

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: P591260

Luminaire Tested: **CTN-CA8-230-727-U-T4-SSS-HM-EX120**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591260
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-11)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-230-727-U-T4-SSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16472 lumens
Efficiency: N/A
Efficacy: 72.1 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

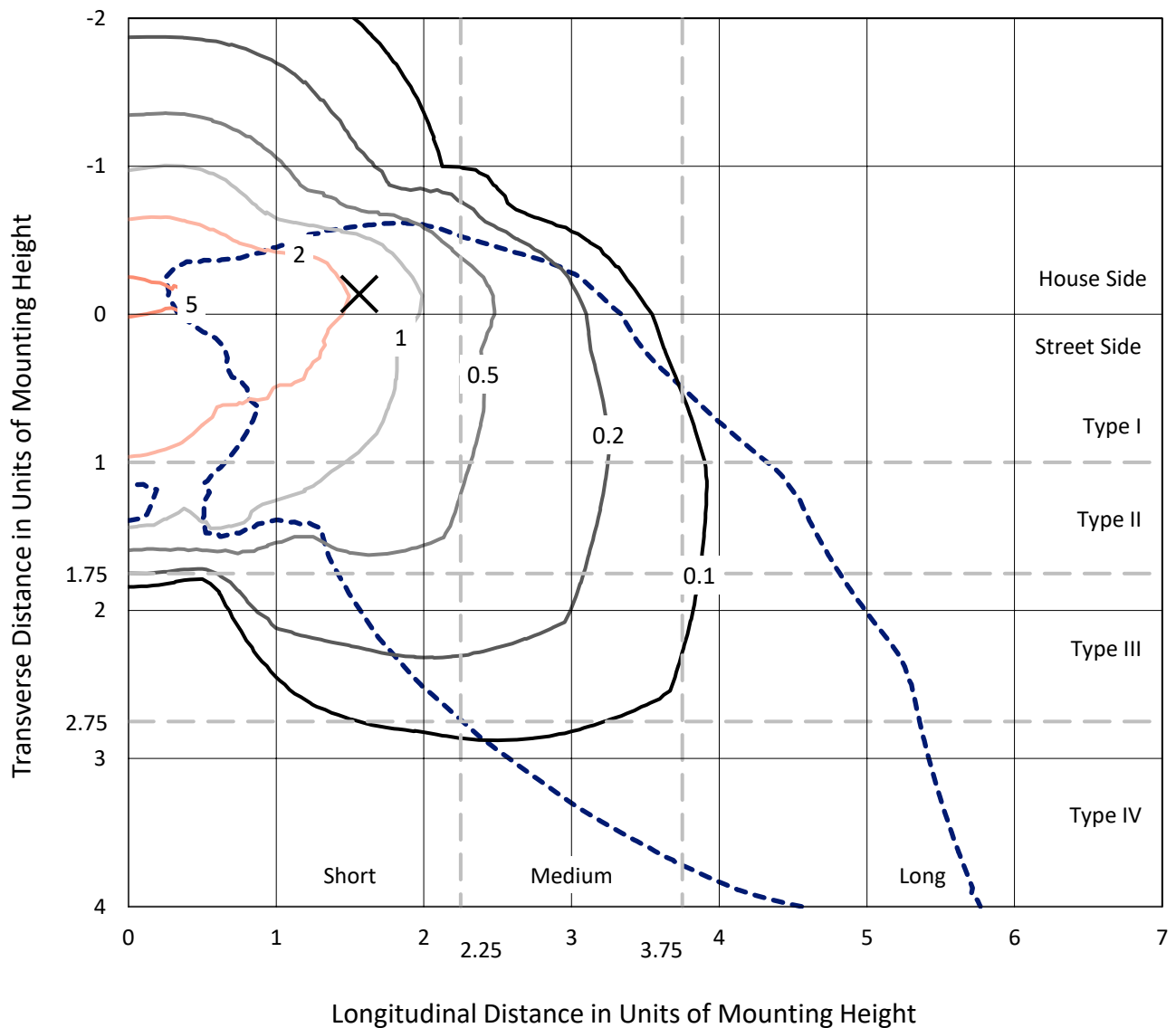
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

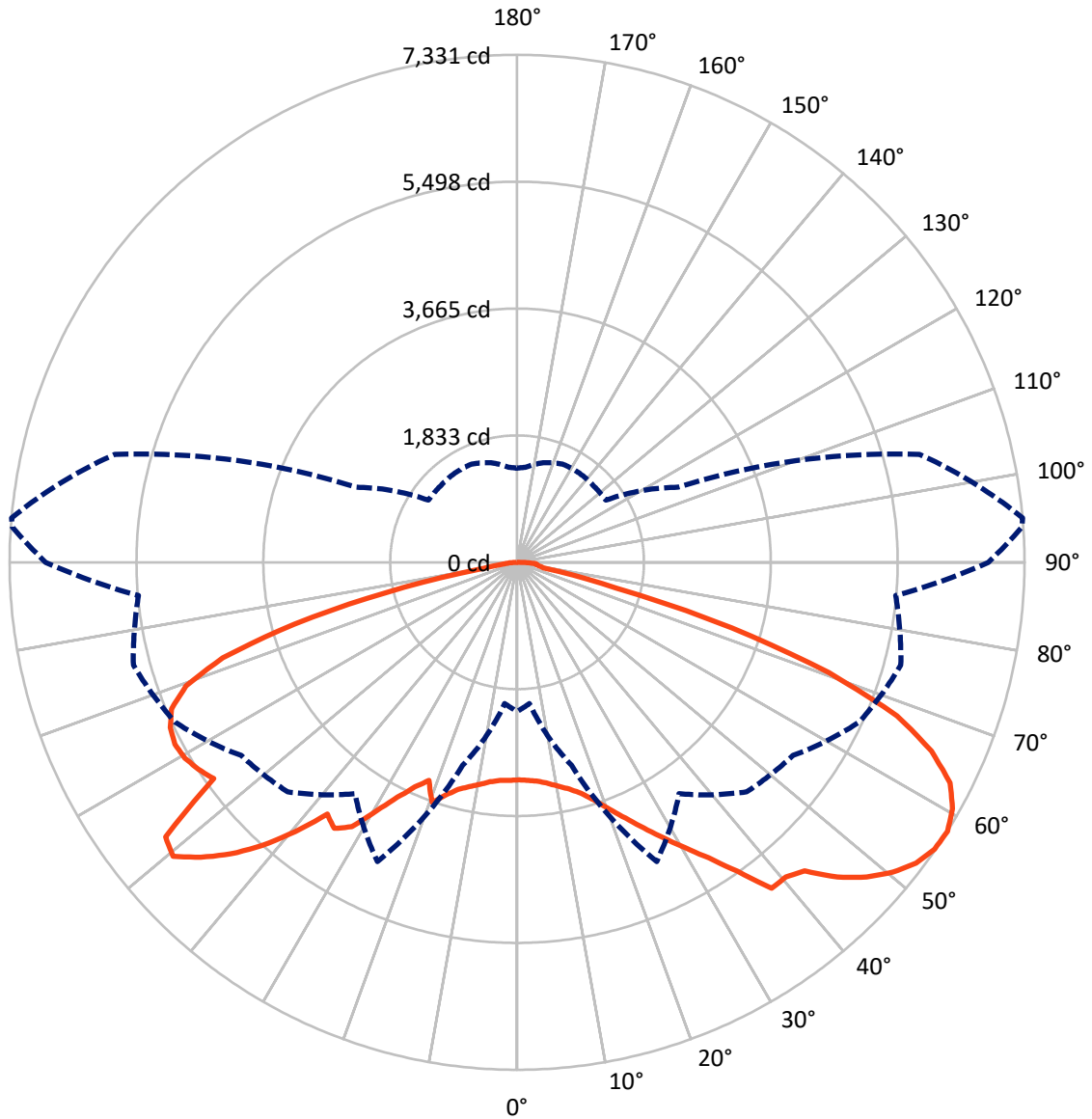
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 95-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

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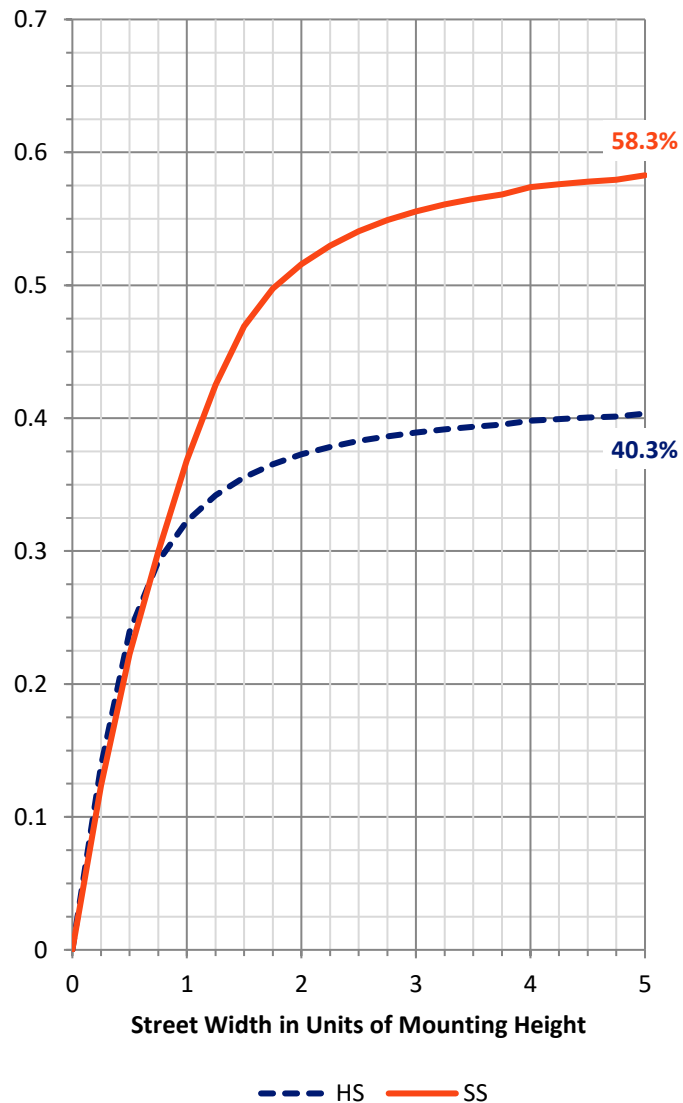
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6784.3	0.0	6784.3
	% Fixture	41.2	0.0	41.2
Street Side	Lumens	9687.7	0.0	9687.7
	% Fixture	58.8	0.0	58.8
Total	Lumens	16472.0	0.0	16472.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	306.9	1.9
10°-20°	938.5	5.7
20°-30°	1483.0	9.0
30°-40°	2049.2	12.4
40°-50°	2763.1	16.8
50°-60°	3254.8	19.8
60°-70°	2907.7	17.7
70°-80°	2171.1	13.2
80°-90°	597.6	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°	16472.0	100.0
0°-180°	16472.0	100.0

Coefficient of Utilization



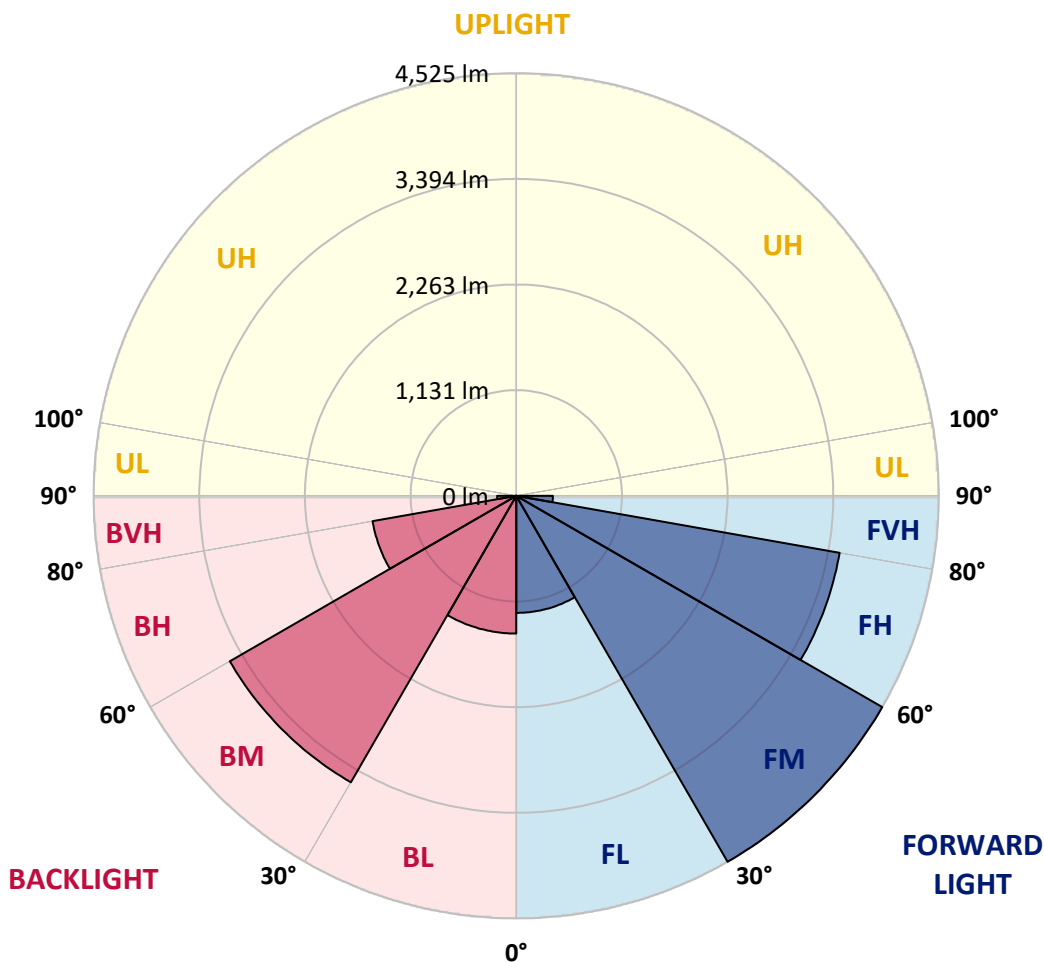
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1253.7	7.6			
FM	(30°-60°)	4525.2	27.5			
FH	(60°-80°)	3516.2	21.3			G2/5000
FVH	(80°-90°)	392.5	2.4			G3/500
BL	(0°-30°)	1474.6	9.0	B3/2500		
BM	(30°-60°)	3541.9	21.5	B3/5000		
BH	(60°-80°)	1562.6	9.5	B3/2500		G3/2500
BVH	(80°-90°)	205.1	1.2			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3142.7	3142.7	3142.7	3142.7	3142.7	3142.7	3142.7	3142.7	3142.7	3142.7	3142.7
2.5°	3101.5	3081.8	3082.7	3109.9	3069.6	3098.6	3094.9	3139.9	3133.3	3151.2	3156.8
5°	3076.1	3059.2	3060.2	3094.9	3067.7	3093.9	3076.1	3117.4	3132.4	3159.6	3165.2
7.5°	3082.7	3067.7	3073.3	3106.1	3072.4	3098.6	3100.5	3139.0	3146.5	3193.4	3200.9
10°	3099.6	3083.6	3087.4	3113.6	3092.1	3139.0	3133.3	3184.0	3185.9	3251.6	3260.9
12.5°	3077.1	3065.8	3065.8	3098.6	3109.9	3156.8	3170.9	3223.4	3234.7	3310.7	3322.9
15°	3036.7	3018.0	3045.2	3093.9	3116.5	3187.8	3214.0	3292.8	3306.0	3384.8	3411.0
17.5°	2967.3	2957.0	3057.4	3072.4	2987.0	3041.4	3153.0	3373.5	3418.5	3511.4	3560.2
20°	2760.0	2643.6	2375.3	2424.1	2686.8	2882.9	2917.6	3023.6	3216.8	3679.3	3755.3
22.5°	2029.2	2129.6	2484.2	2513.2	2504.8	2667.1	3032.0	3134.3	3226.2	3396.0	3900.7
25°	2101.4	2095.8	2269.3	2638.0	2624.9	2655.8	2808.8	3306.0	3397.9	3566.8	4092.1
27.5°	2166.1	2170.8	2157.7	2504.8	2750.6	2782.5	2829.4	3169.0	3613.7	3806.9	4301.3
30°	2294.7	2275.0	2239.3	2238.4	2860.4	2907.3	2987.0	3100.5	3812.6	4119.3	4563.1
32.5°	2511.4	2488.9	2441.9	2367.8	2472.0	3036.7	3146.5	3291.0	3518.0	4503.0	4869.8
35°	2671.8	2655.8	2623.9	2572.3	2488.9	3101.5	3302.2	3493.6	3793.8	4662.5	5272.3
37.5°	2869.7	2847.2	2810.6	2746.8	2684.0	2658.7	3452.3	3723.4	4178.4	4554.6	5359.5
40°	3093.9	3080.8	3014.2	2931.7	2862.2	2791.9	3555.5	4023.6	4672.8	5038.7	5279.8
42.5°	3262.8	3252.5	3213.1	3146.5	3078.9	3033.9	3151.2	4392.3	5211.3	5506.8	5684.1
45°	3410.1	3398.8	3398.8	3381.0	3362.3	3366.0	3416.7	4656.9	5722.6	5906.5	6066.9
47.5°	3523.6	3503.9	3425.1	3441.1	3468.3	3549.9	3703.7	4049.0	6134.4	6246.1	6388.7
50°	3800.4	3770.3	3515.2	3574.3	3662.5	3793.8	3991.7	4426.1	5728.2	6535.9	6647.6
52.5°	4055.5	3916.7	2903.5	3770.3	3869.8	4064.0	4298.5	4834.2	5272.3	6442.1	6845.5
55°	3618.4	3476.7	2918.5	4130.6	4113.7	4358.5	4587.4	5169.1	5519.9	5381.1	6795.8
57.5°	2153.9	2047.0	3036.7	4770.4	4078.0	4687.8	4864.2	5455.2	5737.6	5489.0	6808.9
60°	1115.4	1172.7	1127.6	2822.8	3511.4	4832.3	5150.3	5731.0	5884.9	5569.7	6817.4
62.5°	150.1	107.9	45.0	2064.8	2495.4	4026.4	5509.6	5993.7	5992.8	5596.9	6758.3
65°	9.4	10.3	20.6	2054.5	2752.5	4777.0	6104.4	6205.7	6046.2	5549.0	6561.3
67.5°	3.8	4.7	18.8	2040.4	2970.1	5021.8	6804.2	6273.3	6051.9	5420.5	6128.8
70°	3.8	4.7	18.8	1900.6	3118.3	5065.0	6922.4	6247.9	5982.4	5104.4	5324.8
72.5°	4.7	5.6	16.9	1651.1	3028.3	4947.7	6729.2	6196.3	5733.8	4468.3	4134.3
75°	4.7	5.6	16.9	1334.0	2679.3	4691.6	6576.3	5764.8	5026.5	3338.8	2681.2
77.5°	3.8	4.7	16.9	1041.3	2233.7	4157.8	5965.6	5012.4	3974.9	1942.9	1059.1
80°	3.8	4.7	16.9	725.2	1701.8	3408.2	4859.5	3903.6	2235.6	555.4	298.3
82.5°	3.8	4.7	15.9	452.2	1203.6	2506.7	3321.0	1799.3	479.4	216.7	232.7
85°	3.8	3.8	12.2	221.4	769.3	1665.2	1654.9	301.1	190.4	140.7	176.4
87.5°	1.9	2.8	6.6	101.3	429.7	878.1	659.5	115.4	81.6	57.2	98.5
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):

	94°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3142.7	3142.7	3142.7	3142.7	3142.7	3142.7	3142.7	3142.7	3142.7	3142.7	3142.7
2.5°	3158.7	3154.0	3167.1	3200.9	3199.0	3224.3	3204.6	3243.1	3249.7	3241.2	3254.4
5°	3175.6	3177.4	3213.1	3248.7	3235.6	3276.9	3285.3	3342.6	3344.4	3336.9	3353.8
7.5°	3217.8	3224.3	3260.0	3302.2	3321.0	3355.7	3351.0	3425.1	3418.5	3414.8	3434.5
10°	3276.9	3289.1	3327.5	3394.1	3385.7	3439.2	3414.8	3464.5	3462.6	3455.1	3476.7
12.5°	3349.1	3361.3	3410.1	3473.9	3474.8	3478.6	3458.9	3484.2	3475.8	3457.9	3474.8
15°	3446.7	3460.8	3527.4	3574.3	3533.9	3523.6	3486.1	3472.0	3440.1	3393.2	3407.3
17.5°	3600.5	3611.8	3686.8	3713.1	3643.7	3602.4	3495.5	3415.7	3325.7	3260.0	3272.2
20°	3794.7	3805.0	3866.0	3859.5	3766.6	3665.3	3499.2	3364.1	3196.2	3067.7	3063.9
22.5°	4008.6	4015.2	4073.4	4015.2	3850.1	3702.8	3491.7	3284.4	3002.0	2836.0	2818.1
25°	4244.1	4249.7	4248.8	4119.3	3897.9	3681.2	3422.3	3151.2	2789.1	2611.7	2593.0
27.5°	4507.7	4508.6	4405.5	4200.0	3877.3	3601.5	3288.1	2912.0	2593.9	2440.1	2426.0
30°	4788.2	4786.3	4549.0	4207.5	3797.5	3450.4	3080.8	2685.9	2418.5	2281.5	2261.8
32.5°	5108.1	5092.2	4676.6	4181.2	3652.1	3233.7	2813.4	2496.4	2280.6	2123.9	2094.8
35°	5518.1	5478.7	4785.4	4090.2	3436.4	2941.0	2565.8	2331.2	2147.4	1987.9	1958.8
37.5°	6025.6	5974.9	4956.1	3961.7	3187.8	2699.0	2383.8	2219.6	2051.7	1869.7	1832.2
40°	5879.3	5976.8	5159.7	3822.9	2947.6	2505.7	2276.8	2166.1	1993.5	1791.8	1756.2
42.5°	6105.3	6093.1	5438.3	3658.7	2716.8	2354.7	2233.7	2150.2	1962.6	1758.1	1716.8
45°	6490.0	6487.2	5738.5	3499.2	2491.7	2233.7	2200.8	2107.0	1918.5	1715.8	1670.8
47.5°	6802.4	6793.0	6025.6	3323.8	2283.4	2138.9	2134.2	2019.8	1839.7	1651.1	1609.8
50°	7020.0	7034.1	6185.1	3154.9	2086.4	2041.4	2023.5	1896.9	1729.0	1573.2	1541.3
52.5°	7191.7	7218.0	6254.5	3139.0	1913.8	1915.7	1884.7	1769.3	1638.0	1512.3	1478.5
55°	7276.1	7316.5	6183.2	3035.8	1744.9	1756.2	1726.2	1653.0	1575.1	1459.7	1435.3
57.5°	7310.8	7330.5	6018.1	2567.7	1563.9	1562.0	1571.4	1563.9	1490.7	1377.2	1359.3
60°	7251.7	7225.5	5658.8	1951.3	1380.0	1388.4	1448.5	1441.0	1376.2	1289.9	1265.5
62.5°	7069.7	7018.1	5001.2	1442.8	1232.7	1301.2	1365.0	1343.4	1264.6	1185.8	1167.0
65°	6722.6	6577.2	3985.2	1126.7	1162.3	1256.2	1315.3	1283.4	1193.3	1100.4	1089.2
67.5°	6099.7	5917.7	2615.5	1010.4	1132.3	1217.7	1279.6	1226.1	1138.9	1038.5	1022.6
70°	4977.7	4777.9	1238.3	941.9	1064.8	1149.2	1194.2	1139.8	1050.7	950.3	939.1
72.5°	3471.1	3244.0	667.0	867.8	986.9	1060.1	1090.1	1023.5	945.6	901.5	898.7
75°	1729.9	1478.5	605.1	791.8	886.5	950.3	1001.0	955.0	886.5	805.9	785.2
77.5°	460.6	395.9	569.4	707.3	806.8	879.0	908.1	860.3	781.5	713.0	700.8
80°	319.9	326.5	531.9	586.3	703.6	768.3	795.5	734.6	695.2	627.6	608.8
82.5°	271.1	285.2	429.7	441.9	559.1	628.5	676.4	666.1	609.8	555.4	547.9
85°	254.2	270.2	274.9	305.8	400.6	482.2	564.8	569.4	531.9	462.5	440.0
87.5°	146.3	144.5	132.3	155.7	219.5	267.4	323.7	308.6	251.4	217.6	213.0
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)