

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: P591219

Luminaire Tested: **CTN-CA10-630-727-U-T2-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591219
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-6)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-630-727-U-T2-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 42882 lumens
Efficiency: N/A
Efficacy: 67.9 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

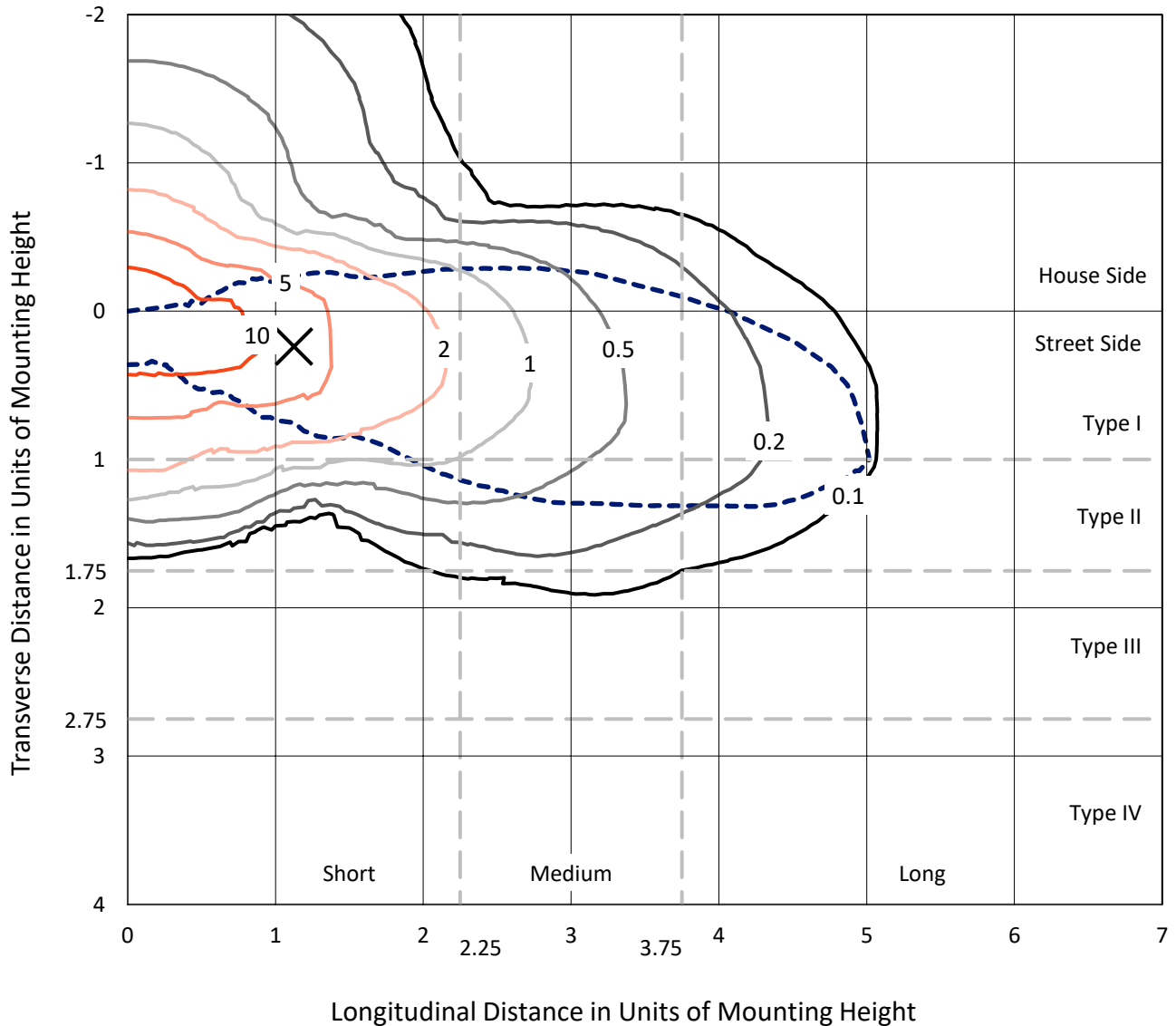
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

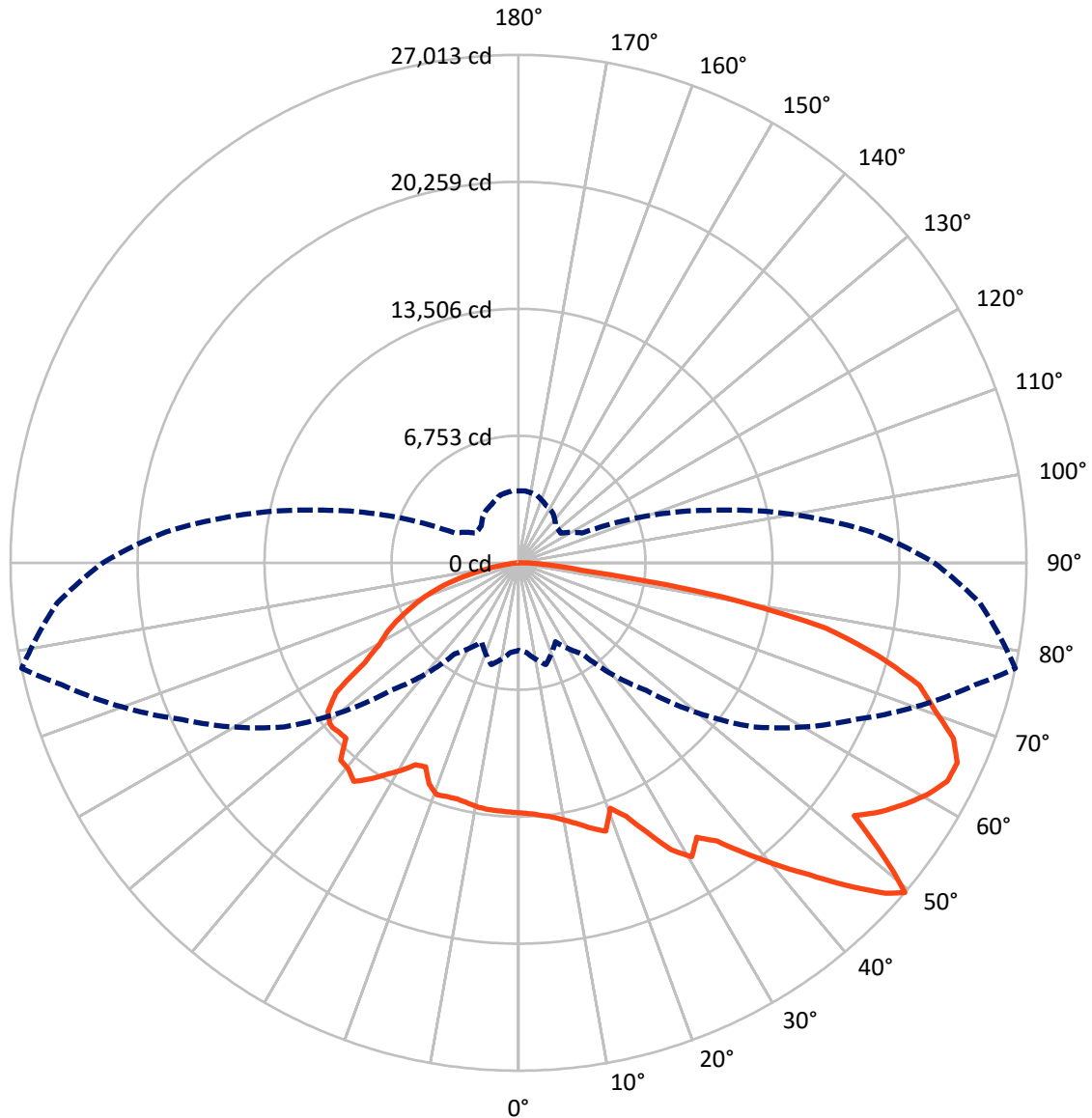
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 17 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral - - - Horizontal Cone Through 49-Deg Vertical

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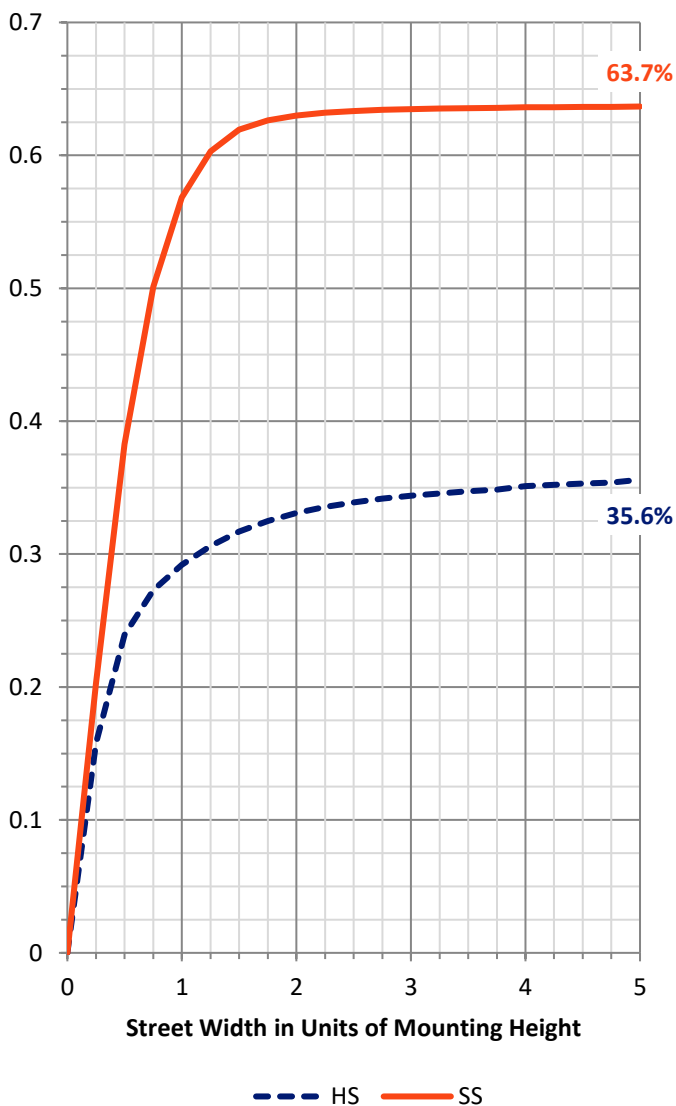
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	15665.5	0.0	15665.5
	% Fixture	36.5	0.0	36.5
Street Side	Lumens	27216.5	0.0	27216.5
	% Fixture	63.5	0.0	63.5
Total	Lumens	42882.0	0.0	42882.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1288.8	3.0
10°-20°	3790.3	8.8
20°-30°	5336.7	12.4
30°-40°	6689.7	15.6
40°-50°	7550.8	17.6
50°-60°	7255.3	16.9
60°-70°	5927.1	13.8
70°-80°	4158.0	9.7
80°-90°	885.2	2.1
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°	42882.0	100.0
0°-180°	42882.0	100.0

Coefficient of Utilization

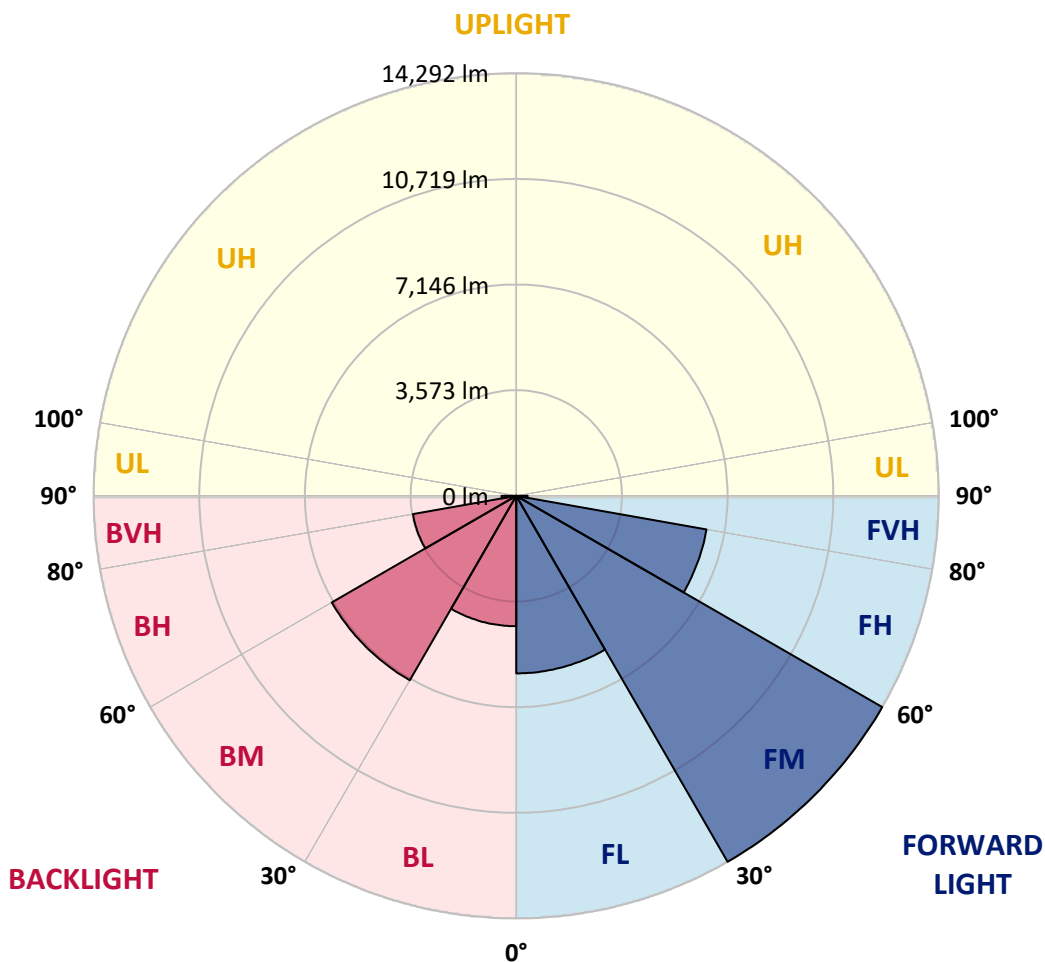


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	6004.7	14.0			
FM (30°-60°)	14292.0	33.3			
FH (60°-80°)	6534.4	15.2			G3/7500
FVH (80°-90°)	385.5	0.9			G3/500
BL (0°-30°)	4411.1	10.3	B4/5000		
BM (30°-60°)	7203.8	16.8	B4/8500		
BH (60°-80°)	3550.8	8.3	B4/5000		G4/5000
BVH (80°-90°)	499.7	1.2			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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	13301.0	13301.0	13301.0	13301.0	13301.0	13301.0	13301.0	13301.0	13301.0	13301.0	13301.0
2.5°	13849.2	13721.2	13750.1	13817.8	13557.0	13629.4	13513.5	13564.2	13426.6	13368.6	13392.7
5°	14836.8	14687.1	14720.9	14754.7	14370.8	14206.6	13883.0	13808.1	13598.0	13501.4	13489.3
7.5°	15307.7	15153.2	15189.4	15189.4	14897.2	14923.8	14595.3	14247.6	13827.4	13675.3	13607.7
10°	16063.6	15889.7	15863.1	15817.3	15435.7	15266.7	14993.8	14790.9	14153.4	13936.1	13750.1
12.5°	16616.6	16481.3	16483.8	16433.0	16003.2	15880.0	15399.5	15160.4	14530.1	14266.9	13967.5
15°	16846.0	16749.4	16812.2	16660.0	16372.7	16189.1	15962.1	15578.2	14926.2	14655.7	14286.2
17.5°	15776.2	15602.3	15141.1	15220.8	15201.5	15257.0	15034.8	15261.8	15158.0	15010.7	14766.8
20°	13358.9	13542.5	13866.1	13578.7	13557.0	14279.0	14795.8	14725.7	14146.2	13931.3	14175.2
22.5°	11352.2	11127.6	11811.0	12832.5	13119.9	13856.4	14735.4	15570.9	14916.5	14641.2	13902.3
25°	9550.7	9777.7	10840.3	12385.8	13288.9	13506.2	14513.2	16085.3	16189.1	15889.7	14931.0
27.5°	9265.8	9263.4	9980.6	11477.8	13532.8	14213.8	14522.9	15829.3	17476.3	17271.0	16169.8
30°	9200.6	9166.8	9439.6	10956.2	12868.7	14848.9	15450.2	15909.0	17466.6	18152.4	17584.9
32.5°	8920.4	8893.9	9174.0	9886.4	11965.6	15455.0	16338.9	16942.6	17031.9	17406.2	19021.8
35°	8471.3	8534.1	8901.1	9688.4	11224.2	14262.1	17239.6	18183.8	18398.7	18179.0	18191.1
37.5°	8041.4	8089.7	8466.5	9335.8	10683.3	11600.9	17857.8	19376.7	19854.9	19603.7	18430.1
40°	7483.6	7551.2	7998.0	8961.5	10328.3	10012.0	16961.9	20777.4	21441.4	21120.3	19789.7
42.5°	6855.8	6887.1	7416.0	8345.7	7406.3	10065.1	15694.1	22062.1	22991.8	22673.0	21067.1
45°	6319.7	6339.0	6771.2	7362.9	6677.1	9980.6	14817.5	21453.5	24802.9	24484.1	22419.5
47.5°	5566.2	5703.9	6172.4	5090.5	6201.3	9772.9	15112.1	19024.2	26500.5	26263.9	23733.1
49°	4663.1	4786.2	5609.7	4636.5	5906.7	9586.9	15213.5	19734.1	25124.1	27012.5	24633.9
50°	4286.4	4375.7	4298.4	4474.7	5691.8	9398.6	15051.7	20306.5	23090.8	25870.3	25213.4
52.5°	3726.1	3467.7	2953.4	4018.3	5196.8	8664.5	12402.7	21844.7	22878.3	22356.7	23624.5
55°	1574.5	2243.4	2612.9	3296.3	4696.9	5259.5	11485.0	23520.6	23904.6	23378.1	21228.9
57.5°	1231.6	1255.7	1436.8	2453.5	2598.4	4073.8	11110.7	24240.2	24679.7	24223.3	22052.4
60°	181.1	178.7	236.7	282.5	644.8	1873.9	7261.4	17254.1	23820.1	25010.6	22805.8
62.5°	65.2	67.6	67.6	79.7	118.3	821.0	5278.9	16097.4	24394.8	25587.7	23436.1
65°	4.8	7.2	12.1	26.6	62.8	775.2	4682.4	16382.3	24208.9	25643.3	23742.8
67.5°	0.0	2.4	7.2	19.3	50.7	763.1	4354.0	15901.8	23428.9	24938.1	23071.5
70°	0.0	0.0	4.8	16.9	45.9	734.1	3781.7	14271.8	22033.1	23491.6	21849.5
72.5°	0.0	0.0	4.8	16.9	41.1	700.3	3107.9	12564.5	20762.9	22289.0	20077.0
75°	0.0	0.0	4.8	14.5	36.2	637.5	2272.4	9106.4	18599.2	19765.5	17560.8
77.5°	0.0	0.0	4.8	14.5	33.8	550.6	1535.8	5218.5	15302.9	16713.2	14754.7
80°	0.0	0.0	4.8	12.1	31.4	417.8	869.3	2605.6	7998.0	10985.1	10545.6
82.5°	0.0	0.0	4.8	12.1	24.1	222.2	405.7	1137.4	2948.5	3479.8	4061.8
85°	0.0	0.0	4.8	9.7	19.3	55.5	137.6	540.9	1610.7	1789.4	1745.9
87.5°	0.0	0.0	4.8	9.7	14.5	21.7	45.9	154.6	596.5	666.5	569.9
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	13301.0	13301.0	13301.0	13301.0	13301.0	13301.0	13301.0	13301.0	13301.0	13301.0	13301.0
2.5°	13387.9	13313.1	13243.0	13252.7	13086.1	13049.8	12892.9	12989.5	12924.3	12842.2	12895.3
5°	13416.9	13320.3	13197.1	13059.5	12694.9	12564.5	12347.1	12409.9	12323.0	12226.4	12277.1
7.5°	13479.7	13366.2	13163.3	12805.9	12380.9	12151.5	11900.4	12115.3	12088.7	12033.2	12088.7
10°	13506.2	13407.2	13061.9	12646.6	12057.3	11900.4	11709.6	11673.4	11680.6	11692.7	11774.8
12.5°	13576.3	13429.0	12897.7	12405.1	11869.0	11557.5	11369.1	11480.2	11250.8	11149.4	11192.8
15°	13747.7	13467.6	12769.7	12069.4	11535.7	11289.4	10825.8	10825.8	10767.8	10668.8	10697.8
17.5°	14093.1	13622.2	12735.9	11847.2	11163.8	10738.8	10313.8	10089.2	10026.4	10057.8	10077.2
20°	14279.0	13907.1	12719.0	11555.0	10746.1	10253.4	9608.7	9449.3	9239.2	9268.2	9302.0
22.5°	13160.9	12675.5	12692.4	11197.7	10229.3	9603.9	8898.7	8621.0	8493.0	8468.9	8534.1
25°	13957.8	12979.8	11470.5	11002.0	9661.8	8864.9	8150.1	7768.6	7573.0	7560.9	7601.9
27.5°	15015.5	13817.8	11301.5	10084.4	9058.1	7969.0	7179.3	6906.5	6713.3	6703.6	6710.9
30°	16247.1	14935.8	11721.7	8954.3	8239.5	6935.4	6307.6	6114.4	5938.1	5860.8	5863.3
32.5°	17616.3	15947.7	12127.4	8736.9	6604.6	6034.7	5546.9	5397.2	5155.7	5044.6	5013.2
35°	18898.6	17022.3	12634.5	8372.3	5730.4	5233.0	4890.1	4689.6	4501.3	4407.1	4375.7
37.5°	17768.5	18012.4	13083.6	8072.8	5063.9	4337.1	4242.9	4110.1	4013.5	3941.0	3929.0
40°	18026.8	16225.4	13349.3	7507.8	4375.7	3788.9	3636.8	3702.0	3801.0	3740.6	3738.2
42.5°	18888.9	16503.1	13107.8	6725.4	3829.9	3267.3	3310.8	3554.7	3762.3	3723.7	3728.5
45°	20122.9	17370.0	11248.4	5790.8	3301.1	2943.7	3226.2	3511.2	3772.0	3784.1	3784.1
47.5°	21400.4	18345.6	10903.0	4544.7	2912.3	2818.1	3211.7	3458.1	3757.5	3834.8	3825.1
49°	22107.9	18818.9	10806.4	3740.6	2738.4	2791.6	3209.3	3407.4	3728.5	3837.2	3825.1
50°	22520.9	19142.5	10625.3	3419.4	2637.0	2786.7	3211.7	3376.0	3699.5	3820.3	3815.5
52.5°	23387.8	19553.0	9992.6	2815.7	2390.7	2769.8	3250.4	3347.0	3610.2	3738.2	3786.5
55°	19326.0	18860.0	8930.1	2528.3	2279.6	2736.0	3250.4	3363.9	3532.9	3607.8	3653.7
57.5°	19565.1	16126.4	7022.4	2385.9	2204.8	2699.8	3199.7	3361.5	3491.9	3503.9	3489.5
60°	20294.4	16500.7	5235.4	2241.0	2117.8	2653.9	3091.0	3284.2	3383.2	3383.2	3339.7
62.5°	20731.5	16676.9	4187.3	2081.6	2026.1	2559.7	2929.2	3134.5	3209.3	3168.3	3161.0
65°	20840.1	16819.4	3037.9	1910.1	1922.2	2458.3	2762.6	2941.3	3045.1	2975.1	2989.6
67.5°	20465.8	15802.8	2219.2	1733.9	1803.9	2320.7	2598.4	2757.8	2832.6	2796.4	2803.6
70°	19082.1	14696.8	1562.4	1432.0	1613.1	2108.2	2390.7	2574.2	2612.9	2550.1	2559.7
72.5°	16858.1	12989.5	985.3	1120.5	1419.9	1912.6	2146.8	2262.7	2270.0	2347.2	2388.3
75°	14682.3	10422.5	712.4	883.8	1127.7	1634.9	1960.9	2069.5	2149.2	2535.6	2598.4
77.5°	11767.6	6595.0	606.1	697.9	886.2	1357.1	1748.4	1915.0	2632.2	2823.0	2774.7
80°	7131.0	4095.6	456.4	550.6	738.9	1043.2	1497.2	1972.9	2663.6	2484.9	2383.5
82.5°	3291.4	1779.7	309.1	449.2	586.8	777.6	1180.9	2303.8	2282.0	1902.9	1883.6
85°	1183.3	526.4	169.0	321.2	410.5	536.1	908.0	2282.0	1789.4	1598.6	1497.2
87.5°	301.9	94.2	70.0	157.0	207.7	285.0	495.0	1207.4	929.7	818.6	789.7
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)