

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: P232793

Luminaire Tested: **CTN-10-3-D-E1-T2**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232793
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-10-3-D-E1-T2
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 4000K LEDS AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31568 lumens
Efficiency: N/A
Efficacy: 148.9 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): 212
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

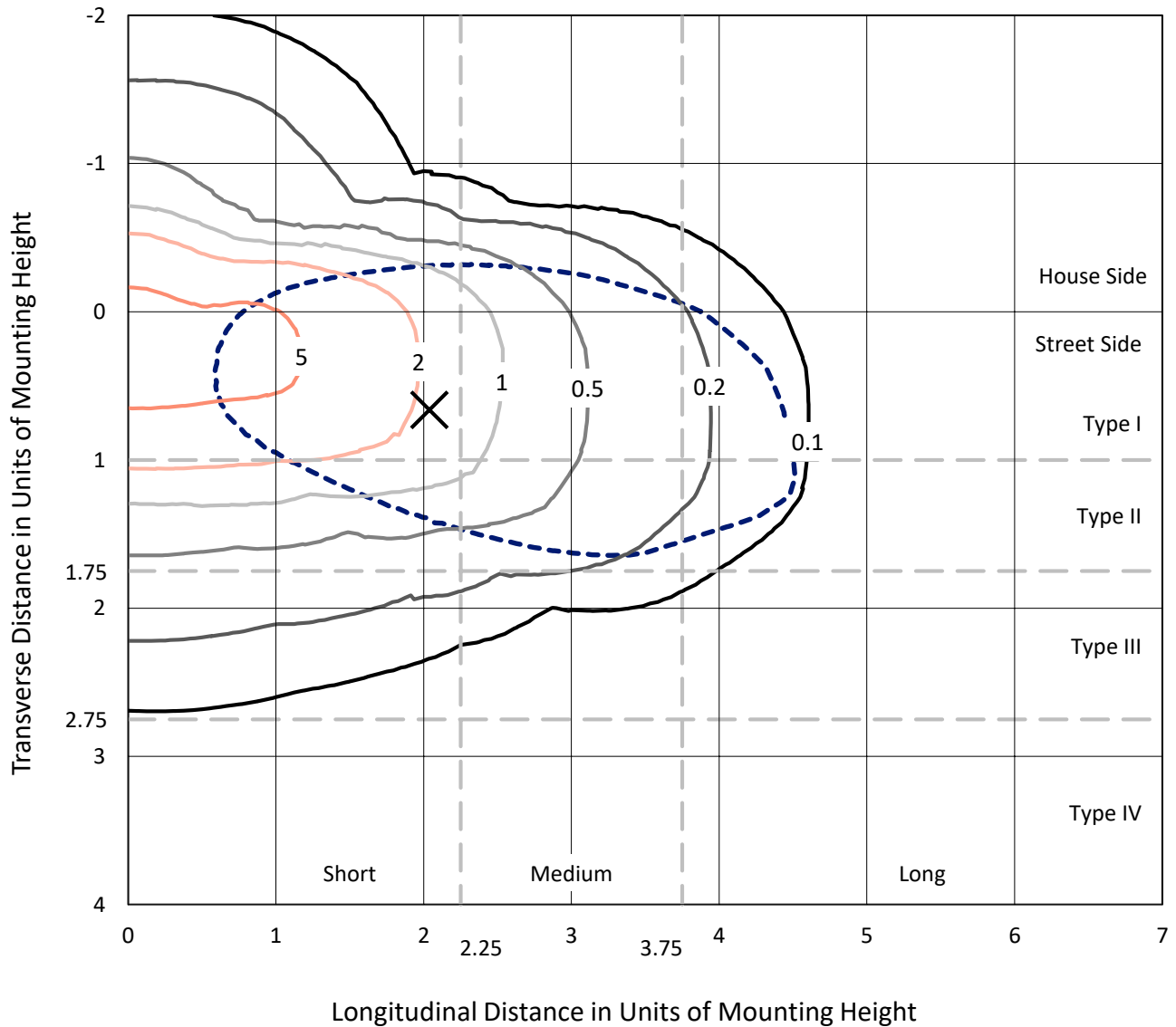


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Iso-Footcandle Lines of Horizontal Illumination

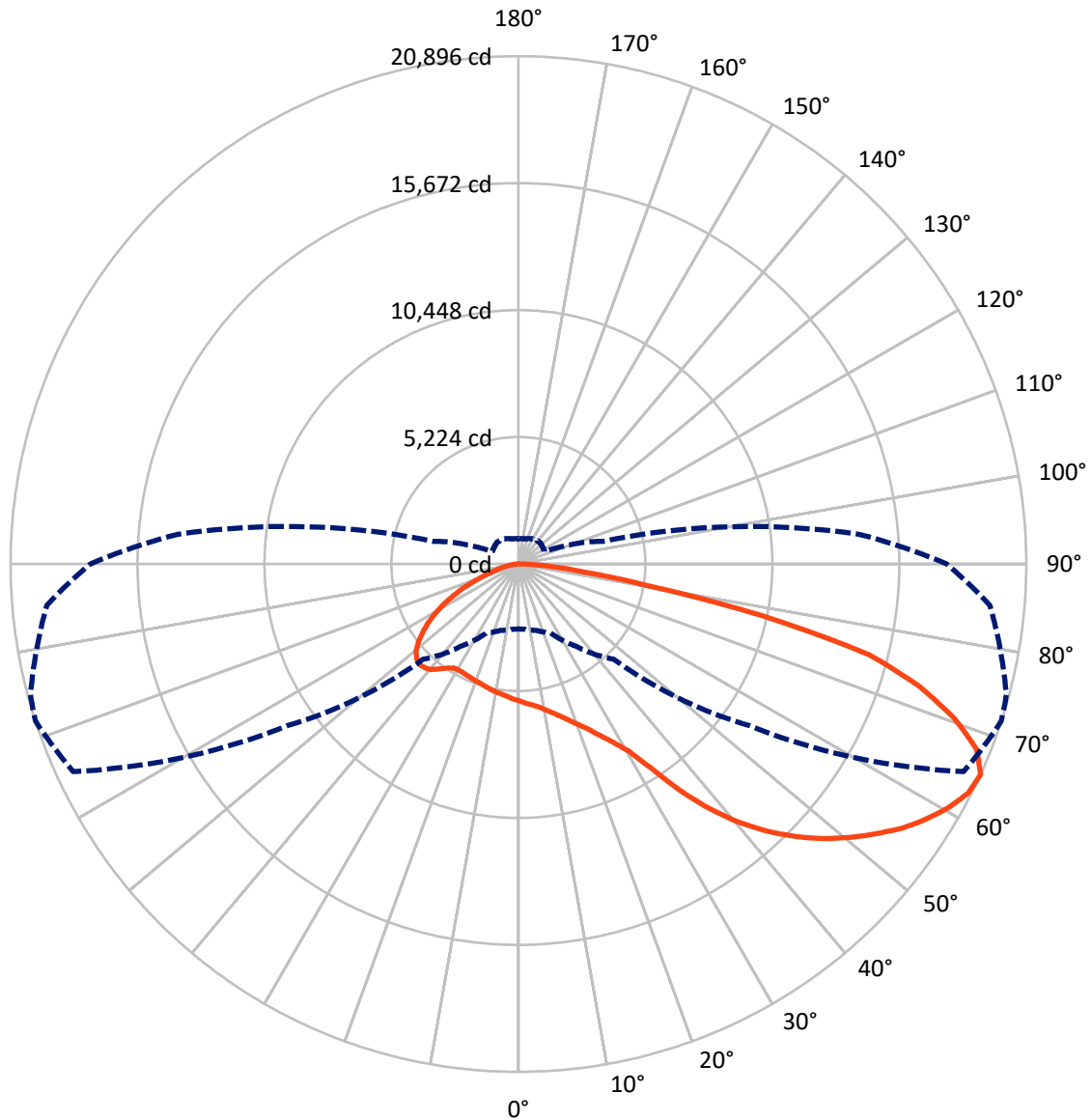
✕ Max cd
 - - - 1/2 Max cd



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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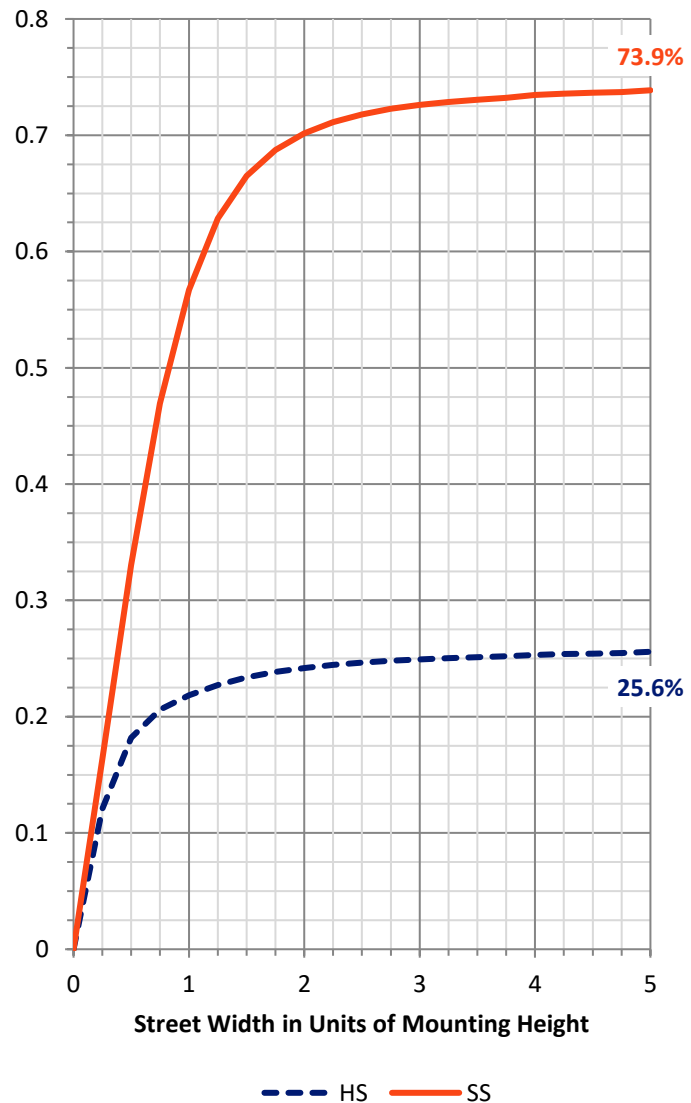
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8223.2	0.0	8223.2
	% Fixture	26.0	0.0	26.0
Street Side	Lumens	23344.8	0.0	23344.8
	% Fixture	74.0	0.0	74.0
Total	Lumens	31568.0	0.0	31568.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	541.8	1.7
10°-20°	1651.4	5.2
20°-30°	2766.1	8.8
30°-40°	4015.1	12.7
40°-50°	5429.2	17.2
50°-60°	6337.4	20.1
60°-70°	6310.0	20.0
70°-80°	3826.3	12.1
80°-90°	690.7	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°	31568.0	100.0
0°-180°	31568.0	100.0



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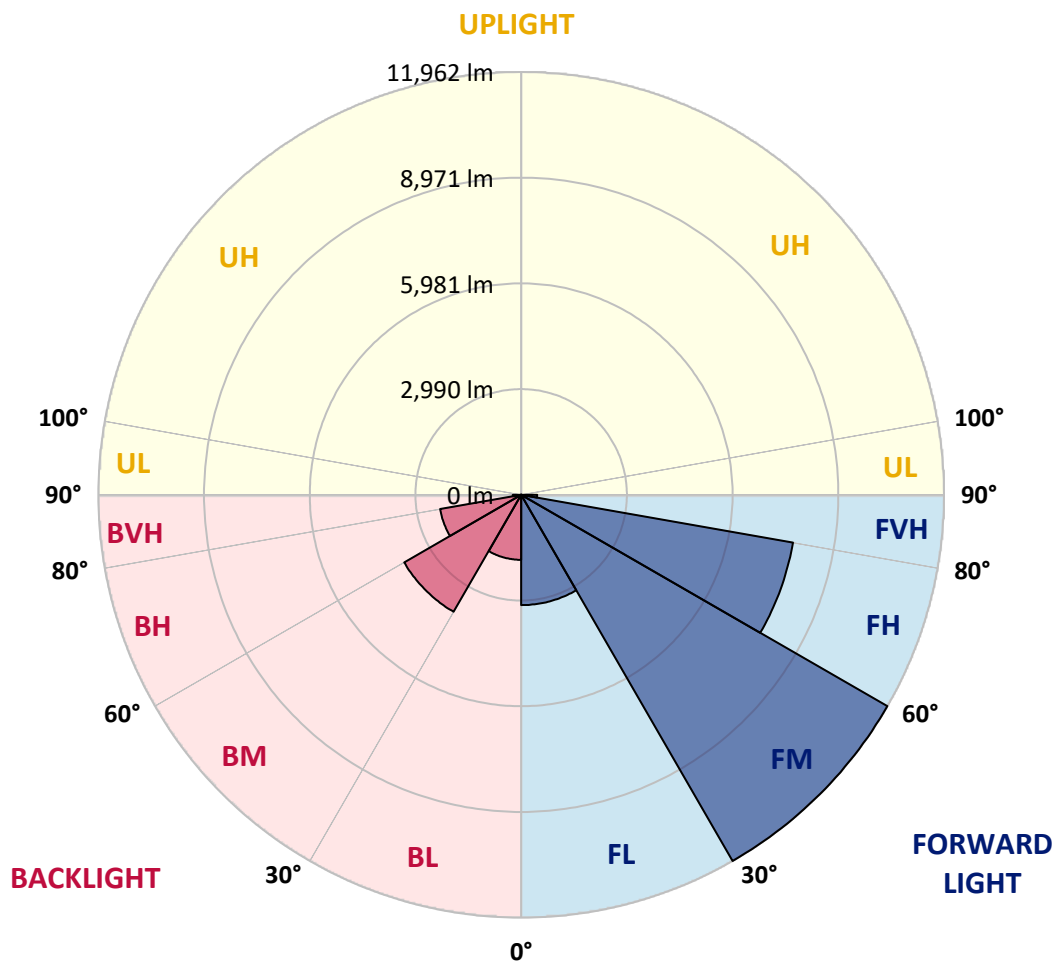
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3120.0	9.9			
FM (30°-60°)	11961.8	37.9			
FH (60°-80°)	7808.6	24.7			G4/12000
FVH (80°-90°)	454.3	1.4			G3/500
BL (0°-30°)	1839.3	5.8	B3/2500		
BM (30°-60°)	3819.9	12.1	B3/5000		
BH (60°-80°)	2327.6	7.4	B3/2500		G3/2500
BVH (80°-90°)	236.3	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°	5634.7	5634.7	5634.7	5634.7	5634.7	5634.7	5634.7	5634.7	5634.7	5634.7	5634.7
2.5°	5927.8	5916.5	5920.3	5925.8	5858.4	5847.2	5791.5	5763.1	5732.0	5710.2	5661.0
5°	6232.9	6231.9	6207.6	6208.0	6102.4	6061.7	5958.9	5883.0	5817.1	5782.9	5680.4
7.5°	6509.7	6481.0	6478.6	6471.7	6352.5	6287.6	6151.3	6036.1	5935.3	5882.7	5723.8
10°	6769.7	6749.5	6749.8	6741.6	6619.3	6538.4	6374.4	6229.5	6094.9	6026.9	5795.6
12.5°	7047.1	7024.2	7020.4	6991.7	6879.3	6801.4	6622.1	6444.1	6281.1	6204.2	5904.2
15°	7331.7	7309.8	7298.9	7265.7	7140.4	7057.3	6907.0	6687.0	6501.5	6405.8	6047.0
17.5°	7594.1	7580.8	7562.3	7536.7	7427.0	7336.1	7185.8	6976.7	6755.0	6632.7	6211.4
20°	7756.0	7744.4	7756.7	7756.7	7693.5	7627.6	7476.2	7296.8	7057.3	6906.0	6400.3
22.5°	7880.1	7868.1	7922.8	7950.4	7956.9	7942.2	7793.6	7637.1	7387.7	7231.6	6634.0
25°	7910.5	7911.8	8004.4	8128.8	8221.0	8264.1	8149.6	8034.5	7819.2	7623.8	6953.5
27.5°	7901.6	7910.5	8029.0	8251.1	8472.2	8576.7	8535.4	8468.4	8297.9	8131.5	7380.2
30°	7888.6	7911.8	8068.3	8341.3	8661.1	8868.1	8909.5	9010.9	8927.2	8813.8	8057.0
32.5°	7727.3	7748.2	7972.3	8374.8	8822.0	9197.8	9420.3	9850.4	9986.7	9964.5	9104.6
35°	7349.8	7390.8	7723.2	8287.0	8946.0	9533.7	10061.6	10962.2	11434.0	11396.1	10313.0
37.5°	6965.1	7015.3	7414.0	8123.3	9002.1	9891.1	10763.3	12205.1	12775.4	12720.0	11474.3
40°	6616.3	6674.0	7076.5	7878.0	8987.0	10225.2	11500.6	13373.3	13969.8	13871.4	12509.9
42.5°	6213.1	6296.8	6663.4	7551.0	8869.8	10460.6	12230.1	14489.5	15029.6	14879.3	13452.2
45°	5837.6	5904.9	6257.2	7103.1	8691.2	10633.8	12897.3	15523.7	15993.5	15818.2	14320.3
47.5°	5430.7	5516.1	5870.1	6642.2	8336.2	10672.8	13508.2	16442.4	16884.5	16702.1	15130.1
50°	4357.2	4494.9	5294.4	6191.2	7785.1	10531.3	14050.8	17304.1	17685.4	17541.2	15967.8
52.5°	3798.9	3825.9	4230.4	5673.6	7114.1	10161.3	14442.3	18149.3	18438.4	18291.5	16709.2
55°	3549.2	3556.7	3737.8	4802.0	6463.2	9456.5	14631.9	18958.7	19176.0	18972.4	17411.0
57.5°	3292.6	3334.6	3516.7	4052.4	5851.3	8439.4	14500.4	19666.6	19796.1	19566.9	18055.4
60°	3080.4	3114.6	3296.3	3660.2	5179.9	7256.9	13887.5	20230.7	20344.8	20110.8	18660.1
62.5°	2888.1	2913.0	3053.8	3394.7	4573.5	6208.3	12743.6	20381.7	20764.7	20578.5	19219.1
65°	2669.7	2692.6	2823.1	3127.2	4129.6	5537.3	11592.9	20211.9	20895.6	20782.9	19470.5
67.5°	2410.4	2441.2	2559.0	2821.1	3672.5	4959.5	10234.4	19781.1	20337.3	20164.1	18928.3
70°	2069.8	2120.0	2253.6	2480.8	3138.5	4215.1	8164.3	18364.9	19025.7	18827.9	17480.4
72.5°	1631.8	1642.7	1739.4	1928.3	2485.6	3353.1	5510.0	15539.7	17265.5	17209.4	15462.9
75°	1216.7	1253.9	1409.0	1554.6	1815.9	2405.6	3349.3	11326.0	14906.3	14906.3	13031.6
77.5°	992.9	1012.3	1115.5	1237.8	1416.2	1688.1	2129.2	6399.6	10274.4	11316.5	9795.1
80°	775.9	769.1	776.3	831.3	999.7	1116.2	1415.5	3289.2	5308.0	6033.7	6416.4
82.5°	425.0	425.4	471.8	444.8	551.4	627.3	858.6	1850.1	2773.6	3079.7	3437.4
85°	215.2	210.1	234.0	218.3	255.2	286.3	389.8	919.1	1415.5	1534.4	1619.8
87.5°	76.9	73.1	84.0	100.8	94.3	100.1	134.6	330.4	547.0	585.3	573.6
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°	5634.7	5634.7	5634.7	5634.7	5634.7	5634.7	5634.7	5634.7	5634.7	5634.7	5634.7
2.5°	5647.0	5614.2	5574.5	5541.4	5471.3	5434.8	5405.7	5413.9	5382.5	5337.1	5336.4
5°	5643.2	5580.7	5495.6	5425.2	5312.5	5254.4	5199.7	5185.4	5138.6	5093.5	5091.1
7.5°	5656.2	5573.2	5435.1	5322.7	5175.8	5085.3	5000.5	4967.4	4912.4	4864.9	4862.5
10°	5692.1	5582.4	5393.4	5237.7	5053.8	4929.8	4820.1	4753.5	4690.0	4641.1	4640.4
12.5°	5756.3	5609.7	5356.9	5153.6	4935.3	4770.9	4630.9	4544.8	4455.9	4419.7	4417.7
15°	5846.8	5649.7	5309.4	5041.9	4789.4	4602.2	4428.9	4315.2	4216.8	4181.9	4189.4
17.5°	5963.0	5715.0	5271.1	4918.5	4628.5	4402.6	4222.6	4108.1	3963.3	3931.1	3940.0
20°	6107.2	5815.7	5262.9	4805.8	4452.2	4183.3	3962.2	3881.3	3697.8	3654.7	3648.9
22.5°	6293.7	5934.6	5259.5	4685.2	4245.5	3931.1	3669.1	3566.3	3412.2	3339.7	3323.3
25°	6524.7	6072.3	5253.7	4564.6	4015.2	3643.8	3325.0	3180.5	3084.2	2974.5	2972.1
27.5°	6828.8	6257.2	5267.4	4445.0	3764.1	3308.6	2955.7	2780.4	2725.1	2654.0	2617.1
30°	7352.9	6586.5	5304.6	4300.5	3489.4	2922.9	2551.2	2418.3	2350.3	2278.2	2265.9
32.5°	8232.6	7299.2	5419.8	4144.0	3183.6	2505.7	2220.1	2081.1	1968.3	1931.1	1921.2
35°	9334.5	8145.5	5715.6	3976.6	2852.9	2175.4	1947.5	1764.0	1656.4	1647.5	1646.8
37.5°	10324.3	9048.2	6101.4	3770.2	2488.3	1939.6	1676.9	1518.7	1437.7	1445.9	1467.4
40°	11281.6	9849.0	6510.3	3564.5	2134.4	1690.2	1414.1	1338.3	1302.1	1331.5	1345.8
42.5°	12180.9	10580.5	6804.8	3285.4	1827.9	1422.3	1233.1	1277.8	1290.8	1315.1	1325.0
45°	13021.4	11330.1	7023.9	2949.2	1552.2	1233.4	1207.1	1284.3	1321.2	1340.0	1339.0
47.5°	13834.5	12046.6	7089.5	2504.7	1339.0	1212.6	1231.0	1275.1	1332.8	1367.3	1364.9
50°	14646.0	12698.5	7034.4	2053.0	1295.9	1252.9	1253.9	1246.7	1314.0	1342.0	1331.5
52.5°	15373.3	13307.3	6723.5	1718.2	1324.6	1295.2	1280.9	1244.7	1263.8	1283.3	1273.7
55°	16027.3	13815.4	6236.0	1553.2	1349.2	1322.6	1341.7	1271.3	1233.4	1217.0	1220.1
57.5°	16635.8	14207.3	5675.7	1450.7	1344.1	1316.1	1366.0	1264.1	1208.8	1139.8	1126.5
60°	17212.8	14464.5	5044.6	1362.2	1319.8	1306.5	1313.3	1264.5	1185.9	1096.4	1074.5
62.5°	17620.8	14478.2	4320.3	1283.3	1273.0	1291.8	1272.0	1254.6	1192.1	1124.1	1110.4
65°	17612.6	14052.8	3603.8	1192.7	1214.6	1252.5	1218.4	1160.6	1066.0	1045.8	1039.0
67.5°	16848.3	12976.3	2908.9	1058.5	1120.0	1199.6	1141.5	1047.5	965.9	942.0	946.4
70°	15186.5	11454.2	2148.4	857.9	977.8	1109.4	1073.2	968.6	879.1	860.3	880.5
72.5°	13216.8	9839.5	1527.2	680.2	812.1	981.6	967.2	877.0	798.5	806.3	824.4
75°	11034.3	7832.6	1120.3	585.3	637.5	836.7	872.9	815.2	765.3	790.3	789.6
77.5°	8223.8	5784.3	853.1	491.0	527.9	651.2	769.4	747.6	883.5	1073.8	1080.0
80°	5404.0	3755.5	575.7	403.2	431.9	488.6	628.0	720.2	904.7	784.1	774.5
82.5°	2994.3	1993.2	357.0	313.6	324.2	354.3	455.1	752.0	664.5	616.7	619.1
85°	1327.7	771.8	210.8	210.5	211.1	214.9	292.1	570.2	467.4	452.7	460.2
87.5°	459.9	203.3	66.3	52.6	59.4	74.5	152.0	347.8	243.9	202.3	202.9
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)