

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: P591228

Luminaire Tested: **CTN-CA10-760-727-U-T1-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591228
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-3)
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-T1-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D 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: 57330 lumens
Efficiency: N/A
Efficacy: 75.2 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B5 - U0 - G5

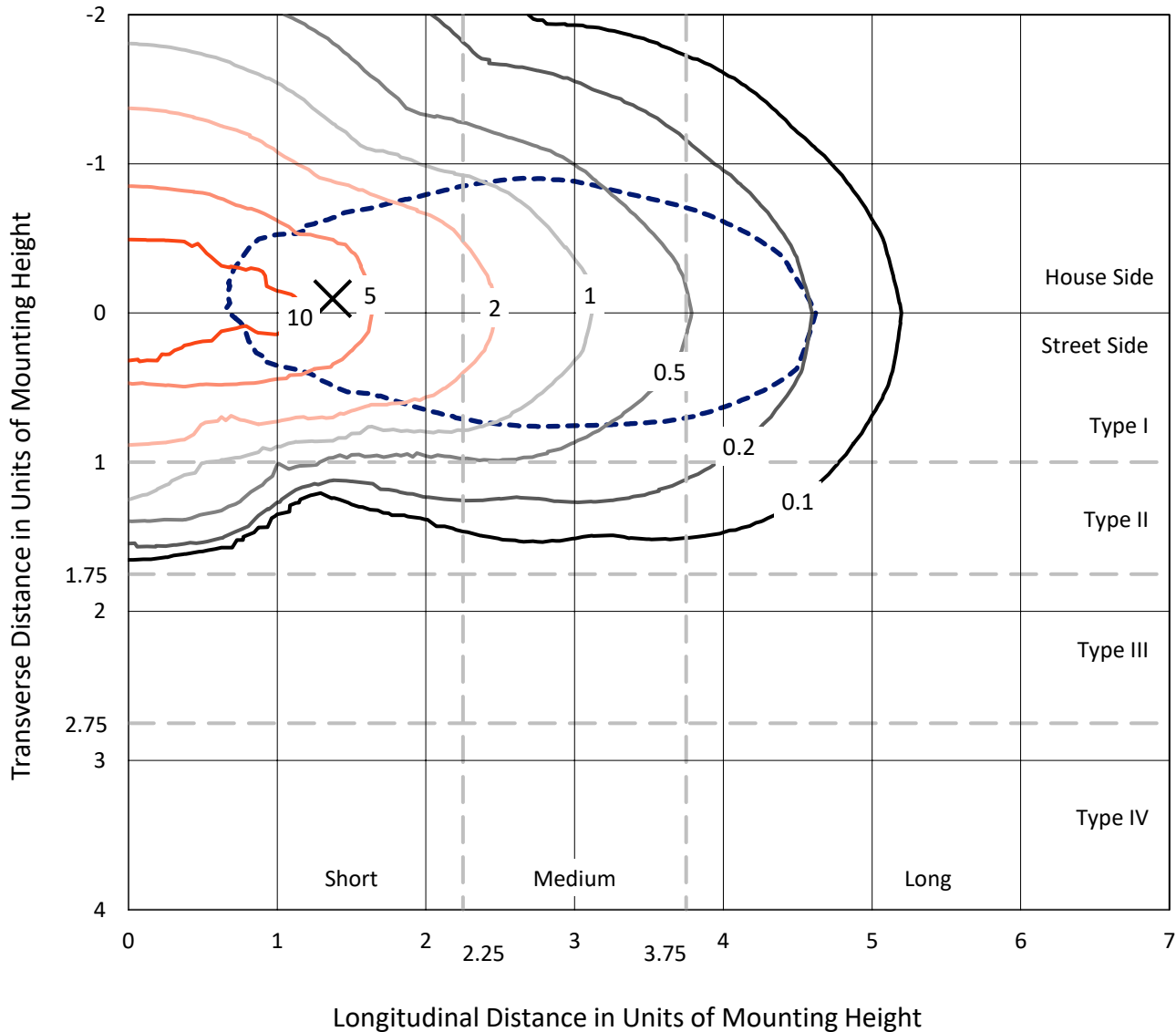
Input Watts (W): 761.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

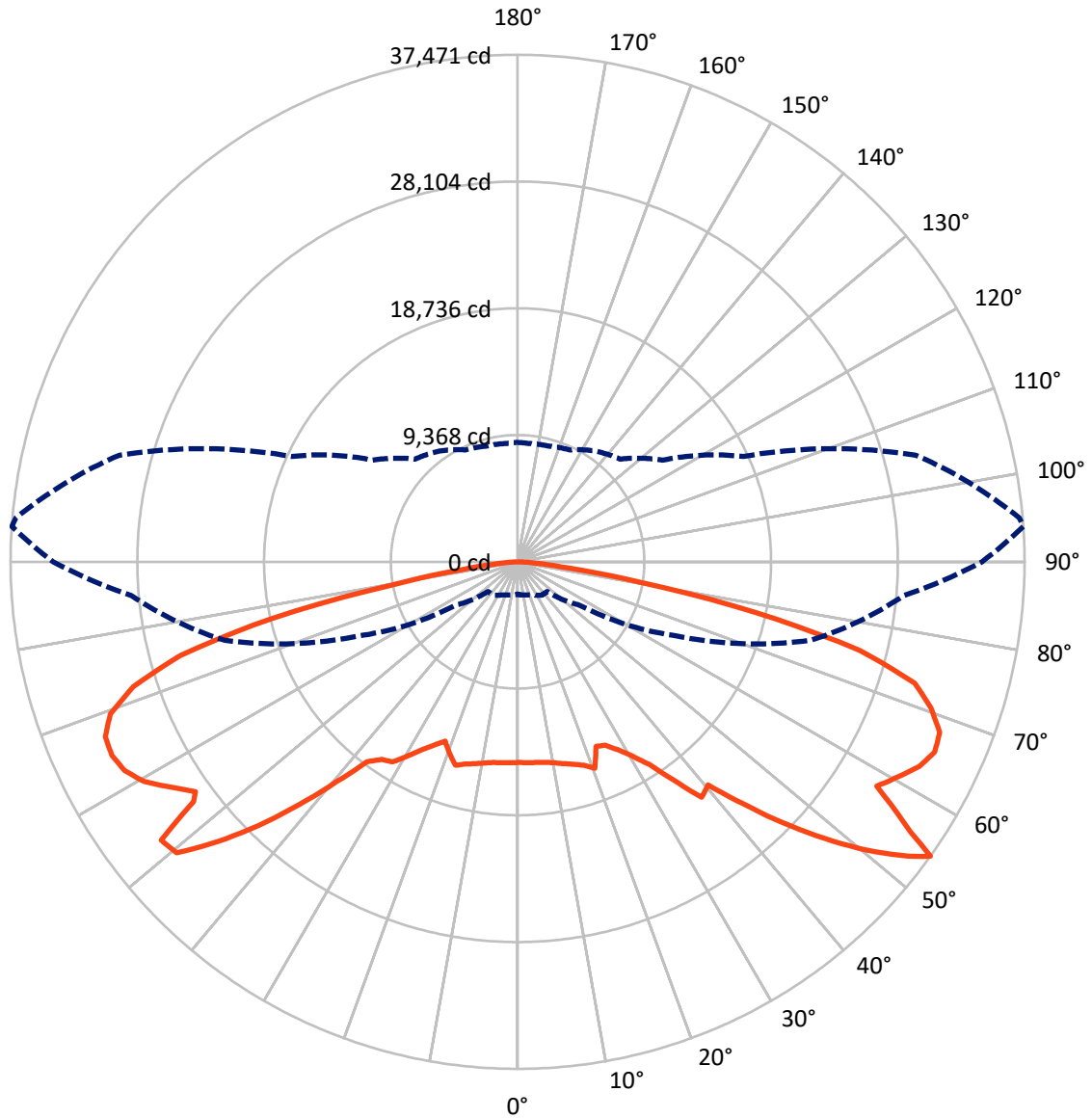
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 16.5 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 94-Deg Lateral - - - Horizontal Cone Through 54-Deg Vertical

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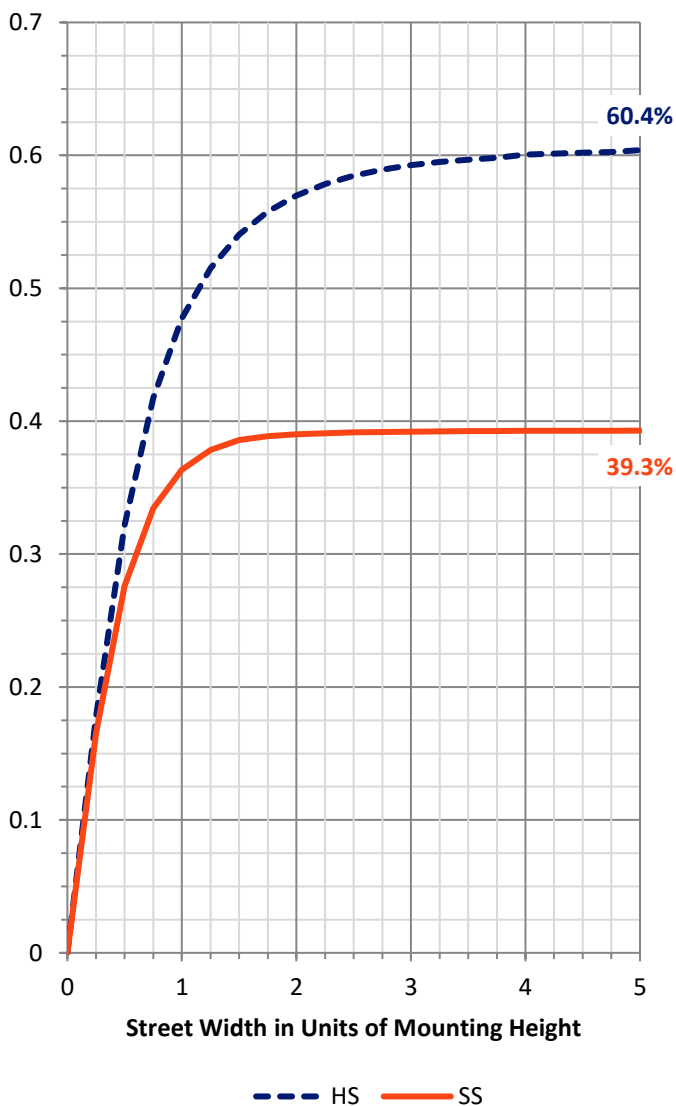
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	34918.7	0.0	34918.7
	% Fixture	60.9	0.0	60.9
Street Side	Lumens	22411.3	0.0	22411.3
	% Fixture	39.1	0.0	39.1
Total	Lumens	57330.0	0.0	57330.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1414.7	2.5
10°-20°	4047.9	7.1
20°-30°	5781.6	10.1
30°-40°	7649.8	13.3
40°-50°	10070.4	17.6
50°-60°	11110.4	19.4
60°-70°	10011.3	17.5
70°-80°	6331.5	11.0
80°-90°	912.4	1.6
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°	57330.0	100.0
0°-180°	57330.0	100.0

Coefficient of Utilization



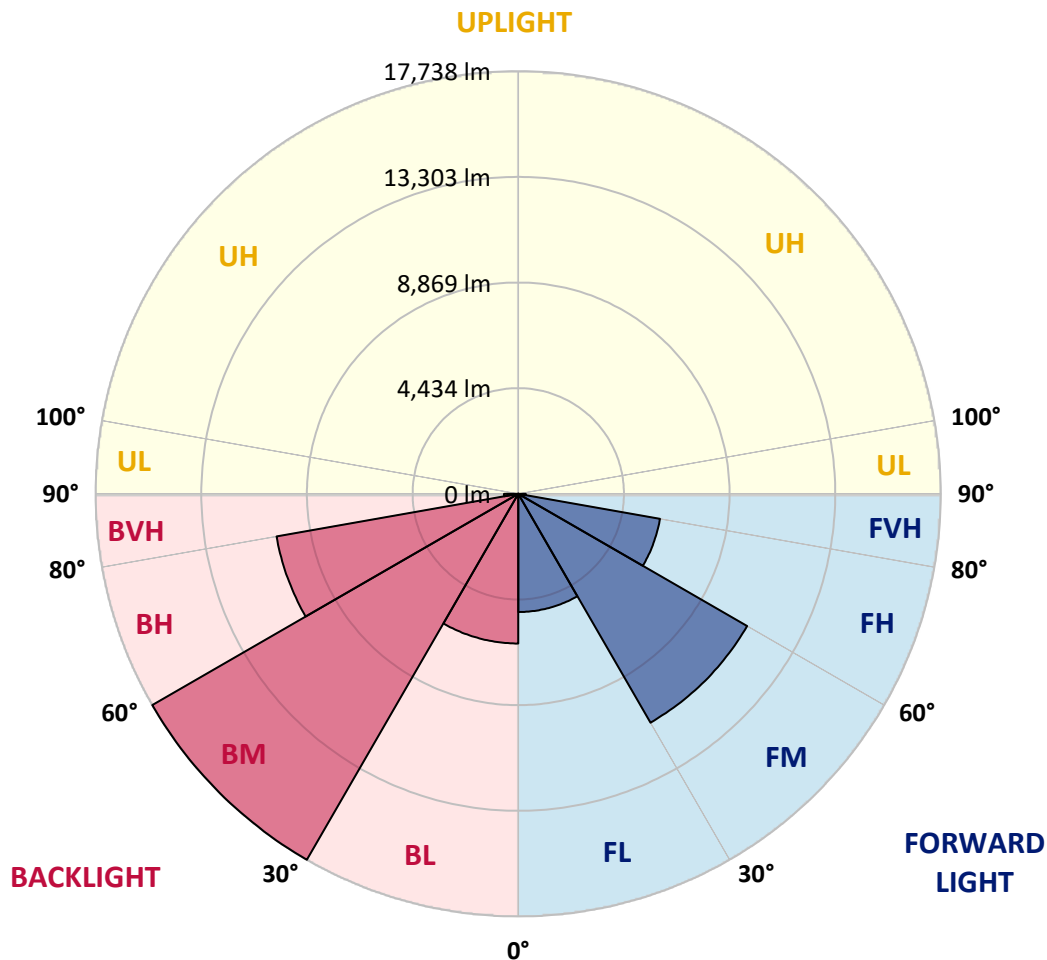
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4961.4	8.7			
FM	(30°-60°)	11092.8	19.3			
FH	(60°-80°)	6041.1	10.5			G3/7500
FVH	(80°-90°)	315.9	0.6			G3/500
BL	(0°-30°)	6282.8	11.0	B5		
BM	(30°-60°)	17737.7	30.9	B5		
BH	(60°-80°)	10301.7	18.0	B5		G5
BVH	(80°-90°)	596.5	1.0			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 I Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	14824.1	14824.1	14824.1	14824.1	14824.1	14824.1	14824.1	14824.1	14824.1	14824.1	14824.1
2.5°	14852.0	14748.8	14762.7	14871.5	14640.1	14785.0	14718.1	14838.0	14790.6	14857.5	14907.7
5°	14720.9	14623.3	14648.4	14782.3	14598.2	14762.7	14667.9	14785.0	14801.8	14882.6	14930.0
7.5°	14612.2	14517.4	14534.1	14659.6	14542.5	14687.5	14631.7	14787.8	14790.6	14932.8	14969.1
10°	14503.4	14405.9	14428.2	14536.9	14461.6	14617.8	14654.0	14838.0	14879.8	15077.8	15080.6
12.5°	14272.0	14185.6	14196.8	14347.3	14350.1	14575.9	14648.4	14932.8	15019.2	15242.3	15264.6
15°	13360.3	13421.7	13655.9	13845.5	14021.1	14325.0	14573.1	15038.8	15155.9	15426.3	15490.4
17.5°	11152.2	11057.4	10547.2	10817.6	11662.4	12471.0	12900.3	13873.3	14963.5	15707.9	15791.5
20°	7820.5	7971.0	8771.2	9139.2	9741.5	11205.2	12549.0	13109.4	13463.5	14810.1	15861.2
22.5°	6203.4	6248.0	7393.9	8768.4	9220.1	9850.2	11445.0	13315.7	13870.6	14260.9	14433.7
25°	5774.1	5807.5	5991.5	7789.8	9022.1	9691.3	10391.1	12825.0	14350.1	14835.2	15041.5
27.5°	5414.4	5450.6	5631.9	6236.9	8840.9	9691.3	10485.9	11609.4	14815.7	15551.8	15727.4
30°	5146.7	5146.7	5333.5	5849.3	7410.6	9721.9	10683.8	11746.1	14090.8	16455.1	16611.2
32.5°	4901.4	4904.2	5107.7	5604.0	6420.9	9590.9	10962.6	12247.9	13527.6	17358.4	17762.7
35°	4681.1	4689.5	4873.5	5375.4	6170.0	7731.3	11272.1	12892.0	14609.4	17258.0	19513.6
37.5°	4494.3	4499.9	4658.8	5149.5	5958.1	5601.2	11472.8	13667.0	16062.0	18153.0	19878.8
40°	4360.5	4352.1	4466.5	4912.5	5648.6	5118.9	9710.8	14472.8	17787.8	20955.0	21596.2
42.5°	4226.7	4212.7	4327.1	4664.4	3864.2	4985.0	8997.0	15259.0	19775.7	24033.0	24604.6
45°	4070.6	4076.1	4187.7	4184.9	3657.9	4806.6	9075.1	13438.4	21902.9	27180.7	27908.4
47.5°	3986.9	3961.8	4017.6	3039.0	3487.9	4561.3	9041.7	12476.5	23779.3	30189.0	30911.1
50°	3830.8	3825.2	2815.9	2880.1	3317.8	4279.7	8517.5	12822.3	21456.8	32977.1	33707.5
52.5°	3596.6	3175.6	2612.4	2768.5	3147.7	3947.9	6083.5	12964.4	21398.3	32701.1	36314.4
54°	2389.4	2447.9	2528.8	2690.5	3025.0	3103.1	5565.0	12953.3	22415.9	28647.2	34320.9
55°	1368.9	1918.2	2461.8	2626.3	2938.6	2171.9	5364.2	12894.7	23065.6	28822.9	30939.0
57.5°	1184.9	1190.5	1355.0	2191.4	1508.3	1862.4	4795.4	12418.0	24281.1	30437.2	31042.2
60°	103.2	100.4	114.3	156.1	198.0	434.9	2414.5	7965.5	23430.8	31822.8	32762.4
62.5°	41.8	44.6	55.8	75.3	119.9	195.2	1996.2	7059.3	23790.4	32667.6	33696.4
65°	8.4	8.4	13.9	25.1	44.6	117.1	1700.7	6287.1	23606.4	32943.6	34318.1
67.5°	0.0	0.0	8.4	19.5	36.2	94.8	1472.1	5785.2	22555.3	32848.8	34086.7
70°	0.0	0.0	8.4	19.5	33.5	92.0	1260.2	5339.1	19948.5	31856.3	33228.0
72.5°	0.0	0.0	8.4	16.7	30.7	83.6	1079.0	4714.6	16909.5	29466.9	31334.9
75°	0.0	0.0	8.4	16.7	27.9	75.3	908.9	4045.5	14127.1	25396.4	27640.7
77.5°	0.0	0.0	8.4	16.7	25.1	66.9	713.7	3231.4	11093.7	18415.1	19619.5
80°	0.0	0.0	8.4	16.7	22.3	53.0	526.9	2040.9	6153.2	9340.0	9836.2
82.5°	0.0	0.0	5.6	13.9	19.5	33.5	250.9	772.3	2899.6	4276.9	4148.6
85°	0.0	0.0	5.6	13.9	16.7	25.1	108.7	195.2	964.7	1419.1	1321.5
87.5°	0.0	0.0	5.6	11.2	13.9	16.7	27.9	33.5	306.7	409.8	423.8
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):

	94°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	14824.1	14824.1	14824.1	14824.1	14824.1	14824.1	14824.1	14824.1	14824.1	14824.1	14824.1
2.5°	14874.3	14874.3	14871.5	14944.0	14852.0	14860.3	14773.9	14996.9	14971.8	14902.1	14985.8
5°	14891.0	14904.9	14902.1	14938.4	14865.9	14910.5	14790.6	15010.9	14974.6	14918.9	15005.3
7.5°	14960.7	14985.8	14966.3	15030.4	14885.4	14930.0	14807.3	14999.7	14963.5	14882.6	14974.6
10°	15111.2	15136.3	15097.3	15128.0	14974.6	14952.3	14801.8	15002.5	14924.4	14863.1	14977.4
12.5°	15306.4	15337.1	15259.0	15253.4	15058.3	15013.7	14796.2	14932.8	14818.5	14768.3	14871.5
15°	15523.9	15560.1	15468.1	15448.6	15233.9	15086.1	14773.9	14804.6	14640.1	14573.1	14681.9
17.5°	15808.3	15841.7	15772.0	15760.9	15482.1	15231.1	14743.2	14642.8	14411.4	14355.7	14414.2
20°	16285.0	16307.3	16215.3	16131.7	15721.8	15309.2	14693.0	14431.0	14076.9	13959.8	14026.7
22.5°	14821.3	14999.7	16809.2	16496.9	15900.3	15390.0	14567.6	14129.8	13633.6	13413.3	13457.9
25°	15013.7	15030.4	15716.2	16929.1	16095.4	15443.0	14419.8	13756.2	13073.2	12752.5	12808.3
27.5°	15710.7	15691.2	15420.7	16976.4	16326.8	15473.7	14235.8	13363.1	12518.4	12133.6	12147.5
30°	16614.0	16583.3	16173.5	15348.2	16658.6	15484.8	14074.1	12911.5	12024.9	11615.0	11603.9
32.5°	17849.1	17762.7	17127.0	15986.7	15256.2	15560.1	13845.5	12482.1	11553.7	11149.4	11118.8
35°	19745.0	19586.1	18429.0	16798.0	15013.7	15560.1	13533.2	12019.3	11118.8	10734.0	10711.7
37.5°	22095.3	22137.1	20093.5	17706.9	15387.3	14102.0	13159.6	11587.1	10742.4	10402.2	10402.2
40°	21674.3	22229.1	22025.6	18638.1	15772.0	13867.8	12758.1	11171.7	10430.1	10170.8	10204.3
42.5°	24454.0	24239.3	24267.2	19572.1	16042.5	13628.0	12323.2	10787.0	10154.1	9933.8	9958.9
45°	27537.6	27295.0	22215.2	20408.5	16167.9	13271.1	11882.7	10391.1	9850.2	9666.2	9733.1
47.5°	30582.1	30364.7	24395.5	20205.0	16050.8	12724.7	11339.0	10048.1	9529.6	9398.5	9498.9
50°	33529.1	33222.4	26745.8	18061.0	15635.4	11969.1	10784.2	9688.5	9250.8	9172.7	9248.0
52.5°	36158.2	35751.2	29126.8	18384.4	13658.7	11205.2	10290.7	9342.8	8997.0	8910.6	8985.9
54°	37471.4	37223.3	30456.7	18420.7	13092.7	10731.2	9995.2	9122.5	8854.9	8782.4	8824.2
55°	35235.4	35731.7	31245.7	18390.0	12682.8	10444.0	9800.0	8977.5	8754.5	8676.4	8718.2
57.5°	31290.3	30755.0	29213.2	18013.6	11567.6	9724.7	9228.5	8609.5	8456.2	8355.8	8414.3
60°	32282.9	32185.3	26667.7	17185.6	10349.2	8919.0	8665.3	8180.1	8077.0	7993.3	8071.4
62.5°	33320.0	33255.9	27074.8	15900.3	9136.4	8127.2	8018.4	7678.3	7617.0	7580.7	7600.2
65°	33880.4	33470.6	27063.6	14180.0	8024.0	7315.8	7299.1	7045.4	7073.3	7056.6	7137.4
67.5°	33643.4	33205.7	25867.5	12939.3	6978.5	6390.2	6443.2	6337.2	6440.4	6471.1	6532.4
70°	32405.5	32547.7	23260.7	11743.3	5938.6	5380.9	5548.2	5534.3	5684.8	5801.9	5899.5
72.5°	30693.7	30147.2	19496.8	9981.2	4346.6	3828.0	4118.0	4313.1	4480.4	4619.8	4711.8
75°	26124.0	25482.8	14394.7	7781.5	3147.7	2640.3	2718.4	2804.8	2913.5	3234.1	3423.7
77.5°	17910.4	17642.8	10352.0	5868.8	2004.6	1592.0	1895.9	2068.7	2160.7	2146.8	2180.3
80°	9183.8	9136.4	6128.1	3510.2	1352.2	1165.4	1380.1	1396.8	1544.6	1658.9	1664.5
82.5°	3702.5	3886.5	2447.9	1923.8	939.6	881.0	973.0	1095.7	1221.2	1288.1	1304.8
85°	1310.4	1279.7	744.4	903.3	596.6	616.2	688.6	828.1	959.1	975.8	939.6
87.5°	351.3	365.2	158.9	331.8	326.2	356.9	395.9	451.7	546.5	574.3	546.5
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)