

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: P591288

Luminaire Tested: **CTN-CA10-210-730-U-T1-SSS-HM-EX180**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591288  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-3)  
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-T1-SSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE, 180D 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: 21779 lumens  
Efficiency: N/A  
Efficacy: 102.3 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type I - Short  
BUG Rating: B4 - U0 - G4

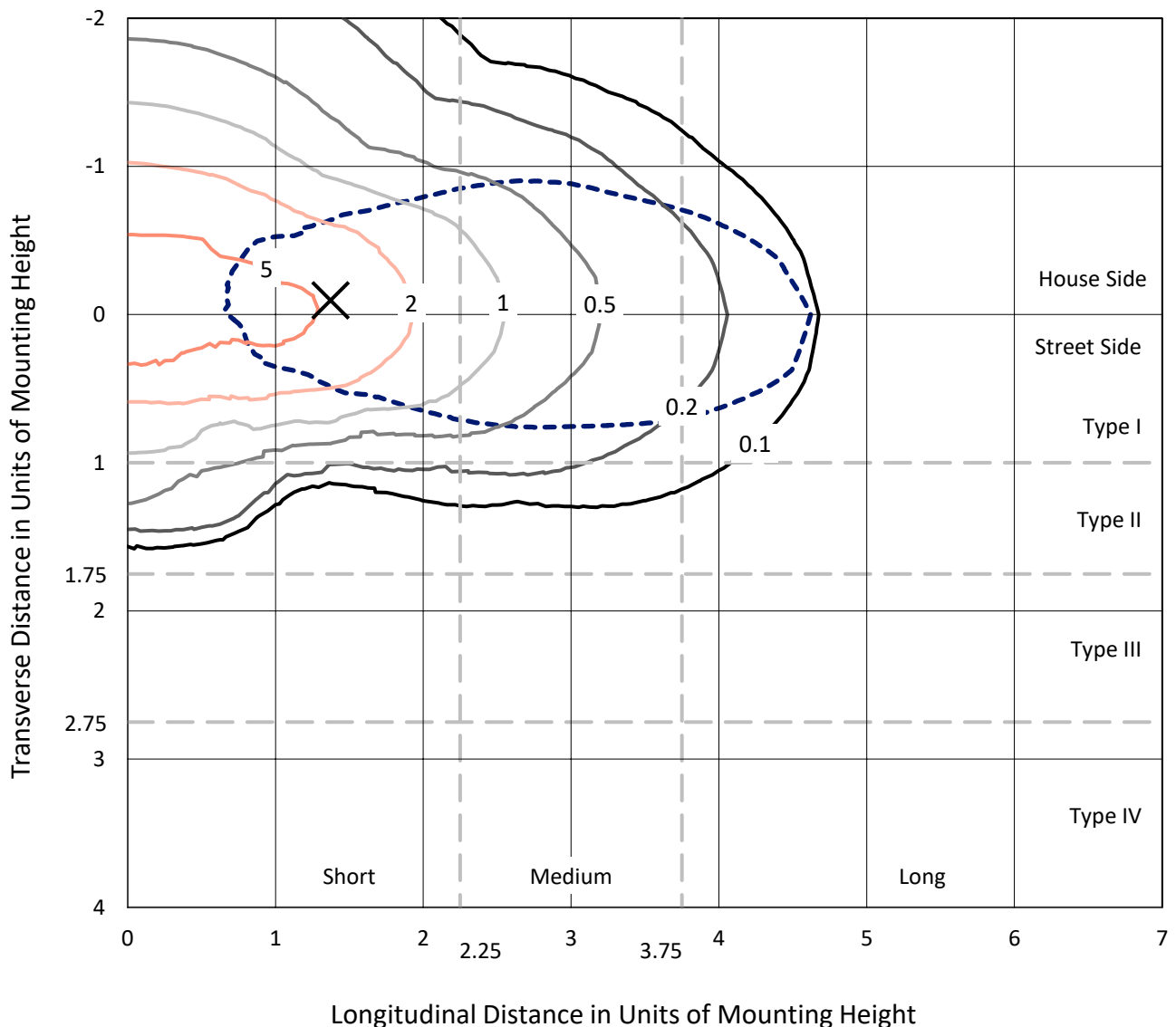
Input Watts (W): 212.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

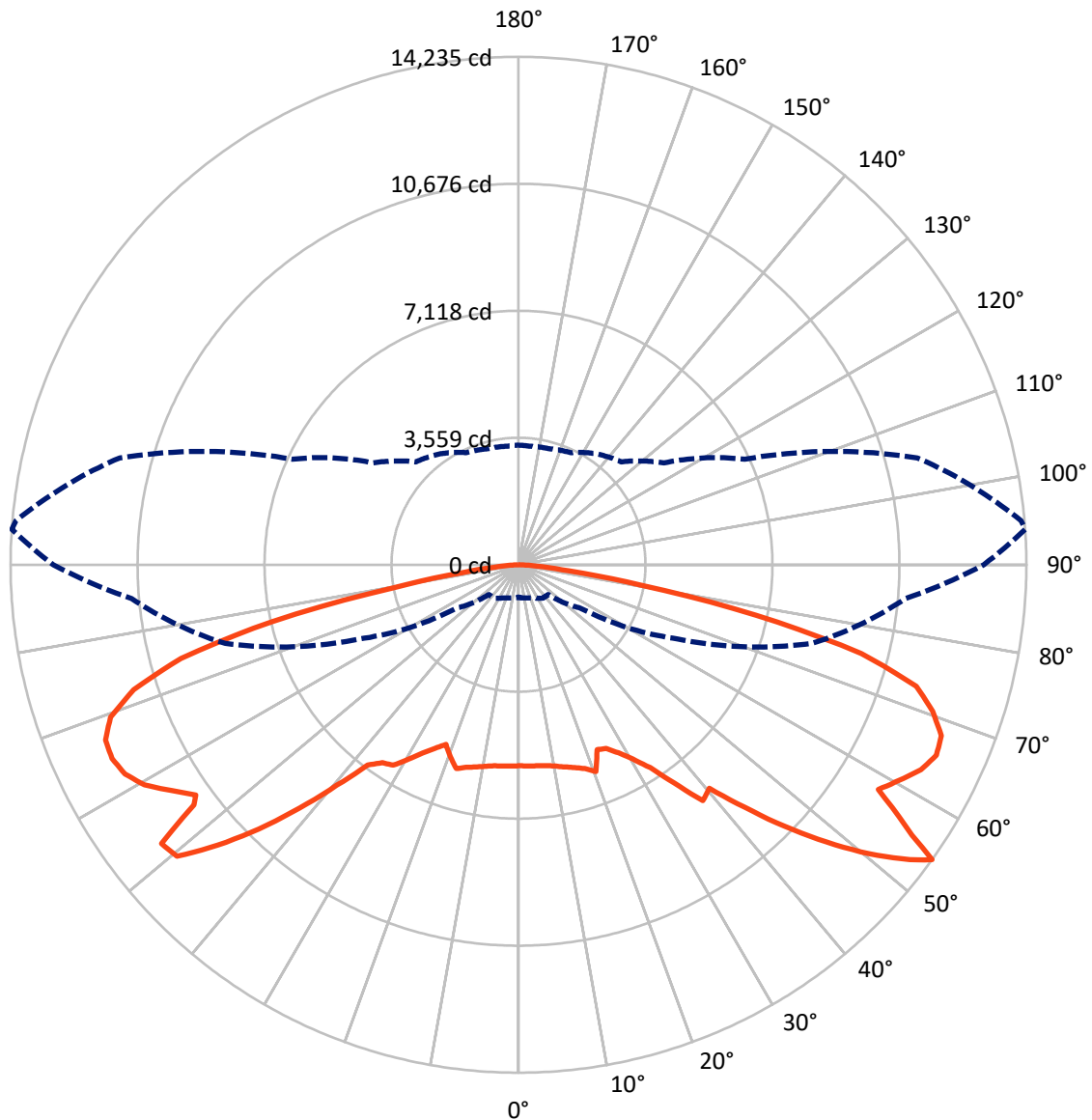
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9 fc  
 Type I - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 94-Deg Lateral      - - - Horizontal Cone Through 54-Deg Vertical

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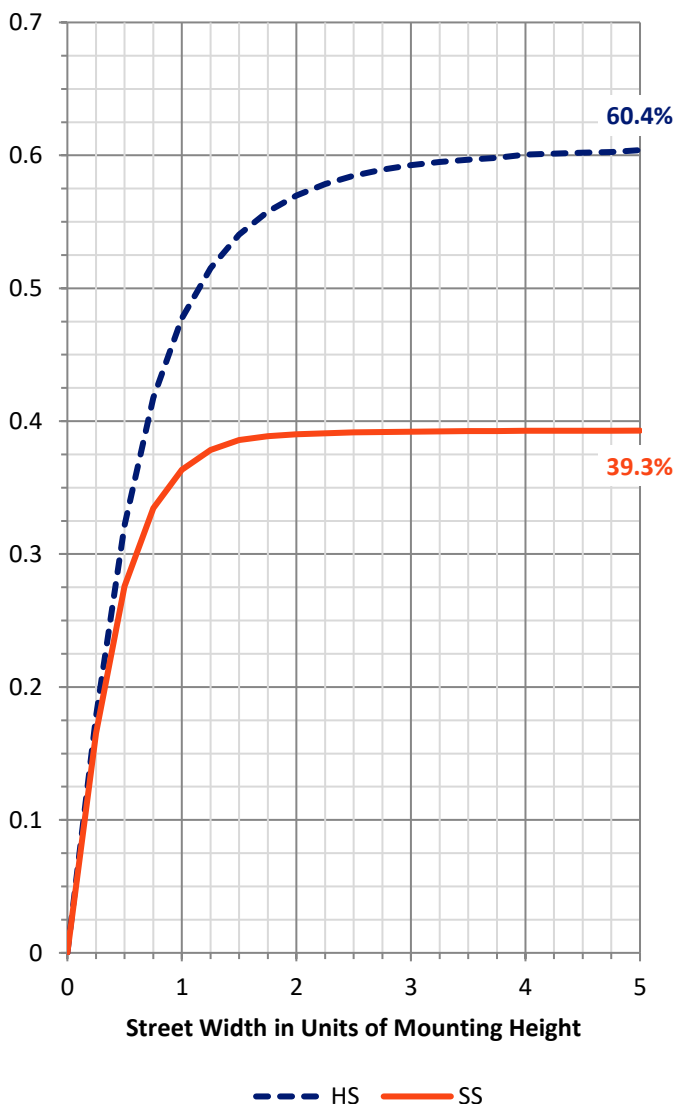
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	13265.2	0.0	13265.2
	% Fixture	60.9	0.0	60.9
<b>Street Side</b>	Lumens	8513.8	0.0	8513.8
	% Fixture	39.1	0.0	39.1
<b>Total</b>	Lumens	21779.0	0.0	21779.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	537.4	2.5
10°-20°	1537.8	7.1
20°-30°	2196.4	10.1
30°-40°	2906.1	13.3
40°-50°	3825.6	17.6
50°-60°	4220.7	19.4
60°-70°	3803.2	17.5
70°-80°	2405.3	11.0
80°-90°	346.6	1.6
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°	21779.0	100.0
0°-180°	21779.0	100.0

**Coefficient of Utilization**

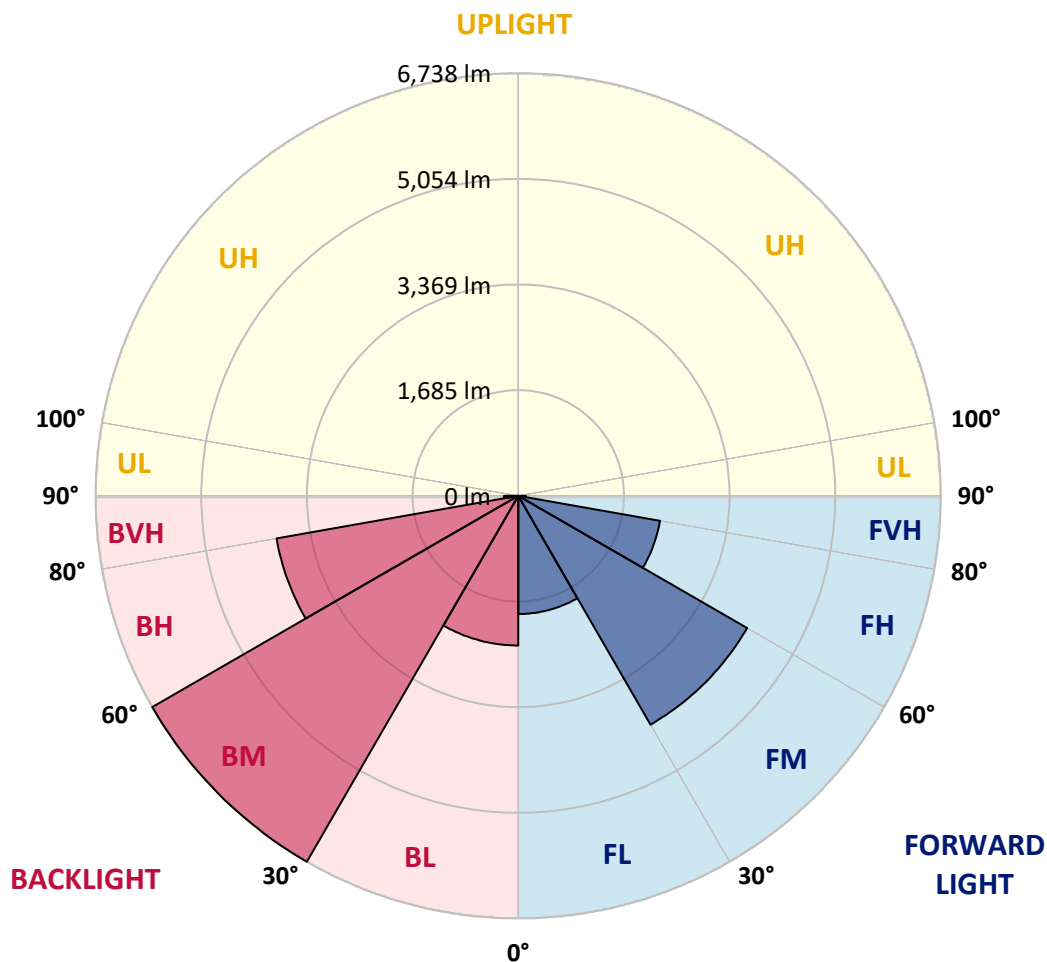


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1884.8	8.7			
FM (30°-60°)	4214.0	19.3			
FH (60°-80°)	2294.9	10.5			G2/5000
FVH (80°-90°)	120.0	0.6			G2/225
BL (0°-30°)	2386.8	11.0	B3/2500		
BM (30°-60°)	6738.4	30.9	B4/8500		
BH (60°-80°)	3913.5	18.0	B4/5000		G4/5000
BVH (80°-90°)	226.6	1.0			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G4**  
 Type I Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5631.5	5631.5	5631.5	5631.5	5631.5	5631.5	5631.5	5631.5	5631.5	5631.5	5631.5
2.5°	5642.1	5602.9	5608.2	5649.5	5561.6	5616.7	5591.2	5636.8	5618.8	5644.2	5663.3
5°	5592.3	5555.2	5564.8	5615.6	5545.7	5608.2	5572.2	5616.7	5623.0	5653.7	5671.7
7.5°	5551.0	5515.0	5521.3	5569.0	5524.5	5579.6	5558.4	5617.7	5618.8	5672.8	5686.6
10°	5509.7	5472.6	5481.1	5522.4	5493.8	5553.1	5566.9	5636.8	5652.7	5727.9	5728.9
12.5°	5421.8	5388.9	5393.2	5450.4	5451.4	5537.2	5564.8	5672.8	5705.6	5790.4	5798.8
15°	5075.4	5098.7	5187.7	5259.7	5326.5	5441.9	5536.2	5713.0	5757.5	5860.3	5884.6
17.5°	4236.6	4200.6	4006.8	4109.5	4430.4	4737.6	4900.7	5270.3	5684.4	5967.2	5999.0
20°	2970.9	3028.1	3332.1	3471.9	3700.7	4256.7	4767.2	4980.1	5114.6	5626.2	6025.5
22.5°	2356.6	2373.6	2808.9	3331.0	3502.6	3742.0	4347.8	5058.5	5269.3	5417.5	5483.2
25°	2193.5	2206.2	2276.1	2959.3	3427.4	3681.6	3947.4	4872.1	5451.4	5635.7	5714.1
27.5°	2056.9	2070.6	2139.5	2369.3	3358.6	3681.6	3983.5	4410.3	5628.3	5907.9	5974.7
30°	1955.2	1955.2	2026.2	2222.1	2815.2	3693.3	4058.7	4462.2	5352.9	6251.1	6310.4
32.5°	1862.0	1863.0	1940.4	2128.9	2439.2	3643.5	4164.6	4652.8	5139.0	6594.3	6747.8
35°	1778.3	1781.5	1851.4	2042.0	2343.9	2937.0	4282.1	4897.5	5549.9	6556.1	7413.0
37.5°	1707.3	1709.5	1769.8	1956.2	2263.4	2127.8	4358.4	5191.9	6101.8	6896.1	7551.7
40°	1656.5	1653.3	1696.8	1866.2	2145.8	1944.6	3689.0	5498.0	6757.4	7960.6	8204.2
42.5°	1605.7	1600.4	1643.8	1772.0	1468.0	1893.8	3417.9	5796.7	7512.5	9129.9	9347.0
45°	1546.4	1548.5	1590.8	1589.8	1389.6	1826.0	3447.5	5105.1	8320.7	10325.6	10602.1
47.5°	1514.6	1505.0	1526.2	1154.5	1325.0	1732.8	3434.8	4739.7	9033.5	11468.5	11742.8
50°	1455.3	1453.2	1069.7	1094.1	1260.4	1625.8	3235.7	4871.0	8151.2	12527.6	12805.1
52.5°	1366.3	1206.4	992.4	1051.7	1195.8	1499.8	2311.1	4925.0	8129.0	12422.8	13795.4
54°	907.7	929.9	960.6	1022.1	1149.2	1178.8	2114.1	4920.8	8515.6	10882.8	13038.1
55°	520.0	728.7	935.2	997.7	1116.3	825.1	2037.8	4898.6	8762.3	10949.5	11753.4
57.5°	450.1	452.3	514.7	832.5	573.0	707.5	1821.7	4717.4	9224.1	11562.7	11792.6
60°	39.2	38.1	43.4	59.3	75.2	165.2	917.2	3026.0	8901.1	12089.1	12446.1
62.5°	15.9	16.9	21.2	28.6	45.5	74.1	758.4	2681.8	9037.7	12410.0	12800.9
65°	3.2	3.2	5.3	9.5	16.9	44.5	646.1	2388.4	8967.8	12514.9	13037.1
67.5°	0.0	0.0	3.2	7.4	13.8	36.0	559.2	2197.7	8568.5	12478.9	12949.1
70°	0.0	0.0	3.2	7.4	12.7	35.0	478.7	2028.3	7578.2	12101.8	12622.9
72.5°	0.0	0.0	3.2	6.4	11.7	31.8	409.9	1791.0	6423.7	11194.1	11903.8
75°	0.0	0.0	3.2	6.4	10.6	28.6	345.3	1536.8	5366.7	9647.8	10500.4
77.5°	0.0	0.0	3.2	6.4	9.5	25.4	271.1	1227.6	4214.4	6995.7	7453.2
80°	0.0	0.0	3.2	6.4	8.5	20.1	200.2	775.3	2337.5	3548.1	3736.7
82.5°	0.0	0.0	2.1	5.3	7.4	12.7	95.3	293.4	1101.5	1624.7	1576.0
85°	0.0	0.0	2.1	5.3	6.4	9.5	41.3	74.1	366.5	539.1	502.0
87.5°	0.0	0.0	2.1	4.2	5.3	6.4	10.6	12.7	116.5	155.7	161.0
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):**

	94°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5631.5	5631.5	5631.5	5631.5	5631.5	5631.5	5631.5	5631.5	5631.5	5631.5	5631.5
2.5°	5650.6	5650.6	5649.5	5677.0	5642.1	5645.3	5612.4	5697.2	5687.6	5661.1	5692.9
5°	5656.9	5662.2	5661.1	5674.9	5647.4	5664.3	5618.8	5702.5	5688.7	5667.5	5700.3
7.5°	5683.4	5692.9	5685.5	5709.9	5654.8	5671.7	5625.1	5698.2	5684.4	5653.7	5688.7
10°	5740.6	5750.1	5735.3	5746.9	5688.7	5680.2	5623.0	5699.3	5669.6	5646.3	5689.7
12.5°	5814.7	5826.4	5796.7	5794.6	5720.5	5703.5	5620.9	5672.8	5629.4	5610.3	5649.5
15°	5897.3	5911.1	5876.2	5868.7	5787.2	5731.1	5612.4	5624.1	5561.6	5536.2	5577.5
17.5°	6005.4	6018.1	5991.6	5987.4	5881.5	5786.1	5600.8	5562.6	5474.7	5453.6	5475.8
20°	6186.5	6195.0	6160.0	6128.2	5972.5	5815.8	5581.7	5482.2	5347.6	5303.2	5328.6
22.5°	5630.4	5698.2	6385.6	6267.0	6040.3	5846.5	5534.1	5367.8	5179.2	5095.6	5112.5
25°	5703.5	5709.9	5970.4	6431.1	6114.5	5866.6	5477.9	5225.8	4966.3	4844.5	4865.7
27.5°	5968.3	5960.9	5858.2	6449.2	6202.4	5878.3	5408.0	5076.5	4755.6	4609.4	4614.7
30°	6311.5	6299.8	6144.1	5830.6	6328.4	5882.5	5346.6	4904.9	4568.1	4412.4	4408.2
32.5°	6780.7	6747.8	6506.3	6073.2	5795.7	5911.1	5259.7	4741.8	4389.1	4235.5	4223.9
35°	7500.9	7440.5	7001.0	6381.4	5703.5	5911.1	5141.1	4566.0	4223.9	4077.7	4069.2
37.5°	8393.8	8409.6	7633.3	6726.7	5845.4	5357.2	4999.2	4401.8	4080.9	3951.7	3951.7
40°	8233.8	8444.6	8367.3	7080.4	5991.6	5268.2	4846.7	4244.0	3962.3	3863.8	3876.5
42.5°	9289.8	9208.2	9218.8	7435.2	6094.3	5177.1	4681.4	4097.8	3857.4	3773.7	3783.3
45°	10461.2	10369.1	8439.3	7753.0	6142.0	5041.5	4514.1	3947.4	3742.0	3672.1	3697.5
47.5°	11617.8	11535.2	9267.5	7675.6	6097.5	4834.0	4307.6	3817.2	3620.2	3570.4	3608.5
50°	12737.3	12620.8	10160.4	6861.2	5939.7	4546.9	4096.8	3680.5	3514.3	3484.6	3513.2
52.5°	13736.1	13581.5	11064.9	6984.0	5188.8	4256.7	3909.3	3549.2	3417.9	3385.0	3413.6
54°	14235.0	14140.7	11570.1	6997.8	4973.8	4076.7	3797.0	3465.5	3363.9	3336.3	3352.2
55°	13385.5	13574.0	11869.9	6986.1	4818.1	3967.6	3722.9	3410.5	3325.7	3296.1	3312.0
57.5°	11886.8	11683.5	11097.8	6843.2	4394.4	3694.3	3505.8	3270.7	3212.4	3174.3	3196.5
60°	12263.9	12226.8	10130.8	6528.6	3931.6	3388.2	3291.8	3107.5	3068.4	3036.6	3066.2
62.5°	12657.9	12633.5	10285.4	6040.3	3470.8	3087.4	3046.1	2916.9	2893.6	2879.8	2887.2
65°	12870.8	12715.1	10281.2	5386.8	3048.2	2779.2	2772.9	2676.5	2687.1	2680.7	2711.4
67.5°	12780.7	12614.5	9826.8	4915.5	2651.0	2427.6	2447.7	2407.4	2446.6	2458.3	2481.6
70°	12310.5	12364.5	8836.5	4461.1	2256.0	2044.2	2107.7	2102.4	2159.6	2204.1	2241.2
72.5°	11660.2	11452.6	7406.6	3791.8	1651.2	1454.2	1564.4	1638.5	1702.1	1755.0	1790.0
75°	9924.2	9680.6	5468.4	2956.1	1195.8	1003.0	1032.7	1065.5	1106.8	1228.6	1300.6
77.5°	6804.0	6702.3	3932.6	2229.5	761.5	604.8	720.2	785.9	820.8	815.5	828.3
80°	3488.8	3470.8	2328.0	1333.5	513.7	442.7	524.3	530.6	586.8	630.2	632.3
82.5°	1406.5	1476.5	929.9	730.8	356.9	334.7	369.6	416.2	463.9	489.3	495.7
85°	497.8	486.1	282.8	343.2	226.7	234.1	261.6	314.6	364.3	370.7	356.9
87.5°	133.5	138.7	60.4	126.0	123.9	135.6	150.4	171.6	207.6	218.2	207.6
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)