

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: P591347

Luminaire Tested: **CTN-CA8-230-730-U-T1-SSS-HM-EX120**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591347
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-CA8-230-730-U-T1-SSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20477 lumens
Efficiency: N/A
Efficacy: 89.7 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B4 - U0 - G4

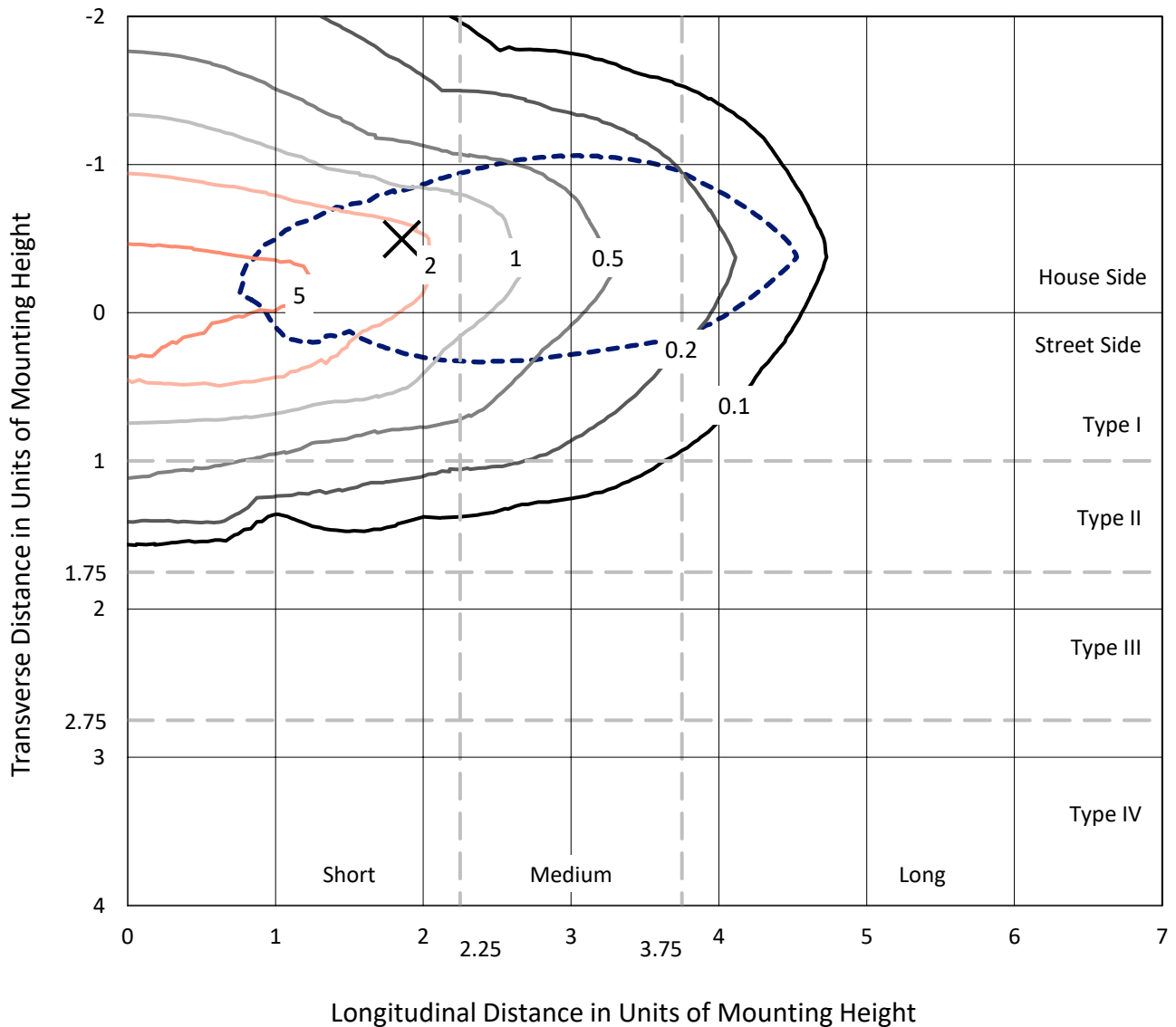
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

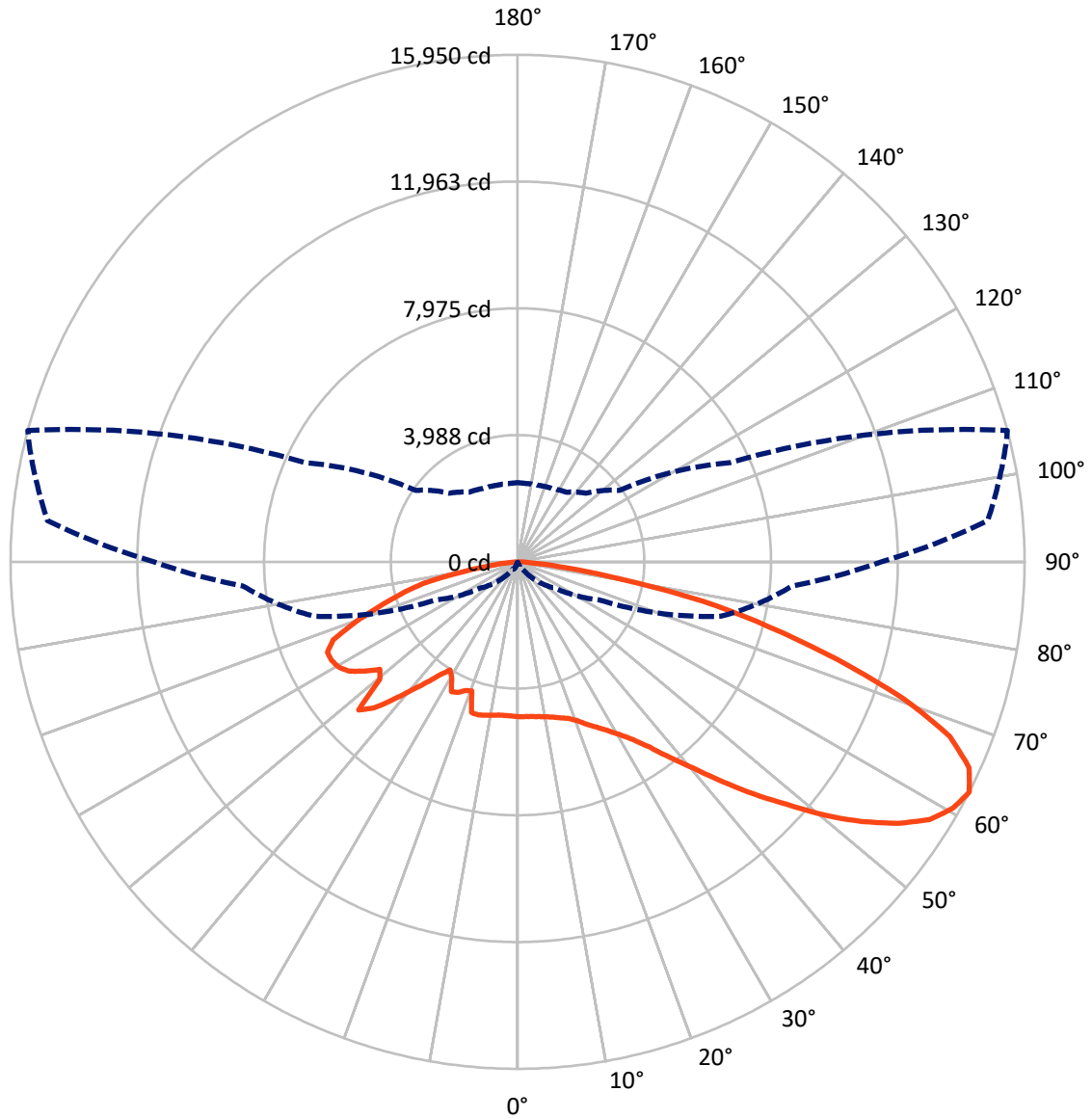
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.8 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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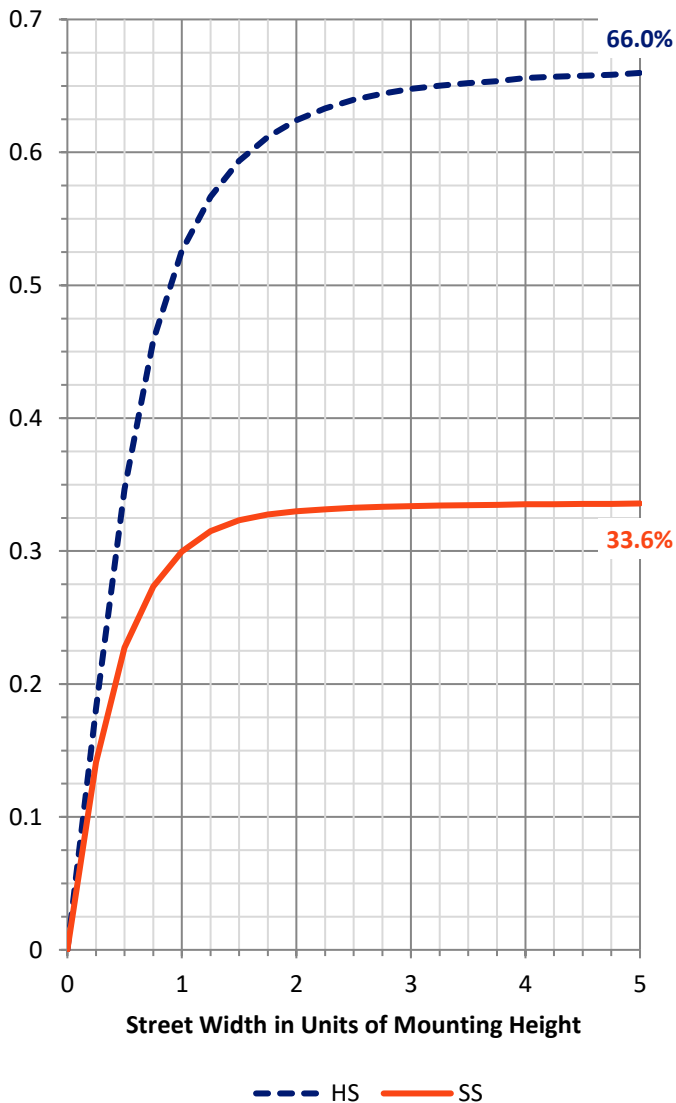
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13625.2	0.0	13625.2
	% Fixture	66.5	0.0	66.5
Street Side	Lumens	6851.9	0.0	6851.9
	% Fixture	33.5	0.0	33.5
Total	Lumens	20477.0	0.0	20477.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	464.8	2.3
10°-20°	1312.8	6.4
20°-30°	1850.2	9.0
30°-40°	2513.7	12.3
40°-50°	3419.6	16.7
50°-60°	4051.2	19.8
60°-70°	3972.6	19.4
70°-80°	2505.6	12.2
80°-90°	386.5	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°	20477.0	100.0
0°-180°	20477.0	100.0

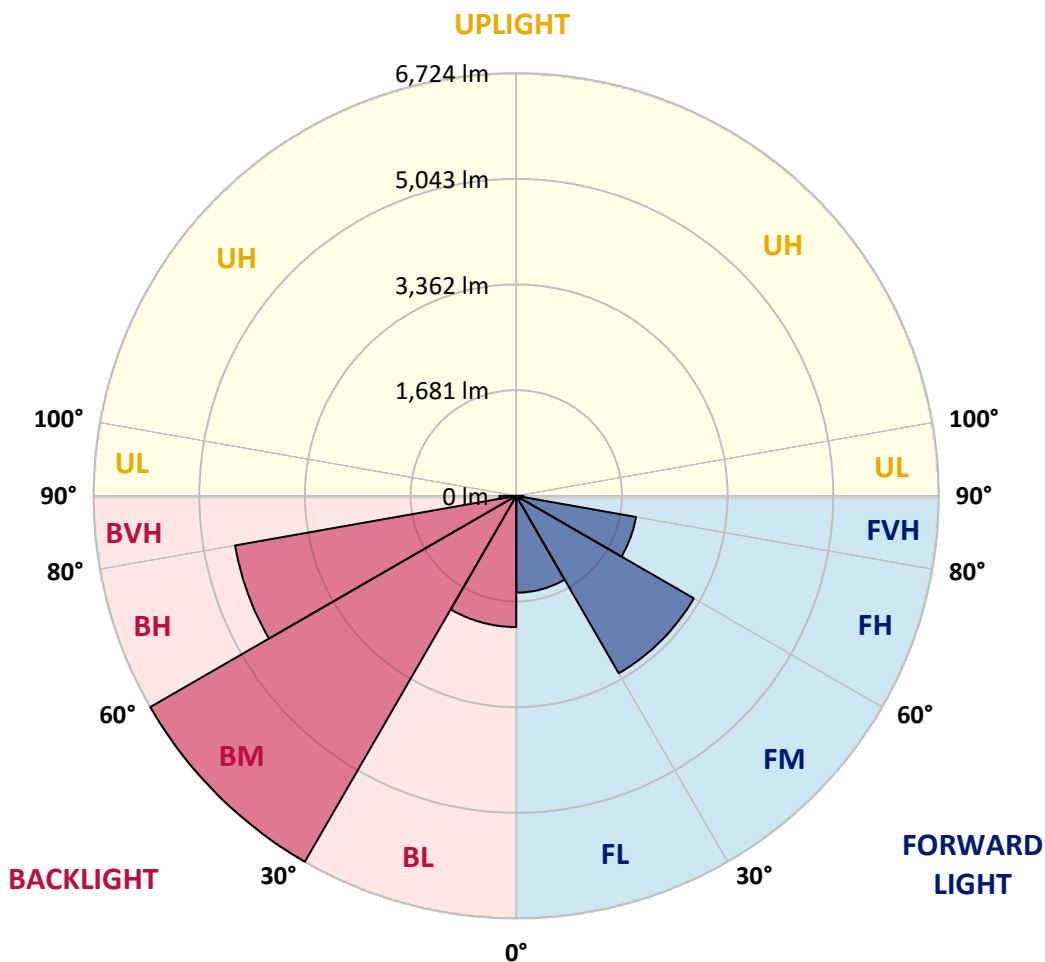


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1540.2	7.5			
FM (30°-60°)	3260.5	15.9			
FH (60°-80°)	1934.6	9.4			G2/5000
FVH (80°-90°)	116.6	0.6			G2/225
BL (0°-30°)	2087.5	10.2	B3/2500		
BM (30°-60°)	6724.1	32.8	B4/8500		
BH (60°-80°)	4543.6	22.2	B4/5000		G4/5000
BVH (80°-90°)	269.9	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°	4871.2	4871.2	4871.2	4871.2	4871.2	4871.2	4871.2	4871.2	4871.2	4871.2	4871.2
2.5°	4874.4	4836.3	4863.5	4904.9	4842.9	4878.8	4818.9	4867.9	4855.9	4859.2	4882.0
5°	4836.3	4796.1	4828.7	4883.1	4822.2	4862.4	4813.5	4854.8	4850.5	4865.7	4884.2
7.5°	4800.4	4762.4	4796.1	4832.0	4800.4	4839.6	4802.6	4853.7	4857.0	4890.7	4906.0
10°	4762.4	4724.3	4756.9	4798.3	4772.2	4821.1	4805.9	4867.9	4891.8	4936.4	4949.5
12.5°	4678.6	4644.9	4672.1	4719.9	4724.3	4796.1	4805.9	4901.6	4931.0	4989.7	5009.3
15°	4175.0	4211.9	4356.6	4495.9	4555.7	4688.4	4761.3	4932.1	4973.4	5057.2	5087.6
17.5°	3377.6	3308.0	3082.8	3141.6	3472.2	3918.2	4086.8	4511.1	4959.3	5142.0	5181.2
20°	1996.1	2138.6	2579.2	2714.1	2835.9	3315.6	3882.3	4134.7	4306.6	4956.0	5309.5
22.5°	1645.8	1655.6	1971.1	2593.3	2730.4	2918.6	3356.9	4188.0	4365.3	4494.8	4888.6
25°	1526.2	1536.0	1590.4	2071.2	2655.3	2872.9	3065.4	3828.0	4516.5	4676.4	4984.3
27.5°	1430.5	1443.5	1493.5	1628.4	2475.8	2859.8	3103.5	3395.0	4584.0	4891.8	5180.1
30°	1358.7	1364.1	1415.2	1545.8	1872.1	2863.1	3159.0	3470.1	4198.9	5164.9	5454.2
32.5°	1293.4	1296.7	1350.0	1477.2	1674.1	2652.0	3242.7	3626.7	4009.6	5388.9	5830.6
35°	1243.4	1241.2	1289.0	1414.1	1609.9	2030.9	3336.3	3814.9	4312.0	5176.8	6391.9
37.5°	1195.5	1192.2	1233.6	1348.9	1553.4	1901.5	3227.5	4041.2	4746.1	5337.8	6346.2
40°	1158.5	1152.0	1186.8	1290.1	1494.6	1868.8	2542.2	4280.5	5222.5	6167.8	6730.2
42.5°	1125.9	1121.5	1150.9	1233.6	1434.8	1829.7	2369.2	4409.9	5815.4	7127.2	7723.4
45°	1076.9	1083.4	1116.1	1195.5	1370.6	1774.2	2386.6	3541.9	6443.0	7959.4	8713.2
47.5°	1056.2	1055.2	1075.8	1150.9	1315.1	1697.0	2374.7	3248.2	6837.9	8830.7	9682.5
50°	1023.6	1018.2	887.6	1098.7	1258.6	1601.2	2324.6	3333.0	5690.3	9685.7	10572.3
52.5°	962.7	856.1	776.7	1061.7	1200.9	1496.8	2212.6	3370.0	5494.5	9533.4	11337.0
55°	511.3	570.0	735.4	1009.5	1133.5	1403.3	2048.3	3343.9	5917.6	7623.3	10524.4
57.5°	453.6	451.4	467.8	797.4	590.7	1301.0	1850.3	3224.2	6317.9	7971.4	10721.3
60°	35.9	37.0	43.5	265.4	313.3	915.9	1637.1	3076.3	6530.0	8382.6	11198.9
62.5°	17.4	19.6	26.1	237.1	286.1	833.3	1444.6	2823.9	6619.2	8679.5	11434.9
65°	4.4	5.4	12.0	208.9	249.1	741.9	1251.0	2528.0	6626.9	8691.5	11625.3
67.5°	3.3	5.4	12.0	189.3	227.3	661.4	1081.3	2321.4	6302.7	8646.9	11529.5
70°	3.3	5.4	12.0	169.7	205.6	573.3	931.2	2119.0	5474.9	8480.5	11204.3
72.5°	3.3	6.5	12.0	149.0	180.6	486.2	790.8	1896.0	4594.8	7785.4	10479.8
75°	3.3	6.5	13.1	120.7	154.5	387.3	649.4	1624.1	3821.4	6750.9	9278.9
77.5°	3.3	6.5	13.1	93.6	125.1	289.4	491.7	1286.9	3049.1	4978.8	6519.2
80°	3.3	6.5	13.1	66.4	102.3	203.4	357.9	877.9	1818.8	2617.2	3320.0
82.5°	3.3	6.5	13.1	47.9	74.0	146.9	220.8	432.9	868.1	1256.4	1576.2
85°	2.2	5.4	12.0	31.5	39.2	89.2	131.6	192.5	260.0	343.7	464.5
87.5°	2.2	3.3	7.6	12.0	16.3	31.5	49.0	43.5	49.0	102.3	146.9
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°	4871.2	4871.2	4871.2	4871.2	4871.2	4871.2	4871.2	4871.2	4871.2	4871.2	4871.2
2.5°	4878.8	4874.4	4875.5	4899.4	4878.8	4883.1	4847.2	4919.0	4912.5	4902.7	4931.0
5°	4884.2	4882.0	4890.7	4911.4	4879.9	4885.3	4851.6	4935.3	4914.7	4911.4	4945.1
7.5°	4911.4	4908.1	4916.8	4926.6	4891.8	4891.8	4862.4	4928.8	4916.8	4895.1	4933.2
10°	4960.3	4948.4	4957.1	4962.5	4909.2	4907.0	4852.7	4931.0	4900.5	4889.6	4938.6
12.5°	5028.9	5001.7	5014.7	5006.0	4935.3	4922.3	4849.4	4900.5	4862.4	4855.9	4900.5
15°	5121.3	5085.4	5095.2	5078.9	4989.7	4951.6	4834.2	4855.9	4795.0	4789.6	4822.2
17.5°	5207.3	5185.5	5180.1	5180.1	5075.7	4981.0	4820.0	4789.6	4709.1	4703.6	4719.9
20°	5362.8	5333.5	5330.2	5304.1	5149.6	5004.9	4797.2	4703.6	4584.0	4556.8	4587.2
22.5°	5412.9	5555.4	5545.6	5430.3	5211.6	5024.5	4750.4	4595.9	4431.7	4379.5	4394.7
25°	5561.9	5776.2	5758.8	5591.3	5274.7	5035.4	4693.8	4477.4	4251.1	4159.7	4163.0
27.5°	5798.0	6016.6	6004.6	5763.1	5353.0	5038.7	4630.7	4352.3	4071.6	3952.0	3961.8
30°	6098.2	6319.0	6301.6	5954.6	5471.6	5045.2	4582.9	4202.2	3907.4	3777.9	3775.7
32.5°	6515.9	6716.1	6664.9	6210.2	5614.1	5072.4	4519.8	4059.7	3757.2	3621.3	3610.4
35°	7146.8	7220.8	7157.7	6514.8	5765.3	5089.8	4418.6	3920.4	3618.0	3484.2	3474.4
37.5°	7999.7	7908.3	7823.4	6857.5	5922.0	5085.4	4290.3	3785.5	3498.4	3371.1	3371.1
40°	8083.4	8698.0	8541.4	7218.6	6063.4	5061.5	4168.4	3653.9	3401.5	3298.2	3314.5
42.5°	8476.1	9665.1	9445.3	7567.8	6165.6	4991.9	4037.9	3534.2	3311.3	3227.5	3234.0
45°	9441.0	10545.1	10416.7	7905.0	6221.1	4869.0	3886.7	3416.8	3210.1	3143.7	3156.8
47.5°	10478.7	11591.6	11403.4	8216.1	6190.6	4687.3	3725.7	3309.1	3104.6	3062.1	3086.1
50°	11459.9	12692.4	12535.8	8434.8	6055.8	4432.8	3553.8	3194.9	3021.9	2988.2	3000.1
52.5°	12422.6	13692.1	13574.6	8553.3	5786.0	4166.3	3395.0	3086.1	2944.7	2902.2	2918.6
55°	13216.7	14639.6	14525.3	8541.4	5380.2	3887.8	3237.3	2968.6	2866.3	2828.3	2841.3
57.5°	13836.8	15377.1	15295.5	8359.7	4908.1	3632.2	3058.9	2853.3	2763.0	2729.3	2740.2
60°	14391.5	15844.8	15739.3	7958.3	4407.7	3350.4	2875.0	2716.2	2641.2	2614.0	2631.4
62.5°	14846.2	15854.6	15950.4	7377.4	3917.2	3052.4	2670.5	2547.6	2493.2	2476.9	2487.8
65°	14962.6	15563.1	15609.9	6659.5	3420.0	2756.5	2424.7	2344.2	2321.4	2311.6	2333.3
67.5°	14801.6	14948.5	14670.0	6052.5	2966.4	2421.4	2159.3	2109.2	2123.4	2125.6	2153.8
70°	14386.1	13303.7	12874.1	5544.5	2543.3	2050.5	1867.7	1851.4	1889.5	1921.0	1941.7
72.5°	13326.6	10922.6	10513.5	4826.6	2004.8	1569.7	1470.7	1522.9	1509.9	1524.0	1561.0
75°	11473.0	8430.4	8177.0	3928.0	1527.3	1141.1	1008.4	1013.8	1030.1	1101.9	1141.1
77.5°	8172.6	6063.4	5950.2	3013.2	1011.7	671.2	694.0	771.2	794.1	796.3	823.5
80°	4330.5	3379.8	3226.4	1775.3	669.0	479.7	522.1	555.9	586.3	617.9	625.5
82.5°	1951.5	1528.4	1485.9	882.2	424.2	369.9	379.6	437.3	462.3	467.8	473.2
85°	758.2	527.6	502.6	366.6	278.5	250.2	277.4	336.1	360.1	349.2	345.9
87.5°	202.3	124.0	113.1	122.9	130.5	138.2	157.7	179.5	205.6	198.0	191.5
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)