

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: STREETWORKS

Report Number: P232707

Luminaire Tested: **CST-10-4-D-U-T3-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232707
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-19)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-10-4-D-U-T3-7050
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 5000K LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 43530 lumens
Efficiency: N/A
Efficacy: 141.3 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B4 - U0 - G5

Input Watts (W): 308
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: 28.75 FT

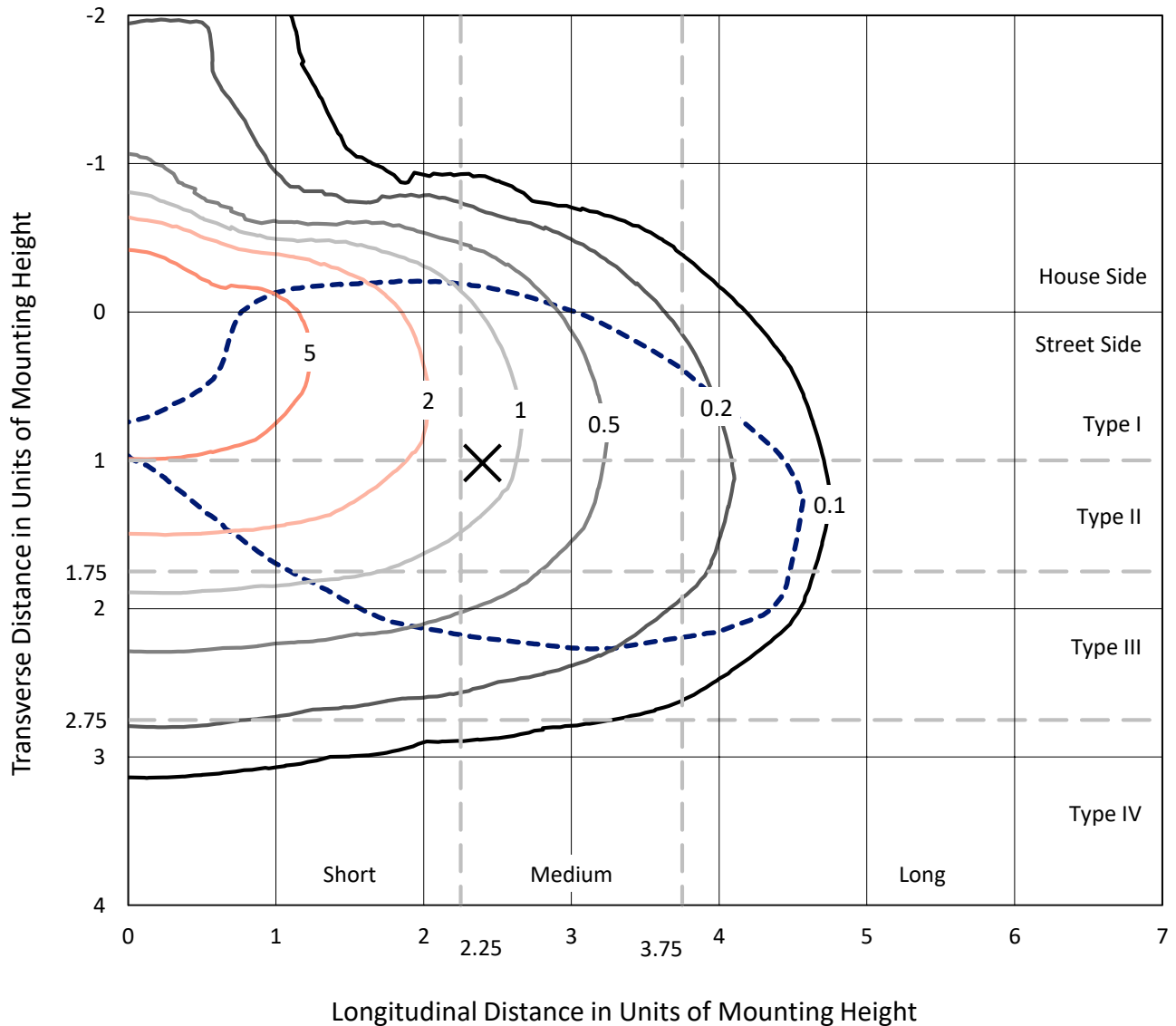


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

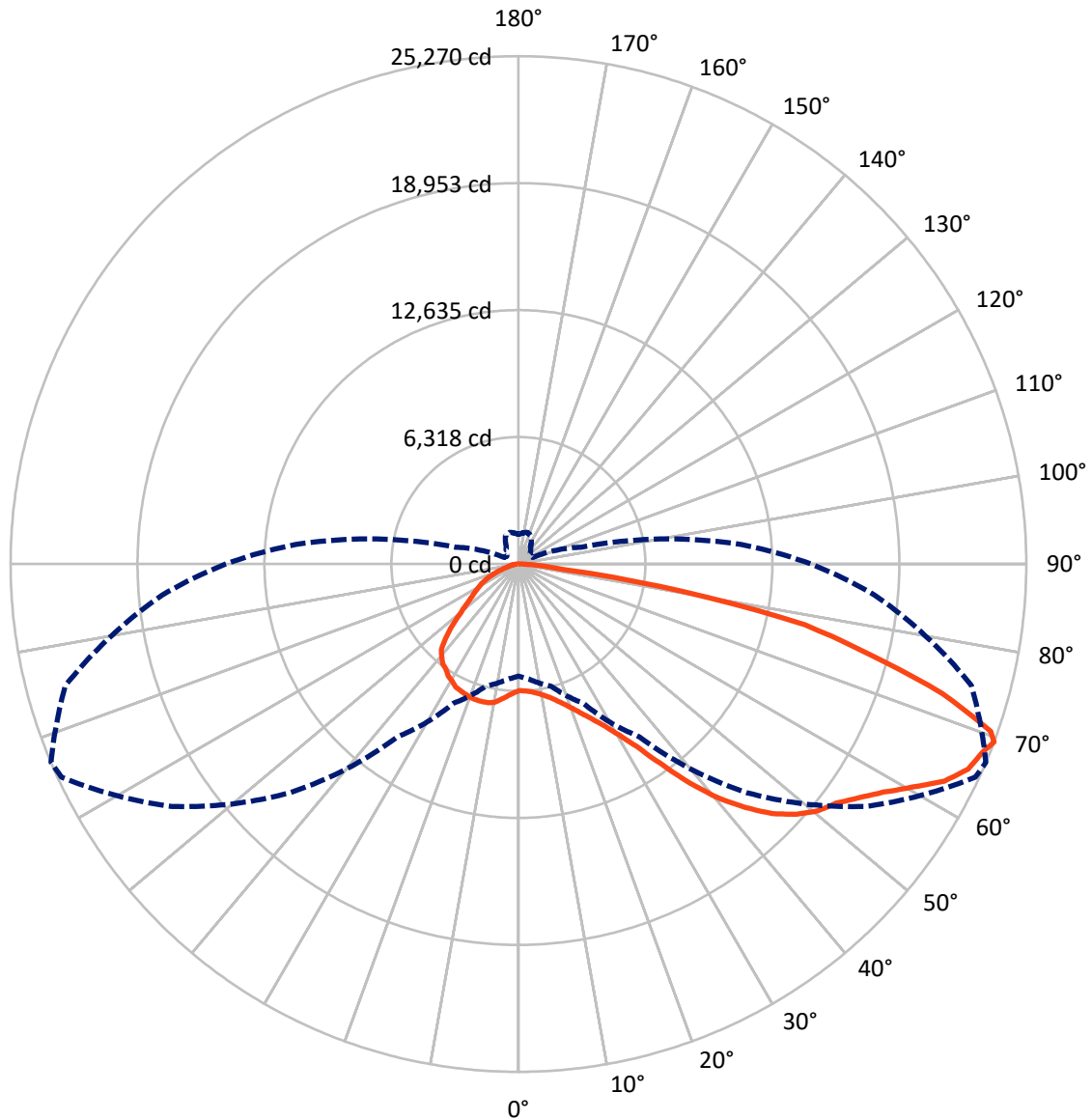


Based on 30 foot mounting height. Maximum calculated value = 8.3 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical



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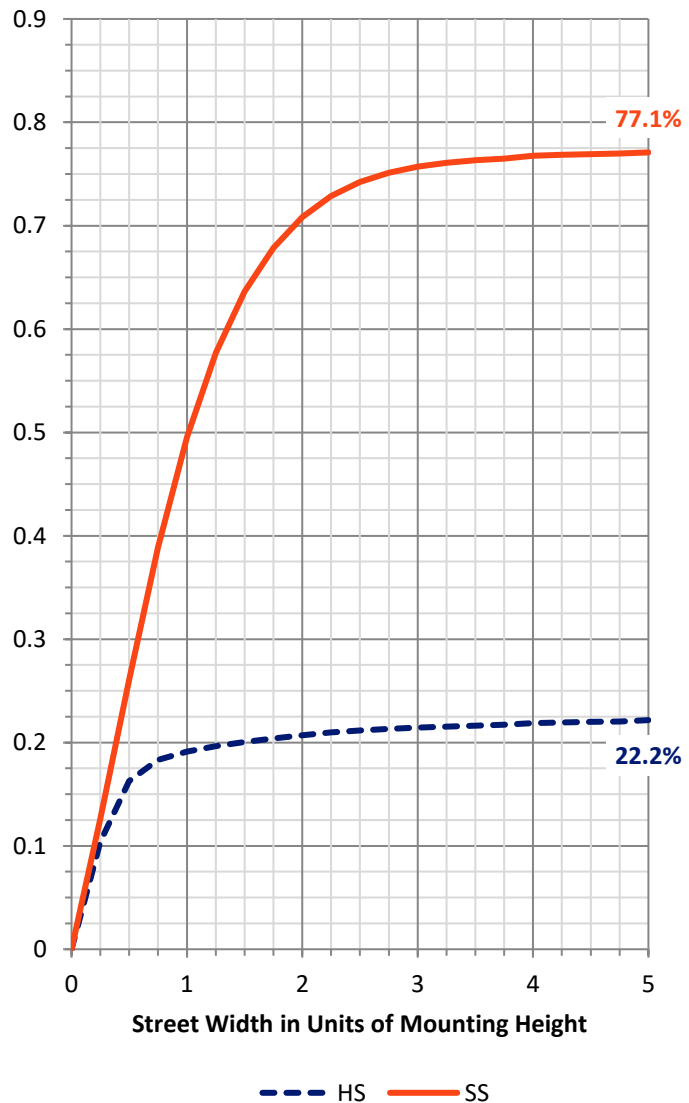
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9902.1	0.0	9902.1
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	33627.8	0.0	33627.8
	% Fixture	77.3	0.0	77.3
Total	Lumens	43530.0	0.0	43530.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	639.5	1.5
10°-20°	2053.8	4.7
20°-30°	3571.5	8.2
30°-40°	5380.1	12.4
40°-50°	7430.4	17.1
50°-60°	8868.2	20.4
60°-70°	9339.8	21.5
70°-80°	5478.8	12.6
80°-90°	767.9	1.8
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°	43530.0	100.0
0°-180°	43530.0	100.0

Coefficient of Utilization



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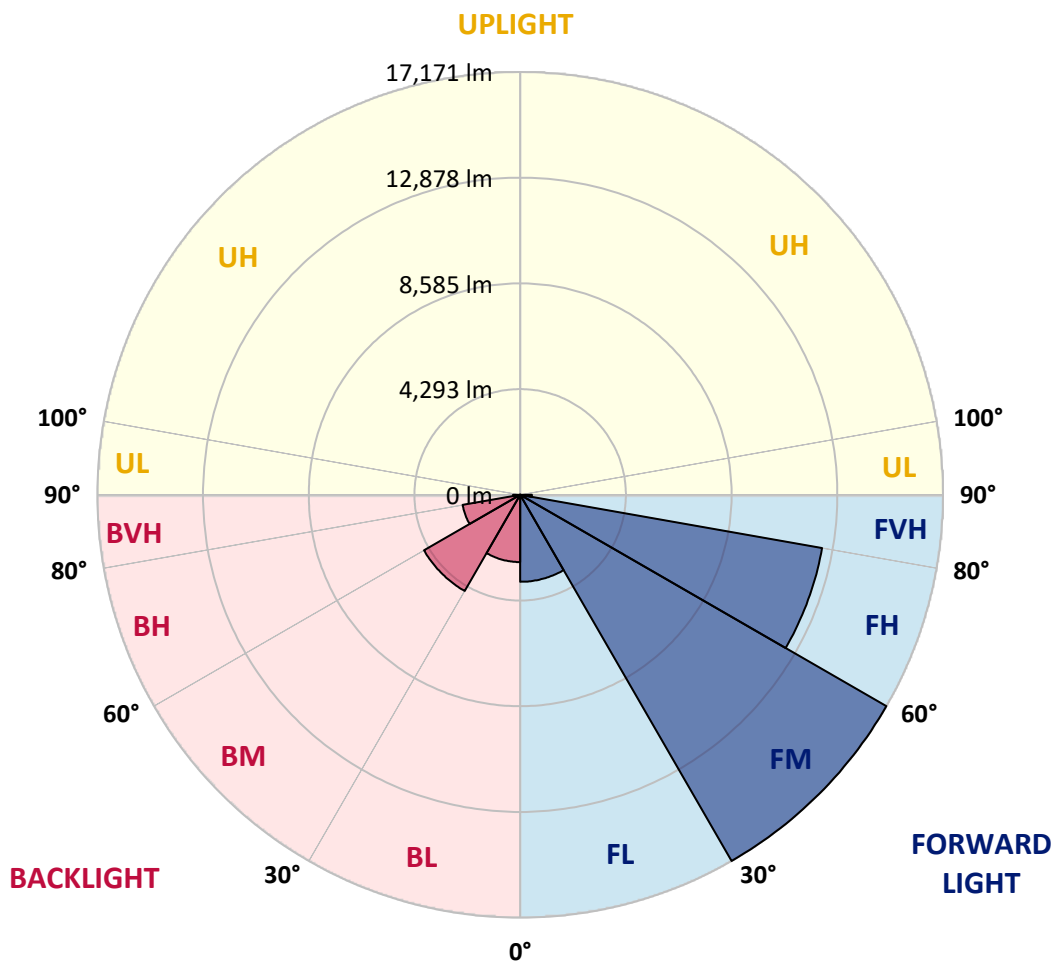
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3532.4	8.1			
FM	(30°-60°)	17170.5	39.4			
FH	(60°-80°)	12447.7	28.6			G5
FVH	(80°-90°)	477.2	1.1			G3/500
BL	(0°-30°)	2732.4	6.3	B4/5000		
BM	(30°-60°)	4508.1	10.4	B3/5000		
BH	(60°-80°)	2371.0	5.4	B3/2500		G3/2500
BVH	(80°-90°)	290.7	0.7			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	6299.4	6299.4	6299.4	6299.4	6299.4	6299.4	6299.4	6299.4	6299.4	6299.4	6299.4
2.5°	6325.9	6334.2	6325.9	6312.0	6266.0	6286.9	6268.8	6327.3	6323.1	6300.8	6341.2
5°	6473.6	6483.3	6465.2	6454.1	6383.0	6392.8	6353.8	6385.8	6374.7	6337.0	6399.7
7.5°	6714.6	6724.4	6702.1	6686.8	6586.4	6564.2	6493.1	6502.8	6481.9	6422.0	6494.5
10°	7039.3	7047.7	7010.0	6972.4	6844.2	6789.9	6671.4	6651.9	6621.3	6562.8	6636.6
12.5°	7389.0	7401.6	7355.6	7306.8	7157.7	7068.6	6900.0	6840.0	6802.4	6731.4	6812.2
15°	7763.8	7779.2	7731.8	7676.1	7511.6	7373.7	7163.3	7072.7	7036.5	6947.3	6997.5
17.5°	8255.7	8251.5	8212.5	8135.9	7939.4	7737.4	7478.2	7343.0	7318.0	7231.6	7244.1
20°	8825.6	8806.1	8769.9	8664.0	8450.8	8200.0	7861.4	7690.0	7664.9	7592.5	7515.8
22.5°	9444.2	9424.7	9389.9	9254.7	9044.3	8715.5	8310.0	8108.0	8074.6	7984.0	7855.8
25°	10053.1	10032.2	10012.7	9884.6	9679.7	9306.3	8818.6	8560.9	8545.5	8453.6	8218.1
27.5°	10685.7	10673.2	10678.8	10568.7	10363.9	9976.5	9423.3	9143.3	9116.8	8999.8	8679.3
30°	11336.4	11339.2	11392.2	11275.1	11087.0	10696.9	10147.9	9862.3	9866.4	9761.9	9293.8
32.5°	11918.9	11921.7	12040.1	11981.6	11878.5	11489.7	10985.3	10784.7	10825.1	10816.7	10337.4
35°	12339.7	12357.8	12622.5	12701.9	12662.9	12324.3	12020.6	12069.4	12197.5	12559.8	12056.8
37.5°	12735.4	12742.3	13080.9	13264.9	13409.8	13206.3	13145.0	13607.6	13809.7	14311.3	13567.2
40°	12849.6	12945.8	13373.5	13629.9	13967.1	14067.4	14378.2	15062.3	15300.6	15602.9	14584.4
42.5°	12745.1	12881.7	13418.1	14027.0	14495.2	14992.6	15562.5	16337.2	16553.2	16739.9	15558.3
45°	12526.4	12630.9	13188.2	14099.5	14948.0	15934.6	16592.2	17520.2	17715.3	17594.1	16319.1
47.5°	12235.2	12314.6	12936.0	13983.8	15310.3	16778.9	17535.5	18469.1	18611.2	18328.4	16836.1
50°	11831.1	11925.8	12619.7	13825.0	15576.5	17485.4	18293.5	19182.5	19302.3	18785.4	17343.2
52.5°	11332.3	11450.7	12257.5	13554.7	15775.7	18012.1	18823.0	19657.6	19778.9	19443.1	17744.5
55°	10766.6	10931.0	11761.4	13225.8	15789.6	18292.1	19153.2	20354.3	20527.1	20164.8	18095.7
57.5°	10192.5	10298.4	11177.6	12722.8	15527.7	18385.5	19548.9	21165.3	21417.5	20864.3	18478.8
60°	9491.6	9593.3	10464.2	12049.8	15005.2	18529.0	20340.4	22325.9	22526.6	21679.4	18804.9
62.5°	8662.6	8778.2	9568.3	11128.8	14231.9	18587.5	21147.1	23560.5	23790.4	22420.7	18993.0
65°	7609.2	7737.4	8457.7	10014.1	13126.9	18172.3	21495.5	24473.1	24591.5	22989.2	18912.2
67.5°	6458.3	6564.2	7138.2	8627.7	11598.4	17089.7	21313.0	24810.3	24930.1	23375.1	18428.7
69°	5577.7	5740.7	6292.4	7639.8	10499.0	16099.0	21034.3	25087.6	25270.1	23331.9	17793.3
70°	4872.6	5055.1	5554.0	6769.0	9565.5	15070.7	20515.9	24877.2	24928.7	22915.3	17220.6
72.5°	3079.3	3139.3	3366.4	4174.5	6730.0	11715.4	17953.5	22084.9	22070.9	20444.9	15033.0
75°	1521.6	1599.6	2030.1	2343.6	3316.2	7535.3	14131.5	18138.9	18141.6	17255.5	12359.2
77.5°	914.0	947.5	1057.6	1510.4	1895.0	3381.7	9591.9	14360.0	14580.2	14043.8	8893.9
80°	629.8	613.1	645.1	742.7	1019.9	1777.9	3943.2	8117.8	8356.0	7706.7	3788.6
82.5°	496.0	482.1	491.9	516.9	486.3	823.5	1667.9	2427.2	2356.2	2077.5	1456.1
85°	346.9	319.1	337.2	327.4	289.8	483.5	810.9	1008.8	1001.8	1035.3	792.8
87.5°	110.1	97.5	100.3	97.5	80.8	171.4	291.2	392.9	362.3	367.8	278.7
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°	6299.4	6299.4	6299.4	6299.4	6299.4	6299.4	6299.4	6299.4	6299.4	6299.4	6299.4
2.5°	6351.0	6339.8	6352.4	6417.9	6402.5	6459.7	6473.6	6566.9	6571.1	6562.8	6604.6
5°	6429.0	6440.1	6487.5	6592.0	6626.9	6749.5	6805.2	6919.5	6930.6	6934.8	6975.2
7.5°	6541.9	6561.4	6663.1	6799.6	6865.1	7025.4	7109.0	7249.7	7259.4	7274.8	7320.8
10°	6709.1	6736.9	6817.7	7004.5	7025.4	7152.2	7228.8	7350.0	7341.7	7362.6	7404.4
12.5°	6877.7	6893.0	6954.3	7082.5	7068.6	7192.6	7226.0	7305.4	7299.9	7298.5	7329.1
15°	7058.8	7032.3	7040.7	7089.5	7037.9	7114.5	7090.8	7149.4	7072.7	7042.1	7063.0
17.5°	7251.1	7187.0	7104.8	7068.6	6971.0	6958.5	6877.7	6849.8	6796.8	6780.1	6796.8
20°	7479.6	7343.0	7143.8	7039.3	6826.1	6716.0	6561.4	6470.8	6348.2	6357.9	6381.6
22.5°	7712.3	7520.0	7219.0	6939.0	6638.0	6415.1	6107.1	6024.9	5864.7	5817.3	5864.7
25°	7997.9	7740.2	7256.7	6849.8	6353.8	5956.6	5644.5	5353.3	5232.1	5113.7	5158.2
27.5°	8372.7	8024.4	7393.2	6739.7	6031.9	5502.4	5006.4	4630.2	4479.7	4352.9	4361.2
30°	8859.0	8404.8	7444.8	6508.4	5644.5	4879.6	4255.3	3837.3	3649.2	3597.7	3575.4
32.5°	9757.8	9017.9	7536.7	6339.8	5162.4	4202.4	3436.0	2987.4	2868.9	2891.2	2963.7
35°	11350.4	10301.2	7815.4	5987.3	4630.2	3463.9	2669.7	2322.7	2342.3	2382.7	2374.3
37.5°	12724.2	11459.1	8279.4	5739.3	3979.5	2623.7	2016.2	1832.3	1949.3	2028.7	2026.0
40°	13657.8	12303.4	8886.9	5275.3	3157.4	1869.9	1483.9	1382.2	1531.3	1701.3	1730.6
42.5°	14584.4	13071.2	9180.9	4864.2	2216.8	1319.5	1074.3	1100.8	1291.7	1451.9	1481.1
45°	15250.4	13628.5	9310.5	4131.3	1415.7	1010.2	937.7	1035.3	1241.5	1368.3	1382.2
47.5°	15739.5	14047.9	9169.8	3342.7	1042.2	923.8	925.2	1049.2	1256.8	1400.3	1405.9
50°	16171.4	14343.3	8602.7	2607.0	937.7	894.5	943.3	1089.6	1301.4	1446.3	1442.1
52.5°	16466.8	14429.7	7914.3	2136.0	908.5	877.8	958.6	1127.2	1315.3	1412.9	1404.5
55°	16663.3	14300.1	7384.8	1758.4	883.4	876.4	983.7	1174.6	1329.3	1368.3	1348.8
57.5°	16784.5	14038.2	6937.6	1511.8	862.5	876.4	1011.6	1192.7	1380.8	1451.9	1429.6
60°	16748.3	13921.1	6331.5	1309.8	833.2	879.2	1026.9	1219.2	1588.4	1755.6	1759.8
62.5°	16675.8	13692.6	5739.3	1149.5	798.4	895.9	1046.4	1372.5	1950.7	1952.1	1882.4
65°	16331.7	13004.3	4878.2	1004.6	762.2	900.1	1050.6	1624.7	2187.6	2003.7	1913.1
67.5°	15384.2	11996.9	3870.8	869.5	721.8	875.0	1046.4	1589.8	1766.8	1581.5	1535.5
69°	14557.9	11123.3	3234.0	788.6	692.5	850.0	1050.6	1524.3	1635.8	1525.7	1483.9
70°	13956.0	10415.4	2747.7	739.9	666.0	837.4	1050.6	1500.7	1617.7	1513.2	1472.8
72.5°	11978.8	8181.9	1647.0	617.3	589.4	788.6	1040.8	1464.4	1631.6	1542.5	1489.5
75°	9176.7	5951.1	958.6	507.2	496.0	707.8	989.3	1442.1	1679.0	1543.9	1428.2
77.5°	5880.0	2746.3	714.8	412.4	402.7	613.1	923.8	1369.7	1725.0	1619.1	1472.8
80°	2042.7	1245.7	533.7	326.0	312.1	501.6	809.5	1234.5	1642.8	1653.9	1543.9
82.5°	1120.3	820.7	377.6	242.4	229.9	314.9	629.8	1064.5	1520.2	1637.2	1645.6
85°	615.9	462.6	248.0	156.1	175.6	270.3	436.1	827.7	1223.4	1422.6	1485.3
87.5°	249.4	167.2	97.5	61.3	72.5	107.3	147.7	423.6	738.5	953.1	1049.2
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)