

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: P591117

Luminaire Tested: **CTN-CA10-310-722-U-T4-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591117
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-12)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-310-722-U-T4-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17361 lumens
Efficiency: N/A
Efficacy: 55.6 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

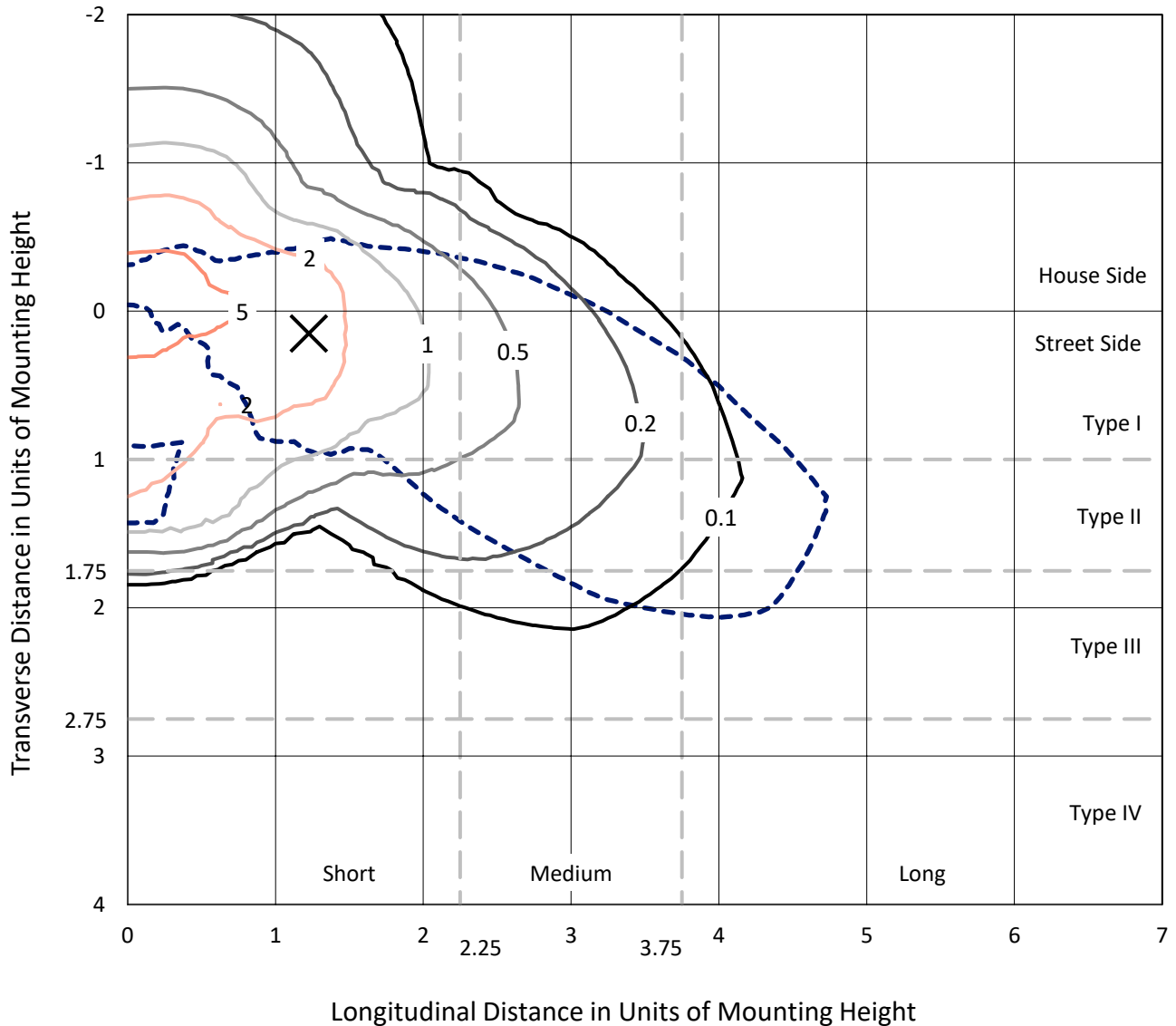
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

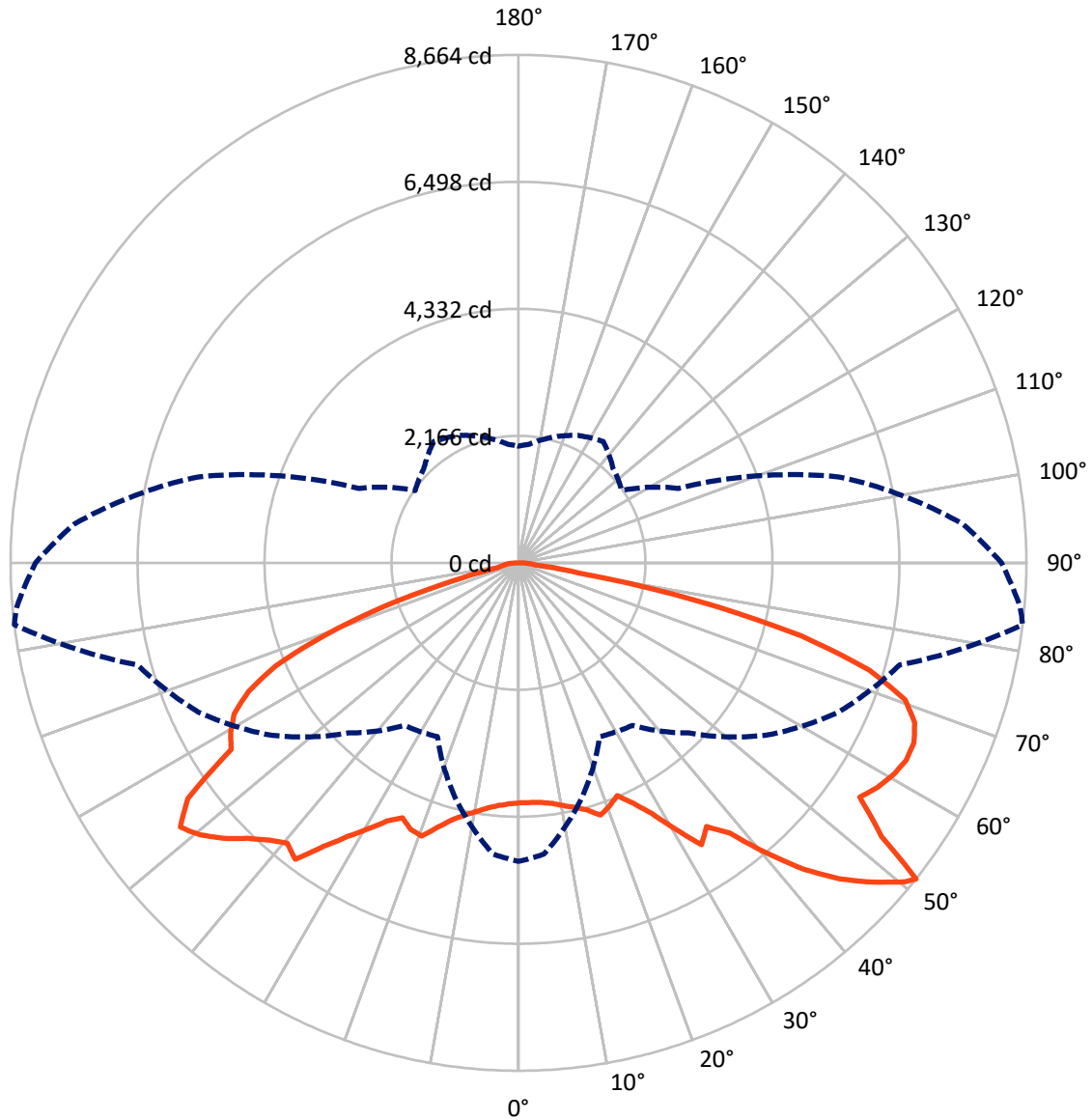
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 83-Deg Lateral - - - Horizontal Cone Through 51-Deg Vertical

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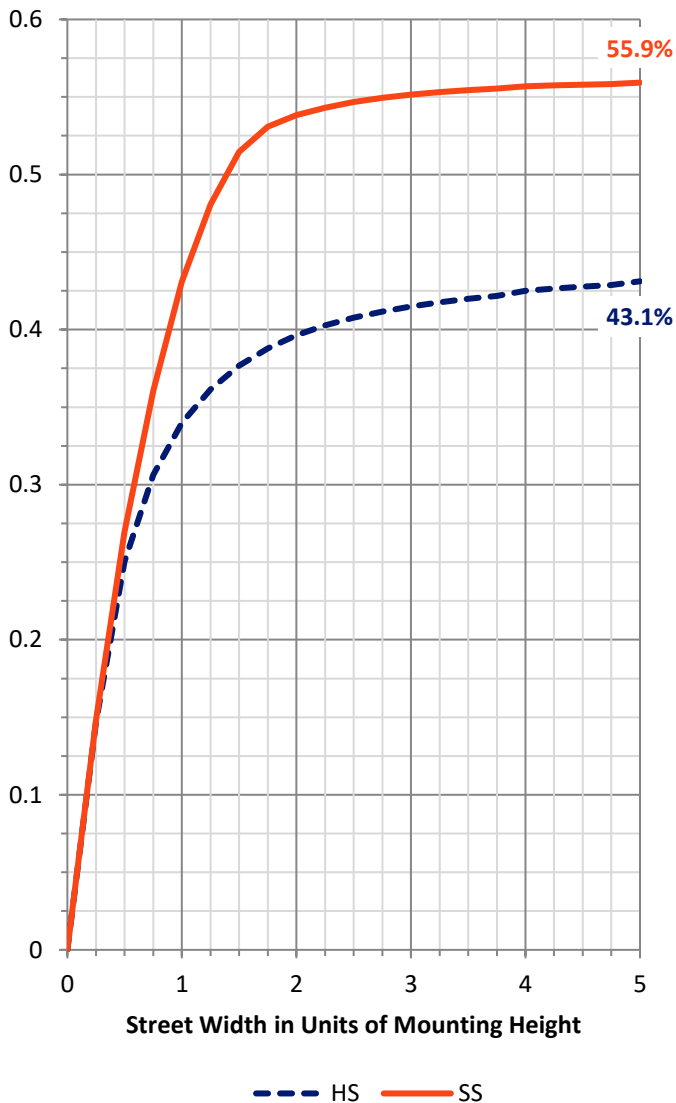
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7652.0	0.0	7652.0
	% Fixture	44.1	0.0	44.1
Street Side	Lumens	9709.0	0.0	9709.0
	% Fixture	55.9	0.0	55.9
Total	Lumens	17361.0	0.0	17361.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	399.7	2.3
10°-20°	1216.5	7.0
20°-30°	1889.8	10.9
30°-40°	2528.6	14.6
40°-50°	3280.5	18.9
50°-60°	3493.8	20.1
60°-70°	2433.8	14.0
70°-80°	1698.0	9.8
80°-90°	420.1	2.4
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°	17361.0	100.0
0°-180°	17361.0	100.0

Coefficient of Utilization



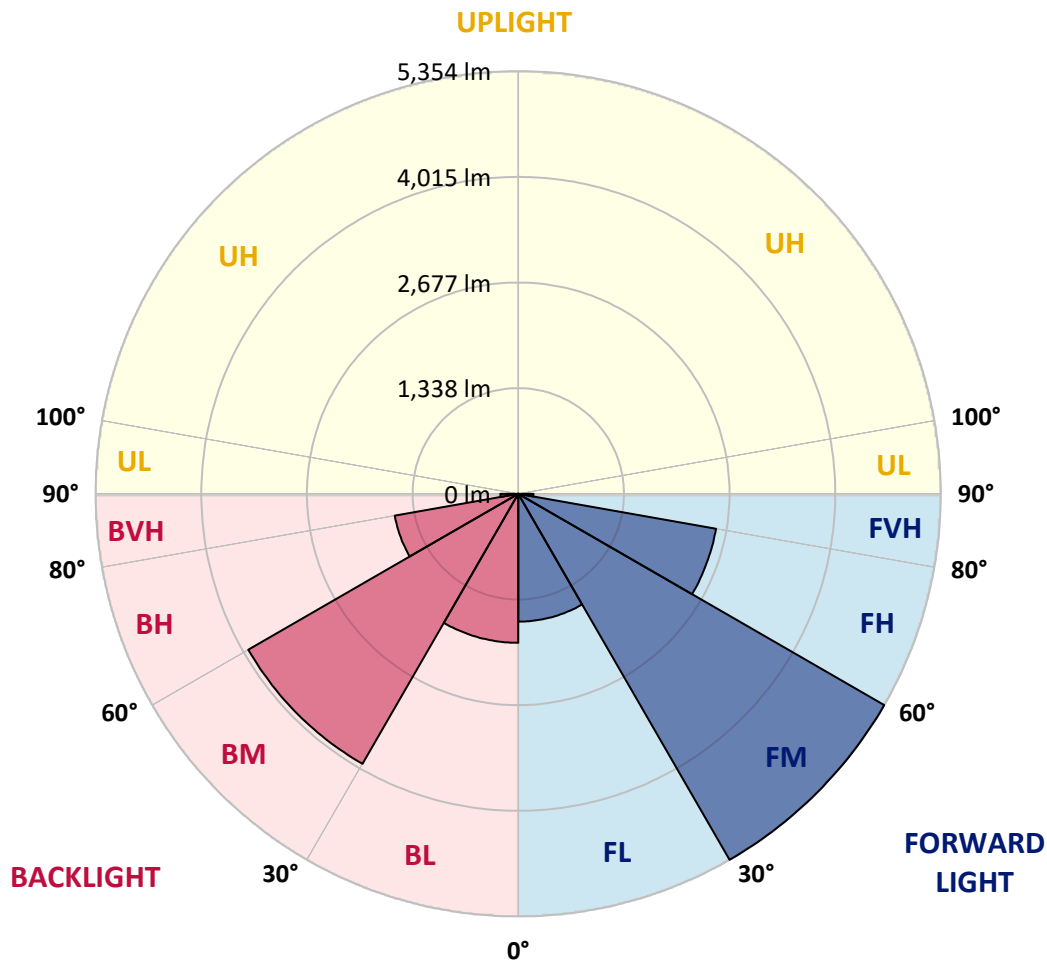
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1618.7	9.3			
FM	(30°-60°)	5353.6	30.8			
FH	(60°-80°)	2543.8	14.7			G2/5000
FVH	(80°-90°)	192.9	1.1			G2/225
BL	(0°-30°)	1887.3	10.9	B3/2500		
BM	(30°-60°)	3949.4	22.7	B3/5000		
BH	(60°-80°)	1588.1	9.1	B3/2500		G3/2500
BVH	(80°-90°)	227.2	1.3			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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	83°	85°
0°	4092.0	4092.0	4092.0	4092.0	4092.0	4092.0	4092.0	4092.0	4092.0	4092.0	4092.0
2.5°	4043.2	4015.2	4017.6	4055.4	4005.4	4038.3	4033.5	4092.0	4081.1	4093.3	4101.8
5°	4007.8	3985.9	3985.9	4035.9	4000.5	4035.9	4011.5	4062.7	4079.8	4106.7	4116.4
7.5°	4015.2	3992.0	4001.7	4045.7	4006.6	4043.2	4042.0	4090.8	4096.9	4144.5	4160.4
10°	4035.9	4010.3	4015.2	4050.5	4028.6	4092.0	4081.1	4148.2	4148.2	4211.6	4236.0
12.5°	3993.2	3976.1	3985.9	4033.5	4053.0	4118.9	4133.5	4201.9	4211.6	4280.0	4310.5
15°	3946.8	3922.4	3954.1	4022.5	4055.4	4150.6	4182.3	4287.3	4301.9	4372.7	4406.9
17.5°	3722.3	3706.4	3765.0	3819.9	3838.2	3930.9	3993.2	4167.7	4377.6	4525.3	4565.6
20°	3275.6	3273.1	3164.5	3141.3	3425.7	3765.0	3807.7	3956.6	4199.4	4430.1	4511.9
22.5°	2734.9	2808.2	3160.9	3273.1	3265.8	3400.1	3946.8	4087.2	4194.6	4311.7	4360.5
25°	2734.9	2728.8	2937.5	3420.8	3422.0	3479.4	3601.4	4304.4	4406.9	4541.1	4580.2
27.5°	2821.6	2827.7	2814.3	3167.0	3590.4	3644.1	3696.6	4060.3	4688.8	4837.7	4902.4
30°	2968.0	2977.8	2924.1	2925.3	3646.6	3807.7	3907.8	4050.5	4885.3	5267.3	5296.6
32.5°	3257.3	3253.6	3186.5	3099.8	3199.9	3967.6	4114.0	4299.5	4575.3	5731.0	5799.4
35°	3487.9	3472.1	3425.7	3365.9	3234.1	3922.4	4310.5	4566.8	4918.3	5524.8	5886.0
37.5°	3744.2	3721.0	3668.6	3595.3	3475.7	2737.4	4504.5	4871.9	5417.4	5848.2	5871.4
40°	4033.5	4007.8	3935.8	3828.4	3675.9	2804.5	4591.2	5249.0	6067.9	6501.1	6497.5
42.5°	4255.6	4229.9	4192.1	4078.6	3231.6	3093.7	4004.2	5778.6	6772.1	7147.9	7116.2
45°	4443.5	4421.5	4425.2	4305.6	3031.5	3448.9	4460.6	6055.7	7436.0	7692.2	7650.8
47.5°	4590.0	4555.8	4463.0	3622.2	3109.6	3694.2	4831.6	5281.9	7996.1	8141.4	8095.0
50°	4946.3	4889.0	4337.3	3215.8	3307.3	3994.4	5184.3	5826.2	7283.4	8550.2	8468.4
51°	5091.6	4987.8	4156.7	3271.9	3385.4	4103.0	5131.8	6023.9	6728.1	8663.7	8590.5
52.5°	5244.1	5039.1	3661.2	3357.3	3480.6	4253.1	4359.3	6327.8	6883.1	7753.3	8185.3
55°	4424.0	4504.5	3780.8	3669.8	3661.2	3675.9	4452.1	6780.6	7206.5	7060.1	6974.6
57.5°	2601.9	2649.5	3840.6	4109.1	3168.2	2919.2	4697.4	7122.3	7486.0	7222.4	7127.2
60°	1308.3	1369.3	1398.6	1275.3	1708.6	2662.9	3956.6	5162.3	7656.9	7344.4	7229.7
62.5°	57.4	95.2	37.8	41.5	69.6	928.7	2907.0	5302.7	7800.9	7418.9	7267.5
65°	4.9	4.9	6.1	12.2	30.5	975.1	3235.3	5496.7	7859.4	7411.6	7209.0
67.5°	1.2	1.2	2.4	8.5	22.0	1055.7	3621.0	5576.1	7861.9	7287.1	7039.3
70°	0.0	1.2	2.4	7.3	19.5	1104.5	3705.2	5560.2	7761.8	6994.2	6653.7
72.5°	0.0	0.0	1.2	6.1	17.1	1042.2	3607.5	5528.5	7420.1	6257.0	5773.8
75°	0.0	0.0	1.2	4.9	14.6	1060.5	3617.3	5172.1	6479.2	4981.7	4394.7
77.5°	0.0	0.0	1.2	4.9	13.4	978.8	3312.2	4478.9	5120.8	3101.1	2459.1
80°	0.0	0.0	1.2	4.9	12.2	839.6	2724.0	3496.5	2865.5	1052.0	678.5
82.5°	0.0	0.0	1.2	4.9	9.8	568.7	1809.9	1747.6	577.3	301.4	270.9
85°	0.0	0.0	1.2	3.7	7.3	339.3	906.8	238.0	223.3	191.6	173.3
87.5°	0.0	0.0	1.2	2.4	4.9	144.0	279.5	73.2	92.8	78.1	69.6
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4092.0	4092.0	4092.0	4092.0	4092.0	4092.0	4092.0	4092.0	4092.0	4092.0	4092.0
2.5°	4109.1	4109.1	4122.5	4167.7	4162.8	4199.4	4178.7	4223.8	4227.5	4219.0	4239.7
5°	4125.0	4139.6	4184.8	4232.4	4212.9	4266.6	4292.2	4352.0	4349.5	4342.2	4366.6
7.5°	4170.1	4200.7	4245.8	4303.2	4323.9	4367.8	4370.3	4452.1	4447.2	4443.5	4467.9
10°	4245.8	4286.1	4336.1	4422.8	4410.6	4474.0	4447.2	4507.0	4505.8	4503.3	4527.7
12.5°	4323.9	4382.5	4443.5	4527.7	4526.5	4528.9	4505.8	4536.3	4530.2	4513.1	4531.4
15°	4433.8	4511.9	4596.1	4657.1	4603.4	4592.4	4541.1	4522.8	4487.4	4438.6	4453.3
17.5°	4615.6	4692.5	4799.9	4832.8	4745.0	4694.9	4555.8	4454.5	4344.7	4270.2	4286.1
20°	4779.1	4921.9	5024.4	5022.0	4909.7	4777.9	4561.9	4391.0	4178.7	4034.7	4022.5
22.5°	4575.3	4815.7	5262.4	5209.9	5013.4	4826.7	4554.6	4289.7	3937.0	3713.7	3705.2
25°	4692.5	4697.4	5097.7	5314.9	5059.8	4806.0	4466.7	4112.8	3661.2	3429.4	3415.9
27.5°	4991.5	4964.6	4853.6	5202.6	5017.1	4699.8	4289.7	3811.3	3409.8	3208.5	3198.7
30°	5346.6	5263.6	5002.5	4658.3	4841.4	4493.6	4017.6	3502.6	3182.8	2999.8	2985.1
32.5°	5771.3	5596.8	5137.9	4598.5	4265.3	4182.3	3666.1	3258.5	2994.9	2804.5	2766.7
35°	6275.4	6014.2	5268.5	4497.2	3816.2	3721.0	3335.4	3038.8	2817.9	2625.1	2587.3
37.5°	6274.1	6546.3	5461.3	4358.1	3538.0	3203.6	3095.0	2892.4	2694.7	2461.6	2418.9
40°	6320.5	6329.0	5673.7	4222.6	3278.0	2937.5	2952.2	2820.4	2616.6	2360.3	2316.3
42.5°	6884.3	6469.4	5933.6	4040.8	3032.7	2741.0	2891.2	2794.7	2575.1	2312.7	2263.9
45°	7374.9	6896.5	5363.7	3841.9	2775.2	2588.5	2842.3	2734.9	2516.5	2255.3	2200.4
47.5°	7802.1	7235.8	5508.9	3494.0	2523.8	2464.0	2748.4	2620.2	2411.5	2168.7	2119.9
50°	8126.7	7516.5	5635.9	3026.6	2279.7	2339.5	2595.8	2465.2	2263.9	2067.4	2025.9
51°	8237.8	7606.8	5661.5	3005.9	2150.4	2280.9	2523.8	2396.9	2216.3	2028.3	1990.5
52.5°	8357.4	7724.0	5699.3	3052.2	1967.3	2184.5	2406.6	2295.6	2145.5	1984.4	1941.7
55°	6949.0	7257.8	5602.9	2954.6	1755.0	1992.9	2191.9	2141.8	2058.8	1916.0	1885.5
57.5°	6695.2	6141.1	4647.3	2501.8	1568.2	1764.7	1983.2	2016.1	1952.7	1807.4	1785.5
60°	6750.1	6085.0	4138.4	1866.0	1382.7	1560.9	1827.0	1856.2	1801.3	1691.5	1661.0
62.5°	6740.3	5941.0	3690.5	1314.4	1221.6	1454.7	1714.7	1726.9	1651.2	1559.7	1531.6
65°	6579.2	5610.2	3079.1	994.6	1132.5	1396.1	1648.8	1654.9	1560.9	1443.7	1429.1
67.5°	6220.4	5086.7	2141.8	873.8	1082.5	1351.0	1604.8	1578.0	1487.7	1364.4	1342.5
70°	5533.3	4144.5	1000.7	804.3	1006.8	1268.0	1497.4	1465.7	1366.9	1252.1	1232.6
72.5°	4436.2	2880.2	474.7	735.9	927.5	1164.3	1365.6	1315.6	1233.8	1191.1	1180.1
75°	2903.4	1352.2	396.6	662.7	822.6	1038.6	1252.1	1233.8	1158.2	1072.7	1031.2
77.5°	1177.7	356.4	358.8	588.2	738.3	956.8	1131.3	1116.7	1016.6	939.7	922.6
80°	296.6	267.3	328.3	485.7	643.2	833.5	992.2	950.7	914.1	831.1	804.3
82.5°	225.8	214.8	257.5	375.9	528.4	687.1	847.0	864.1	803.0	739.6	726.1
85°	157.4	195.3	156.2	267.3	391.8	541.9	710.3	740.8	699.3	627.3	578.5
87.5°	86.6	102.5	64.7	140.3	207.5	296.6	407.6	411.3	340.5	312.4	294.1
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)