

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: P591321

Luminaire Tested: **CTN-CA10-630-730-U-T4-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591321
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-12)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-630-730-U-T4-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 39833 lumens
Efficiency: N/A
Efficacy: 63.1 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B5 - U0 - G4

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

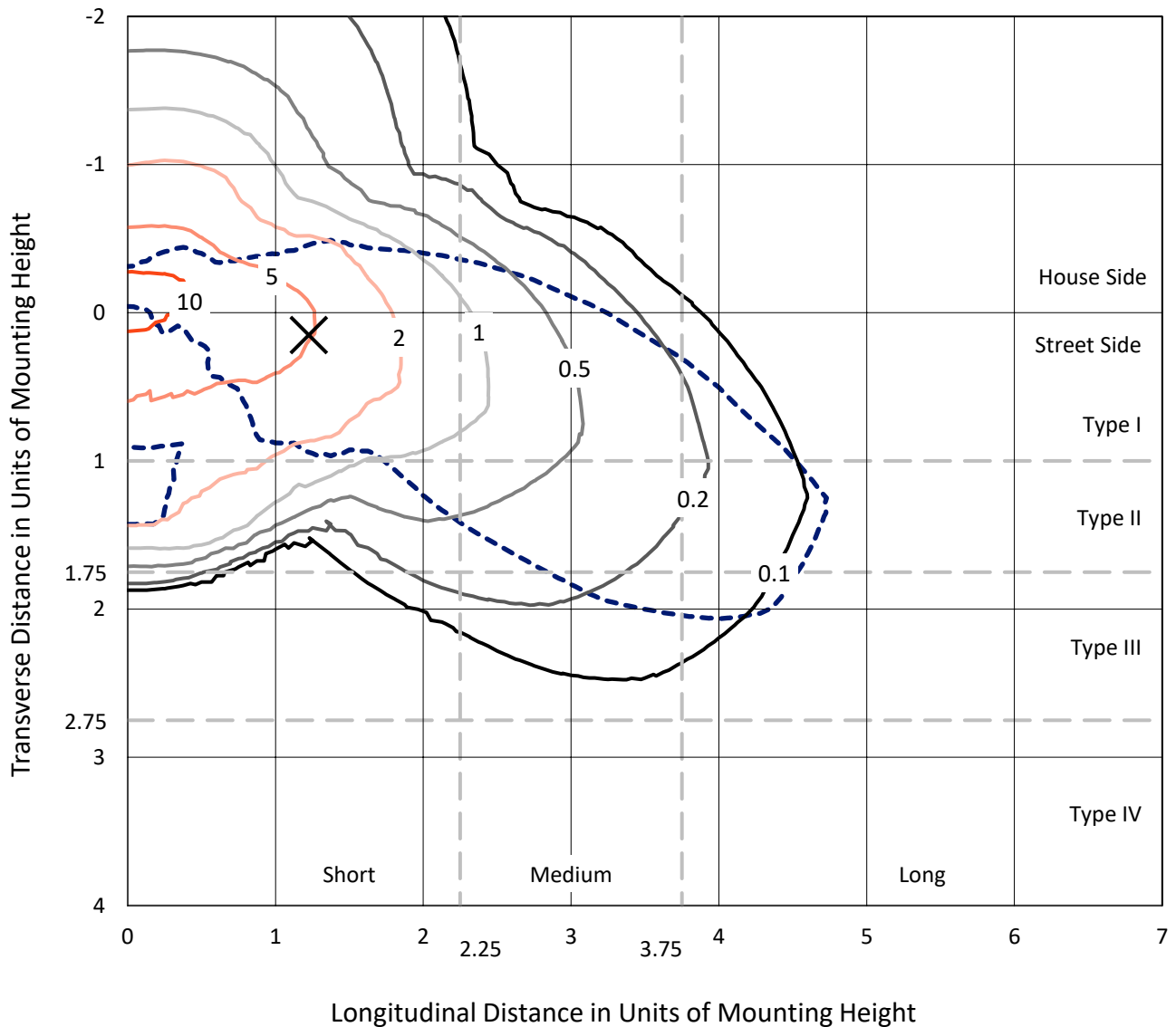




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Iso-Footcandle Lines of Horizontal Illumination

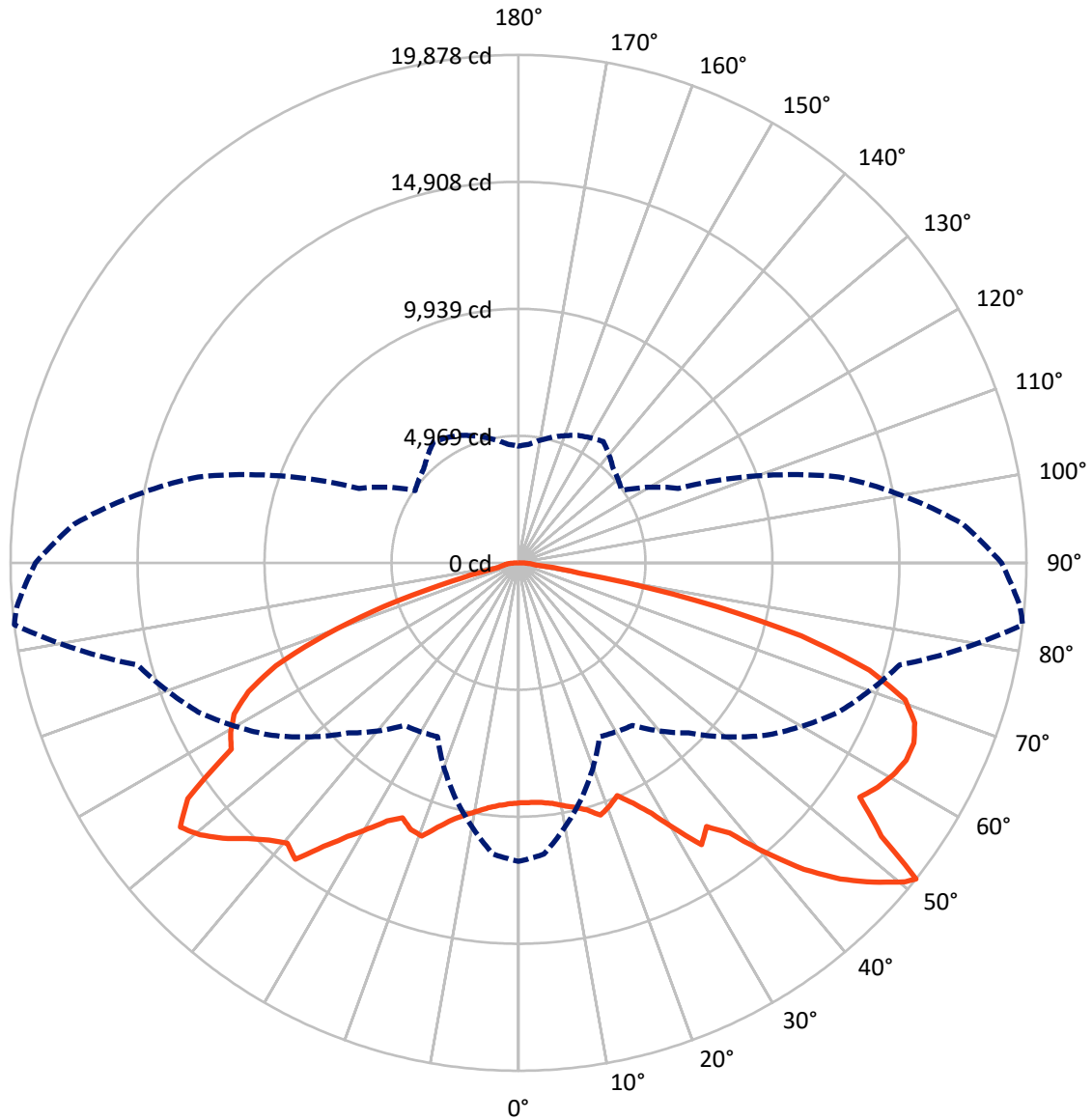
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 11.1 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 83-Deg Lateral - - - Horizontal Cone Through 51-Deg Vertical

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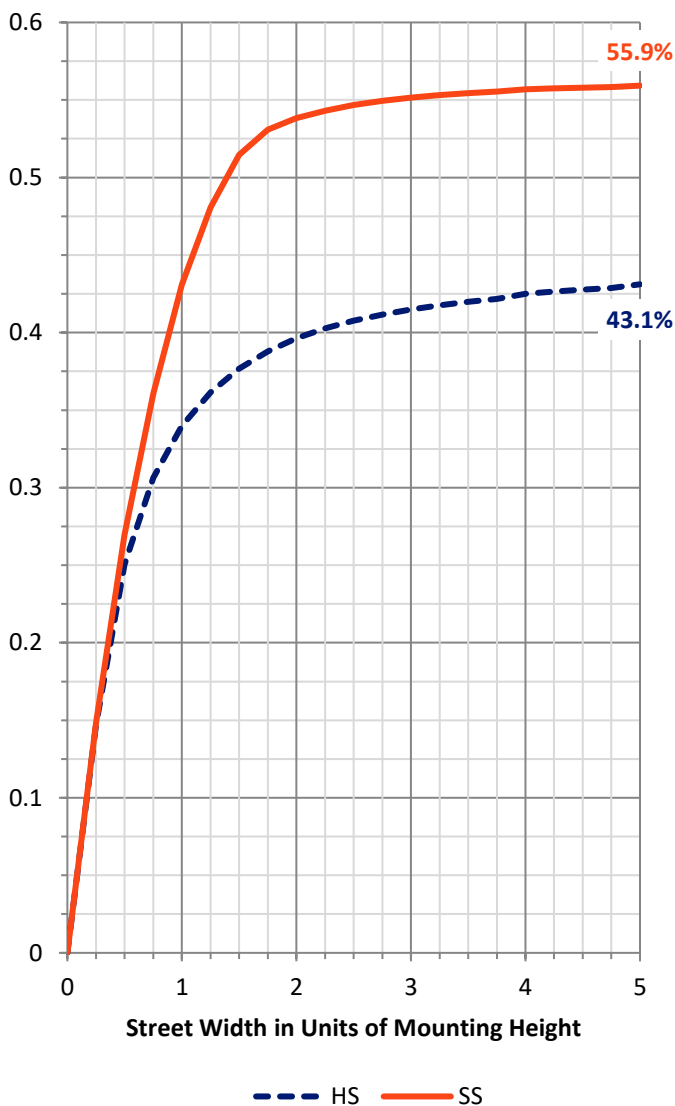
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	17556.6	0.0	17556.6
	% Fixture	44.1	0.0	44.1
Street Side	Lumens	22276.3	0.0	22276.3
	% Fixture	55.9	0.0	55.9
Total	Lumens	39833.0	0.0	39833.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	917.1	2.3
10°-20°	2791.2	7.0
20°-30°	4335.9	10.9
30°-40°	5801.6	14.6
40°-50°	7526.9	18.9
50°-60°	8016.3	20.1
60°-70°	5584.2	14.0
70°-80°	3895.9	9.8
80°-90°	963.9	2.4
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°	39833.0	100.0
0°-180°	39833.0	100.0

Coefficient of Utilization

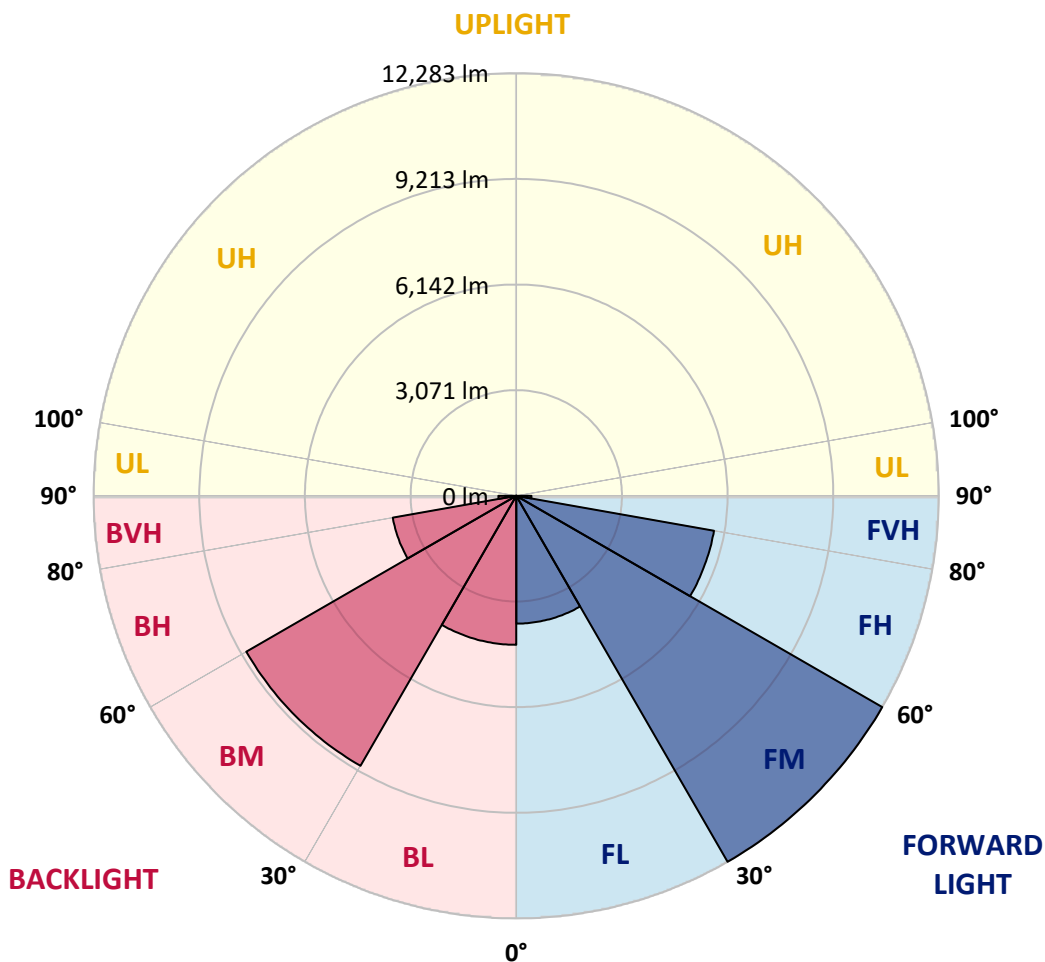


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3714.0	9.3			
FM	(30°-60°)	12283.3	30.8			
FH	(60°-80°)	5836.4	14.7			G3/7500
FVH	(80°-90°)	442.5	1.1			G3/500
BL	(0°-30°)	4330.2	10.9	B4/5000		
BM	(30°-60°)	9061.4	22.7	B5		
BH	(60°-80°)	3643.7	9.1	B4/5000		G4/5000
BVH	(80°-90°)	521.3	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-G4
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	83°	85°
0°	9388.8	9388.8	9388.8	9388.8	9388.8	9388.8	9388.8	9388.8	9388.8	9388.8	9388.8
2.5°	9276.7	9212.3	9217.9	9304.7	9189.9	9265.5	9254.3	9388.8	9363.6	9391.6	9411.2
5°	9195.5	9145.1	9145.1	9259.9	9178.7	9259.9	9203.9	9321.5	9360.8	9422.4	9444.8
7.5°	9212.3	9159.1	9181.5	9282.3	9192.7	9276.7	9273.9	9386.0	9400.0	9509.2	9545.6
10°	9259.9	9201.1	9212.3	9293.5	9243.1	9388.8	9363.6	9517.6	9517.6	9663.2	9719.2
12.5°	9161.9	9122.7	9145.1	9254.3	9299.1	9450.4	9484.0	9640.8	9663.2	9820.0	9890.0
15°	9055.5	8999.5	9072.3	9229.1	9304.7	9523.2	9596.0	9836.8	9870.4	10032.8	10111.2
17.5°	8540.3	8503.9	8638.3	8764.3	8806.3	9019.1	9161.9	9562.4	10044.0	10382.8	10475.2
20°	7515.5	7509.9	7260.7	7207.5	7859.9	8638.3	8736.3	9077.9	9635.2	10164.4	10352.0
22.5°	6275.0	6443.0	7252.3	7509.9	7493.1	7801.1	9055.5	9377.6	9624.0	9892.8	10004.8
25°	6275.0	6261.0	6739.9	7848.7	7851.5	7983.1	8263.1	9876.0	10111.2	10419.2	10508.8
27.5°	6473.8	6487.8	6457.0	7266.3	8237.9	8361.1	8481.5	9315.9	10758.0	11099.6	11248.0
30°	6809.9	6832.3	6709.1	6711.9	8366.7	8736.3	8965.9	9293.5	11208.8	12085.3	12152.5
32.5°	7473.5	7465.1	7311.1	7112.3	7341.9	9103.1	9439.2	9864.8	10497.6	13149.3	13306.1
35°	8002.7	7966.3	7859.9	7722.7	7420.3	8999.5	9890.0	10478.0	11284.4	12676.1	13504.9
37.5°	8590.7	8537.5	8417.1	8249.1	7974.7	6280.6	10335.2	11178.0	12429.7	13418.1	13471.3
40°	9254.3	9195.5	9030.3	8783.9	8433.9	6434.6	10534.0	12043.3	13922.1	14916.2	14907.8
42.5°	9764.0	9705.2	9618.4	9357.9	7414.7	7098.3	9187.1	13258.5	15537.8	16400.2	16327.4
45°	10195.2	10144.8	10153.2	9878.8	6955.5	7913.1	10234.4	13894.1	17061.0	17649.1	17553.9
47.5°	10531.2	10452.8	10240.0	8310.7	7134.7	8475.9	11085.6	12118.9	18346.3	18679.5	18573.1
50°	11348.8	11217.2	9951.6	7378.3	7588.3	9164.7	11894.8	13367.7	16711.0	19617.5	19429.9
51°	11682.0	11444.0	9537.2	7507.1	7767.5	9414.0	11774.4	13821.3	15437.0	19877.9	19709.9
52.5°	12032.0	11561.6	8400.3	7703.1	7985.9	9758.4	10002.0	14518.5	15792.6	17789.1	18780.3
55°	10150.4	10335.2	8674.7	8419.9	8400.3	8433.9	10214.8	15557.4	16534.6	16198.6	16002.6
57.5°	5969.8	6079.0	8811.9	9428.0	7269.1	6697.9	10777.6	16341.4	17175.8	16571.0	16352.6
60°	3001.7	3141.7	3208.9	2926.1	3920.1	6109.8	9077.9	11844.4	17567.9	16851.0	16587.8
62.5°	131.6	218.4	86.8	95.2	159.6	2130.9	6669.8	12166.5	17898.3	17021.8	16674.6
65°	11.2	11.2	14.0	28.0	70.0	2237.3	7423.1	12611.7	18032.7	17005.0	16540.2
67.5°	2.8	2.8	5.6	19.6	50.4	2422.1	8307.9	12793.7	18038.3	16719.4	16151.0
70°	0.0	2.8	5.6	16.8	44.8	2534.1	8501.1	12757.3	17808.7	16047.4	15266.2
72.5°	0.0	0.0	2.8	14.0	39.2	2391.3	8277.1	12684.5	17024.6	14356.1	13247.3
75°	0.0	0.0	2.8	11.2	33.6	2433.3	8299.5	11866.8	14865.8	11430.0	10083.2
77.5°	0.0	0.0	2.8	11.2	30.8	2245.7	7599.5	10276.4	11749.2	7115.1	5642.2
80°	0.0	0.0	2.8	11.2	28.0	1926.5	6249.8	8022.3	6574.6	2413.7	1556.9
82.5°	0.0	0.0	2.8	11.2	22.4	1304.8	4152.6	4009.7	1324.4	691.6	621.6
85°	0.0	0.0	2.8	8.4	16.8	778.4	2080.5	546.0	512.4	439.6	397.6
87.5°	0.0	0.0	2.8	5.6	11.2	330.4	641.2	168.0	212.8	179.2	159.6
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	9388.8	9388.8	9388.8	9388.8	9388.8	9388.8	9388.8	9388.8	9388.8	9388.8	9388.8
2.5°	9428.0	9428.0	9458.8	9562.4	9551.2	9635.2	9587.6	9691.2	9699.6	9680.0	9727.6
5°	9464.4	9498.0	9601.6	9710.8	9666.0	9789.2	9848.0	9985.2	9979.6	9962.8	10018.8
7.5°	9568.0	9638.0	9741.6	9873.2	9920.8	10021.6	10027.2	10214.8	10203.6	10195.2	10251.2
10°	9741.6	9834.0	9948.8	10147.6	10119.6	10265.2	10203.6	10340.8	10338.0	10332.4	10388.4
12.5°	9920.8	10055.2	10195.2	10388.4	10385.6	10391.2	10338.0	10408.0	10394.0	10354.8	10396.8
15°	10172.8	10352.0	10545.2	10685.2	10562.0	10536.8	10419.2	10377.2	10296.0	10184.0	10217.6
17.5°	10590.0	10766.4	11012.8	11088.4	10886.8	10772.0	10452.8	10220.4	9968.4	9797.6	9834.0
20°	10965.2	11292.8	11528.0	11522.4	11264.8	10962.4	10466.8	10074.8	9587.6	9257.1	9229.1
22.5°	10497.6	11049.2	12074.1	11953.6	11502.8	11074.4	10450.0	9842.4	9033.1	8520.7	8501.1
25°	10766.4	10777.6	11696.0	12194.5	11609.2	11026.8	10248.4	9436.4	8400.3	7868.3	7837.5
27.5°	11452.4	11390.8	11136.0	11936.8	11511.2	10783.2	9842.4	8744.7	7823.5	7361.5	7339.1
30°	12267.3	12076.9	11477.6	10688.0	11108.0	10310.0	9217.9	8036.3	7302.7	6882.7	6849.1
32.5°	13241.7	12841.3	11788.4	10550.8	9786.4	9596.0	8411.5	7476.3	6871.5	6434.6	6347.8
35°	14398.1	13798.9	12088.1	10318.4	8755.9	8537.5	7652.7	6972.3	6465.4	6023.0	5936.2
37.5°	14395.3	15019.8	12530.5	9999.2	8117.5	7350.3	7101.1	6636.2	6182.6	5647.8	5549.8
40°	14501.7	14521.3	13017.7	9688.4	7521.1	6739.9	6773.5	6471.0	6003.4	5415.4	5314.6
42.5°	15795.4	14843.4	13614.1	9271.1	6958.3	6289.0	6633.4	6412.2	5908.2	5306.2	5194.2
45°	16921.0	15823.4	12306.5	8814.7	6367.4	5939.0	6521.4	6275.0	5773.8	5174.6	5048.6
47.5°	17901.1	16601.8	12639.7	8016.7	5790.6	5653.4	6305.8	6011.8	5533.0	4975.8	4863.8
50°	18645.9	17245.8	12930.9	6944.3	5230.6	5367.8	5955.8	5656.2	5194.2	4743.4	4648.2
51°	18900.7	17453.1	12989.7	6896.7	4933.8	5233.4	5790.6	5499.4	5085.0	4653.8	4567.0
52.5°	19175.1	17721.9	13076.5	7003.1	4513.8	5012.2	5521.8	5267.0	4922.6	4553.0	4455.0
55°	15943.8	16652.2	12855.3	6779.1	4026.6	4572.6	5029.0	4914.2	4723.8	4396.2	4326.2
57.5°	15361.4	14090.1	10662.8	5740.2	3598.1	4049.0	4550.2	4625.8	4480.2	4147.0	4096.6
60°	15487.4	13961.3	9495.2	4281.4	3172.5	3581.3	4191.8	4259.0	4133.0	3880.9	3810.9
62.5°	15465.0	13630.9	8467.5	3015.7	2802.9	3337.7	3934.1	3962.1	3788.5	3578.5	3514.1
65°	15095.4	12872.1	7064.7	2282.1	2598.5	3203.3	3782.9	3796.9	3581.3	3312.5	3278.9
67.5°	14272.1	11670.8	4914.2	2004.9	2483.7	3099.7	3682.1	3620.5	3413.3	3130.5	3080.1
70°	12695.7	9509.2	2296.1	1845.3	2310.1	2909.3	3435.7	3362.9	3136.1	2872.9	2828.1
72.5°	10178.4	6608.2	1089.2	1688.5	2128.1	2671.3	3133.3	3018.5	2830.9	2732.9	2707.7
75°	6661.4	3102.5	910.0	1520.5	1887.3	2382.9	2872.9	2830.9	2657.3	2461.3	2366.1
77.5°	2702.1	817.6	823.2	1349.7	1694.1	2195.3	2595.7	2562.1	2332.5	2156.1	2116.9
80°	680.4	613.2	753.2	1114.4	1475.7	1912.5	2276.5	2181.3	2097.3	1906.9	1845.3
82.5°	518.0	492.8	590.8	862.4	1212.4	1576.5	1943.3	1982.5	1842.5	1696.9	1666.1
85°	361.2	448.0	358.4	613.2	898.8	1243.2	1629.7	1699.7	1604.5	1439.3	1327.2
87.5°	198.8	235.2	148.4	322.0	476.0	680.4	935.2	943.6	781.2	716.8	674.8
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)