

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: P591400

Luminaire Tested: **CTN-CA10-310-740-U-T2-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591400
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-310-740-U-T2-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35206 lumens
Efficiency: N/A
Efficacy: 112.7 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

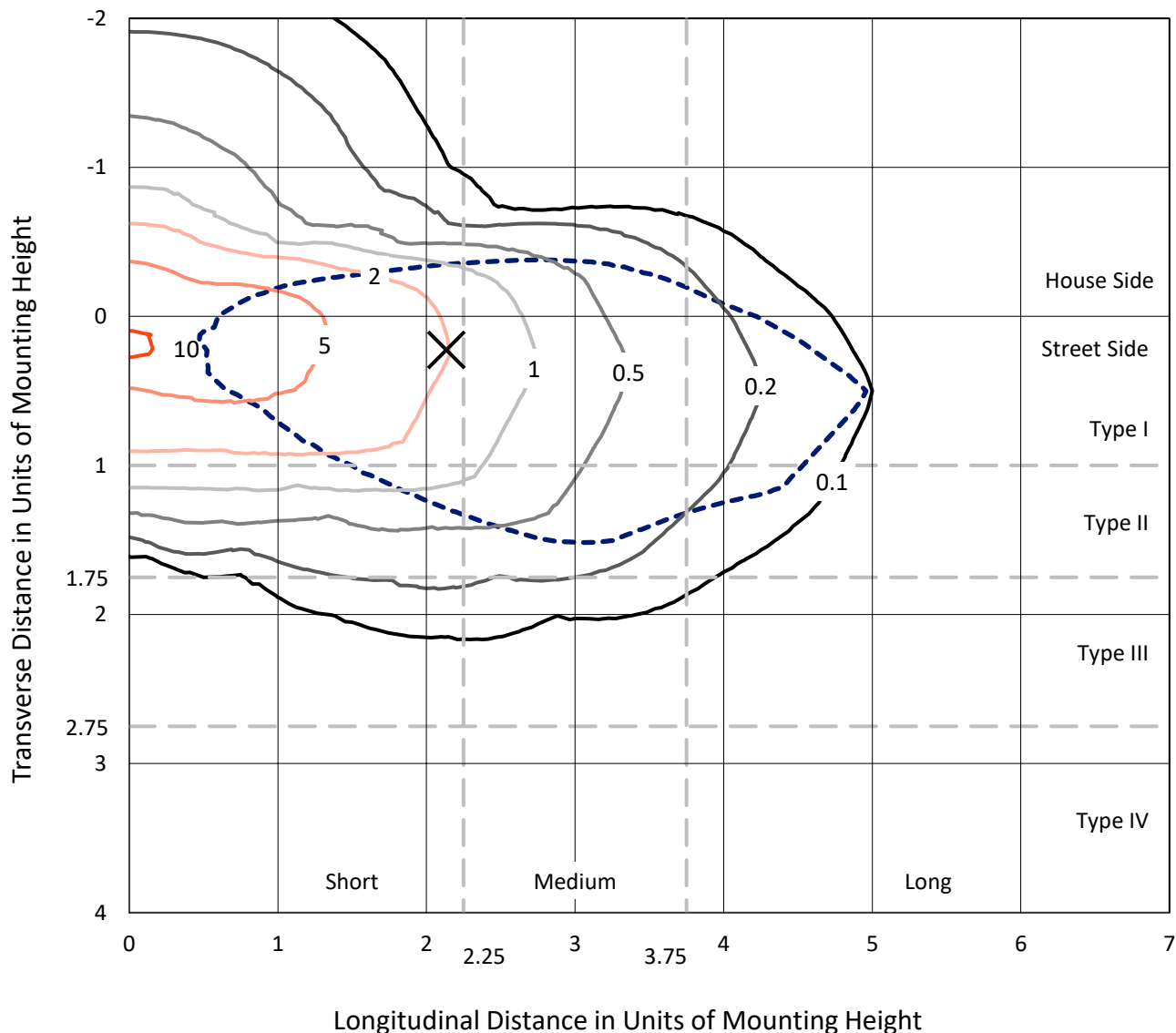
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

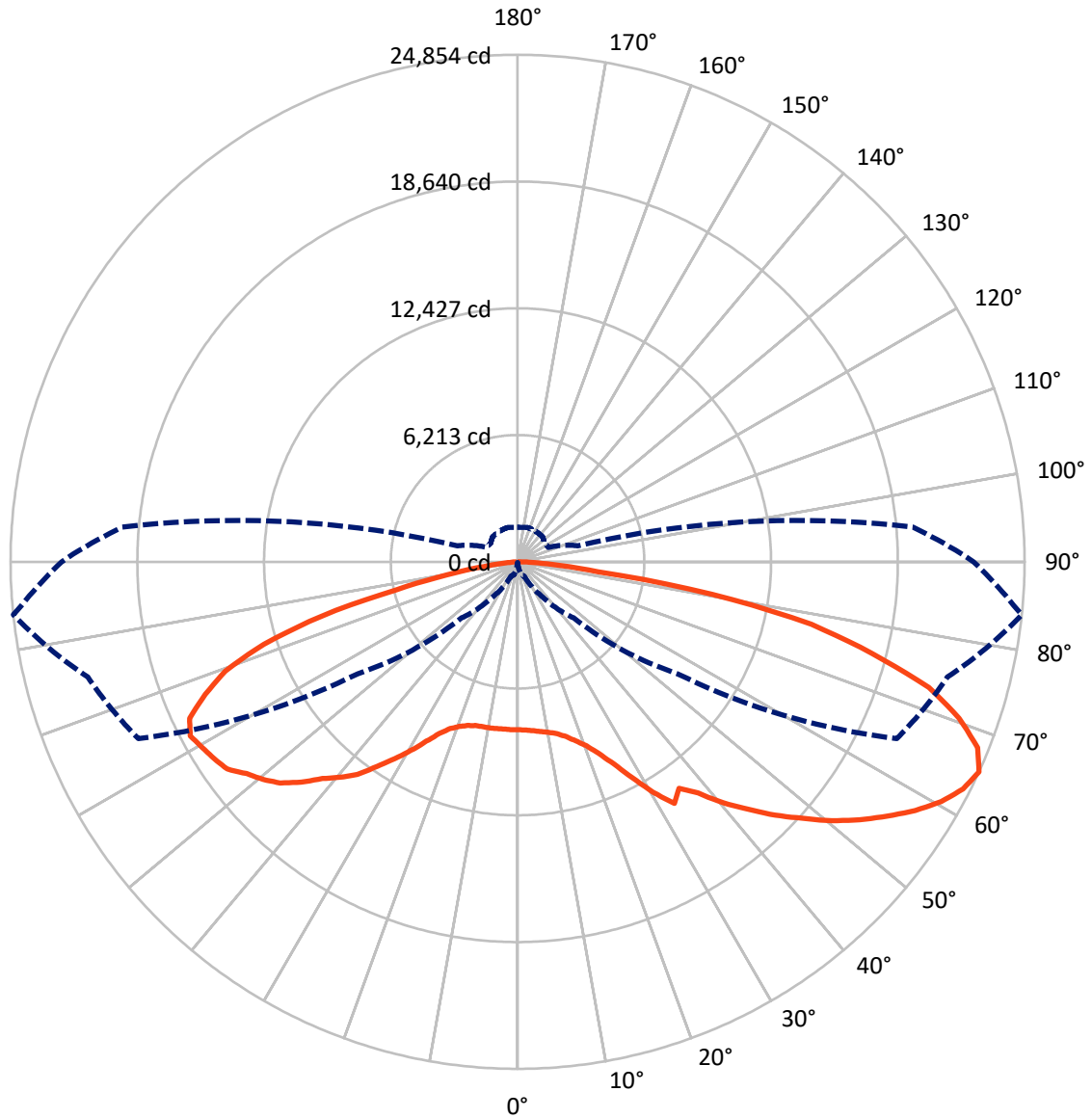
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10.6 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 84-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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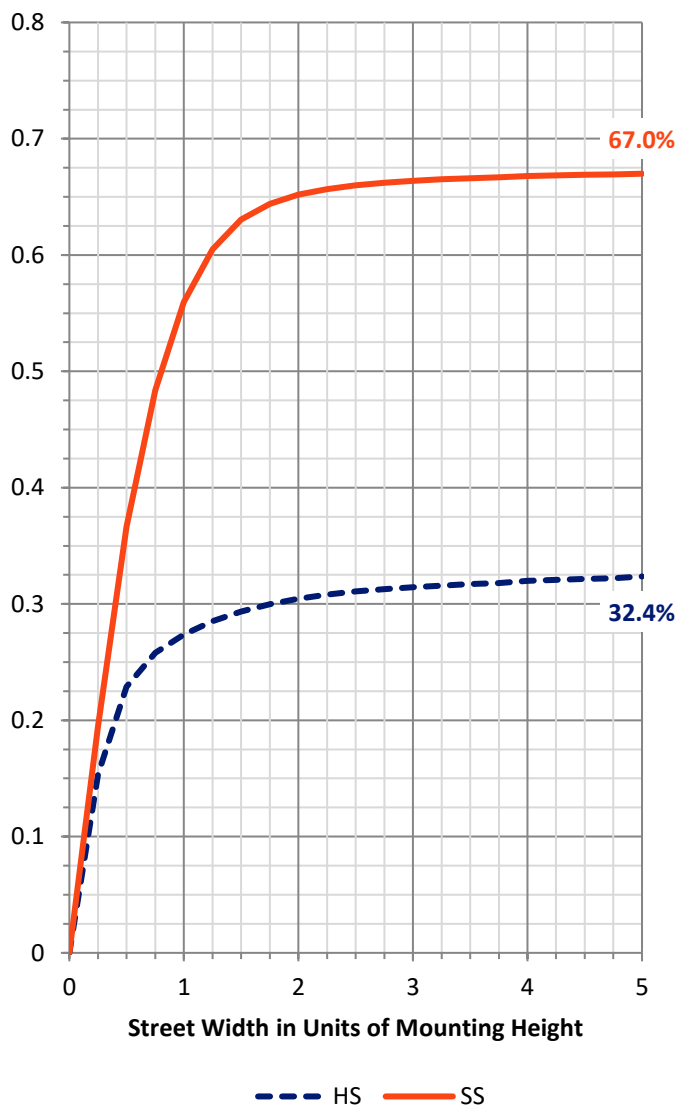
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11654.9	0.0	11654.9
	% Fixture	33.1	0.0	33.1
Street Side	Lumens	23551.1	0.0	23551.1
	% Fixture	66.9	0.0	66.9
Total	Lumens	35206.0	0.0	35206.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	794.5	2.3
10°-20°	2365.0	6.7
20°-30°	3553.3	10.1
30°-40°	4725.1	13.4
40°-50°	5834.1	16.6
50°-60°	6555.9	18.6
60°-70°	6429.9	18.3
70°-80°	4180.9	11.9
80°-90°	767.3	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°	35206.0	100.0
0°-180°	35206.0	100.0

Coefficient of Utilization

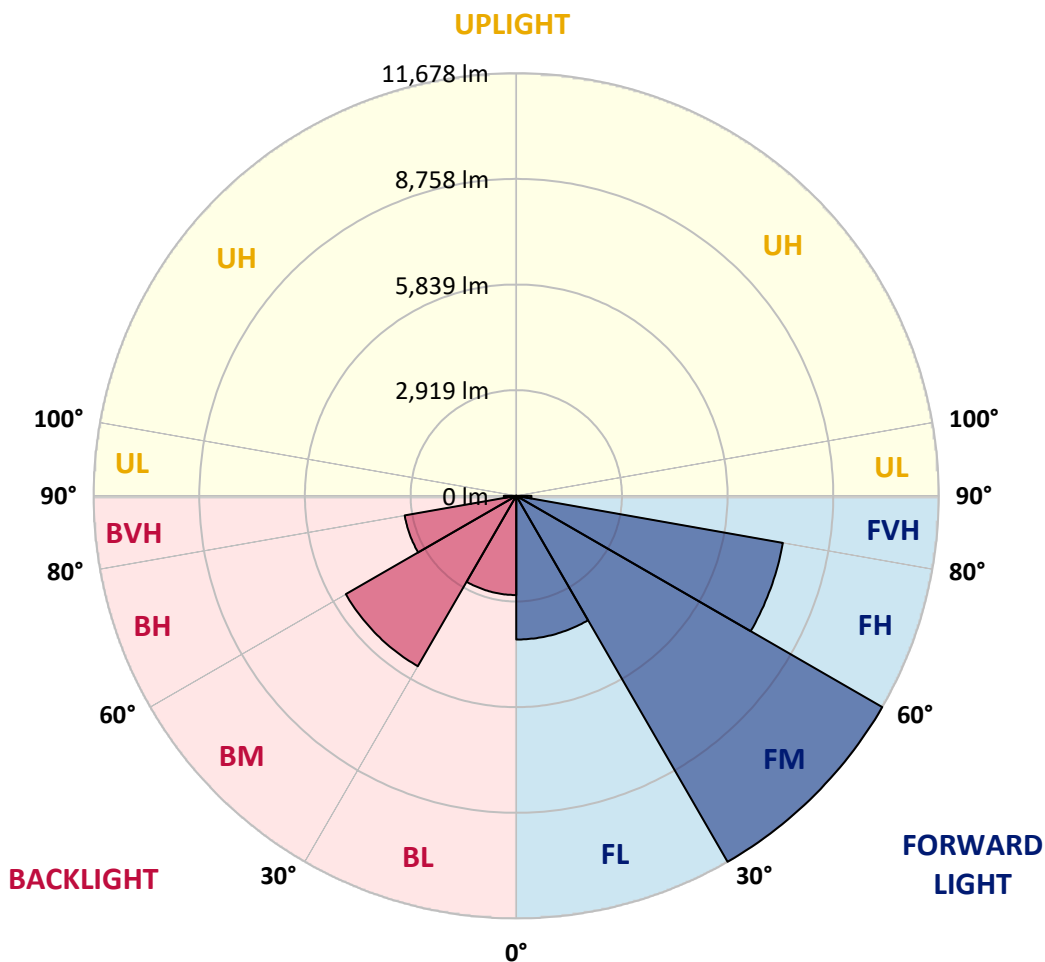


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3971.0	11.3			
FM	(30°-60°)	11677.7	33.2			
FH	(60°-80°)	7480.8	21.2			G3/7500
FVH	(80°-90°)	421.5	1.2			G3/500
BL	(0°-30°)	2741.7	7.8	B4/5000		
BM	(30°-60°)	5437.5	15.4	B4/8500		
BH	(60°-80°)	3130.0	8.9	B4/5000		G4/5000
BVH	(80°-90°)	345.8	1.0			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	84°	85°
0°	8230.1	8230.1	8230.1	8230.1	8230.1	8230.1	8230.1	8230.1	8230.1	8230.1	8230.1
2.5°	8583.5	8502.7	8511.6	8550.6	8400.8	8450.2	8366.4	8381.4	8281.0	8263.1	8273.5
5°	9187.0	9100.1	9100.1	9124.1	8872.5	8805.1	8571.5	8532.6	8384.4	8318.5	8321.5
7.5°	9498.5	9413.1	9396.6	9419.1	9237.9	9252.9	9013.3	8784.2	8520.6	8403.8	8397.8
10°	9956.7	9860.9	9804.0	9805.5	9561.4	9468.5	9291.8	9131.6	8728.8	8501.2	8472.7
12.5°	10326.6	10253.2	10223.3	10200.8	9931.2	9869.8	9537.4	9407.1	8977.4	8649.4	8612.0
15°	10540.7	10471.8	10428.4	10377.5	10227.7	10127.4	9983.7	9687.2	9272.4	8887.5	8841.1
17.5°	9982.2	9863.9	9658.7	9568.9	9534.4	9679.7	10298.1	10146.9	9652.7	9225.9	9176.5
20°	8508.6	8616.5	8772.2	8418.8	8528.1	9607.8	10768.3	10754.9	10184.3	9631.7	9567.4
22.5°	7238.8	6954.3	7445.4	7984.5	8328.9	9347.2	10951.0	11457.2	10904.6	10202.3	10127.4
25°	5934.5	6096.2	6758.1	7843.8	8326.0	9149.6	10850.7	11996.3	11825.5	10979.5	10891.1
27.5°	5757.8	5760.8	6397.2	7228.3	8490.7	9607.8	10960.0	12017.2	12866.3	11984.3	11813.6
30°	5720.3	5702.4	5874.6	6883.9	8200.2	10036.1	11663.8	12204.4	13119.4	13107.4	12879.8
32.5°	5545.1	5534.7	5714.4	6172.6	7578.7	10489.8	12330.2	13077.4	13028.0	14119.7	14058.3
35°	5295.1	5332.5	5555.6	6031.8	7286.7	10112.4	13014.5	14077.7	14161.6	13628.5	13872.6
37.5°	5034.5	5055.5	5271.1	5846.1	6798.5	9452.1	13535.7	15058.6	15346.1	14383.2	14188.6
40°	4679.6	4723.0	4976.1	5623.0	6699.7	8839.6	13167.3	16175.7	16623.5	15534.8	15235.3
42.5°	4303.7	4324.7	4633.2	5260.6	6535.0	8848.6	12411.1	17140.1	17800.5	16586.0	16282.0
45°	3974.3	3980.3	4269.3	4830.8	6210.0	8793.2	11933.4	17179.0	19209.6	17712.1	17330.3
47.5°	3571.5	3628.4	3914.4	4474.5	5795.2	8607.5	12156.5	15970.6	20623.2	18785.8	18436.9
50°	2738.9	2783.8	3337.9	4125.5	5341.5	8297.5	12309.2	16943.9	19047.9	19950.8	19700.8
52.5°	2355.5	2279.2	2677.5	3733.2	4926.7	7780.9	12373.6	18309.6	19044.9	21005.1	20755.0
55°	1007.8	1545.4	2412.4	3065.3	4547.8	7092.0	12327.2	19645.4	19973.3	21999.4	21912.5
57.5°	796.7	834.1	1773.0	2479.8	4098.6	6277.4	12117.6	20528.9	20787.9	22995.2	22748.1
60°	146.8	166.2	871.5	1048.2	2968.0	5061.5	11353.8	20654.7	21382.4	23862.2	23546.3
62.5°	67.4	79.4	700.8	873.0	2373.5	4163.0	10699.4	20614.2	21932.0	24506.2	24227.6
65°	31.4	40.4	627.4	792.2	2054.5	3884.4	9565.9	20504.9	21810.7	24853.6	24401.3
67.5°	24.0	34.4	576.5	711.3	1708.6	3607.4	8489.2	19357.8	21226.7	24316.0	23688.5
70°	24.0	34.4	527.1	646.9	1449.6	3255.5	6891.4	17921.8	19893.9	22957.8	22435.1
72.5°	25.5	34.4	468.7	585.5	1256.4	2810.8	5383.4	15629.1	18296.1	21082.9	20533.4
75°	25.5	34.4	404.3	518.1	1058.7	2354.0	3604.4	11171.2	15759.4	17944.2	17333.3
77.5°	25.5	34.4	335.4	432.8	862.5	1880.8	2331.6	6022.8	12399.1	14715.7	13932.5
80°	25.5	34.4	250.1	327.9	648.4	1326.8	1392.7	3036.9	6671.2	9667.7	9804.0
82.5°	25.5	32.9	173.7	239.6	423.8	727.8	769.7	1466.0	2461.8	3965.3	4020.7
85°	24.0	28.5	124.3	158.7	232.1	274.0	374.4	729.3	1180.0	1692.1	1678.7
87.5°	15.0	15.0	40.4	62.9	94.3	107.8	167.7	269.5	407.3	558.6	527.1
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°	8230.1	8230.1	8230.1	8230.1	8230.1	8230.1	8230.1	8230.1	8230.1	8230.1	8230.1
2.5°	8272.0	8237.6	8194.2	8182.2	8080.4	8032.4	7935.1	7978.5	7929.1	7888.7	7935.1
5°	8284.0	8233.1	8141.8	8033.9	7816.8	7718.0	7580.2	7595.2	7523.3	7467.9	7499.3
7.5°	8314.0	8251.1	8107.3	7864.7	7605.7	7449.9	7306.2	7418.5	7369.1	7327.1	7358.6
10°	8328.9	8279.5	8025.0	7768.9	7396.0	7310.7	7131.0	7117.5	7122.0	7117.5	7166.9
12.5°	8369.4	8299.0	7929.1	7602.7	7285.2	7059.1	6948.3	6946.8	6804.5	6743.1	6770.1
15°	8489.2	8336.4	7864.7	7405.0	7054.6	6904.9	6554.4	6555.9	6496.0	6425.7	6424.2
17.5°	8728.8	8448.7	7864.7	7271.7	6842.0	6539.5	6234.0	6067.8	6027.3	6036.3	6030.3
20°	9044.7	8637.4	7861.7	7075.6	6542.5	6229.5	5789.2	5648.5	5521.2	5530.2	5530.2
22.5°	9498.5	8916.0	7867.7	6895.9	6256.4	5831.2	5335.5	5157.3	5021.0	5025.5	5025.5
25°	10149.9	9393.7	7938.1	6786.5	5873.1	5362.5	4862.3	4585.3	4446.0	4447.5	4450.5
27.5°	10979.5	10060.0	8182.2	6554.4	5554.1	4808.4	4260.3	4056.7	3917.4	3881.5	3881.5
30°	11918.4	10859.7	8498.2	6403.2	5060.0	4183.9	3728.7	3577.5	3409.7	3360.3	3360.3
32.5°	12959.1	11662.3	8824.6	6217.5	4594.2	3647.8	3269.0	3129.7	2920.1	2858.7	2837.7
35°	14041.8	12491.9	9221.4	5956.9	4008.7	3206.1	2870.7	2701.4	2550.2	2469.3	2449.9
37.5°	14625.8	13436.8	9579.3	5693.4	3556.5	2857.2	2482.8	2351.0	2250.7	2193.8	2183.3
40°	15428.5	14124.2	9765.0	5257.6	3069.8	2502.3	2124.9	2118.9	2132.4	2081.5	2078.5
42.5°	16246.1	14802.5	9714.1	4673.6	2691.0	2139.9	1945.2	2048.5	2123.4	2078.5	2081.5
45°	17268.9	15716.0	9899.8	4059.7	2316.6	1939.2	1907.8	2029.1	2132.4	2121.9	2121.9
47.5°	18303.6	16599.5	9556.9	3307.9	2065.0	1880.8	1912.3	1997.6	2126.4	2160.9	2153.4
50°	19146.7	17204.5	9345.7	2670.0	1922.8	1882.3	1927.2	1958.7	2099.5	2154.9	2153.4
52.5°	19828.0	17781.0	8558.1	2253.7	1841.9	1888.3	1975.2	1952.7	2051.5	2109.9	2144.4
55°	20792.4	18579.2	7661.1	2093.5	1800.0	1882.3	1991.6	1973.7	2014.1	2041.1	2066.5
57.5°	21538.2	18976.0	6460.1	1990.1	1762.5	1873.3	1978.2	1979.7	1999.1	1988.6	1978.2
60°	22164.1	19338.4	5284.6	1889.8	1714.6	1853.9	1921.3	1942.2	1936.2	1922.8	1895.8
62.5°	22469.6	19730.7	4104.6	1783.5	1663.7	1797.0	1828.4	1852.4	1838.9	1794.0	1791.0
65°	22354.3	19449.2	3042.9	1668.2	1602.3	1734.1	1732.6	1743.1	1749.0	1692.1	1698.1
67.5°	21707.4	18212.3	2318.1	1521.4	1531.9	1644.2	1636.7	1642.7	1626.3	1587.3	1593.3
70°	19826.5	16807.6	1644.2	1274.3	1388.2	1503.5	1513.9	1539.4	1502.0	1433.1	1437.6
72.5°	17045.7	14393.7	1153.1	1015.3	1218.9	1365.7	1359.7	1358.2	1307.3	1334.2	1367.2
75°	14539.0	11022.9	876.0	817.6	962.9	1175.5	1242.9	1247.4	1254.9	1524.4	1543.9
77.5°	11192.1	6668.2	745.7	645.4	747.2	974.9	1100.6	1151.6	1581.3	1638.2	1608.3
80°	6669.7	3851.5	576.5	503.2	603.5	744.2	940.4	1215.9	1588.8	1419.6	1358.2
82.5°	3246.5	1786.5	419.3	383.4	444.7	540.6	738.3	1416.6	1344.7	1097.6	1082.7
85°	1211.5	603.5	251.6	262.1	296.5	354.9	561.6	1352.2	1031.8	894.0	844.6
87.5°	302.5	110.8	101.8	104.8	133.3	178.2	287.5	651.4	500.2	414.8	405.8
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)