

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: P591454

Luminaire Tested: **CTN-CA8-230-740-U-T4-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591454
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-CA8-230-740-U-T4-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22738 lumens
Efficiency: N/A
Efficacy: 99.6 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

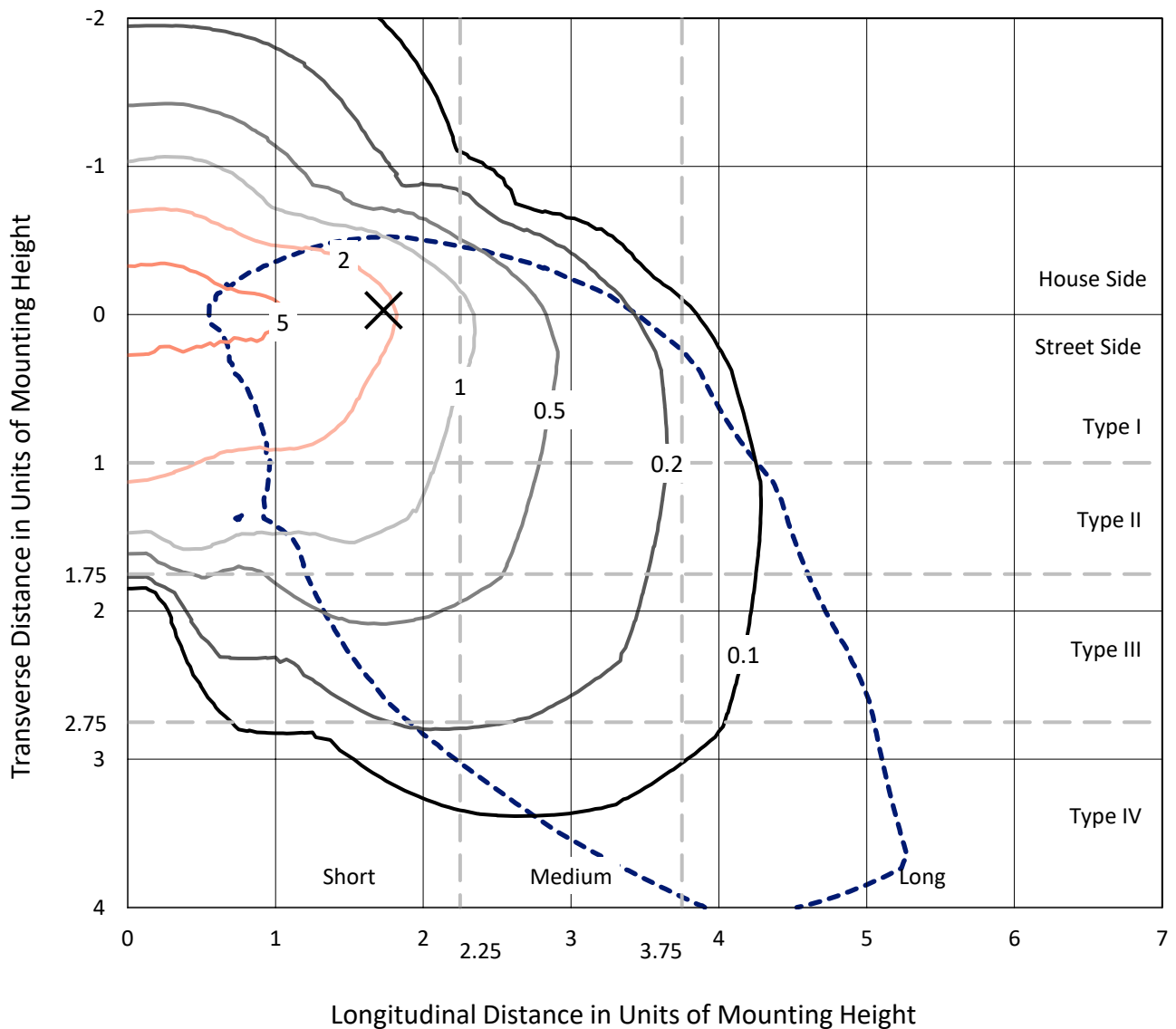
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

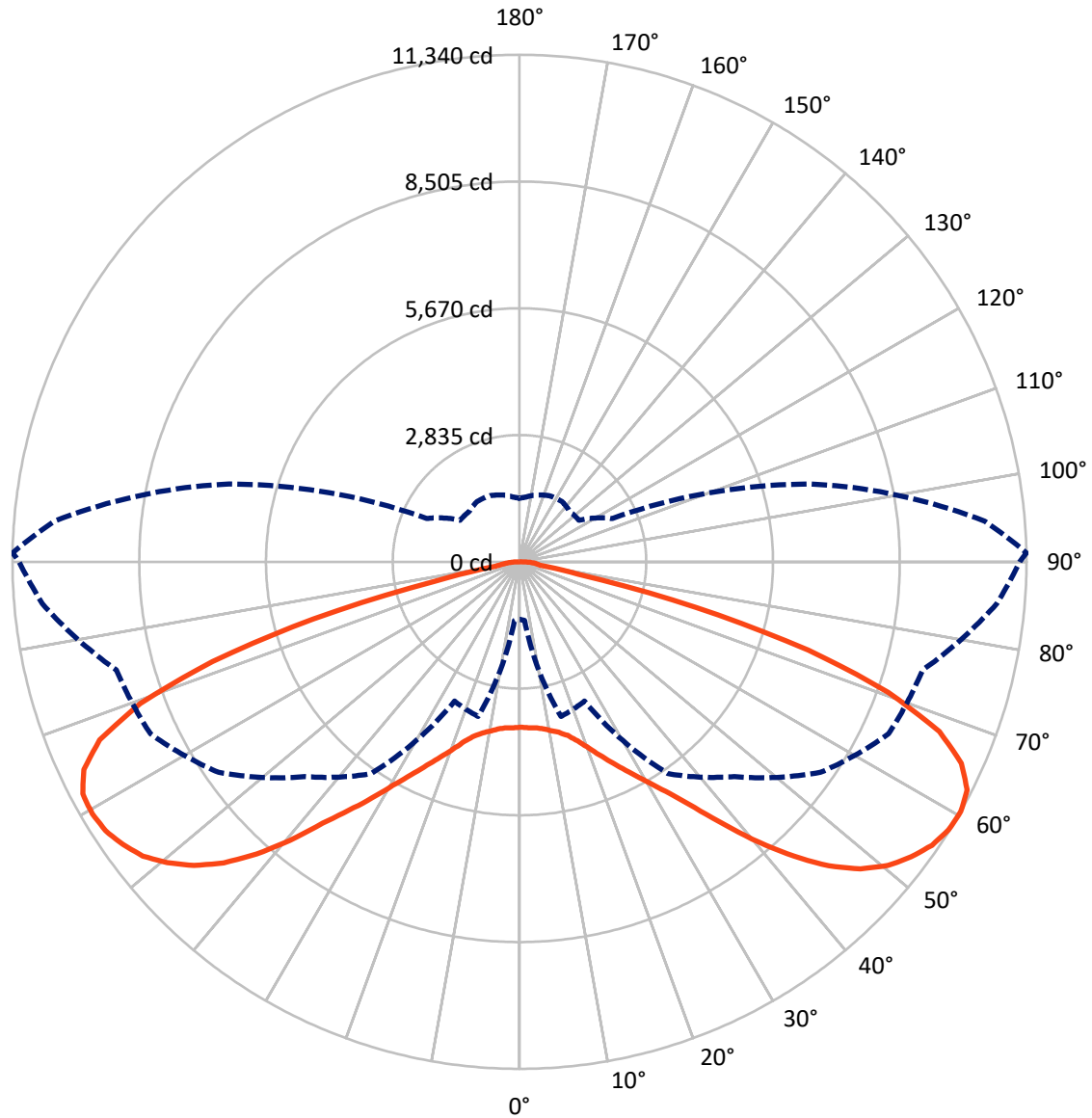
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.2 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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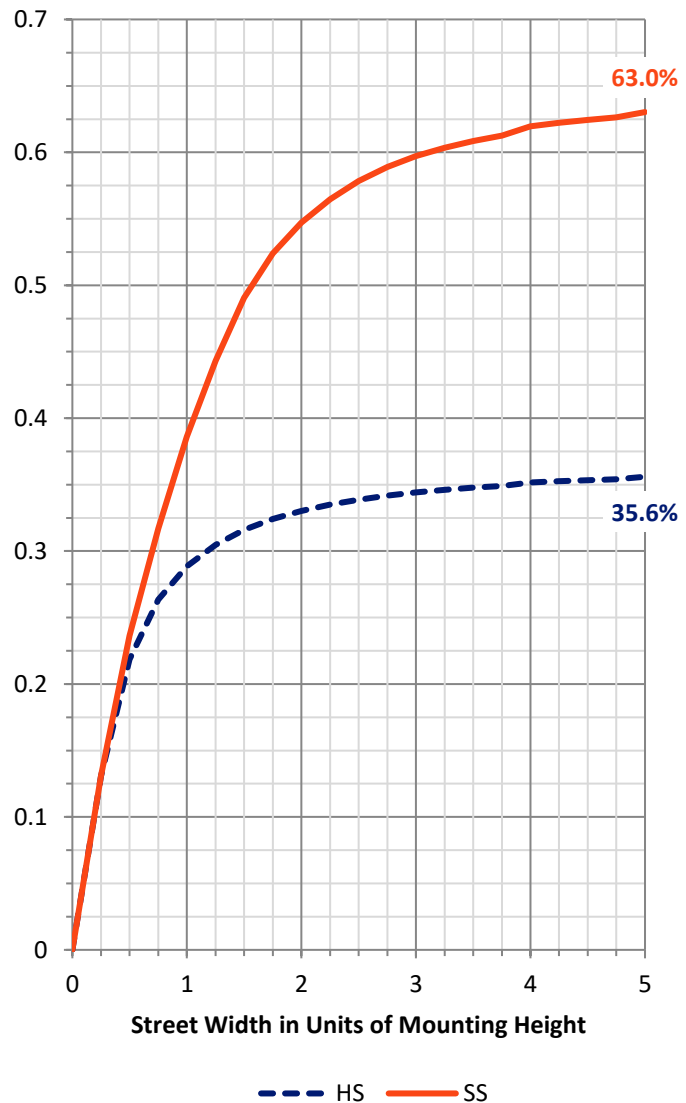
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8257.6	0.0	8257.6
	% Fixture	36.3	0.0	36.3
Street Side	Lumens	14480.4	0.0	14480.4
	% Fixture	63.7	0.0	63.7
Total	Lumens	22738.0	0.0	22738.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	360.6	1.6
10°-20°	1105.8	4.9
20°-30°	1812.6	8.0
30°-40°	2560.0	11.3
40°-50°	3603.8	15.8
50°-60°	4534.6	19.9
60°-70°	4564.4	20.1
70°-80°	3357.9	14.8
80°-90°	838.3	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°	22738.0	100.0
0°-180°	22738.0	100.0

Coefficient of Utilization

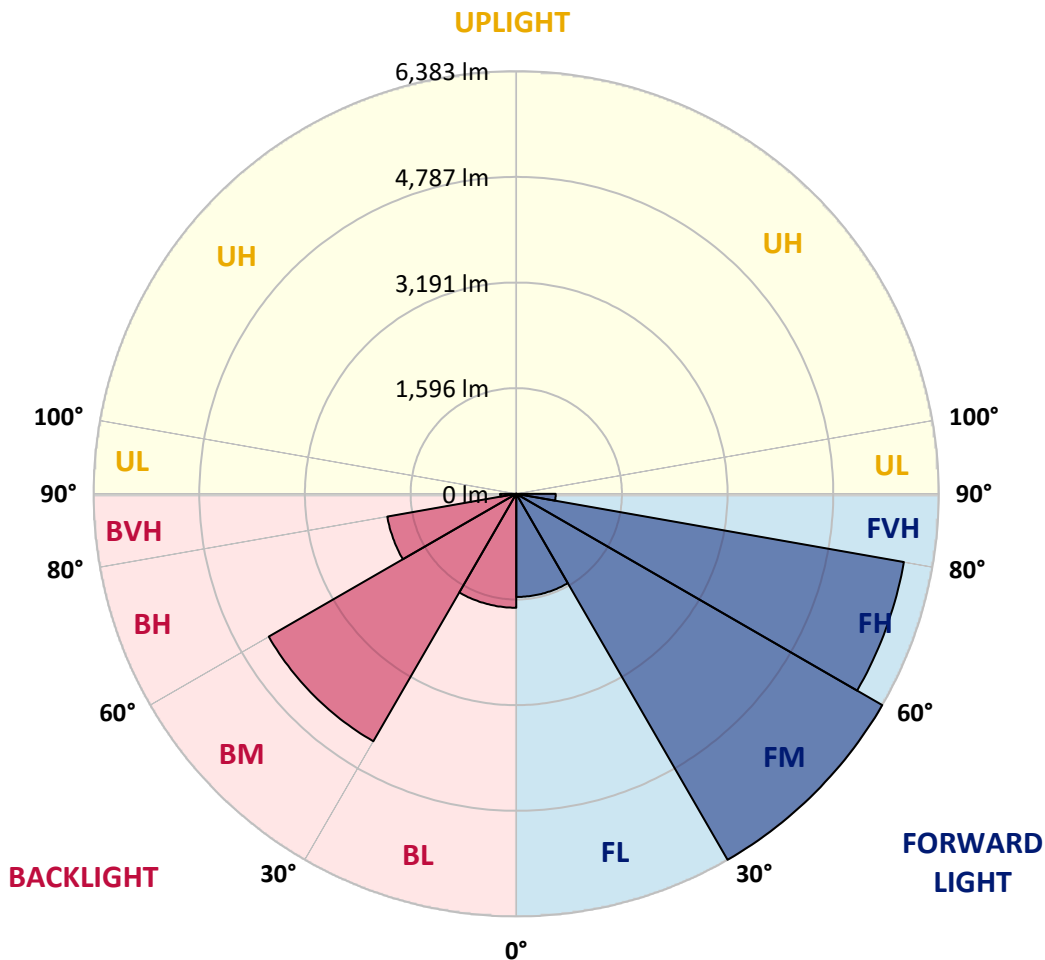


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1557.8	6.9			
FM	(30°-60°)	6382.5	28.1			
FH	(60°-80°)	5944.7	26.1			G3/7500
FVH	(80°-90°)	595.4	2.6			G4/750
BL	(0°-30°)	1721.2	7.6	B3/2500		
BM	(30°-60°)	4315.9	19.0	B3/5000		
BH	(60°-80°)	1977.7	8.7	B3/2500		G3/2500
BVH	(80°-90°)	242.9	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°	3698.0	3698.0	3698.0	3698.0	3698.0	3698.0	3698.0	3698.0	3698.0	3698.0	3698.0
2.5°	3661.5	3638.2	3639.3	3673.7	3621.6	3654.8	3647.1	3700.3	3690.3	3709.1	3713.6
5°	3636.0	3617.2	3617.2	3658.2	3622.7	3651.5	3627.1	3673.7	3690.3	3718.0	3723.5
7.5°	3646.0	3626.0	3633.8	3669.2	3629.4	3659.3	3657.1	3698.0	3708.0	3754.6	3761.2
10°	3663.7	3646.0	3648.2	3678.1	3651.5	3706.9	3696.9	3755.7	3754.6	3827.7	3833.2
12.5°	3632.7	3619.4	3619.4	3659.3	3674.8	3733.5	3753.4	3814.4	3821.0	3903.0	3909.7
15°	3583.9	3561.8	3595.0	3654.8	3687.0	3778.9	3813.3	3909.7	3927.4	4004.9	4021.5
17.5°	3482.0	3492.0	3585.0	3542.9	3396.7	3533.0	3910.8	4033.7	4072.5	4164.5	4204.3
20°	3166.3	3043.3	2799.6	2866.0	3167.4	3556.2	4047.0	4191.0	4276.4	4384.9	4452.5
22.5°	2391.9	2469.4	2924.8	2972.4	2985.7	3244.9	4237.6	4383.8	4496.8	4634.2	4723.9
25°	2480.5	2472.8	2629.0	3117.5	3130.8	3279.3	3989.4	4635.3	4737.2	4927.8	5017.5
27.5°	2562.5	2562.5	2553.6	2943.6	3281.5	3427.7	4119.0	4450.3	5053.0	5260.1	5365.4
30°	2698.8	2703.2	2653.3	2652.2	3405.6	3564.0	4369.4	4533.4	5332.1	5724.3	5748.7
32.5°	2969.1	2953.6	2891.5	2796.2	2945.8	3722.4	4614.3	4833.6	5062.9	6246.1	6224.0
35°	3164.1	3151.9	3107.6	3041.1	2972.4	3794.4	4843.6	5148.2	5523.8	6400.1	6825.5
37.5°	3400.0	3380.1	3330.2	3251.6	3207.3	3276.0	5079.6	5503.9	6099.9	6582.9	7504.7
40°	3658.2	3652.6	3576.2	3474.3	3413.3	3464.3	5260.1	5947.0	6814.5	7359.5	8253.6
42.5°	3856.5	3852.0	3788.9	3730.2	3701.4	3804.4	4811.5	6534.2	7632.1	8065.2	8974.8
45°	4034.8	4028.2	4026.0	4006.0	4029.3	4279.7	5303.3	6896.5	8435.3	8672.4	9630.7
47.5°	4170.0	4150.1	4093.6	4099.1	4164.5	4586.6	5815.2	6350.3	9086.7	9207.5	10142.5
50°	4491.3	4471.3	4276.4	4283.0	4409.3	4967.7	6256.1	6982.9	8480.7	9670.5	10534.7
52.5°	4778.2	4613.1	4506.8	4511.2	4684.0	5373.1	6756.9	7637.6	8336.7	10037.2	10851.5
55°	4126.8	4020.4	5055.2	4911.2	5006.4	5815.2	7243.2	8204.8	8732.2	10317.5	11033.2
57.5°	2421.8	2408.5	5563.7	5688.9	5578.1	6292.7	7735.1	8676.8	9078.9	10579.0	11155.1
60°	1285.1	1316.1	3578.4	3438.8	5781.9	6791.2	8211.5	9105.5	9336.0	10714.2	11188.3
62.5°	118.5	105.2	2352.0	2672.2	5182.6	7442.6	8776.5	9542.0	9509.9	10786.2	11129.6
65°	23.3	31.0	2307.7	2640.0	5758.7	8522.8	9699.3	9877.7	9604.1	10699.7	10821.6
67.5°	17.7	26.6	2180.3	2611.2	6112.1	8938.2	10761.8	9996.3	9609.6	10423.9	10143.6
70°	17.7	27.7	1924.4	2440.6	6279.4	8956.0	11013.3	9949.7	9485.5	9799.1	8866.2
72.5°	17.7	27.7	1616.4	2114.9	5994.7	8571.5	10572.3	9691.6	9023.6	8437.5	6915.3
75°	17.7	25.5	1268.5	1718.3	5181.5	7978.8	9815.7	8568.2	7595.5	6174.1	4437.0
77.5°	17.7	24.4	935.0	1344.9	4324.0	7037.2	8536.1	7042.7	5725.4	3232.7	1633.0
80°	16.6	24.4	569.4	948.3	3331.3	5676.7	6708.1	5203.6	3009.0	813.2	471.9
82.5°	16.6	23.3	271.4	607.1	2340.9	4055.9	4377.2	2229.0	640.3	375.6	375.6
85°	14.4	21.0	145.1	330.1	1530.0	2658.9	2111.6	377.8	250.4	253.7	289.2
87.5°	8.9	11.1	68.7	148.5	881.9	1421.4	813.2	138.5	104.1	109.7	164.0
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):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3698.0	3698.0	3698.0	3698.0	3698.0	3698.0	3698.0	3698.0	3698.0	3698.0	3698.0
2.5°	3716.9	3711.3	3723.5	3762.3	3755.7	3783.4	3761.2	3800.0	3807.7	3796.6	3814.4
5°	3729.1	3736.8	3777.8	3814.4	3794.4	3838.7	3850.9	3905.2	3904.1	3894.1	3916.3
7.5°	3769.0	3790.0	3831.0	3876.4	3886.4	3921.8	3917.4	3986.1	3978.3	3973.9	3996.1
10°	3837.6	3869.8	3908.5	3983.9	3959.5	4019.3	3978.3	4024.9	4020.4	4009.4	4029.3
12.5°	3914.1	3958.4	4004.9	4073.6	4063.6	4062.5	4026.0	4040.4	4028.2	4001.6	4018.2
15°	4029.3	4083.6	4147.8	4192.2	4133.4	4111.3	4053.7	4022.7	3980.6	3918.5	3928.5
17.5°	4208.8	4273.0	4341.7	4349.5	4258.6	4201.0	4061.4	3950.6	3841.0	3757.9	3765.6
20°	4450.3	4509.0	4560.0	4523.4	4400.4	4271.9	4061.4	3886.4	3681.4	3528.5	3517.5
22.5°	4732.8	4750.5	4799.3	4709.5	4497.9	4318.5	4050.3	3790.0	3456.5	3252.7	3228.3
25°	5037.5	5035.2	5014.2	4828.1	4558.9	4293.0	3966.2	3624.9	3199.5	2986.8	2969.1
27.5°	5368.7	5341.0	5197.0	4927.8	4533.4	4201.0	3806.6	3346.9	2965.8	2783.0	2777.4
30°	5742.1	5668.9	5377.6	4937.7	4438.1	4019.3	3547.4	3066.6	2757.5	2594.6	2579.1
32.5°	6177.4	6034.5	5521.6	4905.6	4266.4	3742.4	3231.6	2846.1	2586.9	2408.5	2374.2
35°	6745.8	6495.4	5654.5	4800.4	4011.6	3413.3	2940.3	2650.0	2428.4	2245.6	2209.1
37.5°	7460.4	7092.5	5855.1	4646.4	3720.2	3119.7	2738.6	2520.4	2318.8	2102.7	2058.4
40°	8253.6	7794.9	6089.9	4496.8	3443.2	2901.5	2606.8	2459.5	2247.9	2010.8	1968.7
42.5°	9004.7	8501.7	6442.2	4302.9	3179.6	2726.5	2559.2	2441.7	2214.6	1970.9	1925.5
45°	9698.2	9123.3	6805.6	4108.0	2911.5	2583.5	2519.3	2389.7	2163.7	1924.4	1872.3
47.5°	10264.4	9612.9	7126.9	3906.3	2675.5	2471.6	2442.8	2290.0	2073.9	1849.0	1800.3
50°	10675.4	9988.5	7315.2	3719.1	2448.4	2359.7	2308.8	2148.1	1947.6	1760.4	1724.9
52.5°	10966.7	10313.1	7409.4	3698.0	2242.3	2209.1	2152.6	2001.9	1841.3	1696.1	1654.0
55°	11191.6	10490.4	7328.5	3575.1	2047.3	2019.6	1960.9	1867.9	1771.5	1636.3	1608.6
57.5°	11313.5	10571.2	7143.5	3015.6	1840.2	1792.5	1784.8	1764.8	1680.6	1546.6	1525.5
60°	11340.1	10442.7	6724.7	2293.3	1623.0	1592.0	1650.7	1625.2	1549.9	1450.2	1420.3
62.5°	11236.0	10168.0	5930.4	1715.0	1442.4	1493.4	1553.2	1514.4	1426.9	1329.4	1310.6
65°	10860.4	9537.6	4779.3	1335.0	1359.3	1446.9	1500.0	1453.5	1347.2	1236.4	1224.2
67.5°	10125.9	8556.0	3146.3	1200.9	1320.6	1408.1	1467.9	1393.7	1286.2	1166.6	1152.2
70°	8748.8	6763.5	1498.9	1120.1	1246.3	1332.8	1380.4	1296.2	1192.1	1074.6	1059.1
72.5°	6756.9	4596.5	827.6	1031.4	1154.4	1234.2	1268.5	1168.8	1072.4	1023.7	1019.2
75°	4067.0	1975.3	747.8	943.9	1035.9	1110.1	1171.0	1095.7	1011.5	916.2	891.8
77.5°	1342.7	573.9	703.5	839.8	943.9	1033.6	1062.4	989.3	884.1	803.2	796.6
80°	470.8	480.8	655.9	699.1	822.0	897.4	929.5	845.3	795.4	711.2	694.6
82.5°	383.3	431.0	529.6	527.3	649.2	737.8	786.6	765.5	700.2	632.6	625.9
85°	313.5	394.4	335.7	368.9	465.3	561.7	654.7	657.0	607.1	538.4	493.0
87.5°	186.1	201.6	167.3	188.3	245.9	315.7	365.6	349.0	285.8	241.5	236.0
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)