

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: P591447

Luminaire Tested: **CTN-CA8-230-740-U-T2-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591447
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-6)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-230-740-U-T2-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19673 lumens
Efficiency: N/A
Efficacy: 86.1 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

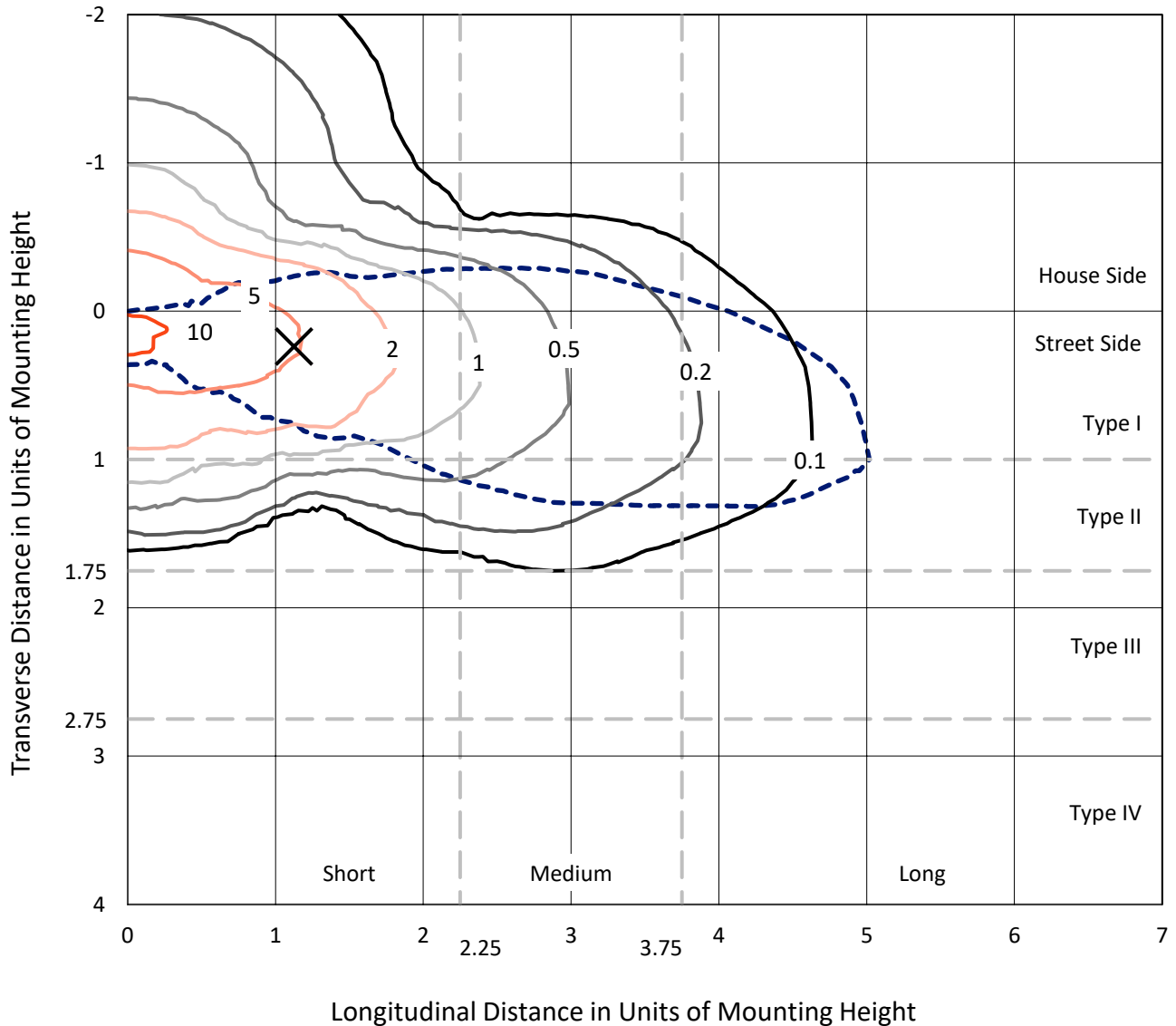
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

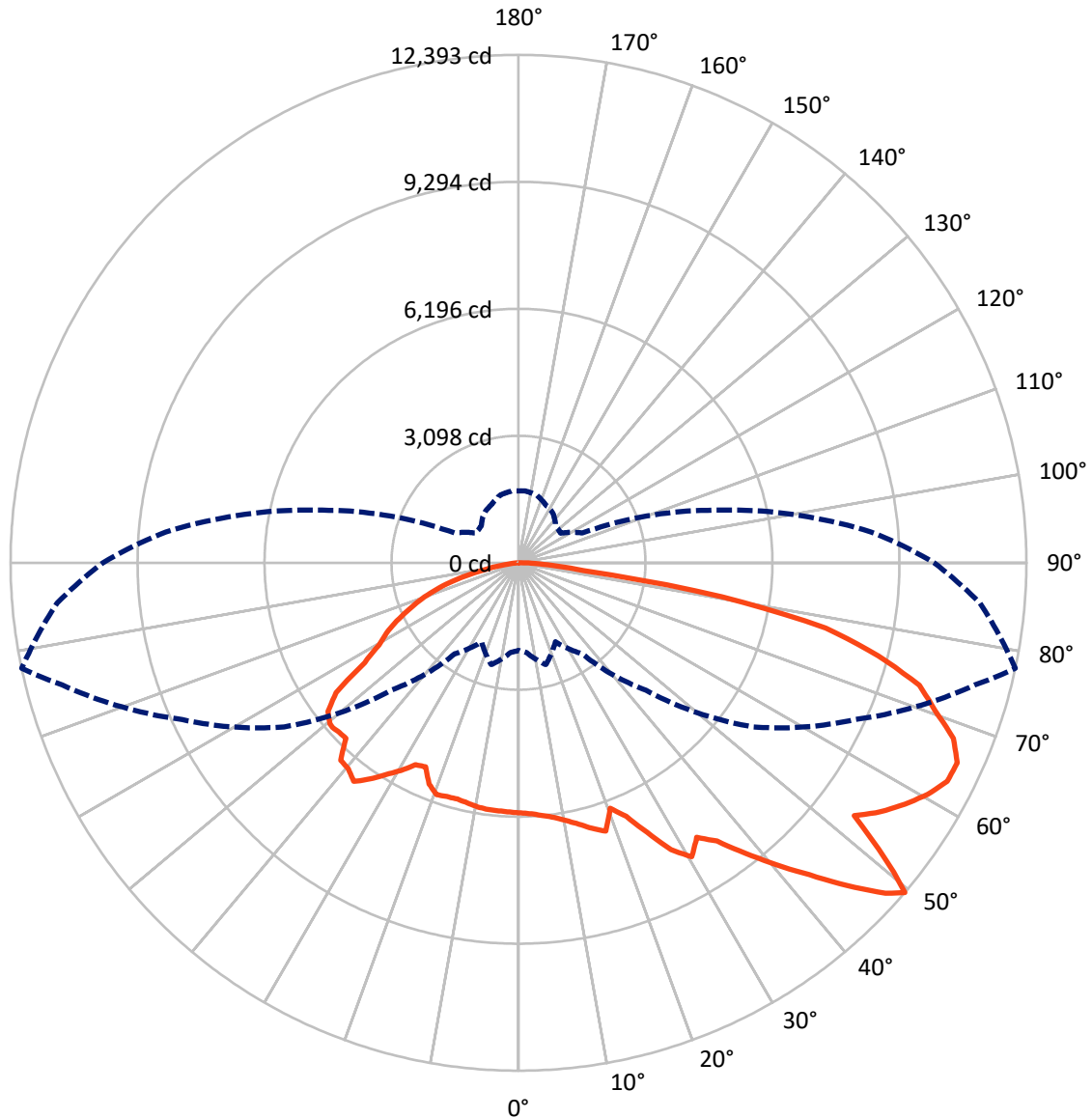
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.2 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral - - - Horizontal Cone Through 49-Deg Vertical

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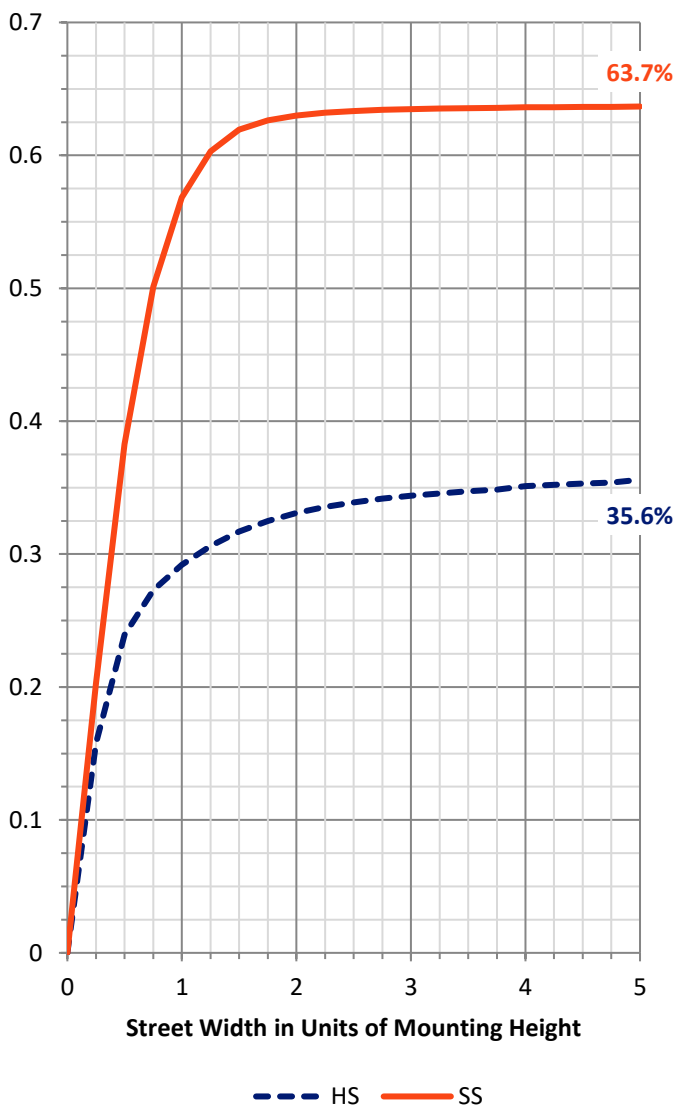
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7186.9	0.0	7186.9
	% Fixture	36.5	0.0	36.5
Street Side	Lumens	12486.1	0.0	12486.1
	% Fixture	63.5	0.0	63.5
Total	Lumens	19673.0	0.0	19673.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	591.3	3.0
10°-20°	1738.9	8.8
20°-30°	2448.3	12.4
30°-40°	3069.0	15.6
40°-50°	3464.1	17.6
50°-60°	3328.5	16.9
60°-70°	2719.2	13.8
70°-80°	1907.6	9.7
80°-90°	406.1	2.1
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°	19673.0	100.0
0°-180°	19673.0	100.0

Coefficient of Utilization



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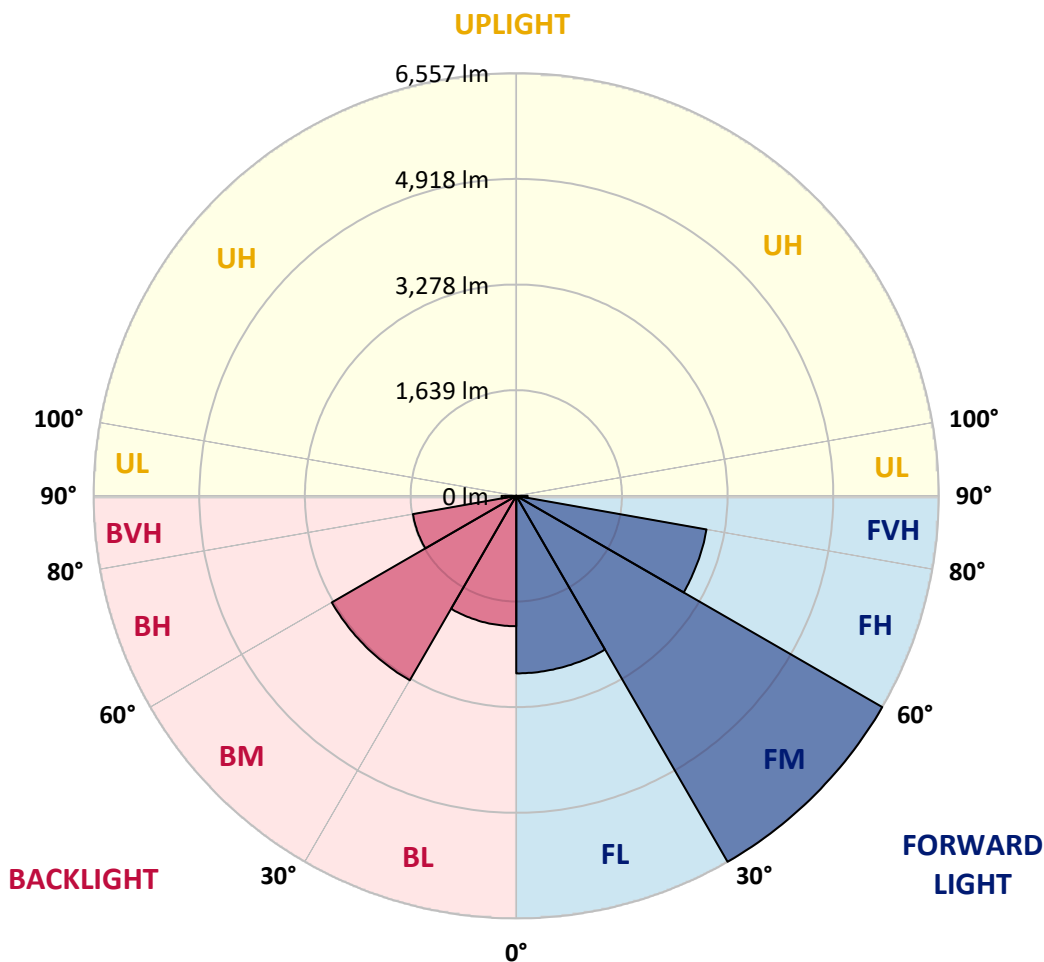
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2754.8	14.0			
FM (30°-60°)	6556.8	33.3			
FH (60°-80°)	2997.8	15.2			G2/5000
FVH (80°-90°)	176.8	0.9			G2/225
BL (0°-30°)	2023.7	10.3	B3/2500		
BM (30°-60°)	3304.9	16.8	B3/5000		
BH (60°-80°)	1629.0	8.3	B3/2500		G3/2500
BVH (80°-90°)	229.3	1.2			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	6102.1	6102.1	6102.1	6102.1	6102.1	6102.1	6102.1	6102.1	6102.1	6102.1	6102.1
2.5°	6353.6	6294.9	6308.2	6339.2	6219.5	6252.8	6199.6	6222.9	6159.7	6133.1	6144.2
5°	6806.7	6738.0	6753.5	6769.0	6592.9	6517.5	6369.1	6334.8	6238.4	6194.1	6188.5
7.5°	7022.7	6951.8	6968.4	6968.4	6834.4	6846.6	6695.9	6536.4	6343.6	6273.8	6242.8
10°	7369.5	7289.7	7277.5	7256.5	7081.4	7003.9	6878.7	6785.7	6493.2	6393.5	6308.2
12.5°	7623.2	7561.2	7562.3	7539.0	7341.8	7285.3	7064.8	6955.2	6666.0	6545.2	6407.9
15°	7728.4	7684.1	7712.9	7643.1	7511.3	7427.1	7323.0	7146.8	6847.7	6723.6	6554.1
17.5°	7237.7	7157.9	6946.3	6982.8	6974.0	6999.5	6897.5	7001.7	6954.0	6886.5	6774.6
20°	6128.7	6212.9	6361.3	6229.5	6219.5	6550.8	6787.9	6755.7	6489.9	6391.3	6503.1
22.5°	5208.1	5105.0	5418.5	5887.2	6019.0	6356.9	6760.2	7143.5	6843.3	6717.0	6378.0
25°	4381.6	4485.7	4973.2	5682.2	6096.6	6196.3	6658.2	7379.5	7427.1	7289.7	6849.9
27.5°	4250.9	4249.8	4578.8	5265.7	6208.5	6520.9	6662.7	7262.0	8017.6	7923.4	7418.2
30°	4221.0	4205.4	4330.6	5026.4	5903.8	6812.2	7088.1	7298.6	8013.2	8327.8	8067.4
32.5°	4092.4	4080.3	4208.8	4535.6	5489.5	7090.3	7495.8	7772.8	7813.7	7985.5	8726.6
35°	3886.4	3915.2	4083.6	4444.7	5149.3	6543.0	7909.0	8342.2	8440.8	8340.0	8345.5
37.5°	3689.2	3711.3	3884.2	4283.0	4901.2	5322.2	8192.6	8889.5	9108.8	8993.6	8455.2
40°	3433.3	3464.3	3669.2	4111.3	4738.3	4593.2	7781.6	9532.0	9836.7	9689.4	9078.9
42.5°	3145.2	3159.6	3402.2	3828.8	3397.8	4617.6	7200.0	10121.4	10547.9	10401.7	9665.0
45°	2899.3	2908.1	3106.4	3377.9	3063.2	4578.8	6797.8	9842.2	11378.8	11232.6	10285.4
47.5°	2553.6	2616.8	2831.7	2335.4	2845.0	4483.5	6933.0	8727.7	12157.7	12049.1	10888.1
49°	2139.3	2195.8	2573.6	2127.1	2709.8	4398.2	6979.5	9053.4	11526.2	12392.5	11301.3
50°	1966.5	2007.4	1972.0	2052.9	2611.2	4311.8	6905.3	9316.0	10593.4	11868.5	11567.2
52.5°	1709.4	1590.9	1354.9	1843.5	2384.1	3975.0	5690.0	10021.7	10495.9	10256.6	10838.2
55°	722.3	1029.2	1198.7	1512.2	2154.8	2412.9	5269.0	10790.6	10966.7	10725.2	9739.2
57.5°	565.0	576.1	659.2	1125.6	1192.1	1869.0	5097.3	11120.7	11322.3	11113.0	10117.0
60°	83.1	82.0	108.6	129.6	295.8	859.7	3331.3	7915.7	10927.9	11474.1	10462.6
62.5°	29.9	31.0	31.0	36.6	54.3	376.7	2421.8	7385.0	11191.6	11738.9	10751.8
65°	2.2	3.3	5.5	12.2	28.8	355.6	2148.1	7515.7	11106.3	11764.4	10892.5
67.5°	0.0	1.1	3.3	8.9	23.3	350.1	1997.5	7295.3	10748.5	11440.9	10584.5
70°	0.0	0.0	2.2	7.8	21.0	336.8	1734.9	6547.5	10108.1	10777.3	10023.9
72.5°	0.0	0.0	2.2	7.8	18.8	321.3	1425.8	5764.2	9525.4	10225.6	9210.8
75°	0.0	0.0	2.2	6.6	16.6	292.5	1042.5	4177.7	8532.7	9067.8	8056.4
77.5°	0.0	0.0	2.2	6.6	15.5	252.6	704.6	2394.1	7020.5	7667.5	6769.0
80°	0.0	0.0	2.2	5.5	14.4	191.7	398.8	1195.4	3669.2	5039.7	4838.0
82.5°	0.0	0.0	2.2	5.5	11.1	101.9	186.1	521.8	1352.7	1596.4	1863.4
85°	0.0	0.0	2.2	4.4	8.9	25.5	63.1	248.2	738.9	820.9	801.0
87.5°	0.0	0.0	2.2	4.4	6.6	10.0	21.0	70.9	273.6	305.8	261.5
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°	6102.1	6102.1	6102.1	6102.1	6102.1	6102.1	6102.1	6102.1	6102.1	6102.1	6102.1
2.5°	6142.0	6107.6	6075.5	6079.9	6003.5	5986.9	5914.9	5959.2	5929.3	5891.6	5916.0
5°	6155.3	6111.0	6054.5	5991.3	5824.0	5764.2	5664.5	5693.3	5653.4	5609.1	5632.4
7.5°	6184.1	6132.0	6039.0	5875.0	5680.0	5574.8	5459.5	5558.1	5546.0	5520.5	5546.0
10°	6196.3	6150.8	5992.4	5801.9	5531.6	5459.5	5372.0	5355.4	5358.7	5364.3	5401.9
12.5°	6228.4	6160.8	5917.1	5691.1	5445.1	5302.2	5215.8	5266.8	5161.5	5115.0	5134.9
15°	6307.1	6178.5	5858.4	5537.1	5292.3	5179.3	4966.5	4966.5	4940.0	4894.5	4907.8
17.5°	6465.5	6249.4	5842.9	5435.2	5121.6	4926.7	4731.7	4628.6	4599.8	4614.2	4623.1
20°	6550.8	6380.2	5835.1	5301.1	4930.0	4704.0	4408.2	4335.1	4238.7	4252.0	4267.5
22.5°	6037.8	5815.2	5822.9	5137.2	4692.9	4406.0	4082.5	3955.1	3896.3	3885.3	3915.2
25°	6403.4	5954.8	5262.3	5047.4	4432.6	4067.0	3739.0	3564.0	3474.3	3468.7	3487.5
27.5°	6888.7	6339.2	5184.8	4626.4	4155.6	3655.9	3293.7	3168.5	3079.9	3075.4	3078.7
30°	7453.7	6852.1	5377.6	4107.9	3780.0	3181.8	2893.7	2805.1	2724.2	2688.8	2689.9
32.5°	8081.8	7316.3	5563.7	4008.2	3030.0	2768.5	2544.8	2476.1	2365.3	2314.3	2299.9
35°	8670.1	7809.3	5796.3	3841.0	2629.0	2400.7	2243.4	2151.5	2065.1	2021.8	2007.4
37.5°	8151.6	8263.5	6002.4	3703.6	2323.2	1989.7	1946.5	1885.6	1841.3	1808.0	1802.5
40°	8270.2	7443.7	6124.3	3444.3	2007.4	1738.2	1668.4	1698.4	1743.8	1716.1	1715.0
42.5°	8665.7	7571.1	6013.5	3085.4	1757.1	1498.9	1518.9	1630.8	1726.0	1708.3	1710.5
45°	9231.8	7968.8	5160.4	2656.7	1514.4	1350.5	1480.1	1610.8	1730.5	1736.0	1736.0
47.5°	9817.9	8416.4	5002.0	2085.0	1336.1	1292.9	1473.5	1586.5	1723.8	1759.3	1754.9
49°	10142.5	8633.6	4957.7	1716.1	1256.3	1280.7	1472.3	1563.2	1710.5	1760.4	1754.9
50°	10331.9	8782.0	4874.6	1568.7	1209.8	1278.5	1473.5	1548.8	1697.2	1752.6	1750.4
52.5°	10729.6	8970.4	4584.3	1291.8	1096.8	1270.7	1491.2	1535.5	1656.3	1715.0	1737.1
55°	8866.2	8652.4	4096.9	1159.9	1045.8	1255.2	1491.2	1543.3	1620.8	1655.1	1676.2
57.5°	8975.9	7398.3	3221.7	1094.6	1011.5	1238.6	1467.9	1542.1	1602.0	1607.5	1600.9
60°	9310.5	7570.0	2401.8	1028.1	971.6	1217.5	1418.1	1506.7	1552.1	1552.1	1532.2
62.5°	9511.0	7650.9	1921.0	955.0	929.5	1174.3	1343.8	1438.0	1472.3	1453.5	1450.2
65°	9560.8	7716.3	1393.7	876.3	881.9	1127.8	1267.4	1349.4	1397.0	1364.9	1371.5
67.5°	9389.1	7249.8	1018.1	795.4	827.6	1064.7	1192.1	1265.2	1299.5	1282.9	1286.2
70°	8754.3	6742.4	716.8	657.0	740.1	967.2	1096.8	1181.0	1198.7	1169.9	1174.3
72.5°	7734.0	5959.2	452.0	514.0	651.4	877.4	984.9	1038.1	1041.4	1076.8	1095.7
75°	6735.8	4781.5	326.8	405.5	517.4	750.0	899.6	949.4	986.0	1163.3	1192.1
77.5°	5398.6	3025.6	278.1	320.2	406.6	622.6	802.1	878.5	1207.6	1295.1	1272.9
80°	3271.5	1878.9	209.4	252.6	339.0	478.6	686.9	905.1	1222.0	1140.0	1093.5
82.5°	1510.0	816.5	141.8	206.1	269.2	356.7	541.7	1056.9	1046.9	873.0	864.1
85°	542.9	241.5	77.6	147.3	188.3	245.9	416.6	1046.9	820.9	733.4	686.9
87.5°	138.5	43.2	32.1	72.0	95.3	130.7	227.1	553.9	426.5	375.6	362.3
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)