

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: P591127

Luminaire Tested: **CTN-CA10-630-722-U-T3-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591127
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-7)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-630-722-U-T3-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 52086 lumens
Efficiency: N/A
Efficacy: 82.5 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type III - Medium
BUG Rating: B4 - U0 - G4

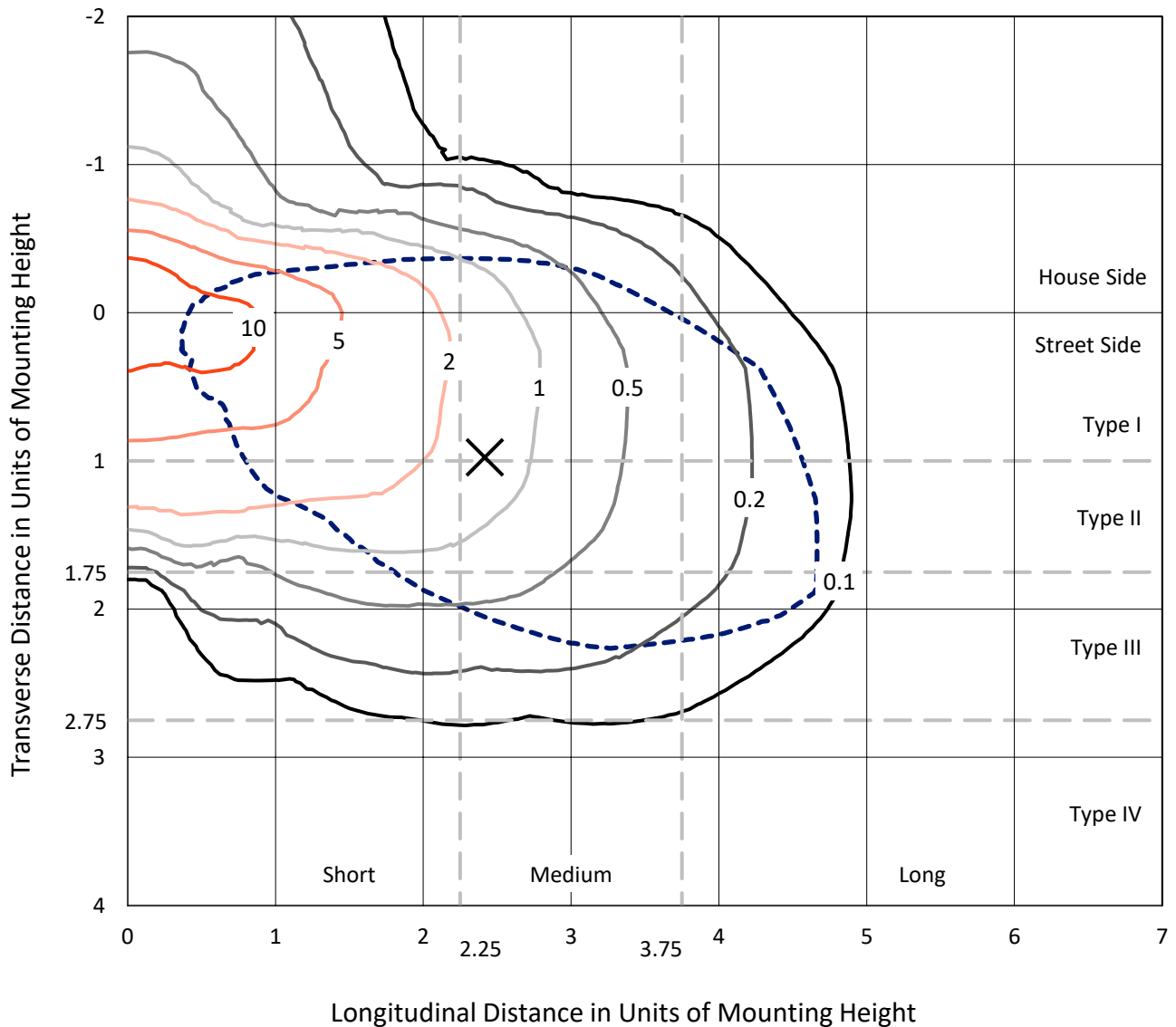
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

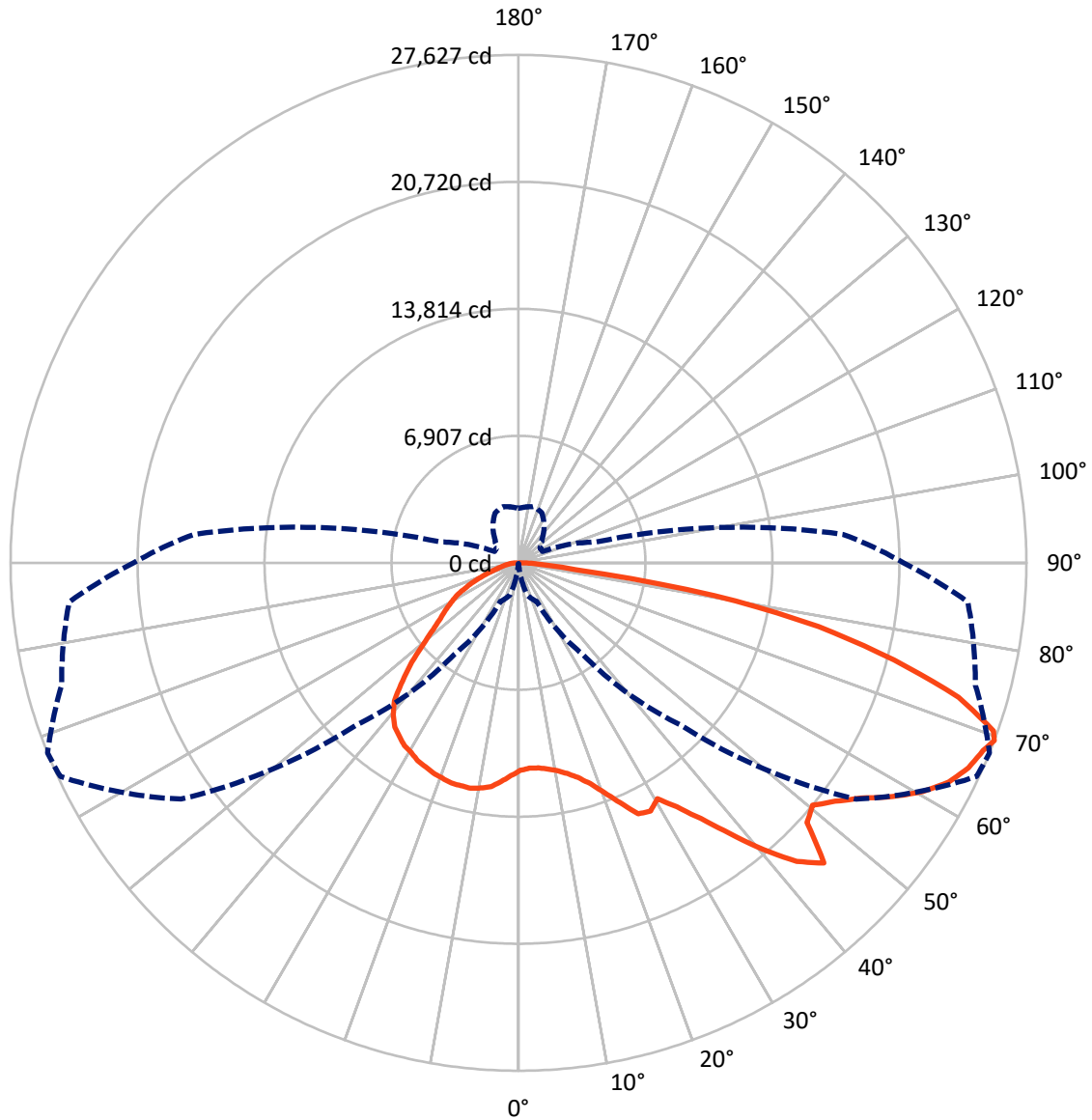
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 14 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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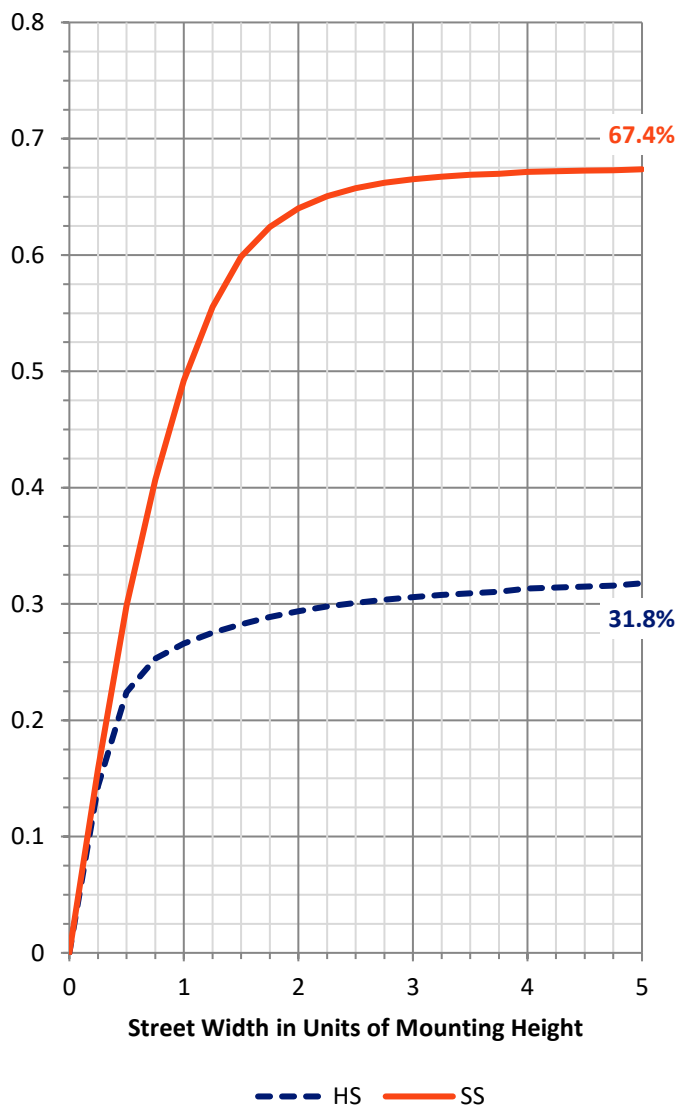
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	16989.7	0.0	16989.7
	% Fixture	32.6	0.0	32.6
Street Side	Lumens	35096.3	0.0	35096.3
	% Fixture	67.4	0.0	67.4
Total	Lumens	52086.0	0.0	52086.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1127.7	2.2
10°-20°	3489.1	6.7
20°-30°	5364.5	10.3
30°-40°	6967.4	13.4
40°-50°	8600.3	16.5
50°-60°	9658.9	18.5
60°-70°	9439.7	18.1
70°-80°	6339.0	12.2
80°-90°	1099.4	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°	52086.0	100.0
0°-180°	52086.0	100.0

Coefficient of Utilization

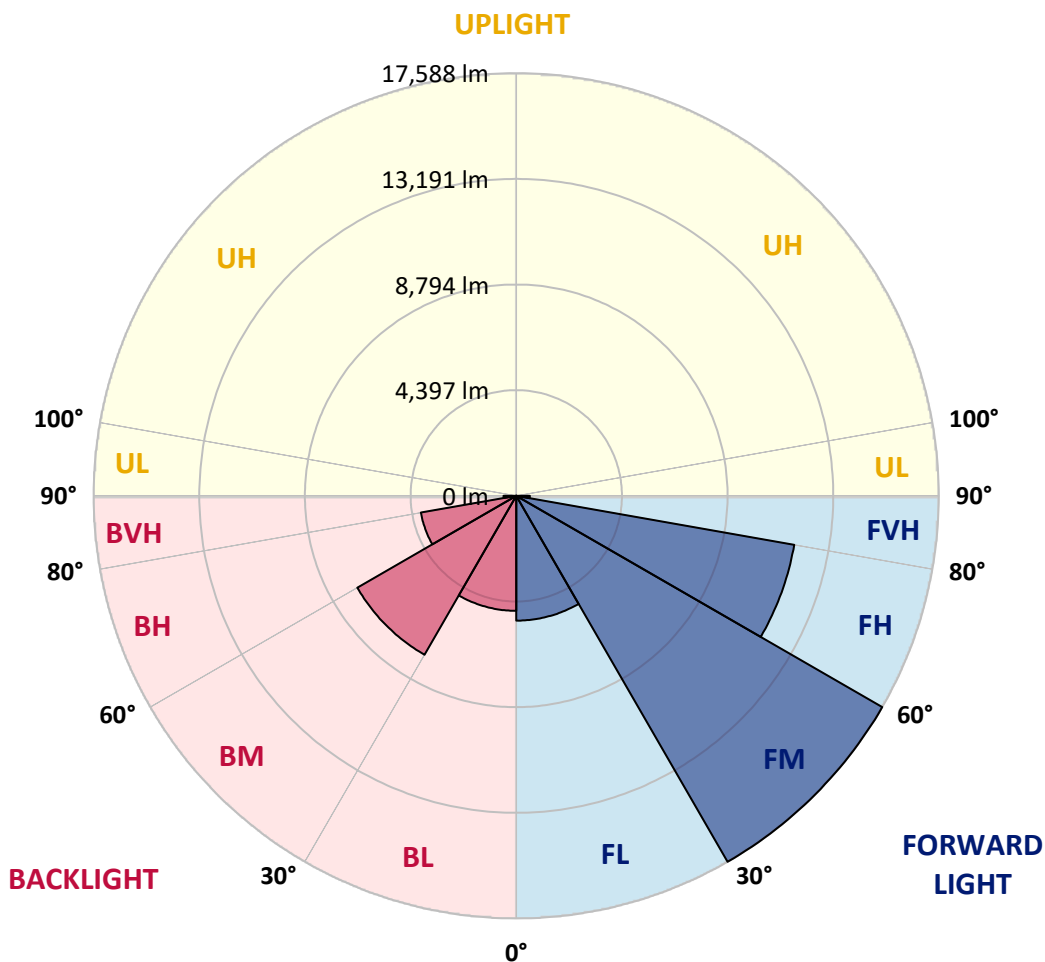


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	5193.5	10.0			
FM	(30°-60°)	17588.1	33.8			
FH	(60°-80°)	11748.0	22.6			G4/12000
FVH	(80°-90°)	566.7	1.1			G4/750
BL	(0°-30°)	4787.8	9.2	B4/5000		
BM	(30°-60°)	7638.5	14.7	B4/8500		
BH	(60°-80°)	4030.6	7.7	B4/5000		G4/5000
BVH	(80°-90°)	532.7	1.0			G4/750
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4
 Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	11290.7	11290.7	11290.7	11290.7	11290.7	11290.7	11290.7	11290.7	11290.7	11290.7	11290.7
2.5°	11062.9	10995.5	11021.1	11114.1	10925.8	11049.0	10990.9	11116.4	11181.5	11153.6	11330.2
5°	11167.5	11093.1	11097.8	11162.9	10960.7	11065.2	11000.2	11135.0	11207.0	11167.5	11404.6
7.5°	11485.9	11404.6	11381.3	11376.7	11186.1	11265.1	11135.0	11244.2	11318.6	11297.7	11564.9
10°	11974.0	11876.4	11832.2	11806.6	11578.9	11555.6	11393.0	11441.8	11497.5	11520.8	11809.0
12.5°	12510.9	12378.4	12350.5	12273.8	11981.0	11929.8	11732.3	11755.5	11755.5	11809.0	12094.8
15°	12966.4	12857.2	12857.2	12778.1	12492.3	12420.2	12148.3	12120.4	12115.8	12157.6	12413.3
17.5°	12673.6	12613.1	12559.7	12520.2	12078.6	11962.4	12699.1	12650.3	12627.1	12668.9	12817.7
20°	11690.4	11853.1	11509.2	11023.4	11093.1	12492.3	13408.0	13319.7	13333.6	13375.4	13333.6
22.5°	10289.0	9886.9	10519.1	10693.4	10983.9	12018.1	14054.1	14147.1	14175.0	14177.3	13958.8
25°	8817.8	9040.9	9898.5	11227.9	11190.8	12053.0	13661.3	14983.8	15123.2	15109.3	14730.4
27.5°	9240.8	9199.0	9861.3	10735.2	11839.2	12792.1	13903.0	14491.0	15290.5	16176.0	15662.4
30°	9610.3	9575.5	9645.2	10867.7	12266.8	13531.2	14807.1	14711.8	14881.5	16485.1	16761.7
32.5°	9940.4	9914.8	9996.1	10130.9	11555.6	14328.3	15776.3	15757.7	15815.8	15941.3	18058.6
35°	10251.8	10254.1	10354.1	10574.9	11646.3	14493.4	16733.8	16931.4	17084.8	17361.4	17835.5
37.5°	10465.6	10470.3	10549.3	10816.6	11265.1	13677.6	17703.0	18407.2	18681.5	19178.8	18507.2
40°	10463.3	10498.2	10688.7	11037.4	11637.0	13138.4	18002.8	20080.6	20522.2	20884.8	19755.2
42.5°	10244.8	10263.4	10619.0	11248.9	11967.0	13547.4	17070.8	21712.1	22202.5	22102.6	20787.1
45°	10044.9	10040.3	10444.7	11221.0	12262.2	14109.9	17196.3	21665.7	23294.9	23174.0	21735.4
47.5°	9777.7	9784.6	10212.3	11100.1	12531.8	14711.8	18126.0	19701.8	21112.5	24094.4	22507.0
50°	9443.0	9484.8	9919.4	10916.5	12666.6	15274.3	18930.1	20564.0	20731.4	21640.1	23262.4
52.5°	8887.5	8813.2	9605.7	10705.0	12761.9	15683.3	19697.1	21391.4	21549.5	21219.4	24031.6
55°	5045.7	6261.2	9212.9	10458.6	12789.8	15929.7	20292.1	22332.7	22579.1	22267.6	24656.8
57.5°	3170.1	3267.7	7981.1	9805.6	12555.0	16083.1	21021.9	23624.9	23989.8	23248.4	25131.0
60°	1122.6	1210.9	3881.3	4501.9	10291.3	15660.1	22132.8	25147.2	25268.1	24171.1	25479.6
62.5°	118.5	155.7	2630.9	3304.9	7990.4	14451.5	22899.8	26372.1	26262.8	24854.4	25667.8
65°	41.8	58.1	2312.5	2956.3	7437.3	14075.0	23153.1	26895.0	26892.7	25291.3	25533.0
67.5°	32.5	44.2	2010.4	2568.2	6637.8	13268.5	22732.4	27287.8	27250.6	25723.6	25177.4
69°	32.5	46.5	1810.5	2314.8	6059.0	12496.9	22407.1	27494.6	27627.1	25730.6	24533.7
70°	32.5	46.5	1682.7	2138.2	5587.2	11790.4	21939.9	27336.6	27404.0	25507.5	23866.6
72.5°	32.5	46.5	1303.8	1654.8	4248.5	9075.8	19220.7	24910.2	25038.0	23548.2	21449.5
75°	32.5	46.5	918.0	1203.9	2789.0	6089.3	15304.5	20747.6	21093.9	19901.6	17575.2
77.5°	32.5	46.5	548.5	822.7	1750.1	3342.1	10530.7	15901.8	16685.0	15574.1	12562.0
80°	32.5	44.2	258.0	448.6	997.1	1771.0	4824.9	9789.3	10809.6	9742.8	6570.4
82.5°	32.5	44.2	211.5	323.1	504.3	880.9	1884.9	3207.3	3149.2	2828.5	2117.3
85°	30.2	39.5	174.3	237.1	362.6	557.8	1050.5	1306.2	1245.7	1101.6	1108.6
87.5°	20.9	23.2	60.4	106.9	146.4	276.6	509.0	553.1	564.8	471.8	495.0
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°	11290.7	11290.7	11290.7	11290.7	11290.7	11290.7	11290.7	11290.7	11290.7	11290.7	11290.7
2.5°	11413.9	11427.8	11495.2	11616.1	11613.7	11743.9	11709.0	12011.2	12022.8	12018.1	12041.4
5°	11518.5	11597.5	11746.2	12004.2	12152.9	12348.2	12311.0	12615.5	12634.0	12608.5	12673.6
7.5°	11699.7	11797.4	12041.4	12359.8	12399.3	12645.7	12594.5	12840.9	12829.3	12782.8	12894.3
10°	11955.4	12071.6	12292.4	12473.7	12587.6	12731.7	12675.9	12885.1	12845.5	12794.4	12901.3
12.5°	12215.7	12271.5	12394.7	12599.2	12608.5	12641.0	12575.9	12745.6	12701.4	12624.7	12736.3
15°	12464.4	12471.4	12450.4	12543.4	12445.8	12466.7	12324.9	12431.8	12355.1	12320.3	12392.3
17.5°	12787.4	12703.8	12555.0	12515.5	12285.4	12187.8	11978.6	11974.0	11839.2	11790.4	11839.2
20°	13175.6	12994.3	12650.3	12322.6	11925.2	11725.3	11369.7	11274.4	11165.2	11060.6	11118.7
22.5°	13712.4	13361.5	12768.8	12157.6	11499.9	11107.1	10670.1	10400.5	10196.0	9993.8	10054.2
25°	14323.7	13833.3	12936.2	11876.4	10990.9	10296.0	9728.9	9268.7	8975.8	8680.7	8813.2
27.5°	15151.1	14474.8	13038.4	11667.2	10328.5	9396.5	8492.4	7892.8	7588.3	7376.8	7309.4
30°	16115.6	15304.5	13222.1	11255.8	9549.9	8290.2	7142.1	6472.7	6149.7	6049.7	6091.6
32.5°	17291.6	16313.2	13596.2	10911.9	8759.7	7116.5	5777.8	5254.9	5022.5	5006.2	5001.6
35°	18865.1	17600.7	13917.0	10377.3	7713.8	5747.6	4597.2	4164.9	4155.6	4148.6	4164.9
37.5°	20073.6	18911.6	14258.6	9854.4	6472.7	4487.9	3676.8	3414.2	3386.3	3467.6	3488.5
40°	21026.5	19850.5	14769.9	8971.2	5017.8	3351.4	2823.8	2726.2	2923.8	3102.7	3139.9
42.5°	21886.5	20640.7	14881.5	8029.9	3655.9	2572.8	2340.4	2503.1	2807.6	3012.1	3051.6
45°	22692.9	21470.4	14456.2	6630.8	2614.7	2180.0	2226.5	2470.6	2812.2	3030.7	3053.9
47.5°	23573.8	22025.9	13996.0	5331.6	2149.8	2089.4	2203.3	2482.2	2840.1	3060.9	3072.5
50°	24154.8	22423.3	12845.5	4169.5	2015.0	2033.6	2194.0	2507.8	2844.8	3002.8	3012.1
52.5°	24391.9	22741.7	11804.3	3337.5	1947.6	1991.8	2205.6	2551.9	2833.1	2921.4	2916.8
55°	24540.6	22888.2	10909.5	2777.4	1887.2	1959.3	2226.5	2584.4	2858.7	2949.3	2949.3
57.5°	24445.3	22560.5	10244.8	2366.0	1826.8	1936.0	2252.1	2633.3	3100.4	3260.8	3244.5
60°	24375.6	21946.9	9301.2	2089.4	1754.7	1910.4	2284.6	2802.9	3616.4	3779.1	3725.6
62.5°	24015.4	21428.6	8278.6	1912.8	1673.4	1896.5	2312.5	3030.7	3688.4	3679.1	3574.5
65°	23097.3	20373.4	6665.6	1733.8	1589.7	1877.9	2321.8	3130.6	3393.2	3246.8	3216.6
67.5°	21795.8	18851.1	5259.5	1554.9	1496.7	1838.4	2398.5	3012.1	3228.2	3102.7	3056.2
69°	20945.2	17723.9	4369.4	1443.3	1436.3	1805.9	2428.7	3000.5	3167.8	3026.0	2965.6
70°	20259.6	16747.8	3772.1	1371.2	1389.8	1780.3	2398.5	2998.1	3142.2	2965.6	2898.2
72.5°	17317.2	13568.3	2435.7	1199.3	1252.7	1712.9	2284.6	2921.4	3088.8	2972.6	2879.6
75°	13419.6	9877.6	1575.8	1036.6	1108.6	1599.0	2170.7	2872.6	3137.6	2926.1	2726.2
77.5°	8611.0	5285.1	1220.2	871.6	952.9	1438.6	1966.2	2675.1	3047.0	2856.4	2598.4
80°	3751.2	1961.6	941.3	706.5	771.6	1169.0	1687.3	2377.6	2888.9	2868.0	2693.7
82.5°	1592.0	1264.3	725.1	541.5	613.6	864.6	1322.4	2038.3	2551.9	2651.8	2842.4
85°	901.8	757.7	483.4	371.9	455.5	636.8	941.3	1564.1	2077.8	2303.2	2463.6
87.5°	388.1	316.1	223.1	199.9	258.0	330.0	404.4	734.4	1108.6	1352.7	1454.9
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)