

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: P591418

Luminaire Tested: **CTN-CA10-630-740-U-T4-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591418
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-CA10-630-740-U-T4-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 58529 lumens
Efficiency: N/A
Efficacy: 92.7 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type IV - Short
BUG Rating: B5 - U0 - G5

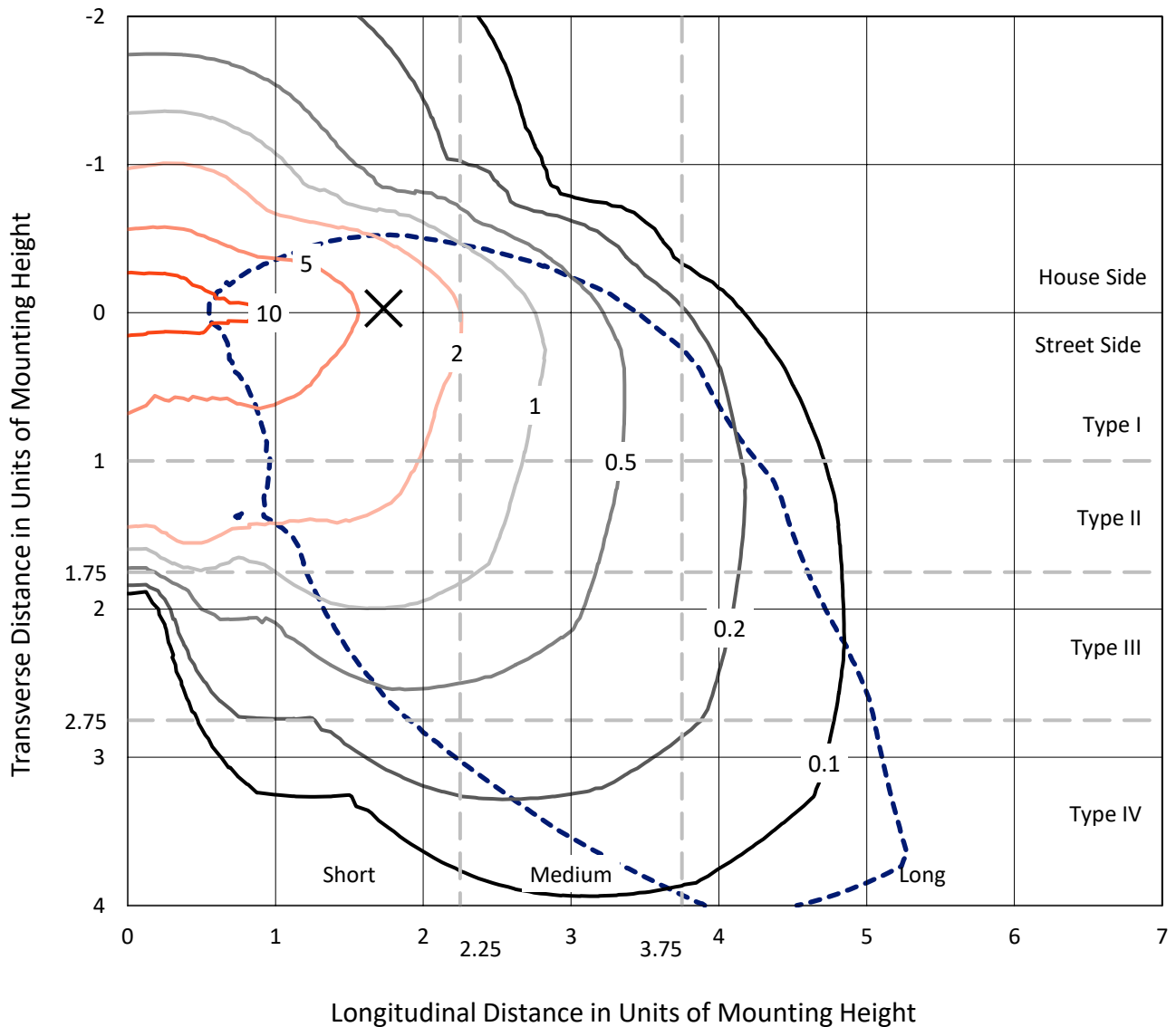
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P591418
 CATALOG NUMBER: CTN-CA10-630-740-U-T4-SSS-HM-EX90

Iso-Footcandle Lines of Horizontal Illumination

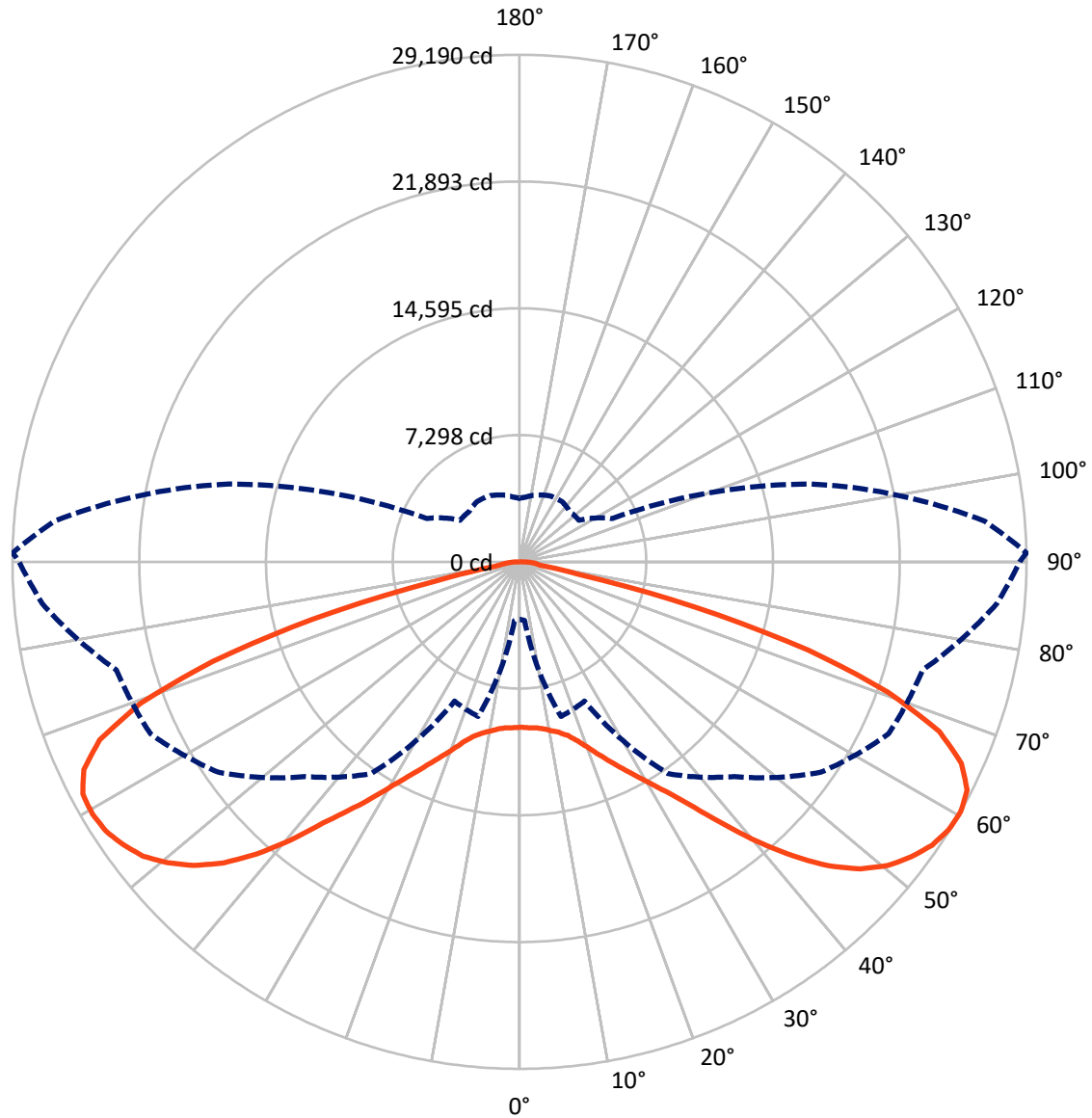
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 11.1 fc
 Type IV - Short - N/A

REPORT NUMBER: P591418
CATALOG NUMBER: CTN-CA10-630-740-U-T4-SSS-HM-EX90

Luminous Intensity Polar Plot



— Vertical Plane Through 91-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

REPORT NUMBER: P591418
 CATALOG NUMBER: CTN-CA10-630-740-U-T4-SSS-HM-EX90

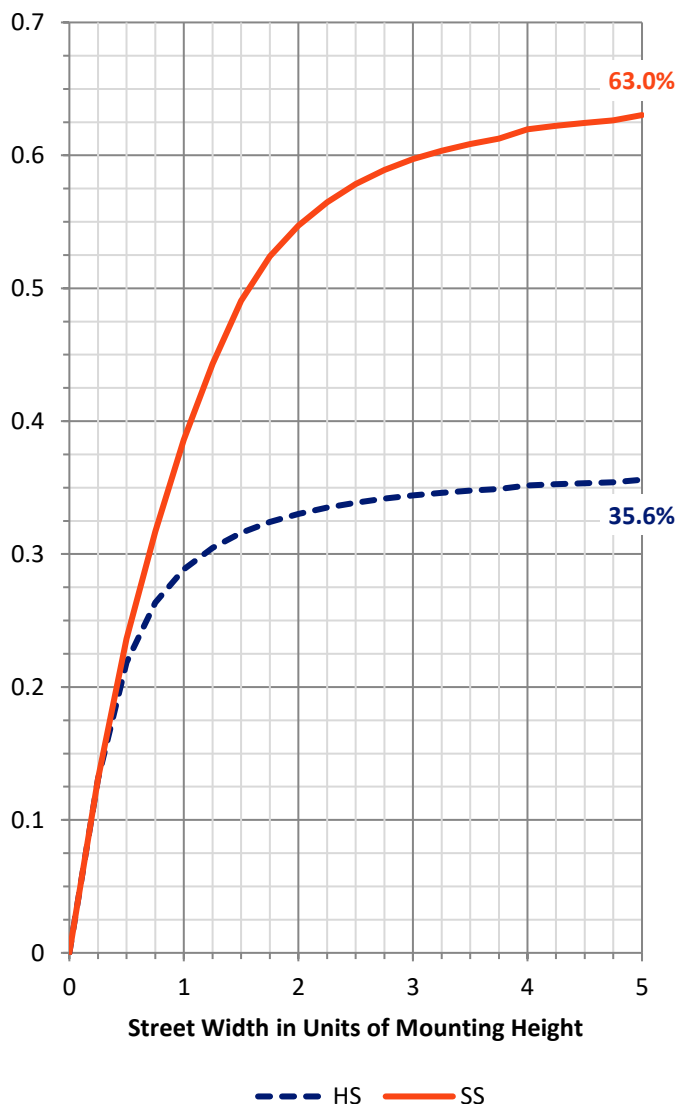
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	21255.6	0.0	21255.6
	% Fixture	36.3	0.0	36.3
Street Side	Lumens	37273.4	0.0	37273.4
	% Fixture	63.7	0.0	63.7
Total	Lumens	58529.0	0.0	58529.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	928.1	1.6
10°-20°	2846.4	4.9
20°-30°	4665.8	8.0
30°-40°	6589.6	11.3
40°-50°	9276.3	15.8
50°-60°	11672.4	19.9
60°-70°	11749.1	20.1
70°-80°	8643.5	14.8
80°-90°	2157.7	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°	58529.0	100.0
0°-180°	58529.0	100.0

Coefficient of Utilization

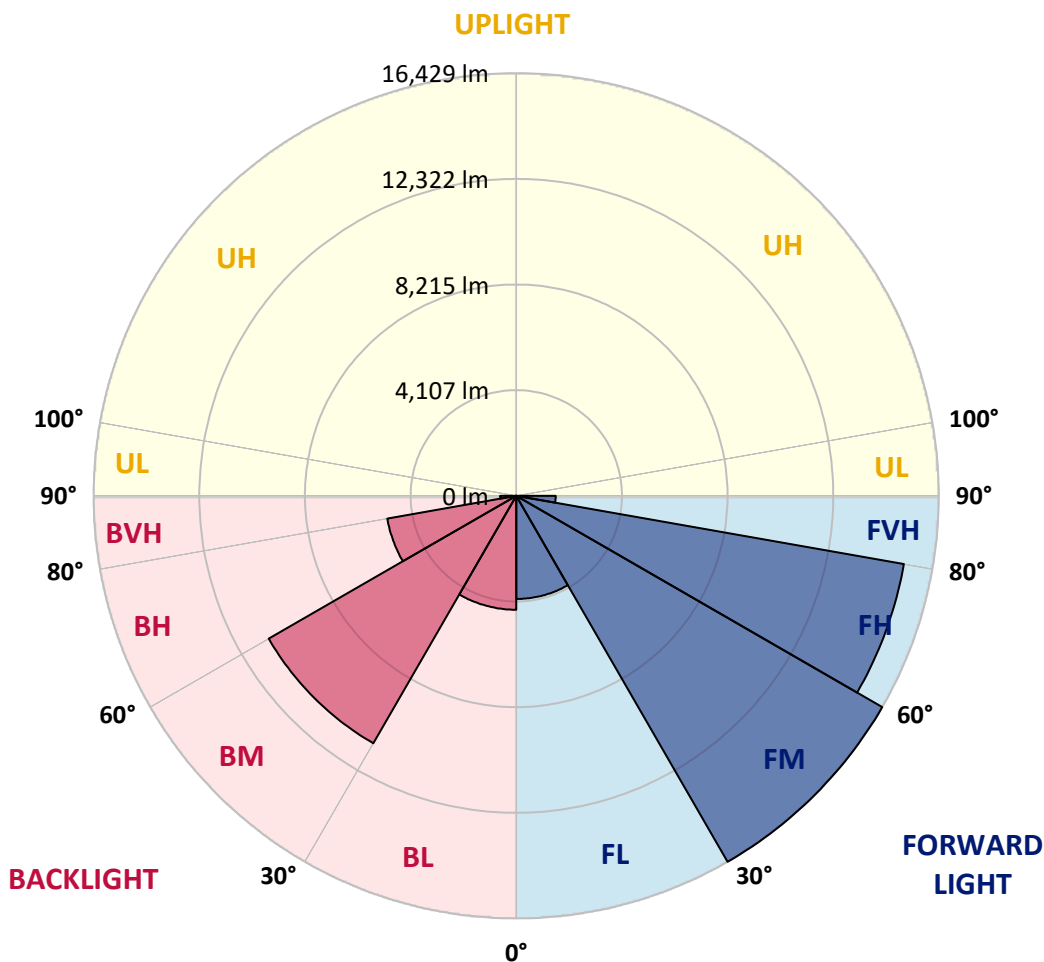


REPORT NUMBER: P591418
 CATALOG NUMBER: CTN-CA10-630-740-U-T4-SSS-HM-EX90

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4009.9	6.9			
FM (30°-60°)	16429.0	28.1			
FH (60°-80°)	15301.9	26.1			G5
FVH (80°-90°)	1532.6	2.6			G5
BL (0°-30°)	4430.4	7.6	B4/5000		
BM (30°-60°)	11109.3	19.0	B5		
BH (60°-80°)	5090.7	8.7	B5		G5
BVH (80°-90°)	625.1	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





REPORT NUMBER: P591418

CATALOG NUMBER: CTN-CA10-630-740-U-T4-SSS-HM-EX90

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	9519.0	9519.0	9519.0	9519.0	9519.0	9519.0	9519.0	9519.0	9519.0	9519.0	9519.0
2.5°	9424.9	9365.0	9367.9	9456.3	9322.2	9407.8	9387.8	9524.7	9499.0	9547.5	9558.9
5°	9359.3	9310.8	9310.8	9416.3	9325.1	9399.2	9336.5	9456.3	9499.0	9570.3	9584.6
7.5°	9385.0	9333.6	9353.6	9444.9	9342.2	9419.2	9413.5	9519.0	9544.7	9664.4	9681.6
10°	9430.6	9385.0	9390.7	9467.7	9399.2	9541.8	9516.2	9667.3	9664.4	9852.7	9866.9
12.5°	9350.8	9316.5	9316.5	9419.2	9459.1	9610.3	9661.6	9818.4	9835.5	10046.6	10063.7
15°	9225.3	9168.2	9253.8	9407.8	9490.5	9727.2	9815.6	10063.7	10109.3	10308.9	10351.7
17.5°	8962.9	8988.6	9228.1	9119.8	8743.3	9094.1	10066.5	10383.1	10482.9	10719.6	10822.2
20°	8150.2	7833.6	7206.3	7377.4	8153.0	9154.0	10417.3	10788.0	11007.6	11287.1	11461.0
22.5°	6156.8	6356.5	7528.5	7651.1	7685.4	8352.7	10907.8	11284.2	11575.1	11928.7	12159.7
25°	6385.0	6365.0	6767.1	8024.7	8058.9	8441.1	10269.0	11931.5	12193.9	12684.4	12915.4
27.5°	6596.0	6596.0	6573.2	7577.0	8446.8	8823.2	10602.7	11455.3	13006.6	13539.9	13810.8
30°	6946.8	6958.2	6829.8	6827.0	8766.2	9173.9	11247.1	11669.2	13725.3	14734.8	14797.5
32.5°	7642.6	7602.7	7443.0	7197.7	7582.7	9581.7	11877.4	12442.0	13032.3	16077.9	16020.9
35°	8144.5	8113.1	7999.0	7827.9	7651.1	9767.1	12467.7	13251.9	14218.6	16474.3	17569.4
37.5°	8751.9	8700.6	8572.2	8369.8	8255.7	8432.5	13075.1	14167.3	15701.5	16944.9	19317.5
40°	9416.3	9402.1	9205.3	8943.0	8786.1	8917.3	13539.9	15308.0	17540.9	18943.9	21245.2
42.5°	9926.8	9915.4	9752.8	9601.7	9527.6	9792.8	12385.0	16819.4	19645.4	20760.4	23101.7
45°	10385.9	10368.8	10363.1	10311.8	10371.7	11016.2	13651.1	17751.9	21712.9	22323.2	24789.9
47.5°	10733.8	10682.5	10537.1	10551.3	10719.6	11806.1	14968.6	16346.0	23389.7	23700.6	26107.4
50°	11560.8	11509.5	11007.6	11024.7	11349.8	12787.1	16103.6	17974.3	21829.8	24892.6	27116.9
52.5°	12299.4	11874.5	11600.8	11612.2	12057.0	13830.8	17392.6	19659.7	21459.1	25836.5	27932.5
55°	10622.6	10348.9	13012.3	12641.6	12886.9	14968.6	18644.5	21119.8	22477.2	26558.0	28400.2
57.5°	6233.8	6199.6	14321.3	14643.5	14358.4	16197.7	19910.6	22334.6	23369.8	27231.0	28713.9
60°	3308.0	3387.8	9211.0	8851.7	14883.1	17481.0	21136.9	23438.2	24031.4	27578.9	28799.4
62.5°	305.1	270.9	6054.2	6878.3	13340.3	19157.8	22591.2	24561.8	24479.1	27764.2	28648.3
65°	59.9	79.8	5940.1	6795.6	14823.2	21938.2	24966.7	25425.8	24721.5	27541.8	27855.5
67.5°	45.6	68.4	5612.2	6721.5	15732.9	23007.6	27701.5	25731.0	24735.7	26831.7	26110.2
70°	45.6	71.3	4953.4	6282.3	16163.5	23053.2	28348.8	25611.2	24416.3	25223.4	22822.2
72.5°	45.6	71.3	4160.6	5443.9	15430.6	22063.7	27213.9	24946.7	23227.2	21718.6	17800.4
75°	45.6	65.6	3265.2	4423.0	13337.4	20538.0	25266.1	22055.1	19551.3	15892.6	11421.1
77.5°	45.6	62.7	2406.8	3462.0	11130.2	18114.1	21972.4	18128.3	14737.6	8321.3	4203.4
80°	42.8	62.7	1465.8	2441.1	8575.1	14612.2	17267.1	13394.5	7745.2	2093.2	1214.8
82.5°	42.8	59.9	698.7	1562.7	6025.7	10440.1	11267.1	5737.6	1648.3	966.7	966.7
85°	37.1	54.2	373.6	849.8	3938.2	6844.1	5435.4	972.4	644.5	653.0	744.3
87.5°	22.8	28.5	176.8	382.1	2270.0	3658.7	2093.2	356.5	268.1	282.3	422.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P591418

CATALOG NUMBER: CTN-CA10-630-740-U-T4-SSS-HM-EX90

CANDELA DISTRIBUTION (continued):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	9519.0	9519.0	9519.0	9519.0	9519.0	9519.0	9519.0	9519.0	9519.0	9519.0	9519.0
2.5°	9567.5	9553.2	9584.6	9684.4	9667.3	9738.6	9681.6	9781.4	9801.3	9772.8	9818.4
5°	9598.9	9618.8	9724.3	9818.4	9767.1	9881.2	9912.5	10052.3	10049.4	10023.8	10080.8
7.5°	9701.5	9755.7	9861.2	9978.1	10003.8	10095.0	10083.6	10260.4	10240.5	10229.1	10286.1
10°	9878.3	9961.0	10060.8	10254.7	10192.0	10346.0	10240.5	10360.3	10348.9	10320.3	10371.7
12.5°	10075.1	10189.2	10308.9	10485.7	10460.1	10457.2	10363.1	10400.2	10368.8	10300.4	10343.1
15°	10371.7	10511.4	10676.8	10790.9	10639.7	10582.7	10434.4	10354.6	10246.2	10086.5	10112.2
17.5°	10833.6	10999.0	11175.8	11195.8	10962.0	10813.7	10454.4	10169.2	9886.9	9673.0	9693.0
20°	11455.3	11606.5	11737.6	11643.5	11327.0	10996.2	10454.4	10003.8	9476.2	9082.7	9054.2
22.5°	12182.5	12228.1	12353.6	12122.6	11577.9	11116.0	10425.8	9755.7	8897.3	8372.6	8309.9
25°	12966.7	12961.0	12906.8	12427.7	11734.8	11050.4	10209.1	9330.8	8235.7	7688.2	7642.6
27.5°	13819.4	13748.1	13377.4	12684.4	11669.2	10813.7	9798.5	8615.0	7634.0	7163.5	7149.2
30°	14780.4	14592.2	13842.2	12710.1	11423.9	10346.0	9131.2	7893.5	7097.9	6678.7	6638.8
32.5°	15901.1	15533.3	14212.9	12627.4	10981.9	9633.1	8318.4	7326.0	6658.7	6199.6	6111.2
35°	17364.1	16719.6	14555.1	12356.5	10326.0	8786.1	7568.4	6821.3	6250.9	5780.4	5686.3
37.5°	19203.4	18256.6	15071.3	11960.1	9576.0	8030.4	7049.4	6487.6	5968.6	5412.5	5298.5
40°	21245.2	20064.6	15675.8	11575.1	8863.1	7468.6	6710.1	6330.8	5786.1	5175.9	5067.5
42.5°	23178.7	21884.0	16582.7	11076.0	8184.4	7018.1	6587.4	6285.2	5700.6	5073.2	4956.3
45°	24963.9	23483.8	17518.0	10574.1	7494.3	6650.2	6484.8	6151.1	5569.4	4953.4	4819.4
47.5°	26421.1	24744.3	18345.0	10055.1	6886.9	6362.2	6288.0	5894.5	5338.4	4759.5	4634.0
50°	27479.1	25711.0	18829.8	9573.2	6302.3	6074.1	5943.0	5529.5	5013.3	4531.4	4440.1
52.5°	28229.1	26546.6	19072.2	9519.0	5771.9	5686.3	5540.9	5153.0	4739.5	4366.0	4257.6
55°	28808.0	27002.8	18864.1	9202.5	5270.0	5198.7	5047.5	4808.0	4559.9	4212.0	4140.7
57.5°	29121.7	27211.0	18387.8	7762.4	4736.7	4614.1	4594.1	4542.8	4326.0	3981.0	3926.8
60°	29190.1	26880.2	17309.9	5903.0	4177.8	4097.9	4249.0	4183.5	3989.5	3732.9	3655.9
62.5°	28922.0	26173.0	15265.2	4414.4	3712.9	3844.1	3998.1	3898.3	3673.0	3422.1	3373.6
65°	27955.3	24550.4	12302.3	3436.3	3499.0	3724.3	3861.2	3741.4	3467.7	3182.5	3151.1
67.5°	26064.6	22023.7	8098.9	3091.3	3399.2	3624.5	3778.5	3587.4	3310.8	3002.8	2965.8
70°	22519.9	17409.7	3858.4	2883.1	3208.2	3430.6	3553.2	3336.5	3068.4	2766.2	2726.2
72.5°	17392.6	11831.7	2130.2	2654.9	2971.5	3176.8	3265.2	3008.6	2760.5	2635.0	2623.6
75°	10468.6	5084.6	1924.9	2429.7	2666.3	2857.4	3014.3	2820.3	2603.6	2358.4	2295.6
77.5°	3456.3	1477.2	1810.8	2161.6	2429.7	2660.6	2734.8	2546.6	2275.7	2067.5	2050.4
80°	1212.0	1237.6	1688.2	1799.4	2116.0	2309.9	2392.6	2175.9	2047.5	1830.8	1788.0
82.5°	986.7	1109.3	1363.1	1357.4	1671.1	1899.2	2024.7	1970.5	1802.3	1628.3	1611.2
85°	807.0	1015.2	864.1	949.6	1197.7	1445.8	1685.4	1691.1	1562.7	1385.9	1269.0
87.5°	479.1	519.0	430.6	484.8	633.1	812.7	941.1	898.3	735.7	621.7	607.4
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)