

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: P591130

Luminaire Tested: **CTN-CA10-630-722-U-T4-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591130
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-CA10-630-722-U-T4-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 47701 lumens
Efficiency: N/A
Efficacy: 75.5 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type IV - Short
BUG Rating: B5 - U0 - G5

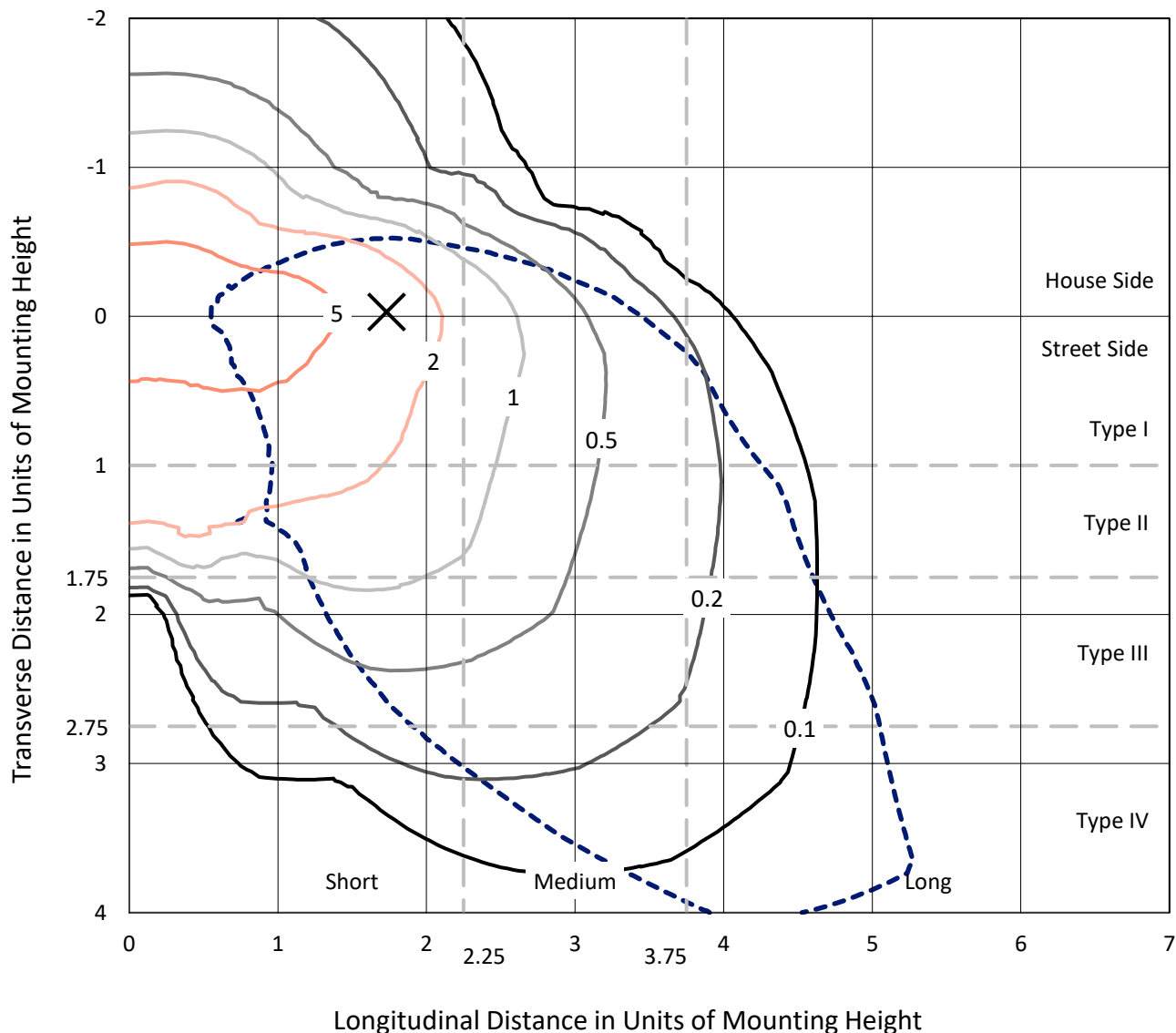
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

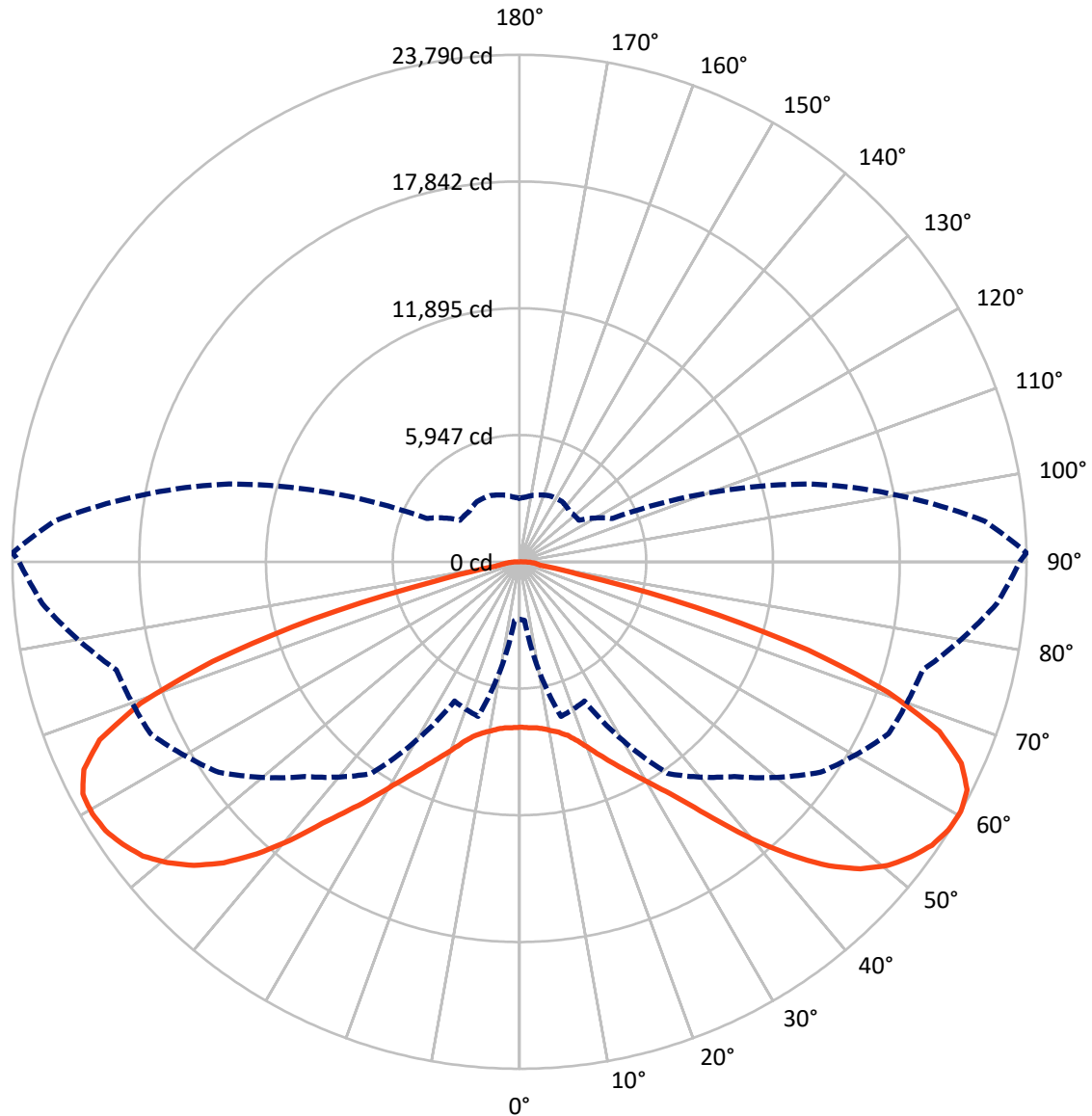
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.1 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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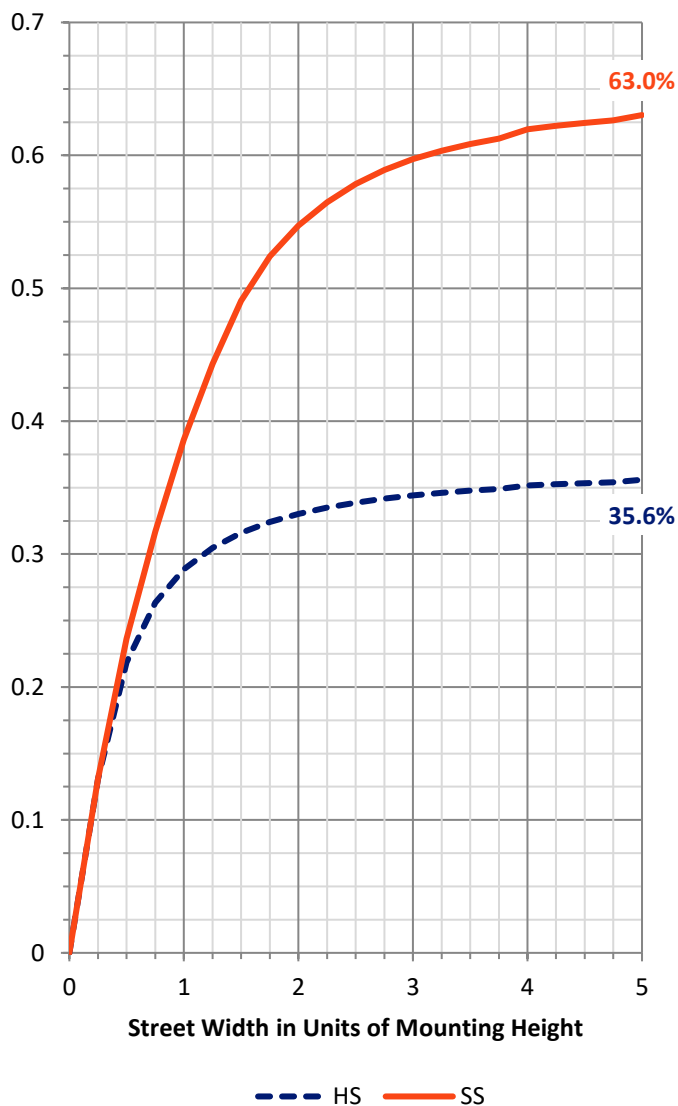
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	17323.2	0.0	17323.2
	% Fixture	36.3	0.0	36.3
Street Side	Lumens	30377.8	0.0	30377.8
	% Fixture	63.7	0.0	63.7
Total	Lumens	47701.0	0.0	47701.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	756.4	1.6
10°-20°	2319.8	4.9
20°-30°	3802.7	8.0
30°-40°	5370.6	11.3
40°-50°	7560.2	15.8
50°-60°	9513.0	19.9
60°-70°	9575.5	20.1
70°-80°	7044.5	14.8
80°-90°	1758.5	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°	47701.0	100.0
0°-180°	47701.0	100.0

Coefficient of Utilization

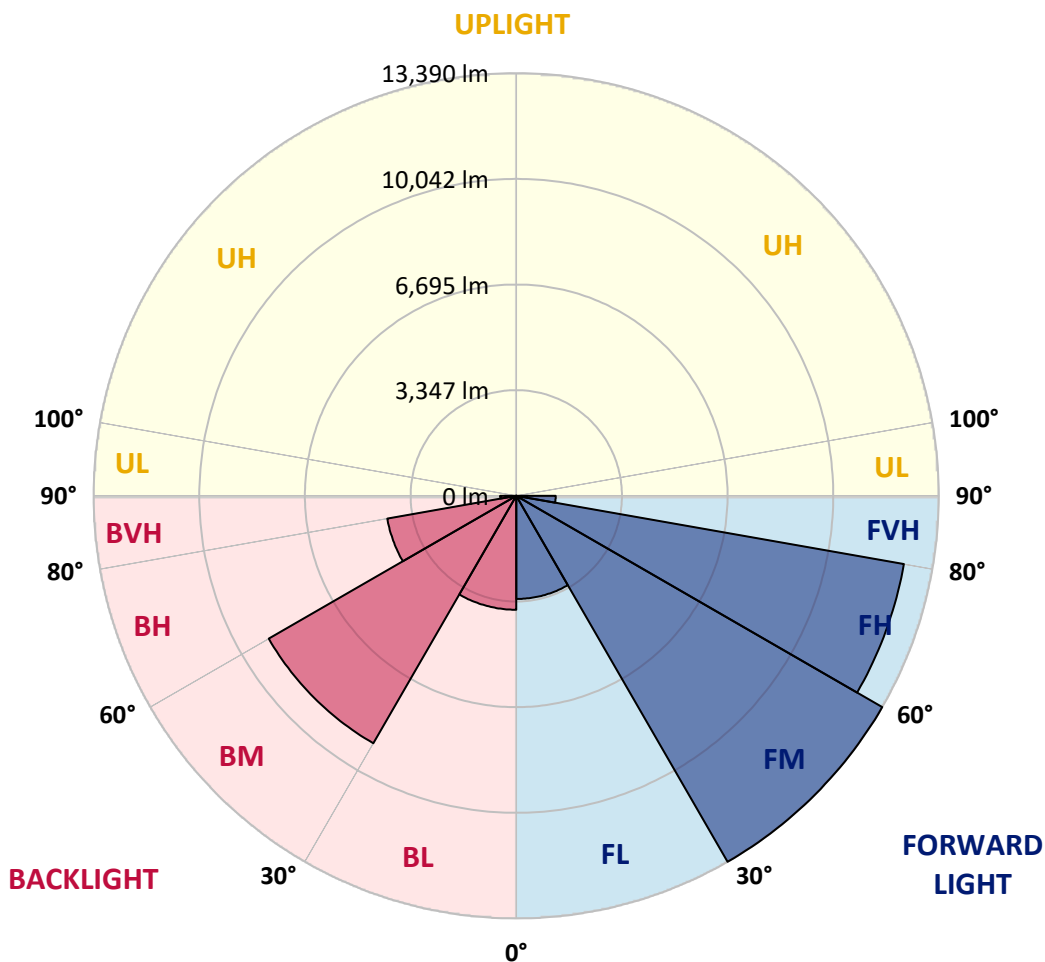


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3268.1	6.9			
FM	(30°-60°)	13389.6	28.1			
FH	(60°-80°)	12471.0	26.1			G5
FVH	(80°-90°)	1249.0	2.6			G5
BL	(0°-30°)	3610.8	7.6	B4/5000		
BM	(30°-60°)	9054.1	19.0	B5		
BH	(60°-80°)	4148.9	8.7	B4/5000		G4/5000
BVH	(80°-90°)	509.5	1.1			G4/750
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	7758.0	7758.0	7758.0	7758.0	7758.0	7758.0	7758.0	7758.0	7758.0	7758.0	7758.0
2.5°	7681.3	7632.5	7634.8	7706.8	7597.6	7667.3	7651.1	7762.6	7741.7	7781.2	7790.5
5°	7627.8	7588.3	7588.3	7674.3	7599.9	7660.4	7609.2	7706.8	7741.7	7799.8	7811.4
7.5°	7648.7	7606.9	7623.2	7697.5	7613.9	7676.6	7672.0	7758.0	7778.9	7876.5	7890.4
10°	7685.9	7648.7	7653.4	7716.1	7660.4	7776.6	7755.6	7878.8	7876.5	8029.9	8041.5
12.5°	7620.8	7593.0	7593.0	7676.6	7709.2	7832.3	7874.2	8002.0	8015.9	8187.9	8201.9
15°	7518.6	7472.1	7541.8	7667.3	7734.7	7927.6	7999.7	8201.9	8239.1	8401.8	8436.6
17.5°	7304.8	7325.7	7520.9	7432.6	7125.8	7411.7	8204.2	8462.2	8543.5	8736.4	8820.1
20°	6642.4	6384.4	5873.1	6012.5	6644.7	7460.5	8490.1	8792.2	8971.2	9198.9	9340.7
22.5°	5017.8	5180.5	6135.7	6235.7	6263.5	6807.4	8889.8	9196.6	9433.7	9721.9	9910.1
25°	5203.7	5187.5	5515.2	6540.1	6568.0	6879.4	8369.2	9724.2	9938.0	10337.8	10526.0
27.5°	5375.7	5375.7	5357.1	6175.2	6884.1	7190.9	8641.1	9336.1	10600.4	11035.0	11255.8
30°	5661.6	5670.9	5566.3	5564.0	7144.4	7476.7	9166.4	9510.4	11186.1	12008.8	12059.9
32.5°	6228.7	6196.1	6066.0	5866.1	6179.9	7809.1	9680.0	10140.2	10621.3	13103.5	13057.0
35°	6637.7	6612.2	6519.2	6379.8	6235.7	7960.2	10161.1	10800.3	11588.1	13426.5	14319.0
37.5°	7132.8	7090.9	6986.4	6821.3	6728.4	6872.5	10656.2	11546.3	12796.7	13810.0	15743.7
40°	7674.3	7662.7	7502.3	7288.5	7160.7	7267.6	11035.0	12476.0	14295.8	15439.2	17314.8
42.5°	8090.3	8081.0	7948.5	7825.4	7764.9	7981.1	10093.7	13707.8	16011.0	16919.7	18827.8
45°	8464.5	8450.6	8445.9	8404.1	8452.9	8978.1	11125.6	14467.7	17696.0	18193.3	20203.7
47.5°	8748.0	8706.2	8587.7	8599.3	8736.4	9621.9	12199.4	13321.9	19062.6	19315.9	21277.5
50°	9422.0	9380.2	8971.2	8985.1	9250.1	10421.4	13124.4	14649.0	17791.3	20287.4	22100.2
52.5°	10024.0	9677.7	9454.6	9463.9	9826.4	11272.1	14174.9	16022.6	17489.1	21056.7	22764.9
55°	8657.4	8434.3	10605.0	10302.9	10502.8	12199.4	15195.2	17212.6	18318.8	21644.7	23146.1
57.5°	5080.6	5052.7	11671.8	11934.4	11702.0	13201.1	16227.1	18202.6	19046.3	22193.2	23401.7
60°	2696.0	2761.1	7507.0	7214.1	12129.7	14247.0	17226.5	19102.1	19585.5	22476.7	23471.5
62.5°	248.7	220.8	4934.1	5605.8	10872.3	15613.5	18411.8	20017.8	19950.4	22627.8	23348.3
65°	48.8	65.1	4841.2	5538.4	12080.9	17879.6	20347.8	20722.0	20147.9	22446.5	22702.2
67.5°	37.2	55.8	4573.9	5478.0	12822.3	18751.1	22576.7	20970.7	20159.6	21867.8	21279.8
70°	37.2	58.1	4037.0	5120.1	13173.2	18788.3	23104.2	20873.1	19899.3	20557.0	18600.1
72.5°	37.2	58.1	3390.9	4436.8	12575.9	17981.8	22179.2	20331.5	18930.1	17700.6	14507.3
75°	37.2	53.5	2661.1	3604.7	10870.0	16738.4	20591.8	17974.9	15934.3	12952.4	9308.2
77.5°	37.2	51.1	1961.6	2821.5	9071.1	14762.9	17907.5	14774.5	12011.1	6781.8	3425.8
80°	34.9	51.1	1194.6	1989.5	6988.7	11908.9	14072.6	10916.5	6312.4	1705.9	990.1
82.5°	34.9	48.8	569.4	1273.6	4910.9	8508.7	9182.7	4676.2	1343.4	787.9	787.9
85°	30.2	44.2	304.5	692.6	3209.6	5577.9	4429.8	792.5	525.3	532.2	606.6
87.5°	18.6	23.2	144.1	311.4	1850.0	2981.9	1705.9	290.5	218.5	230.1	344.0
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°	7758.0	7758.0	7758.0	7758.0	7758.0	7758.0	7758.0	7758.0	7758.0	7758.0	7758.0
2.5°	7797.5	7785.9	7811.4	7892.8	7878.8	7936.9	7890.4	7971.8	7988.1	7964.8	8002.0
5°	7823.0	7839.3	7925.3	8002.0	7960.2	8053.1	8078.7	8192.6	8190.3	8169.3	8215.8
7.5°	7906.7	7950.9	8036.9	8132.2	8153.1	8227.4	8218.1	8362.2	8346.0	8336.7	8383.2
10°	8050.8	8118.2	8199.6	8357.6	8306.5	8432.0	8346.0	8443.6	8434.3	8411.0	8452.9
12.5°	8211.2	8304.1	8401.8	8545.8	8524.9	8522.6	8445.9	8476.1	8450.6	8394.8	8429.6
15°	8452.9	8566.8	8701.6	8794.5	8671.4	8624.9	8504.0	8438.9	8350.6	8220.5	8241.4
17.5°	8829.4	8964.2	9108.3	9124.6	8934.0	8813.1	8520.3	8287.9	8057.8	7883.5	7899.7
20°	9336.1	9459.2	9566.1	9489.4	9231.5	8961.9	8520.3	8153.1	7723.1	7402.4	7379.1
22.5°	9928.7	9965.9	10068.2	9879.9	9436.0	9059.5	8497.0	7950.9	7251.3	6823.7	6772.5
25°	10567.8	10563.2	10519.0	10128.6	9563.8	9006.0	8320.4	7604.6	6712.1	6265.9	6228.7
27.5°	11262.8	11204.7	10902.5	10337.8	9510.4	8813.1	7985.7	7021.2	6221.7	5838.2	5826.6
30°	12046.0	11892.6	11281.4	10358.7	9310.5	8432.0	7441.9	6433.2	5784.8	5443.1	5410.6
32.5°	12959.4	12659.6	11583.5	10291.3	8950.2	7850.9	6779.5	5970.7	5426.9	5052.7	4980.6
35°	14151.7	13626.4	11862.4	10070.5	8415.7	7160.7	6168.3	5559.3	5094.5	4711.0	4634.3
37.5°	15650.7	14879.1	12283.1	9747.4	7804.4	6544.8	5745.3	5287.4	4864.4	4411.2	4318.2
40°	17314.8	16352.6	12775.8	9433.7	7223.4	6086.9	5468.7	5159.6	4715.7	4218.3	4130.0
42.5°	18890.6	17835.4	13514.9	9026.9	6670.3	5719.7	5368.8	5122.4	4645.9	4134.6	4039.3
45°	20345.5	19139.3	14277.2	8617.9	6107.8	5419.9	5285.1	5013.2	4539.0	4037.0	3927.8
47.5°	21533.1	20166.5	14951.2	8194.9	5612.8	5185.1	5124.7	4804.0	4350.8	3879.0	3776.7
50°	22395.4	20954.4	15346.3	7802.1	5136.3	4950.4	4843.5	4506.5	4085.8	3693.1	3618.7
52.5°	23006.6	21635.4	15543.8	7758.0	4704.1	4634.3	4515.8	4199.7	3862.7	3558.3	3469.9
55°	23478.4	22007.2	15374.2	7500.0	4295.0	4236.9	4113.7	3918.5	3716.3	3432.7	3374.6
57.5°	23734.1	22176.9	14986.0	6326.3	3860.4	3760.5	3744.2	3702.3	3525.7	3244.5	3200.3
60°	23789.9	21907.3	14107.5	4811.0	3404.9	3339.8	3463.0	3409.5	3251.5	3042.3	2979.5
62.5°	23571.4	21330.9	12441.1	3597.8	3026.0	3132.9	3258.4	3177.1	2993.5	2789.0	2749.5
65°	22783.5	20008.5	10026.3	2800.6	2851.7	3035.3	3146.9	3049.3	2826.1	2593.7	2568.2
67.5°	21242.6	17949.3	6600.5	2519.4	2770.4	2954.0	3079.5	2923.8	2698.3	2447.3	2417.1
70°	18353.7	14188.9	3144.6	2349.7	2614.7	2795.9	2895.9	2719.2	2500.8	2254.4	2221.9
72.5°	14174.9	9642.8	1736.1	2163.8	2421.7	2589.1	2661.1	2452.0	2249.8	2147.5	2138.2
75°	8531.9	4143.9	1568.8	1980.2	2173.1	2328.8	2456.6	2298.6	2121.9	1922.1	1870.9
77.5°	2816.9	1203.9	1475.8	1761.7	1980.2	2168.4	2228.8	2075.5	1854.7	1685.0	1671.1
80°	987.8	1008.7	1375.9	1466.5	1724.5	1882.6	1950.0	1773.3	1668.7	1492.1	1457.2
82.5°	804.2	904.1	1110.9	1106.3	1361.9	1547.9	1650.1	1606.0	1468.9	1327.1	1313.1
85°	657.7	827.4	704.2	773.9	976.1	1178.3	1373.6	1378.2	1273.6	1129.5	1034.2
87.5°	390.5	423.0	350.9	395.1	516.0	662.4	767.0	732.1	599.6	506.7	495.0
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)