

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: P591246

Luminaire Tested: **CTN-CA6-230-727-U-T3-SSS-HM-EX180**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591246  
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-CA6-230-727-U-T3-SSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (6) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15067 lumens  
Efficiency: N/A  
Efficacy: 66.1 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3

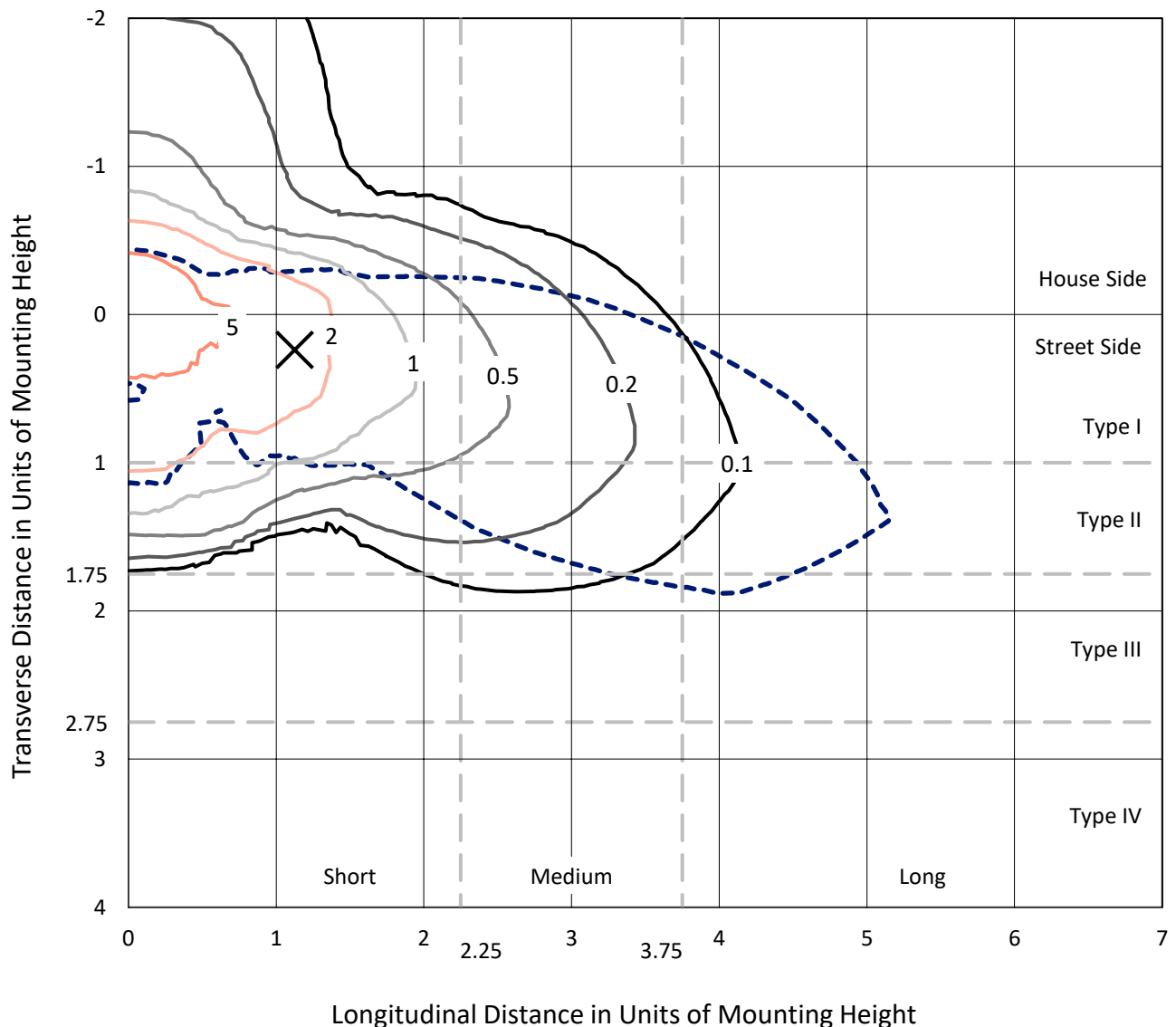
Input Watts (W): 227.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

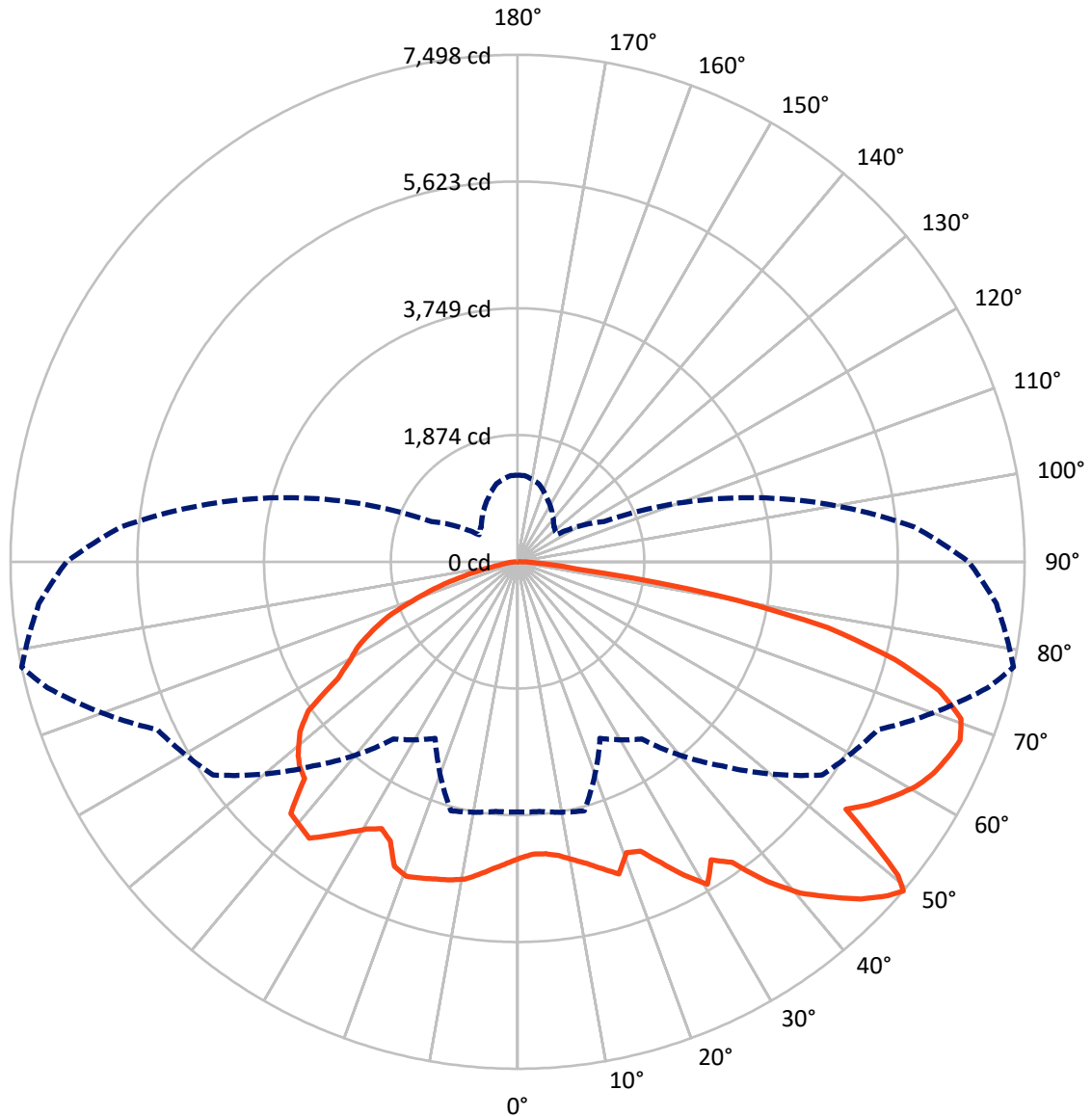
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.9 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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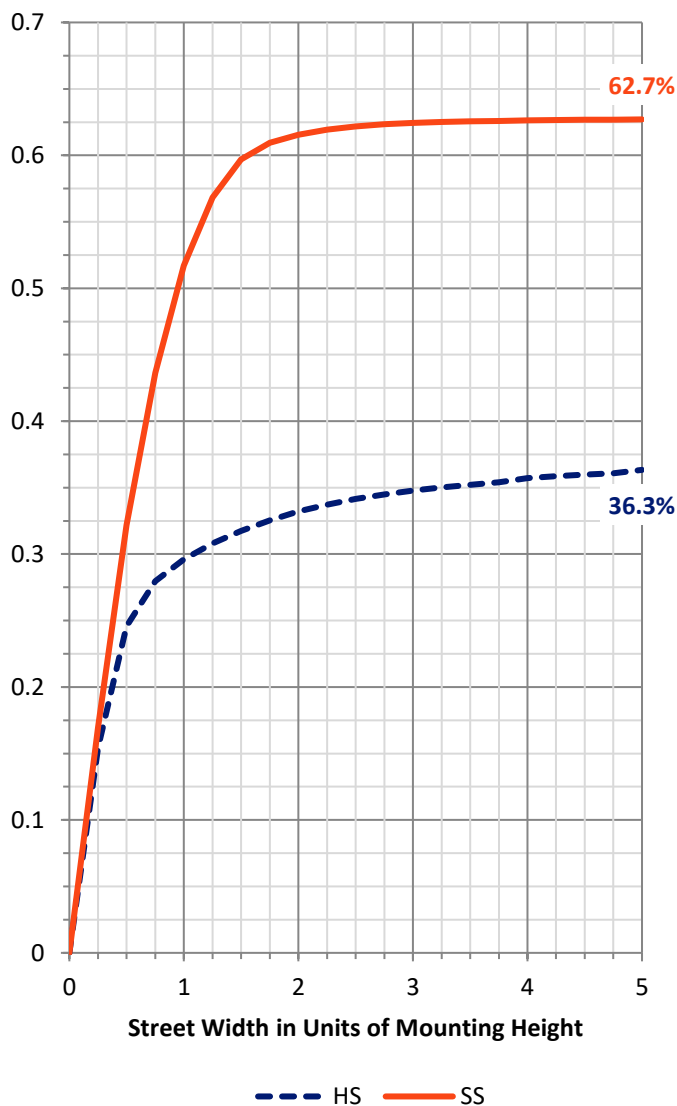
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5635.4	0.0	5635.4
	% Fixture	37.4	0.0	37.4
<b>Street Side</b>	Lumens	9431.6	0.0	9431.6
	% Fixture	62.6	0.0	62.6
<b>Total</b>	Lumens	15067.0	0.0	15067.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	438.6	2.9
10°-20°	1346.2	8.9
20°-30°	1950.8	12.9
30°-40°	2397.1	15.9
40°-50°	2705.6	18.0
50°-60°	2571.0	17.1
60°-70°	1920.1	12.7
70°-80°	1426.0	9.5
80°-90°	311.6	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°	15067.0	100.0
0°-180°	15067.0	100.0

**Coefficient of Utilization**

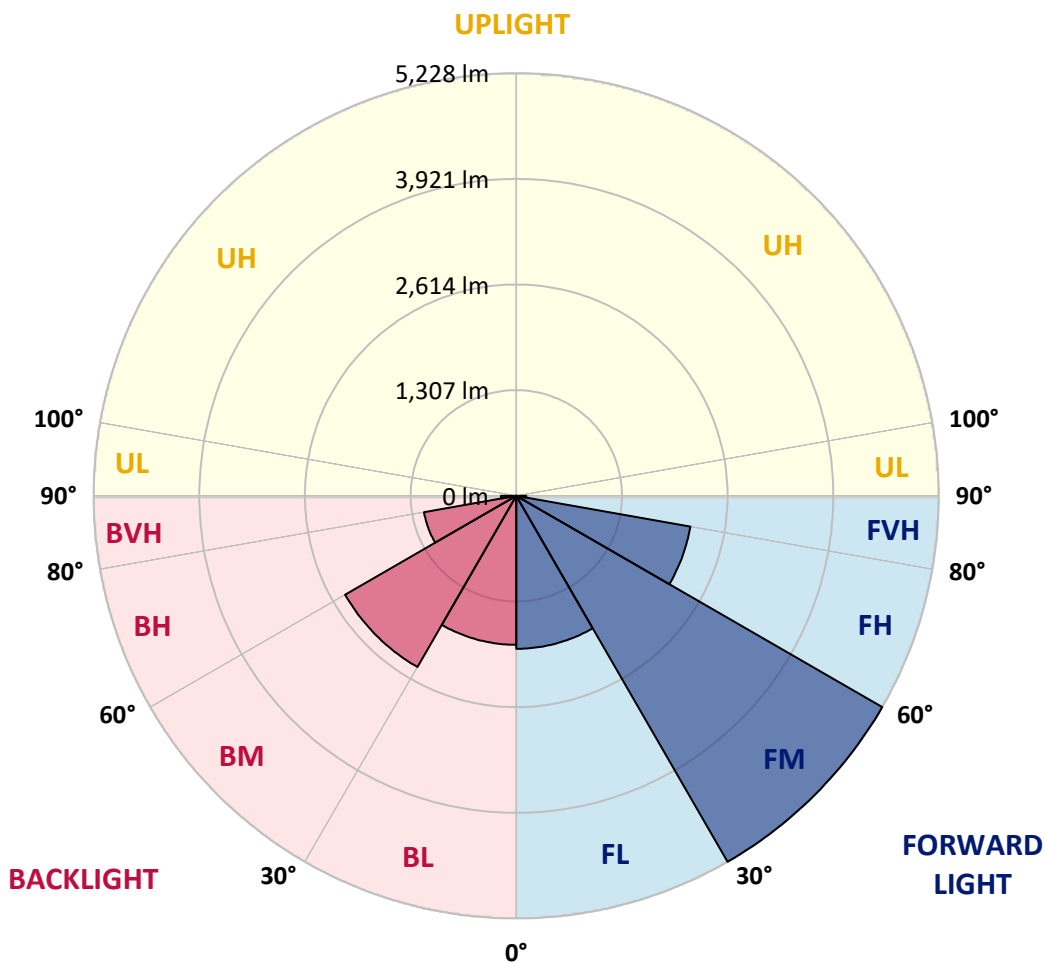


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1892.5	12.6			
FM (30°-60°)	5228.3	34.7			
FH (60°-80°)	2187.6	14.5			G2/5000
FVH (80°-90°)	123.2	0.8			G2/225
BL (0°-30°)	1843.1	12.2	B3/2500		
BM (30°-60°)	2445.3	16.2	B2/2500		
BH (60°-80°)	1158.5	7.7	B3/2500		G3/2500
BVH (80°-90°)	188.4	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°	4381.4	4381.4	4381.4	4381.4	4381.4	4381.4	4381.4	4381.4	4381.4	4381.4	4381.4
2.5°	4286.7	4263.3	4269.6	4305.7	4236.2	4286.7	4266.0	4314.7	4330.9	4329.1	4399.4
5°	4321.9	4291.2	4300.2	4324.6	4248.9	4287.6	4271.4	4323.7	4337.2	4338.1	4433.7
7.5°	4450.8	4415.7	4406.7	4408.5	4337.2	4366.1	4324.6	4365.2	4389.5	4386.8	4493.2
10°	4638.4	4599.6	4579.8	4573.5	4486.9	4474.3	4423.8	4438.2	4474.3	4478.8	4587.0
12.5°	4831.4	4800.7	4771.8	4757.4	4638.4	4610.4	4536.5	4549.1	4576.2	4581.6	4694.3
15°	5001.8	4972.9	4968.4	4952.2	4831.4	4777.3	4688.0	4674.5	4695.2	4712.3	4810.6
17.5°	4835.0	4798.0	4774.5	4780.0	4718.6	4581.6	4526.6	4619.5	4792.6	4853.0	4945.9
20°	4364.3	4409.4	4390.4	4317.4	4251.6	4473.4	4426.5	4406.7	4514.0	4591.5	4816.0
22.5°	3834.1	3834.1	4014.4	4140.6	4165.9	4290.3	4546.4	4635.7	4647.4	4647.4	4582.5
25°	3414.8	3533.8	3839.5	4319.2	4321.9	4296.6	4367.9	4857.5	4938.7	4929.6	4820.5
27.5°	3577.1	3557.2	3762.8	4096.5	4568.1	4539.2	4400.3	4621.3	5290.3	5248.8	5109.1
30°	3720.5	3700.6	3737.6	4151.5	4638.4	4802.5	4683.5	4617.7	5309.3	5534.7	5450.8
32.5°	3854.8	3832.3	3874.6	3937.8	4413.9	5064.0	4980.1	4936.9	5038.7	5257.9	5837.7
35°	3963.0	3966.6	4015.3	4108.2	4326.4	4975.6	5277.7	5293.9	5472.5	5458.9	5752.0
37.5°	4043.3	4050.5	4092.9	4202.9	4284.0	4110.0	5560.8	5748.4	6023.4	5996.4	5780.9
40°	4047.8	4064.0	4148.8	4284.0	4379.6	3660.0	5508.5	6249.7	6522.1	6442.7	6174.9
42.5°	3963.9	3972.0	4113.6	4342.6	3323.7	3807.0	5108.2	6749.3	6871.0	6773.6	6476.1
45°	3889.1	3887.3	4038.8	4244.3	3140.7	3979.2	5097.4	6604.1	7192.0	7116.3	6736.7
47.5°	3783.6	3782.7	3930.5	3193.9	3180.3	4165.0	5366.1	5726.8	7458.0	7376.9	6973.8
49°	3698.8	3707.8	3812.4	2881.0	3198.4	4268.7	5496.8	5876.4	7197.4	7497.7	7105.5
50°	3652.8	3661.8	3406.7	2849.4	3203.8	4328.2	5565.3	5986.4	6477.9	7293.0	7190.2
52.5°	3443.6	3364.3	2641.1	2783.6	3205.6	4398.5	4785.4	6220.0	6174.0	6079.3	6807.9
55°	2074.8	2348.1	2391.3	2708.7	3176.7	3194.8	4674.5	6491.4	6471.6	6333.6	5862.0
57.5°	1257.9	1245.3	1846.7	2500.4	2127.1	2679.0	4857.5	6850.3	6733.1	6549.1	5962.1
60°	443.6	392.2	395.9	426.5	791.7	2004.5	3874.6	5158.7	6787.2	6758.3	6053.2
62.5°	35.2	33.4	33.4	35.2	50.5	752.9	3072.1	5174.9	6974.7	6899.9	6073.9
65°	4.5	4.5	4.5	9.9	26.1	680.8	3076.6	5258.8	7114.5	6986.4	6018.9
67.5°	0.0	0.0	2.7	7.2	20.7	602.3	2986.5	5308.4	7239.8	7058.6	5968.4
70°	0.0	0.0	1.8	6.3	18.0	498.6	2876.5	5351.6	7181.2	6956.7	5714.1
72.5°	0.0	0.0	1.8	5.4	15.3	329.1	2550.0	5031.5	6763.7	6520.3	5192.0
75°	0.0	0.0	1.8	4.5	14.4	187.6	2089.3	4445.4	6018.9	5761.0	4375.1
77.5°	0.0	0.0	0.9	3.6	12.6	102.8	1443.6	3679.9	4972.0	4688.9	3277.7
80°	0.0	0.0	0.9	3.6	11.7	70.3	656.4	2390.4	3313.8	2959.4	1796.2
82.5°	0.0	0.0	0.9	3.6	9.0	47.8	265.1	670.0	1025.2	876.5	571.7
85°	0.0	0.0	0.9	2.7	6.3	30.7	130.7	275.0	413.9	397.7	289.4
87.5°	0.0	0.0	0.9	2.7	4.5	9.0	38.8	90.2	161.4	164.1	123.5
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°	4381.4	4381.4	4381.4	4381.4	4381.4	4381.4	4381.4	4381.4	4381.4	4381.4	4381.4
2.5°	4432.8	4440.9	4468.0	4508.5	4514.9	4569.9	4560.8	4663.6	4673.6	4697.9	4725.0
5°	4479.7	4507.6	4569.0	4661.8	4729.5	4812.4	4804.3	4920.6	4932.3	4926.0	4967.5
7.5°	4548.2	4589.7	4685.3	4810.6	4833.2	4936.0	4922.4	5023.4	5025.2	5011.7	5052.3
10°	4648.3	4697.0	4785.4	4856.6	4910.7	4972.9	4963.9	5054.1	5045.1	5029.7	5072.1
12.5°	4744.8	4771.8	4825.9	4909.8	4919.7	4945.0	4929.6	5013.5	5004.5	4982.8	5022.5
15°	4831.4	4844.9	4845.8	4887.3	4864.7	4883.7	4843.1	4903.5	4882.8	4874.6	4902.6
17.5°	4942.3	4917.0	4880.0	4877.3	4800.7	4774.5	4709.6	4725.9	4682.6	4679.0	4694.3
20°	4956.7	5009.0	4902.6	4792.6	4663.6	4597.8	4475.2	4476.1	4427.4	4408.5	4417.5
22.5°	4561.7	4690.7	4928.7	4718.6	4499.5	4351.6	4193.8	4146.1	4054.1	4015.3	4000.0
25°	4715.9	4548.2	4530.2	4594.2	4286.7	4061.3	3832.3	3691.6	3582.5	3494.1	3500.4
27.5°	4954.9	4736.7	4295.7	4321.9	4018.9	3702.4	3357.1	3158.7	3047.8	2962.1	2952.2
30°	5271.4	4997.3	4346.2	3745.7	3711.4	3251.6	2827.8	2608.6	2495.9	2465.3	2446.3
32.5°	5664.5	5307.5	4459.9	3614.0	3071.2	2763.7	2288.5	2111.8	2058.6	2055.9	2034.3
35°	6131.6	5717.7	4564.5	3439.1	2648.3	2250.7	1828.7	1712.3	1720.5	1721.4	1739.4
37.5°	5833.2	6105.5	4695.2	3273.2	2236.2	1672.7	1470.7	1397.6	1421.1	1459.0	1477.0
40°	5837.7	5558.1	4847.6	2996.4	1737.6	1275.9	1150.6	1134.3	1234.4	1311.1	1330.0
42.5°	6072.1	5522.1	4791.7	2680.8	1272.3	970.2	958.5	1046.0	1190.3	1275.9	1291.2
45°	6323.7	5693.4	3980.1	2233.5	922.4	820.6	910.7	1032.5	1189.4	1280.4	1289.4
47.5°	6562.6	5801.6	3815.1	1745.7	741.2	773.7	896.3	1032.5	1195.7	1288.5	1294.0
49°	6669.0	5889.1	3661.8	1412.1	695.2	755.6	888.2	1034.3	1197.5	1276.8	1279.5
50°	6732.2	5938.7	3538.3	1309.3	672.7	743.9	884.6	1037.0	1194.8	1263.3	1266.0
52.5°	6830.4	6018.9	3254.3	1043.3	630.3	716.9	879.2	1047.8	1184.8	1225.4	1223.6
55°	5633.0	5625.8	3017.1	875.6	597.8	692.5	877.4	1056.8	1189.4	1230.8	1229.0
57.5°	5398.5	4619.5	2541.9	716.0	570.8	671.8	879.2	1070.3	1270.5	1342.6	1333.6
60°	5415.7	4549.1	2163.2	621.3	539.2	654.6	884.6	1130.7	1468.0	1541.0	1518.5
62.5°	5356.2	4376.9	1936.0	558.2	505.9	639.3	888.2	1214.6	1493.2	1499.5	1460.8
65°	5214.6	4160.5	1630.3	488.7	470.7	624.9	887.3	1245.3	1377.8	1326.4	1313.8
67.5°	4952.2	3930.5	1290.3	428.3	432.8	603.2	908.0	1192.1	1303.9	1262.4	1243.5
70°	4641.1	3440.0	909.8	372.4	398.6	578.9	905.3	1179.4	1265.1	1203.8	1177.6
72.5°	4087.4	2891.8	612.3	321.0	355.3	550.9	859.3	1141.6	1239.8	1199.3	1163.2
75°	3248.9	2164.1	355.3	276.8	312.9	510.4	814.2	1118.1	1253.4	1175.8	1101.0
77.5°	2220.9	1232.6	265.1	231.7	269.6	458.1	738.5	1039.7	1211.9	1145.2	1045.1
80°	995.5	445.4	202.9	188.5	226.3	371.5	636.6	919.7	1147.9	1147.9	1077.5
82.5°	395.9	280.4	140.7	147.9	184.9	283.1	504.1	793.5	1011.7	1057.7	1130.7
85°	223.6	164.1	90.2	107.3	141.6	219.1	367.0	616.8	824.2	913.4	990.1
87.5°	88.4	62.2	36.1	60.4	82.1	112.7	160.5	302.1	443.6	546.4	604.1
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)