.0	4219.1	3662.7	3249.8	2999.1	2888.2	2880.1
37.5°	6631.2	6555.4	6485.1	5684.4	4908.9	4215.5	3556.3	3137.9	2899.9	2794.4	2794.4
40°	6700.6	7210.0	7080.2	5983.7	5026.1	4195.6	3455.3	3028.8	2819.6	2734.0	2747.5
42.5°	7026.1	8011.7	7829.5	6273.2	5110.9	4137.9	3347.1	2929.6	2744.8	2675.4	2680.8
45°	7825.9	8741.1	8634.7	6552.7	5156.9	4036.0	3221.8	2832.3	2660.9	2605.9	2616.8
47.5°	8686.1	9608.6	9452.6	6810.6	5131.6	3885.5	3088.3	2743.0	2573.5	2538.3	2558.1
50°	9499.5	10521.1	10391.3	6991.8	5019.8	3674.5	2945.9	2648.3	2504.9	2477.0	2486.9
52.5°	10297.5	11349.8	11252.4	7090.1	4796.2	3453.5	2814.2	2558.1	2440.9	2405.8	2419.3
55°	10955.7	12135.2	12040.5	7080.2	4459.8	3222.7	2683.5	2460.8	2376.0	2344.4	2355.3
57.5°	11469.7	12746.5	12678.9	6929.6	4068.5	3010.8	2535.6	2365.2	2290.3	2262.4	2271.4
60°	11929.6	13134.3	13046.8	6596.9	3653.7	2777.3	2383.2	2251.6	2189.3	2166.8	2181.2
62.5°	12306.5	13142.4	13221.7	6115.4	3247.0	2530.2	2213.7	2111.8	2066.7	2053.2	2062.2
65°	12403.0	12900.7	12939.5	5520.2	2835.0	2284.9	2009.9	1943.2	1924.2	1916.1	1934.2
67.5°	12269.5	12391.3	12160.4	5017.1	2459.0	2007.2	1789.9	1748.4	1760.1	1761.9	1785.4
70°	11925.1	11027.9	10671.7	4596.0	2108.2	1699.7	1548.2	1534.7	1566.3	1592.4	1609.5
72.5°	11046.8	9054.0	8715.0	4000.9	1661.8	1301.2	1219.1	1262.4	1251.6	1263.3	1293.9
75°	9510.3	6988.2	6778.1	3256.1	1266.0	945.9	835.9	840.4	853.9	913.4	945.9
77.5°	6774.5	5026.1	4932.3	2497.7	838.6	556.4	575.3	639.3	658.2	660.0	682.6
80°	3589.7	2801.6	2674.5	1471.6	554.5	397.7	432.8	460.8	486.0	512.2	518.5
82.5°	1617.7	1266.9	1231.7	731.3	351.7	306.6	314.7	362.5	383.2	387.7	392.2
85°	628.5	437.3	416.6	303.9	230.8	207.4	229.9	278.6	298.5	289.4	286.7
87.5°	167.7	102.8	93.8	101.9	108.2	114.5	130.7	148.8	170.4	164.1	158.7
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)