

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: P591155

Luminaire Tested: **CTN-CA8-230-722-U-T1-SSS-HM-EX120**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591155
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-2)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-230-722-U-T1-SSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16996 lumens
Efficiency: N/A
Efficacy: 74.4 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B4 - U0 - G4

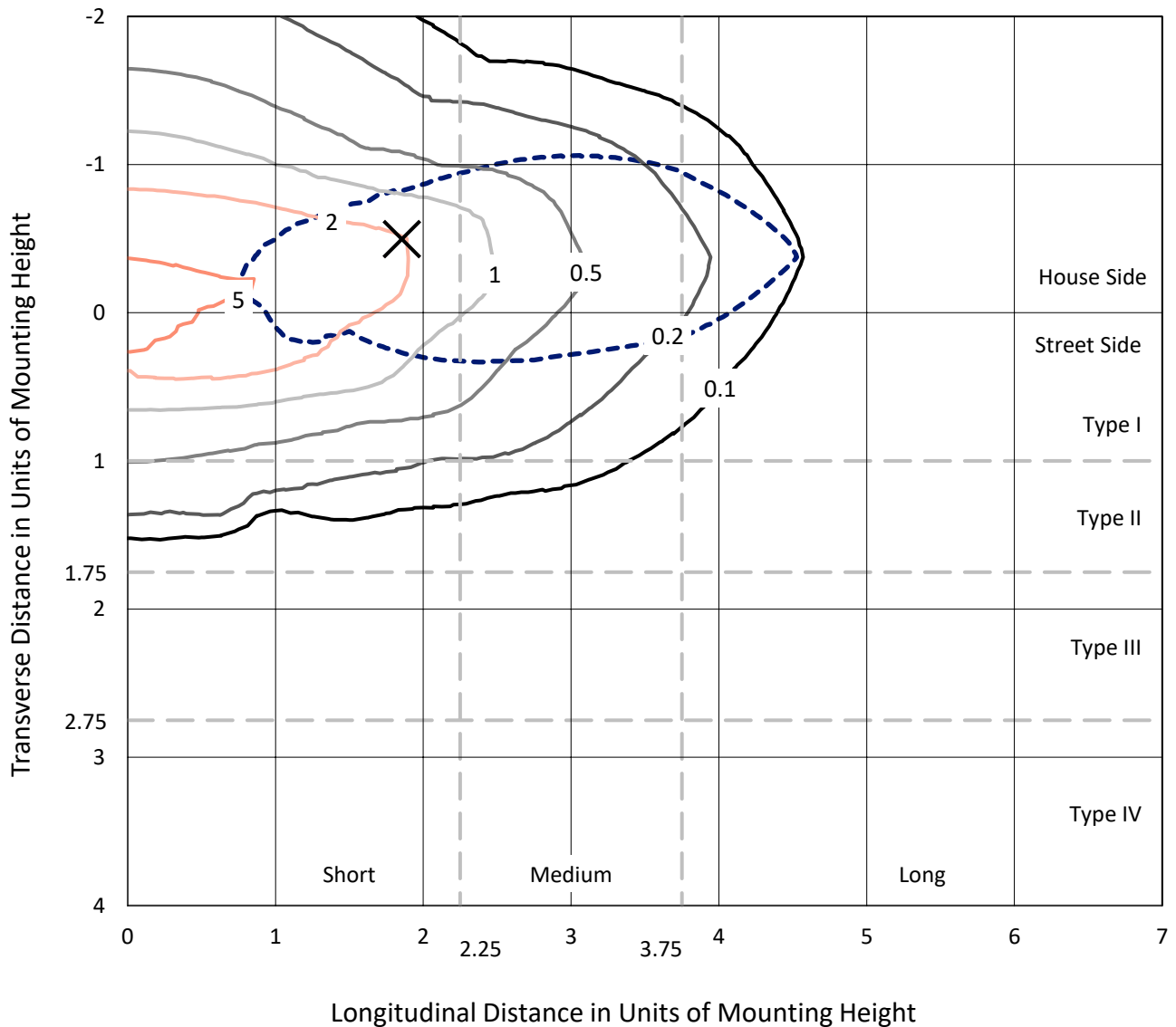
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

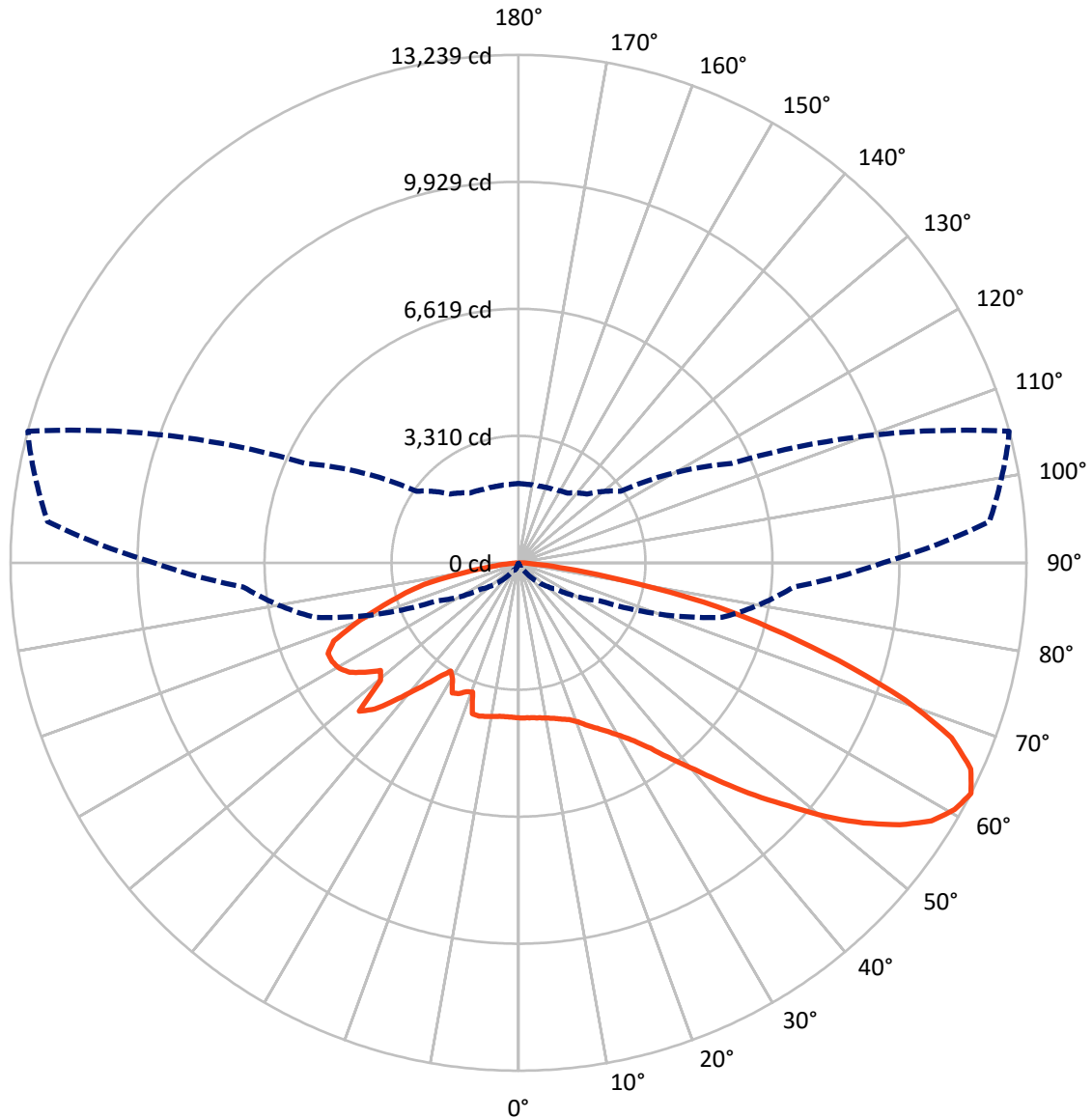
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.5 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 105-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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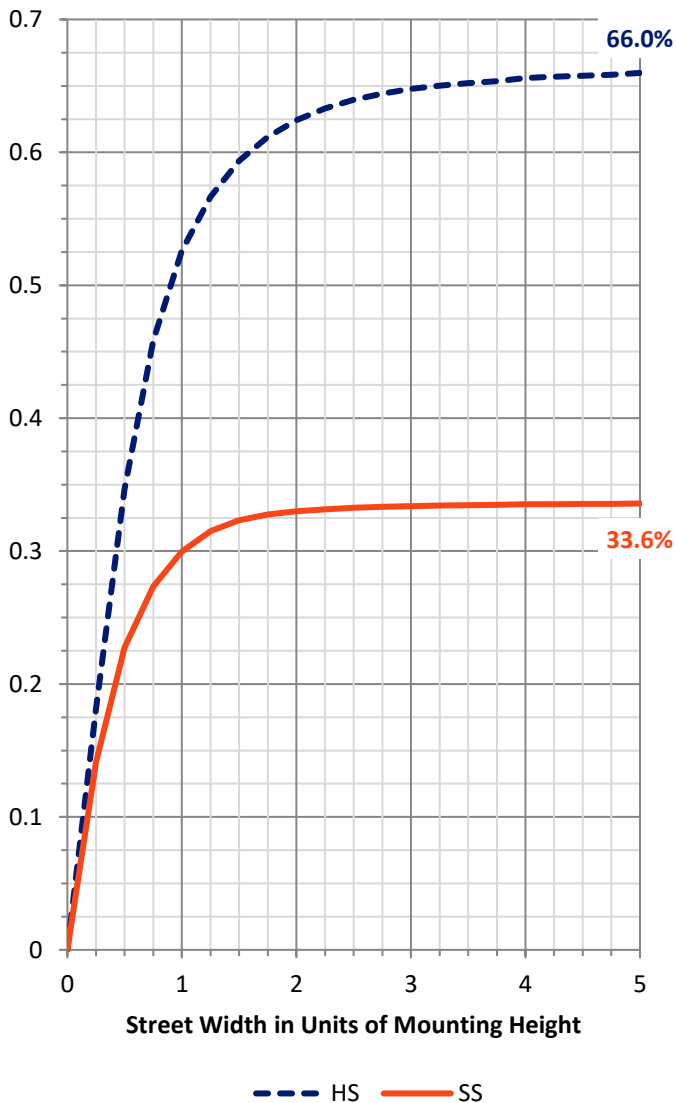
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11308.9	0.0	11308.9
	% Fixture	66.5	0.0	66.5
Street Side	Lumens	5687.0	0.0	5687.0
	% Fixture	33.5	0.0	33.5
Total	Lumens	16996.0	0.0	16996.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	385.8	2.3
10°-20°	1089.6	6.4
20°-30°	1535.6	9.0
30°-40°	2086.4	12.3
40°-50°	2838.3	16.7
50°-60°	3362.5	19.8
60°-70°	3297.3	19.4
70°-80°	2079.6	12.2
80°-90°	320.8	1.9
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°	16996.0	100.0
0°-180°	16996.0	100.0

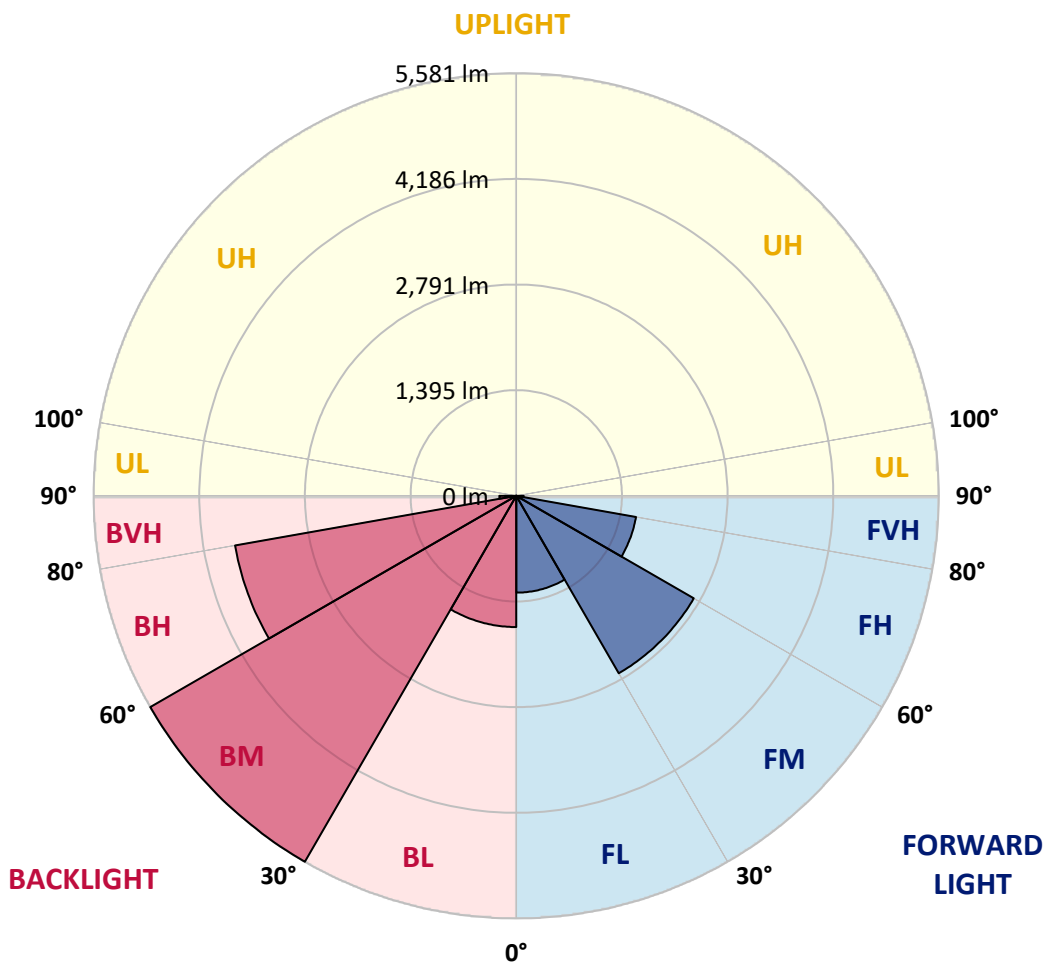


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1278.4	7.5			
FM	(30°-60°)	2706.2	15.9			
FH	(60°-80°)	1605.7	9.4			G1/1800
FVH	(80°-90°)	96.8	0.6			G1/100
BL	(0°-30°)	1732.7	10.2	B3/2500		
BM	(30°-60°)	5581.0	32.8	B4/8500		
BH	(60°-80°)	3771.2	22.2	B4/5000		G4/5000
BVH	(80°-90°)	224.0	1.3			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4
 Type I Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4043.1	4043.1	4043.1	4043.1	4043.1	4043.1	4043.1	4043.1	4043.1	4043.1	4043.1
2.5°	4045.8	4014.2	4036.8	4071.1	4019.6	4049.4	3999.7	4040.4	4030.4	4033.1	4052.1
5°	4014.2	3980.8	4007.9	4053.0	4002.4	4035.9	3995.2	4029.5	4025.9	4038.6	4053.9
7.5°	3984.4	3952.8	3980.8	4010.6	3984.4	4016.9	3986.2	4028.6	4031.3	4059.3	4072.0
10°	3952.8	3921.2	3948.3	3982.6	3960.9	4001.5	3988.9	4040.4	4060.2	4097.2	4108.1
12.5°	3883.3	3855.3	3877.8	3917.6	3921.2	3980.8	3988.9	4068.4	4092.7	4141.5	4157.7
15°	3465.2	3495.9	3616.0	3731.6	3781.2	3891.4	3951.9	4093.6	4127.9	4197.5	4222.7
17.5°	2803.4	2745.6	2558.7	2607.5	2882.0	3252.2	3392.1	3744.2	4116.2	4267.9	4300.4
20°	1656.8	1775.1	2140.7	2252.7	2353.8	2752.0	3222.4	3431.8	3574.5	4113.5	4406.9
22.5°	1366.1	1374.2	1636.0	2152.5	2266.2	2422.4	2786.3	3476.1	3623.2	3730.7	4057.5
25°	1266.7	1274.9	1320.0	1719.1	2203.9	2384.5	2544.3	3177.2	3748.7	3881.5	4137.0
27.5°	1187.3	1198.1	1239.6	1351.6	2054.9	2373.7	2575.9	2817.9	3804.7	4060.2	4299.5
30°	1127.7	1132.2	1174.6	1283.0	1553.8	2376.4	2622.0	2880.2	3485.1	4286.9	4527.0
32.5°	1073.5	1076.2	1120.5	1226.1	1389.5	2201.2	2691.5	3010.2	3328.0	4472.8	4839.4
35°	1032.0	1030.2	1069.9	1173.7	1336.3	1685.7	2769.1	3166.4	3579.0	4296.8	5305.3
37.5°	992.3	989.6	1023.9	1119.6	1289.3	1578.2	2678.8	3354.2	3939.2	4430.4	5267.4
40°	961.6	956.1	985.0	1070.8	1240.6	1551.1	2110.0	3552.8	4334.7	5119.3	5586.1
42.5°	934.5	930.9	955.2	1023.9	1190.9	1518.6	1966.5	3660.3	4826.8	5915.6	6410.4
45°	893.8	899.3	926.4	992.3	1137.6	1472.6	1980.9	2939.8	5347.7	6606.3	7232.0
47.5°	876.7	875.8	892.9	955.2	1091.6	1408.5	1971.0	2696.0	5675.5	7329.5	8036.5
50°	849.6	845.1	736.7	911.9	1044.6	1329.0	1929.4	2766.4	4722.9	8039.2	8775.0
52.5°	799.0	710.6	644.7	881.2	996.8	1242.4	1836.4	2797.1	4560.4	7912.8	9409.8
55°	424.4	473.1	610.3	837.9	940.8	1164.7	1700.1	2775.4	4911.6	6327.4	8735.3
57.5°	376.5	374.7	388.2	661.8	490.3	1079.8	1535.8	2676.1	5243.9	6616.3	8898.7
60°	29.8	30.7	36.1	220.3	260.0	760.2	1358.8	2553.3	5420.0	6957.6	9295.1
62.5°	14.4	16.3	21.7	196.8	237.5	691.6	1199.0	2343.9	5494.0	7204.0	9491.0
65°	3.6	4.5	9.9	173.4	206.8	615.8	1038.3	2098.3	5500.3	7214.0	9649.0
67.5°	2.7	4.5	9.9	157.1	188.7	548.9	897.5	1926.7	5231.3	7177.0	9569.6
70°	2.7	4.5	9.9	140.8	170.6	475.8	772.9	1758.8	4544.2	7038.8	9299.6
72.5°	2.7	5.4	9.9	123.7	149.9	403.6	656.4	1573.7	3813.7	6461.9	8698.3
75°	2.7	5.4	10.8	100.2	128.2	321.4	539.0	1348.0	3171.8	5603.2	7701.5
77.5°	2.7	5.4	10.8	77.6	103.8	240.2	408.1	1068.1	2530.8	4132.5	5410.9
80°	2.7	5.4	10.8	55.1	84.9	168.8	297.0	728.6	1509.6	2172.3	2755.6
82.5°	2.7	5.4	10.8	39.7	61.4	121.9	183.3	359.3	720.5	1042.8	1308.3
85°	1.8	4.5	9.9	26.2	32.5	74.0	109.2	159.8	215.8	285.3	385.5
87.5°	1.8	2.7	6.3	9.9	13.5	26.2	40.6	36.1	40.6	84.9	121.9
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):

	95°	104°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4043.1	4043.1	4043.1	4043.1	4043.1	4043.1	4043.1	4043.1	4043.1	4043.1	4043.1
2.5°	4049.4	4045.8	4046.7	4066.6	4049.4	4053.0	4023.2	4082.8	4077.4	4069.3	4092.7
5°	4053.9	4052.1	4059.3	4076.5	4050.3	4054.8	4026.8	4096.3	4079.2	4076.5	4104.5
7.5°	4076.5	4073.8	4081.0	4089.1	4060.2	4060.2	4035.9	4090.9	4081.0	4062.9	4094.5
10°	4117.1	4107.2	4114.4	4118.9	4074.7	4072.9	4027.7	4092.7	4067.5	4058.4	4099.1
12.5°	4174.0	4151.4	4162.3	4155.0	4096.3	4085.5	4025.0	4067.5	4035.9	4030.4	4067.5
15°	4250.7	4220.9	4229.1	4215.5	4141.5	4109.9	4012.4	4030.4	3979.9	3975.4	4002.4
17.5°	4322.1	4304.0	4299.5	4299.5	4212.8	4134.3	4000.6	3975.4	3908.5	3904.0	3917.6
20°	4451.2	4426.8	4424.1	4402.4	4274.2	4154.1	3981.7	3904.0	3804.7	3782.1	3807.4
22.5°	4492.7	4611.0	4602.9	4507.2	4325.7	4170.4	3942.9	3814.6	3678.3	3635.0	3647.6
25°	4616.4	4794.3	4779.8	4640.8	4378.0	4179.4	3895.9	3716.2	3528.4	3452.6	3455.3
27.5°	4812.3	4993.8	4983.9	4783.4	4443.0	4182.1	3843.5	3612.4	3379.5	3280.1	3288.3
30°	5061.5	5244.8	5230.4	4942.3	4541.5	4187.5	3803.8	3487.8	3243.1	3135.7	3133.9
32.5°	5408.2	5574.4	5531.9	5154.5	4659.7	4210.1	3751.4	3369.5	3118.5	3005.7	2996.6
35°	5931.9	5993.3	5940.9	5407.3	4785.2	4224.6	3667.5	3254.0	3003.0	2891.9	2883.8
37.5°	6639.7	6563.9	6493.5	5691.7	4915.3	4220.9	3560.9	3142.0	2903.6	2798.0	2798.0
40°	6709.3	7219.4	7089.4	5991.5	5032.6	4201.1	3459.8	3032.8	2823.3	2737.5	2751.1
42.5°	7035.2	8022.0	7839.7	6281.3	5117.5	4143.3	3351.5	2933.4	2748.4	2678.8	2684.2
45°	7836.1	8752.5	8645.9	6561.2	5163.5	4041.3	3226.0	2835.9	2664.4	2609.3	2620.1
47.5°	8697.4	9621.0	9464.8	6819.4	5138.3	3890.5	3092.3	2746.5	2576.8	2541.6	2561.5
50°	9511.8	10534.8	10404.7	7000.9	5026.3	3679.2	2949.7	2651.7	2508.2	2480.2	2490.1
52.5°	10310.8	11364.5	11267.0	7099.3	4802.4	3458.0	2817.9	2561.5	2444.1	2408.9	2422.4
55°	10969.9	12150.9	12056.1	7089.4	4465.6	3226.9	2687.0	2463.9	2379.1	2347.5	2358.3
57.5°	11484.6	12763.0	12695.3	6938.6	4073.8	3014.7	2538.9	2368.2	2293.3	2265.3	2274.3
60°	11945.0	13151.3	13063.7	6605.4	3658.5	2780.9	2386.3	2254.5	2192.2	2169.6	2184.1
62.5°	12322.4	13159.4	13238.9	6123.3	3251.3	2533.5	2216.6	2114.5	2069.4	2055.8	2064.9
65°	12419.1	12917.4	12956.3	5527.4	2838.6	2287.9	2012.5	1945.7	1926.7	1918.6	1936.7
67.5°	12285.4	12407.3	12176.2	5023.6	2462.1	2009.8	1792.2	1750.7	1762.4	1764.2	1787.7
70°	11940.5	11042.2	10685.5	4602.0	2110.9	1701.9	1550.2	1536.7	1568.3	1594.5	1611.6
72.5°	11061.1	9065.8	8726.3	4006.1	1664.0	1302.8	1220.7	1264.0	1253.2	1264.9	1295.6
75°	9522.6	6997.3	6786.9	3260.3	1267.6	947.1	837.0	841.5	855.0	914.6	947.1
77.5°	6783.3	5032.6	4938.7	2501.0	839.7	557.1	576.0	640.1	659.1	660.9	683.5
80°	3594.3	2805.2	2677.9	1473.5	555.3	398.2	433.4	461.4	486.6	512.8	519.2
82.5°	1619.8	1268.5	1233.3	732.2	352.1	307.0	315.1	363.0	383.7	388.2	392.8
85°	629.3	437.9	417.1	304.3	231.1	207.7	230.2	279.0	298.9	289.8	287.1
87.5°	167.9	102.9	93.9	102.0	108.3	114.7	130.9	149.0	170.6	164.3	158.9
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)