

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: P591297

Luminaire Tested: **CTN-CA10-210-730-U-T4-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591297
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-12)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-210-730-U-T4-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15067 lumens
Efficiency: N/A
Efficacy: 70.8 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

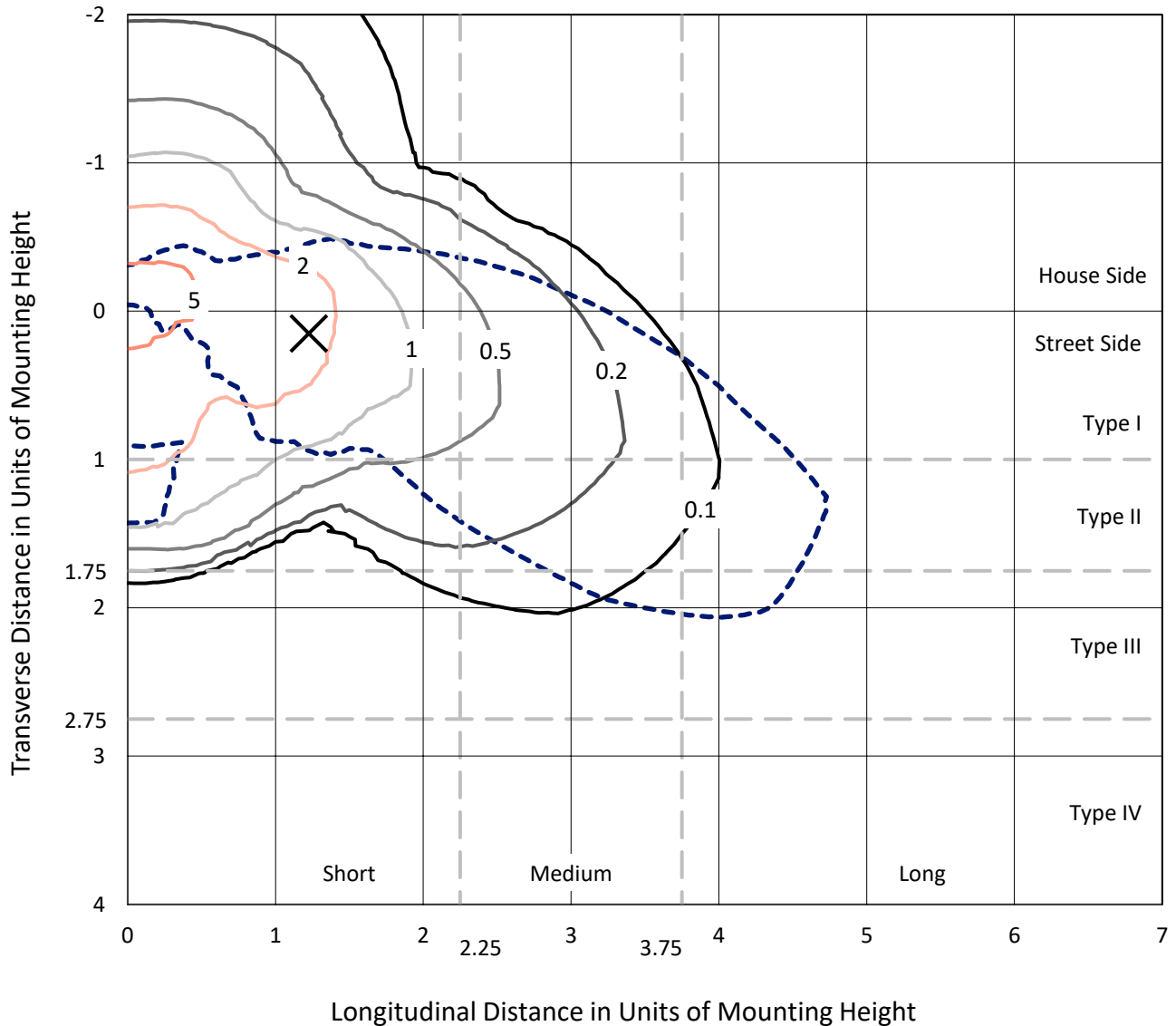
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

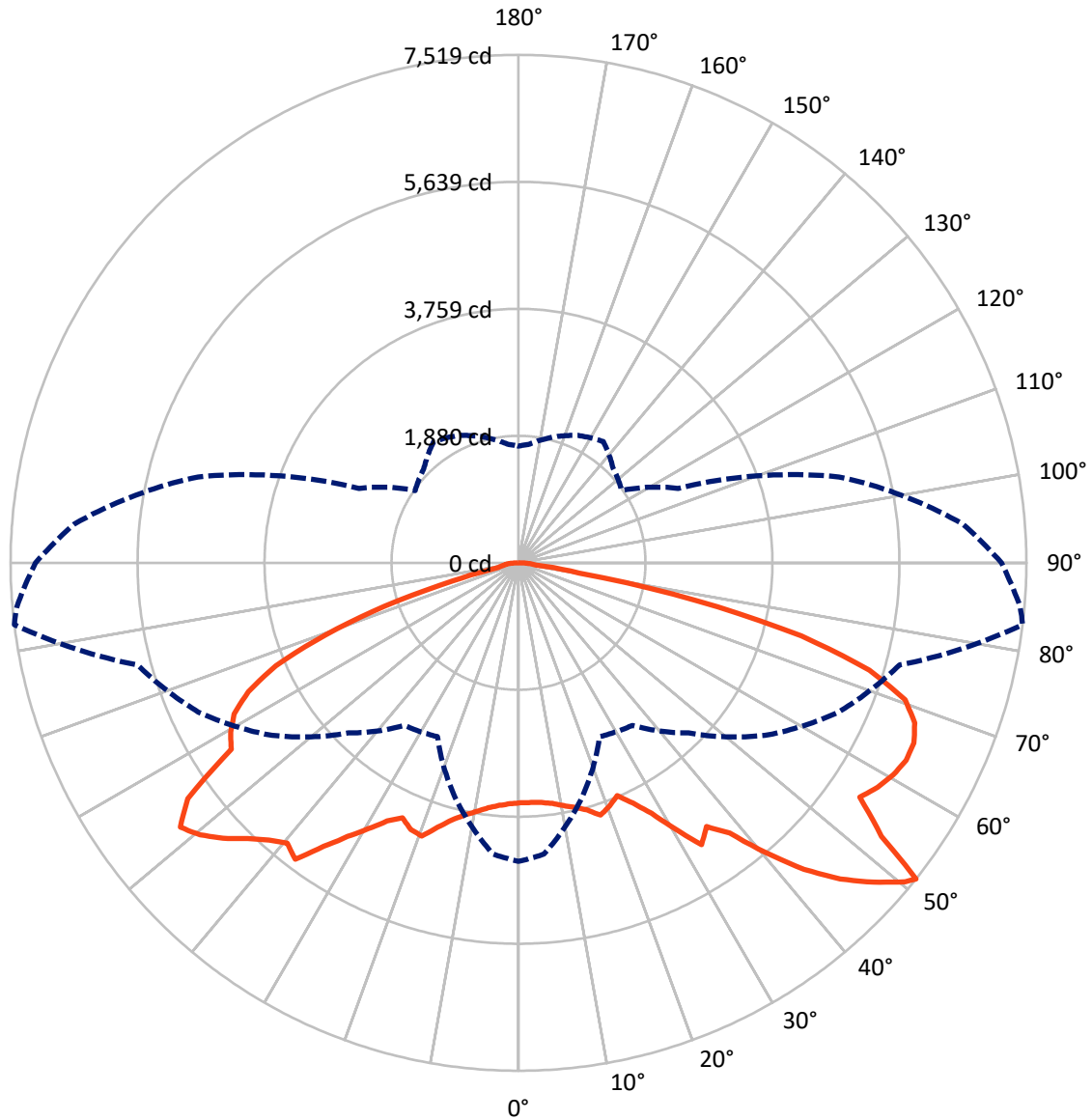
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 83-Deg Lateral - - - Horizontal Cone Through 51-Deg Vertical

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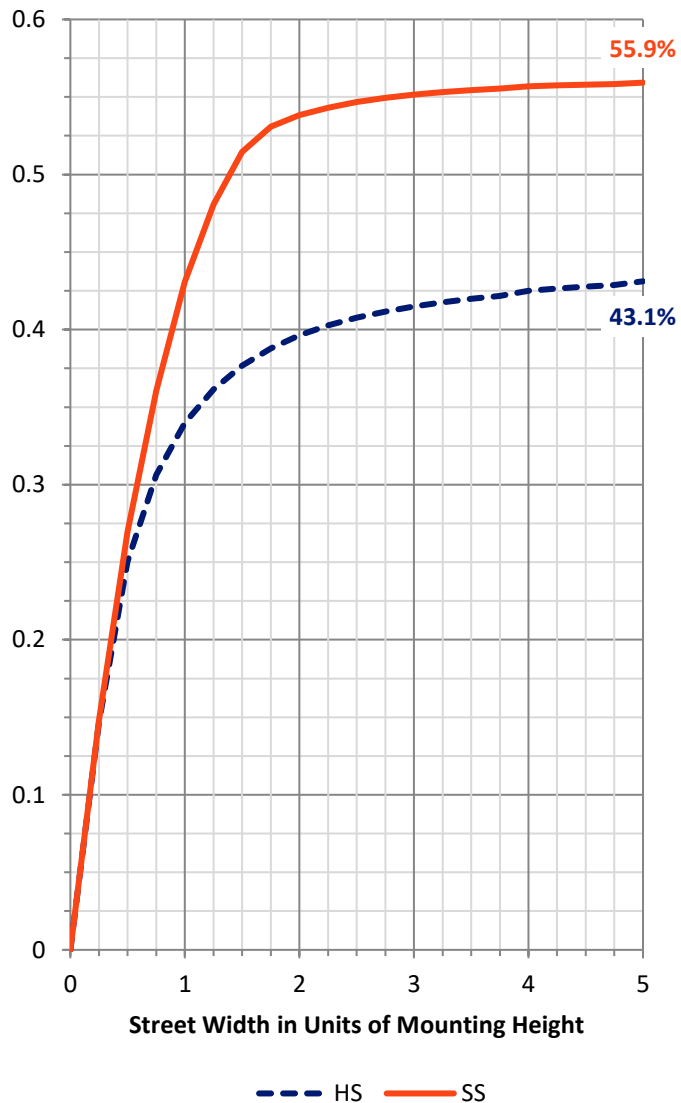
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6640.9	0.0	6640.9
	% Fixture	44.1	0.0	44.1
Street Side	Lumens	8426.1	0.0	8426.1
	% Fixture	55.9	0.0	55.9
Total	Lumens	15067.0	0.0	15067.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	346.9	2.3
10°-20°	1055.8	7.0
20°-30°	1640.1	10.9
30°-40°	2194.5	14.6
40°-50°	2847.1	18.9
50°-60°	3032.2	20.1
60°-70°	2112.3	14.0
70°-80°	1473.7	9.8
80°-90°	364.6	2.4
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°	15067.0	100.0
0°-180°	15067.0	100.0

Coefficient of Utilization



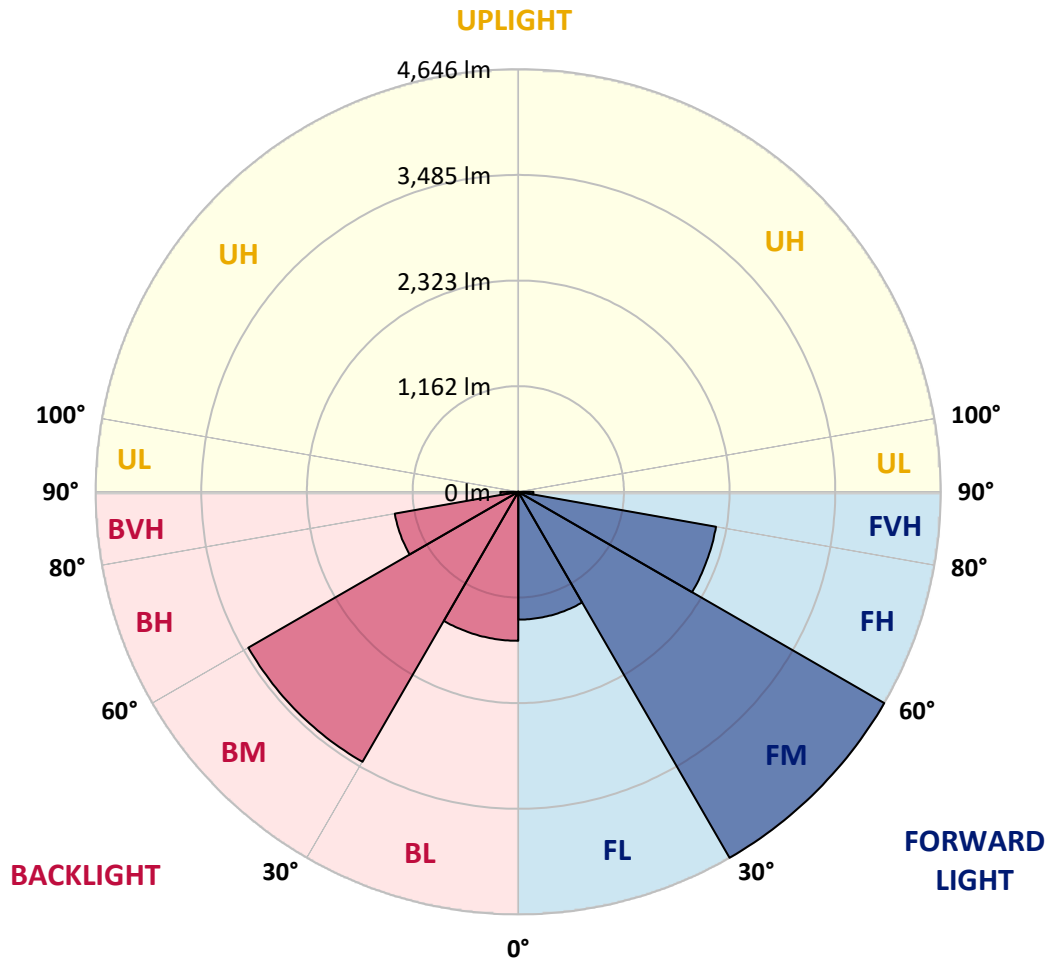
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1404.9	9.3			
FM (30°-60°)	4646.2	30.8			
FH (60°-80°)	2207.7	14.7			G2/5000
FVH (80°-90°)	167.4	1.1			G2/225
BL (0°-30°)	1637.9	10.9	B3/2500		
BM (30°-60°)	3427.5	22.7	B3/5000		
BH (60°-80°)	1378.2	9.1	B3/2500		G3/2500
BVH (80°-90°)	197.2	1.3			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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	83°	85°
0°	3551.3	3551.3	3551.3	3551.3	3551.3	3551.3	3551.3	3551.3	3551.3	3551.3	3551.3
2.5°	3509.0	3484.6	3486.7	3519.6	3476.1	3504.7	3500.5	3551.3	3541.8	3552.4	3559.8
5°	3478.3	3459.2	3459.2	3502.6	3471.9	3502.6	3481.4	3525.9	3540.7	3564.0	3572.5
7.5°	3484.6	3464.5	3473.0	3511.1	3477.2	3509.0	3507.9	3550.3	3555.6	3596.9	3610.6
10°	3502.6	3480.4	3484.6	3515.3	3496.3	3551.3	3541.8	3600.1	3600.1	3655.1	3676.3
12.5°	3465.5	3450.7	3459.2	3500.5	3517.4	3574.6	3587.3	3646.7	3655.1	3714.4	3740.9
15°	3425.3	3404.1	3431.7	3491.0	3519.6	3602.2	3629.7	3720.8	3733.5	3794.9	3824.6
17.5°	3230.4	3216.6	3267.5	3315.1	3331.0	3411.5	3465.5	3617.0	3799.2	3927.3	3962.3
20°	2842.8	2840.6	2746.4	2726.3	2973.0	3267.5	3304.6	3433.8	3644.5	3844.7	3915.7
22.5°	2373.6	2437.1	2743.2	2840.6	2834.3	2950.8	3425.3	3547.1	3640.3	3742.0	3784.3
25°	2373.6	2368.3	2549.4	2968.8	2969.9	3019.6	3125.6	3735.6	3824.6	3941.1	3975.0
27.5°	2448.8	2454.1	2442.4	2748.5	3116.0	3162.6	3208.2	3523.8	4069.3	4198.5	4254.6
30°	2575.9	2584.3	2537.7	2538.8	3164.7	3304.6	3391.4	3515.3	4239.8	4571.3	4596.7
32.5°	2826.9	2823.7	2765.4	2690.2	2777.1	3443.3	3570.4	3731.4	3970.8	4973.8	5033.1
35°	3027.1	3013.3	2973.0	2921.1	2806.8	3404.1	3740.9	3963.3	4268.4	4794.8	5108.3
37.5°	3249.5	3229.4	3183.8	3120.3	3016.5	2375.7	3909.3	4228.1	4701.6	5075.5	5095.6
40°	3500.5	3478.3	3415.8	3322.6	3190.2	2433.9	3984.5	4555.4	5266.1	5642.1	5638.9
42.5°	3693.3	3671.0	3638.2	3539.7	2804.6	2684.9	3475.1	5015.1	5877.2	6203.4	6175.9
45°	3856.4	3837.3	3840.5	3736.7	2630.9	2993.2	3871.2	5255.5	6453.4	6675.8	6639.8
47.5°	3983.5	3953.8	3873.3	3143.6	2698.7	3206.1	4193.2	4584.0	6939.6	7065.6	7025.4
50°	4292.7	4243.0	3764.2	2790.9	2870.3	3466.6	4499.3	5056.4	6321.0	7420.4	7349.5
51°	4418.8	4328.8	3607.5	2839.6	2938.1	3560.9	4453.7	5228.0	5839.1	7518.9	7455.4
52.5°	4551.2	4373.2	3177.5	2913.7	3020.7	3691.1	3783.3	5491.7	5973.6	6728.8	7103.7
55°	3839.4	3909.3	3281.3	3184.9	3177.5	3190.2	3863.8	5884.6	6254.3	6127.2	6053.1
57.5°	2258.1	2299.4	3333.1	3566.2	2749.6	2533.5	4076.7	6181.2	6496.8	6268.1	6185.4
60°	1135.4	1188.4	1213.8	1106.8	1482.8	2311.1	3433.8	4480.2	6645.1	6374.0	6274.4
62.5°	49.8	82.6	32.8	36.0	60.4	806.0	2522.9	4602.0	6770.1	6438.6	6307.2
65°	4.2	4.2	5.3	10.6	26.5	846.3	2807.8	4770.4	6820.9	6432.2	6256.4
67.5°	1.1	1.1	2.1	7.4	19.1	916.2	3142.5	4839.3	6823.1	6324.2	6109.2
70°	0.0	1.1	2.1	6.4	16.9	958.5	3215.6	4825.5	6736.2	6070.0	5774.5
72.5°	0.0	0.0	1.1	5.3	14.8	904.5	3130.9	4798.0	6439.6	5430.3	5010.8
75°	0.0	0.0	1.1	4.2	12.7	920.4	3139.3	4488.7	5623.0	4323.5	3814.0
77.5°	0.0	0.0	1.1	4.2	11.7	849.4	2874.5	3887.1	4444.2	2691.3	2134.2
80°	0.0	0.0	1.1	4.2	10.6	728.7	2364.0	3034.5	2486.9	913.0	588.9
82.5°	0.0	0.0	1.1	4.2	8.5	493.6	1570.7	1516.7	501.0	261.6	235.1
85°	0.0	0.0	1.1	3.2	6.4	294.4	786.9	206.5	193.8	166.3	150.4
87.5°	0.0	0.0	1.1	2.1	4.2	125.0	242.5	63.5	80.5	67.8	60.4
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°	3551.3	3551.3	3551.3	3551.3	3551.3	3551.3	3551.3	3551.3	3551.3	3551.3	3551.3
2.5°	3566.2	3566.2	3577.8	3617.0	3612.8	3644.5	3626.5	3665.7	3668.9	3661.5	3679.5
5°	3579.9	3592.6	3631.8	3673.1	3656.2	3702.8	3725.0	3776.9	3774.8	3768.5	3789.6
7.5°	3619.1	3645.6	3684.8	3734.6	3752.6	3790.7	3792.8	3863.8	3859.5	3856.4	3877.6
10°	3684.8	3719.7	3763.2	3838.4	3827.8	3882.8	3859.5	3911.4	3910.4	3908.3	3929.5
12.5°	3752.6	3803.4	3856.4	3929.5	3928.4	3930.5	3910.4	3936.9	3931.6	3916.7	3932.6
15°	3847.9	3915.7	3988.8	4041.7	3995.1	3985.6	3941.1	3925.2	3894.5	3852.1	3864.8
17.5°	4005.7	4072.4	4165.6	4194.2	4118.0	4074.6	3953.8	3865.9	3770.6	3706.0	3719.7
20°	4147.6	4271.6	4360.5	4358.4	4261.0	4146.6	3959.1	3810.8	3626.5	3501.6	3491.0
22.5°	3970.8	4179.4	4567.1	4521.5	4351.0	4188.9	3952.8	3722.9	3416.8	3223.0	3215.6
25°	4072.4	4076.7	4424.1	4612.6	4391.2	4170.9	3876.5	3569.3	3177.5	2976.2	2964.6
27.5°	4331.9	4308.6	4212.2	4515.2	4354.2	4078.8	3722.9	3307.7	2959.3	2784.5	2776.0
30°	4640.1	4568.1	4341.5	4042.8	4201.7	3899.8	3486.7	3039.8	2762.3	2603.4	2590.7
32.5°	5008.7	4857.3	4459.0	3990.9	3701.7	3629.7	3181.7	2827.9	2599.2	2433.9	2401.1
35°	5446.2	5219.5	4572.4	3903.0	3312.0	3229.4	2894.7	2637.3	2445.6	2278.2	2245.4
37.5°	5445.1	5681.3	4739.7	3782.2	3070.5	2780.3	2686.0	2510.2	2338.6	2136.3	2099.2
40°	5485.3	5492.8	4924.0	3664.7	2844.9	2549.4	2562.1	2447.7	2270.8	2048.4	2010.3
42.5°	5974.7	5614.6	5149.6	3506.9	2632.0	2378.9	2509.1	2425.5	2234.8	2007.1	1964.7
45°	6400.5	5985.3	4655.0	3334.2	2408.5	2246.5	2466.8	2373.6	2184.0	1957.3	1909.6
47.5°	6771.2	6279.7	4781.0	3032.4	2190.3	2138.4	2385.2	2274.0	2092.9	1882.1	1839.7
50°	7052.9	6523.3	4891.2	2626.7	1978.5	2030.4	2252.8	2139.5	1964.7	1794.2	1758.2
51°	7149.3	6601.7	4913.4	2608.7	1866.2	1979.6	2190.3	2080.2	1923.4	1760.3	1727.5
52.5°	7253.1	6703.4	4946.2	2648.9	1707.4	1895.9	2088.6	1992.3	1862.0	1722.2	1685.1
55°	6030.8	6298.8	4862.6	2564.2	1523.1	1729.6	1902.2	1858.8	1786.8	1662.9	1636.4
57.5°	5810.5	5329.6	4033.2	2171.3	1361.0	1531.5	1721.1	1749.7	1694.6	1568.6	1549.5
60°	5858.2	5280.9	3591.6	1619.4	1200.0	1354.7	1585.5	1611.0	1563.3	1468.0	1441.5
62.5°	5849.7	5155.9	3202.9	1140.7	1060.2	1262.5	1488.1	1498.7	1433.0	1353.6	1329.2
65°	5709.9	4868.9	2672.2	863.2	982.9	1211.7	1430.9	1436.2	1354.7	1253.0	1240.3
67.5°	5398.5	4414.5	1858.8	758.4	939.5	1172.5	1392.8	1369.5	1291.1	1184.1	1165.1
70°	4802.2	3596.9	868.5	698.0	873.8	1100.5	1299.6	1272.0	1186.2	1086.7	1069.7
72.5°	3850.0	2499.6	412.0	638.7	805.0	1010.4	1185.2	1141.8	1070.8	1033.7	1024.2
75°	2519.7	1173.5	344.2	575.1	713.9	901.3	1086.7	1070.8	1005.1	931.0	895.0
77.5°	1022.1	309.3	311.4	510.5	640.8	830.4	981.8	969.1	882.3	815.5	800.7
80°	257.4	232.0	284.9	421.5	558.2	723.4	861.1	825.1	793.3	721.3	698.0
82.5°	195.9	186.4	223.5	326.2	458.6	596.3	735.1	749.9	696.9	641.8	630.2
85°	136.6	169.5	135.6	232.0	340.0	470.3	616.4	642.9	606.9	544.4	502.0
87.5°	75.2	89.0	56.1	121.8	180.1	257.4	353.8	356.9	295.5	271.1	255.3
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)