

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: P591452

Luminaire Tested: **CTN-CA8-230-740-U-T4-SSS-HM-EX120**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591452
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-11)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-230-740-U-T4-SSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19452 lumens
Efficiency: N/A
Efficacy: 85.2 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

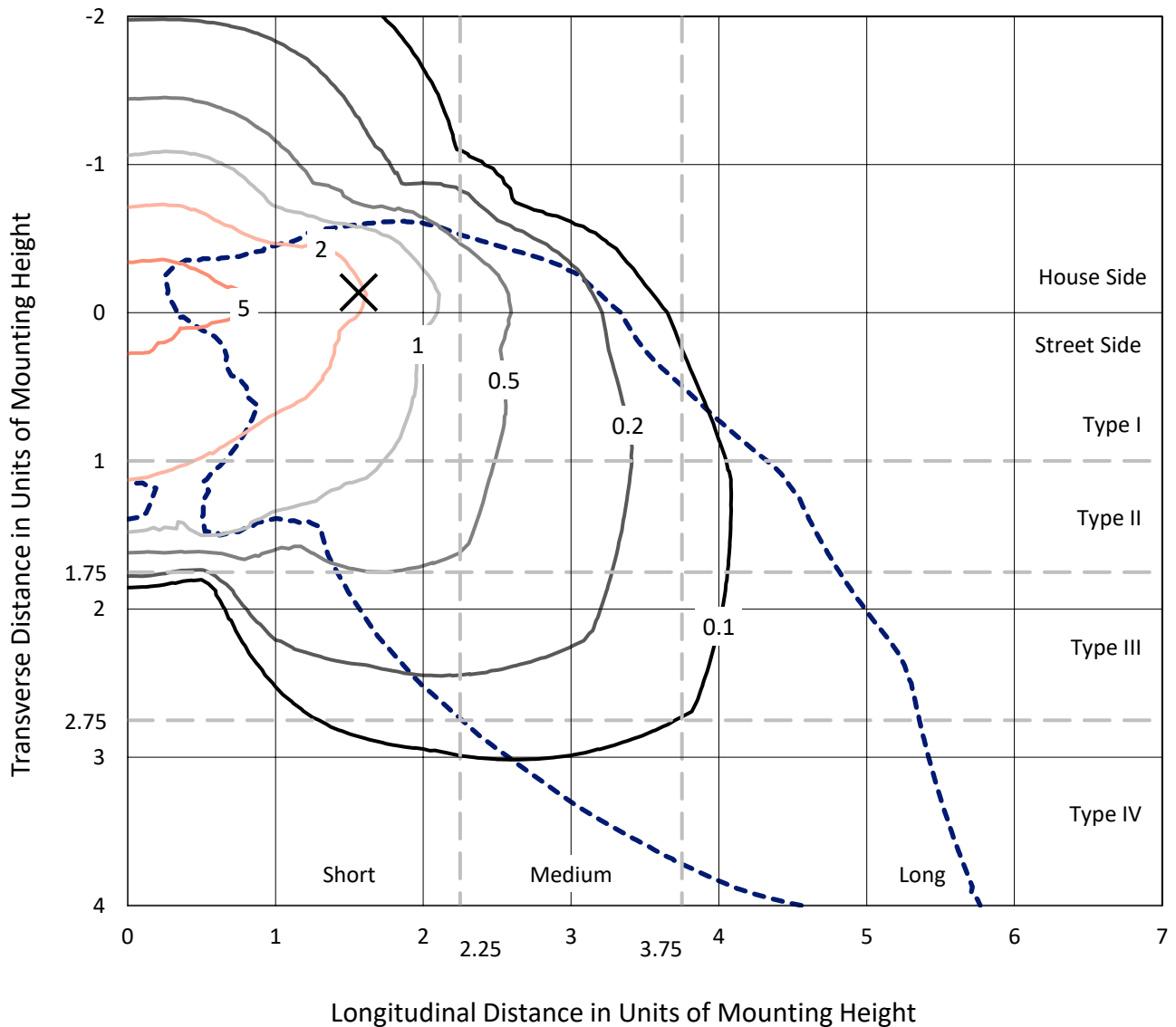
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P591452
 CATALOG NUMBER: CTN-CA8-230-740-U-T4-SSS-HM-EX120

Iso-Footcandle Lines of Horizontal Illumination

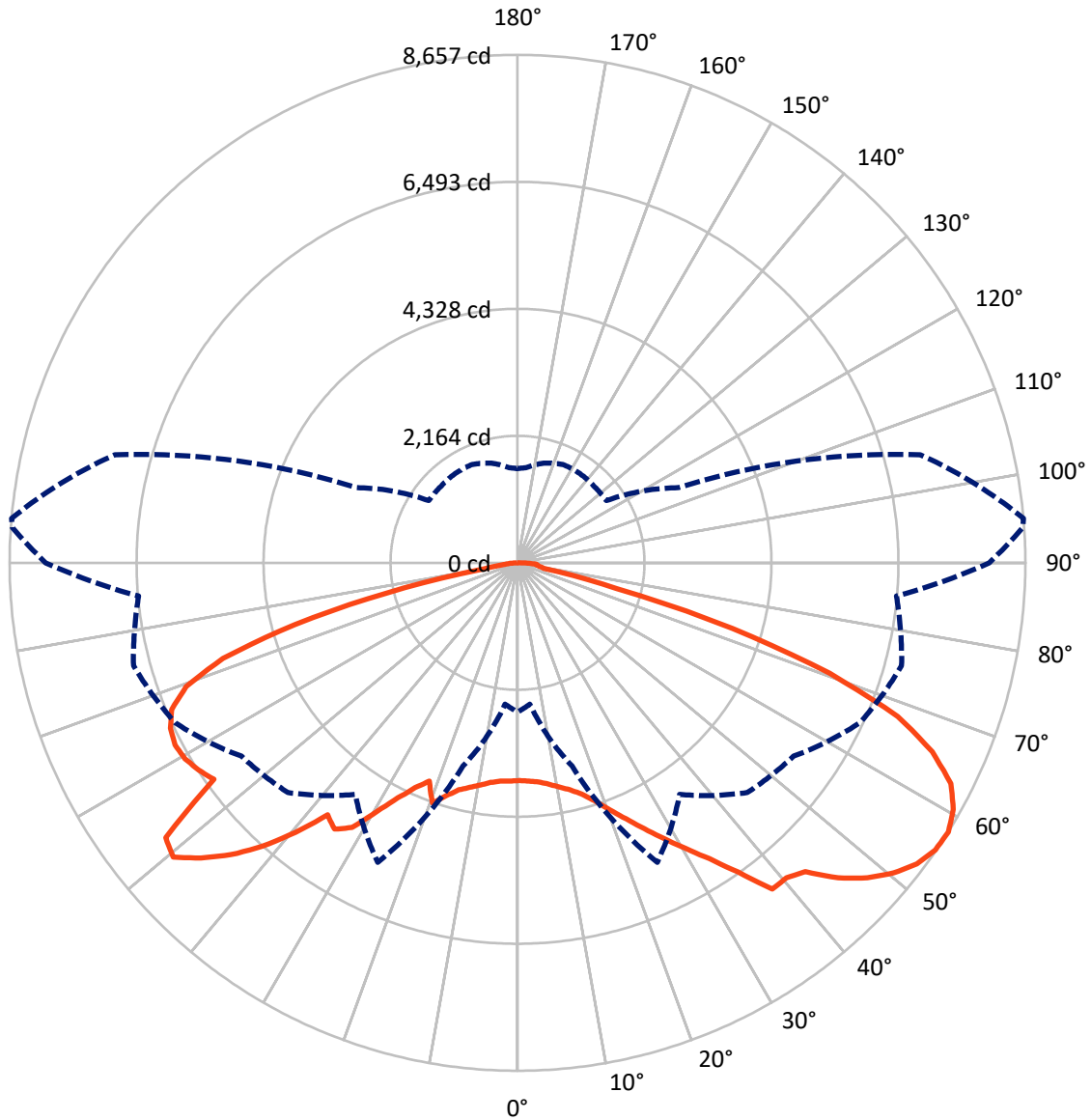
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.3 fc
 Type III - Short - N/A

REPORT NUMBER: P591452
CATALOG NUMBER: CTN-CA8-230-740-U-T4-SSS-HM-EX120

Luminous Intensity Polar Plot



— Vertical Plane Through 95-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

REPORT NUMBER: P591452
 CATALOG NUMBER: CTN-CA8-230-740-U-T4-SSS-HM-EX120

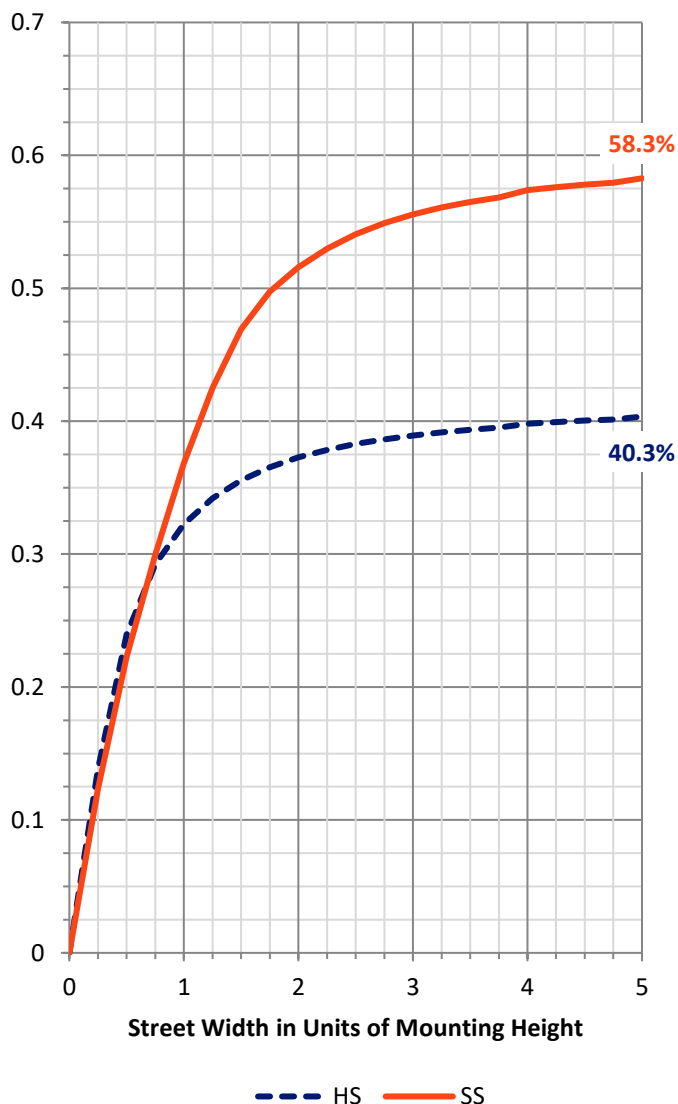
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8011.7	0.0	8011.7
	% Fixture	41.2	0.0	41.2
Street Side	Lumens	11440.3	0.0	11440.3
	% Fixture	58.8	0.0	58.8
Total	Lumens	19452.0	0.0	19452.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	362.4	1.9
10°-20°	1108.3	5.7
20°-30°	1751.3	9.0
30°-40°	2420.0	12.4
40°-50°	3262.9	16.8
50°-60°	3843.7	19.8
60°-70°	3433.8	17.7
70°-80°	2563.9	13.2
80°-90°	705.7	3.6
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°	19452.0	100.0
0°-180°	19452.0	100.0

Coefficient of Utilization

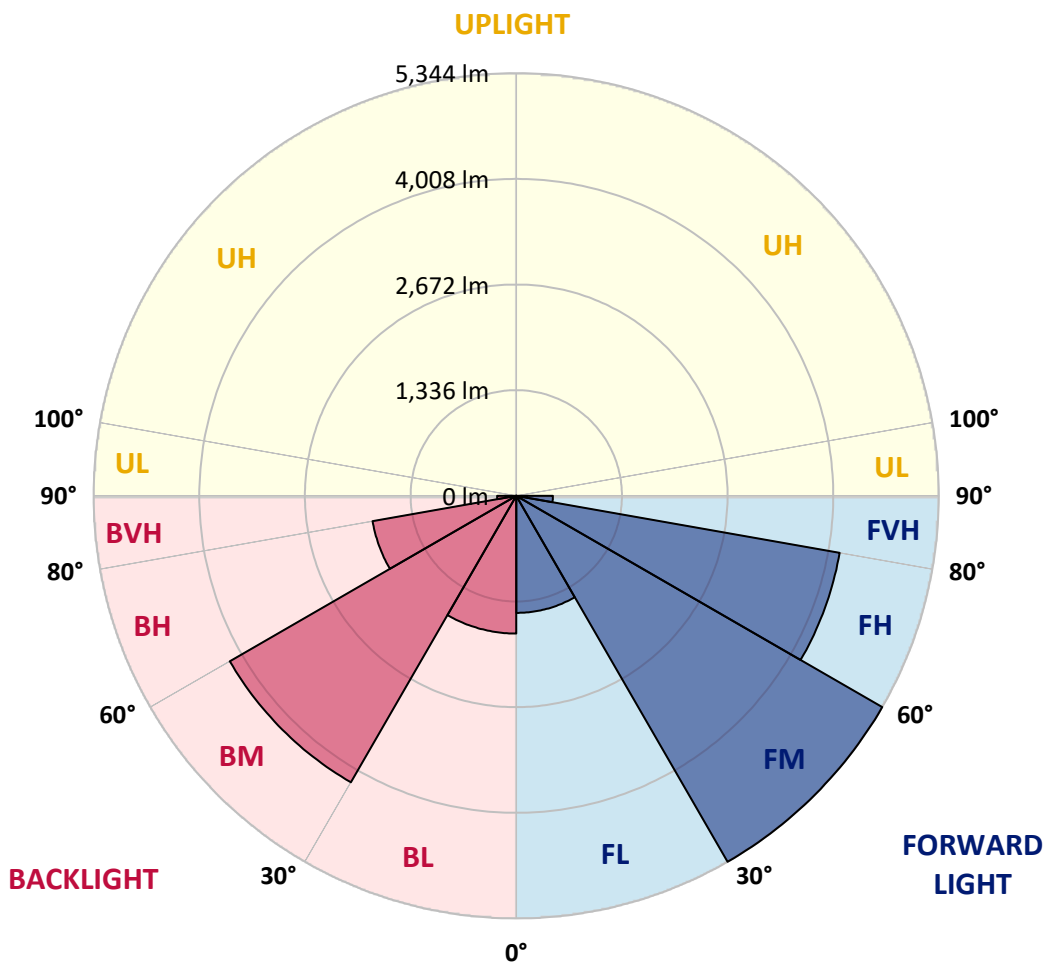


REPORT NUMBER: P591452
 CATALOG NUMBER: CTN-CA8-230-740-U-T4-SSS-HM-EX120

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1480.6	7.6			
FM	(30°-60°)	5343.8	27.5			
FH	(60°-80°)	4152.4	21.3			G2/5000
FVH	(80°-90°)	463.6	2.4			G3/500
BL	(0°-30°)	1741.4	9.0	B3/2500		
BM	(30°-60°)	4182.7	21.5	B3/5000		
BH	(60°-80°)	1845.3	9.5	B3/2500		G3/2500
BVH	(80°-90°)	242.2	1.2			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3
 Type III Short





REPORT NUMBER: P591452

CATALOG NUMBER: CTN-CA8-230-740-U-T4-SSS-HM-EX120

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3711.3	3711.3	3711.3	3711.3	3711.3	3711.3	3711.3	3711.3	3711.3	3711.3	3711.3
2.5°	3662.5	3639.3	3640.4	3672.5	3624.9	3659.2	3654.8	3708.0	3700.2	3721.3	3727.9
5°	3632.6	3612.7	3613.8	3654.8	3622.7	3653.7	3632.6	3681.4	3699.1	3731.2	3737.9
7.5°	3640.4	3622.7	3629.3	3668.1	3628.2	3659.2	3661.4	3706.9	3715.7	3771.1	3780.0
10°	3660.3	3641.5	3645.9	3676.9	3651.5	3706.9	3700.2	3760.0	3762.3	3839.8	3850.9
12.5°	3633.7	3620.4	3620.4	3659.2	3672.5	3727.9	3744.5	3806.6	3819.9	3909.6	3924.0
15°	3586.1	3563.9	3596.1	3653.7	3680.3	3764.5	3795.5	3888.5	3904.1	3997.1	4028.1
17.5°	3504.1	3491.9	3610.5	3628.2	3527.4	3591.6	3723.5	3983.8	4037.0	4146.7	4204.3
20°	3259.3	3121.9	2805.1	2862.7	3172.9	3404.4	3445.4	3570.6	3798.8	4345.0	4434.7
22.5°	2396.3	2514.8	2933.6	2967.9	2958.0	3149.6	3580.6	3701.3	3809.9	4010.4	4606.4
25°	2481.6	2474.9	2679.9	3115.3	3099.8	3136.3	3316.9	3904.1	4012.6	4212.0	4832.4
27.5°	2558.0	2563.6	2548.1	2958.0	3248.2	3285.9	3341.3	3742.3	4267.4	4495.6	5079.5
30°	2709.8	2686.5	2644.4	2643.3	3377.8	3433.2	3527.4	3661.4	4502.3	4864.6	5388.6
32.5°	2965.7	2939.1	2883.7	2796.2	2919.2	3586.1	3715.7	3886.3	4154.4	5317.7	5750.8
35°	3155.2	3136.3	3098.7	3037.7	2939.1	3662.5	3899.6	4125.6	4480.1	5506.0	6226.1
37.5°	3388.9	3362.3	3319.1	3243.8	3169.6	3139.6	4076.9	4397.0	4934.4	5378.6	6329.1
40°	3653.7	3638.2	3559.5	3462.0	3380.0	3297.0	4198.7	4751.6	5518.2	5950.3	6235.0
42.5°	3853.1	3840.9	3794.4	3715.7	3636.0	3582.8	3721.3	5186.9	6154.1	6503.1	6712.5
45°	4027.0	4013.7	4013.7	3992.7	3970.5	3975.0	4034.8	5499.4	6757.9	6975.0	7164.5
47.5°	4161.1	4137.8	4044.8	4063.6	4095.7	4192.1	4373.8	4781.5	7244.2	7376.1	7544.4
50°	4487.9	4452.4	4151.1	4220.9	4325.0	4480.1	4713.9	5226.8	6764.5	7718.4	7850.2
52.5°	4789.2	4625.3	3428.8	4452.4	4569.9	4799.2	5076.2	5708.7	6226.1	7607.6	8084.0
55°	4273.0	4105.7	3446.5	4877.9	4857.9	5147.1	5417.4	6104.2	6518.6	6354.6	8025.3
57.5°	2543.6	2417.3	3586.1	5633.4	4815.8	5535.9	5744.2	6442.1	6775.6	6482.0	8040.8
60°	1317.2	1384.8	1331.6	3333.5	4146.7	5706.5	6082.1	6767.8	6949.5	6577.3	8050.7
62.5°	177.3	127.4	53.2	2438.4	2946.9	4754.9	6506.4	7078.0	7076.9	6609.4	7980.9
65°	11.1	12.2	24.4	2426.2	3250.4	5641.2	7208.8	7328.4	7140.1	6552.9	7748.3
67.5°	4.4	5.5	22.2	2409.6	3507.4	5930.3	8035.2	7408.2	7146.7	6401.1	7237.6
70°	4.4	5.5	22.2	2244.5	3682.5	5981.3	8174.8	7378.3	7064.7	6027.8	6288.1
72.5°	5.5	6.6	19.9	1949.8	3576.1	5842.8	7946.6	7317.3	6771.2	5276.7	4882.3
75°	5.5	6.6	19.9	1575.4	3164.0	5540.3	7766.0	6807.7	5935.9	3942.8	3166.2
77.5°	4.4	5.5	19.9	1229.7	2637.8	4910.0	7044.8	5919.2	4694.0	2294.4	1250.8
80°	4.4	5.5	19.9	856.4	2009.6	4024.8	5738.7	4609.8	2640.0	655.8	352.3
82.5°	4.4	5.5	18.8	534.0	1421.4	2960.2	3921.8	2124.9	566.1	255.9	274.7
85°	4.4	4.4	14.4	261.5	908.4	1966.4	1954.2	355.6	224.9	166.2	208.3
87.5°	2.2	3.3	7.8	119.6	507.4	1036.9	778.8	136.3	96.4	67.6	116.3
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: P591452

CATALOG NUMBER: CTN-CA8-230-740-U-T4-SSS-HM-EX120

CANDELA DISTRIBUTION (continued):

	94°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3711.3	3711.3	3711.3	3711.3	3711.3	3711.3	3711.3	3711.3	3711.3	3711.3	3711.3
2.5°	3730.1	3724.6	3740.1	3780.0	3777.8	3807.7	3784.4	3829.8	3837.6	3827.6	3843.1
5°	3750.1	3752.3	3794.4	3836.5	3821.0	3869.7	3879.7	3947.3	3949.5	3940.6	3960.6
7.5°	3799.9	3807.7	3849.8	3899.6	3921.8	3962.8	3957.2	4044.8	4037.0	4032.6	4055.8
10°	3869.7	3884.1	3929.5	4008.2	3998.2	4061.4	4032.6	4091.3	4089.1	4080.2	4105.7
12.5°	3955.0	3969.4	4027.0	4102.4	4103.5	4107.9	4084.6	4114.5	4104.6	4083.5	4103.5
15°	4070.2	4086.9	4165.5	4220.9	4173.3	4161.1	4116.8	4100.1	4062.5	4007.1	4023.7
17.5°	4251.9	4265.2	4353.8	4384.9	4302.9	4254.1	4127.8	4033.7	3927.3	3849.8	3864.2
20°	4481.2	4493.4	4565.4	4557.7	4448.0	4328.4	4132.3	3972.7	3774.4	3622.7	3618.2
22.5°	4733.8	4741.6	4810.3	4741.6	4546.6	4372.7	4123.4	3878.6	3545.1	3349.0	3328.0
25°	5011.9	5018.6	5017.4	4864.6	4603.1	4347.2	4041.4	3721.3	3293.6	3084.2	3062.1
27.5°	5323.2	5324.3	5202.5	4959.8	4578.7	4253.0	3883.0	3438.8	3063.2	2881.5	2864.9
30°	5654.5	5652.2	5372.0	4968.7	4484.6	4074.7	3638.2	3171.8	2856.0	2694.3	2671.0
32.5°	6032.2	6013.4	5522.6	4937.7	4312.9	3818.8	3322.4	2948.0	2693.2	2508.2	2473.8
35°	6516.4	6469.8	5651.1	4830.2	4058.0	3473.1	3030.0	2753.0	2535.9	2347.5	2313.2
37.5°	7115.7	7055.9	5852.8	4678.4	3764.5	3187.3	2815.0	2621.2	2422.9	2207.9	2163.6
40°	6942.9	7058.1	6093.2	4514.5	3480.9	2959.1	2688.7	2558.0	2354.2	2116.0	2073.9
42.5°	7209.9	7195.5	6422.2	4320.6	3208.3	2780.7	2637.8	2539.2	2317.6	2076.1	2027.4
45°	7664.1	7660.8	6776.7	4132.3	2942.4	2637.8	2599.0	2488.2	2265.5	2026.3	1973.1
47.5°	8033.0	8021.9	7115.7	3925.1	2696.5	2525.9	2520.4	2385.2	2172.5	1949.8	1901.1
50°	8290.0	8306.6	7304.0	3725.7	2463.9	2410.7	2389.6	2240.1	2041.8	1857.9	1820.2
52.5°	8492.8	8523.8	7386.0	3706.9	2260.0	2262.2	2225.7	2089.4	1934.3	1785.9	1746.0
55°	8592.5	8640.1	7301.8	3585.0	2060.6	2073.9	2038.4	1952.0	1860.1	1723.8	1695.0
57.5°	8633.5	8656.7	7106.8	3032.2	1846.8	1844.6	1855.6	1846.8	1760.4	1626.3	1605.3
60°	8563.7	8532.6	6682.5	2304.3	1629.6	1639.6	1710.5	1701.7	1625.2	1523.3	1494.5
62.5°	8348.7	8287.8	5905.9	1703.9	1455.7	1536.6	1611.9	1586.4	1493.4	1400.3	1378.2
65°	7938.8	7767.1	4706.1	1330.5	1372.6	1483.4	1553.2	1515.5	1409.2	1299.5	1286.2
67.5°	7203.2	6988.3	3088.7	1193.2	1337.2	1438.0	1511.1	1448.0	1344.9	1226.4	1207.6
70°	5878.2	5642.3	1462.4	1112.3	1257.4	1357.1	1410.3	1346.0	1240.8	1122.3	1109.0
72.5°	4099.0	3830.9	787.7	1024.8	1165.5	1251.9	1287.3	1208.7	1116.7	1064.6	1061.3
75°	2042.9	1746.0	714.6	935.0	1046.9	1122.3	1182.1	1127.8	1046.9	951.6	927.3
77.5°	544.0	467.5	672.5	835.3	952.7	1038.1	1072.4	1015.9	922.8	842.0	827.6
80°	377.8	385.5	628.1	692.4	830.9	907.3	939.5	867.4	820.9	741.2	719.0
82.5°	320.2	336.8	507.4	521.8	660.3	742.3	798.8	786.6	720.1	655.8	647.0
85°	300.2	319.1	324.6	361.2	473.1	569.4	666.9	672.5	628.1	546.2	519.6
87.5°	172.8	170.6	156.2	183.9	259.2	315.7	382.2	364.5	296.9	257.0	251.5
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)