

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: P591238

Luminaire Tested: **CTN-CA10-760-727-U-T4-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591238
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-10)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-760-727-U-T4-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D 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: 57222 lumens
Efficiency: N/A
Efficacy: 75.1 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type IV - Short
BUG Rating: B5 - U0 - G5

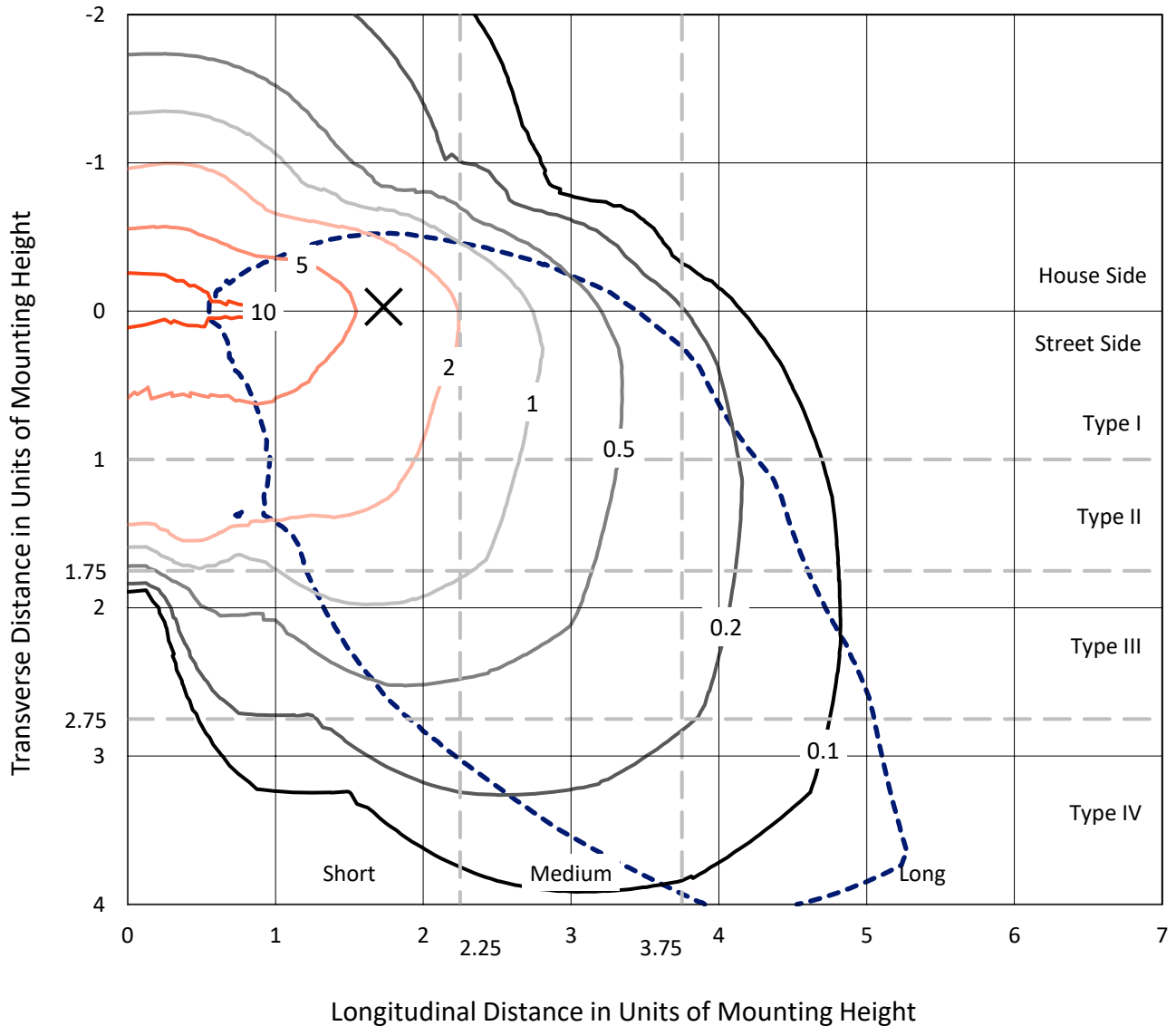
Input Watts (W): 761.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

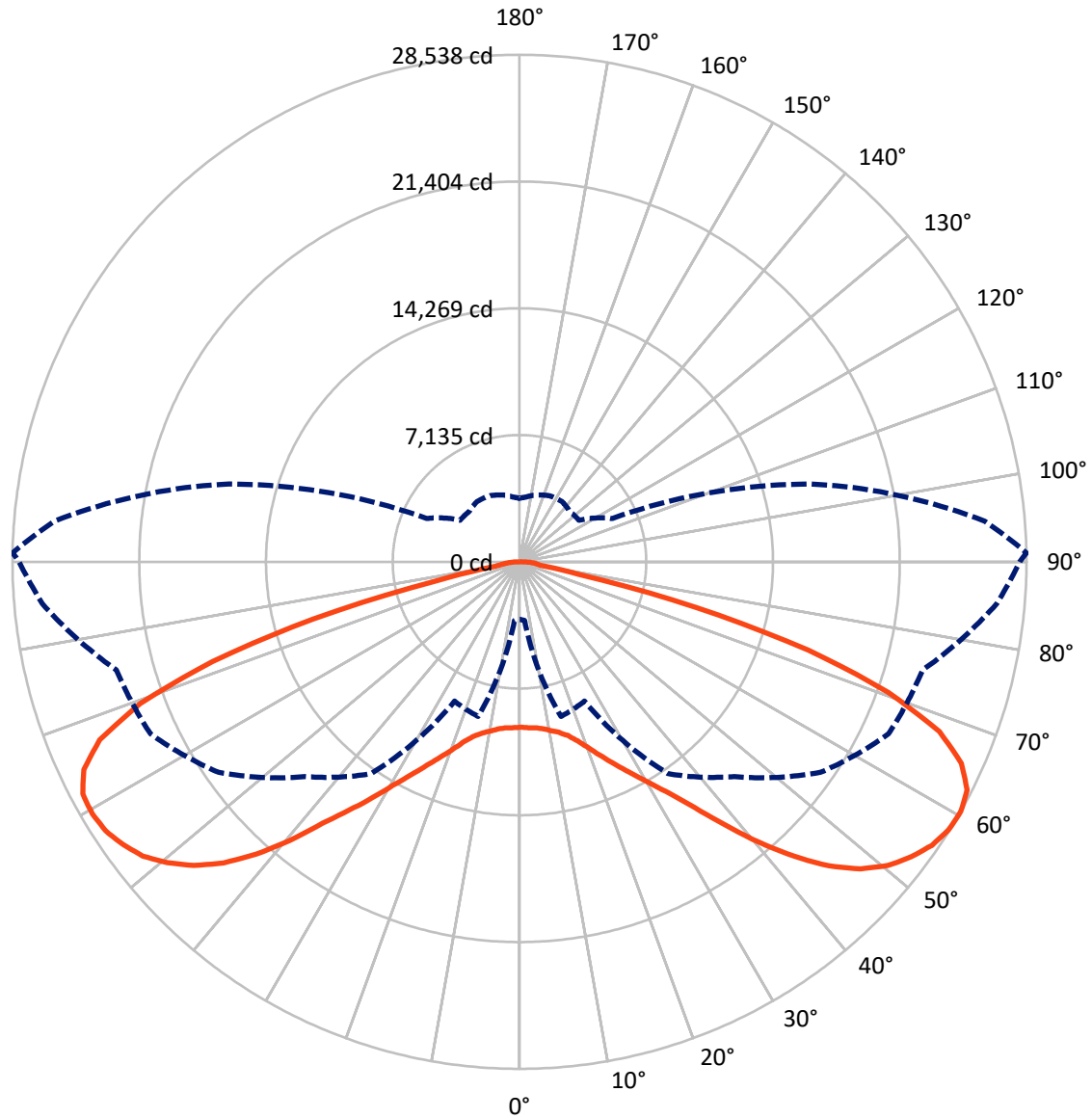
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 91-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

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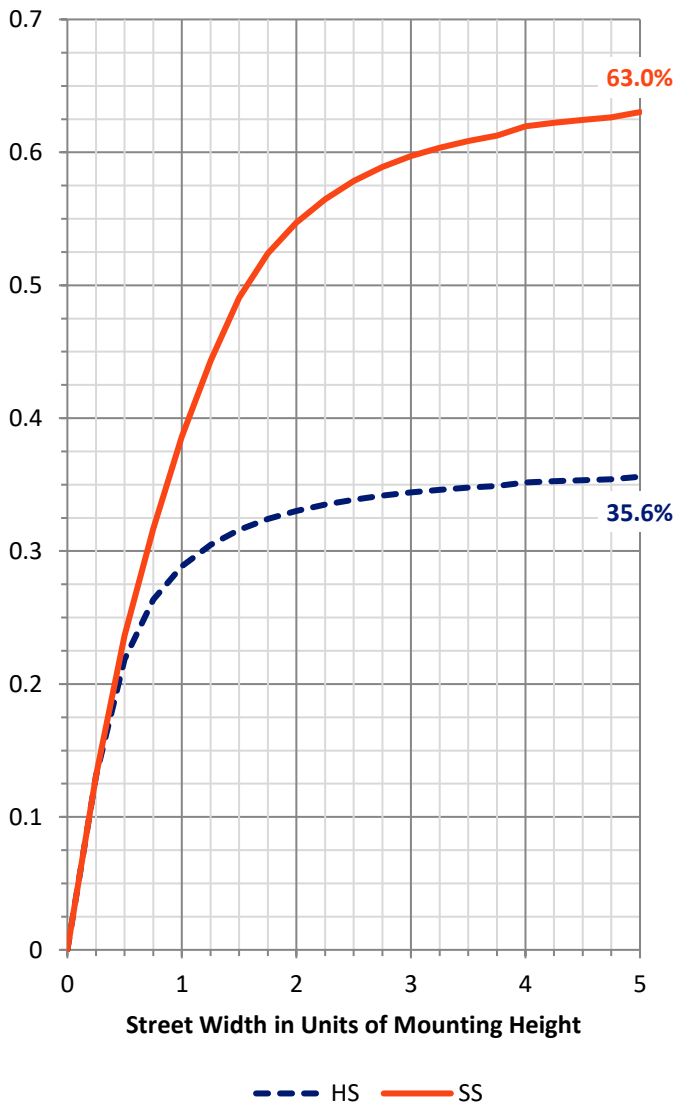
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	20780.9	0.0	20780.9
	% Fixture	36.3	0.0	36.3
Street Side	Lumens	36441.1	0.0	36441.1
	% Fixture	63.7	0.0	63.7
Total	Lumens	57222.0	0.0	57222.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	907.4	1.6
10°-20°	2782.8	4.9
20°-30°	4561.7	8.0
30°-40°	6442.5	11.3
40°-50°	9069.2	15.8
50°-60°	11411.7	19.9
60°-70°	11486.7	20.1
70°-80°	8450.5	14.8
80°-90°	2109.5	3.7
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°	57222.0	100.0
0°-180°	57222.0	100.0



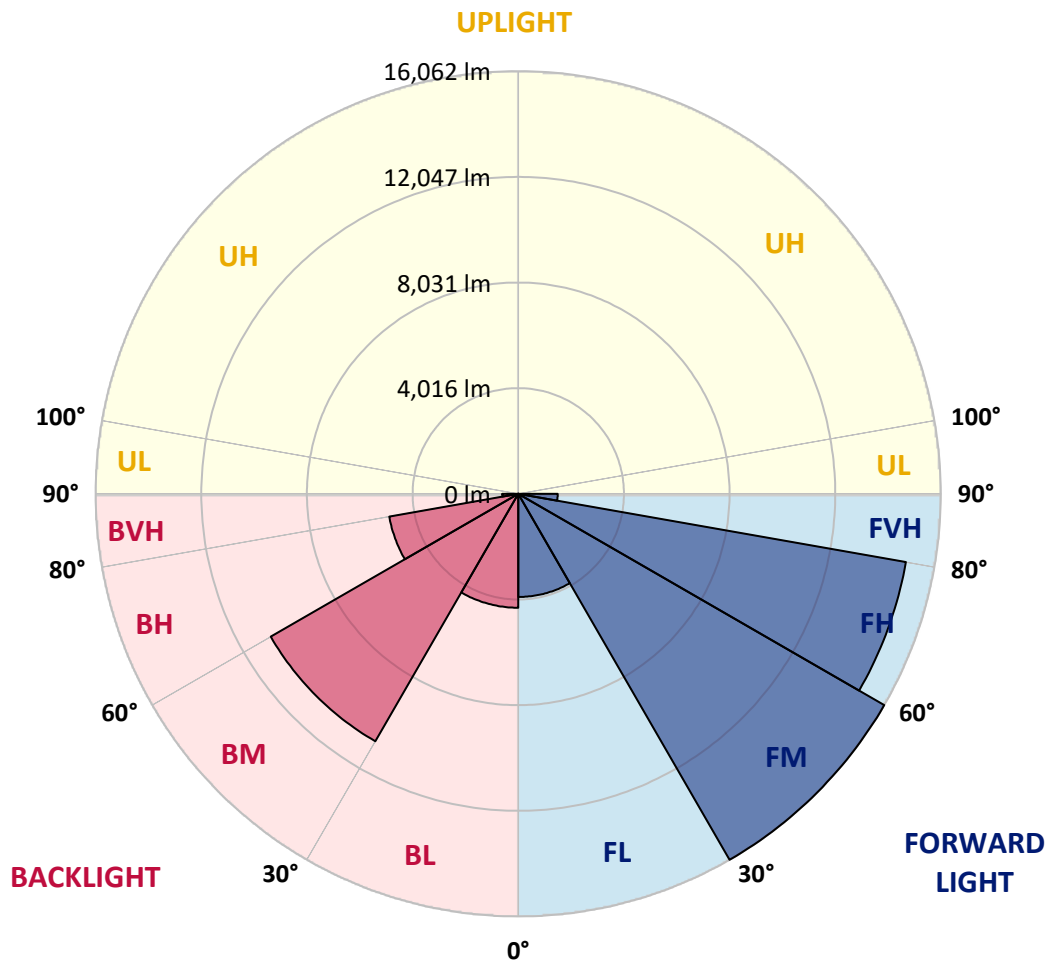
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3920.4	6.9			
FM	(30°-60°)	16062.2	28.1			
FH	(60°-80°)	14960.2	26.1			G5
FVH	(80°-90°)	1498.3	2.6			G5
BL	(0°-30°)	4331.5	7.6	B4/5000		
BM	(30°-60°)	10861.2	19.0	B5		
BH	(60°-80°)	4977.0	8.7	B4/5000		G4/5000
BVH	(80°-90°)	611.2	1.1			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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	9306.4	9306.4	9306.4	9306.4	9306.4	9306.4	9306.4	9306.4	9306.4	9306.4	9306.4
2.5°	9214.4	9155.9	9158.7	9245.1	9114.1	9197.7	9178.2	9312.0	9286.9	9334.3	9345.5
5°	9150.3	9102.9	9102.9	9206.1	9116.9	9189.3	9128.0	9245.1	9286.9	9356.6	9370.6
7.5°	9175.4	9125.2	9144.7	9233.9	9133.6	9208.9	9203.3	9306.4	9331.5	9448.6	9465.4
10°	9220.0	9175.4	9181.0	9256.3	9189.3	9328.7	9303.6	9451.4	9448.6	9632.6	9646.6
12.5°	9141.9	9108.5	9108.5	9208.9	9247.9	9395.7	9445.8	9599.2	9615.9	9822.2	9839.0
15°	9019.3	8963.5	9047.2	9197.7	9278.6	9510.0	9596.4	9839.0	9883.6	10078.7	10120.5
17.5°	8762.8	8787.9	9022.1	8916.1	8548.1	8891.0	9841.7	10151.2	10248.8	10480.2	10580.6
20°	7968.2	7658.7	7045.3	7212.6	7971.0	8949.6	10184.7	10547.1	10761.8	11035.0	11205.1
22.5°	6019.4	6214.5	7360.4	7480.3	7513.7	8166.1	10664.2	11032.2	11316.6	11662.3	11888.2
25°	6242.4	6222.9	6616.0	7845.5	7879.0	8252.6	10039.7	11665.1	11921.6	12401.1	12627.0
27.5°	6448.7	6448.7	6426.4	7407.8	8258.1	8626.2	10365.9	11199.5	12716.2	13237.6	13502.4
30°	6791.6	6802.8	6677.3	6674.5	8570.4	8969.1	10996.0	11408.6	13418.8	14405.7	14467.1
32.5°	7471.9	7432.9	7276.8	7037.0	7413.4	9367.8	11612.1	12164.2	12741.3	15718.9	15663.1
35°	7962.6	7931.9	7820.4	7653.1	7480.3	9549.0	12189.3	12956.0	13901.1	16106.4	17177.0
37.5°	8556.5	8506.3	8380.8	8182.9	8071.3	8244.2	12783.1	13850.9	15350.9	16566.5	18886.1
40°	9206.1	9192.1	8999.8	8743.3	8589.9	8718.2	13237.6	14966.1	17149.2	18520.9	20770.8
42.5°	9705.1	9694.0	9535.1	9387.3	9314.8	9574.1	12108.4	16443.8	19206.7	20296.8	22585.8
45°	10154.0	10137.3	10131.7	10081.5	10140.1	10770.2	13346.3	17355.5	21228.0	21824.7	24236.3
47.5°	10494.1	10444.0	10301.8	10315.7	10480.2	11542.4	14634.4	15981.0	22867.4	23171.3	25524.4
50°	11302.7	11252.5	10761.8	10778.5	11096.4	12501.5	15744.0	17572.9	21342.4	24336.7	26511.4
52.5°	12024.8	11609.3	11341.7	11352.8	11787.8	13521.9	17004.2	19220.7	20979.9	25259.5	27308.7
55°	10385.4	10117.8	12721.8	12359.3	12599.1	14634.4	18228.1	20648.1	21975.2	25964.9	27766.0
57.5°	6094.6	6061.2	14001.5	14316.5	14037.7	15836.0	19466.0	21835.8	22847.9	26622.9	28072.7
60°	3234.1	3312.2	9005.3	8654.0	14550.7	17090.6	20664.9	22914.8	23494.7	26963.0	28156.3
62.5°	298.3	264.9	5919.0	6724.7	13042.4	18730.0	22086.8	24013.3	23932.4	27144.2	28008.5
65°	58.5	78.1	5807.5	6643.9	14492.2	21448.3	24409.2	24858.1	24169.4	26926.8	27233.5
67.5°	44.6	66.9	5486.8	6571.4	15381.5	22493.8	27082.9	25156.4	24183.4	26232.6	25527.2
70°	44.6	69.7	4842.8	6142.0	15802.5	22538.4	27715.8	25039.3	23871.1	24660.1	22312.6
72.5°	44.6	69.7	4067.7	5322.3	15086.0	21571.0	26606.2	24389.7	22708.5	21233.6	17402.9
75°	44.6	64.1	3192.3	4324.2	13039.6	20079.4	24701.9	21562.6	19114.7	15537.7	11166.1
77.5°	44.6	61.3	2353.1	3384.7	10881.7	17709.6	21481.8	17723.5	14408.5	8135.5	4109.6
80°	41.8	61.3	1433.0	2386.6	8383.6	14285.9	16881.5	13095.4	7572.3	2046.4	1187.7
82.5°	41.8	58.5	683.1	1527.8	5891.1	10207.0	11015.5	5609.5	1611.5	945.1	945.1
85°	36.2	53.0	365.2	830.8	3850.3	6691.3	5314.0	950.7	630.1	638.5	727.7
87.5°	22.3	27.9	172.9	373.6	2219.3	3577.0	2046.4	348.5	262.1	276.0	412.6
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):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	9306.4	9306.4	9306.4	9306.4	9306.4	9306.4	9306.4	9306.4	9306.4	9306.4	9306.4
2.5°	9353.8	9339.9	9370.6	9468.1	9451.4	9521.1	9465.4	9562.9	9582.5	9554.6	9599.2
5°	9384.5	9404.0	9507.2	9599.2	9549.0	9660.5	9691.2	9827.8	9825.0	9799.9	9855.7
7.5°	9484.9	9537.8	9641.0	9755.3	9780.4	9869.6	9858.5	10031.3	10011.8	10000.7	10056.4
10°	9657.7	9738.6	9836.2	10025.7	9964.4	10115.0	10011.8	10128.9	10117.8	10089.9	10140.1
12.5°	9850.1	9961.6	10078.7	10251.6	10226.5	10223.7	10131.7	10167.9	10137.3	10070.4	10112.2
15°	10140.1	10276.7	10438.4	10549.9	10402.1	10346.4	10201.4	10123.3	10017.4	9861.3	9886.3
17.5°	10591.7	10753.4	10926.3	10945.8	10717.2	10572.2	10220.9	9942.1	9666.1	9457.0	9476.5
20°	11199.5	11347.3	11475.5	11383.5	11074.0	10750.6	10220.9	9780.4	9264.6	8879.9	8852.0
22.5°	11910.5	11955.1	12077.7	11851.9	11319.4	10867.7	10193.0	9537.8	8698.6	8185.6	8124.3
25°	12677.2	12671.6	12618.6	12150.2	11472.7	10803.6	9981.1	9122.4	8051.8	7516.5	7471.9
27.5°	13510.8	13441.1	13078.6	12401.1	11408.6	10572.2	9579.7	8422.6	7463.6	7003.5	6989.6
30°	14450.3	14266.3	13533.1	12426.2	11168.8	10115.0	8927.3	7717.3	6939.4	6529.6	6490.5
32.5°	15546.0	15186.4	13895.5	12345.4	10736.7	9418.0	8132.7	7162.4	6510.0	6061.2	5974.7
35°	16976.3	16346.2	14230.1	12080.5	10095.4	8589.9	7399.4	6669.0	6111.4	5651.3	5559.3
37.5°	18774.6	17849.0	14734.7	11693.0	9362.2	7851.1	6892.0	6342.8	5835.3	5291.7	5180.2
40°	20770.8	19616.6	15325.8	11316.6	8665.2	7301.8	6560.2	6189.4	5656.9	5060.3	4954.3
42.5°	22661.1	21395.3	16212.4	10828.7	8001.6	6861.3	6440.3	6144.8	5573.3	4959.9	4845.6
45°	24406.4	22959.4	17126.9	10338.0	7326.9	6501.7	6340.0	6013.8	5445.0	4842.8	4711.8
47.5°	25831.1	24191.7	17935.4	9830.6	6733.1	6220.1	6147.6	5762.9	5219.2	4653.2	4530.5
50°	26865.4	25136.9	18409.3	9359.4	6161.5	5938.5	5810.3	5406.0	4901.4	4430.2	4341.0
52.5°	27598.7	25953.8	18646.3	9306.4	5643.0	5559.3	5417.1	5038.0	4633.7	4268.5	4162.5
55°	28164.7	26399.8	18442.8	8997.0	5152.3	5082.6	4934.8	4700.6	4458.1	4117.9	4048.2
57.5°	28471.3	26603.4	17977.2	7589.0	4630.9	4511.0	4491.5	4441.3	4229.4	3892.1	3839.1
60°	28538.3	26280.0	16923.3	5771.2	4084.5	4006.4	4154.2	4090.0	3900.5	3649.5	3574.3
62.5°	28276.2	25588.5	14924.3	4315.9	3630.0	3758.3	3908.8	3811.2	3591.0	3345.6	3298.2
65°	27331.0	24002.1	12027.6	3359.6	3420.9	3641.2	3775.0	3657.9	3390.2	3111.4	3080.8
67.5°	25482.6	21531.9	7918.0	3022.2	3323.3	3543.6	3694.1	3507.3	3236.9	2935.8	2899.5
70°	22017.1	17020.9	3772.2	2818.7	3136.5	3354.0	3473.9	3262.0	2999.9	2704.4	2665.4
72.5°	17004.2	11567.5	2082.7	2595.7	2905.1	3105.9	3192.3	2941.4	2698.8	2576.1	2565.0
75°	10234.9	4971.1	1881.9	2375.4	2606.8	2793.6	2946.9	2757.4	2545.5	2305.7	2244.4
77.5°	3379.1	1444.2	1770.4	2113.3	2375.4	2601.2	2673.7	2489.7	2224.8	2021.3	2004.6
80°	1184.9	1210.0	1650.5	1759.2	2068.7	2258.3	2339.2	2127.3	2001.8	1789.9	1748.1
82.5°	964.7	1084.5	1332.7	1327.1	1633.8	1856.8	1979.5	1926.5	1762.0	1592.0	1575.2
85°	789.0	992.5	844.8	928.4	1171.0	1413.5	1647.7	1653.3	1527.8	1355.0	1240.7
87.5°	468.4	507.4	421.0	474.0	618.9	794.6	920.0	878.2	719.3	607.8	593.8
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)