

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: P232791

Luminaire Tested: **CTN-6-3-D-E1-T2**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232791
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-6-3-D-E1-T2
Description: CELESTEON HIGH MAST LUMINAIRE
(6) 70 CRI, 4000K LEDS AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31120 lumens
Efficiency: N/A
Efficacy: 133.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B3 - U0 - G4

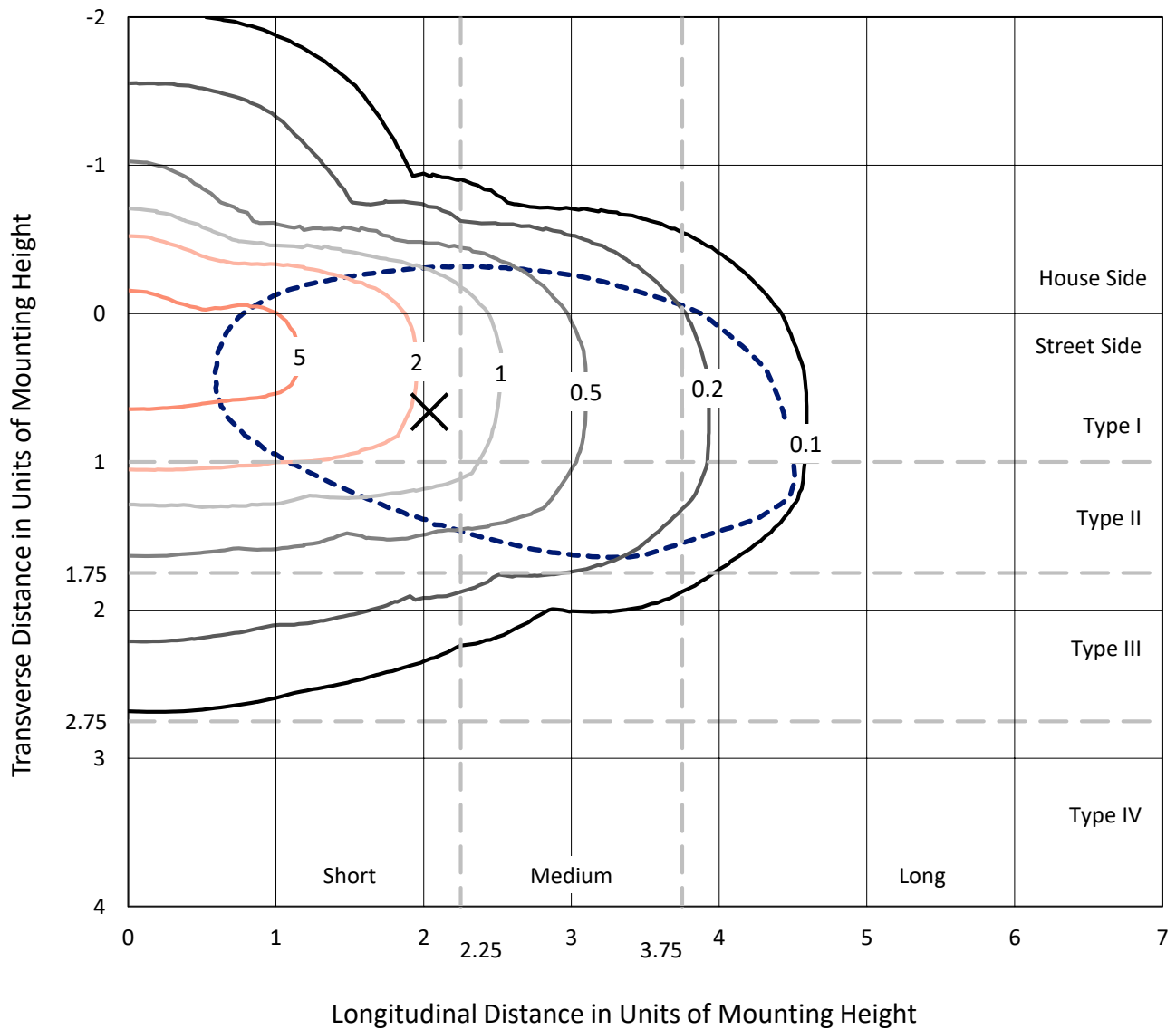
Input Watts (W): 234
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

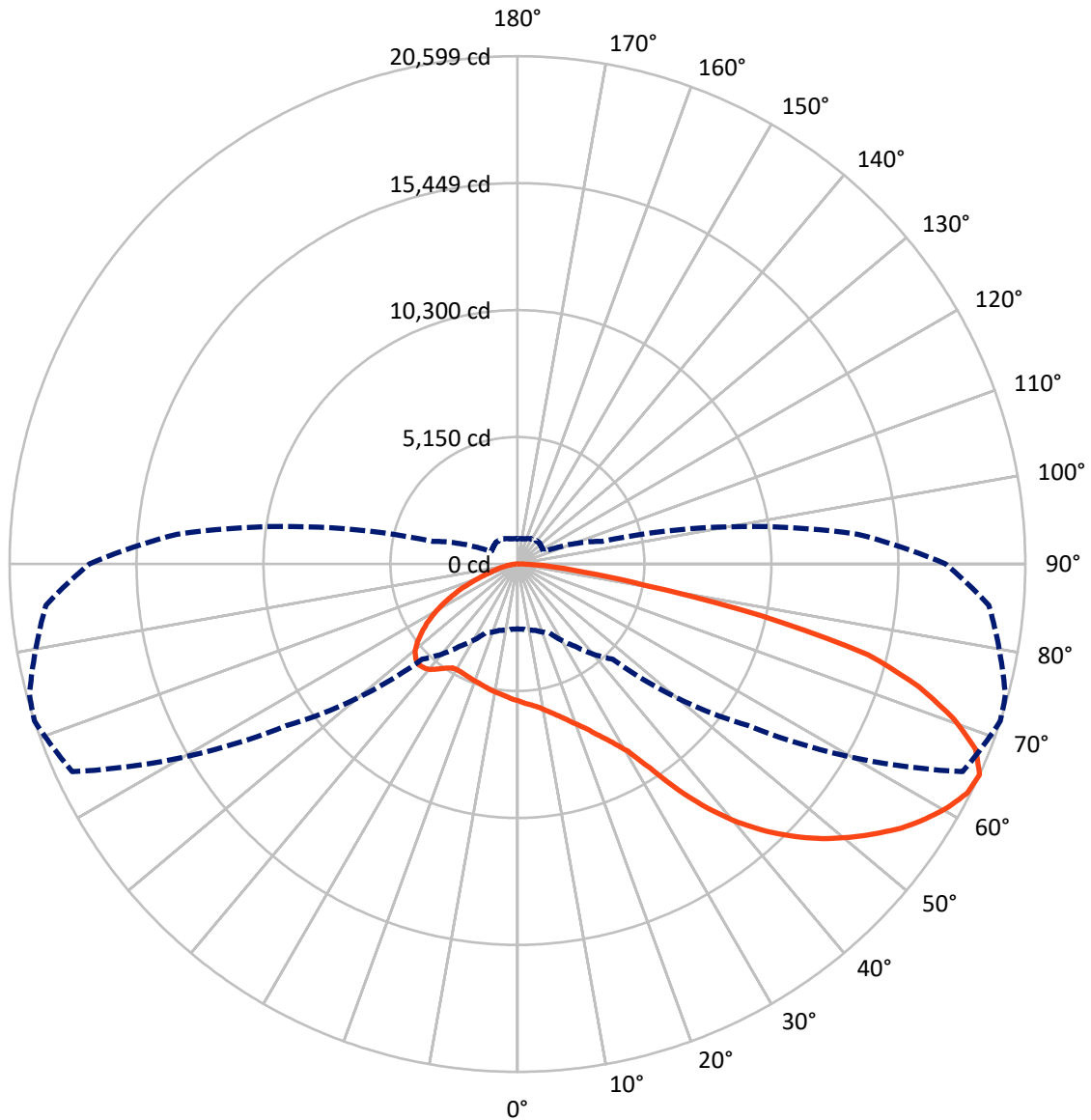
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.2 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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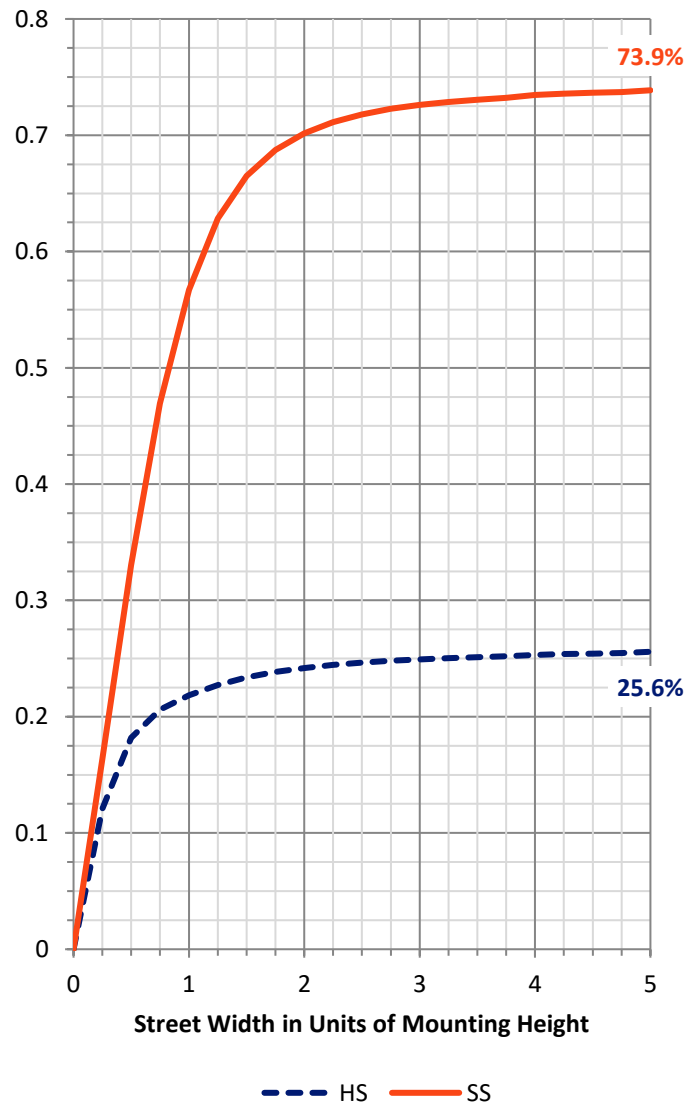
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8106.5	0.0	8106.5
	% Fixture	26.0	0.0	26.0
Street Side	Lumens	23013.5	0.0	23013.5
	% Fixture	74.0	0.0	74.0
Total	Lumens	31120.0	0.0	31120.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	534.1	1.7
10°-20°	1628.0	5.2
20°-30°	2726.9	8.8
30°-40°	3958.1	12.7
40°-50°	5352.2	17.2
50°-60°	6247.4	20.1
60°-70°	6220.4	20.0
70°-80°	3772.0	12.1
80°-90°	680.9	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°	31120.0	100.0
0°-180°	31120.0	100.0



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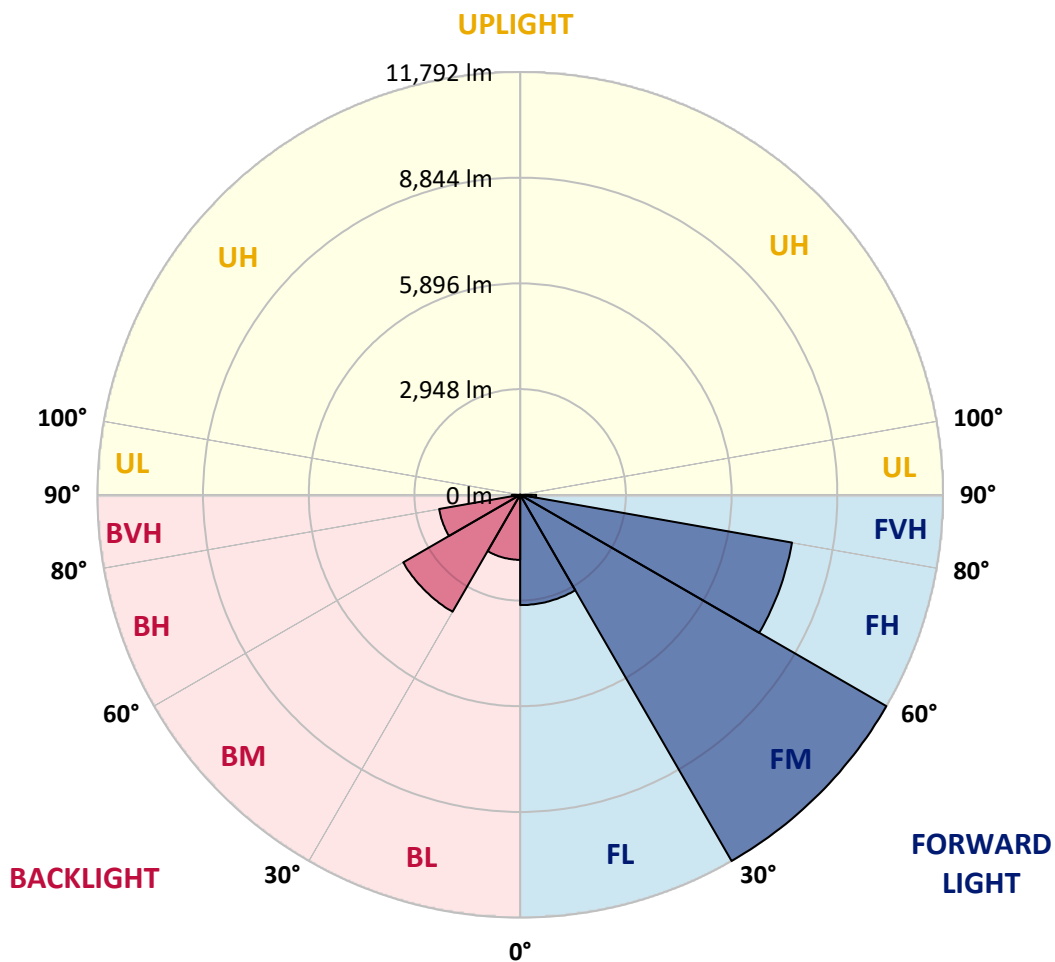
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3075.8	9.9			
FM	(30°-60°)	11792.1	37.9			
FH	(60°-80°)	7697.8	24.7			G4/12000
FVH	(80°-90°)	447.9	1.4			G3/500
BL	(0°-30°)	1813.2	5.8	B3/2500		
BM	(30°-60°)	3765.7	12.1	B3/5000		
BH	(60°-80°)	2294.6	7.4	B3/2500		G3/2500
BVH	(80°-90°)	233.0	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°	5554.7	5554.7	5554.7	5554.7	5554.7	5554.7	5554.7	5554.7	5554.7	5554.7	5554.7
2.5°	5843.7	5832.6	5836.3	5841.7	5775.3	5764.2	5709.3	5681.3	5650.7	5629.1	5580.6
5°	6144.5	6143.4	6119.5	6119.9	6015.8	5975.7	5874.3	5799.6	5734.6	5700.9	5599.8
7.5°	6417.3	6389.0	6386.6	6379.9	6262.3	6198.3	6064.0	5950.5	5851.1	5799.2	5642.6
10°	6673.6	6653.7	6654.0	6646.0	6525.4	6445.6	6283.9	6141.1	6008.4	5941.4	5713.3
12.5°	6947.1	6924.5	6920.8	6892.5	6781.7	6704.9	6528.1	6352.6	6191.9	6116.2	5820.4
15°	7227.6	7206.1	7195.3	7162.6	7039.0	6957.2	6809.0	6592.1	6409.2	6314.9	5961.2
17.5°	7486.3	7473.2	7455.0	7429.7	7321.6	7232.0	7083.8	6877.7	6659.1	6538.5	6123.2
20°	7646.0	7634.5	7646.6	7646.6	7584.3	7519.3	7370.1	7193.3	6957.2	6808.0	6309.5
22.5°	7768.2	7756.4	7810.3	7837.6	7844.0	7829.5	7683.0	7528.7	7282.9	7129.0	6539.9
25°	7798.2	7799.5	7890.8	8013.4	8104.4	8146.8	8034.0	7920.5	7708.3	7515.6	6854.8
27.5°	7789.4	7798.2	7915.1	8134.0	8351.9	8455.0	8414.2	8348.2	8180.1	8016.1	7275.5
30°	7776.6	7799.5	7953.8	8222.9	8538.2	8742.3	8783.0	8883.1	8800.6	8688.7	7942.7
32.5°	7617.7	7638.2	7859.2	8255.9	8696.8	9067.3	9286.6	9710.6	9845.0	9823.1	8975.4
35°	7245.5	7285.9	7613.6	8169.4	8819.1	9398.4	9918.8	10806.6	11271.7	11234.4	10166.7
37.5°	6866.2	6915.8	7308.8	8008.0	8874.3	9750.7	10610.6	12031.9	12594.1	12539.5	11311.5
40°	6522.4	6579.3	6976.0	7766.2	8859.5	10080.1	11337.4	13183.5	13771.6	13674.6	12332.4
42.5°	6124.9	6207.4	6568.8	7443.9	8744.0	10312.2	12056.5	14283.8	14816.3	14668.1	13261.3
45°	5754.8	5821.1	6168.4	7002.3	8567.8	10482.9	12714.3	15303.4	15766.5	15593.7	14117.1
47.5°	5353.6	5437.8	5786.8	6548.0	8217.9	10521.3	13316.5	16209.1	16644.9	16465.0	14915.4
50°	4295.4	4431.1	5219.2	6103.4	7674.6	10381.9	13851.4	17058.5	17434.4	17292.2	15741.2
52.5°	3745.0	3771.6	4170.4	5593.1	7013.1	10017.1	14237.4	17891.8	18176.7	18031.9	16472.1
55°	3498.8	3506.2	3684.7	4733.9	6371.5	9322.3	14424.3	18689.7	18903.9	18703.1	17163.9
57.5°	3245.9	3287.3	3466.8	3994.9	5768.2	8319.6	14294.6	19387.5	19515.2	19289.2	17799.1
60°	3036.7	3070.4	3249.6	3608.3	5106.4	7153.9	13690.4	19943.6	20056.1	19825.4	18395.3
62.5°	2847.1	2871.7	3010.4	3346.6	4508.6	6120.2	12562.7	20092.5	20470.1	20286.5	18946.3
65°	2631.8	2654.4	2783.1	3082.8	4071.0	5458.7	11428.4	19925.1	20599.1	20487.9	19194.2
67.5°	2376.2	2406.5	2522.7	2781.1	3620.4	4889.2	10089.2	19500.4	20048.7	19877.9	18659.7
70°	2040.4	2089.9	2221.6	2445.6	3094.0	4155.2	8048.4	18104.3	18755.7	18560.7	17232.3
72.5°	1608.6	1619.4	1714.7	1901.0	2450.3	3305.5	5431.8	15319.2	17020.4	16965.2	15243.4
75°	1199.4	1236.1	1389.0	1532.5	1790.2	2371.5	3301.8	11165.3	14694.8	14694.8	12846.7
77.5°	978.8	998.0	1099.7	1220.3	1396.1	1664.2	2099.0	6308.8	10128.6	11155.9	9656.1
80°	764.9	758.2	765.2	819.5	985.5	1100.4	1395.4	3242.5	5232.7	5948.1	6325.3
82.5°	419.0	419.3	465.1	438.5	543.6	618.4	846.4	1823.8	2734.2	3036.0	3388.7
85°	212.2	207.1	230.7	215.2	251.6	282.2	384.3	906.0	1395.4	1512.6	1596.8
87.5°	75.8	72.1	82.9	99.4	93.0	98.7	132.7	325.7	539.2	577.0	565.5
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°	5554.7	5554.7	5554.7	5554.7	5554.7	5554.7	5554.7	5554.7	5554.7	5554.7	5554.7
2.5°	5566.8	5534.5	5495.4	5462.7	5393.7	5357.7	5329.0	5337.1	5306.1	5261.3	5260.7
5°	5563.1	5501.5	5417.6	5348.2	5237.1	5179.8	5125.9	5111.8	5065.6	5021.2	5018.8
7.5°	5575.9	5494.1	5358.0	5247.2	5102.4	5013.1	4929.6	4896.9	4842.7	4795.9	4793.5
10°	5611.3	5503.2	5316.9	5163.3	4982.1	4859.9	4751.7	4686.1	4623.4	4575.2	4574.6
12.5°	5674.6	5530.1	5280.9	5080.5	4865.2	4703.2	4565.1	4480.3	4392.7	4357.0	4355.0
15°	5763.9	5569.5	5234.1	4970.3	4721.4	4536.9	4366.1	4253.9	4156.9	4122.6	4130.0
17.5°	5878.4	5633.8	5196.3	4848.7	4562.8	4340.2	4162.7	4049.8	3907.0	3875.4	3884.1
20°	6020.5	5733.2	5188.2	4737.6	4389.0	4123.9	3906.0	3826.2	3645.3	3602.9	3597.1
22.5°	6204.4	5850.4	5184.9	4618.7	4185.2	3875.4	3617.0	3515.6	3363.7	3292.3	3276.2
25°	6432.1	5986.2	5179.2	4499.8	3958.2	3592.1	3277.9	3135.4	3040.4	2932.3	2929.9
27.5°	6731.9	6168.4	5192.6	4381.9	3710.7	3261.7	2913.8	2741.0	2686.4	2616.4	2580.0
30°	7248.5	6493.1	5229.3	4239.4	3439.9	2881.4	2515.0	2384.0	2316.9	2245.9	2233.7
32.5°	8115.8	7195.6	5342.8	4085.2	3138.4	2470.2	2188.6	2051.5	1940.4	1903.7	1893.9
35°	9202.0	8029.9	5634.5	3920.2	2812.4	2144.5	1919.8	1739.0	1632.9	1624.1	1623.4
37.5°	10177.8	8919.8	6014.8	3716.7	2453.0	1912.1	1653.1	1497.1	1417.3	1425.4	1446.6
40°	11121.5	9709.3	6417.9	3514.0	2104.1	1666.2	1394.1	1319.3	1283.6	1312.6	1326.7
42.5°	12008.0	10430.4	6708.3	3238.8	1801.9	1402.1	1215.6	1259.7	1272.5	1296.4	1306.2
45°	12836.6	11169.3	6924.2	2907.4	1530.1	1215.9	1190.0	1266.1	1302.5	1321.0	1320.0
47.5°	13638.2	11875.6	6988.8	2469.2	1320.0	1195.3	1213.5	1257.0	1313.9	1347.9	1345.6
50°	14438.1	12518.3	6934.6	2023.9	1277.5	1235.1	1236.1	1229.0	1295.4	1323.0	1312.6
52.5°	15155.2	13118.5	6628.1	1693.8	1305.8	1276.9	1262.7	1227.0	1245.9	1265.1	1255.6
55°	15799.8	13619.3	6147.5	1531.1	1330.1	1303.8	1322.7	1253.3	1215.9	1199.7	1202.8
57.5°	16399.7	14005.6	5595.1	1430.1	1325.0	1297.4	1346.6	1246.2	1191.6	1123.6	1110.5
60°	16968.6	14259.3	4973.0	1342.9	1301.1	1288.0	1294.7	1246.5	1169.1	1080.8	1059.3
62.5°	17370.7	14272.7	4259.0	1265.1	1255.0	1273.5	1253.9	1236.8	1175.1	1108.1	1094.6
65°	17362.6	13853.4	3552.7	1175.8	1197.4	1234.8	1201.1	1144.1	1050.9	1031.0	1024.2
67.5°	16609.2	12792.1	2867.6	1043.4	1104.1	1182.5	1125.3	1032.7	952.2	928.6	933.0
70°	14970.9	11291.6	2117.9	845.7	964.0	1093.6	1057.9	954.9	866.6	848.1	868.0
72.5°	13029.2	9699.8	1505.5	670.6	800.6	967.7	953.5	864.6	787.1	794.9	812.7
75°	10877.7	7721.4	1104.4	577.0	628.5	824.9	860.6	803.6	754.5	779.0	778.4
77.5°	8107.1	5702.2	841.0	484.0	520.4	642.0	758.5	736.9	871.0	1058.6	1064.7
80°	5327.3	3702.2	567.5	397.4	425.7	481.6	619.1	710.0	891.9	773.0	763.6
82.5°	2951.8	1965.0	352.0	309.2	319.6	349.3	448.6	741.3	655.1	607.9	610.3
85°	1308.8	760.9	207.8	207.5	208.1	211.9	288.0	562.1	460.8	446.3	453.7
87.5°	453.3	200.4	65.3	51.9	58.6	73.4	149.9	342.9	240.5	199.4	200.1
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)