

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: P510720

Luminaire Tested: **CTN-CA8-230-730-U-T4-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510720
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-CA8-230-730-U-T4-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31146 lumens
Efficiency: N/A
Efficacy: 136.4 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

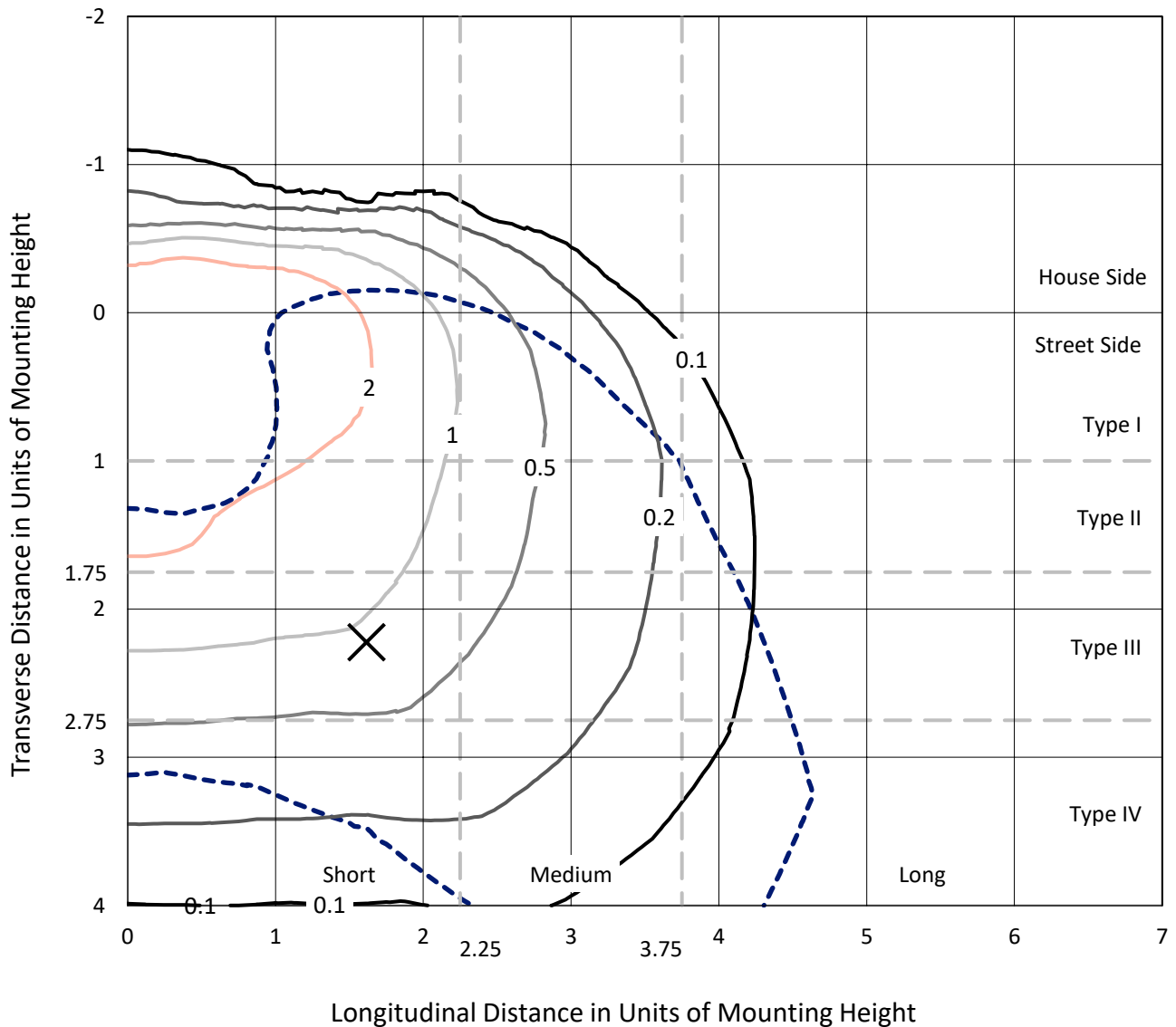
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

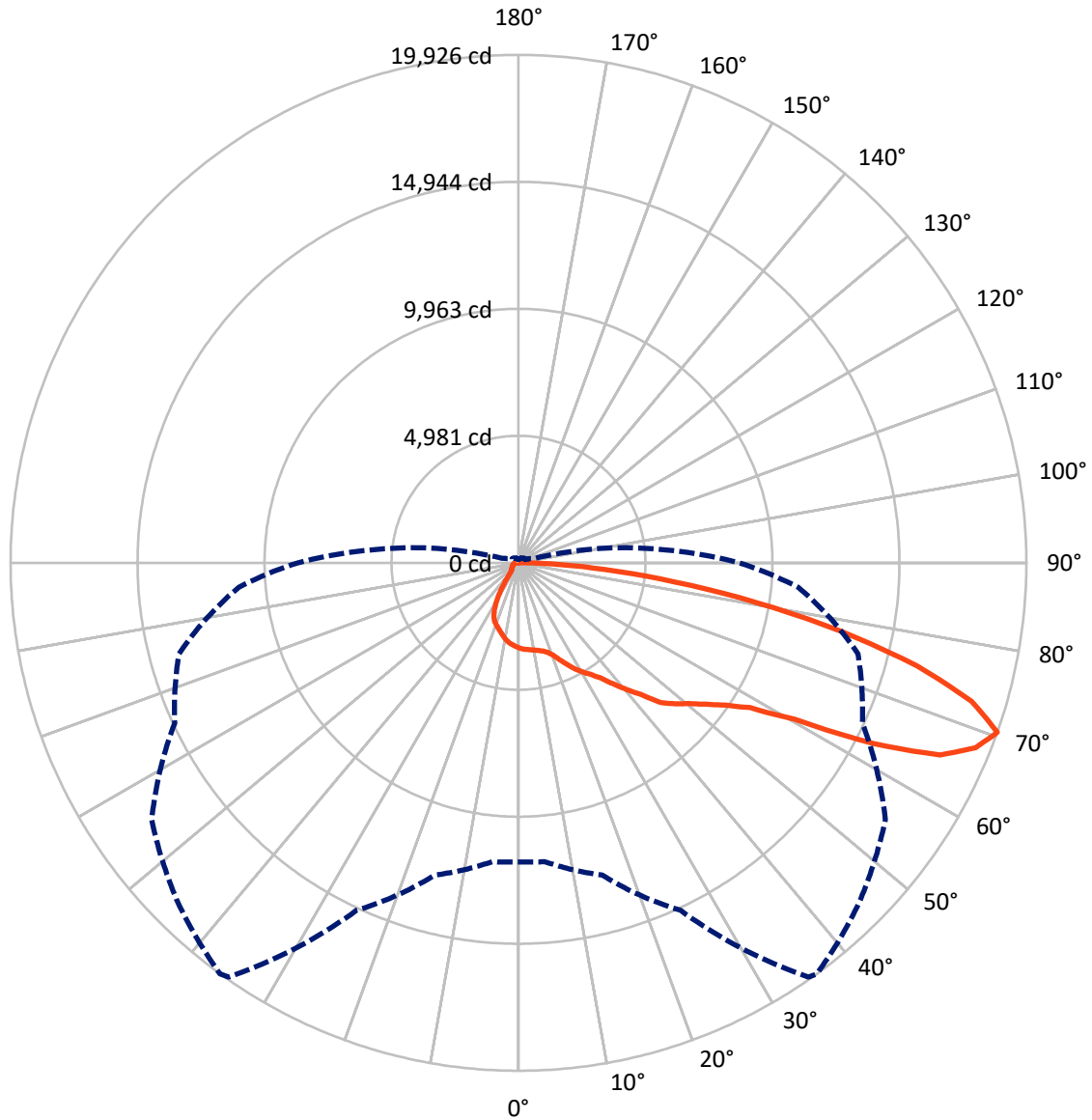
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.2 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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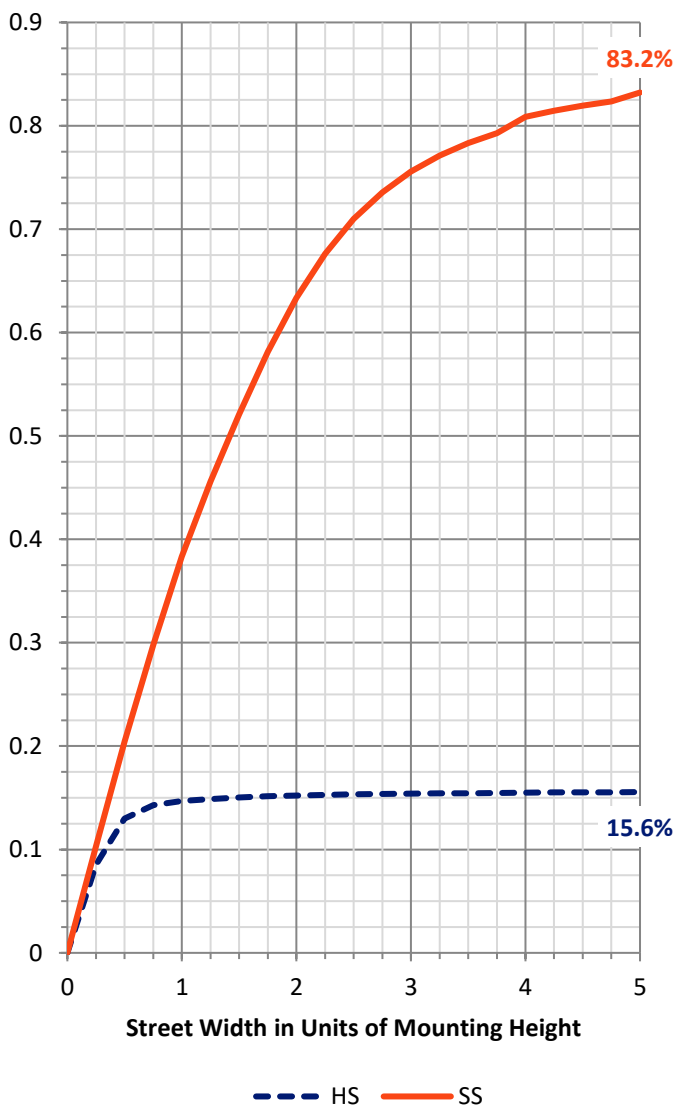
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4915.1	0.0	4915.1
	% Fixture	15.8	0.0	15.8
Street Side	Lumens	26230.9	0.0	26230.9
	% Fixture	84.2	0.0	84.2
Total	Lumens	31146.0	0.0	31146.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	316.5	1.0
10°-20°	941.2	3.0
20°-30°	1692.6	5.4
30°-40°	2678.4	8.6
40°-50°	4185.9	13.4
50°-60°	6010.9	19.3
60°-70°	8153.2	26.2
70°-80°	6034.3	19.4
80°-90°	1133.0	3.6
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°	31146.0	100.0
0°-180°	31146.0	100.0

Coefficient of Utilization

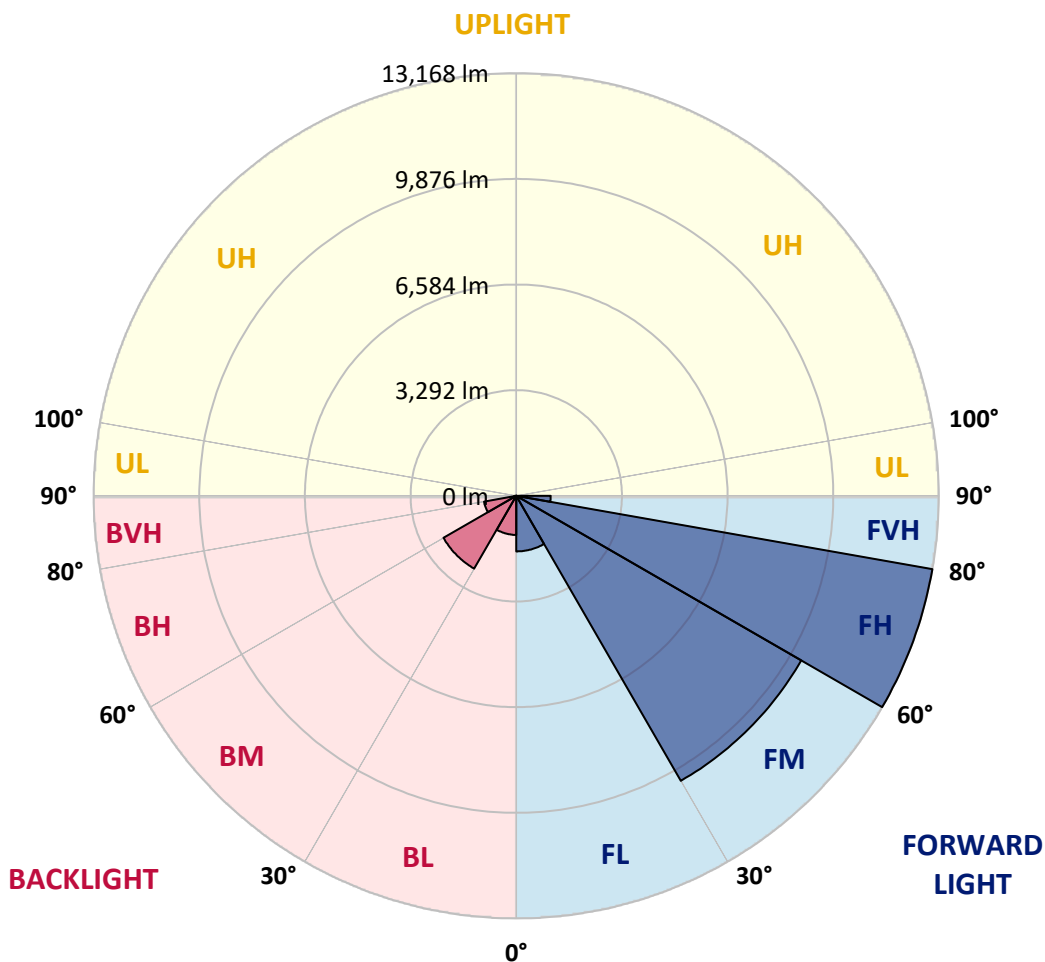


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1732.3	5.6			
FM (30°-60°)	10256.1	32.9			
FH (60°-80°)	13168.2	42.3			G5
FVH (80°-90°)	1074.3	3.4			G5
BL (0°-30°)	1217.9	3.9	B3/2500		
BM (30°-60°)	2619.1	8.4	B3/5000		
BH (60°-80°)	1019.2	3.3	B3/2500		G3/2500
BVH (80°-90°)	58.8	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	3337.1	3337.1	3337.1	3337.1	3337.1	3337.1	3337.1	3337.1	3337.1	3337.1	3337.1
2.5°	3404.7	3397.5	3391.8	3393.9	3389.6	3392.5	3386.0	3378.1	3359.4	3351.5	3347.9
5°	3434.9	3432.8	3427.0	3422.7	3414.8	3411.9	3404.7	3411.2	3401.1	3375.2	3360.1
7.5°	3452.9	3452.2	3445.7	3436.4	3440.7	3444.3	3451.5	3441.4	3428.5	3416.2	3385.3
10°	3460.8	3460.8	3452.9	3457.9	3480.2	3482.4	3486.0	3492.5	3480.2	3462.3	3431.3
12.5°	3480.9	3479.5	3482.4	3498.9	3521.9	3527.0	3544.9	3544.9	3546.4	3535.6	3499.6
15°	3531.3	3531.3	3537.8	3552.9	3592.4	3595.3	3621.9	3645.6	3648.5	3632.7	3605.3
17.5°	3647.8	3644.9	3641.3	3650.6	3693.1	3694.5	3740.5	3770.7	3778.6	3795.9	3791.6
20°	3869.2	3866.4	3865.6	3866.4	3863.5	3859.2	3904.5	3936.8	3977.1	4007.3	4022.4
22.5°	4186.3	4179.9	4179.9	4144.6	4117.3	4121.6	4128.8	4146.8	4200.0	4253.2	4310.0
25°	4527.9	4523.6	4527.2	4437.3	4400.6	4415.0	4405.7	4433.7	4503.4	4549.5	4609.9
27.5°	4806.9	4813.4	4793.2	4723.5	4699.7	4710.5	4689.0	4769.5	4846.4	4927.0	5018.3
30°	5154.2	5119.7	5070.1	4985.2	4976.6	4978.0	4976.6	5106.0	5265.6	5380.7	5507.2
32.5°	5607.9	5613.7	5502.2	5302.3	5229.0	5218.9	5247.7	5437.5	5653.2	5908.5	6075.3
35°	6066.7	6076.0	5994.8	5786.2	5577.0	5545.4	5502.9	5749.6	6060.9	6572.9	6824.6
37.5°	6553.5	6586.6	6490.2	6304.0	6055.9	6026.4	5825.8	6068.1	6528.3	7359.5	7689.6
40°	7204.9	7169.7	7053.2	6816.7	6585.8	6538.4	6305.4	6432.7	7129.4	8344.6	8584.1
42.5°	7685.3	7675.2	7576.7	7343.0	7110.7	7072.6	6885.0	7023.0	7886.6	9343.4	9450.6
45°	8066.4	8128.2	8126.1	7979.4	7848.5	7826.9	7716.2	7919.7	8802.0	10286.1	10233.6
47.5°	8405.0	8443.2	8382.0	8318.0	8256.9	8264.1	8346.1	8764.6	9737.5	11109.4	10877.2
50°	8959.4	8910.5	8636.6	8587.7	8674.0	8677.6	8927.1	9571.4	10767.9	11821.3	11422.2
52.5°	9698.6	9645.4	9082.4	8999.0	9203.2	9218.3	9633.2	10375.3	11830.6	12501.5	11964.4
55°	10798.8	10675.1	10071.8	9697.9	9791.4	9852.5	10355.1	11148.2	12662.6	13101.2	12375.0
57.5°	12149.9	12239.8	11930.6	11085.7	10696.7	10719.7	11181.3	11888.2	13396.7	13626.1	12615.1
60°	13577.9	13556.4	13685.8	13329.9	12584.9	12461.2	12226.1	12643.2	13965.5	14068.3	12862.5
62.5°	14360.3	14486.1	14917.5	14988.7	15661.0	15595.6	13992.8	13579.4	14622.7	14345.9	12930.1
65°	14356.0	14410.6	15213.8	16096.8	18197.1	18178.5	17433.5	14933.4	15112.4	14494.0	12794.9
67.5°	13428.4	13513.2	14452.3	16177.3	19369.2	19346.9	18832.1	16836.7	15266.3	14315.7	12164.3
70°	11737.2	11765.9	12682.0	15043.4	19840.2	19925.8	18880.3	17567.3	14883.7	13785.7	11014.5
72.5°	9682.8	9623.1	10519.1	12846.7	18640.8	18589.8	18082.1	16695.0	14239.5	12756.8	8983.2
75°	7129.4	7295.5	8099.4	10314.9	15960.2	16147.1	16372.2	15360.5	12646.8	10513.3	6211.9
77.5°	4707.7	4919.1	5731.6	7734.2	12635.3	12925.7	13508.9	13064.5	10288.3	7541.5	2958.2
80°	2432.6	2592.2	3323.5	5131.9	9057.9	9477.2	10546.4	9894.9	7294.1	3409.8	662.3
82.5°	920.4	899.5	1489.2	2937.3	5807.8	6188.9	6966.2	5933.6	2595.8	599.0	307.8
85°	404.1	427.8	617.0	1339.6	3320.6	3370.2	3946.2	2313.2	380.4	286.2	209.2
87.5°	174.7	200.6	258.9	385.4	1120.3	1293.6	1600.6	734.9	115.0	99.2	105.0
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°	3337.1	3337.1	3337.1	3337.1	3337.1	3337.1	3337.1	3337.1	3337.1	3337.1	3337.1
2.5°	3341.5	3337.1	3329.9	3312.0	3282.5	3278.9	3276.0	3273.1	3267.4	3270.3	3286.8
5°	3348.6	3340.7	3314.8	3289.0	3263.1	3240.1	3212.0	3201.2	3186.9	3177.5	3194.8
7.5°	3373.1	3356.6	3318.4	3283.2	3212.7	3178.9	3143.0	3100.6	3070.4	3051.0	3068.2
10°	3414.1	3393.2	3345.8	3273.1	3190.5	3097.7	3034.4	2963.9	2906.4	2890.6	2906.4
12.5°	3480.9	3450.0	3394.7	3296.2	3149.5	3027.9	2907.9	2815.1	2722.3	2695.7	2703.7
15°	3589.5	3565.1	3480.2	3344.3	3150.2	2964.7	2786.3	2636.8	2515.3	2472.8	2470.0
17.5°	3763.5	3737.7	3639.9	3440.0	3176.1	2915.1	2667.0	2439.0	2255.0	2161.5	2146.4
20°	4013.1	3977.1	3829.0	3580.9	3232.2	2893.5	2556.2	2249.9	1963.7	1788.3	1761.7
22.5°	4290.6	4252.5	4033.9	3689.5	3272.4	2851.1	2450.5	2040.7	1663.9	1449.6	1419.4
25°	4635.8	4552.3	4230.2	3792.3	3263.1	2761.9	2278.7	1756.7	1348.2	1162.7	1142.6
27.5°	4976.6	4870.9	4430.1	3846.2	3222.1	2620.2	2027.0	1424.4	1055.6	924.0	907.4
30°	5399.4	5195.2	4607.7	3871.4	3118.5	2408.1	1689.8	1082.9	790.2	699.6	683.8
32.5°	5902.0	5592.8	4774.5	3843.4	2946.0	2084.5	1313.7	793.1	587.5	530.7	529.9
35°	6565.0	6080.3	4957.9	3751.3	2681.4	1735.8	921.1	542.2	458.0	438.6	442.2
37.5°	7340.1	6740.4	5144.1	3600.3	2382.2	1328.1	614.1	417.8	402.7	403.4	404.1
40°	8157.7	7469.6	5395.1	3388.2	2019.1	961.4	442.2	375.3	374.6	381.8	384.0
42.5°	8938.6	8177.8	5704.3	3105.6	1638.7	635.6	383.3	358.1	348.7	351.6	353.8
45°	9664.1	8785.4	5967.4	2830.2	1231.0	453.7	376.1	338.0	323.6	322.1	323.6
47.5°	10248.7	9272.2	6127.8	2506.6	877.2	376.8	361.0	319.3	299.1	294.8	292.7
50°	10693.8	9633.9	6186.0	2139.9	593.2	359.5	340.8	297.7	273.2	274.0	274.0
52.5°	11128.1	9962.5	6118.4	1770.3	436.5	344.4	327.2	280.4	254.5	268.2	271.8
55°	11440.9	10100.6	5921.4	1370.5	363.8	325.7	312.1	260.3	242.3	264.6	271.8
57.5°	11623.5	10209.2	5559.7	989.4	333.6	307.8	292.7	241.6	225.1	230.8	234.4
60°	11737.2	10057.4	5081.6	676.6	317.8	293.4	273.2	229.4	207.1	193.4	191.3
62.5°	11674.6	9677.8	4451.7	465.2	301.3	277.6	256.7	217.9	188.4	170.4	169.0
65°	11164.8	8975.3	3417.7	376.8	291.2	270.4	246.6	207.1	175.4	158.2	156.0
67.5°	10219.2	7712.6	1996.1	335.1	286.9	263.2	238.7	197.0	168.3	149.6	146.7
70°	8665.3	5801.3	668.7	299.1	286.2	262.5	232.3	189.8	160.3	140.9	138.1
72.5°	6251.5	3500.4	325.7	263.2	267.5	251.7	227.2	184.1	155.3	130.9	125.8
75°	3552.9	1139.7	294.1	227.2	248.8	240.2	224.3	184.8	157.5	118.6	112.9
77.5°	1011.0	332.9	284.0	193.4	235.1	248.1	210.0	166.8	161.1	110.0	102.8
80°	341.6	296.3	274.0	150.3	189.8	204.9	181.9	146.7	162.5	99.9	92.8
82.5°	274.0	297.7	230.1	120.1	144.5	155.3	144.5	131.6	131.6	89.2	83.4
85°	219.3	276.1	146.0	95.6	107.9	119.4	102.1	98.5	92.0	74.8	72.6
87.5°	127.3	86.3	60.4	48.9	45.3	46.0	39.5	47.5	58.2	51.1	50.3
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)