

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: P591135

Luminaire Tested: **CTN-CA10-760-722-U-T2-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591135
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-6)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-760-722-U-T2-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 47650 lumens
Efficiency: N/A
Efficacy: 62.5 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

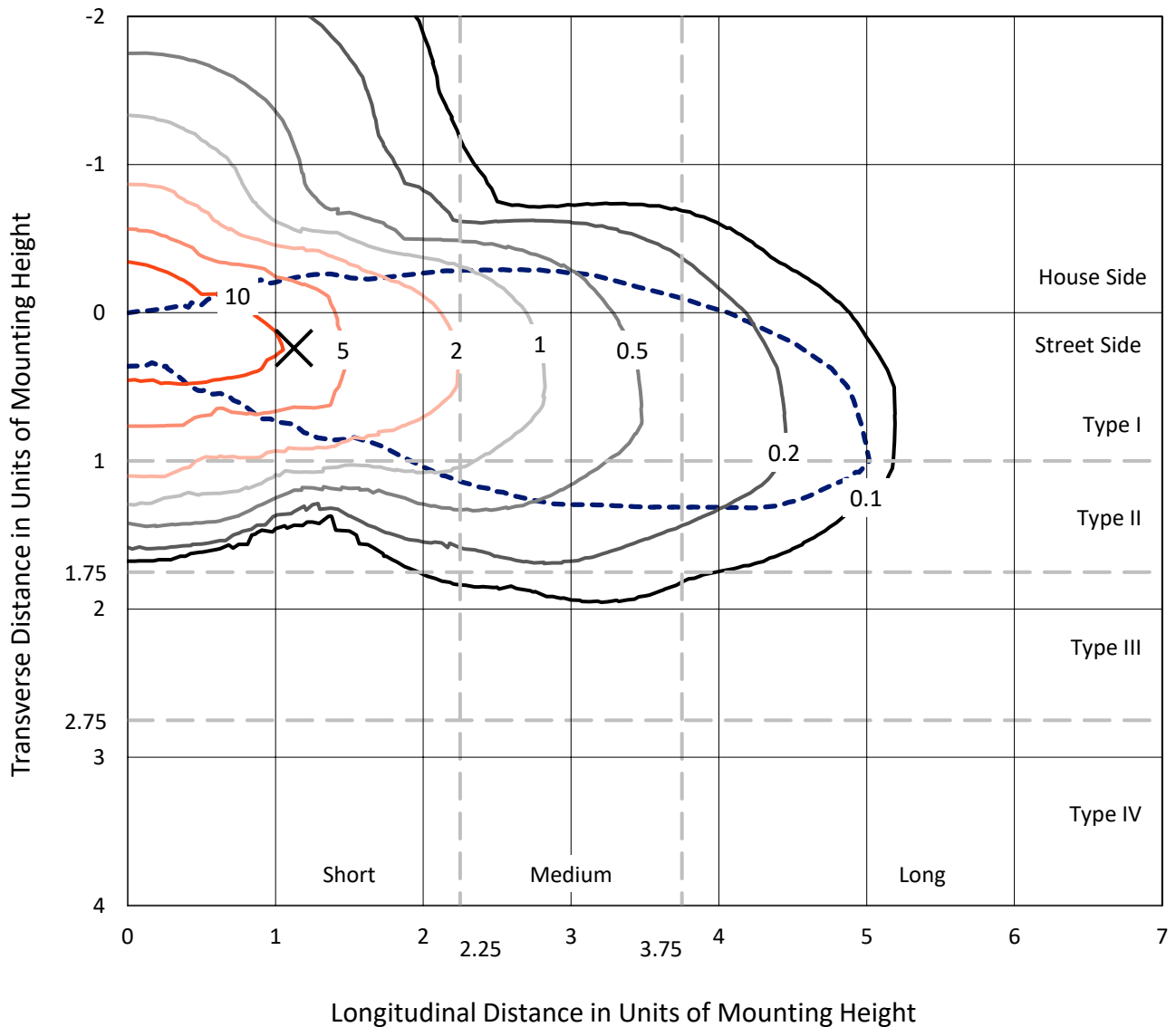
Input Watts (W): 761.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

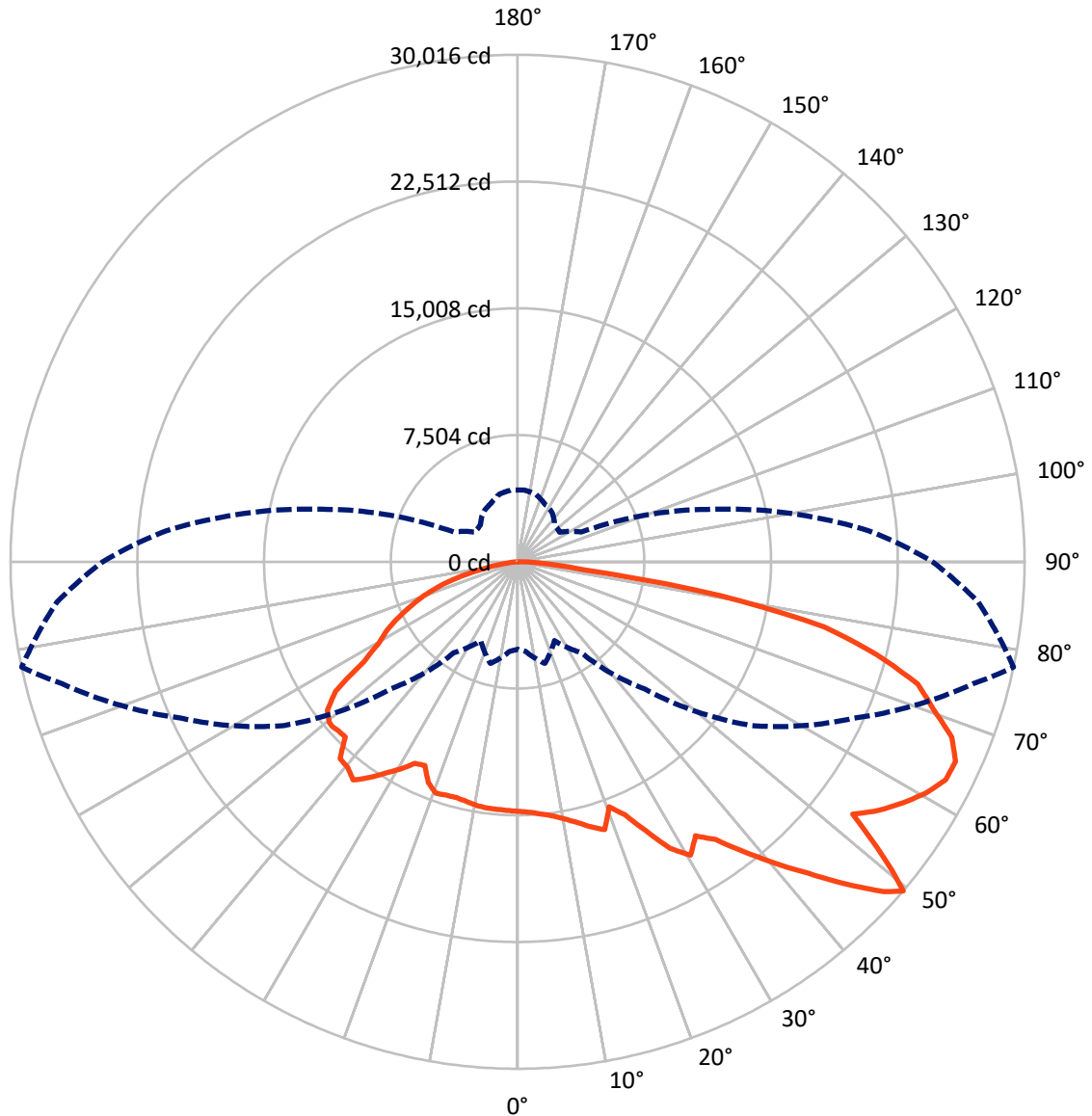
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 18.9 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral - - - Horizontal Cone Through 49-Deg Vertical

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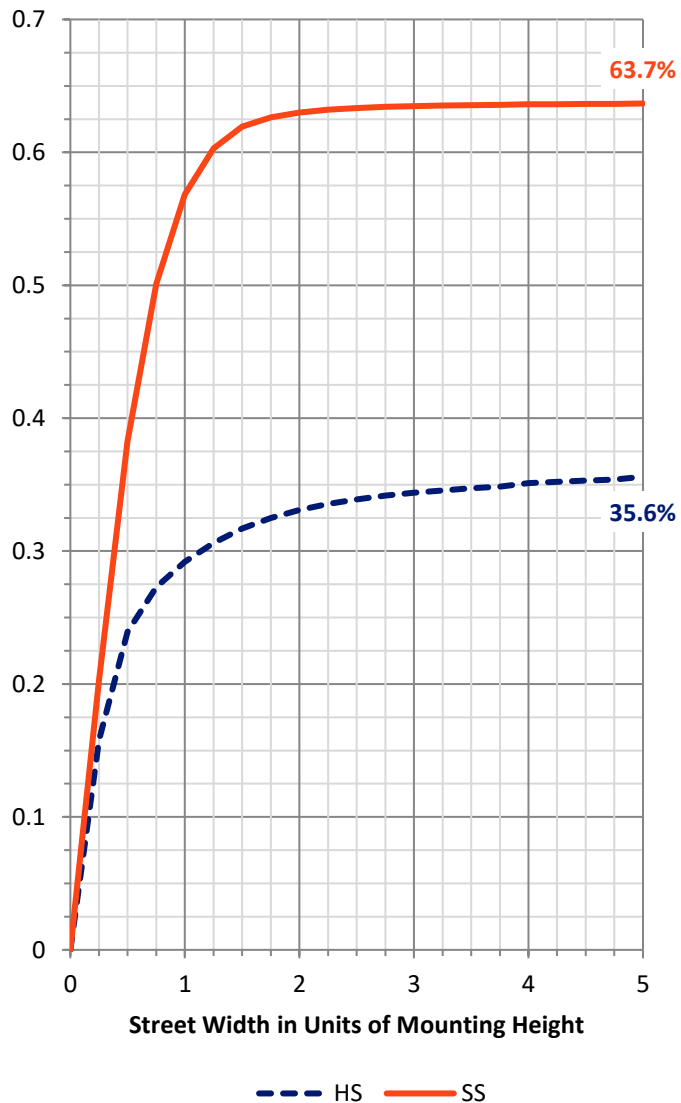
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	17407.3	0.0	17407.3
	% Fixture	36.5	0.0	36.5
Street Side	Lumens	30242.7	0.0	30242.7
	% Fixture	63.5	0.0	63.5
Total	Lumens	47650.0	0.0	47650.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1432.1	3.0
10°-20°	4211.8	8.8
20°-30°	5930.0	12.4
30°-40°	7433.5	15.6
40°-50°	8390.4	17.6
50°-60°	8062.0	16.9
60°-70°	6586.2	13.8
70°-80°	4620.4	9.7
80°-90°	983.6	2.1
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°	47650.0	100.0
0°-180°	47650.0	100.0

Coefficient of Utilization

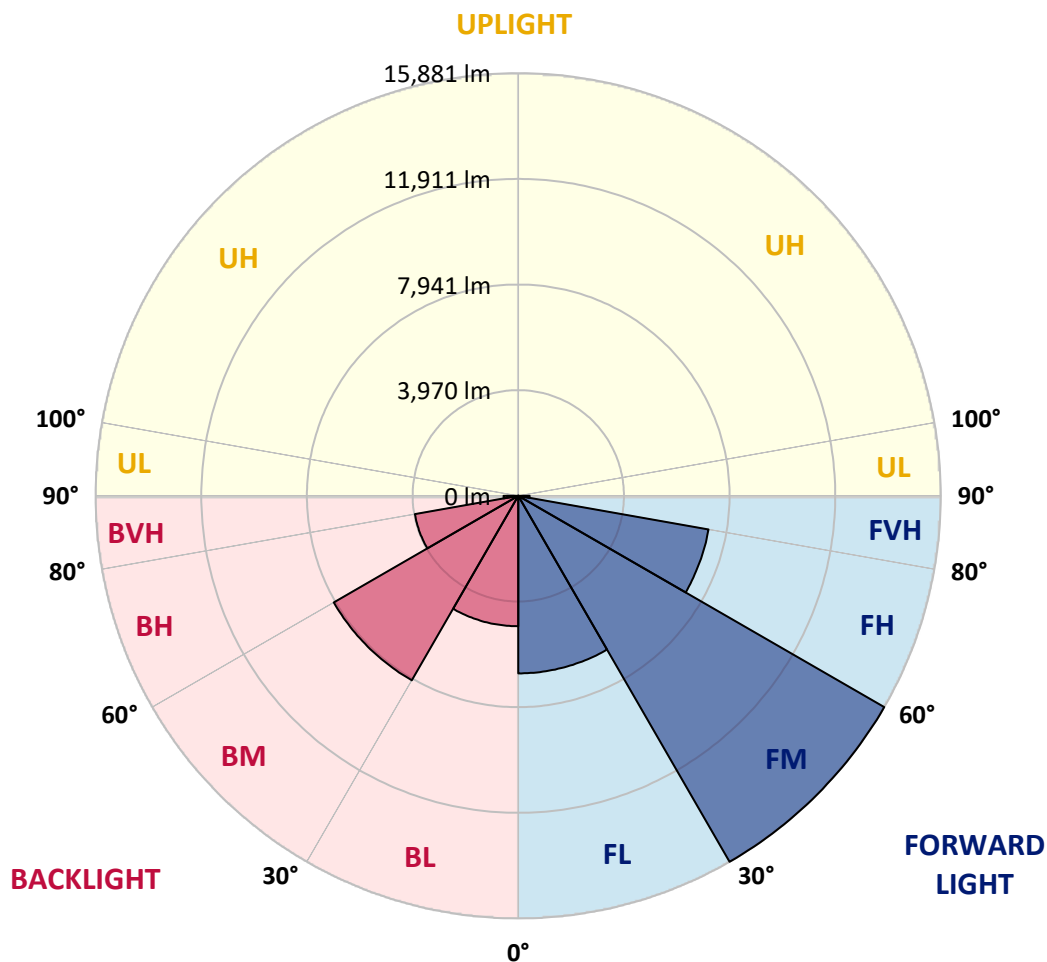


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	6672.4	14.0			
FM (30°-60°)	15881.1	33.3			
FH (60°-80°)	7260.9	15.2			G3/7500
FVH (80°-90°)	428.3	0.9			G3/500
BL (0°-30°)	4901.6	10.3	B4/5000		
BM (30°-60°)	8004.8	16.8	B4/8500		
BH (60°-80°)	3945.6	8.3	B4/5000		G4/5000
BVH (80°-90°)	555.3	1.2			G4/750
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	14779.9	14779.9	14779.9	14779.9	14779.9	14779.9	14779.9	14779.9	14779.9	14779.9	14779.9
2.5°	15389.0	15246.8	15279.0	15354.1	15064.3	15144.8	15016.0	15072.4	14919.4	14855.0	14881.9
5°	16486.5	16320.1	16357.7	16395.3	15968.6	15786.2	15426.6	15343.4	15110.0	15002.6	14989.2
7.5°	17009.8	16838.0	16878.3	16878.3	16553.6	16583.1	16218.2	15831.8	15364.9	15195.8	15120.7
10°	17849.7	17656.5	17626.9	17576.0	17152.0	16964.2	16660.9	16435.5	15727.1	15485.6	15279.0
12.5°	18464.1	18313.9	18316.6	18260.2	17782.6	17645.7	17111.7	16846.1	16145.7	15853.2	15520.5
15°	18719.1	18611.7	18681.5	18512.4	18193.1	17989.2	17737.0	17310.3	16585.8	16285.3	15874.7
17.5°	17530.3	17337.1	16824.6	16913.2	16891.7	16953.4	16706.6	16958.8	16843.4	16679.7	16408.7
20°	14844.3	15048.2	15407.8	15088.5	15064.3	15866.7	16440.9	16363.1	15719.1	15480.3	15751.3
22.5°	12614.4	12364.9	13124.3	14259.3	14578.7	15397.1	16373.8	17302.3	16575.1	16269.2	15448.1
25°	10612.7	10864.9	12045.6	13762.9	14766.5	15008.0	16126.9	17873.8	17989.2	17656.5	16591.2
27.5°	10296.0	10293.3	11090.3	12754.0	15037.5	15794.2	16137.7	17589.4	19419.4	19191.3	17967.7
30°	10223.6	10186.0	10489.2	12174.4	14299.6	16499.9	17168.1	17677.9	19408.7	20170.8	19540.2
32.5°	9912.3	9882.8	10194.1	10985.6	13296.0	17173.5	18155.6	18826.4	18925.7	19341.6	21136.8
35°	9413.2	9483.0	9890.8	10765.6	12472.2	15847.9	19156.5	20205.6	20444.5	20200.3	20213.7
37.5°	8935.6	8989.2	9407.8	10373.8	11871.2	12890.8	19843.4	21531.2	22062.5	21783.5	20479.3
40°	8315.7	8390.8	8887.3	9957.9	11476.7	11125.2	18847.9	23087.6	23825.5	23468.6	21990.1
42.5°	7618.0	7652.9	8240.6	9273.7	8229.8	11184.2	17439.1	24515.1	25548.2	25194.0	23409.6
45°	7022.3	7043.8	7524.1	8181.5	7419.5	11090.3	16465.1	23838.9	27560.7	27206.5	24912.2
47.5°	6185.1	6338.1	6858.6	5656.5	6890.8	10859.5	16792.4	21139.5	29447.1	29184.1	26372.0
49°	5181.6	5318.4	6233.4	5152.0	6563.5	10652.9	16905.1	21928.4	27917.6	30016.0	27372.9
50°	4763.0	4862.2	4776.4	4972.3	6324.7	10443.6	16725.3	22564.3	25658.2	28746.8	28016.9
52.5°	4140.4	3853.3	3281.7	4465.1	5774.6	9627.9	13781.7	24273.6	25422.1	24842.5	26251.2
55°	1749.5	2492.8	2903.4	3662.8	5219.1	5844.3	12762.0	26135.9	26562.5	25977.5	23589.4
57.5°	1368.5	1395.3	1596.6	2726.3	2887.3	4526.8	12346.1	26935.5	27423.9	26916.7	24504.4
60°	201.3	198.6	263.0	314.0	716.5	2082.3	8068.8	19172.6	26468.6	27791.5	25341.6
62.5°	72.5	75.1	75.1	88.6	131.5	912.3	5865.8	17887.2	27107.2	28432.8	26041.9
65°	5.4	8.1	13.4	29.5	69.8	861.4	5203.0	18203.9	26900.6	28494.5	26382.7
67.5°	0.0	2.7	8.1	21.5	56.4	847.9	4838.1	17669.9	26033.9	27711.0	25636.7
70°	0.0	0.0	5.4	18.8	51.0	815.7	4202.1	15858.6	24482.9	26103.7	24279.0
72.5°	0.0	0.0	5.4	18.8	45.6	778.2	3453.5	13961.5	23071.5	24767.3	22309.4
75°	0.0	0.0	5.4	16.1	40.3	708.4	2525.0	10118.9	20667.2	21963.2	19513.3
77.5°	0.0	0.0	5.4	16.1	37.6	611.8	1706.6	5798.7	17004.4	18571.5	16395.3
80°	0.0	0.0	5.4	13.4	34.9	464.2	966.0	2895.3	8887.3	12206.6	11718.2
82.5°	0.0	0.0	5.4	13.4	26.8	246.9	450.8	1263.9	3276.4	3866.7	4513.4
85°	0.0	0.0	5.4	10.7	21.5	61.7	153.0	601.1	1789.8	1988.4	1940.1
87.5°	0.0	0.0	5.4	10.7	16.1	24.2	51.0	171.7	662.8	740.6	633.3
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°	14779.9	14779.9	14779.9	14779.9	14779.9	14779.9	14779.9	14779.9	14779.9	14779.9	14779.9
2.5°	14876.5	14793.3	14715.5	14726.2	14541.1	14500.8	14326.4	14433.8	14361.3	14270.1	14329.1
5°	14908.7	14801.4	14664.5	14511.6	14106.4	13961.5	13720.0	13789.7	13693.1	13585.8	13642.2
7.5°	14978.5	14852.4	14627.0	14229.8	13757.5	13502.6	13223.6	13462.4	13432.9	13371.1	13432.9
10°	15008.0	14898.0	14514.3	14052.7	13398.0	13223.6	13011.6	12971.3	12979.4	12992.8	13084.0
12.5°	15085.8	14922.1	14331.8	13784.4	13188.7	12842.5	12633.2	12756.7	12501.7	12389.0	12437.3
15°	15276.3	14965.1	14189.6	13411.4	12818.4	12544.7	12029.5	12029.5	11965.1	11855.1	11887.3
17.5°	15660.0	15136.8	14152.0	13164.5	12405.1	11932.9	11460.6	11211.0	11141.3	11176.2	11197.6
20°	15866.7	15453.4	14133.2	12839.8	11940.9	11393.5	10677.1	10500.0	10266.5	10298.7	10336.3
22.5°	14624.3	14084.9	14103.7	12442.7	11366.7	10671.7	9888.2	9579.6	9437.4	9410.5	9483.0
25°	15509.8	14423.0	12745.9	12225.4	10736.1	9850.6	9056.3	8632.3	8415.0	8401.6	8447.2
27.5°	16685.1	15354.1	12558.1	11205.7	10065.3	8855.1	7977.6	7674.4	7459.7	7449.0	7457.0
30°	18053.6	16596.5	13025.0	9949.9	9155.6	7706.6	7008.9	6794.2	6598.4	6512.5	6515.2
32.5°	19575.1	17720.9	13475.8	9708.4	7339.0	6705.7	6163.7	5997.3	5729.0	5605.5	5570.6
35°	20999.9	18915.0	14039.3	9303.2	6367.6	5814.8	5433.8	5211.1	5001.8	4897.1	4862.2
37.5°	19744.1	20015.1	14538.4	8970.4	5627.0	4819.3	4714.7	4567.1	4459.7	4379.2	4365.8
40°	20031.2	18029.4	14833.6	8342.5	4862.2	4210.2	4041.1	4113.6	4223.6	4156.5	4153.8
42.5°	20989.2	18338.0	14565.2	7473.1	4255.8	3630.6	3678.9	3949.9	4180.7	4137.7	4143.1
45°	22360.4	19301.4	12499.1	6434.7	3668.1	3271.0	3585.0	3901.6	4191.4	4204.8	4204.8
47.5°	23779.9	20385.4	12115.3	5050.1	3236.1	3131.5	3568.9	3842.6	4175.3	4261.2	4250.4
49°	24566.1	20911.4	12008.0	4156.5	3042.9	3102.0	3566.2	3786.2	4143.1	4263.8	4250.4
50°	25024.9	21270.9	11806.8	3799.6	2930.2	3096.6	3568.9	3751.3	4110.9	4245.1	4239.7
52.5°	25988.3	21727.1	11103.7	3128.8	2656.5	3077.8	3611.8	3719.1	4011.6	4153.8	4207.5
55°	21474.9	20957.0	9923.0	2809.5	2533.1	3040.2	3611.8	3737.9	3925.7	4008.9	4059.9
57.5°	21740.5	17919.4	7803.2	2651.2	2449.9	3000.0	3555.4	3735.2	3880.1	3893.5	3877.4
60°	22550.9	18335.3	5817.5	2490.2	2353.3	2949.0	3434.7	3649.4	3759.4	3759.4	3711.1
62.5°	23036.6	18531.2	4652.9	2313.0	2251.3	2844.4	3254.9	3483.0	3566.2	3520.6	3512.5
65°	23157.3	18689.5	3375.7	2122.5	2135.9	2731.7	3069.8	3268.3	3383.7	3305.9	3322.0
67.5°	22741.4	17559.9	2466.0	1926.6	2004.5	2578.7	2887.3	3064.4	3147.6	3107.3	3115.4
70°	21203.9	16330.9	1736.1	1591.2	1792.5	2342.6	2656.5	2860.5	2903.4	2833.6	2844.4
72.5°	18732.5	14433.8	1094.8	1245.1	1577.8	2125.2	2385.5	2514.3	2522.4	2608.2	2653.8
75°	16314.8	11581.3	791.6	982.1	1253.1	1816.6	2178.9	2299.6	2388.2	2817.5	2887.3
77.5°	13076.0	7328.2	673.5	775.5	984.8	1508.0	1942.7	2127.9	2924.9	3136.8	3083.2
80°	7923.9	4551.0	507.2	611.8	821.1	1159.2	1663.7	2192.3	2959.7	2761.2	2648.5
82.5°	3657.4	1977.6	343.5	499.1	652.1	864.0	1312.2	2559.9	2535.8	2114.5	2093.0
85°	1314.8	585.0	187.8	356.9	456.2	595.7	1008.9	2535.8	1988.4	1776.4	1663.7
87.5°	335.4	104.7	77.8	174.4	230.8	316.6	550.1	1341.7	1033.1	909.7	877.5
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)