

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: P591102

Luminaire Tested: **CTN-CA10-210-722-U-T3-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591102
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-9)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-210-722-U-T3-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: 14689 lumens
Efficiency: N/A
Efficacy: 69.0 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

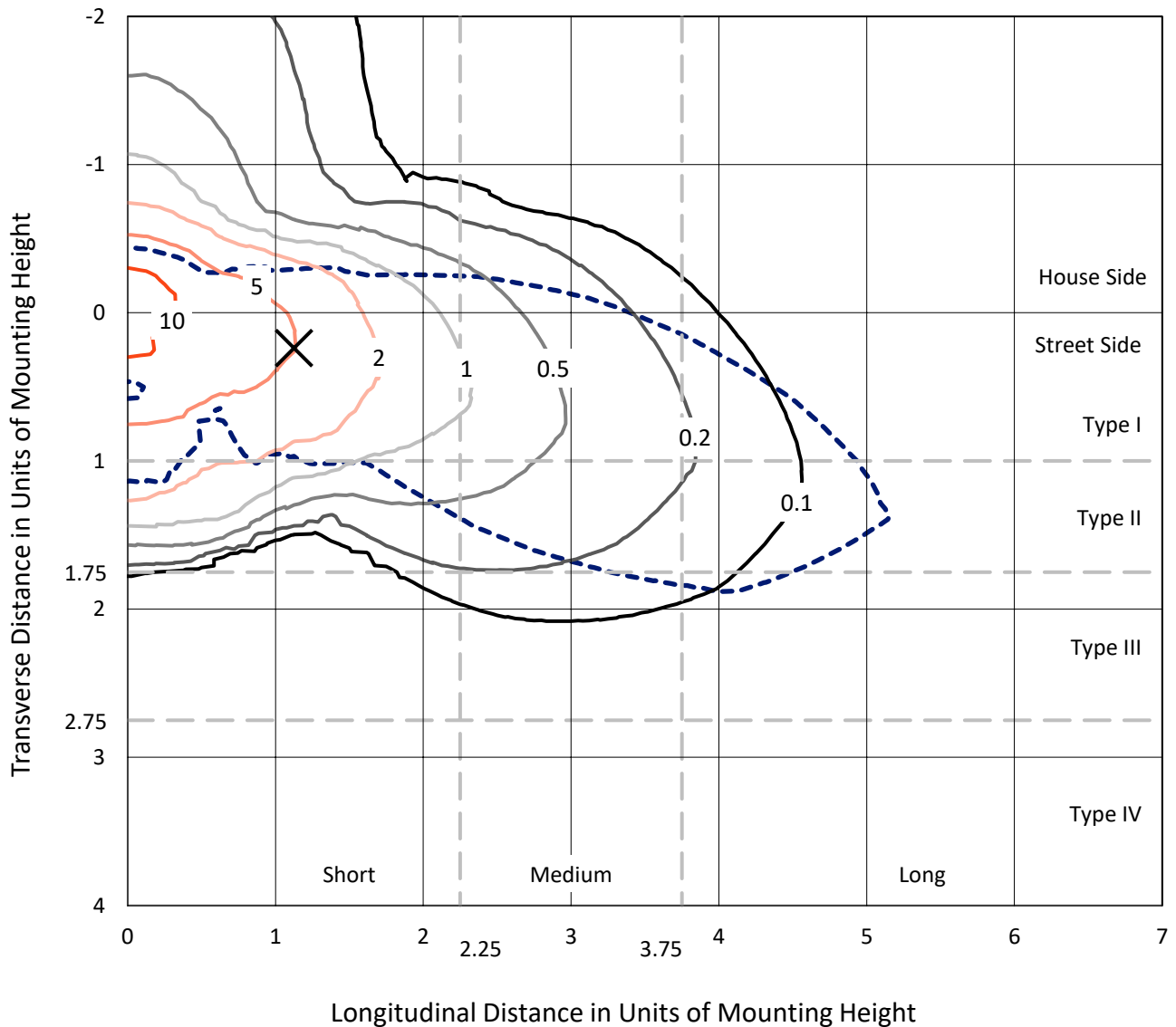
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

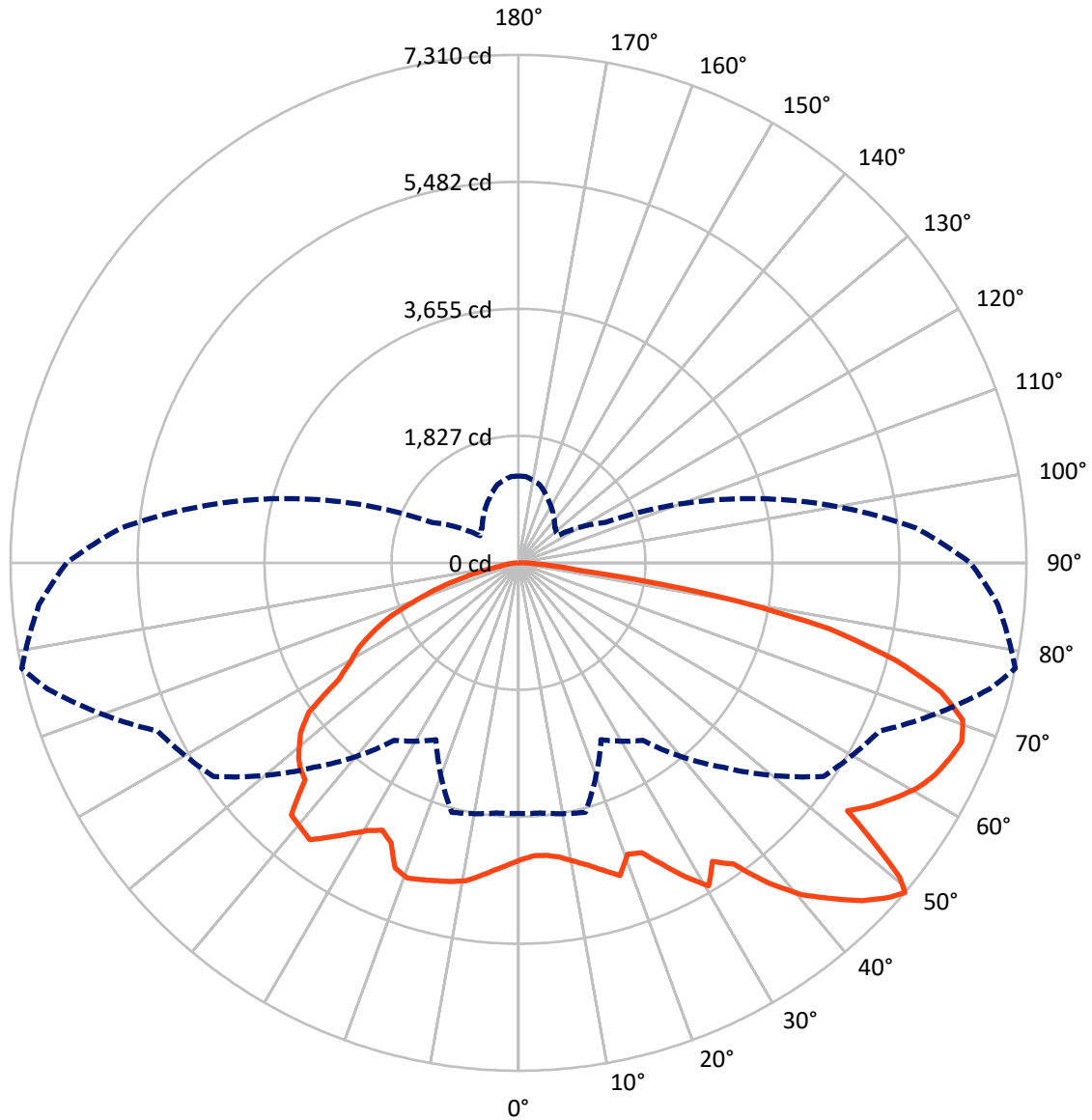
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 12 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral - - - Horizontal Cone Through 49-Deg Vertical

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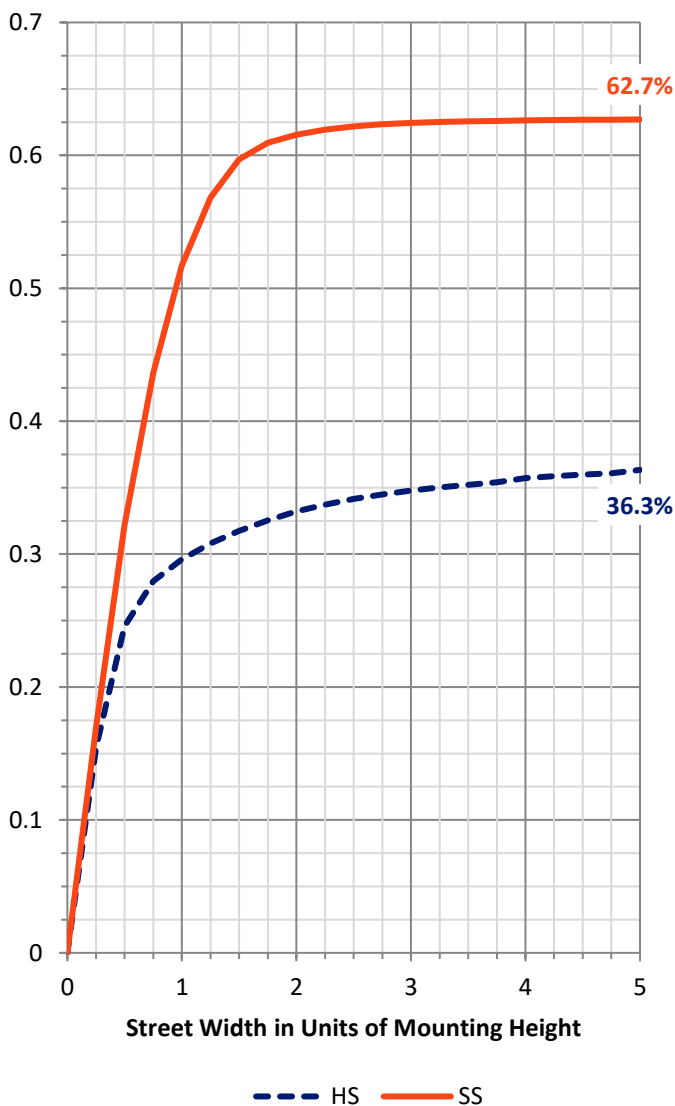
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5494.0	0.0	5494.0
	% Fixture	37.4	0.0	37.4
Street Side	Lumens	9195.0	0.0	9195.0
	% Fixture	62.6	0.0	62.6
Total	Lumens	14689.0	0.0	14689.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	427.6	2.9
10°-20°	1312.4	8.9
20°-30°	1901.9	12.9
30°-40°	2337.0	15.9
40°-50°	2637.7	18.0
50°-60°	2506.4	17.1
60°-70°	1872.0	12.7
70°-80°	1390.2	9.5
80°-90°	303.8	2.1
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°	14689.0	100.0
0°-180°	14689.0	100.0

Coefficient of Utilization



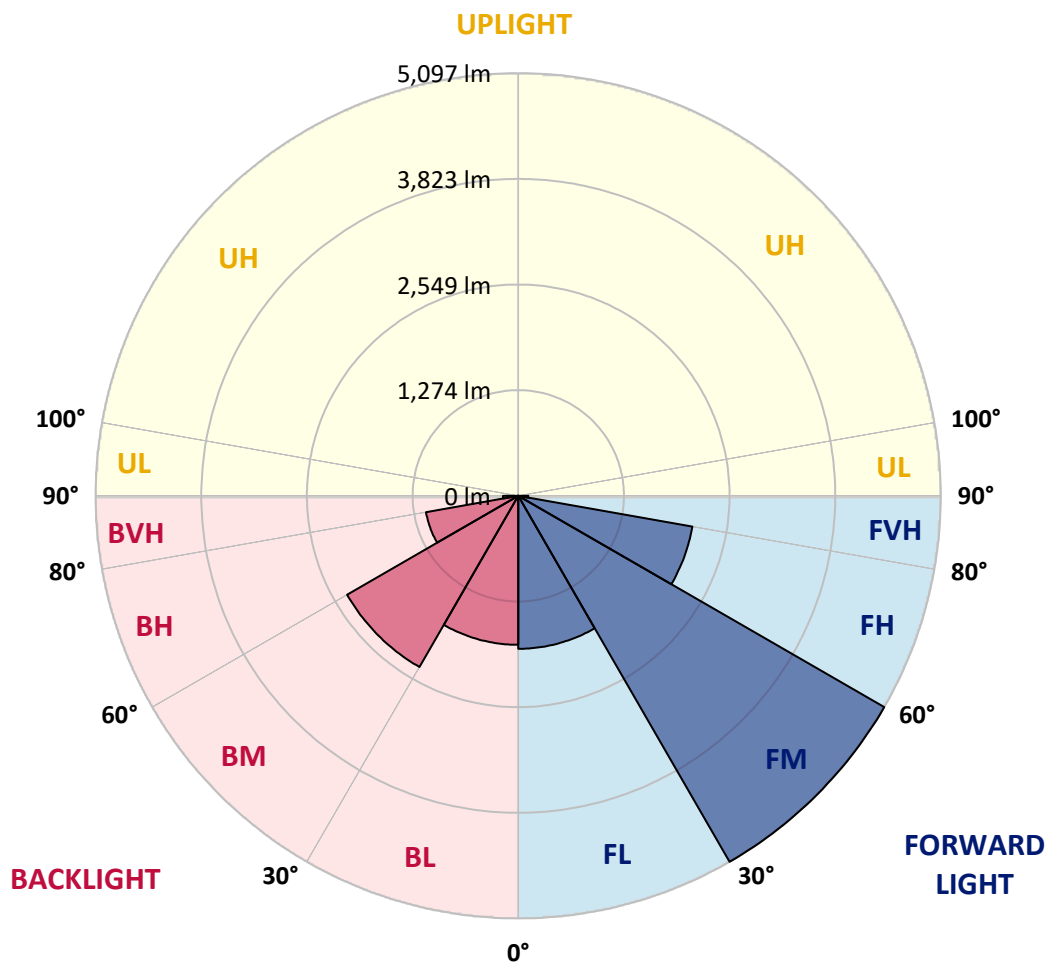
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1845.0	12.6			
FM (30°-60°)	5097.1	34.7			
FH (60°-80°)	2132.7	14.5			G2/5000
FVH (80°-90°)	120.1	0.8			G2/225
BL (0°-30°)	1796.9	12.2	B3/2500		
BM (30°-60°)	2384.0	16.2	B2/2500		
BH (60°-80°)	1129.5	7.7	B3/2500		G3/2500
BVH (80°-90°)	183.7	1.3			G2/225
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°	78°	85°
0°	4271.5	4271.5	4271.5	4271.5	4271.5	4271.5	4271.5	4271.5	4271.5	4271.5	4271.5
2.5°	4179.2	4156.3	4162.5	4197.6	4130.0	4179.2	4159.0	4206.4	4222.3	4220.5	4289.1
5°	4213.5	4183.6	4192.4	4216.1	4142.3	4180.1	4164.2	4215.2	4228.4	4229.3	4322.5
7.5°	4339.2	4304.9	4296.1	4297.9	4228.4	4256.5	4216.1	4255.7	4279.4	4276.8	4380.5
10°	4522.0	4484.2	4464.9	4458.7	4374.3	4362.0	4312.8	4326.9	4362.0	4366.4	4471.9
12.5°	4710.1	4680.3	4652.1	4638.1	4522.0	4494.8	4422.7	4435.0	4461.4	4466.6	4576.5
15°	4876.3	4848.2	4843.8	4827.9	4710.1	4657.4	4570.4	4557.2	4577.4	4594.1	4689.9
17.5°	4713.7	4677.6	4654.8	4660.0	4600.3	4466.6	4413.0	4503.6	4672.3	4731.2	4821.8
20°	4254.8	4298.7	4280.3	4209.1	4144.9	4361.2	4315.4	4296.1	4400.7	4476.3	4695.2
22.5°	3737.9	3737.9	3913.7	4036.8	4061.4	4182.7	4432.4	4519.4	4530.8	4530.8	4467.5
25°	3329.1	3445.1	3743.2	4210.8	4213.5	4188.8	4258.3	4735.6	4814.8	4806.0	4699.6
27.5°	3487.3	3468.0	3668.4	3993.7	4453.5	4425.3	4289.9	4505.3	5157.6	5117.2	4980.9
30°	3627.1	3607.8	3643.8	4047.3	4522.0	4682.0	4566.0	4501.8	5176.1	5395.8	5314.1
32.5°	3758.1	3736.1	3777.4	3839.0	4303.1	4937.0	4855.2	4813.0	4912.3	5126.0	5691.2
35°	3863.6	3867.1	3914.6	4005.1	4217.9	4850.8	5145.3	5161.1	5335.2	5322.0	5607.7
37.5°	3941.8	3948.9	3990.2	4097.4	4176.5	4006.9	5421.3	5604.2	5872.3	5845.9	5635.8
40°	3946.2	3962.0	4044.7	4176.5	4269.7	3568.2	5370.3	6093.0	6358.4	6281.1	6020.0
42.5°	3864.5	3872.4	4010.4	4233.7	3240.3	3711.5	4980.0	6580.0	6698.6	6603.7	6313.6
45°	3791.5	3789.7	3937.4	4137.9	3061.9	3879.4	4969.5	6438.4	7011.6	6937.8	6567.7
47.5°	3688.6	3687.8	3831.9	3113.7	3100.5	4060.5	5231.4	5583.1	7270.9	7191.8	6798.9
49°	3606.0	3614.8	3716.8	2808.7	3118.1	4161.6	5358.9	5729.0	7016.9	7309.6	6927.2
50°	3561.2	3570.0	3321.2	2777.9	3123.4	4219.6	5425.7	5836.3	6315.4	7110.1	7009.8
52.5°	3357.2	3279.9	2574.8	2713.7	3125.2	4288.2	4665.3	6063.9	6019.1	5926.8	6637.1
55°	2022.8	2289.1	2331.3	2640.8	3097.0	3114.6	4557.2	6328.5	6309.2	6174.7	5714.9
57.5°	1226.3	1214.0	1800.4	2437.7	2073.8	2611.8	4735.6	6678.4	6564.1	6384.8	5812.5
60°	432.5	382.4	385.9	415.8	771.8	1954.2	3777.4	5029.3	6616.9	6588.8	5901.3
62.5°	34.3	32.5	32.5	34.3	49.2	734.0	2995.0	5045.1	6799.7	6726.8	5921.5
65°	4.4	4.4	4.4	9.7	25.5	663.7	2999.4	5126.8	6936.0	6811.2	5867.9
67.5°	0.0	0.0	2.6	7.0	20.2	587.2	2911.5	5175.2	7058.2	6881.5	5818.7
70°	0.0	0.0	1.8	6.2	17.6	486.1	2804.3	5217.4	7001.0	6782.2	5570.8
72.5°	0.0	0.0	1.8	5.3	14.9	320.9	2486.1	4905.3	6594.0	6356.7	5061.8
75°	0.0	0.0	1.8	4.4	14.1	182.9	2036.8	4333.9	5867.9	5616.5	4265.3
77.5°	0.0	0.0	0.9	3.5	12.3	100.2	1407.4	3587.6	4847.3	4571.3	3195.5
80°	0.0	0.0	0.9	3.5	11.4	68.6	640.0	2330.5	3230.6	2885.2	1751.1
82.5°	0.0	0.0	0.9	3.5	8.8	46.6	258.5	653.2	999.5	854.5	557.3
85°	0.0	0.0	0.9	2.6	6.2	29.9	127.5	268.1	403.5	387.7	282.2
87.5°	0.0	0.0	0.9	2.6	4.4	8.8	37.8	87.9	157.4	160.0	120.4
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°	4271.5	4271.5	4271.5	4271.5	4271.5	4271.5	4271.5	4271.5	4271.5	4271.5	4271.5
2.5°	4321.6	4329.5	4355.9	4395.4	4401.6	4455.2	4446.4	4546.6	4556.3	4580.0	4606.4
5°	4367.3	4394.6	4454.3	4544.9	4610.8	4691.7	4683.8	4797.2	4808.6	4802.5	4842.9
7.5°	4434.1	4474.6	4567.7	4689.9	4711.9	4812.1	4798.9	4897.4	4899.2	4886.0	4925.5
10°	4531.7	4579.2	4665.3	4734.8	4787.5	4848.2	4839.4	4927.3	4918.5	4903.5	4944.9
12.5°	4625.8	4652.1	4704.9	4786.6	4796.3	4820.9	4806.0	4887.7	4878.9	4857.8	4896.5
15°	4710.1	4723.3	4724.2	4764.7	4742.7	4761.1	4721.6	4780.5	4760.3	4752.3	4779.6
17.5°	4818.3	4793.7	4757.6	4755.0	4680.3	4654.8	4591.5	4607.3	4565.1	4561.6	4576.5
20°	4832.3	4883.3	4779.6	4672.3	4546.6	4482.5	4362.9	4363.8	4316.3	4297.9	4306.6
22.5°	4447.3	4573.0	4805.1	4600.3	4386.6	4242.5	4088.6	4042.0	3952.4	3914.6	3899.6
25°	4597.6	4434.1	4416.5	4478.9	4179.2	3959.4	3736.1	3599.0	3492.6	3406.5	3412.6
27.5°	4830.6	4617.8	4188.0	4213.5	3918.1	3609.5	3272.8	3079.4	2971.3	2887.8	2878.1
30°	5139.1	4871.9	4237.2	3651.7	3618.3	3170.0	2756.8	2543.2	2433.3	2403.4	2385.0
32.5°	5522.4	5174.3	4348.0	3523.4	2994.2	2694.4	2231.1	2058.8	2007.0	2004.3	1983.2
35°	5977.8	5574.3	4449.9	3352.8	2581.9	2194.2	1782.8	1669.4	1677.3	1678.2	1695.8
37.5°	5686.8	5952.3	4577.4	3191.1	2180.1	1630.7	1433.8	1362.6	1385.4	1422.4	1439.9
40°	5691.2	5418.7	4726.0	2921.2	1694.0	1243.9	1121.7	1105.9	1203.5	1278.2	1296.7
42.5°	5919.8	5383.5	4671.5	2613.5	1240.4	945.9	934.5	1019.7	1160.4	1243.9	1258.9
45°	6165.0	5550.6	3880.3	2177.5	899.3	800.0	887.9	1006.6	1159.5	1248.3	1257.1
47.5°	6398.0	5656.0	3719.4	1701.9	722.6	754.3	873.8	1006.6	1165.7	1256.2	1261.5
49°	6501.7	5741.3	3570.0	1376.7	677.8	736.7	865.9	1008.3	1167.4	1244.8	1247.4
50°	6563.3	5789.7	3449.5	1276.4	655.8	725.2	862.4	1010.9	1164.8	1231.6	1234.2
52.5°	6659.1	5867.9	3172.6	1017.1	614.5	698.9	857.1	1021.5	1155.1	1194.7	1192.9
55°	5491.7	5484.6	2941.4	853.6	582.8	675.1	855.4	1030.3	1159.5	1200.0	1198.2
57.5°	5263.1	4503.6	2478.1	698.0	556.5	654.9	857.1	1043.5	1238.6	1309.0	1300.2
60°	5279.8	4435.0	2108.9	605.7	525.7	638.2	862.4	1102.4	1431.2	1502.4	1480.4
62.5°	5221.8	4267.1	1887.4	544.2	493.2	623.3	865.9	1184.1	1455.8	1461.9	1424.1
65°	5083.8	4056.1	1589.4	476.5	458.9	609.2	865.0	1214.0	1343.2	1293.1	1280.8
67.5°	4827.9	3831.9	1258.0	417.6	422.0	588.1	885.2	1162.2	1271.2	1230.7	1212.3
70°	4524.7	3353.7	887.0	363.1	388.6	564.4	882.6	1149.8	1233.4	1173.6	1148.1
72.5°	3984.9	2819.2	596.9	313.0	346.4	537.1	837.8	1112.9	1208.7	1169.2	1134.0
75°	3167.4	2109.8	346.4	269.9	305.0	497.6	793.8	1090.1	1221.9	1146.3	1073.4
77.5°	2165.2	1201.7	258.5	225.9	262.8	446.6	720.0	1013.6	1181.5	1116.4	1018.9
80°	970.5	434.3	197.8	183.7	220.7	362.2	620.6	896.7	1119.1	1119.1	1050.5
82.5°	385.9	273.4	137.1	144.2	180.2	276.0	491.4	773.6	986.3	1031.2	1102.4
85°	218.0	160.0	87.9	104.6	138.0	213.6	357.8	601.3	803.5	890.5	965.2
87.5°	86.2	60.7	35.2	58.9	80.0	109.9	156.5	294.5	432.5	532.7	589.0
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)