

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: P591118

Luminaire Tested: **CTN-CA10-310-722-U-T4-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591118
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-CA10-310-722-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: 25048 lumens
Efficiency: N/A
Efficacy: 80.2 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

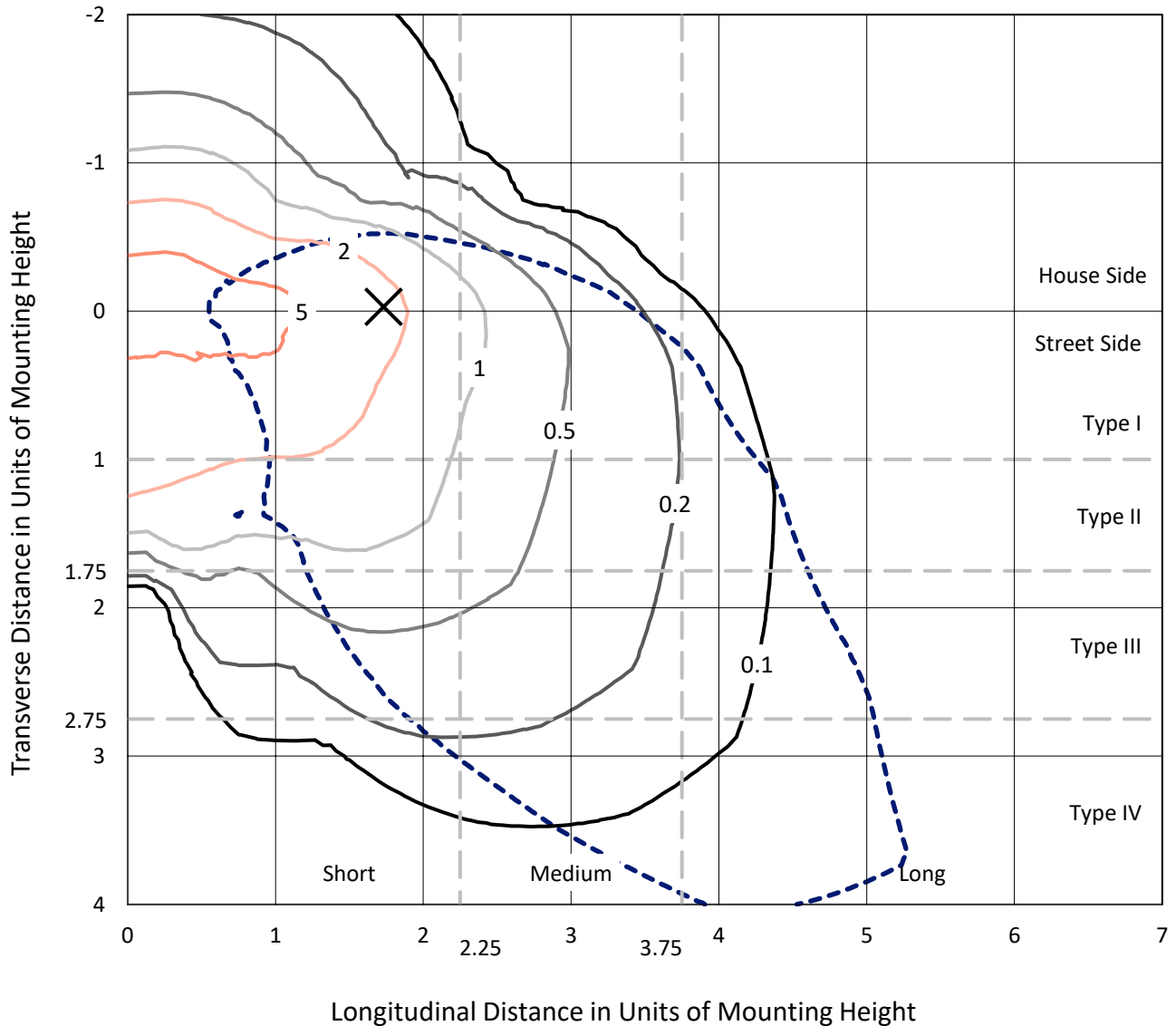
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

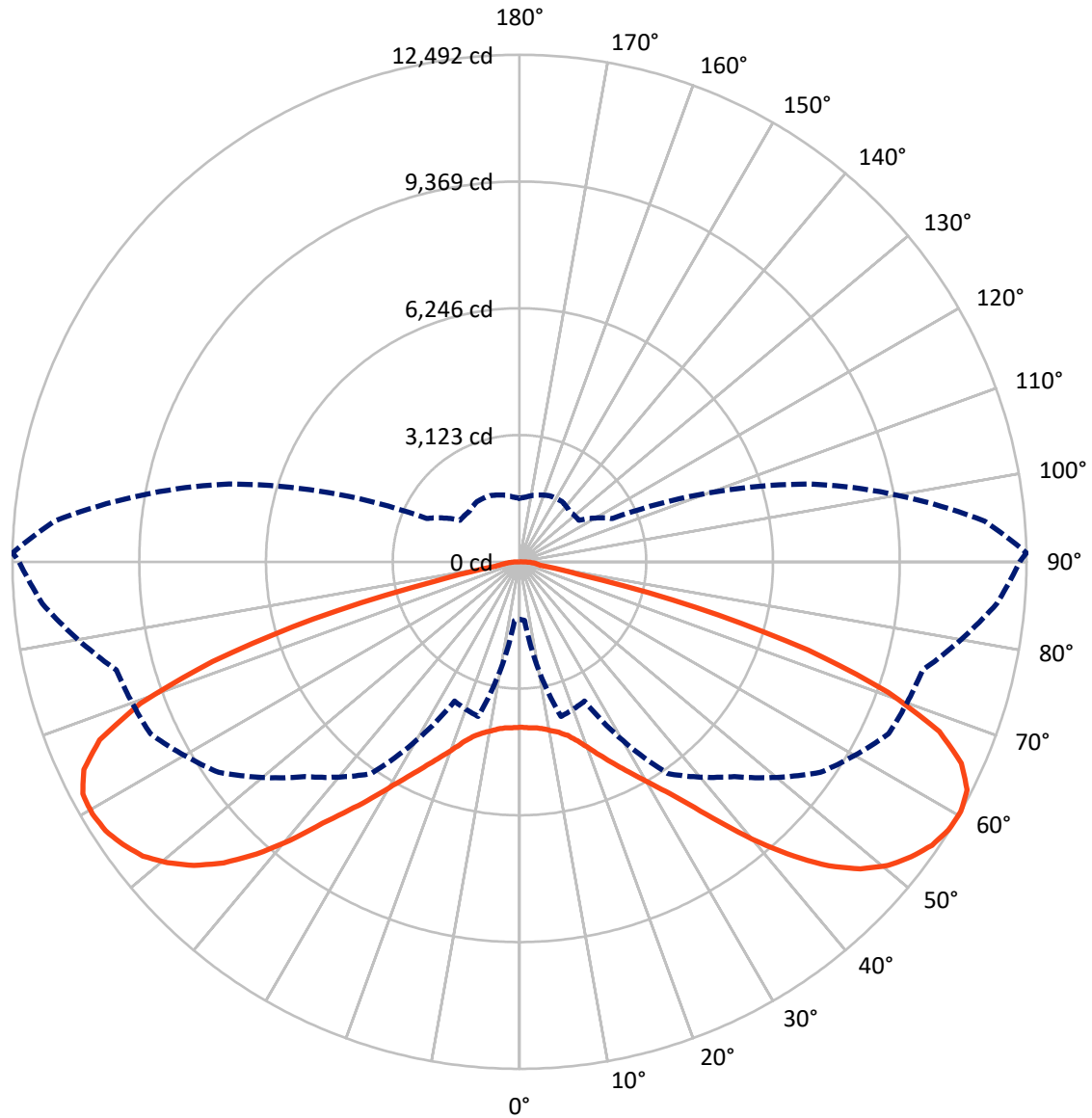
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.9 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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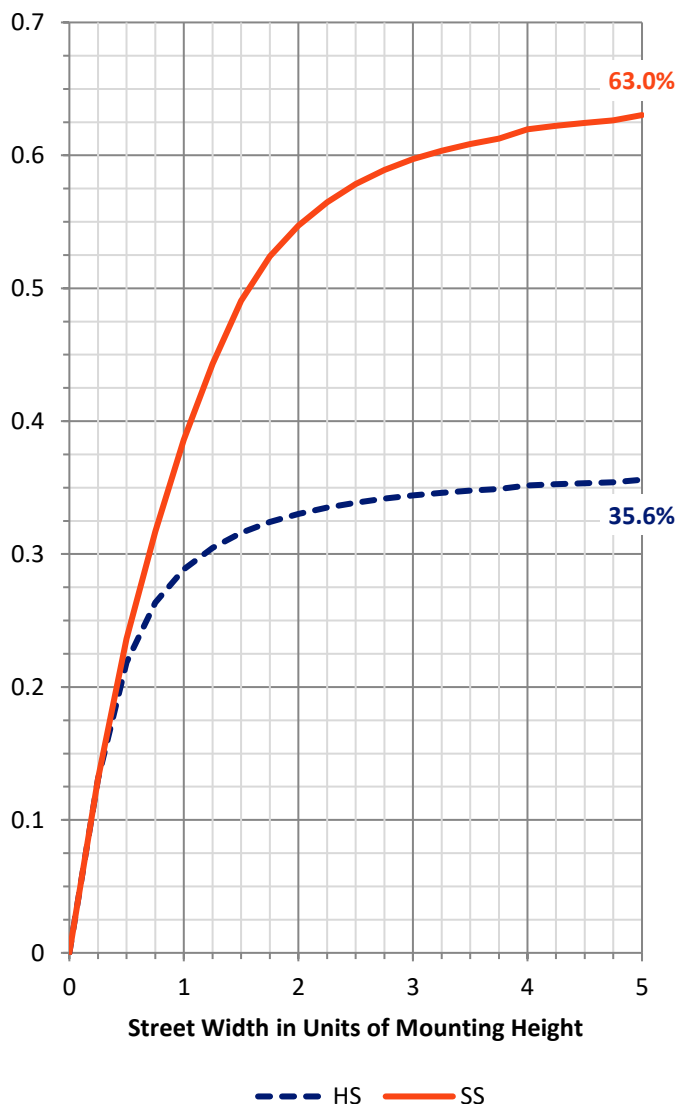
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9096.5	0.0	9096.5
	% Fixture	36.3	0.0	36.3
Street Side	Lumens	15951.5	0.0	15951.5
	% Fixture	63.7	0.0	63.7
Total	Lumens	25048.0	0.0	25048.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	397.2	1.6
10°-20°	1218.1	4.9
20°-30°	1996.8	8.0
30°-40°	2820.1	11.3
40°-50°	3969.9	15.8
50°-60°	4995.3	19.9
60°-70°	5028.1	20.1
70°-80°	3699.1	14.8
80°-90°	923.4	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°	25048.0	100.0
0°-180°	25048.0	100.0

Coefficient of Utilization



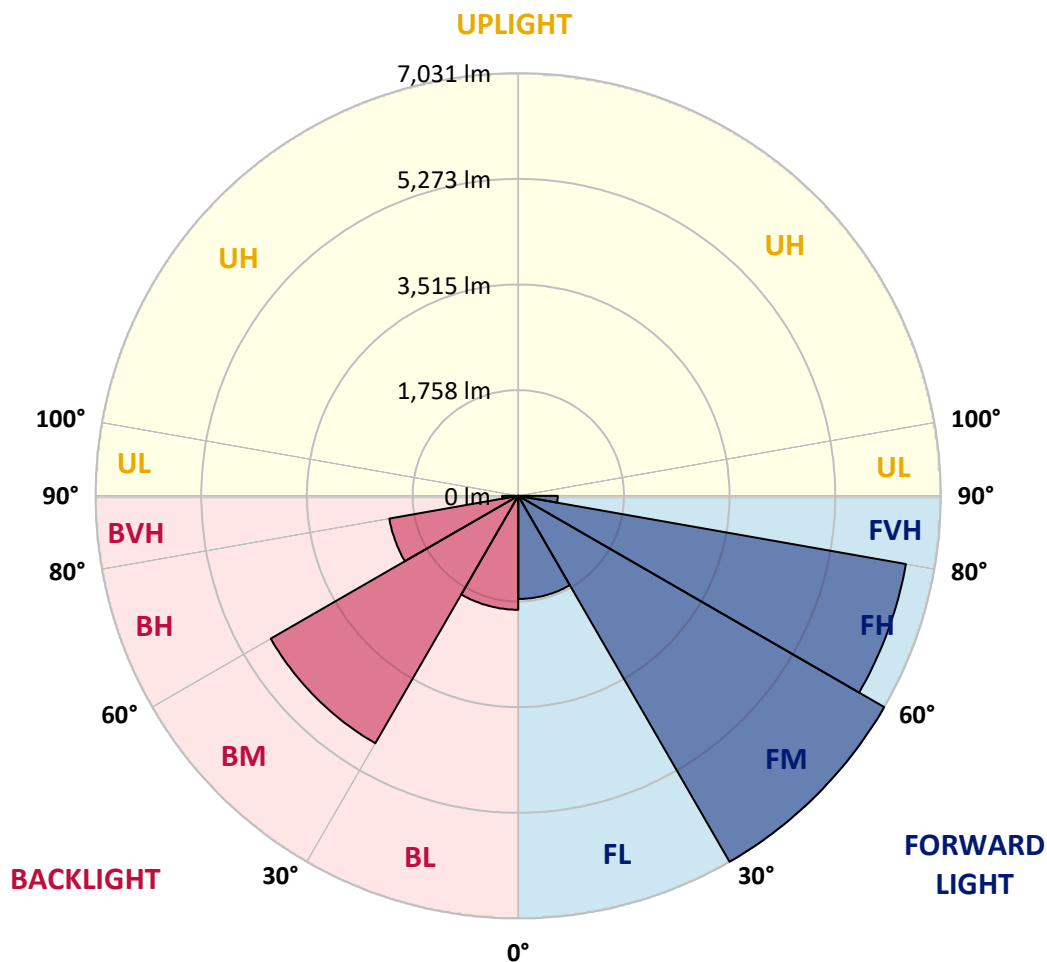
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1716.1	6.9			
FM	(30°-60°)	7031.0	28.1			
FH	(60°-80°)	6548.6	26.1			G3/7500
FVH	(80°-90°)	655.9	2.6			G4/750
BL	(0°-30°)	1896.0	7.6	B3/2500		
BM	(30°-60°)	4754.3	19.0	B3/5000		
BH	(60°-80°)	2178.6	8.7	B3/2500		G3/2500
BVH	(80°-90°)	267.5	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°	4073.7	4073.7	4073.7	4073.7	4073.7	4073.7	4073.7	4073.7	4073.7	4073.7	4073.7
2.5°	4033.5	4007.8	4009.1	4046.9	3989.5	4026.1	4017.6	4076.2	4065.2	4085.9	4090.8
5°	4005.4	3984.7	3984.7	4029.8	3990.8	4022.5	3995.6	4046.9	4065.2	4095.7	4101.8
7.5°	4016.4	3994.4	4003.0	4042.0	3998.1	4031.0	4028.6	4073.7	4084.7	4136.0	4143.3
10°	4035.9	4016.4	4018.8	4051.8	4022.5	4083.5	4072.5	4137.2	4136.0	4216.5	4222.6
12.5°	4001.7	3987.1	3987.1	4031.0	4048.1	4112.8	4134.8	4201.9	4209.2	4299.5	4306.8
15°	3948.0	3923.6	3960.2	4026.1	4061.5	4162.8	4200.7	4306.8	4326.4	4411.8	4430.1
17.5°	3835.8	3846.7	3949.3	3902.9	3741.8	3891.9	4308.1	4443.5	4486.2	4587.5	4631.5
20°	3487.9	3352.5	3084.0	3157.2	3489.2	3917.5	4458.2	4616.8	4710.8	4830.4	4904.8
22.5°	2634.9	2720.3	3221.9	3274.4	3289.0	3574.6	4668.1	4829.2	4953.7	5105.0	5203.8
25°	2732.5	2724.0	2896.0	3434.2	3448.9	3612.4	4394.7	5106.2	5218.5	5428.4	5527.3
27.5°	2822.8	2822.8	2813.1	3242.6	3614.9	3776.0	4537.5	4902.4	5566.3	5794.5	5910.5
30°	2972.9	2977.8	2922.9	2921.7	3751.6	3926.1	4813.3	4993.9	5873.9	6305.9	6332.7
32.5°	3270.7	3253.6	3185.3	3080.3	3245.1	4100.6	5083.0	5324.7	5577.3	6880.7	6856.3
35°	3485.5	3472.1	3423.3	3350.0	3274.4	4179.9	5335.6	5671.3	6085.0	7050.3	7519.0
37.5°	3745.5	3723.5	3668.6	3581.9	3533.1	3608.8	5595.6	6063.0	6719.6	7251.7	8267.1
40°	4029.8	4023.7	3939.5	3827.2	3760.1	3816.2	5794.5	6551.2	7506.8	8107.2	9092.1
42.5°	4248.3	4243.4	4173.8	4109.1	4077.4	4190.9	5300.3	7198.0	8407.4	8884.6	9886.6
45°	4444.7	4437.4	4435.0	4413.0	4438.6	4714.5	5842.1	7597.1	9292.2	9553.4	10609.1
47.5°	4593.6	4571.7	4509.4	4515.5	4587.5	5052.5	6406.0	6995.4	10009.8	10142.9	11172.9
50°	4947.6	4925.6	4710.8	4718.1	4857.2	5472.3	6891.7	7692.3	9342.3	10653.0	11604.9
52.5°	5263.6	5081.8	4964.6	4969.5	5159.9	5919.0	7443.3	8413.5	9183.6	11056.9	11954.0
55°	4546.0	4428.9	5568.7	5410.1	5515.1	6406.0	7979.1	9038.4	9619.3	11365.7	12154.1
57.5°	2667.8	2653.2	6128.9	6266.8	6144.8	6932.0	8520.9	9558.3	10001.3	11653.7	12288.3
60°	1415.7	1449.9	3941.9	3788.2	6369.3	7481.1	9045.7	10030.6	10284.4	11802.6	12325.0
62.5°	130.6	115.9	2590.9	2943.6	5709.1	8198.7	9668.1	10511.4	10476.0	11881.9	12260.3
65°	25.6	34.2	2542.1	2908.2	6343.7	9388.6	10684.7	10881.2	10579.8	11786.8	11921.0
67.5°	19.5	29.3	2401.8	2876.5	6733.0	9846.3	11855.1	11011.8	10585.9	11482.9	11174.1
70°	19.5	30.5	2119.9	2688.6	6917.3	9865.8	12132.1	10960.5	10449.2	10794.6	9767.0
72.5°	19.5	30.5	1780.6	2329.8	6603.7	9442.3	11646.4	10676.2	9940.3	9294.7	7617.8
75°	19.5	28.1	1397.4	1892.9	5707.9	8789.4	10812.9	9438.7	8367.2	6801.4	4887.8
77.5°	19.5	26.8	1030.0	1481.6	4763.3	7752.1	9403.3	7758.2	6307.1	3561.2	1798.9
80°	18.3	26.8	627.3	1044.7	3669.8	6253.4	7389.6	5732.3	3314.6	895.8	519.9
82.5°	18.3	25.6	299.0	668.8	2578.7	4467.9	4821.9	2455.5	705.4	413.7	413.7
85°	15.9	23.2	159.9	363.7	1685.4	2929.0	2326.1	416.2	275.8	279.5	318.5
87.5°	9.8	12.2	75.7	163.5	971.4	1565.8	895.8	152.6	114.7	120.8	180.6
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°	4073.7	4073.7	4073.7	4073.7	4073.7	4073.7	4073.7	4073.7	4073.7	4073.7	4073.7
2.5°	4094.5	4088.4	4101.8	4144.5	4137.2	4167.7	4143.3	4186.0	4194.6	4182.4	4201.9
5°	4107.9	4116.5	4161.6	4201.9	4179.9	4228.7	4242.2	4302.0	4300.7	4289.8	4314.2
7.5°	4151.8	4175.0	4220.2	4270.2	4281.2	4320.3	4315.4	4391.0	4382.5	4377.6	4402.0
10°	4227.5	4262.9	4305.6	4388.6	4361.8	4427.7	4382.5	4433.8	4428.9	4416.7	4438.6
12.5°	4311.7	4360.5	4411.8	4487.5	4476.5	4475.3	4435.0	4450.8	4437.4	4408.1	4426.4
15°	4438.6	4498.4	4569.2	4618.0	4553.4	4529.0	4465.5	4431.3	4384.9	4316.6	4327.6
17.5°	4636.4	4707.1	4782.8	4791.3	4691.3	4627.8	4474.0	4352.0	4231.2	4139.6	4148.2
20°	4902.4	4967.1	5023.2	4982.9	4847.5	4705.9	4474.0	4281.2	4055.4	3887.0	3874.8
22.5°	5213.6	5233.1	5286.8	5188.0	4954.9	4757.2	4461.8	4175.0	3807.7	3583.1	3556.3
25°	5549.2	5546.8	5523.6	5318.6	5022.0	4729.1	4369.1	3993.2	3524.6	3290.2	3270.7
27.5°	5914.1	5883.6	5725.0	5428.4	4993.9	4627.8	4193.3	3686.9	3267.0	3065.7	3059.6
30°	6325.4	6244.9	5923.9	5439.4	4889.0	4427.7	3907.8	3378.1	3037.6	2858.2	2841.1
32.5°	6805.0	6647.6	6082.5	5404.0	4699.8	4122.6	3559.9	3135.2	2849.7	2653.2	2615.3
35°	7431.1	7155.3	6229.0	5288.1	4419.1	3760.1	3239.0	2919.2	2675.1	2473.8	2433.5
37.5°	8218.3	7813.1	6449.9	5118.4	4098.1	3436.7	3016.9	2776.4	2554.3	2316.3	2267.5
40°	9092.1	8586.8	6708.6	4953.7	3793.0	3196.3	2871.6	2709.3	2476.2	2215.1	2168.7
42.5°	9919.5	9365.5	7096.7	4740.1	3502.6	3003.4	2819.2	2689.8	2439.6	2171.1	2121.1
45°	10683.5	10050.1	7497.0	4525.3	3207.2	2846.0	2775.2	2632.4	2383.5	2119.9	2062.5
47.5°	11307.1	10589.5	7850.9	4303.2	2947.3	2722.7	2691.0	2522.6	2284.6	2036.9	1983.2
50°	11759.9	11003.3	8058.4	4096.9	2697.1	2599.5	2543.3	2366.4	2145.5	1939.2	1900.2
52.5°	12080.9	11360.8	8162.1	4073.7	2470.1	2433.5	2371.3	2205.3	2028.3	1868.5	1822.1
55°	12328.6	11556.1	8073.0	3938.3	2255.3	2224.8	2160.1	2057.6	1951.4	1802.6	1772.0
57.5°	12462.9	11645.2	7869.2	3322.0	2027.1	1974.6	1966.1	1944.1	1851.4	1703.7	1680.5
60°	12492.2	11503.6	7407.9	2526.3	1787.9	1753.7	1818.4	1790.3	1707.4	1597.5	1564.6
62.5°	12377.4	11201.0	6532.9	1889.2	1589.0	1645.1	1711.0	1668.3	1571.9	1464.5	1443.7
65°	11963.7	10506.5	5264.9	1470.6	1497.4	1593.9	1652.4	1601.2	1484.0	1362.0	1348.6
67.5°	11154.6	9425.3	3466.0	1322.9	1454.7	1551.1	1617.0	1535.3	1416.9	1285.1	1269.2
70°	9637.6	7450.6	1651.2	1233.8	1373.0	1468.2	1520.6	1427.9	1313.2	1183.8	1166.7
72.5°	7443.3	5063.5	911.6	1136.2	1271.7	1359.5	1397.4	1287.5	1181.4	1127.7	1122.8
75°	4480.1	2176.0	823.8	1039.8	1141.1	1222.9	1290.0	1207.0	1114.2	1009.3	982.4
77.5°	1479.1	632.2	775.0	925.1	1039.8	1138.6	1170.4	1089.8	973.9	884.8	877.5
80°	518.7	529.7	722.5	770.1	905.5	988.5	1023.9	931.2	876.3	783.5	765.2
82.5°	422.3	474.7	583.4	580.9	715.2	812.8	866.5	843.3	771.3	696.9	689.5
85°	345.4	434.5	369.8	406.4	512.6	618.7	721.3	723.7	668.8	593.1	543.1
87.5°	205.0	222.1	184.3	207.5	270.9	347.8	402.7	384.4	314.9	266.1	259.9
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)