

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: P591394

Luminaire Tested: **CTN-CA10-210-740-U-T4-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591394
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-10)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-210-740-U-T4-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: 22139 lumens
Efficiency: N/A
Efficacy: 104.0 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

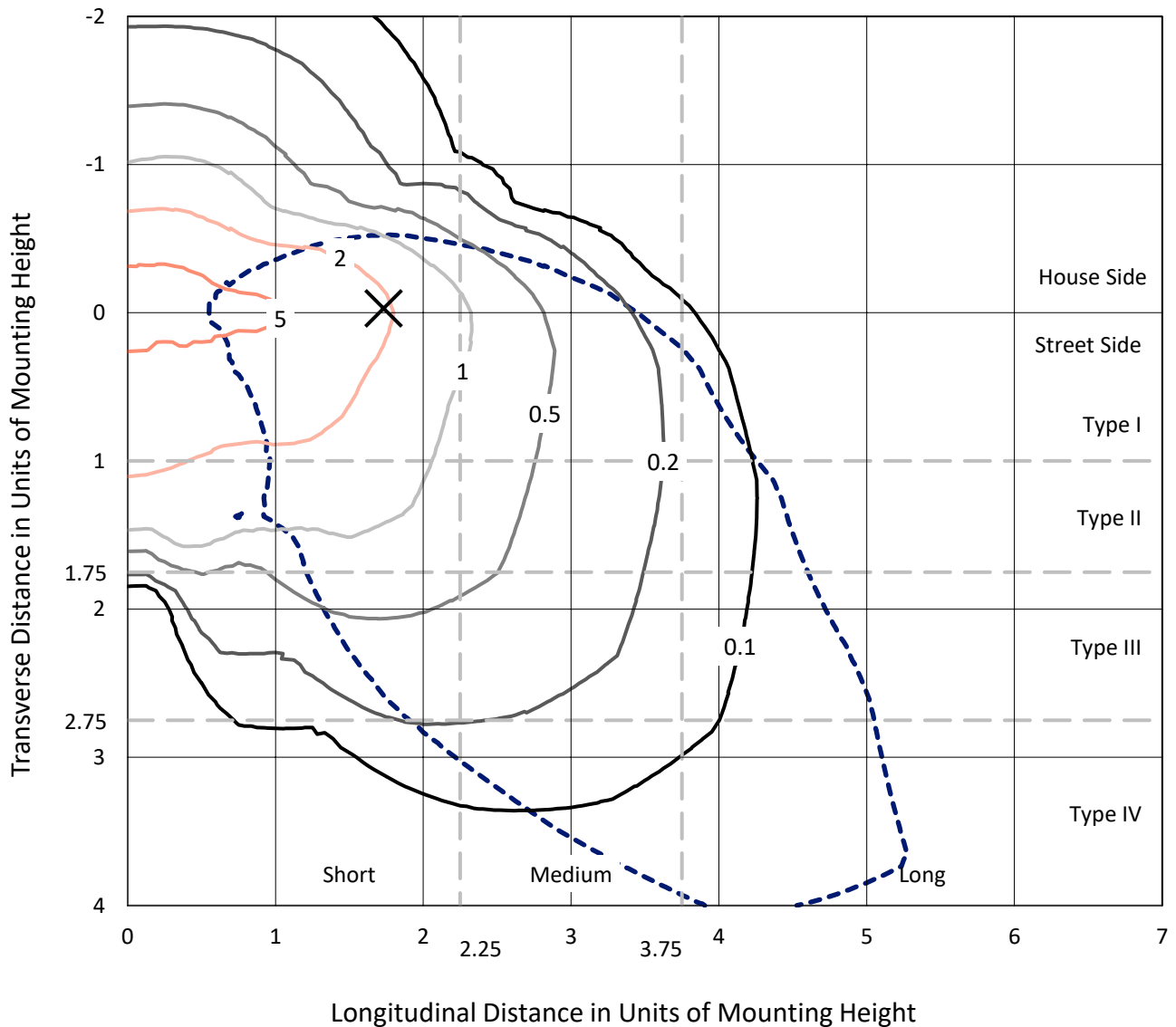
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

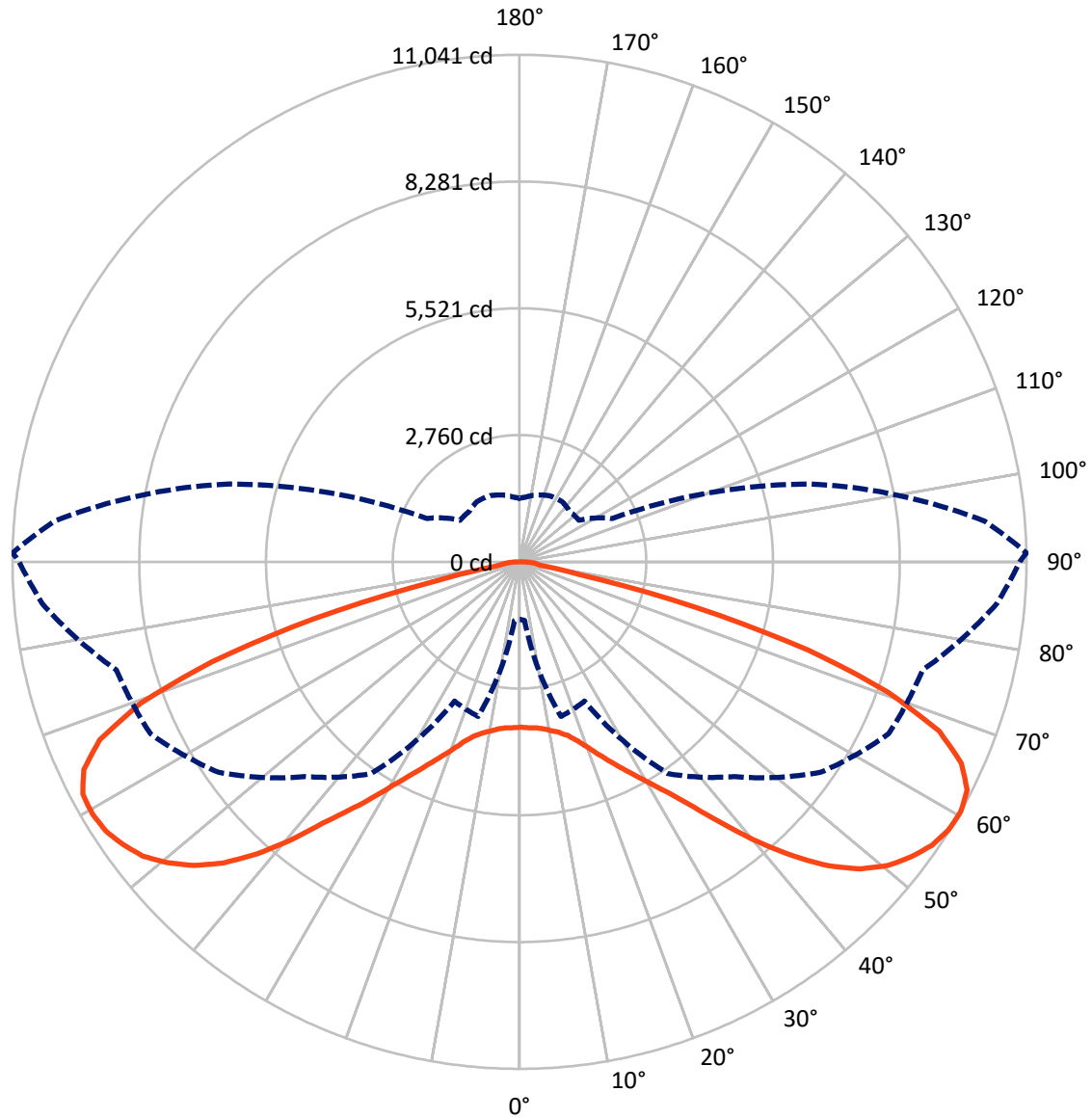
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.1 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 91-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

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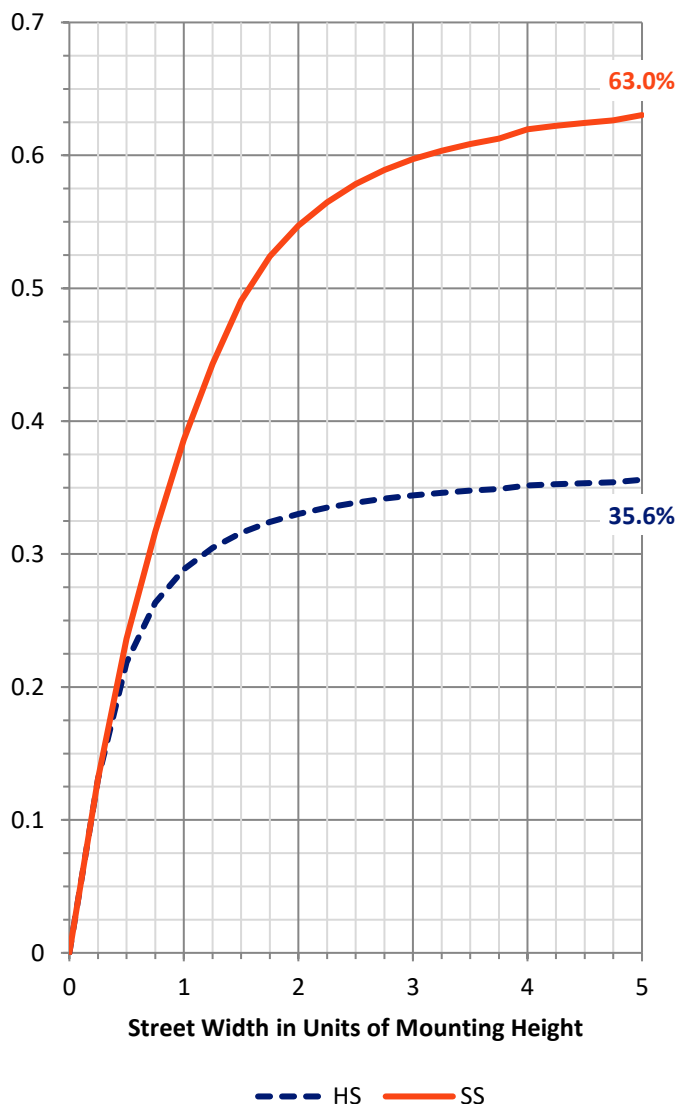
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8040.1	0.0	8040.1
	% Fixture	36.3	0.0	36.3
Street Side	Lumens	14098.9	0.0	14098.9
	% Fixture	63.7	0.0	63.7
Total	Lumens	22139.0	0.0	22139.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	351.1	1.6
10°-20°	1076.7	4.9
20°-30°	1764.9	8.0
30°-40°	2492.6	11.3
40°-50°	3508.8	15.8
50°-60°	4415.2	19.9
60°-70°	4444.2	20.1
70°-80°	3269.5	14.8
80°-90°	816.2	3.7
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°	22139.0	100.0
0°-180°	22139.0	100.0

Coefficient of Utilization

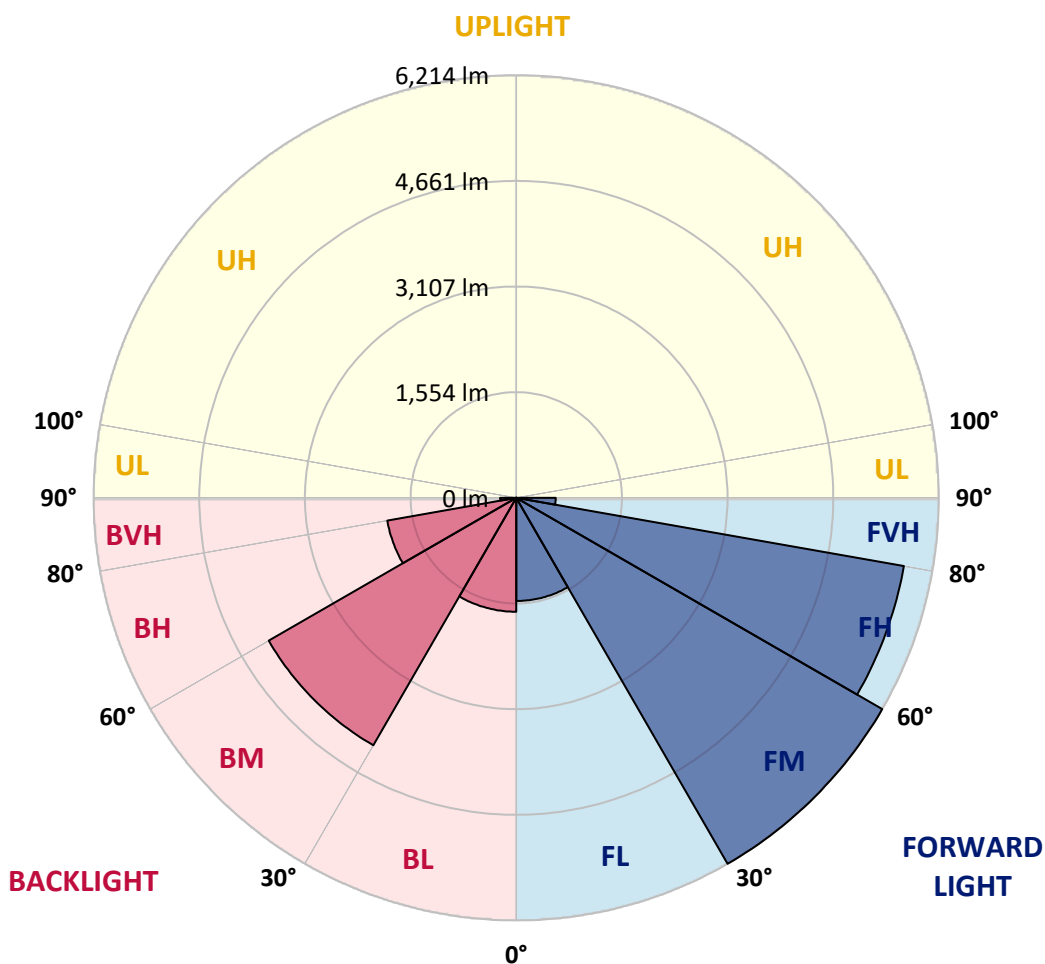


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1516.8	6.9			
FM (30°-60°)	6214.4	28.1			
FH (60°-80°)	5788.1	26.1			G3/7500
FVH (80°-90°)	579.7	2.6			G4/750
BL (0°-30°)	1675.8	7.6	B3/2500		
BM (30°-60°)	4202.2	19.0	B3/5000		
BH (60°-80°)	1925.6	8.7	B3/2500		G3/2500
BVH (80°-90°)	236.5	1.1			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3600.6	3600.6	3600.6	3600.6	3600.6	3600.6	3600.6	3600.6	3600.6	3600.6	3600.6
2.5°	3565.0	3542.4	3543.5	3576.9	3526.2	3558.6	3551.0	3602.8	3593.1	3611.4	3615.7
5°	3540.2	3521.9	3521.9	3561.8	3527.3	3555.3	3531.6	3576.9	3593.1	3620.0	3625.4
7.5°	3549.9	3530.5	3538.1	3572.6	3533.8	3562.9	3560.7	3600.6	3610.3	3655.6	3662.1
10°	3567.2	3549.9	3552.1	3581.2	3555.3	3609.3	3599.6	3656.7	3655.6	3726.8	3732.2
12.5°	3537.0	3524.0	3524.0	3562.9	3578.0	3635.1	3654.6	3713.9	3720.4	3800.2	3806.7
15°	3489.5	3468.0	3500.3	3558.6	3589.8	3679.4	3712.8	3806.7	3823.9	3899.4	3915.6
17.5°	3390.3	3400.0	3490.6	3449.6	3307.2	3439.9	3807.7	3927.5	3965.2	4054.8	4093.6
20°	3082.9	2963.1	2725.8	2790.5	3083.9	3462.6	3940.4	4080.6	4163.7	4269.4	4335.2
22.5°	2328.9	2404.4	2847.7	2894.1	2907.0	3159.4	4125.9	4268.3	4378.4	4512.1	4599.5
25°	2415.2	2407.6	2559.7	3035.4	3048.3	3192.9	3884.3	4513.2	4612.4	4798.0	4885.3
27.5°	2495.0	2495.0	2486.4	2866.0	3195.0	3337.4	4010.5	4333.1	4919.9	5121.6	5224.0
30°	2627.7	2632.0	2583.4	2582.4	3315.9	3470.1	4254.3	4414.0	5191.7	5573.5	5597.3
32.5°	2890.9	2875.8	2815.4	2722.6	2868.2	3624.4	4492.7	4706.3	4929.6	6081.6	6060.0
35°	3080.7	3068.8	3025.7	2961.0	2894.1	3694.5	4716.0	5012.6	5378.3	6231.5	6645.7
37.5°	3310.5	3291.0	3242.5	3165.9	3122.8	3189.7	4945.7	5358.9	5939.2	6409.5	7307.0
40°	3561.8	3556.4	3482.0	3382.7	3323.4	3373.0	5121.6	5790.3	6635.0	7165.7	8036.2
42.5°	3754.9	3750.6	3689.1	3631.9	3603.9	3704.2	4684.7	6362.0	7431.0	7852.8	8738.4
45°	3928.5	3922.1	3919.9	3900.5	3923.2	4166.9	5163.6	6714.8	8213.1	8443.9	9377.0
47.5°	4060.1	4040.7	3985.7	3991.1	4054.8	4465.7	5662.0	6183.0	8847.3	8964.9	9875.3
50°	4373.0	4353.5	4163.7	4170.2	4293.1	4836.8	6091.3	6798.9	8257.3	9415.8	10257.2
52.5°	4652.3	4491.6	4388.1	4392.4	4560.7	5231.6	6578.9	7436.4	8117.1	9772.8	10565.7
55°	4018.1	3914.5	4922.0	4781.8	4874.5	5662.0	7052.4	7988.7	8502.1	10045.7	10742.6
57.5°	2358.0	2345.0	5417.1	5539.0	5431.1	6126.9	7531.3	8448.2	8839.8	10300.3	10861.2
60°	1251.3	1281.5	3484.1	3348.2	5629.6	6612.3	7995.2	8865.7	9090.0	10431.9	10893.6
62.5°	115.4	102.5	2290.0	2601.8	5046.1	7246.6	8545.3	9290.7	9259.4	10502.0	10836.4
65°	22.7	30.2	2246.9	2570.5	5607.0	8298.3	9443.8	9617.5	9351.1	10417.9	10536.5
67.5°	17.3	25.9	2122.8	2542.4	5951.1	8702.8	10478.3	9732.9	9356.5	10149.3	9876.4
70°	17.3	27.0	1873.7	2376.3	6114.0	8720.0	10723.1	9687.6	9235.6	9540.9	8632.7
72.5°	17.3	27.0	1573.8	2059.2	5836.7	8345.7	10293.8	9436.3	8785.8	8215.2	6733.1
75°	17.3	24.8	1235.1	1673.0	5045.0	7768.6	9557.1	8342.5	7395.4	6011.5	4320.1
77.5°	17.3	23.7	910.4	1309.5	4210.1	6851.8	8311.2	6857.2	5574.6	3147.6	1590.0
80°	16.2	23.7	554.4	923.3	3243.6	5527.1	6531.4	5066.6	2929.7	791.8	459.5
82.5°	16.2	22.7	264.3	591.1	2279.2	3949.0	4261.9	2170.3	623.5	365.7	365.7
85°	14.0	20.5	141.3	321.4	1489.7	2588.8	2056.0	367.8	243.8	247.0	281.5
87.5°	8.6	10.8	66.9	144.5	858.6	1383.9	791.8	134.8	101.4	106.8	159.6
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):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3600.6	3600.6	3600.6	3600.6	3600.6	3600.6	3600.6	3600.6	3600.6	3600.6	3600.6
2.5°	3619.0	3613.6	3625.4	3663.2	3656.7	3683.7	3662.1	3699.9	3707.4	3696.6	3713.9
5°	3630.8	3638.4	3678.3	3713.9	3694.5	3737.6	3749.5	3802.3	3801.3	3791.6	3813.1
7.5°	3669.7	3690.2	3730.1	3774.3	3784.0	3818.5	3814.2	3881.1	3873.5	3869.2	3890.8
10°	3736.5	3767.8	3805.6	3878.9	3855.2	3913.4	3873.5	3918.8	3914.5	3903.7	3923.2
12.5°	3811.0	3854.1	3899.4	3966.3	3956.6	3955.5	3919.9	3933.9	3922.1	3896.2	3912.4
15°	3923.2	3976.0	4038.6	4081.7	4024.6	4003.0	3946.9	3916.7	3875.7	3815.3	3825.0
17.5°	4097.9	4160.5	4227.3	4234.9	4146.4	4090.3	3954.4	3846.6	3739.8	3658.9	3666.4
20°	4333.1	4390.2	4439.8	4404.2	4284.5	4159.4	3954.4	3784.0	3584.4	3435.6	3424.8
22.5°	4608.1	4625.4	4672.8	4585.5	4379.4	4204.7	3943.6	3690.2	3365.5	3167.0	3143.3
25°	4904.8	4902.6	4882.1	4700.9	4438.8	4179.9	3861.7	3529.4	3115.2	2908.1	2890.9
27.5°	5227.3	5200.3	5060.1	4798.0	4414.0	4090.3	3706.3	3258.7	2887.6	2709.6	2704.2
30°	5590.8	5519.6	5235.9	4807.7	4321.2	3913.4	3453.9	2985.8	2684.8	2526.3	2511.2
32.5°	6014.7	5875.6	5376.1	4776.4	4154.0	3643.8	3146.5	2771.1	2518.7	2345.0	2311.6
35°	6568.1	6324.3	5505.6	4673.9	3905.9	3323.4	2862.8	2580.2	2364.5	2186.5	2150.9
37.5°	7263.8	6905.7	5700.8	4524.0	3622.2	3037.6	2666.5	2454.0	2257.7	2047.3	2004.2
40°	8036.2	7589.6	5929.5	4378.4	3352.5	2825.1	2538.1	2394.7	2188.6	1957.8	1916.8
42.5°	8767.5	8277.8	6272.5	4189.6	3095.8	2654.6	2491.7	2377.4	2156.3	1919.0	1874.7
45°	9442.8	8882.9	6626.3	3999.7	2834.8	2515.5	2452.9	2326.7	2106.7	1873.7	1823.0
47.5°	9994.0	9359.7	6939.1	3803.4	2605.0	2406.5	2378.5	2229.6	2019.3	1800.3	1752.9
50°	10394.1	9725.4	7122.5	3621.1	2383.9	2297.6	2248.0	2091.6	1896.3	1714.0	1679.5
52.5°	10677.8	10041.4	7214.2	3600.6	2183.2	2150.9	2095.9	1949.2	1792.8	1651.5	1610.5
55°	10896.8	10214.0	7135.5	3480.9	1993.4	1966.4	1909.3	1818.7	1724.8	1593.2	1566.2
57.5°	11015.5	10292.8	6955.3	2936.2	1791.7	1745.3	1737.8	1718.3	1636.4	1505.8	1485.3
60°	11041.4	10167.6	6547.6	2232.9	1580.3	1550.1	1607.2	1582.4	1509.1	1412.0	1382.9
62.5°	10940.0	9900.1	5774.2	1669.8	1404.4	1454.1	1512.3	1474.6	1389.3	1294.4	1276.1
65°	10574.3	9286.3	4653.4	1299.8	1323.5	1408.8	1460.5	1415.2	1311.7	1203.8	1191.9
67.5°	9859.1	8330.6	3063.4	1169.3	1285.8	1371.0	1429.2	1357.0	1252.3	1135.8	1121.8
70°	8518.3	6585.3	1459.5	1090.5	1213.5	1297.7	1344.0	1262.1	1160.7	1046.3	1031.2
72.5°	6578.9	4475.4	805.8	1004.2	1124.0	1201.6	1235.1	1138.0	1044.2	996.7	992.4
75°	3959.8	1923.3	728.1	919.0	1008.6	1080.8	1140.2	1066.8	984.8	892.1	868.3
77.5°	1307.4	558.8	685.0	817.6	919.0	1006.4	1034.5	963.3	860.8	782.0	775.6
80°	458.4	468.1	638.6	680.6	800.4	873.7	905.0	823.0	774.5	692.5	676.3
82.5°	373.2	419.6	515.6	513.5	632.1	718.4	765.9	745.4	681.7	615.9	609.5
85°	305.3	384.0	326.8	359.2	453.0	546.9	637.5	639.7	591.1	524.2	480.0
87.5°	181.2	196.3	162.9	183.4	239.5	307.4	356.0	339.8	278.3	235.2	229.8
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)