

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: P591241

Luminaire Tested: **CTN-CA6-230-727-U-T1-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591241
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA6-230-727-U-T1-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (6) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24799 lumens
Efficiency: N/A
Efficacy: 108.9 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B5 - U0 - G5

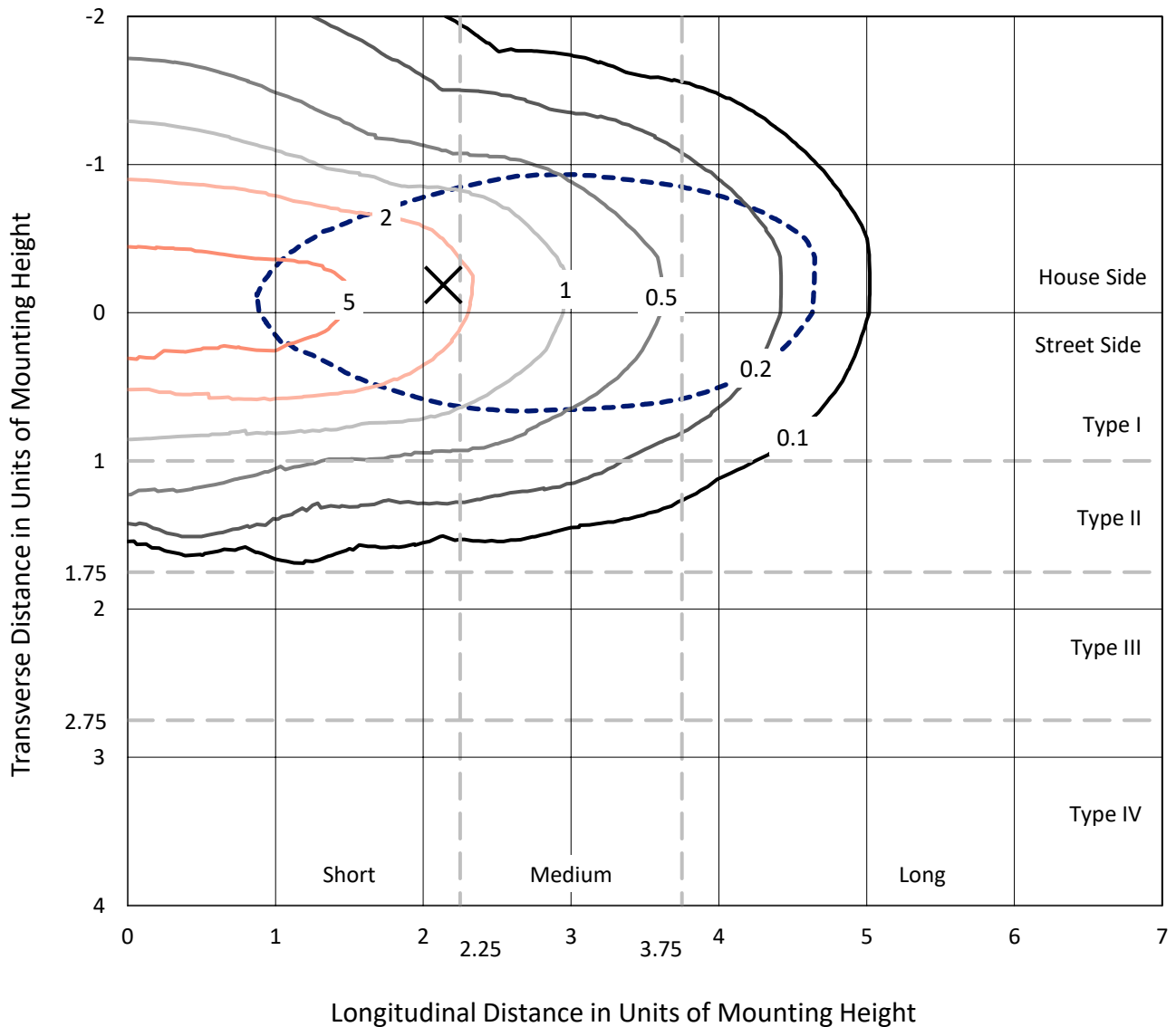
Input Watts (W): 227.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

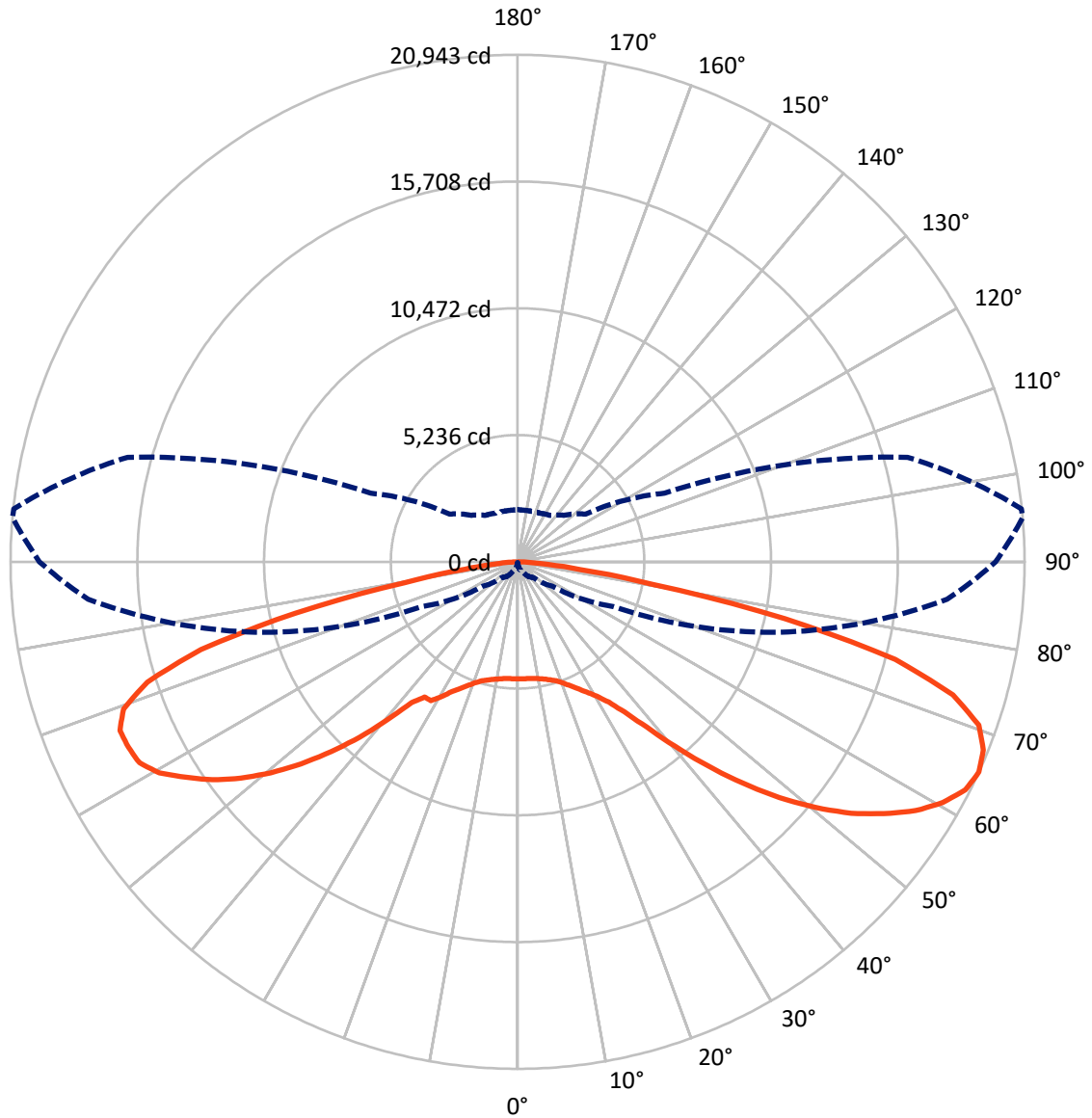
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.7 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 95-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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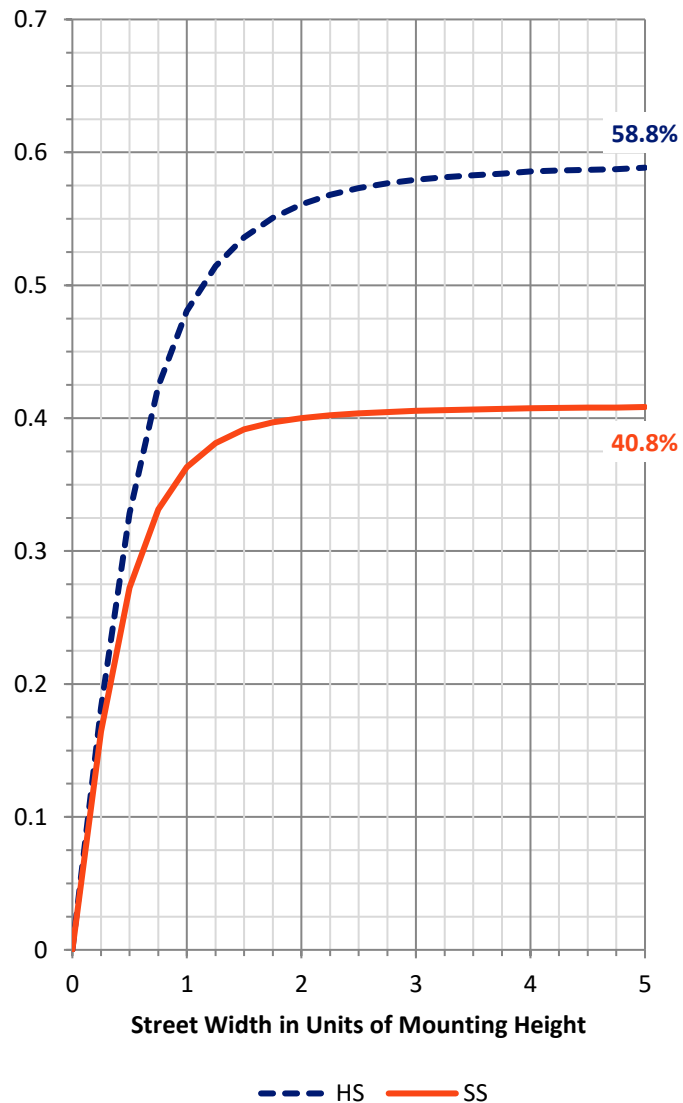
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14704.3	0.0	14704.3
	% Fixture	59.3	0.0	59.3
Street Side	Lumens	10094.7	0.0	10094.7
	% Fixture	40.7	0.0	40.7
Total	Lumens	24799.0	0.0	24799.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	460.1	1.9
10°-20°	1325.0	5.3
20°-30°	1991.5	8.0
30°-40°	2776.6	11.2
40°-50°	3986.4	16.1
50°-60°	5081.6	20.5
60°-70°	5291.0	21.3
70°-80°	3407.1	13.7
80°-90°	479.8	1.9
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°	24799.0	100.0
0°-180°	24799.0	100.0

Coefficient of Utilization

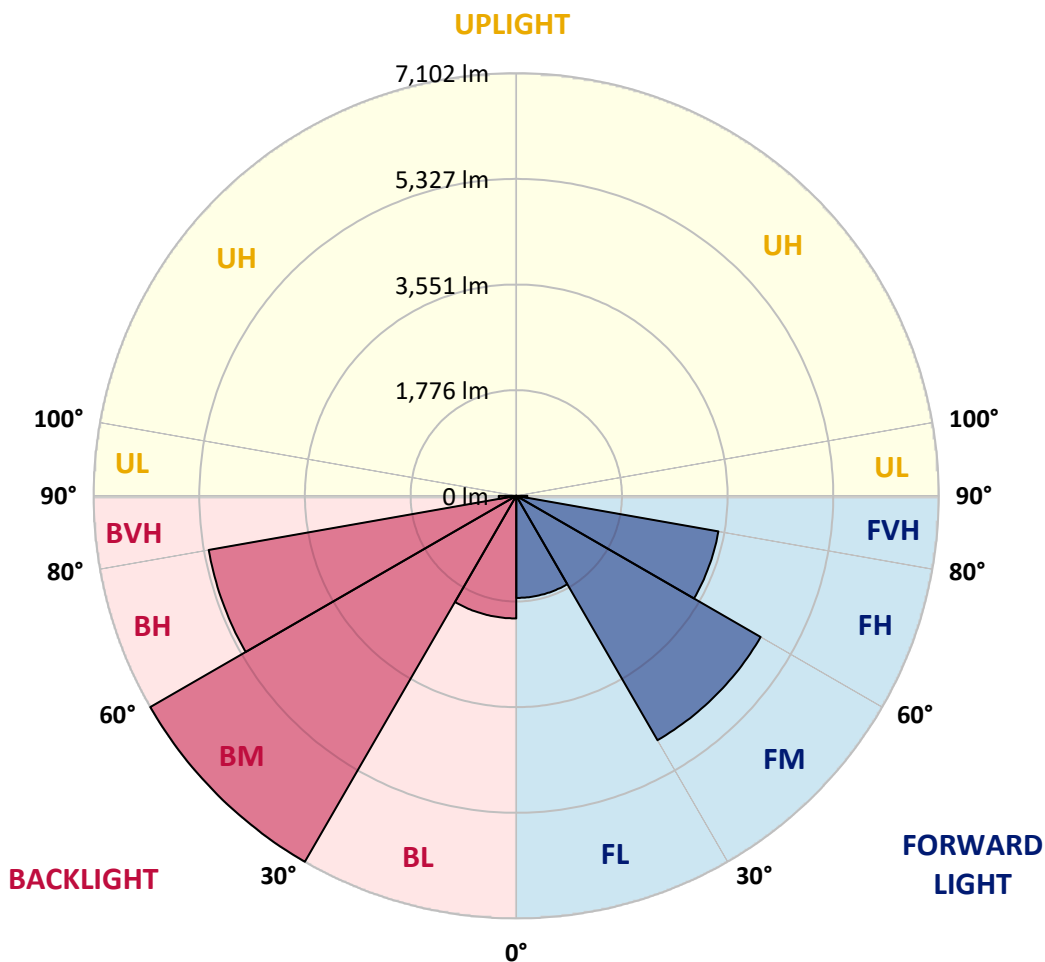


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1716.1	6.9			
FM (30°-60°)	4742.5	19.1			
FH (60°-80°)	3449.5	13.9			G2/5000
FVH (80°-90°)	186.6	0.8			G2/225
BL (0°-30°)	2060.5	8.3	B3/2500		
BM (30°-60°)	7102.0	28.6	B4/8500		
BH (60°-80°)	5248.6	21.2	B5		G5
BVH (80°-90°)	293.2	1.2			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5
 Type I Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4833.2	4833.2	4833.2	4833.2	4833.2	4833.2	4833.2	4833.2	4833.2	4833.2	4833.2
2.5°	4847.7	4808.0	4816.1	4854.9	4783.6	4822.4	4793.6	4840.4	4828.7	4832.3	4854.9
5°	4807.1	4766.5	4781.8	4829.6	4762.9	4809.8	4788.1	4826.9	4823.3	4836.8	4851.3
7.5°	4770.1	4726.8	4746.7	4781.8	4745.8	4786.3	4774.6	4823.3	4821.5	4861.2	4871.1
10°	4728.6	4689.0	4706.1	4749.4	4719.6	4768.3	4778.2	4835.9	4854.9	4909.0	4913.5
12.5°	4655.6	4616.8	4624.9	4679.9	4684.4	4758.4	4792.6	4883.7	4903.6	4965.8	4968.5
15°	4394.1	4385.1	4461.7	4550.1	4586.2	4696.2	4810.7	4935.1	4964.9	5043.3	5051.4
17.5°	3658.3	3568.1	3432.9	3540.2	3776.4	4080.3	4767.4	5011.8	5066.8	5145.2	5169.6
20°	2453.6	2535.6	2841.3	2978.4	3188.5	3700.7	4756.6	5094.7	5213.8	5308.4	5354.4
22.5°	2027.1	2022.6	2388.7	2850.3	3015.4	3250.7	4372.4	5193.0	5390.5	5514.0	5571.7
25°	1882.8	1884.6	1951.3	2534.7	2943.2	3192.1	4016.3	5064.1	5584.4	5761.1	5829.6
27.5°	1768.3	1775.5	1832.3	2029.8	2881.9	3179.5	4026.2	4695.3	5789.1	6025.3	6104.7
30°	1677.2	1673.6	1742.1	1907.1	2398.6	3184.0	4073.1	4769.2	5598.8	6400.4	6444.6
32.5°	1601.5	1591.5	1661.0	1826.9	2094.7	3148.8	4143.4	4976.6	5464.4	6761.1	6933.3
35°	1528.4	1524.8	1586.1	1749.3	2022.6	2615.0	4225.5	5233.6	5900.9	6772.8	7604.2
37.5°	1471.6	1468.9	1517.6	1671.8	1957.6	2382.3	4293.1	5557.3	6468.9	7273.3	8159.7
40°	1425.6	1418.4	1457.2	1603.3	1883.7	2343.6	3739.4	5895.5	7162.4	8441.0	9505.0
42.5°	1386.8	1376.9	1414.8	1535.6	1812.5	2300.3	3472.5	6236.3	7977.5	9741.3	10813.4
45°	1333.6	1332.7	1371.5	1484.2	1736.7	2237.2	3497.8	5667.3	8893.7	10985.7	12187.7
47.5°	1306.6	1300.3	1329.1	1436.4	1665.5	2141.6	3473.4	5423.9	9595.2	12234.6	13526.7
50°	1264.2	1258.8	1286.8	1381.4	1595.1	2020.8	3385.1	5573.5	9017.2	13417.6	14785.5
52.5°	1188.5	978.4	1245.3	1335.4	1519.4	1890.0	3217.3	5656.5	9241.7	14514.1	15957.8
55°	467.1	626.7	1192.1	1277.7	1441.9	1767.4	2963.1	5633.1	9984.8	15496.1	16967.7
57.5°	406.7	408.5	791.7	1066.7	1349.9	1639.3	2652.9	5499.6	10640.3	16336.5	17951.5
60°	57.7	58.6	401.3	449.1	885.5	1165.0	2337.3	5260.6	11029.0	17176.9	18800.0
62.5°	38.8	40.6	365.2	407.6	807.9	1033.4	2044.2	4835.9	11216.5	17687.3	19411.4
65°	28.0	28.9	330.9	368.8	719.6	917.1	1771.9	4374.2	11233.6	17805.4	19746.8
67.5°	26.1	27.1	304.8	339.9	654.6	814.3	1536.5	3967.6	10760.2	17840.6	19733.3
70°	27.1	27.1	277.7	307.5	580.7	706.0	1275.0	3562.7	9566.4	17380.7	19289.6
72.5°	27.1	28.0	242.6	270.5	500.5	597.8	1045.1	2896.3	7747.6	16078.6	18218.4
75°	27.1	28.0	191.2	223.6	415.7	479.7	857.5	2335.5	5966.7	13569.1	15939.7
77.5°	28.0	28.0	140.7	171.3	321.0	360.7	651.0	1794.4	4396.8	9405.9	11097.5
80°	28.0	29.8	99.2	126.2	237.2	260.6	472.5	1145.2	2367.9	4770.1	5509.5
82.5°	28.9	29.8	73.9	94.7	164.1	187.6	288.6	563.6	1094.7	2207.4	2500.5
85°	27.1	28.0	60.4	65.8	93.8	112.7	179.4	279.5	385.0	868.4	902.6
87.5°	18.9	18.0	18.9	21.6	30.7	49.6	84.8	94.7	92.9	233.5	271.4
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):

	95°	96°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4833.2	4833.2	4833.2	4833.2	4833.2	4833.2	4833.2	4833.2	4833.2	4833.2	4833.2
2.5°	4841.3	4843.1	4835.9	4863.9	4835.9	4851.3	4810.7	4873.8	4867.5	4850.4	4872.0
5°	4840.4	4844.9	4843.1	4868.4	4833.2	4845.8	4805.3	4872.0	4849.5	4834.1	4860.3
7.5°	4862.1	4868.4	4865.7	4882.8	4842.2	4841.3	4801.7	4851.3	4829.6	4797.2	4829.6
10°	4909.9	4909.9	4901.8	4911.7	4853.1	4846.8	4780.0	4836.8	4799.9	4771.0	4810.7
12.5°	4971.2	4976.6	4955.9	4954.1	4872.9	4854.0	4770.1	4798.1	4744.9	4717.8	4756.6
15°	5061.4	5065.0	5037.9	5020.8	4921.6	4880.1	4744.9	4739.4	4665.5	4639.4	4667.3
17.5°	5166.0	5165.1	5127.2	5120.0	5003.7	4907.2	4724.1	4668.2	4573.5	4543.8	4568.1
20°	5333.7	5323.8	5282.3	5240.8	5071.3	4924.3	4694.4	4577.1	4445.5	4403.1	4422.9
22.5°	5559.1	5555.5	5490.6	5370.7	5143.4	4940.5	4643.9	4466.2	4291.3	4214.6	4227.3
25°	5806.2	5803.5	5710.6	5531.2	5206.5	4952.3	4585.3	4341.8	4105.5	3989.2	3986.5
27.5°	6092.9	6085.7	5960.4	5704.3	5294.0	4955.9	4522.1	4210.1	3921.6	3776.4	3782.7
30°	6441.9	6429.3	6257.9	5896.4	5404.9	4966.7	4468.0	4062.3	3750.3	3596.1	3592.5
32.5°	6904.5	6886.4	6620.4	6148.8	5548.3	4993.7	4403.1	3916.2	3590.7	3435.6	3422.0
35°	7608.7	7571.8	7131.7	6471.7	5707.9	5011.8	4299.4	3777.3	3436.5	3290.4	3279.6
37.5°	8651.1	8588.9	7775.5	6810.7	5866.6	5008.2	4181.3	3627.6	3311.1	3169.6	3166.8
40°	10025.3	9928.0	8548.3	7174.1	6019.0	4988.3	4054.1	3494.2	3206.5	3084.8	3093.8
42.5°	11528.5	11425.7	9464.5	7543.8	6133.5	4927.0	3918.0	3367.9	3110.0	3012.7	3013.6
45°	13043.4	12947.8	10518.6	7891.9	6190.3	4811.6	3776.4	3248.0	3008.1	2923.4	2933.3
47.5°	14552.0	14481.6	11562.8	8185.8	6162.4	4630.3	3606.0	3134.4	2907.1	2837.7	2860.3
50°	15955.1	15880.2	12675.5	8429.3	6021.7	4377.9	3431.0	3022.6	2825.1	2764.7	2783.6
52.5°	17255.3	17155.2	13867.6	8570.0	5768.3	4111.8	3276.9	2924.3	2745.7	2685.3	2705.2
55°	18359.9	18355.4	14958.7	8581.7	5372.5	3839.5	3128.1	2810.7	2668.2	2618.6	2623.1
57.5°	19394.2	19434.8	15897.3	8439.2	4903.6	3587.0	2957.6	2693.4	2578.9	2527.5	2532.0
60°	20184.1	20234.6	16534.0	8024.4	4404.0	3308.4	2774.6	2569.0	2468.0	2419.3	2433.7
62.5°	20751.3	20686.4	16871.2	7429.3	3903.6	3009.0	2576.2	2410.3	2330.0	2300.3	2301.2
65°	20943.4	20922.6	16673.7	6696.2	3431.0	2714.2	2341.8	2212.8	2163.2	2142.5	2157.8
67.5°	20746.8	20759.4	15904.6	6073.1	2982.0	2381.4	2078.5	1995.5	1970.3	1969.4	1985.6
70°	20208.5	20109.3	14309.4	5575.3	2560.9	2011.7	1795.3	1755.7	1747.5	1767.4	1780.9
72.5°	18801.8	18657.5	11866.7	4782.7	1965.8	1479.7	1359.8	1413.9	1412.1	1422.9	1435.5
75°	16107.4	15727.8	9294.9	3808.0	1456.3	1046.9	907.1	905.3	902.6	994.6	1028.0
77.5°	11289.5	11036.2	6862.1	2899.9	968.4	626.7	622.2	670.9	679.0	618.6	630.3
80°	5663.7	5774.6	3960.4	1791.7	643.8	441.8	463.5	456.3	462.6	469.8	474.3
82.5°	2610.5	2666.4	1895.4	872.9	414.8	335.4	317.4	345.4	358.0	357.1	354.4
85°	926.1	931.5	599.6	374.2	254.3	218.2	221.8	257.9	272.3	259.7	253.4
87.5°	268.7	255.2	122.6	110.9	117.2	116.3	119.9	127.1	137.1	135.3	125.3
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)