

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: P232712

Luminaire Tested: **CTN-8-3-D-E1-T4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232712
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-20)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-8-3-D-E1-T4-7030
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 3000K LEDS AND TYPE IV OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30050 lumens
Efficiency: N/A
Efficacy: 133.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

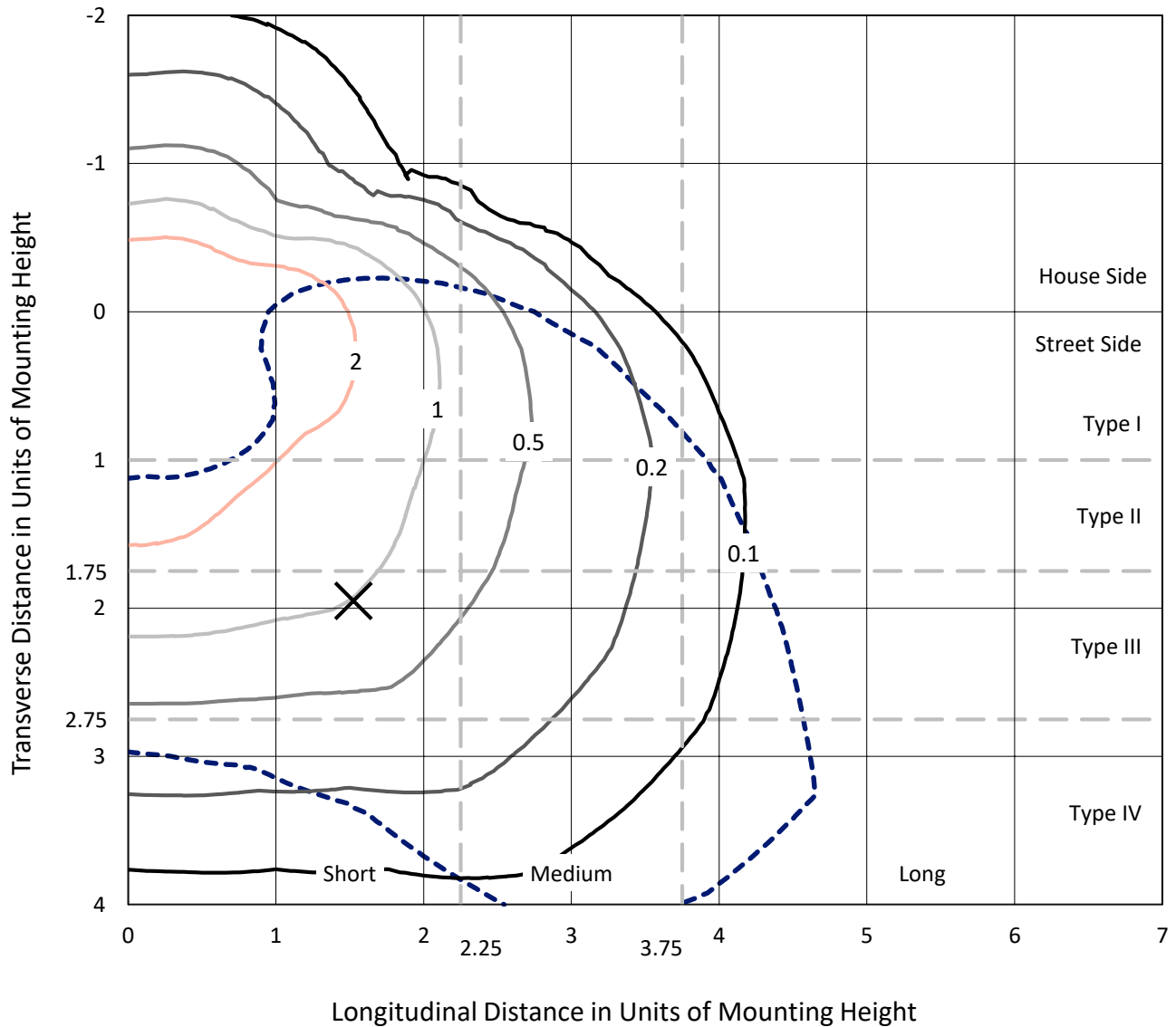
Input Watts (W): 226
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P232712
 CATALOG NUMBER: CTN-8-3-D-E1-T4-7030

Iso-Footcandle Lines of Horizontal Illumination

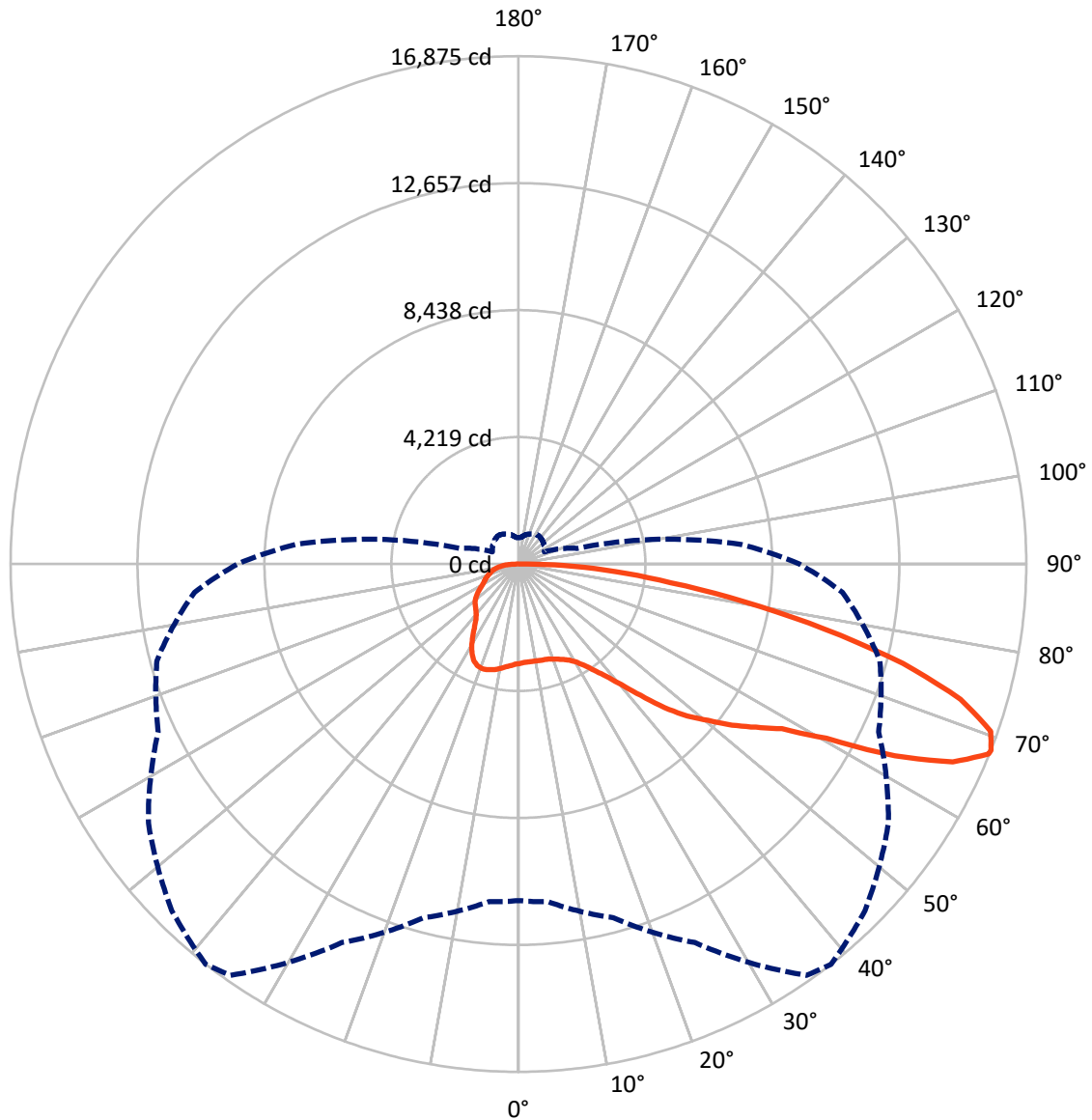
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 3.8 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P232712
CATALOG NUMBER: CTN-8-3-D-E1-T4-7030

Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

REPORT NUMBER: P232712

CATALOG NUMBER: CTN-8-3-D-E1-T4-7030

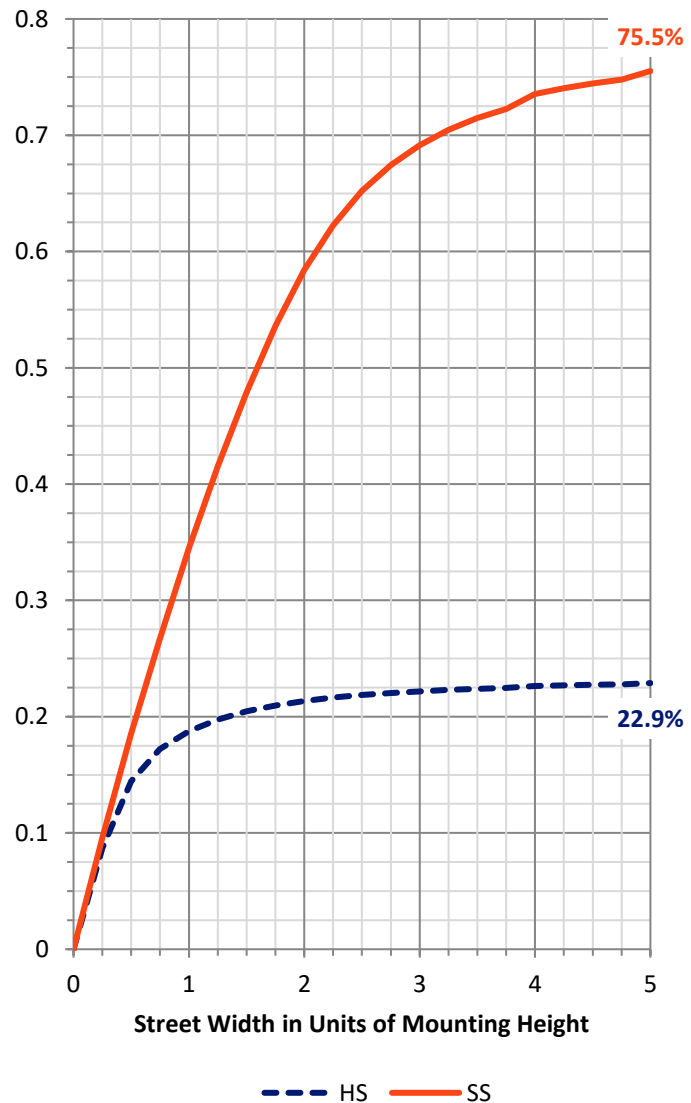
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7013.0	0.0	7013.0
	% Fixture	23.3	0.0	23.3
Street Side	Lumens	23037.0	0.0	23037.0
	% Fixture	76.7	0.0	76.7
Total	Lumens	30050.0	0.0	30050.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	320.2	1.1
10°-20°	988.3	3.3
20°-30°	1679.0	5.6
30°-40°	2542.6	8.5
40°-50°	4205.4	14.0
50°-60°	6057.7	20.2
60°-70°	7639.6	25.4
70°-80°	5437.2	18.1
80°-90°	1180.2	3.9
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°	30050.0	100.0
0°-180°	30050.0	100.0



REPORT NUMBER: P232712

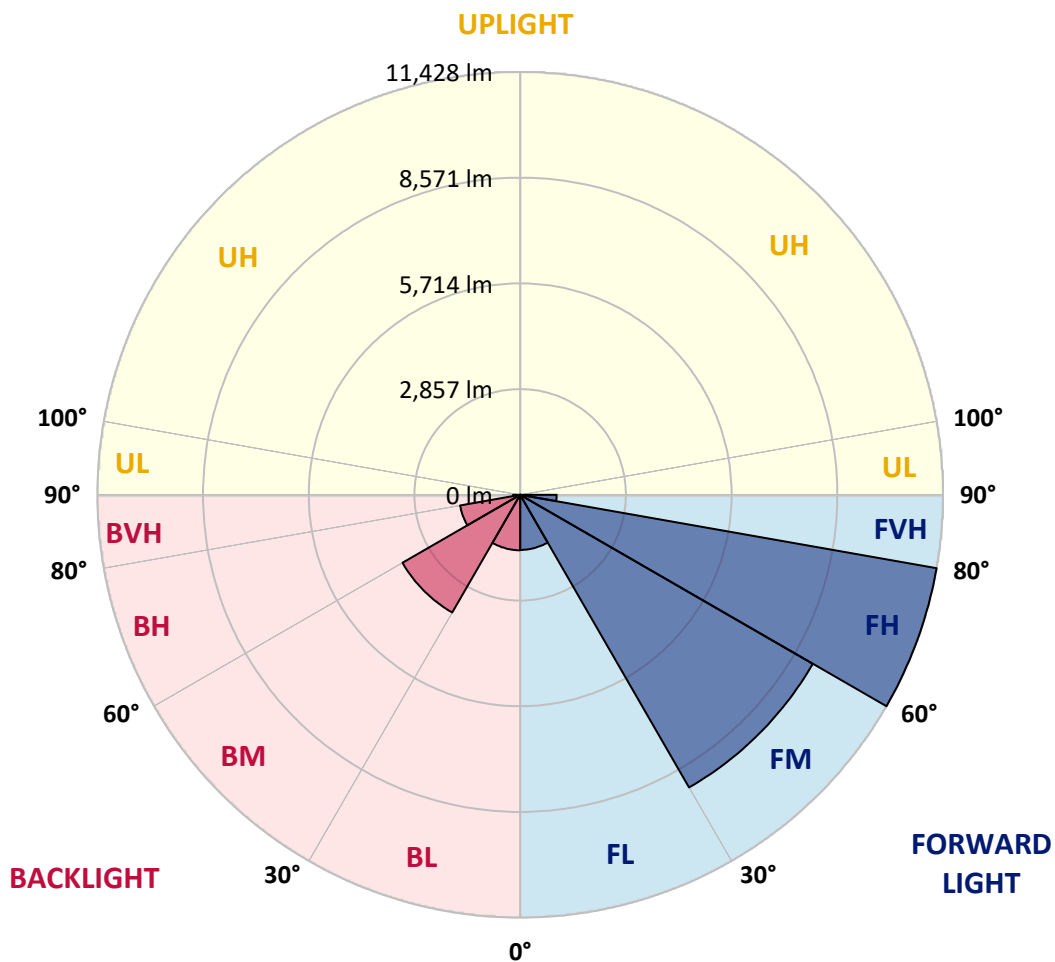
CATALOG NUMBER: CTN-8-3-D-E1-T4-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1488.8	5.0			
FM	(30°-60°)	9133.1	30.4			
FH	(60°-80°)	11428.5	38.0			G4/12000
FVH	(80°-90°)	986.5	3.3			G5
BL	(0°-30°)	1498.6	5.0	B3/2500		
BM	(30°-60°)	3672.5	12.2	B3/5000		
BH	(60°-80°)	1648.3	5.5	B3/2500		G3/2500
BVH	(80°-90°)	193.7	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short





REPORT NUMBER: P232712
 CATALOG NUMBER: CTN-8-3-D-E1-T4-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	3310.5	3310.5	3310.5	3310.5	3310.5	3310.5	3310.5	3310.5	3310.5	3310.5	3310.5
2.5°	3298.7	3304.6	3300.7	3298.7	3273.4	3279.2	3289.0	3275.3	3308.5	3306.5	3326.1
5°	3267.5	3270.4	3271.4	3280.2	3255.8	3268.5	3280.2	3271.4	3306.5	3296.8	3324.1
7.5°	3258.7	3257.7	3258.7	3275.3	3249.0	3268.5	3282.1	3279.2	3317.3	3309.5	3342.7
10°	3236.3	3237.2	3240.2	3258.7	3245.0	3271.4	3295.8	3308.5	3359.3	3352.4	3390.5
12.5°	3197.2	3205.0	3215.8	3247.0	3249.9	3285.1	3321.2	3346.6	3413.0	3418.8	3466.7
15°	3163.0	3176.7	3195.3	3237.2	3254.8	3294.8	3340.7	3387.6	3474.5	3500.8	3561.3
17.5°	3173.8	3194.3	3218.7	3261.6	3274.3	3316.3	3368.1	3430.5	3537.9	3594.5	3672.6
20°	3240.2	3253.8	3274.3	3314.4	3331.0	3372.9	3414.9	3476.4	3616.0	3707.8	3804.4
22.5°	3323.1	3342.7	3356.3	3380.7	3400.3	3437.4	3481.3	3541.8	3706.8	3822.0	3954.8
25°	3412.0	3421.7	3441.3	3457.9	3482.3	3511.6	3561.3	3635.5	3810.3	3951.8	4137.3
27.5°	3494.0	3498.9	3536.0	3549.6	3597.5	3618.9	3658.0	3756.6	3945.0	4119.8	4348.2
30°	3614.1	3623.8	3652.1	3684.4	3754.6	3776.1	3816.2	3919.6	4124.6	4348.2	4622.5
32.5°	3841.5	3866.9	3863.0	3897.2	3980.2	4008.5	4063.1	4197.9	4421.4	4678.2	5004.2
35°	4302.3	4338.4	4293.5	4247.7	4291.6	4329.7	4413.6	4610.8	4887.1	5310.8	5632.9
37.5°	5057.0	5093.1	4933.0	4786.5	4690.9	4721.1	4835.4	5114.6	5537.3	6273.4	6632.6
40°	5938.5	5977.6	5755.0	5491.4	5275.6	5263.9	5299.1	5654.4	6264.6	7344.3	7624.5
42.5°	6706.8	6809.3	6518.4	6290.9	6011.7	5964.9	5879.9	6239.2	7033.9	8336.2	8494.3
45°	7453.6	7553.2	7323.8	7166.6	6881.6	6805.4	6644.3	6862.0	7788.5	9204.1	9210.9
47.5°	8139.0	8219.0	7952.5	7852.0	7570.8	7537.6	7372.6	7524.9	8487.5	9939.2	9800.5
50°	8905.3	8989.3	8564.6	8440.6	8214.1	8169.2	8115.5	8224.9	9289.0	10572.8	10301.4
52.5°	9842.5	9811.3	9287.0	9003.0	8882.9	8893.6	8833.1	8954.1	10139.3	11109.7	10695.8
55°	10964.2	10804.1	10228.1	9797.6	9521.3	9574.1	9495.0	9672.7	10979.9	11562.7	10980.8
57.5°	11601.7	11645.7	11591.0	11037.5	10334.6	10326.7	10201.8	10372.6	11714.0	11932.7	11154.6
60°	12531.1	12712.7	12782.0	12632.6	12002.0	11753.0	11127.3	11088.2	12333.9	12251.9	11243.4
62.5°	13118.8	13203.7	13620.6	13801.2	14004.3	14047.2	13053.4	11950.2	12791.8	12414.9	11280.5
65°	12837.7	12923.6	13702.6	14410.4	15615.1	15857.2	15540.9	13316.0	13101.2	12451.1	11156.6
67.5°	11396.7	11502.1	12547.7	13998.4	16589.4	16850.0	16339.4	14890.7	13202.8	12429.6	10887.1
68°	11185.8	11263.9	12166.0	13878.3	16687.0	16875.4	16286.7	15009.8	13208.6	12436.4	10804.1
70°	9565.3	9702.9	10652.8	12785.9	16529.8	16649.9	15957.7	14943.4	13075.9	12325.1	10196.9
72.5°	7455.6	7646.0	8368.4	10619.6	15267.5	15365.2	14785.3	14211.2	12674.6	11552.9	8740.3
75°	5401.6	5564.6	6259.7	8195.6	12853.3	13199.8	13102.2	13205.7	11361.6	9788.8	6330.0
77.5°	3730.2	3869.8	4518.1	6115.2	9966.5	10404.8	10911.5	11180.0	9335.9	7262.3	3008.8
80°	2389.9	2497.2	3048.8	4306.2	7187.1	7599.1	8144.8	8423.1	6640.4	3653.1	534.0
82.5°	1404.8	1478.0	1854.9	2778.4	4844.1	5095.0	5358.6	4892.0	2665.2	699.0	336.8
85°	698.0	746.8	978.2	1571.8	3011.7	3242.1	3330.0	2087.2	563.3	255.8	229.4
87.5°	312.4	326.1	419.8	707.8	1431.2	1508.3	1471.2	649.2	113.2	95.7	82.0
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: P232712

CATALOG NUMBER: CTN-8-3-D-E1-T4-7030

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3310.5	3310.5	3310.5	3310.5	3310.5	3310.5	3310.5	3310.5	3310.5	3310.5	3310.5
2.5°	3328.0	3320.2	3318.3	3331.0	3317.3	3333.9	3329.0	3366.1	3371.0	3357.3	3379.8
5°	3332.9	3329.0	3331.9	3355.4	3350.5	3384.6	3393.4	3430.5	3430.5	3419.8	3443.2
7.5°	3355.4	3355.4	3364.1	3407.1	3407.1	3436.4	3446.2	3487.2	3486.2	3486.2	3507.7
10°	3412.0	3412.0	3430.5	3485.2	3471.5	3509.6	3514.5	3536.0	3531.1	3532.1	3554.5
12.5°	3495.9	3500.8	3533.0	3580.9	3572.1	3585.8	3576.0	3572.1	3536.9	3536.9	3551.6
15°	3592.6	3613.1	3657.0	3701.0	3671.7	3666.8	3611.1	3562.3	3487.2	3454.9	3471.5
17.5°	3718.5	3753.7	3804.4	3835.7	3780.0	3740.0	3639.4	3512.5	3390.5	3319.2	3321.2
20°	3858.1	3905.0	3967.5	3978.2	3896.2	3796.6	3628.7	3429.6	3219.7	3106.4	3098.6
22.5°	4013.4	4071.9	4144.2	4102.2	3968.4	3806.4	3566.2	3301.7	3019.5	2829.2	2826.2
25°	4202.7	4266.2	4312.1	4194.9	3985.0	3756.6	3457.9	3102.5	2754.0	2549.0	2535.3
27.5°	4443.9	4485.9	4451.7	4242.8	3935.3	3637.5	3274.3	2846.7	2477.7	2292.2	2271.7
30°	4729.9	4725.0	4539.5	4229.1	3834.7	3449.1	3024.4	2569.5	2251.2	2092.1	2073.5
32.5°	5077.5	5007.2	4624.5	4163.7	3672.6	3202.1	2727.6	2339.1	2087.2	1926.1	1906.6
35°	5632.0	5433.8	4734.8	4065.1	3447.1	2904.3	2447.5	2161.4	1960.3	1775.8	1737.7
37.5°	6492.0	6074.2	4918.3	3961.6	3188.4	2612.4	2238.5	2032.5	1860.7	1651.8	1606.9
40°	7376.5	6818.1	5197.5	3850.3	2946.3	2391.8	2120.4	1972.0	1800.2	1599.1	1554.2
42.5°	8144.8	7512.2	5532.4	3710.7	2698.3	2218.0	2059.9	1952.5	1780.7	1589.3	1546.4
45°	8823.3	8136.0	5881.9	3548.7	2438.7	2077.5	2008.1	1925.2	1751.4	1566.9	1527.8
47.5°	9388.6	8633.0	6189.4	3369.0	2183.9	1974.0	1957.4	1860.7	1695.7	1518.1	1484.9
50°	9825.9	8986.4	6395.4	3168.9	1966.2	1892.9	1884.2	1762.1	1602.0	1432.2	1399.0
52.5°	10136.4	9223.6	6515.5	3093.7	1795.3	1799.2	1784.6	1654.7	1499.5	1330.6	1304.3
55°	10333.6	9386.6	6486.2	2997.1	1622.5	1667.4	1669.4	1575.7	1439.0	1275.0	1253.5
57.5°	10408.7	9379.8	6313.4	2512.9	1454.6	1509.3	1535.6	1521.0	1399.9	1239.8	1222.3
60°	10367.7	9269.5	5945.3	1841.2	1280.8	1355.0	1419.5	1416.5	1314.0	1162.7	1144.2
62.5°	10299.4	9013.7	5223.9	1317.9	1150.0	1245.7	1323.8	1297.4	1199.8	1067.0	1054.3
65°	10054.4	8562.7	4038.7	1054.3	1095.3	1184.2	1248.6	1203.7	1108.0	969.4	962.6
67.5°	9512.6	7660.6	2357.6	961.6	1055.3	1132.4	1178.3	1122.7	1033.8	899.1	887.4
68°	9329.0	7429.2	2005.2	952.8	1047.5	1119.8	1161.7	1103.2	1016.3	885.5	873.7
70°	8402.6	6021.5	956.7	916.7	1013.3	1061.2	1085.6	1031.9	947.0	830.8	823.0
72.5°	6539.9	3632.6	639.4	862.0	947.0	992.8	998.7	914.7	834.7	748.8	743.9
75°	3864.0	1205.7	594.5	781.0	855.2	918.6	935.2	851.3	762.4	662.9	660.9
77.5°	941.1	467.6	561.3	697.0	775.1	836.6	849.3	787.8	709.7	597.5	593.6
80°	387.6	388.5	523.3	577.9	664.8	724.4	742.9	688.3	618.0	545.7	537.9
82.5°	322.2	328.0	444.2	426.6	532.1	601.4	619.9	581.8	557.4	479.3	471.5
85°	229.4	290.9	294.8	287.0	372.9	428.6	522.3	503.7	477.4	411.0	372.0
87.5°	107.4	169.9	127.9	123.0	189.4	253.8	298.7	313.4	271.4	210.9	195.2
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)