

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: P232800

Luminaire Tested: **CTN-8-3-D-E1-T2-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232800
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-7)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-8-3-D-E1-T2-7050
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 5000K LEDS AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31537 lumens
Efficiency: N/A
Efficacy: 139.5 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 226
Input Voltage (V): NR
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: 25 FT

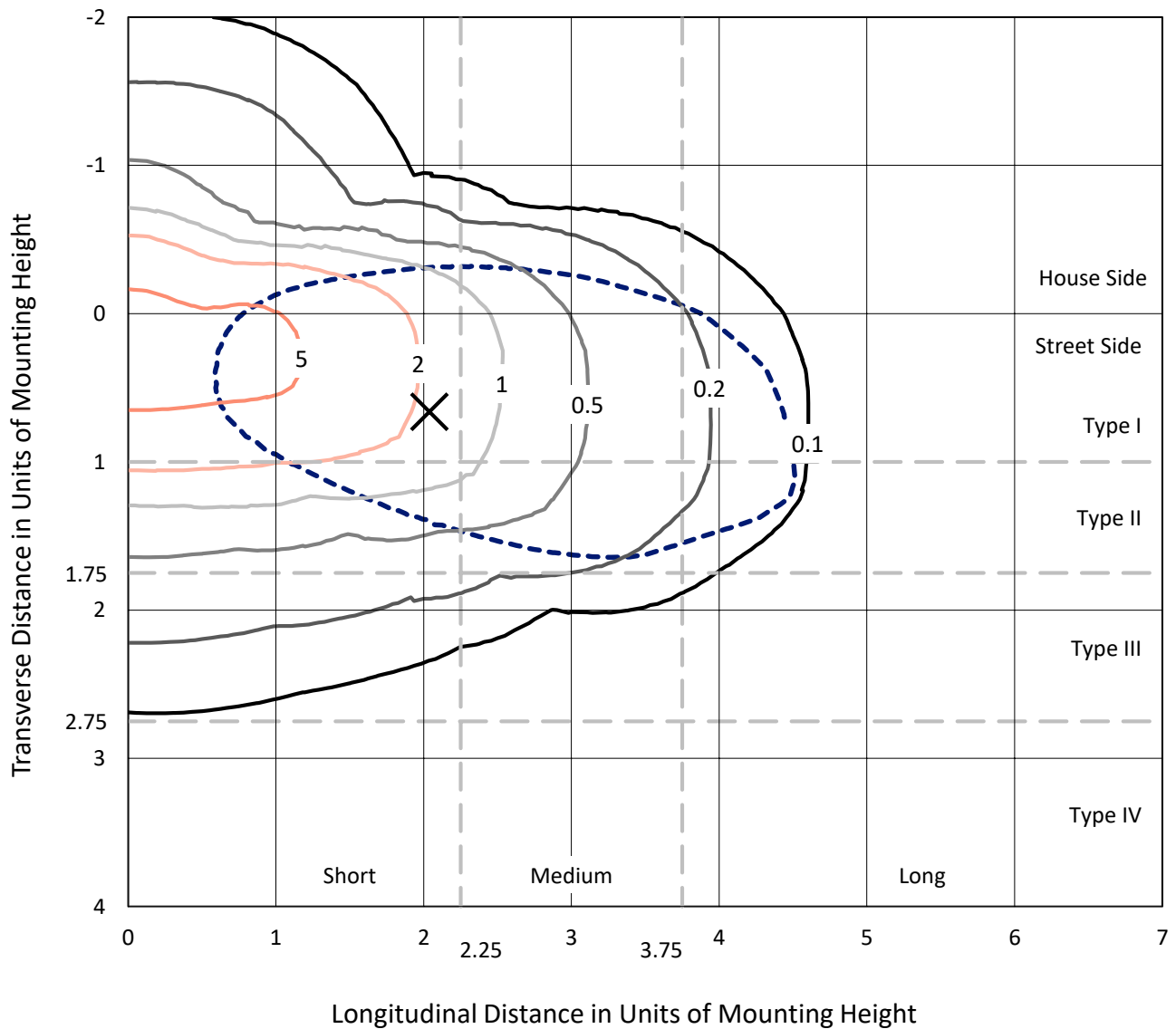


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Iso-Footcandle Lines of Horizontal Illumination

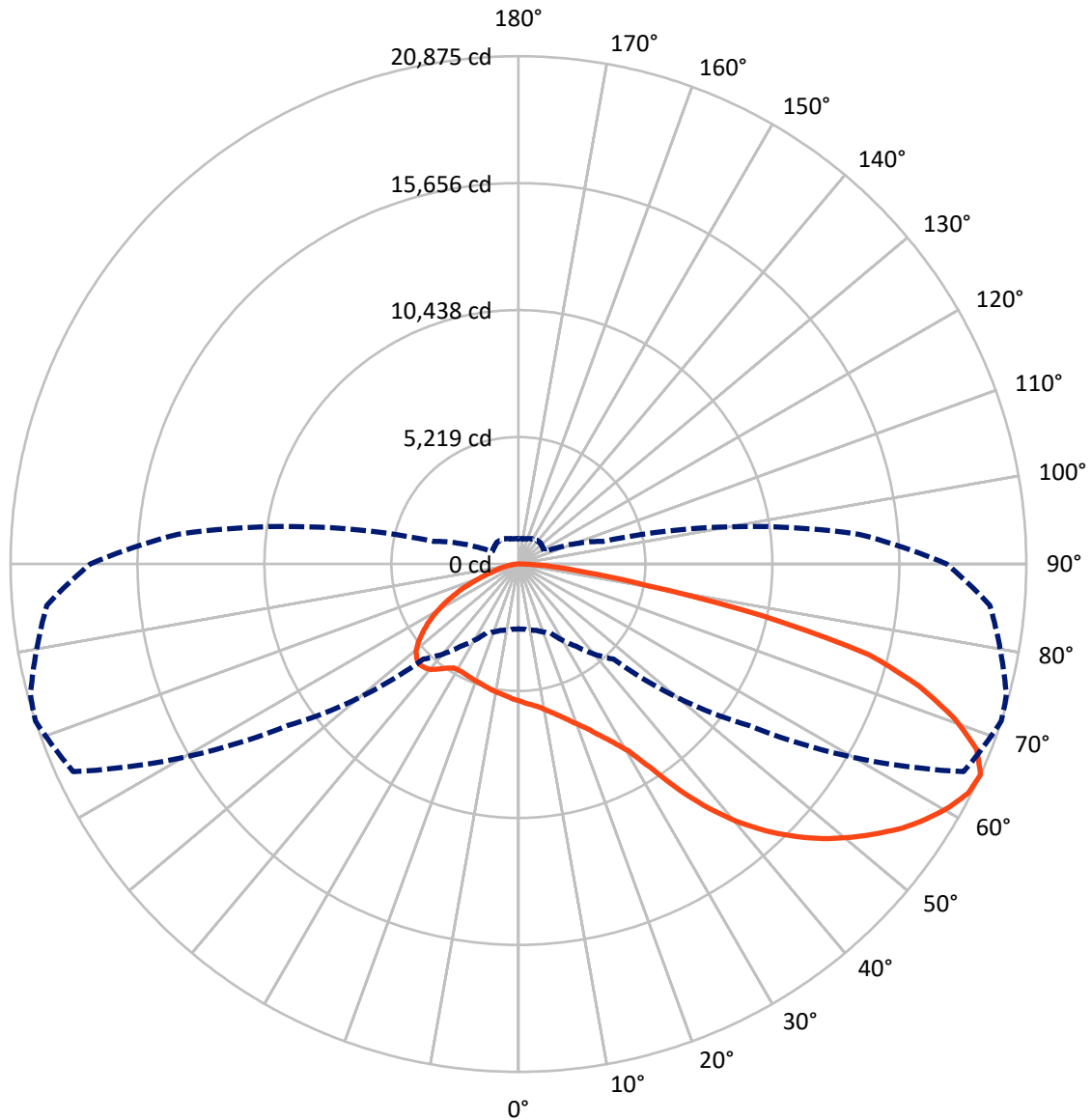
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.3 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 72-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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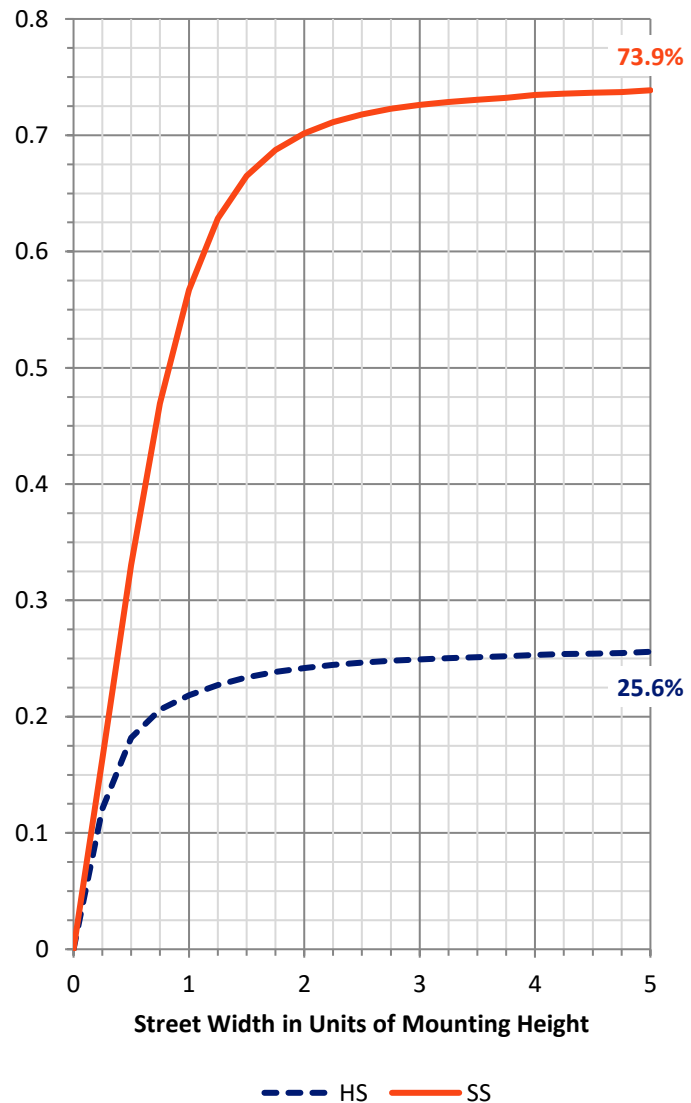
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8215.1	0.0	8215.1
	% Fixture	26.0	0.0	26.0
Street Side	Lumens	23321.9	0.0	23321.9
	% Fixture	74.0	0.0	74.0
Total	Lumens	31537.0	0.0	31537.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	541.3	1.7
10°-20°	1649.8	5.2
20°-30°	2763.4	8.8
30°-40°	4011.1	12.7
40°-50°	5423.9	17.2
50°-60°	6331.2	20.1
60°-70°	6303.8	20.0
70°-80°	3822.5	12.1
80°-90°	690.0	2.2
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°	31537.0	100.0
0°-180°	31537.0	100.0



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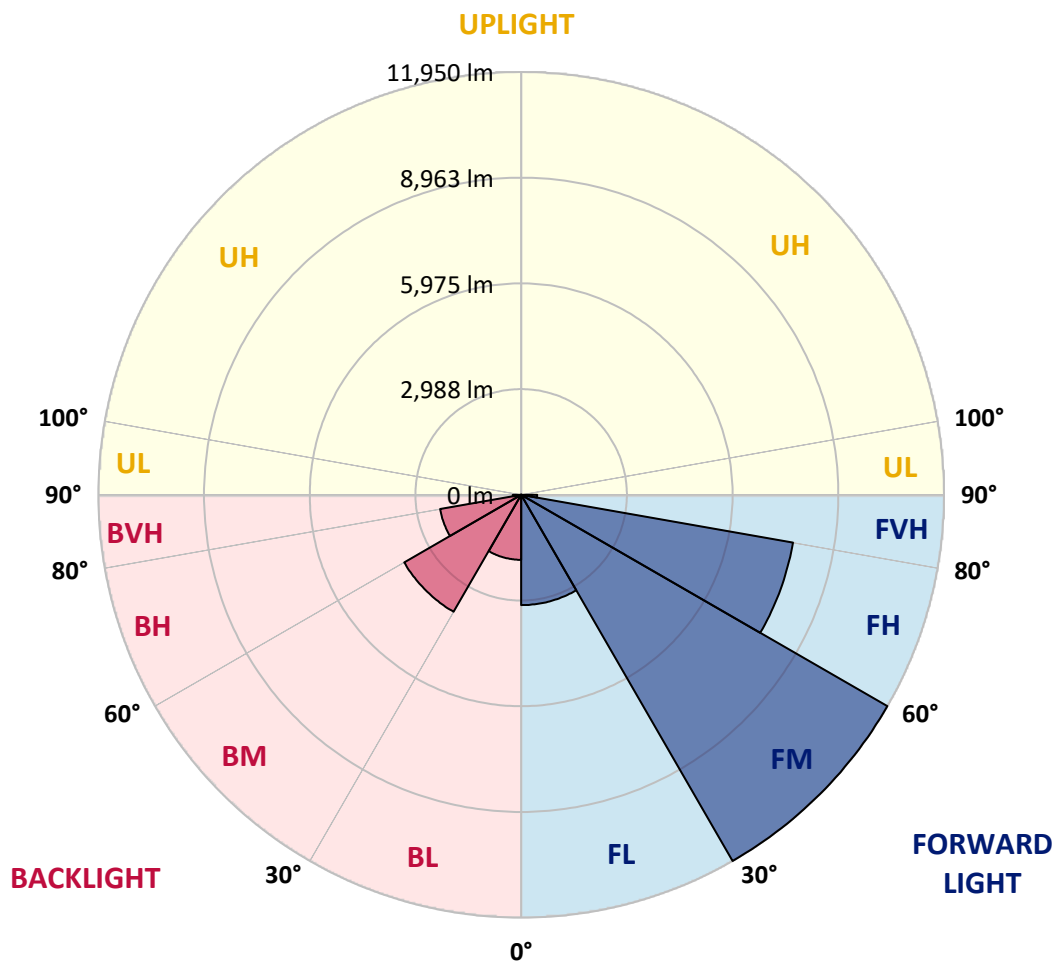
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3117.0	9.9			
FM (30°-60°)	11950.1	37.9			
FH (60°-80°)	7800.9	24.7			G4/12000
FVH (80°-90°)	453.9	1.4			G3/500
BL (0°-30°)	1837.5	5.8	B3/2500		
BM (30°-60°)	3816.1	12.1	B3/5000		
BH (60°-80°)	2325.4	7.4	B3/2500		G3/2500
BVH (80°-90°)	236.1	0.7			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	72°	75°	85°
0°	5629.1	5629.1	5629.1	5629.1	5629.1	5629.1	5629.1	5629.1	5629.1	5629.1	5629.1
2.5°	5922.0	5910.7	5914.5	5919.9	5852.7	5841.4	5785.8	5757.5	5726.4	5704.6	5655.4
5°	6226.8	6225.8	6201.5	6201.9	6096.4	6055.8	5953.0	5877.3	5811.4	5777.3	5674.9
7.5°	6503.3	6474.6	6472.2	6465.4	6346.3	6281.4	6145.2	6030.2	5929.5	5876.9	5718.2
10°	6763.0	6742.9	6743.2	6735.0	6612.8	6531.9	6368.1	6223.4	6088.9	6021.0	5789.9
12.5°	7040.2	7017.3	7013.5	6984.9	6872.6	6794.8	6615.6	6437.7	6274.9	6198.1	5898.4
15°	7324.5	7302.6	7291.7	7258.6	7133.3	7050.4	6900.2	6680.4	6495.1	6399.5	6041.1
17.5°	7586.6	7573.3	7554.9	7529.3	7419.7	7328.9	7178.7	6969.9	6748.3	6626.1	6205.3
20°	7748.4	7736.8	7749.1	7749.1	7686.0	7620.1	7468.9	7289.7	7050.4	6899.2	6394.0
22.5°	7872.3	7860.4	7915.0	7942.6	7949.1	7934.4	7786.0	7629.6	7380.5	7224.5	6627.5
25°	7902.7	7904.1	7996.6	8120.8	8213.0	8256.0	8141.6	8026.6	7811.6	7616.3	6946.6
27.5°	7893.8	7902.7	8021.1	8243.0	8463.8	8568.3	8527.0	8460.1	8289.8	8123.5	7373.0
30°	7880.8	7904.1	8060.4	8333.1	8652.6	8859.4	8900.7	9002.1	8918.5	8805.2	8049.1
32.5°	7719.7	7740.6	7964.5	8366.6	8813.3	9188.8	9411.0	9840.7	9976.9	9954.7	9095.6
35°	7342.6	7383.5	7715.6	8278.8	8937.2	9524.3	10051.7	10951.4	11422.8	11384.9	10302.9
37.5°	6958.2	7008.4	7406.7	8115.3	8993.2	9881.4	10752.8	12193.1	12762.8	12707.5	11463.1
40°	6609.8	6667.4	7069.5	7870.3	8978.2	10215.2	11489.3	13360.1	13956.1	13857.8	12497.6
42.5°	6207.0	6290.6	6656.9	7543.6	8861.1	10450.3	12218.1	14475.2	15014.9	14864.7	13439.0
45°	5831.9	5899.1	6251.0	7096.1	8682.6	10623.4	12884.7	15508.4	15977.8	15802.7	14306.3
47.5°	5425.4	5510.7	5864.3	6635.7	8328.0	10662.3	13495.0	16426.3	16867.9	16685.7	15115.2
50°	4352.9	4490.5	5289.2	6185.1	7777.4	10521.0	14037.0	17287.1	17668.0	17524.0	15952.2
52.5°	3795.2	3822.2	4226.3	5668.0	7107.1	10151.3	14428.1	18131.5	18420.3	18273.5	16692.8
55°	3545.7	3553.2	3734.1	4797.3	6456.8	9447.2	14617.6	18940.1	19157.2	18953.8	17393.9
57.5°	3289.3	3331.3	3513.3	4048.5	5845.5	8431.1	14486.2	19647.3	19776.7	19547.7	18037.6
60°	3077.4	3111.5	3293.1	3656.6	5174.8	7249.7	13873.8	20210.9	20324.9	20091.1	18641.8
62.5°	2885.2	2910.1	3050.8	3391.4	4569.0	6202.2	12731.1	20361.7	20744.4	20558.3	19200.2
65°	2667.1	2690.0	2820.4	3124.1	4125.6	5531.9	11581.5	20192.1	20875.1	20762.4	19451.4
67.5°	2408.0	2438.8	2556.5	2818.3	3668.9	4954.7	10224.4	19761.7	20317.4	20144.3	18909.7
70°	2067.7	2117.9	2251.4	2478.4	3135.4	4210.9	8156.3	18346.9	19007.0	18809.4	17463.2
72.5°	1630.2	1641.1	1737.7	1926.4	2483.1	3349.8	5504.5	15524.5	17248.5	17192.5	15447.7
75°	1215.5	1252.7	1407.6	1553.0	1814.1	2403.3	3346.0	11314.9	14891.7	14891.7	13018.8
77.5°	991.9	1011.3	1114.4	1236.6	1414.8	1686.5	2127.1	6393.4	10264.3	11305.4	9785.4
80°	775.1	768.3	775.5	830.4	998.7	1115.1	1414.1	3285.9	5302.8	6027.8	6410.1
82.5°	424.6	424.9	471.4	444.4	550.9	626.7	857.7	1848.3	2770.9	3076.7	3434.1
85°	215.0	209.9	233.8	218.1	255.0	286.0	389.5	918.2	1414.1	1532.9	1618.2
87.5°	76.8	73.0	84.0	100.7	94.2	100.0	134.5	330.1	546.5	584.7	573.1
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°	5629.1	5629.1	5629.1	5629.1	5629.1	5629.1	5629.1	5629.1	5629.1	5629.1	5629.1
2.5°	5641.4	5608.6	5569.1	5535.9	5466.0	5429.5	5400.4	5408.6	5377.2	5331.8	5331.2
5°	5637.7	5575.2	5490.2	5419.9	5307.3	5249.2	5194.6	5180.3	5133.5	5088.5	5086.1
7.5°	5650.6	5567.7	5429.8	5317.5	5170.7	5080.3	4995.6	4962.5	4907.6	4860.1	4857.7
10°	5686.5	5576.9	5388.2	5232.5	5048.9	4925.0	4815.4	4748.9	4685.4	4636.6	4635.9
12.5°	5750.6	5604.2	5351.6	5148.5	4930.4	4766.3	4626.3	4540.3	4451.6	4415.4	4413.3
15°	5841.1	5644.1	5304.2	5036.9	4784.7	4597.6	4424.6	4310.9	4212.6	4177.8	4185.3
17.5°	5957.1	5709.3	5266.0	4913.7	4623.9	4398.3	4218.4	4104.1	3959.4	3927.3	3936.2
20°	6101.2	5810.0	5257.8	4801.1	4447.8	4179.2	3958.3	3877.4	3694.2	3651.2	3645.3
22.5°	6287.5	5928.8	5254.4	4680.6	4241.3	3927.3	3665.5	3562.7	3408.8	3336.4	3320.1
25°	6518.3	6066.4	5248.6	4560.1	4011.2	3640.2	3321.8	3177.4	3081.1	2971.6	2969.2
27.5°	6822.1	6251.0	5262.2	4440.6	3760.4	3305.4	2952.8	2777.7	2722.4	2651.4	2614.5
30°	7345.7	6580.1	5299.4	4296.3	3485.9	2920.0	2548.7	2415.9	2348.0	2276.0	2263.7
32.5°	8224.6	7292.1	5414.4	4139.9	3180.5	2503.3	2217.9	2079.0	1966.4	1929.2	1919.3
35°	9325.3	8137.5	5710.0	3972.7	2850.1	2173.2	1945.6	1762.3	1654.7	1645.9	1645.2
37.5°	10314.2	9039.3	6095.4	3766.5	2485.9	1937.7	1675.2	1517.2	1436.3	1444.5	1466.0
40°	11270.5	9839.4	6503.9	3561.0	2132.3	1688.5	1412.7	1337.0	1300.8	1330.1	1344.5
42.5°	12168.9	10570.1	6798.2	3282.2	1826.1	1420.9	1231.8	1276.6	1289.5	1313.8	1323.7
45°	13008.6	11319.0	7017.0	2946.3	1550.6	1232.2	1205.9	1283.0	1319.9	1338.7	1337.7
47.5°	13820.9	12034.8	7082.5	2502.3	1337.7	1211.4	1229.8	1273.8	1331.5	1366.0	1363.6
50°	14631.6	12686.0	7027.5	2051.0	1294.6	1251.6	1252.7	1245.5	1312.7	1340.7	1330.1
52.5°	15358.2	13294.3	6716.9	1716.5	1323.3	1294.0	1279.6	1243.4	1262.6	1282.0	1272.5
55°	16011.5	13801.8	6229.9	1551.7	1347.9	1321.3	1340.4	1270.1	1232.2	1215.8	1218.9
57.5°	16619.4	14193.3	5670.1	1449.3	1342.8	1314.8	1364.6	1262.9	1207.6	1138.7	1125.3
60°	17195.9	14450.3	5039.7	1360.9	1318.5	1305.2	1312.1	1263.2	1184.7	1095.3	1073.5
62.5°	17603.5	14464.0	4316.1	1282.0	1271.8	1290.5	1270.8	1253.3	1190.9	1123.0	1109.3
65°	17595.3	14039.0	3600.3	1191.6	1213.4	1251.3	1217.2	1159.5	1064.9	1044.8	1038.0
67.5°	16831.7	12963.5	2906.0	1057.4	1118.9	1198.4	1140.4	1046.5	964.9	941.0	945.5
70°	15171.5	11442.9	2146.3	857.1	976.9	1108.3	1072.1	967.7	878.2	859.5	879.6
72.5°	13203.8	9829.8	1525.7	679.6	811.3	980.6	966.3	876.2	797.7	805.5	823.6
75°	11023.4	7824.9	1119.2	584.7	636.9	835.9	872.1	814.4	764.6	789.5	788.8
77.5°	8215.7	5778.6	852.3	490.5	527.3	650.6	768.7	746.8	882.7	1072.8	1078.9
80°	5398.7	3751.8	575.1	402.8	431.4	488.1	627.4	719.5	903.8	783.3	773.8
82.5°	2991.4	1991.3	356.7	313.3	323.9	354.0	454.6	751.3	663.9	616.1	618.5
85°	1326.4	771.1	210.6	210.3	210.9	214.7	291.8	569.7	466.9	452.3	459.8
87.5°	459.4	203.1	66.2	52.6	59.4	74.4	151.9	347.5	243.7	202.1	202.7
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)