

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: P591412

Luminaire Tested: **CTN-CA10-630-740-U-T2-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591412
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-CA10-630-740-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: 67045 lumens
Efficiency: N/A
Efficacy: 106.2 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B5 - U0 - G5

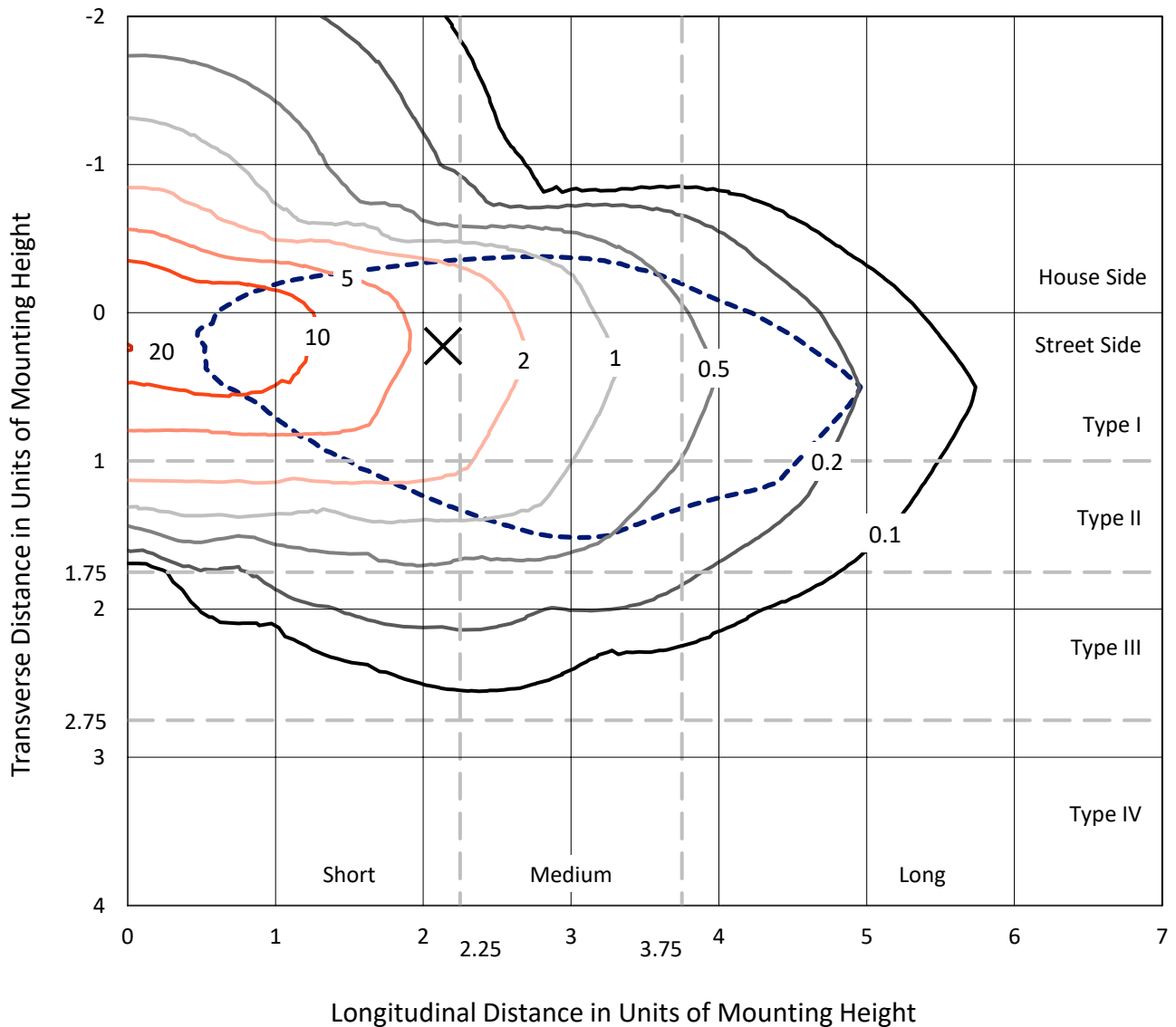
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

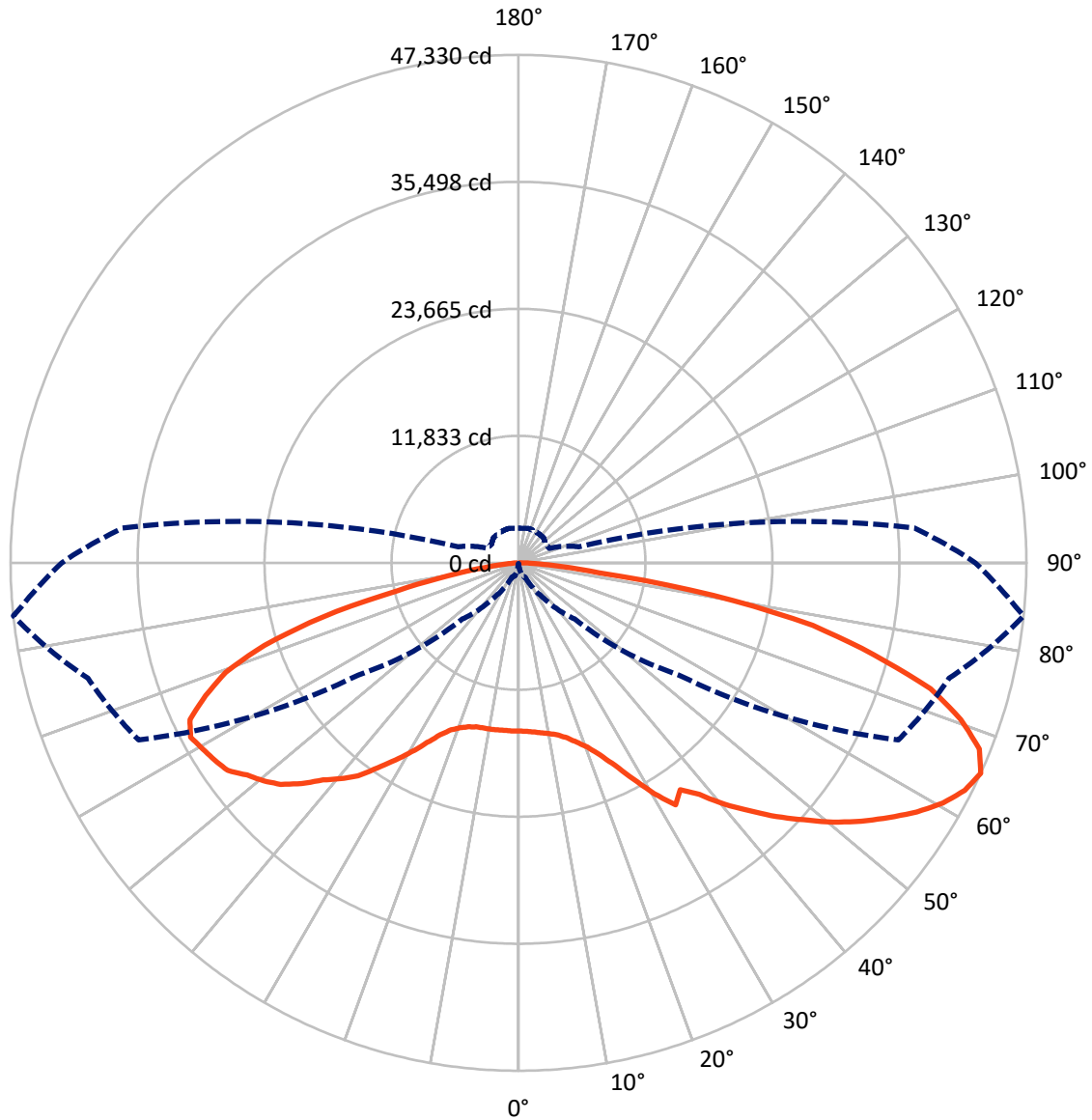
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 20.2 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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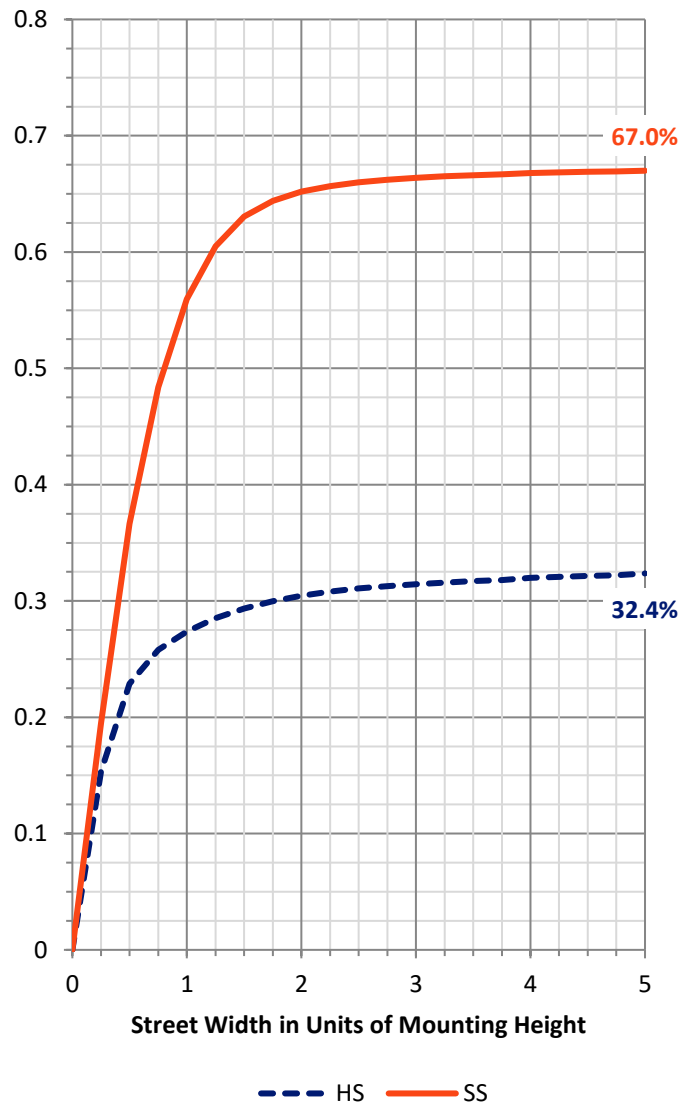
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	22195.2	0.0	22195.2
	% Fixture	33.1	0.0	33.1
Street Side	Lumens	44849.8	0.0	44849.8
	% Fixture	66.9	0.0	66.9
Total	Lumens	67045.0	0.0	67045.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1513.0	2.3
10°-20°	4503.7	6.7
20°-30°	6766.7	10.1
30°-40°	8998.4	13.4
40°-50°	11110.3	16.6
50°-60°	12484.9	18.6
60°-70°	12244.9	18.3
70°-80°	7962.0	11.9
80°-90°	1461.2	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°	67045.0	100.0
0°-180°	67045.0	100.0

Coefficient of Utilization

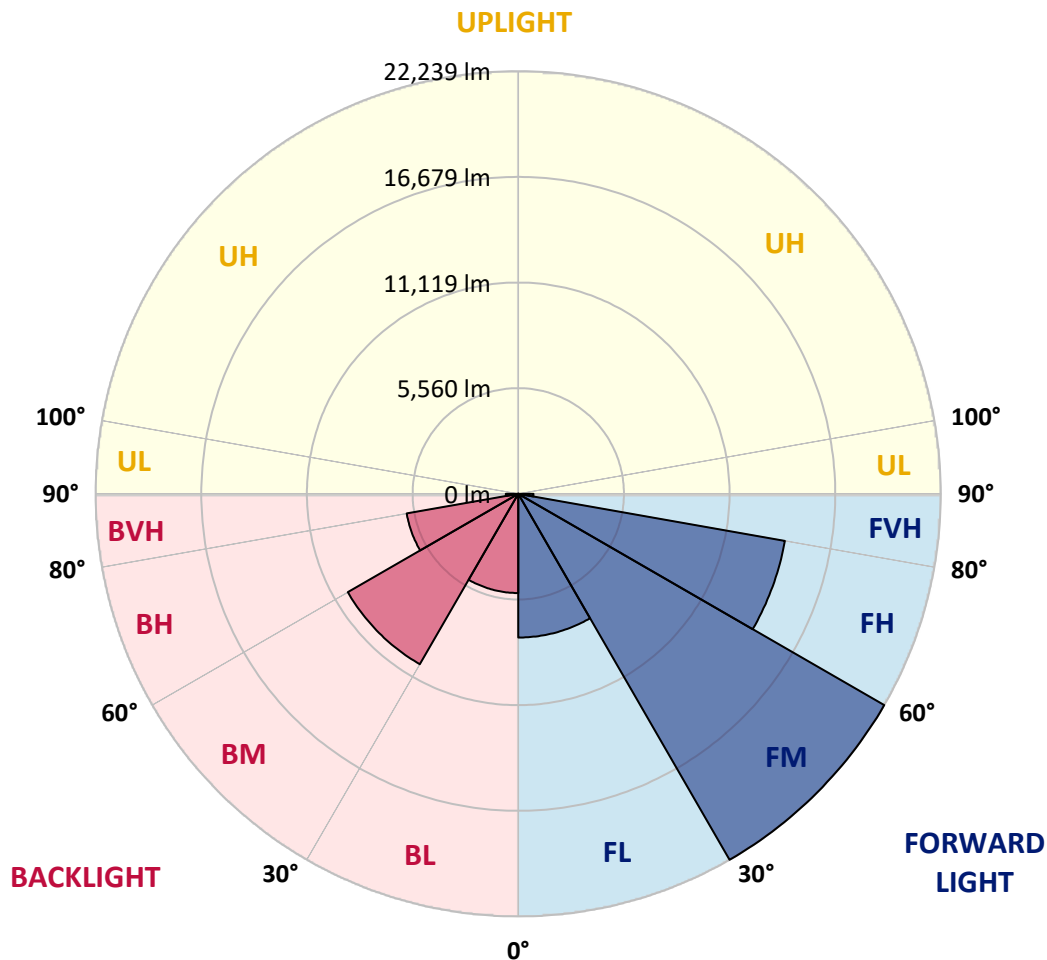


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	7562.3	11.3			
FM (30°-60°)	22238.6	33.2			
FH (60°-80°)	14246.2	21.2			G5
FVH (80°-90°)	802.7	1.2			G5
BL (0°-30°)	5221.1	7.8	B5		
BM (30°-60°)	10355.0	15.4	B5		
BH (60°-80°)	5960.7	8.9	B5		G5
BVH (80°-90°)	658.5	1.0			G4/750
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	84°	85°
0°	15673.1	15673.1	15673.1	15673.1	15673.1	15673.1	15673.1	15673.1	15673.1	15673.1	15673.1
2.5°	16346.1	16192.1	16209.3	16283.4	15998.2	16092.3	15932.6	15961.1	15770.1	15735.9	15755.8
5°	17495.4	17330.0	17330.0	17375.6	16896.5	16768.2	16323.3	16249.2	15966.9	15841.4	15847.1
7.5°	18088.5	17926.0	17894.6	17937.4	17592.3	17620.9	17164.6	16728.3	16226.4	16003.9	15992.5
10°	18961.2	18778.7	18670.3	18673.1	18208.3	18031.5	17695.0	17389.9	16622.8	16189.3	16135.1
12.5°	19665.6	19525.8	19468.8	19426.0	18912.7	18795.8	18162.7	17914.6	17096.1	16471.6	16400.3
15°	20073.3	19942.2	19859.5	19762.5	19477.3	19286.3	19012.5	18447.9	17657.9	16925.0	16836.6
17.5°	19009.7	18784.4	18393.7	18222.6	18157.0	18433.6	19611.4	19323.3	18382.3	17569.5	17475.4
20°	16203.5	16408.9	16705.5	16032.4	16240.6	18296.7	20506.8	20481.1	19394.6	18342.3	18219.7
22.5°	13785.3	13243.4	14178.8	15205.4	15861.3	17800.5	20854.7	21818.6	20766.3	19428.9	19286.3
25°	11301.4	11609.4	12869.9	14937.4	15855.6	17424.1	20663.7	22845.2	22520.1	20908.9	20740.7
27.5°	10964.9	10970.6	12182.6	13765.3	16169.3	18296.7	20871.8	22885.2	24502.1	22822.4	22497.3
30°	10893.6	10859.4	11187.3	13109.4	15616.1	19112.3	22212.1	23241.6	24984.0	24961.2	24527.8
32.5°	10560.0	10540.0	10882.2	11754.8	14432.6	19976.4	23481.2	24904.2	24810.1	26889.0	26772.1
35°	10083.7	10155.0	10579.9	11486.8	13876.5	19257.8	24784.4	26809.1	26968.8	25953.6	26418.5
37.5°	9587.5	9627.5	10038.1	11133.2	12946.9	18000.1	25776.8	28677.0	29224.6	27390.9	27020.2
40°	8911.7	8994.4	9476.3	10708.3	12758.7	16833.8	25075.3	30804.4	31657.1	29583.9	29013.5
42.5°	8195.9	8235.8	8823.3	10018.1	12445.0	16850.9	23635.2	32640.9	33898.5	31585.8	31006.9
45°	7568.5	7579.9	8130.3	9199.7	11826.1	16745.4	22725.5	32715.1	36582.0	33730.3	33003.1
47.5°	6801.4	6909.7	7454.4	8521.0	11036.2	16391.8	23150.4	30413.7	39274.1	35775.0	35110.5
50°	5215.8	5301.4	6356.5	7856.5	10172.1	15801.5	23441.2	32267.4	36274.0	37993.6	37517.4
52.5°	4485.8	4340.3	5098.9	7109.4	9382.2	14817.6	23563.9	34868.1	36268.3	40001.3	39525.0
55°	1919.2	2943.0	4594.1	5837.5	8660.7	13505.8	23475.5	37411.9	38036.4	41894.8	41729.4
57.5°	1517.1	1588.4	3376.5	4722.5	7805.2	11954.5	23076.2	39094.4	39587.8	43791.2	43320.7
60°	279.5	316.5	1659.7	1996.2	5652.1	9638.9	21621.8	39334.0	40719.9	45442.4	44840.6
62.5°	128.3	151.1	1334.6	1662.6	4520.0	7927.8	20375.6	39257.0	41766.5	46668.6	46138.2
65°	59.9	77.0	1194.9	1508.6	3912.6	7397.4	18216.9	39048.8	41535.5	47330.2	46469.0
67.5°	45.6	65.6	1097.9	1354.6	3253.8	6869.8	16166.5	36864.4	40423.3	46306.4	45111.6
70°	45.6	65.6	1003.8	1231.9	2760.5	6199.7	13123.7	34129.5	37885.3	43719.9	42724.7
72.5°	48.5	65.6	892.6	1115.0	2392.6	5352.7	10252.0	29763.5	34842.5	40149.5	39103.0
75°	48.5	65.6	770.0	986.7	2016.2	4482.9	6864.1	21273.9	30011.6	34172.3	33008.8
77.5°	48.5	65.6	638.8	824.2	1642.6	3581.8	4440.1	11469.7	23612.3	28024.0	26532.5
80°	48.5	65.6	476.2	624.5	1234.8	2526.6	2652.1	5783.3	12704.5	18410.8	18670.3
82.5°	48.5	62.7	330.8	456.3	807.0	1385.9	1465.8	2791.8	4688.2	7551.4	7656.9
85°	45.6	54.2	236.7	302.3	442.0	521.9	712.9	1388.8	2247.2	3222.5	3196.8
87.5°	28.5	28.5	77.0	119.8	179.7	205.3	319.4	513.3	775.7	1063.7	1003.8
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°	15673.1	15673.1	15673.1	15673.1	15673.1	15673.1	15673.1	15673.1	15673.1	15673.1	15673.1
2.5°	15753.0	15687.4	15604.7	15581.9	15388.0	15296.7	15111.3	15194.0	15099.9	15022.9	15111.3
5°	15775.8	15678.8	15504.9	15299.5	14886.0	14697.8	14435.5	14464.0	14327.1	14221.6	14281.5
7.5°	15832.8	15713.0	15439.3	14977.3	14484.0	14187.4	13913.6	14127.5	14033.4	13953.5	14013.4
10°	15861.3	15767.2	15282.4	14794.8	14084.7	13922.2	13580.0	13554.3	13562.8	13554.3	13648.4
12.5°	15938.3	15804.3	15099.9	14478.2	13873.7	13443.1	13232.0	13229.2	12958.3	12841.4	12892.7
15°	16166.5	15875.6	14977.3	14101.8	13434.5	13149.3	12482.0	12484.9	12370.8	12236.8	12233.9
17.5°	16622.8	16089.5	14977.3	13848.0	13029.6	12453.5	11871.8	11555.2	11478.2	11495.3	11483.9
20°	17224.5	16448.8	14971.6	13474.4	12459.2	11863.2	11024.8	10756.7	10514.3	10531.4	10531.4
22.5°	18088.5	16979.2	14983.0	13132.2	11914.5	11104.6	10160.7	9821.4	9561.9	9570.4	9570.4
25°	19329.0	17888.9	15117.0	12924.1	11184.5	10212.1	9259.6	8732.0	8466.8	8469.6	8475.4
27.5°	20908.9	19157.9	15581.9	12482.0	10577.1	9156.9	8113.2	7725.3	7460.1	7391.7	7391.7
30°	22696.9	20680.8	16183.6	12194.0	9636.0	7967.7	7100.8	6812.8	6493.4	6399.3	6399.3
32.5°	24678.9	22209.3	16805.3	11840.4	8749.1	6946.8	6225.3	5960.1	5560.9	5444.0	5404.0
35°	26740.7	23789.2	17561.0	11344.2	7634.1	6105.6	5466.8	5144.5	4856.5	4702.5	4665.4
37.5°	27852.9	25588.6	18242.5	10842.3	6772.9	5441.1	4728.2	4477.2	4286.2	4177.8	4157.8
40°	29381.4	26897.5	18596.2	10012.4	5846.1	4765.2	4046.6	4035.2	4060.9	3963.9	3958.2
42.5°	30938.5	28189.4	18499.2	8900.3	5124.6	4075.1	3704.4	3901.2	4043.8	3958.2	3963.9
45°	32886.2	29928.9	18852.8	7731.0	4411.6	3693.0	3633.1	3864.1	4060.9	4040.9	4040.9
47.5°	34856.7	31611.5	18199.8	6299.5	3932.5	3581.8	3641.7	3804.2	4049.5	4115.1	4100.8
50°	36462.3	32763.6	17797.7	5084.6	3661.6	3584.6	3670.2	3730.1	3998.1	4103.6	4100.8
52.5°	37759.8	33861.5	16297.7	4291.9	3507.6	3596.0	3761.4	3718.7	3906.9	4018.1	4083.7
55°	39596.3	35381.5	14589.5	3986.7	3427.8	3584.6	3792.8	3758.6	3835.6	3886.9	3935.4
57.5°	41016.5	36137.2	12302.4	3790.0	3356.5	3567.5	3767.1	3770.0	3807.1	3787.1	3767.1
60°	42208.5	36827.3	10063.8	3598.9	3265.2	3530.4	3658.8	3698.7	3687.3	3661.6	3610.3
62.5°	42790.3	37574.4	7816.6	3396.4	3168.3	3422.1	3482.0	3527.6	3501.9	3416.4	3410.7
65°	42570.7	37038.3	5794.7	3176.8	3051.4	3302.3	3299.5	3319.4	3330.8	3222.5	3233.9
67.5°	41338.7	34682.8	4414.5	2897.4	2917.3	3131.2	3116.9	3128.4	3097.0	3022.8	3034.2
70°	37756.9	32007.9	3131.2	2426.8	2643.6	2863.1	2883.1	2931.6	2860.3	2729.1	2737.7
72.5°	32461.3	27410.9	2195.8	1933.5	2321.3	2600.8	2589.4	2586.5	2489.6	2540.9	2603.6
75°	27687.5	20991.6	1668.3	1557.0	1833.7	2238.6	2366.9	2375.5	2389.8	2903.1	2940.1
77.5°	21313.9	12698.8	1420.2	1229.1	1423.0	1856.5	2096.0	2193.0	3011.4	3119.8	3062.8
80°	12701.6	7334.7	1097.9	958.2	1149.2	1417.3	1790.9	2315.6	3025.7	2703.4	2586.5
82.5°	6182.6	3402.1	798.5	730.0	847.0	1029.5	1405.9	2697.7	2560.9	2090.3	2061.8
85°	2307.1	1149.2	479.1	499.1	564.6	675.9	1069.4	2575.1	1964.8	1702.5	1608.4
87.5°	576.1	211.0	193.9	199.6	253.8	339.4	547.5	1240.5	952.5	789.9	772.8
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)