

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: P591409

Luminaire Tested: **CTN-CA10-630-740-U-T1-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591409
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-630-740-U-T1-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 78427 lumens
Efficiency: N/A
Efficacy: 124.2 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B5 - U0 - G5

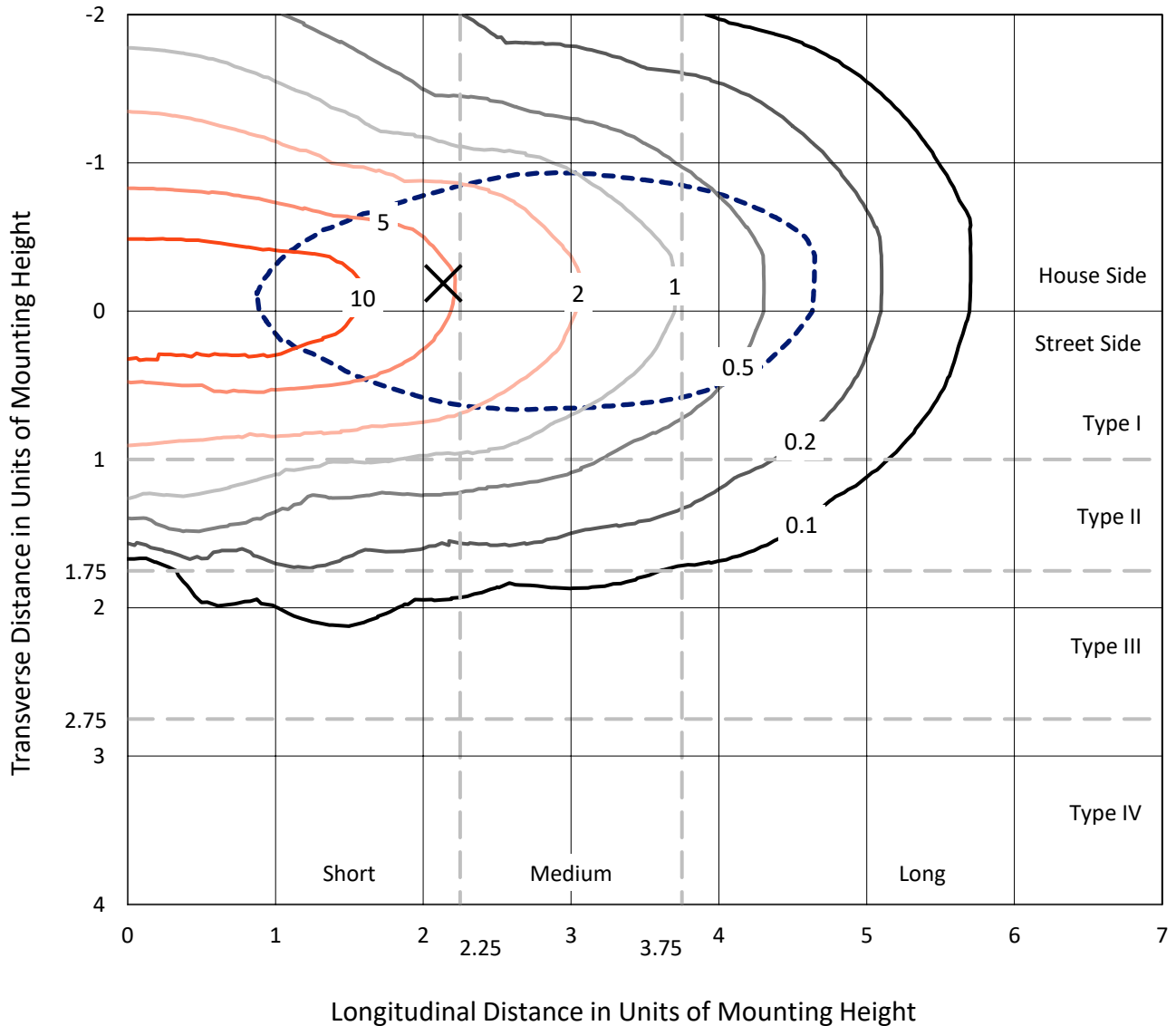
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

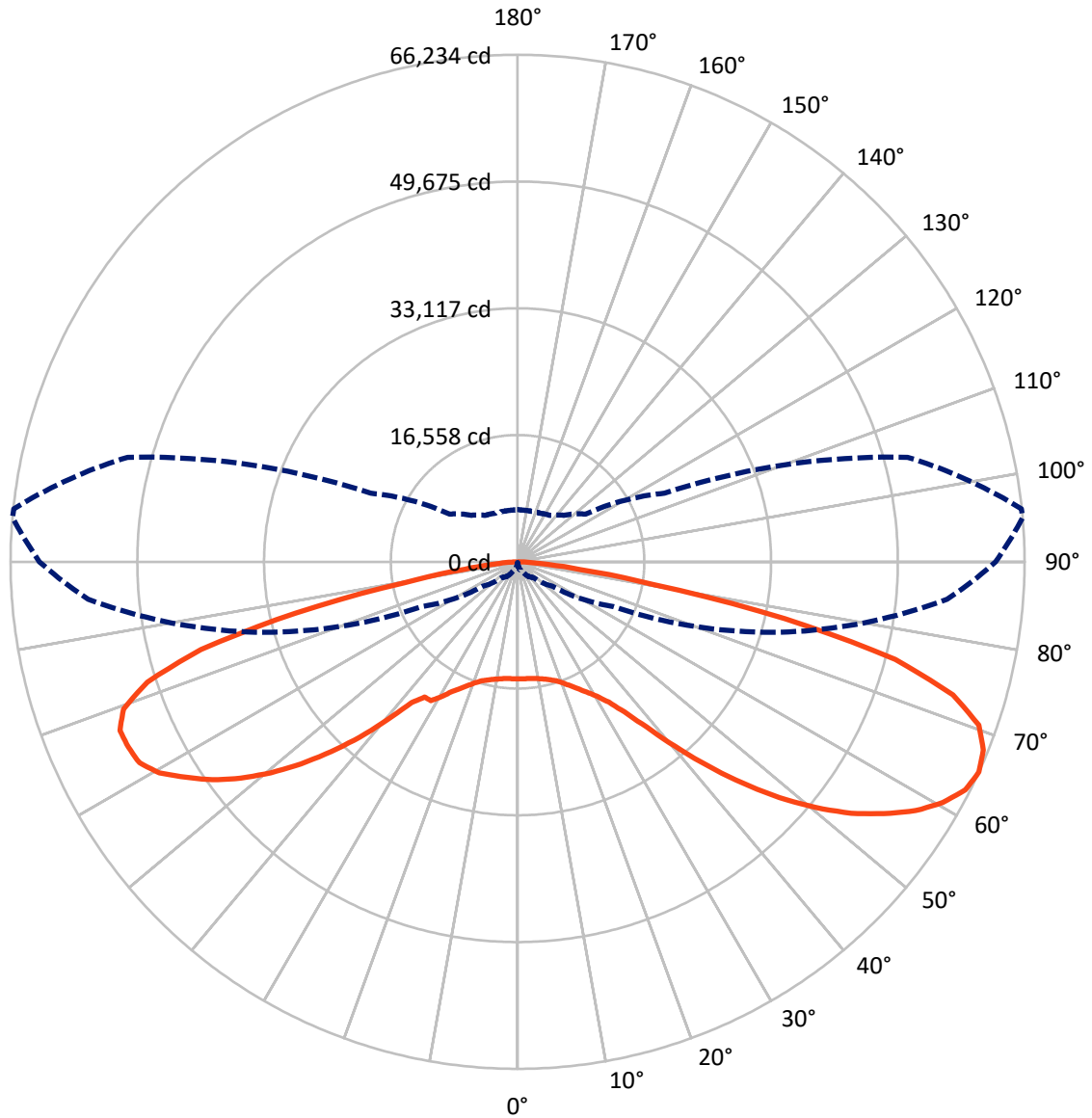
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 17 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 95-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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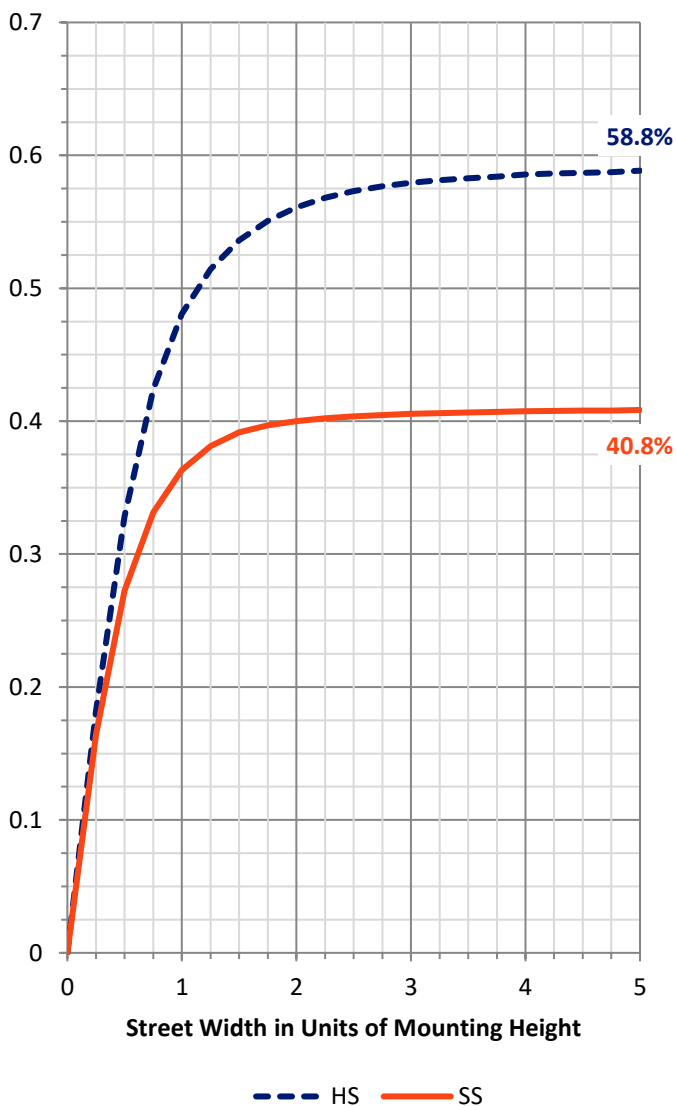
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	46502.6	0.0	46502.6
	% Fixture	59.3	0.0	59.3
Street Side	Lumens	31924.4	0.0	31924.4
	% Fixture	40.7	0.0	40.7
Total	Lumens	78427.0	0.0	78427.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1455.1	1.9
10°-20°	4190.3	5.3
20°-30°	6298.0	8.0
30°-40°	8781.0	11.2
40°-50°	12606.9	16.1
50°-60°	16070.5	20.5
60°-70°	16732.8	21.3
70°-80°	10775.0	13.7
80°-90°	1517.5	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°	78427.0	100.0
0°-180°	78427.0	100.0

Coefficient of Utilization

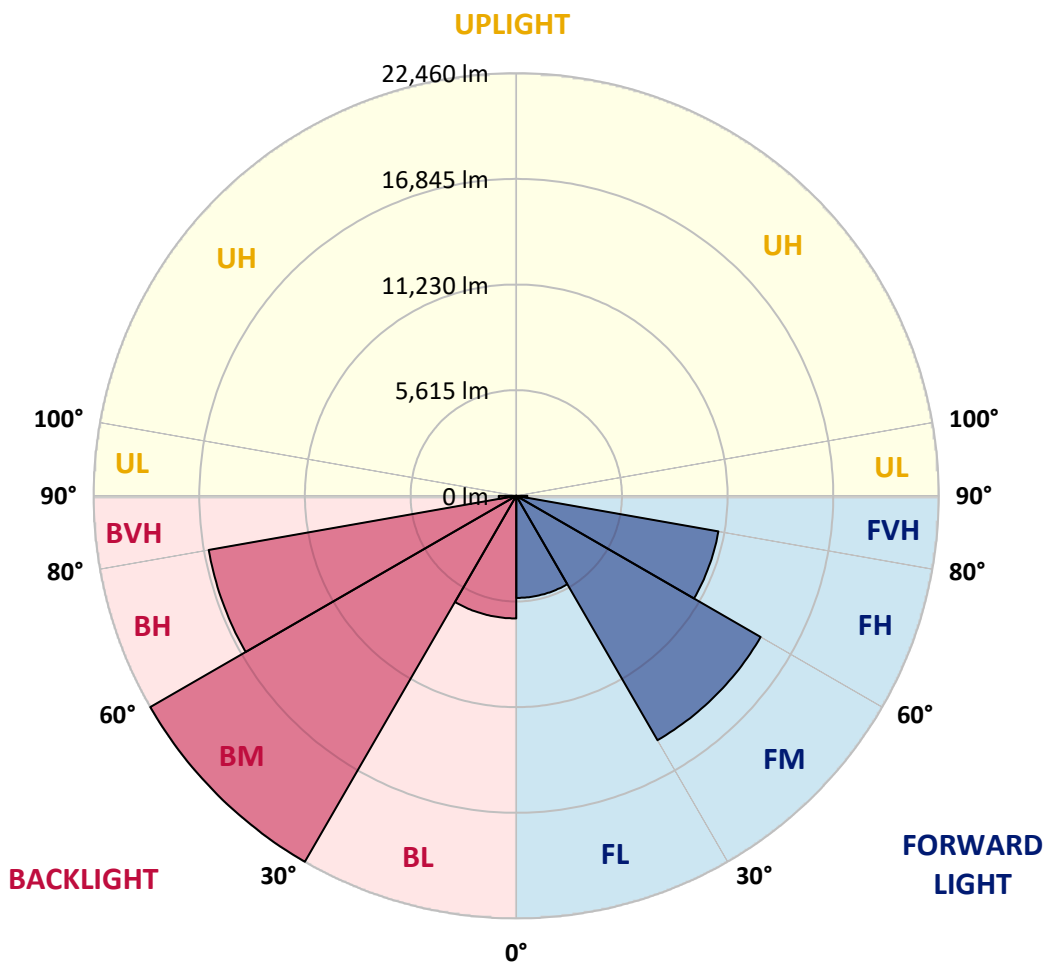


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	5427.2	6.9			
FM (30°-60°)	14998.2	19.1			
FH (60°-80°)	10909.0	13.9			G4/12000
FVH (80°-90°)	590.1	0.8			G4/750
BL (0°-30°)	6516.2	8.3	B5		
BM (30°-60°)	22460.2	28.6	B5		
BH (60°-80°)	16598.8	21.2	B5		G5
BVH (80°-90°)	927.4	1.2			G5
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°	15285.1	15285.1	15285.1	15285.1	15285.1	15285.1	15285.1	15285.1	15285.1	15285.1	15285.1
2.5°	15330.7	15205.3	15230.9	15353.5	15128.3	15250.9	15159.6	15307.9	15270.8	15282.3	15353.5
5°	15202.4	15074.1	15122.6	15273.7	15062.7	15211.0	15142.5	15265.1	15253.7	15296.5	15342.1
7.5°	15085.5	14948.6	15011.3	15122.6	15008.5	15136.8	15099.7	15253.7	15248.0	15373.5	15404.9
10°	14954.3	14828.8	14883.0	15019.9	14925.8	15079.8	15111.2	15293.7	15353.5	15524.7	15538.9
12.5°	14723.3	14600.7	14626.4	14800.3	14814.6	15048.4	15156.8	15444.8	15507.5	15704.3	15712.9
15°	13896.3	13867.8	14110.2	14389.7	14503.7	14851.6	15213.8	15607.4	15701.5	15949.6	15975.2
17.5°	11569.3	11284.2	10856.4	11195.8	11942.9	12903.9	15076.9	15849.7	16023.7	16271.8	16348.8
20°	7759.5	8019.0	8985.7	9419.2	10083.6	11703.4	15042.7	16112.1	16488.5	16788.0	16933.4
22.5°	6410.6	6396.4	7554.2	9014.2	9536.1	10280.4	13827.9	16422.9	17047.5	17438.1	17620.6
25°	5954.3	5960.1	6171.1	8016.1	9307.9	10095.0	12701.5	16015.1	17660.6	18219.5	18436.2
27.5°	5592.2	5615.0	5794.7	6419.2	9114.0	10055.1	12732.8	14848.8	18307.9	19055.1	19306.0
30°	5304.2	5292.8	5509.5	6031.3	7585.5	10069.4	12881.1	15082.6	17706.2	20241.4	20381.1
32.5°	5064.6	5033.2	5252.8	5777.5	6624.5	9958.1	13103.6	15738.5	17281.3	21382.0	21926.7
35°	4833.6	4822.2	5016.1	5532.3	6396.4	8269.9	13363.1	16551.3	18661.5	21419.1	24048.4
37.5°	4654.0	4645.4	4799.4	5287.1	6191.0	7534.2	13576.9	17575.0	20458.1	23001.8	25805.0
40°	4508.5	4485.7	4608.3	5070.3	5957.2	7411.6	11826.0	18644.4	22651.0	26694.8	30059.8
42.5°	4385.9	4354.5	4474.3	4856.4	5731.9	7274.7	10981.9	19722.4	25229.0	30806.9	34197.6
45°	4217.7	4214.8	4337.4	4693.9	5492.4	7075.1	11061.7	17922.9	28126.3	34742.3	38543.6
47.5°	4132.1	4112.2	4203.4	4542.8	5267.1	6772.8	10984.7	17153.0	30344.9	38691.9	42778.3
50°	3998.1	3981.0	4069.4	4368.8	5044.7	6390.7	10705.3	17626.4	28517.0	42433.3	46759.3
52.5°	3758.5	3094.1	3938.2	4223.4	4805.1	5977.2	10174.9	17888.7	29227.1	45901.0	50466.5
55°	1477.2	1981.9	3769.9	4040.9	4559.9	5589.3	9370.7	17814.6	31576.9	49006.5	53660.4
57.5°	1286.1	1291.8	2503.8	3373.6	4269.0	5184.4	8389.7	17392.5	33650.1	51664.2	56771.6
60°	182.5	185.4	1269.0	1420.1	2800.4	3684.4	7391.6	16636.8	34879.1	54322.0	59455.1
62.5°	122.6	128.3	1154.9	1289.0	2555.1	3268.0	6464.8	15293.7	35472.3	55936.1	61388.5
65°	88.4	91.3	1046.6	1166.3	2275.7	2900.2	5603.6	13833.6	35526.5	56309.7	62449.4
67.5°	82.7	85.6	963.9	1075.1	2070.3	2575.1	4859.3	12547.5	34029.3	56420.9	62406.6
70°	85.6	85.6	878.3	972.4	1836.5	2232.9	4032.3	11267.1	30253.7	54966.5	61003.6
72.5°	85.6	88.4	767.1	855.5	1582.7	1890.7	3305.1	9159.7	24501.8	50848.7	57615.7
75°	85.6	88.4	604.6	707.2	1314.6	1517.1	2712.0	7385.9	18869.7	42912.4	50409.5
77.5°	88.4	88.4	444.9	541.8	1015.2	1140.7	2058.9	5674.9	13904.9	29746.1	35095.9
80°	88.4	94.1	313.7	399.2	750.0	824.1	1494.3	3621.7	7488.6	15085.5	17423.9
82.5°	91.3	94.1	233.8	299.4	519.0	593.2	912.5	1782.3	3462.0	6981.0	7907.8
85°	85.6	88.4	191.1	208.2	296.6	356.5	567.5	884.0	1217.7	2746.2	2854.6
87.5°	59.9	57.0	59.9	68.4	97.0	156.8	268.1	299.4	293.7	738.6	858.4
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°	96°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	15285.1	15285.1	15285.1	15285.1	15285.1	15285.1	15285.1	15285.1	15285.1	15285.1	15285.1
2.5°	15310.8	15316.5	15293.7	15382.1	15293.7	15342.1	15213.8	15413.4	15393.5	15339.3	15407.7
5°	15307.9	15322.2	15316.5	15396.3	15285.1	15325.0	15196.7	15407.7	15336.4	15288.0	15370.7
7.5°	15376.4	15396.3	15387.8	15442.0	15313.6	15310.8	15185.3	15342.1	15273.7	15171.0	15273.7
10°	15527.5	15527.5	15501.8	15533.2	15347.8	15327.9	15116.9	15296.5	15179.6	15088.3	15213.8
12.5°	15721.4	15738.5	15672.9	15667.2	15410.6	15350.7	15085.5	15173.9	15005.6	14920.1	15042.7
15°	16006.6	16018.0	15932.4	15878.3	15564.6	15433.4	15005.6	14988.5	14754.7	14672.0	14760.4
17.5°	16337.4	16334.5	16214.8	16191.9	15824.1	15518.9	14940.1	14763.2	14463.8	14369.7	14446.7
20°	16867.8	16836.4	16705.3	16574.1	16038.0	15573.1	14845.9	14475.2	14058.9	13924.8	13987.6
22.5°	17580.7	17569.3	17364.0	16984.7	16266.1	15624.5	14686.3	14124.5	13571.2	13328.8	13368.8
25°	18362.1	18353.5	18059.8	17492.3	16465.7	15661.5	14500.9	13730.9	12983.8	12615.9	12607.4
27.5°	19268.9	19246.1	18849.7	18039.8	16742.3	15672.9	14301.3	13314.6	12402.0	11942.9	11962.9
30°	20372.5	20332.6	19790.8	18647.3	17093.1	15707.2	14130.2	12846.9	11860.2	11372.6	11361.2
32.5°	21835.5	21778.4	20937.2	19445.7	17546.5	15792.7	13924.8	12384.9	11355.5	10865.0	10822.2
35°	24062.6	23945.7	22554.1	20466.6	18051.3	15849.7	13596.9	11945.8	10867.8	10405.9	10371.6
37.5°	27359.2	27162.4	24590.2	21538.9	18553.2	15838.3	13223.3	11472.4	10471.4	10023.7	10015.2
40°	31705.2	31397.2	27034.1	22688.1	19035.1	15775.6	12821.2	11050.3	10140.6	9755.7	9784.2
42.5°	36459.0	36133.9	29931.4	23857.3	19397.3	15581.7	12390.6	10651.1	9835.5	9527.5	9530.4
45°	41249.8	40947.6	33265.1	24958.1	19576.9	15216.7	11942.9	10271.8	9513.3	9245.2	9276.6
47.5°	46020.7	45798.3	36567.3	25887.7	19488.5	14643.5	11403.9	9912.5	9193.9	8974.3	9045.6
50°	50458.0	50221.3	40086.3	26657.7	19043.6	13845.0	10850.7	9558.9	8934.4	8743.3	8803.2
52.5°	54570.1	54253.6	43856.3	27102.6	18242.3	13003.7	10363.1	9248.1	8683.4	8492.4	8555.1
55°	58063.4	58049.2	47306.8	27139.6	16990.4	12142.5	9892.5	8888.7	8438.2	8281.3	8295.6
57.5°	61334.3	61462.7	50275.5	26689.1	15507.5	11344.1	9353.6	8518.0	8155.9	7993.3	8007.6
60°	63832.4	63992.1	52288.8	25377.3	13927.7	10462.9	8774.7	8124.5	7805.1	7651.1	7696.7
62.5°	65626.2	65420.8	53355.3	23495.2	12345.0	9516.1	8147.3	7622.6	7368.8	7274.7	7277.5
65°	66233.6	66168.0	52730.8	21176.7	10850.7	8583.6	7405.9	6998.1	6841.2	6775.6	6824.1
67.5°	65611.9	65651.8	50298.3	19206.2	9430.6	7531.3	6573.2	6310.8	6231.0	6228.1	6279.4
70°	63909.4	63595.7	45253.6	17632.1	8098.8	6362.1	5677.7	5552.3	5526.6	5589.3	5632.1
72.5°	59460.8	59004.5	37528.4	15125.4	6216.7	4679.6	4300.4	4471.5	4465.8	4500.0	4539.9
75°	50939.9	49739.3	29395.3	12042.7	4605.5	3310.8	2868.8	2863.1	2854.6	3145.4	3250.9
77.5°	35703.3	34901.9	21701.4	9171.1	3062.7	1981.9	1967.7	2121.7	2147.3	1956.3	1993.3
80°	17911.5	18262.3	12524.7	5666.3	2036.1	1397.3	1465.8	1443.0	1462.9	1485.7	1500.0
82.5°	8255.7	8432.5	5994.3	2760.4	1311.8	1060.8	1003.8	1092.2	1132.1	1129.3	1120.7
85°	2928.7	2945.8	1896.4	1183.5	804.2	690.1	701.5	815.6	861.2	821.3	801.3
87.5°	849.8	807.0	387.8	350.8	370.7	367.9	379.3	402.1	433.5	427.8	396.4
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)