

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: P591251

Luminaire Tested: **CTN-CA8-230-727-U-T1-SSS-HM-EX120**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591251
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-CA8-230-727-U-T1-SSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17660 lumens
Efficiency: N/A
Efficacy: 77.3 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B4 - U0 - G4

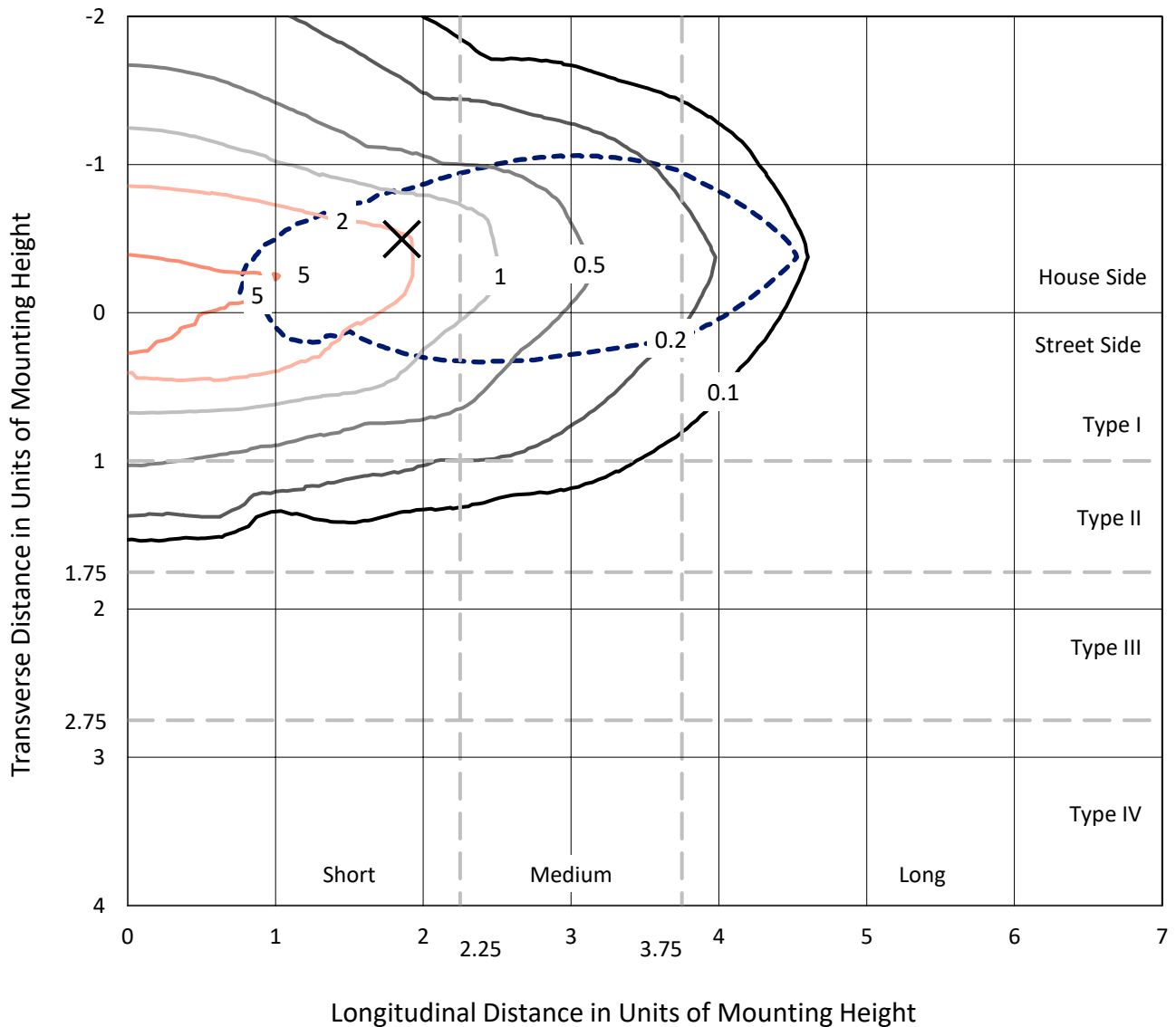
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

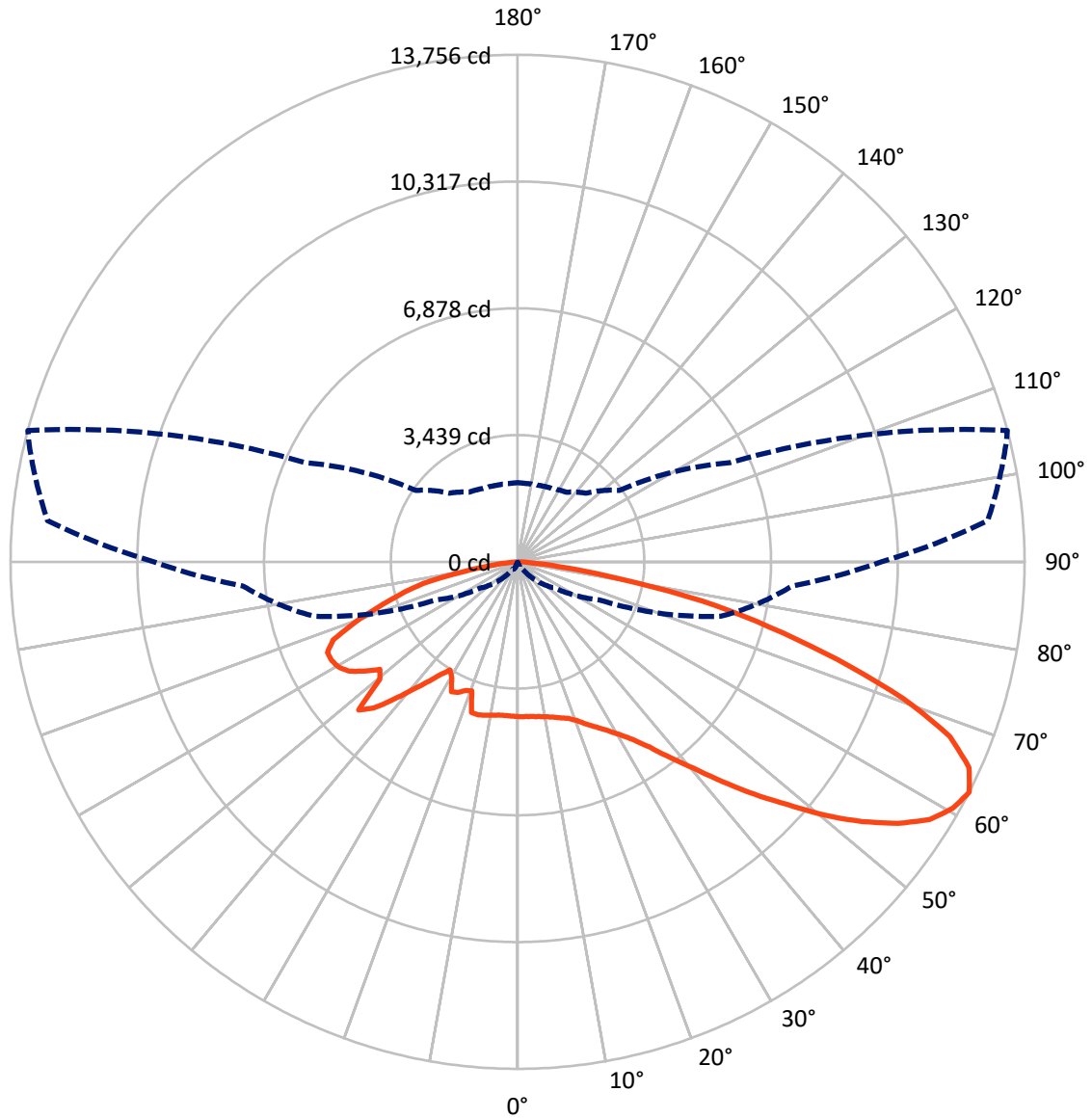
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.7 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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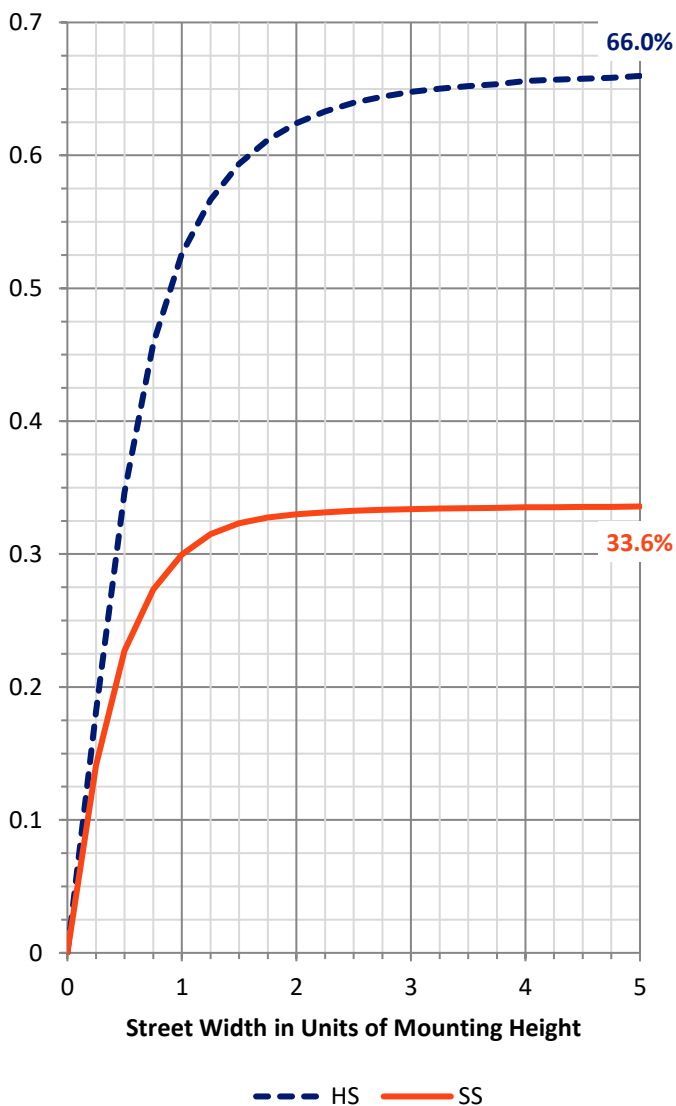
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11750.8	0.0	11750.8
	% Fixture	66.5	0.0	66.5
Street Side	Lumens	5909.2	0.0	5909.2
	% Fixture	33.5	0.0	33.5
Total	Lumens	17660.0	0.0	17660.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	400.9	2.3
10°-20°	1132.2	6.4
20°-30°	1595.6	9.0
30°-40°	2167.9	12.3
40°-50°	2949.2	16.7
50°-60°	3493.9	19.8
60°-70°	3426.1	19.4
70°-80°	2160.9	12.2
80°-90°	333.3	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°	17660.0	100.0
0°-180°	17660.0	100.0

Coefficient of Utilization

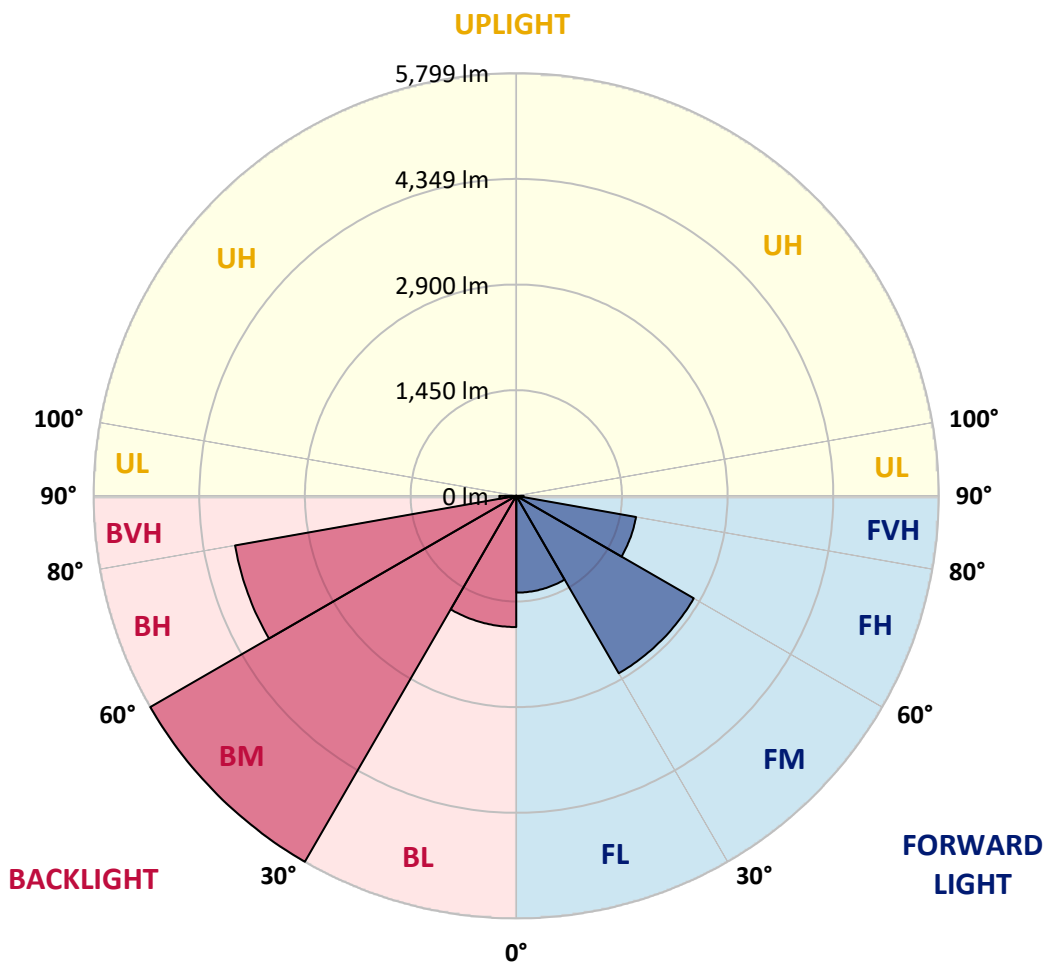


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1328.3	7.5			
FM (30°-60°)	2811.9	15.9			
FH (60°-80°)	1668.5	9.4			G1/1800
FVH (80°-90°)	100.6	0.6			G2/225
BL (0°-30°)	1800.4	10.2	B3/2500		
BM (30°-60°)	5799.1	32.8	B4/8500		
BH (60°-80°)	3918.6	22.2	B4/5000		G4/5000
BVH (80°-90°)	232.8	1.3			G3/500
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°	4201.0	4201.0	4201.0	4201.0	4201.0	4201.0	4201.0	4201.0	4201.0	4201.0	4201.0
2.5°	4203.8	4171.0	4194.5	4230.1	4176.6	4207.6	4156.0	4198.2	4187.9	4190.7	4210.4
5°	4171.0	4136.3	4164.4	4211.4	4158.8	4193.5	4151.3	4187.0	4183.2	4196.3	4212.3
7.5°	4140.1	4107.2	4136.3	4167.3	4140.1	4173.8	4141.9	4186.0	4188.8	4217.9	4231.1
10°	4107.2	4074.4	4102.5	4138.2	4115.7	4157.9	4144.7	4198.2	4218.9	4257.3	4268.6
12.5°	4035.0	4005.9	4029.3	4070.6	4074.4	4136.3	4144.7	4227.3	4252.6	4303.3	4320.2
15°	3600.6	3632.5	3757.3	3877.4	3929.0	4043.4	4106.3	4253.6	4289.2	4361.5	4387.7
17.5°	2913.0	2852.9	2658.7	2709.4	2994.6	3379.2	3524.6	3890.5	4277.0	4434.6	4468.4
20°	1721.5	1844.4	2224.4	2340.7	2445.8	2859.5	3348.3	3565.9	3714.1	4274.2	4579.1
22.5°	1419.4	1427.9	1699.9	2236.5	2354.8	2517.1	2895.1	3611.9	3764.8	3876.4	4216.0
25°	1316.2	1324.7	1371.6	1786.2	2290.0	2477.7	2643.7	3301.3	3895.2	4033.1	4298.6
27.5°	1233.7	1244.9	1288.1	1404.4	2135.2	2466.4	2676.5	2928.0	3953.4	4218.9	4467.5
30°	1171.7	1176.4	1220.5	1333.1	1614.6	2469.2	2724.4	2992.7	3621.3	4454.3	4703.9
32.5°	1115.5	1118.3	1164.2	1274.0	1443.8	2287.2	2796.6	3127.8	3458.0	4647.6	5028.5
35°	1072.3	1070.4	1111.7	1219.6	1388.5	1751.5	2877.3	3290.1	3718.8	4464.7	5512.6
37.5°	1031.0	1028.2	1063.9	1163.3	1339.7	1639.9	2783.5	3485.2	4093.1	4603.5	5473.2
40°	999.1	993.5	1023.5	1112.6	1289.0	1611.7	2192.5	3691.6	4504.1	5319.3	5804.3
42.5°	971.0	967.2	992.6	1063.9	1237.4	1578.0	2043.3	3803.3	5015.3	6146.8	6660.9
45°	928.8	934.4	962.5	1031.0	1182.1	1530.1	2058.3	3054.6	5556.7	6864.4	7514.6
47.5°	910.9	910.0	927.8	992.6	1134.2	1463.5	2048.0	2801.3	5897.2	7615.9	8350.5
50°	882.8	878.1	765.5	947.5	1085.4	1381.0	2004.8	2874.5	4907.5	8353.3	9117.9
52.5°	830.3	738.3	669.8	915.6	1035.7	1290.9	1908.2	2906.4	4738.6	8221.9	9777.4
55°	440.9	491.6	634.2	870.6	977.6	1210.2	1766.5	2883.9	5103.5	6574.5	9076.6
57.5°	391.2	389.3	403.4	687.7	509.4	1122.0	1595.8	2780.7	5448.8	6874.8	9246.4
60°	31.0	31.9	37.5	228.9	270.2	789.9	1411.9	2653.1	5631.7	7229.4	9658.2
62.5°	15.0	16.9	22.5	204.5	246.7	718.6	1245.9	2435.4	5708.6	7485.5	9861.8
65°	3.8	4.7	10.3	180.1	214.8	639.8	1078.9	2180.3	5715.2	7495.8	10026.0
67.5°	2.8	4.7	10.3	163.2	196.1	570.4	932.5	2002.0	5435.6	7457.3	9943.4
70°	2.8	4.7	10.3	146.4	177.3	494.4	803.1	1827.5	4721.7	7313.8	9662.9
72.5°	2.8	5.6	10.3	128.5	155.7	419.4	682.0	1635.2	3962.7	6714.3	9038.1
75°	2.8	5.6	11.3	104.1	133.2	334.0	560.1	1400.7	3295.7	5822.2	8002.4
77.5°	2.8	5.6	11.3	80.7	107.9	249.5	424.0	1109.8	2629.6	4293.9	5622.3
80°	2.8	5.6	11.3	57.2	88.2	175.4	308.7	757.1	1568.6	2257.2	2863.2
82.5°	2.8	5.6	11.3	41.3	63.8	126.7	190.4	373.4	748.6	1083.6	1359.4
85°	1.9	4.7	10.3	27.2	33.8	76.9	113.5	166.1	224.2	296.5	400.6
87.5°	1.9	2.8	6.6	10.3	14.1	27.2	42.2	37.5	42.2	88.2	126.7
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°	4201.0	4201.0	4201.0	4201.0	4201.0	4201.0	4201.0	4201.0	4201.0	4201.0	4201.0
2.5°	4207.6	4203.8	4204.8	4225.4	4207.6	4211.4	4180.4	4242.3	4236.7	4228.2	4252.6
5°	4212.3	4210.4	4217.9	4235.7	4208.5	4213.2	4184.1	4256.4	4238.6	4235.7	4264.8
7.5°	4235.7	4232.9	4240.4	4248.9	4218.9	4218.9	4193.5	4250.8	4240.4	4221.7	4254.5
10°	4278.0	4267.6	4275.1	4279.8	4233.9	4232.0	4185.1	4252.6	4226.4	4217.0	4259.2
12.5°	4337.1	4313.6	4324.9	4317.4	4256.4	4245.1	4182.3	4226.4	4193.5	4187.9	4226.4
15°	4416.8	4385.8	4394.3	4380.2	4303.3	4270.5	4169.1	4187.9	4135.4	4130.7	4158.8
17.5°	4490.9	4472.2	4467.5	4467.5	4377.4	4295.8	4156.9	4130.7	4061.2	4056.6	4070.6
20°	4625.1	4599.7	4596.9	4574.4	4441.2	4316.4	4137.2	4056.6	3953.4	3929.9	3956.2
22.5°	4668.2	4791.1	4782.7	4683.2	4494.7	4333.3	4096.9	3963.7	3822.0	3777.0	3790.1
25°	4796.8	4981.6	4966.6	4822.1	4549.1	4342.7	4048.1	3861.4	3666.3	3587.5	3590.3
27.5°	5000.3	5188.9	5178.6	4970.3	4616.6	4345.5	3993.7	3753.5	3511.5	3408.3	3416.7
30°	5259.3	5449.7	5434.7	5135.4	4718.9	4351.1	3952.4	3624.1	3369.8	3258.2	3256.3
32.5°	5619.5	5792.1	5748.0	5355.9	4841.8	4374.6	3898.0	3501.2	3240.4	3123.1	3113.7
35°	6163.6	6227.4	6173.0	5618.6	4972.2	4389.6	3810.8	3381.1	3120.3	3004.9	2996.4
37.5°	6899.1	6820.3	6747.2	5914.1	5107.3	4385.8	3700.1	3264.8	3017.1	2907.3	2907.3
40°	6971.4	7501.4	7366.3	6225.6	5229.2	4365.2	3595.0	3151.2	2933.6	2844.5	2858.5
42.5°	7310.1	8335.5	8145.9	6526.7	5317.4	4305.2	3482.4	3048.0	2855.7	2783.5	2789.1
45°	8142.2	9094.4	8983.7	6817.5	5365.3	4199.2	3352.0	2946.7	2768.5	2711.3	2722.5
47.5°	9037.2	9996.9	9834.6	7085.8	5339.0	4042.5	3213.2	2853.8	2677.5	2640.9	2661.5
50°	9883.4	10946.3	10811.2	7274.4	5222.7	3823.0	3064.9	2755.3	2606.2	2577.1	2587.4
52.5°	10713.7	11808.5	11707.2	7376.7	4990.0	3593.1	2928.0	2661.5	2539.6	2503.0	2517.1
55°	11398.5	12625.6	12527.1	7366.3	4640.1	3352.9	2791.9	2560.2	2472.0	2439.2	2450.4
57.5°	11933.3	13261.7	13191.3	7209.7	4232.9	3132.5	2638.1	2460.8	2382.9	2353.8	2363.2
60°	12411.7	13665.1	13574.1	6863.5	3801.4	2889.5	2479.5	2342.6	2277.8	2254.4	2269.4
62.5°	12803.9	13673.5	13756.1	6362.5	3378.3	2632.4	2303.2	2197.1	2150.2	2136.2	2145.5
65°	12904.2	13422.1	13462.4	5743.3	2949.5	2377.3	2091.1	2021.7	2002.0	1993.6	2012.3
67.5°	12765.4	12892.0	12651.9	5219.9	2558.3	2088.3	1862.2	1819.1	1831.3	1833.1	1857.5
70°	12407.0	11473.6	11103.0	4781.7	2193.4	1768.4	1610.8	1596.7	1629.6	1656.8	1674.6
72.5°	11493.3	9420.0	9067.2	4162.6	1729.0	1353.7	1268.4	1313.4	1302.2	1314.3	1346.2
75°	9894.7	7270.7	7052.1	3387.7	1317.2	984.1	869.7	874.4	888.4	950.3	984.1
77.5°	7048.3	5229.2	5131.7	2598.7	872.5	578.8	598.5	665.1	684.8	686.7	710.2
80°	3734.8	2914.8	2782.5	1531.1	577.0	413.7	450.3	479.4	505.7	532.9	539.4
82.5°	1683.0	1318.1	1281.5	760.8	365.9	319.0	327.4	377.1	398.7	403.4	408.1
85°	653.9	455.0	433.4	316.2	240.2	215.8	239.2	289.9	310.5	301.1	298.3
87.5°	174.5	106.9	97.6	106.0	112.6	119.1	136.0	154.8	177.3	170.7	165.1
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)