

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: P510711

Luminaire Tested: **CTN-CA8-230-727-U-T4**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510711
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-12)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-CA8-230-727-U-T4
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29950 lumens
Efficiency: N/A
Efficacy: 131.1 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

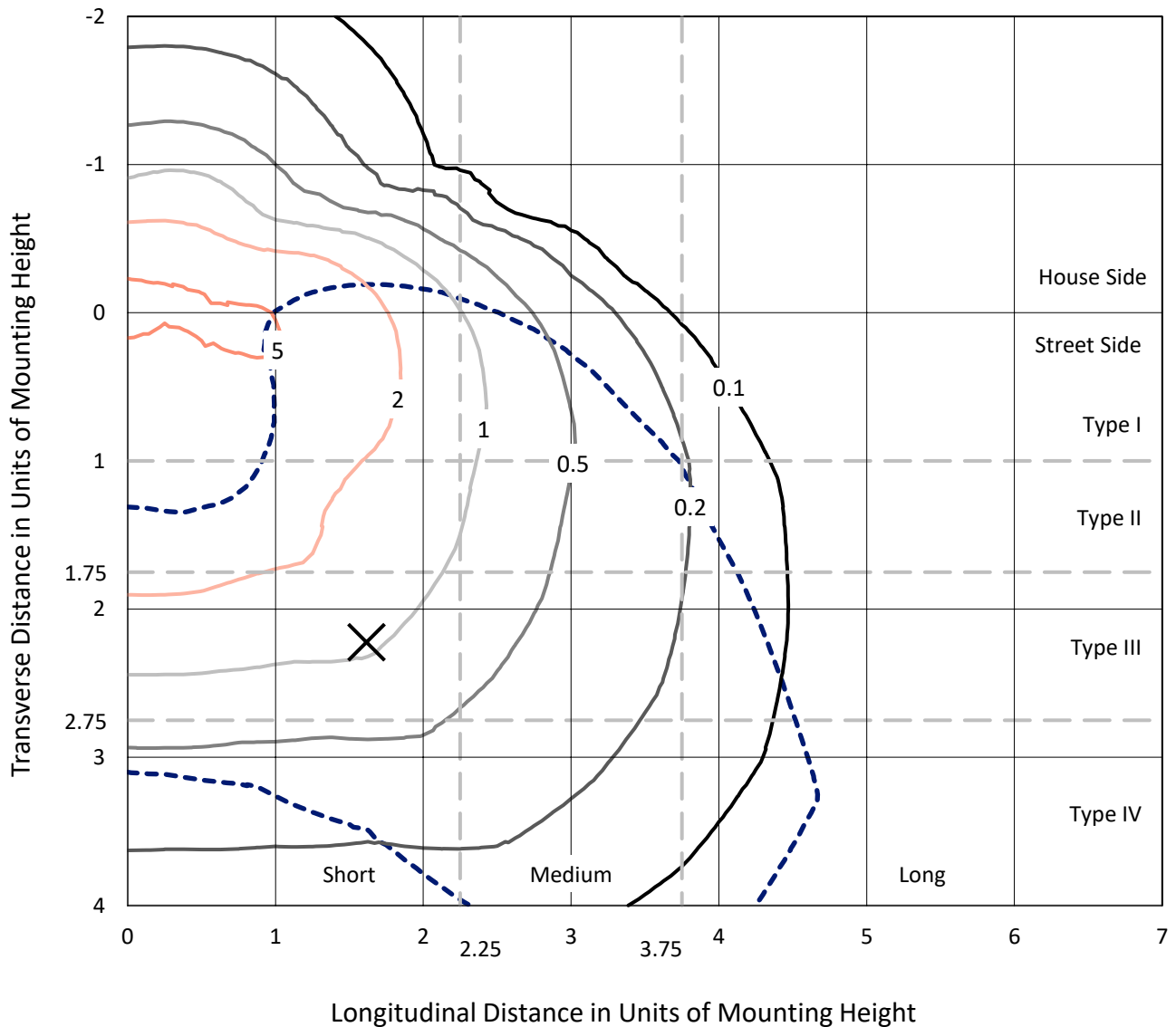
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P510711
 CATALOG NUMBER: CTN-CA8-230-727-U-T4

Iso-Footcandle Lines of Horizontal Illumination

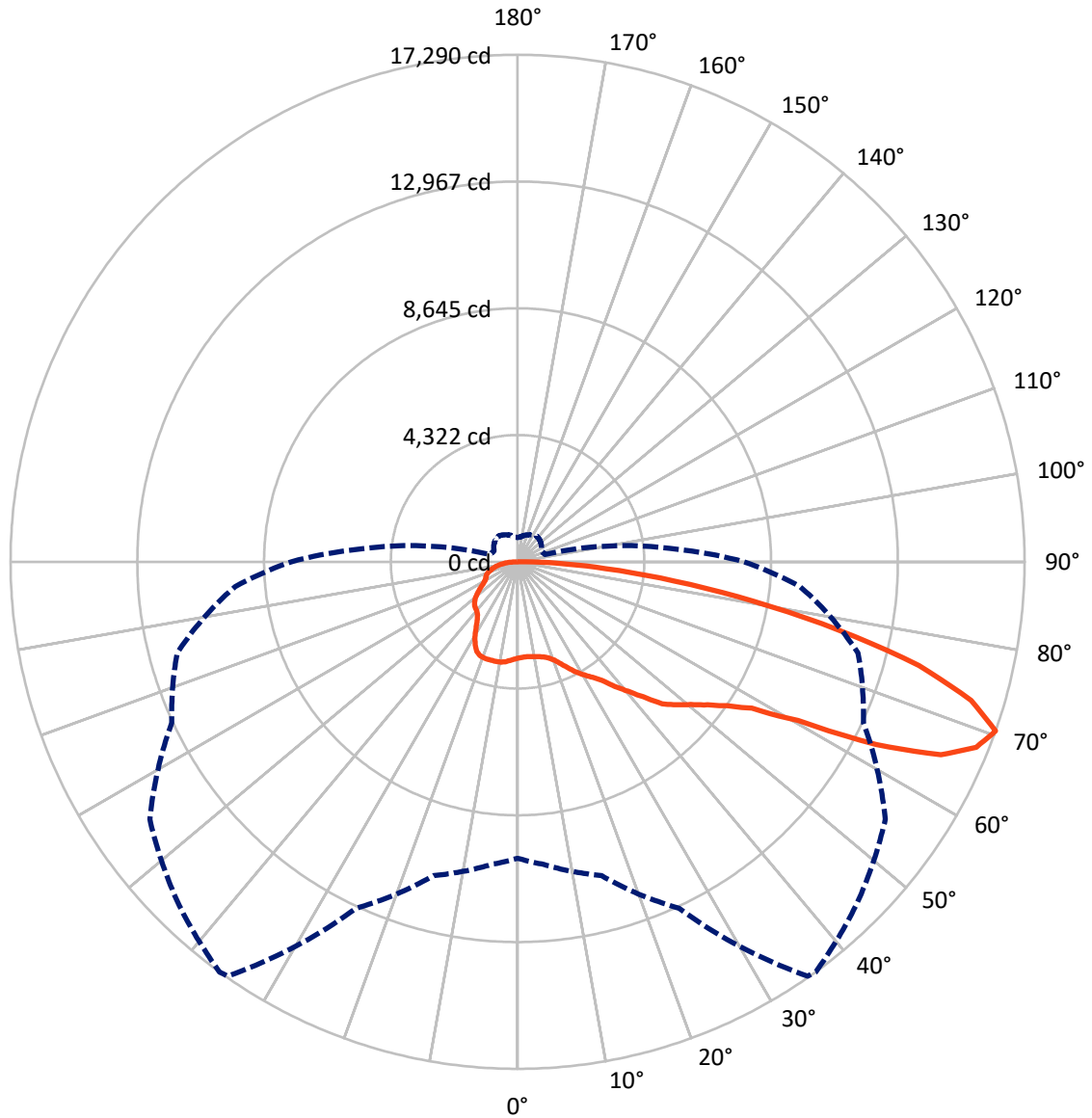
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.5 fc
 Type IV - Short - N/A

REPORT NUMBER: P510711
CATALOG NUMBER: CTN-CA8-230-727-U-T4

Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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 CATALOG NUMBER: CTN-CA8-230-727-U-T4

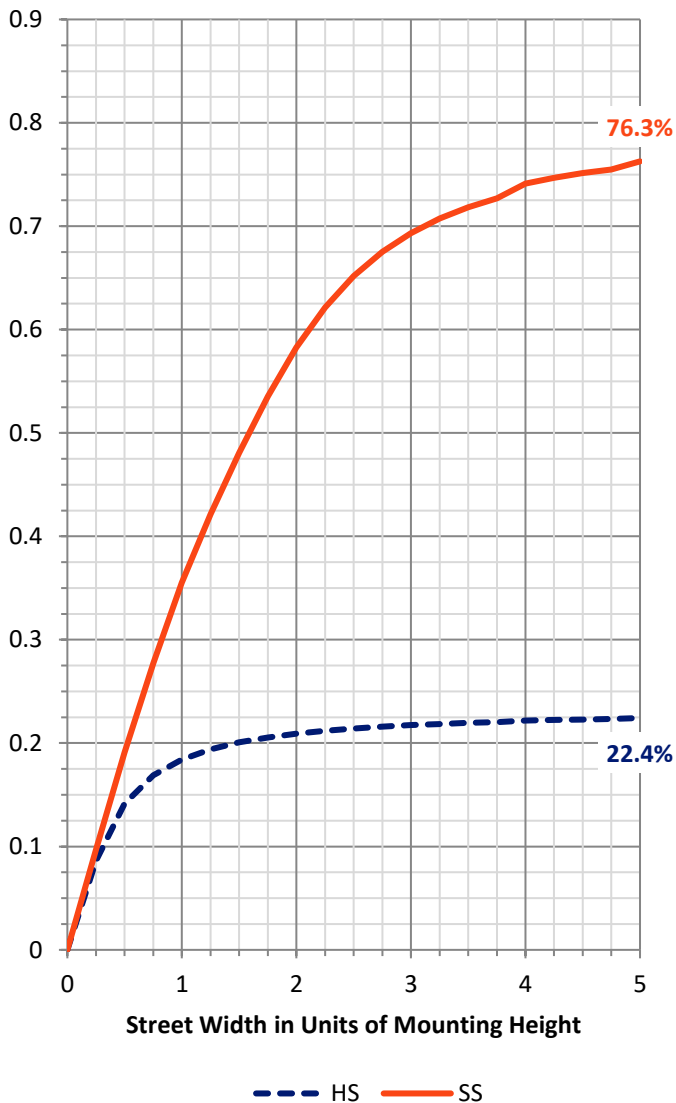
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6823.9	0.0	6823.9
	% Fixture	22.8	0.0	22.8
Street Side	Lumens	23126.1	0.0	23126.1
	% Fixture	77.2	0.0	77.2
Total	Lumens	29950.0	0.0	29950.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	317.8	1.1
10°-20°	982.5	3.3
20°-30°	1772.3	5.9
30°-40°	2744.9	9.2
40°-50°	4169.5	13.9
50°-60°	5779.2	19.3
60°-70°	7514.9	25.1
70°-80°	5549.7	18.5
80°-90°	1119.2	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°	29950.0	100.0
0°-180°	29950.0	100.0

Coefficient of Utilization

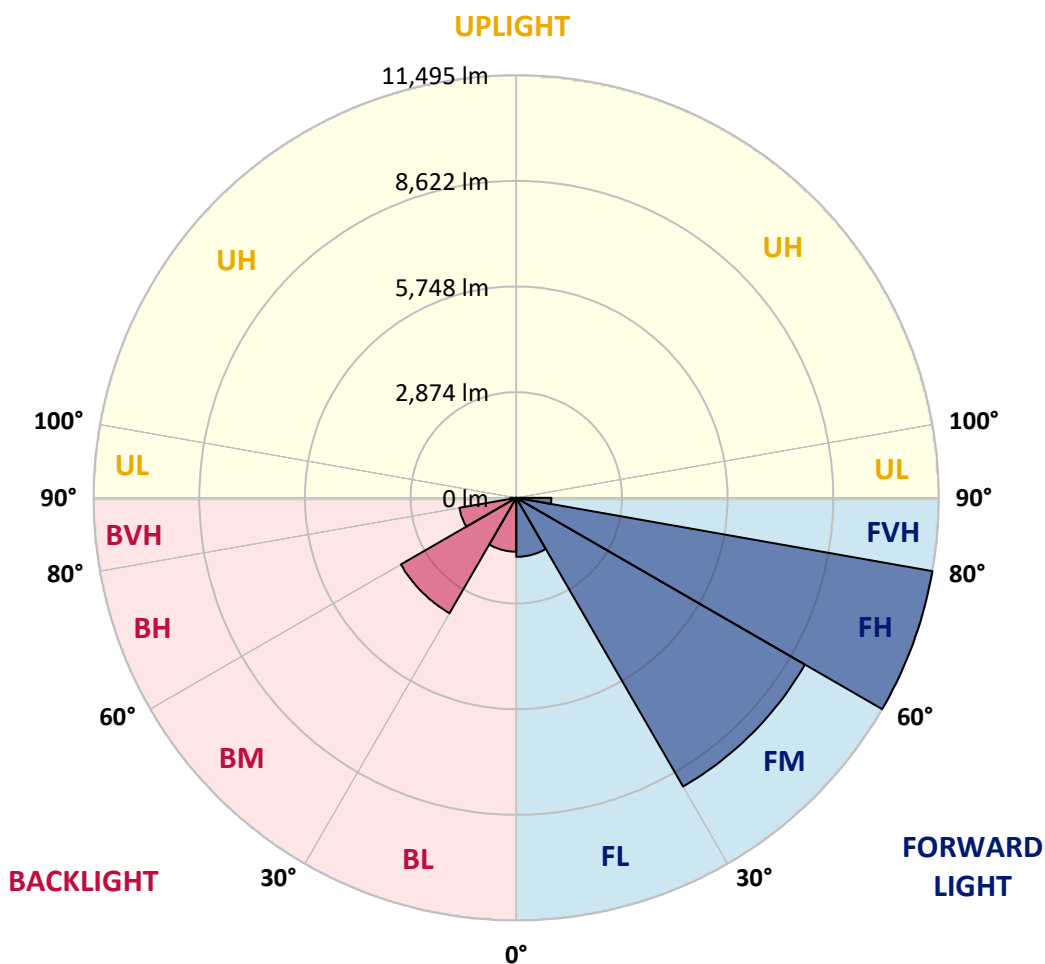


REPORT NUMBER: P510711
 CATALOG NUMBER: CTN-CA8-230-727-U-T4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1605.6	5.4			
FM (30°-60°)	9068.8	30.3			
FH (60°-80°)	11495.5	38.4			G4/12000
FVH (80°-90°)	956.2	3.2			G5
BL (0°-30°)	1467.0	4.9	B3/2500		
BM (30°-60°)	3624.8	12.1	B3/5000		
BH (60°-80°)	1569.1	5.2	B3/2500		G3/2500
BVH (80°-90°)	163.0	0.5			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: P510711

CATALOG NUMBER: CTN-CA8-230-727-U-T4

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	3280.4	3280.4	3280.4	3280.4	3280.4	3280.4	3280.4	3280.4	3280.4	3280.4	3280.4
2.5°	3260.6	3256.2	3253.8	3258.7	3260.6	3261.2	3262.4	3261.2	3258.1	3269.3	3282.9
5°	3261.2	3258.7	3253.8	3249.4	3249.4	3249.4	3250.0	3264.3	3270.5	3269.3	3286.0
7.5°	3266.2	3264.3	3255.0	3251.9	3259.3	3261.8	3274.2	3269.9	3276.7	3287.9	3302.1
10°	3266.8	3264.3	3256.2	3263.1	3284.1	3287.9	3293.4	3305.8	3308.3	3322.0	3336.2
12.5°	3273.0	3273.0	3276.1	3291.0	3313.3	3317.6	3338.7	3348.6	3363.5	3370.3	3387.7
15°	3305.8	3305.2	3312.7	3329.4	3365.4	3367.9	3393.9	3423.7	3434.8	3451.6	3479.5
17.5°	3384.0	3387.7	3388.3	3400.7	3443.5	3444.7	3487.5	3515.4	3540.9	3570.6	3634.5
20°	3569.4	3562.6	3555.1	3555.1	3571.9	3580.6	3613.4	3658.1	3710.2	3762.9	3837.9
22.5°	3802.6	3816.2	3788.9	3774.7	3782.7	3772.8	3797.6	3833.6	3894.3	3973.1	4068.0
25°	4081.0	4082.2	4080.4	4022.7	4004.7	4010.9	4031.4	4064.9	4145.5	4208.1	4345.8
27.5°	4352.6	4347.0	4327.2	4266.4	4249.0	4257.7	4257.1	4349.5	4432.0	4512.0	4673.8
30°	4599.4	4614.3	4578.9	4476.6	4478.5	4477.2	4505.8	4624.8	4775.5	4924.3	5090.5
32.5°	5034.7	4989.5	4941.7	4739.6	4702.3	4698.0	4714.7	4892.1	5115.3	5366.5	5566.2
35°	5444.6	5433.5	5386.3	5181.1	4965.9	4962.2	4939.2	5155.0	5468.8	5933.9	6183.2
37.5°	5863.8	5847.7	5801.2	5626.3	5412.4	5391.9	5199.1	5435.3	5859.5	6597.4	6952.7
40°	6363.6	6353.7	6281.8	6057.9	5838.4	5807.4	5607.1	5729.9	6352.5	7481.1	7731.6
42.5°	6802.1	6800.2	6717.7	6510.0	6323.3	6292.3	6121.8	6249.5	7037.7	8346.8	8494.4
45°	7123.9	7172.9	7176.6	7058.2	6929.2	6901.9	6856.6	7032.7	7830.2	9132.5	9110.8
47.5°	7395.5	7437.7	7393.7	7332.9	7288.9	7290.7	7360.8	7710.5	8612.8	9817.1	9648.4
50°	7849.4	7823.4	7594.6	7558.6	7614.4	7647.3	7850.7	8442.3	9508.9	10459.5	10130.8
52.5°	8504.3	8404.4	7955.5	7882.3	8093.8	8106.2	8429.9	9096.5	10404.3	11010.8	10572.4
55°	9400.4	9317.9	8810.6	8472.7	8579.3	8663.0	9118.8	9766.8	11135.4	11529.2	10912.2
57.5°	10724.9	10731.1	10317.5	9687.5	9324.7	9414.0	9769.9	10418.6	11739.4	11963.3	11124.3
60°	11786.6	11983.1	11859.7	11572.0	11051.1	10990.3	10719.3	11097.6	12255.4	12332.3	11327.1
62.5°	12522.6	12611.9	13036.1	13096.9	13692.2	13717.6	12419.7	11893.2	12822.2	12574.1	11369.8
65°	12485.4	12540.6	13211.0	14027.0	15785.7	15864.4	15104.8	13096.9	13210.3	12682.0	11245.2
67.5°	11616.0	11699.1	12551.2	14076.7	16901.3	16871.5	16389.7	14772.4	13338.1	12509.0	10651.1
70°	10106.0	10362.2	11077.8	13030.5	17249.8	17289.5	16401.5	15307.6	13008.8	12019.7	9660.8
72.5°	8329.4	8410.0	9086.0	11271.2	16230.9	16172.6	15729.3	14601.3	12413.5	11134.8	7927.6
75°	6334.5	6334.5	7153.0	8982.4	13938.4	14143.0	14315.4	13224.6	10997.2	9075.4	5398.1
77.5°	4205.0	4355.7	5014.9	6750.0	11033.1	11184.4	11779.7	11272.5	9004.1	6655.1	2465.6
80°	2230.6	2249.2	2956.1	4485.3	7891.6	8176.9	8995.4	8694.0	6476.5	3117.9	623.2
82.5°	780.1	851.4	1299.8	2599.5	5199.7	5377.7	5967.4	5166.2	2287.6	690.2	344.8
85°	387.6	401.2	572.4	1237.8	2927.6	3013.8	3486.3	2012.3	368.3	301.4	234.4
87.5°	186.7	191.0	219.5	442.8	1272.5	1331.4	1409.5	654.8	136.4	114.7	101.7
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: P510711
 CATALOG NUMBER: CTN-CA8-230-727-U-T4

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3280.4	3280.4	3280.4	3280.4	3280.4	3280.4	3280.4	3280.4	3280.4	3280.4	3280.4
2.5°	3286.0	3291.6	3302.1	3305.2	3297.8	3311.4	3324.4	3336.2	3335.6	3339.9	3355.5
5°	3293.4	3305.2	3316.4	3336.2	3355.5	3366.6	3377.2	3387.1	3390.2	3399.5	3408.8
7.5°	3316.4	3328.2	3353.6	3388.3	3389.6	3417.5	3435.4	3438.5	3441.0	3441.0	3462.7
10°	3351.7	3373.4	3414.4	3438.5	3460.3	3451.0	3469.6	3457.8	3449.1	3452.8	3467.7
12.5°	3412.5	3431.7	3490.6	3517.3	3497.5	3493.7	3475.1	3448.5	3418.1	3415.0	3428.6
15°	3508.0	3544.0	3596.7	3622.1	3572.5	3528.5	3465.8	3411.3	3352.4	3330.6	3339.3
17.5°	3661.8	3705.2	3762.9	3745.5	3655.0	3568.2	3464.6	3349.3	3235.1	3155.8	3176.2
20°	3886.9	3919.1	3966.3	3896.2	3764.1	3620.9	3451.0	3268.6	3075.8	2931.3	2914.5
22.5°	4123.2	4172.1	4143.6	4014.0	3841.0	3641.3	3422.4	3151.4	2853.2	2672.1	2644.8
25°	4407.8	4423.9	4325.3	4130.0	3862.7	3609.1	3330.0	2980.3	2625.6	2455.0	2447.0
27.5°	4709.8	4673.2	4489.6	4183.3	3838.5	3513.6	3144.6	2709.9	2419.7	2269.0	2245.4
30°	5050.9	4965.9	4625.5	4188.9	3747.4	3327.5	2910.2	2498.5	2252.3	2101.0	2076.8
32.5°	5489.9	5289.6	4751.3	4131.2	3555.1	3054.7	2628.7	2318.0	2101.6	1949.6	1927.9
35°	6051.1	5713.1	4884.7	4027.0	3318.2	2781.8	2395.5	2164.8	1979.4	1796.5	1767.3
37.5°	6697.9	6304.1	5044.0	3895.6	3058.4	2541.9	2238.0	2067.5	1888.9	1681.8	1647.0
40°	7449.5	6895.7	5289.6	3738.7	2825.3	2368.8	2161.7	2034.0	1838.6	1622.8	1583.2
42.5°	8100.6	7521.4	5581.7	3570.0	2605.1	2225.0	2127.6	2011.7	1807.0	1578.8	1533.5
45°	8702.7	8038.0	5866.9	3365.4	2373.2	2126.4	2086.7	1955.8	1751.2	1524.2	1477.1
47.5°	9192.0	8455.3	6115.0	3177.5	2187.8	2035.8	1997.4	1849.8	1657.6	1458.5	1423.8
50°	9567.8	8769.1	6250.8	3028.0	1991.8	1932.9	1882.1	1730.1	1545.3	1373.6	1343.8
52.5°	9952.3	9083.5	6317.8	3035.5	1809.5	1779.7	1727.6	1597.4	1456.0	1323.9	1291.7
55°	10176.1	9212.5	6247.1	2855.0	1642.1	1607.3	1562.1	1494.5	1410.1	1292.9	1262.6
57.5°	10307.0	9292.5	6031.9	2328.5	1440.5	1407.7	1415.1	1409.5	1340.1	1216.7	1188.8
60°	10401.2	9118.8	5591.0	1711.5	1268.8	1244.0	1305.3	1285.5	1225.4	1129.2	1105.7
62.5°	10324.9	8788.3	4797.2	1286.7	1128.6	1181.3	1235.3	1198.7	1116.8	1029.4	1002.1
65°	9859.9	8139.7	3646.3	1033.7	1083.3	1155.9	1199.3	1140.4	1057.3	953.7	941.3
67.5°	9013.4	6963.9	2150.6	947.5	1049.2	1126.1	1162.1	1084.0	1010.8	911.6	896.7
70°	7721.7	5213.3	960.6	882.4	989.7	1066.0	1089.5	1015.8	936.4	843.4	828.5
72.5°	5747.2	3143.4	647.4	814.8	901.6	969.2	995.3	917.2	860.7	818.6	814.2
75°	3191.7	1091.4	597.2	737.9	805.5	866.3	898.5	843.4	798.7	741.0	717.5
77.5°	1016.4	463.8	567.4	659.8	745.4	795.6	790.6	707.6	693.3	623.2	617.0
80°	405.6	404.3	524.6	540.1	636.2	678.4	667.2	562.4	581.0	540.1	524.0
82.5°	318.1	370.2	420.4	412.4	494.9	544.5	529.0	413.0	466.9	429.1	392.5
85°	241.8	324.3	269.8	268.5	345.4	404.3	414.2	317.5	318.1	289.6	258.0
87.5°	124.6	119.7	103.6	102.9	115.3	164.3	201.5	180.5	142.6	107.3	102.9
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)