

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: P591298

Luminaire Tested: **CTN-CA10-210-730-U-T4-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591298
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-CA10-210-730-U-T4-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D 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: 21738 lumens
Efficiency: N/A
Efficacy: 102.1 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

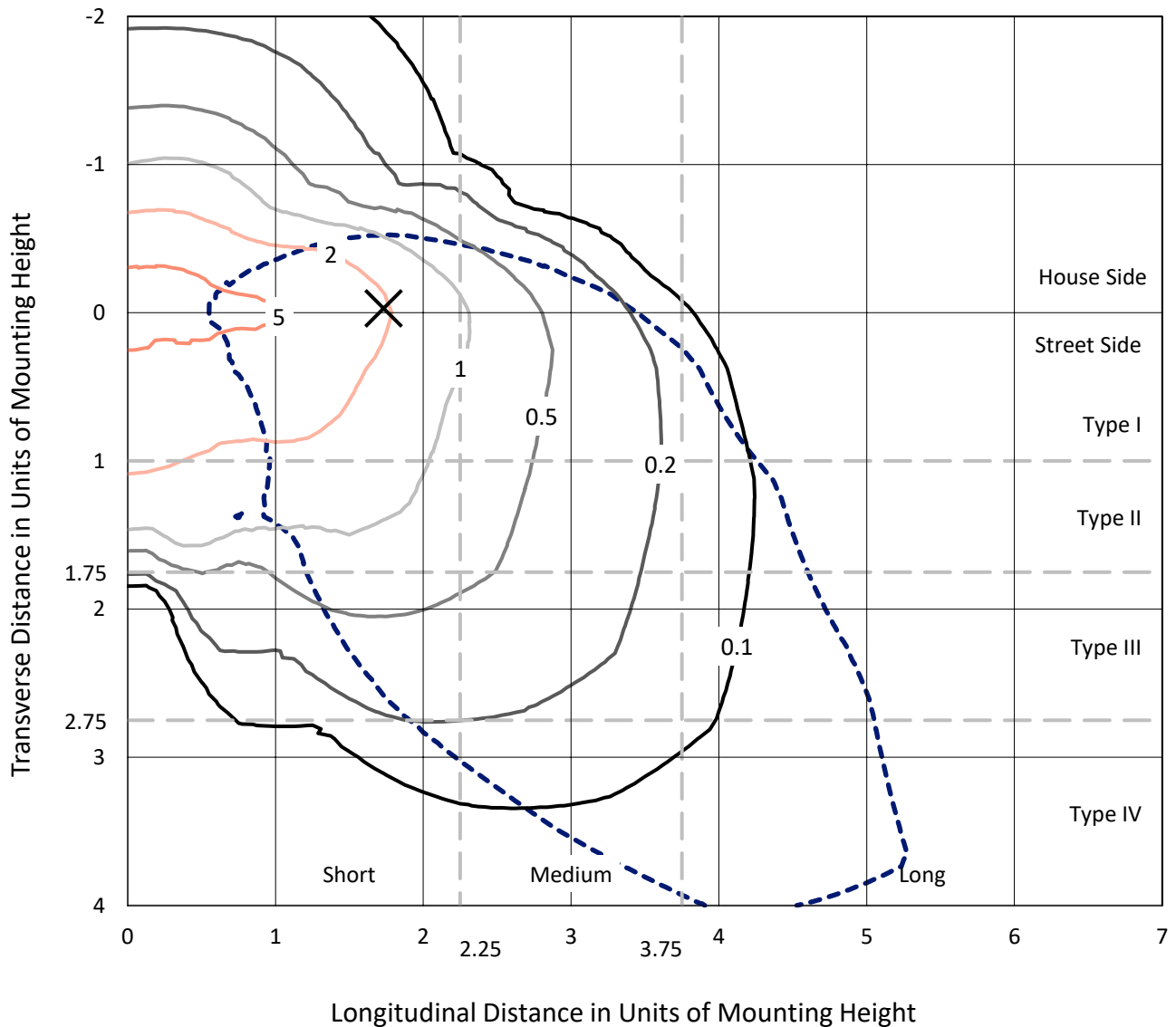
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

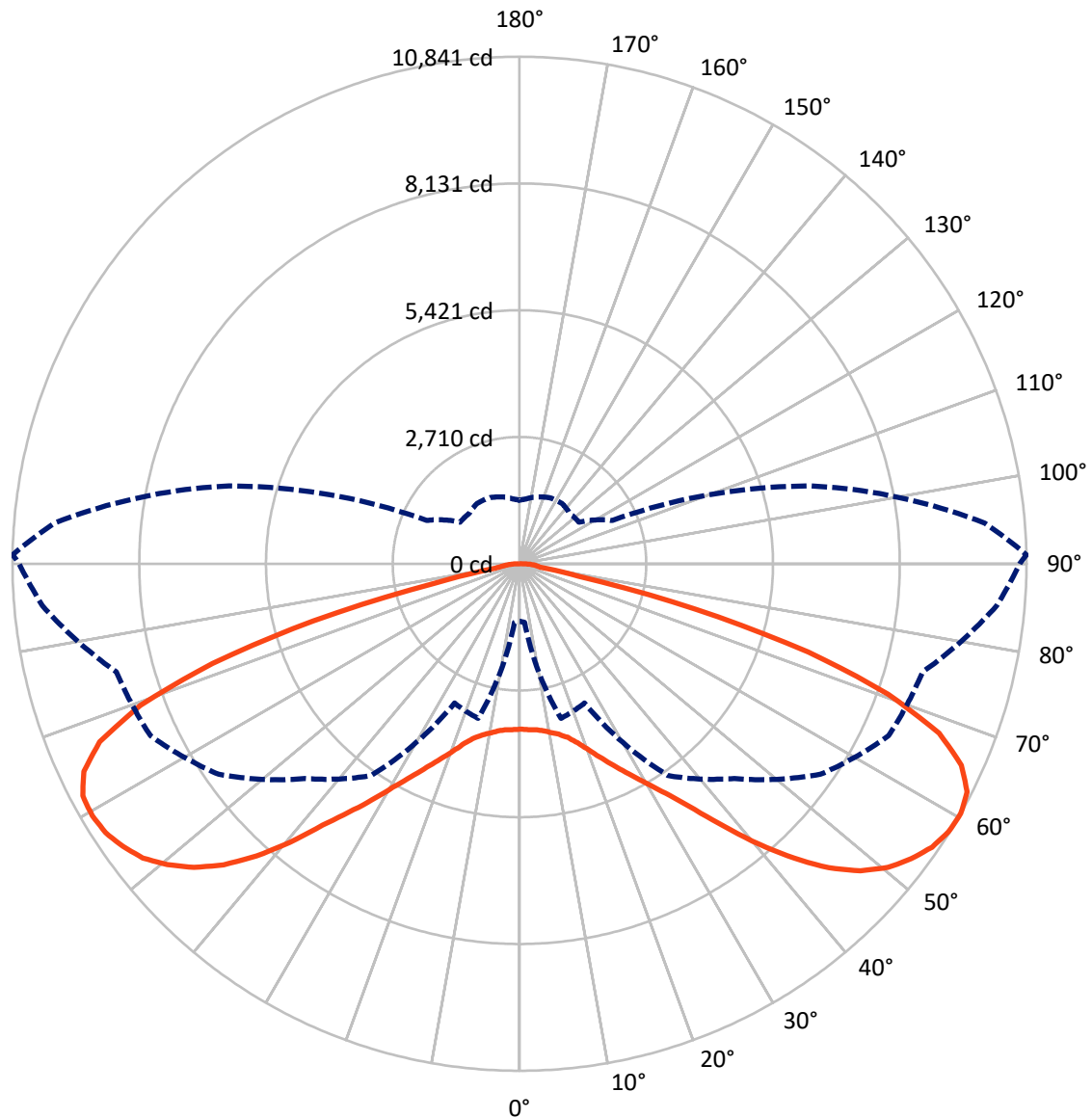
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 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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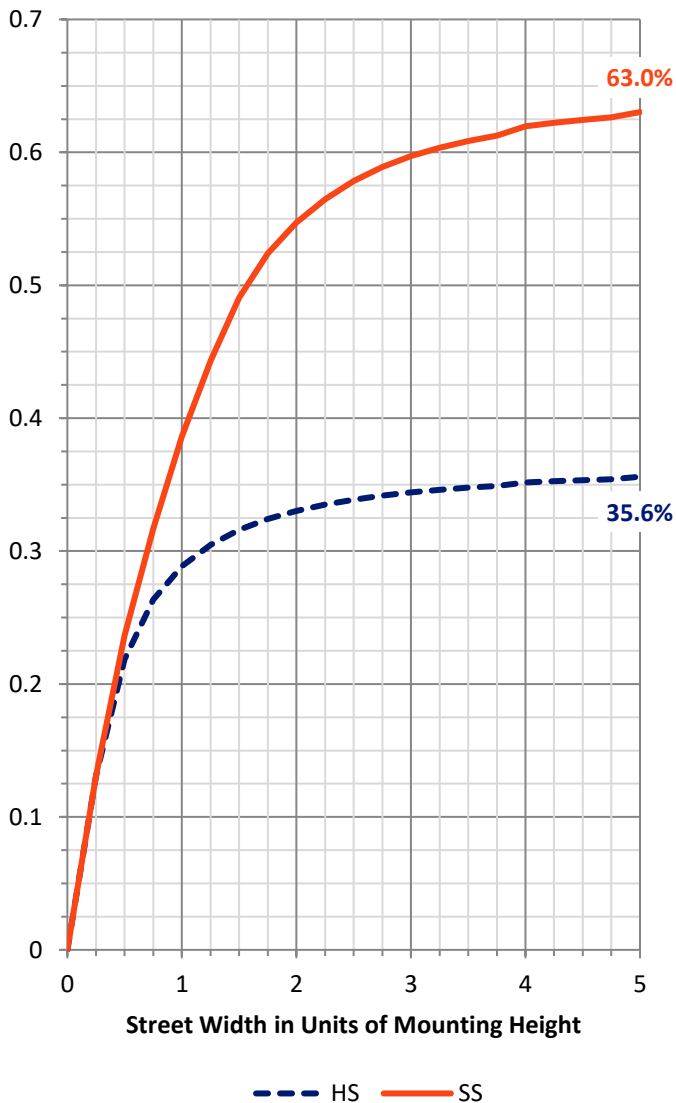
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7894.4	0.0	7894.4
	% Fixture	36.3	0.0	36.3
Street Side	Lumens	13843.6	0.0	13843.6
	% Fixture	63.7	0.0	63.7
Total	Lumens	21738.0	0.0	21738.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	344.7	1.6
10°-20°	1057.2	4.9
20°-30°	1732.9	8.0
30°-40°	2447.4	11.3
40°-50°	3445.3	15.8
50°-60°	4335.2	19.9
60°-70°	4363.7	20.1
70°-80°	3210.3	14.8
80°-90°	801.4	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°	21738.0	100.0
0°-180°	21738.0	100.0



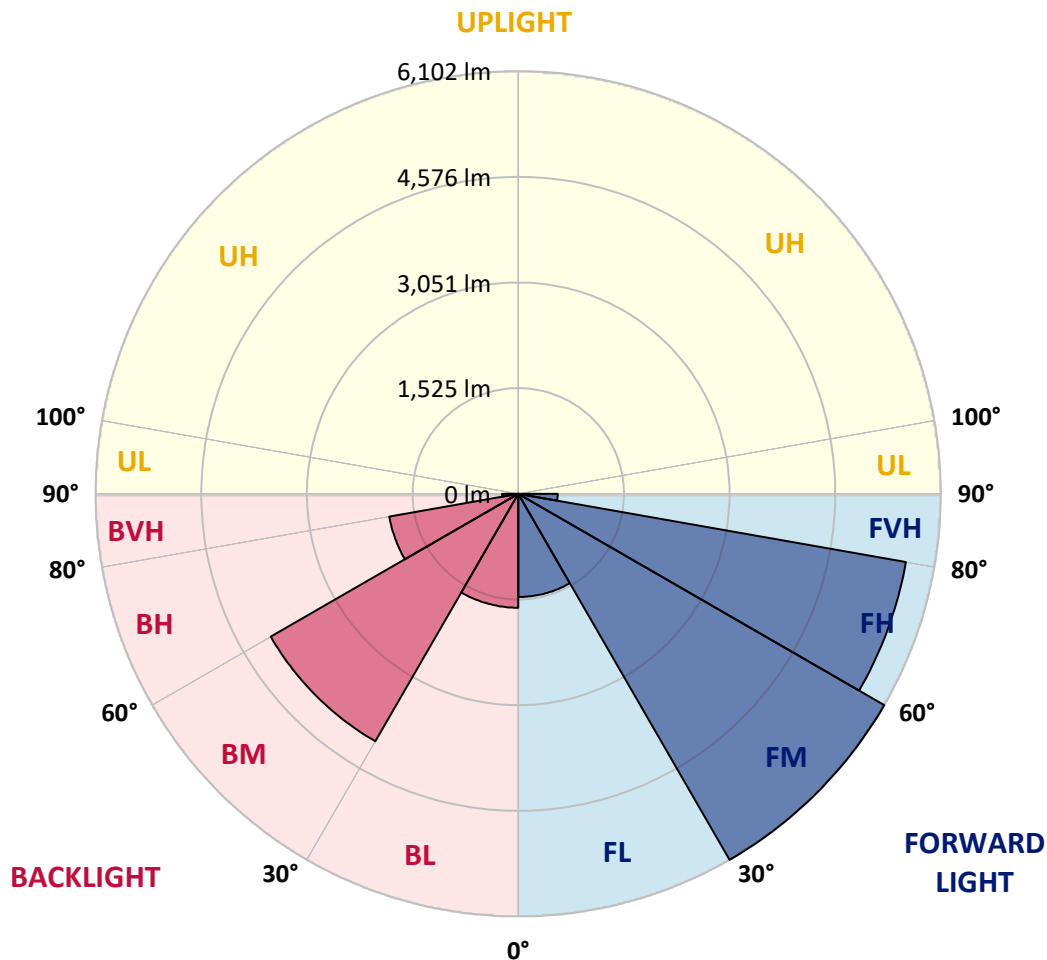
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1489.3	6.9			
FM	(30°-60°)	6101.8	28.1			
FH	(60°-80°)	5683.2	26.1			G3/7500
FVH	(80°-90°)	569.2	2.6			G4/750
BL	(0°-30°)	1645.5	7.6	B3/2500		
BM	(30°-60°)	4126.1	19.0	B3/5000		
BH	(60°-80°)	1890.7	8.7	B3/2500		G3/2500
BVH	(80°-90°)	232.2	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°	3535.4	3535.4	3535.4	3535.4	3535.4	3535.4	3535.4	3535.4	3535.4	3535.4	3535.4
2.5°	3500.5	3478.2	3479.3	3512.1	3462.3	3494.1	3486.7	3537.5	3528.0	3546.0	3550.2
5°	3476.1	3458.1	3458.1	3497.3	3463.4	3490.9	3467.6	3512.1	3528.0	3554.5	3559.8
7.5°	3485.6	3466.6	3474.0	3507.9	3469.7	3498.3	3496.2	3535.4	3544.9	3589.4	3595.8
10°	3502.6	3485.6	3487.8	3516.3	3490.9	3543.9	3534.4	3590.5	3589.4	3659.3	3664.6
12.5°	3472.9	3460.2	3460.2	3498.3	3513.2	3569.3	3588.4	3646.6	3653.0	3731.4	3737.7
15°	3426.3	3405.1	3436.9	3494.1	3524.8	3612.7	3645.6	3737.7	3754.7	3828.8	3844.7
17.5°	3328.9	3338.4	3427.4	3387.1	3247.3	3377.6	3738.8	3856.3	3893.4	3981.3	4019.4
20°	3027.0	2909.5	2676.4	2740.0	3028.1	3399.8	3869.0	4006.7	4088.3	4192.1	4256.7
22.5°	2286.7	2360.8	2796.1	2841.7	2854.4	3102.2	4051.2	4191.0	4299.1	4430.4	4516.2
25°	2371.4	2364.0	2513.3	2980.4	2993.1	3135.1	3814.0	4431.4	4528.9	4711.1	4796.8
27.5°	2449.8	2449.8	2441.3	2814.1	3137.2	3277.0	3937.9	4254.6	4830.7	5028.8	5129.4
30°	2580.1	2584.3	2536.6	2535.6	3255.8	3407.3	4177.3	4334.0	5097.6	5472.6	5495.9
32.5°	2838.5	2823.7	2764.4	2673.3	2816.3	3558.7	4411.3	4621.0	4840.3	5971.4	5950.3
35°	3024.9	3013.3	2970.9	2907.3	2841.7	3627.6	4630.6	4921.8	5280.9	6118.7	6525.4
37.5°	3250.5	3231.4	3183.8	3108.6	3066.2	3131.9	4856.2	5261.8	5831.6	6293.4	7174.6
40°	3497.3	3492.0	3418.9	3321.5	3263.2	3311.9	5028.8	5685.5	6514.8	7035.9	7890.6
42.5°	3686.9	3682.6	3622.3	3566.1	3538.6	3637.1	4599.8	6246.8	7296.4	7710.5	8580.1
45°	3857.4	3851.0	3848.9	3829.9	3852.1	4091.5	5070.1	6593.2	8064.3	8291.0	9207.1
47.5°	3986.6	3967.5	3913.5	3918.8	3981.3	4384.8	5559.4	6071.0	8687.1	8802.5	9696.4
50°	4293.8	4274.7	4088.3	4094.6	4215.4	4749.2	5981.0	6675.8	8107.7	9245.2	10071.4
52.5°	4568.1	4410.3	4308.6	4312.8	4478.0	5136.8	6459.7	7301.7	7970.0	9595.8	10374.3
55°	3945.3	3843.6	4832.9	4695.2	4786.3	5559.4	6924.7	7844.0	8348.1	9863.8	10548.0
57.5°	2315.3	2302.6	5319.0	5438.7	5332.8	6015.9	7394.9	8295.2	8679.7	10113.7	10664.5
60°	1228.6	1258.3	3421.0	3287.6	5527.7	6492.5	7850.4	8705.1	8925.4	10242.9	10696.3
62.5°	113.3	100.6	2248.6	2554.6	4954.7	7115.3	8390.5	9122.4	9091.7	10311.8	10640.1
65°	22.2	29.7	2206.2	2523.9	5505.4	8148.0	9272.8	9443.3	9181.7	10229.2	10345.7
67.5°	16.9	25.4	2084.4	2496.4	5843.3	8545.1	10288.5	9556.6	9187.0	9965.5	9697.5
70°	16.9	26.5	1839.7	2333.3	6003.2	8562.1	10528.9	9512.1	9068.4	9368.1	8476.3
72.5°	16.9	26.5	1545.3	2021.9	5731.0	8194.6	10107.4	9265.4	8626.7	8066.4	6611.2
75°	16.9	24.4	1212.7	1642.7	4953.6	7627.9	9384.0	8191.4	7261.5	5902.6	4241.9
77.5°	16.9	23.3	893.9	1285.8	4133.8	6727.7	8160.7	6733.0	5473.6	3090.6	1561.2
80°	15.9	23.3	544.4	906.6	3184.8	5427.0	6413.1	4974.8	2876.6	777.4	451.2
82.5°	15.9	22.2	259.5	580.4	2238.0	3877.5	4184.7	2131.0	612.2	359.0	359.0
85°	13.8	20.1	138.7	315.6	1462.7	2541.9	2018.7	361.2	239.4	242.5	276.4
87.5°	8.5	10.6	65.7	141.9	843.1	1358.9	777.4	132.4	99.6	104.9	156.8
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):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3535.4	3535.4	3535.4	3535.4	3535.4	3535.4	3535.4	3535.4	3535.4	3535.4	3535.4
2.5°	3553.4	3548.1	3559.8	3596.8	3590.5	3617.0	3595.8	3632.9	3640.3	3629.7	3646.6
5°	3565.1	3572.5	3611.7	3646.6	3627.6	3669.9	3681.6	3733.5	3732.4	3722.9	3744.1
7.5°	3603.2	3623.3	3662.5	3705.9	3715.5	3749.4	3745.1	3810.8	3803.4	3799.1	3820.3
10°	3668.9	3699.6	3736.6	3808.7	3785.4	3842.6	3803.4	3847.9	3843.6	3833.0	3852.1
12.5°	3741.9	3784.3	3828.8	3894.5	3884.9	3883.9	3848.9	3862.7	3851.0	3825.6	3841.5
15°	3852.1	3904.0	3965.4	4007.8	3951.7	3930.5	3875.4	3845.7	3805.5	3746.2	3755.7
17.5°	4023.7	4085.1	4150.8	4158.2	4071.3	4016.3	3882.8	3776.9	3672.0	3592.6	3600.0
20°	4254.6	4310.7	4359.4	4324.5	4206.9	4084.0	3882.8	3715.5	3519.5	3373.4	3362.8
22.5°	4524.6	4541.6	4588.2	4502.4	4300.1	4128.5	3872.2	3623.3	3304.5	3109.6	3086.3
25°	4815.9	4813.8	4793.7	4615.7	4358.4	4104.2	3791.7	3465.5	3058.8	2855.4	2838.5
27.5°	5132.6	5106.1	4968.4	4711.1	4334.0	4016.3	3639.2	3199.7	2835.3	2660.6	2655.3
30°	5489.5	5419.6	5141.1	4720.6	4242.9	3842.6	3391.4	2931.7	2636.2	2480.5	2465.7
32.5°	5905.8	5769.1	5278.8	4689.9	4078.8	3577.8	3089.5	2720.9	2473.1	2302.6	2269.7
35°	6449.1	6209.7	5405.9	4589.3	3835.1	3263.2	2811.0	2533.5	2321.6	2146.9	2111.9
37.5°	7132.3	6780.6	5597.6	4442.0	3556.6	2982.5	2618.2	2409.5	2216.8	2010.2	1967.9
40°	7890.6	7452.1	5822.1	4299.1	3291.8	2773.9	2492.2	2351.3	2149.0	1922.3	1882.1
42.5°	8608.7	8127.8	6158.9	4113.7	3039.7	2606.5	2446.6	2334.3	2117.2	1884.2	1840.8
45°	9271.7	8722.0	6506.3	3927.3	2783.4	2469.9	2408.5	2284.6	2068.5	1839.7	1789.9
47.5°	9812.9	9190.2	6813.5	3734.5	2557.8	2362.9	2335.4	2189.2	1982.7	1767.7	1721.1
50°	10205.9	9549.2	6993.5	3555.5	2340.7	2256.0	2207.2	2053.7	1862.0	1683.0	1649.1
52.5°	10484.4	9859.5	7083.5	3535.4	2143.7	2111.9	2057.9	1913.9	1760.3	1621.5	1581.3
55°	10699.4	10029.0	7006.2	3417.8	1957.3	1930.8	1874.7	1785.7	1693.6	1564.4	1537.9
57.5°	10815.9	10106.3	6829.3	2883.0	1759.2	1713.7	1706.3	1687.2	1606.7	1478.6	1458.4
60°	10841.4	9983.5	6429.0	2192.4	1551.6	1522.0	1578.1	1553.8	1481.7	1386.4	1357.8
62.5°	10741.8	9720.8	5669.6	1639.5	1379.0	1427.7	1484.9	1447.8	1364.2	1271.0	1253.0
65°	10382.8	9118.1	4569.1	1276.3	1299.6	1383.2	1434.1	1389.6	1287.9	1182.0	1170.4
67.5°	9680.5	8179.7	3008.0	1148.1	1262.5	1346.2	1403.4	1332.4	1229.7	1115.3	1101.5
70°	8364.0	6466.1	1433.0	1070.8	1191.5	1274.1	1319.7	1239.2	1139.6	1027.4	1012.5
72.5°	6459.7	4394.4	791.2	986.1	1103.6	1179.9	1212.7	1117.4	1025.2	978.6	974.4
75°	3888.1	1888.4	714.9	902.4	990.3	1061.3	1119.5	1047.5	967.0	875.9	852.6
77.5°	1283.7	548.6	672.6	802.8	902.4	988.2	1015.7	945.8	845.2	767.9	761.5
80°	450.1	459.7	627.0	668.3	785.9	857.9	888.6	808.1	760.5	680.0	664.1
82.5°	366.5	412.0	506.3	504.2	620.7	705.4	752.0	731.9	669.4	604.8	598.4
85°	299.7	377.1	320.9	352.7	444.8	537.0	626.0	628.1	580.4	514.7	471.3
87.5°	177.9	192.8	159.9	180.1	235.1	301.9	349.5	333.6	273.3	230.9	225.6
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)