

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: P591294

Luminaire Tested: **CTN-CA10-210-730-U-T3-SSS-HM-EX180**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591294  
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-CA10-210-730-U-T3-SSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (10) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17698 lumens  
Efficiency: N/A  
Efficacy: 83.1 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3

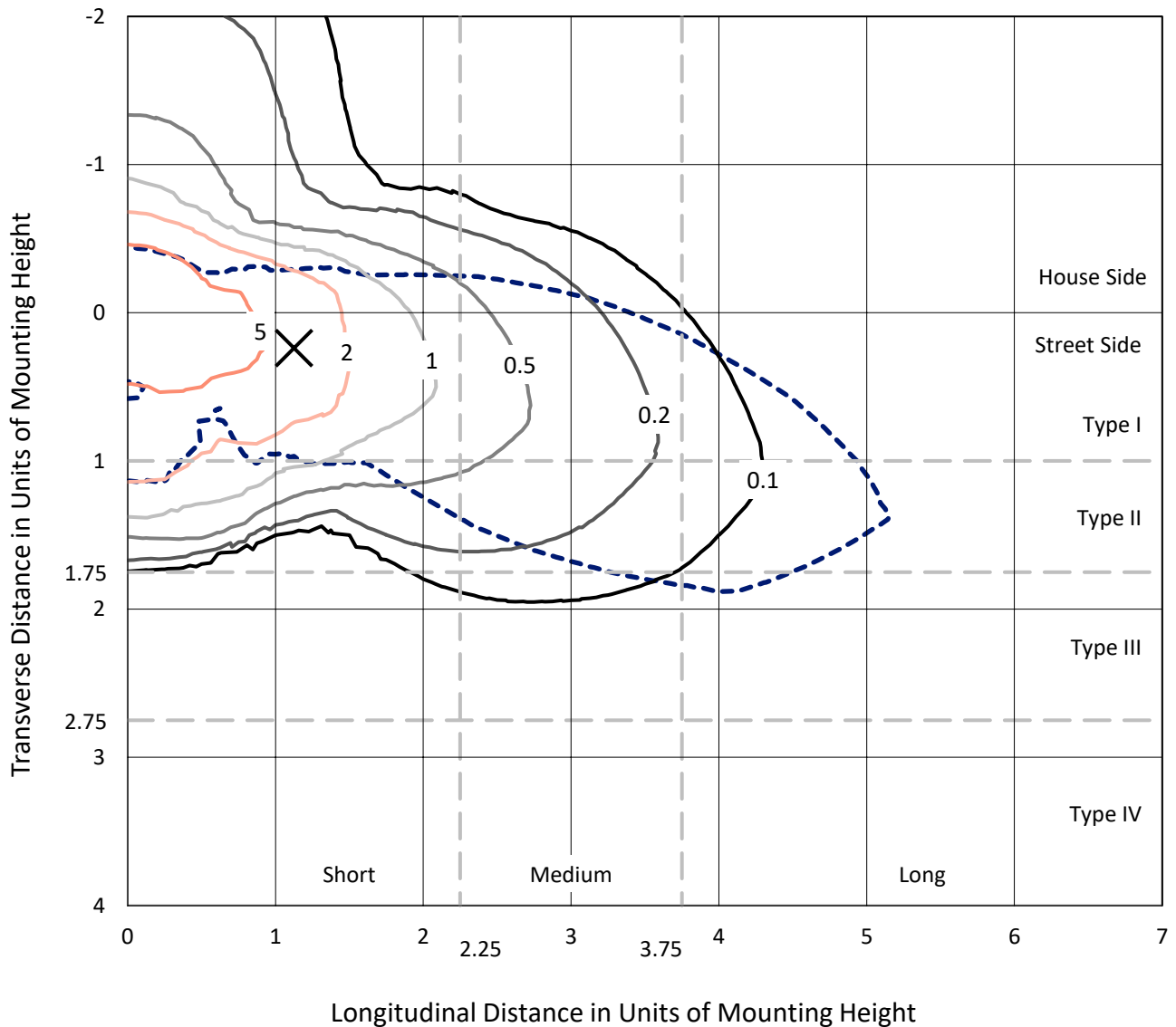
Input Watts (W): 212.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

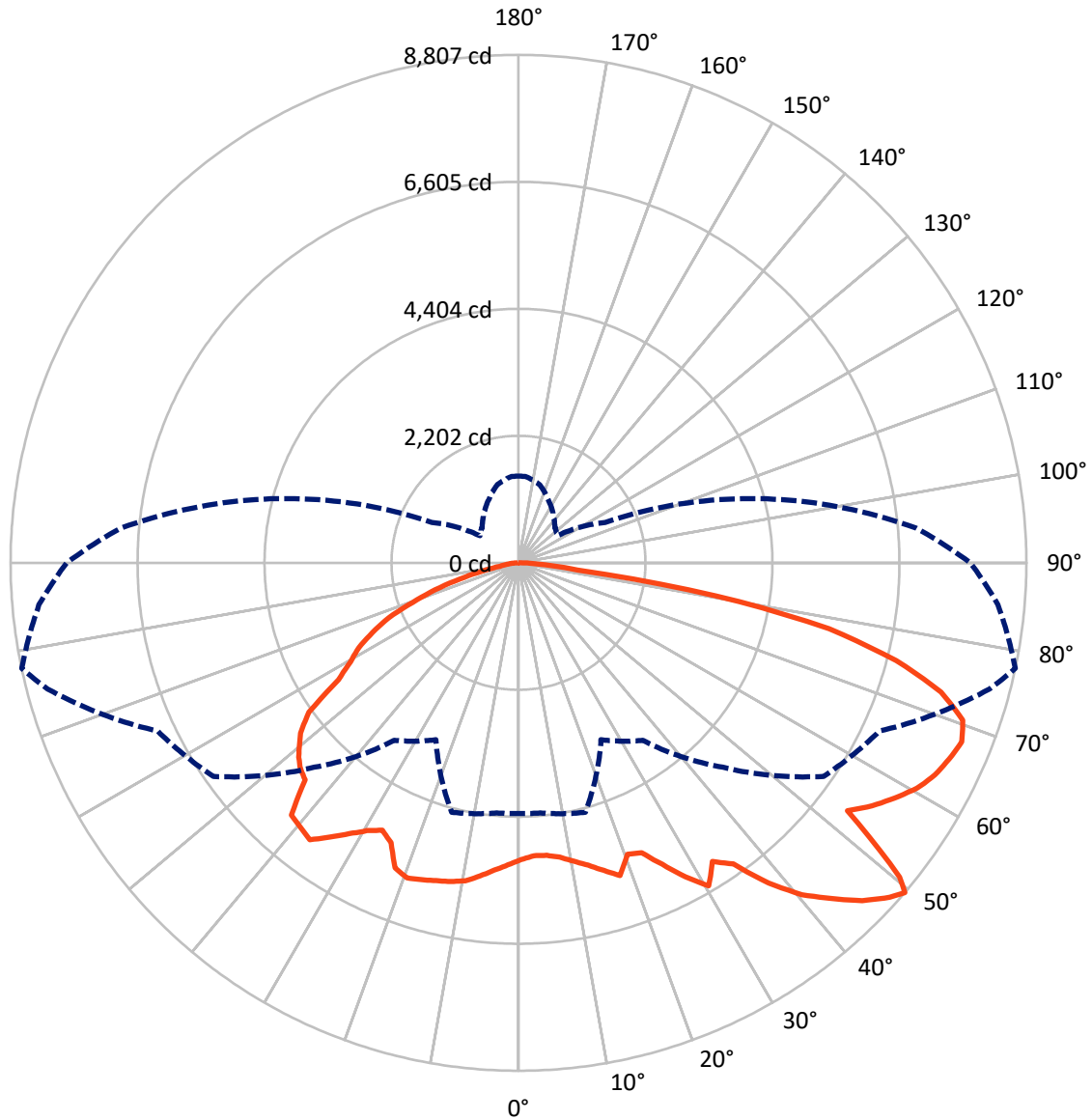
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.3 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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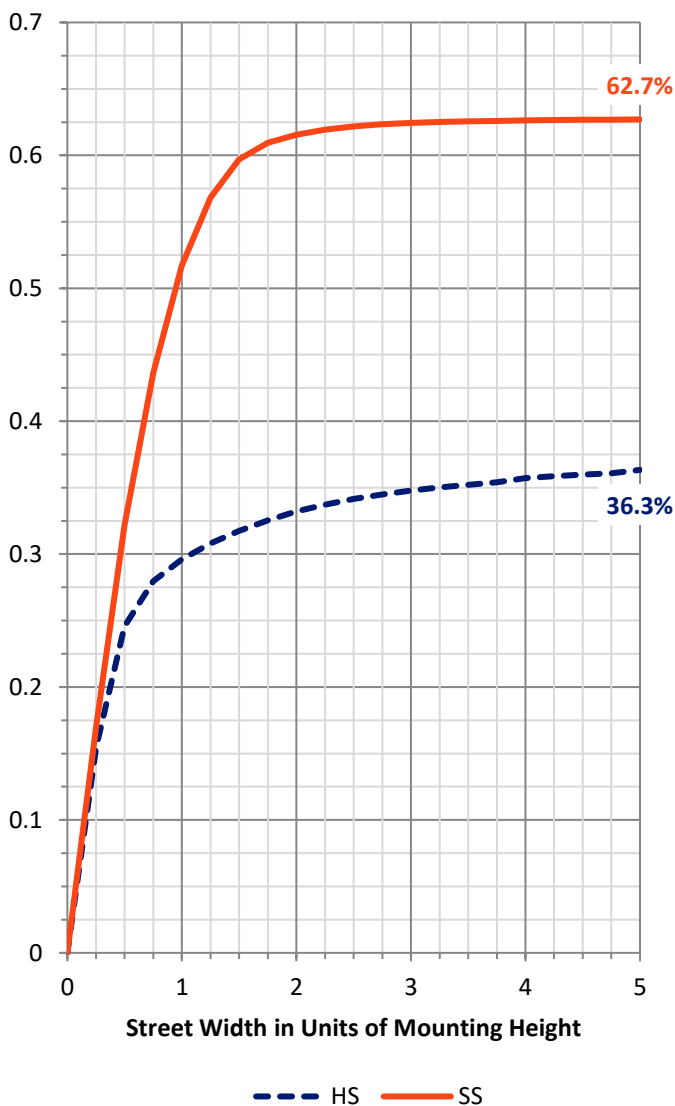
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6619.5	0.0	6619.5
	% Fixture	37.4	0.0	37.4
<b>Street Side</b>	Lumens	11078.6	0.0	11078.6
	% Fixture	62.6	0.0	62.6
<b>Total</b>	Lumens	17698.0	0.0	17698.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	515.1	2.9
10°-20°	1581.3	8.9
20°-30°	2291.5	12.9
30°-40°	2815.7	15.9
40°-50°	3178.0	18.0
50°-60°	3019.9	17.1
60°-70°	2255.4	12.7
70°-80°	1675.0	9.5
80°-90°	366.0	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°	17698.0	100.0
0°-180°	17698.0	100.0

**Coefficient of Utilization**



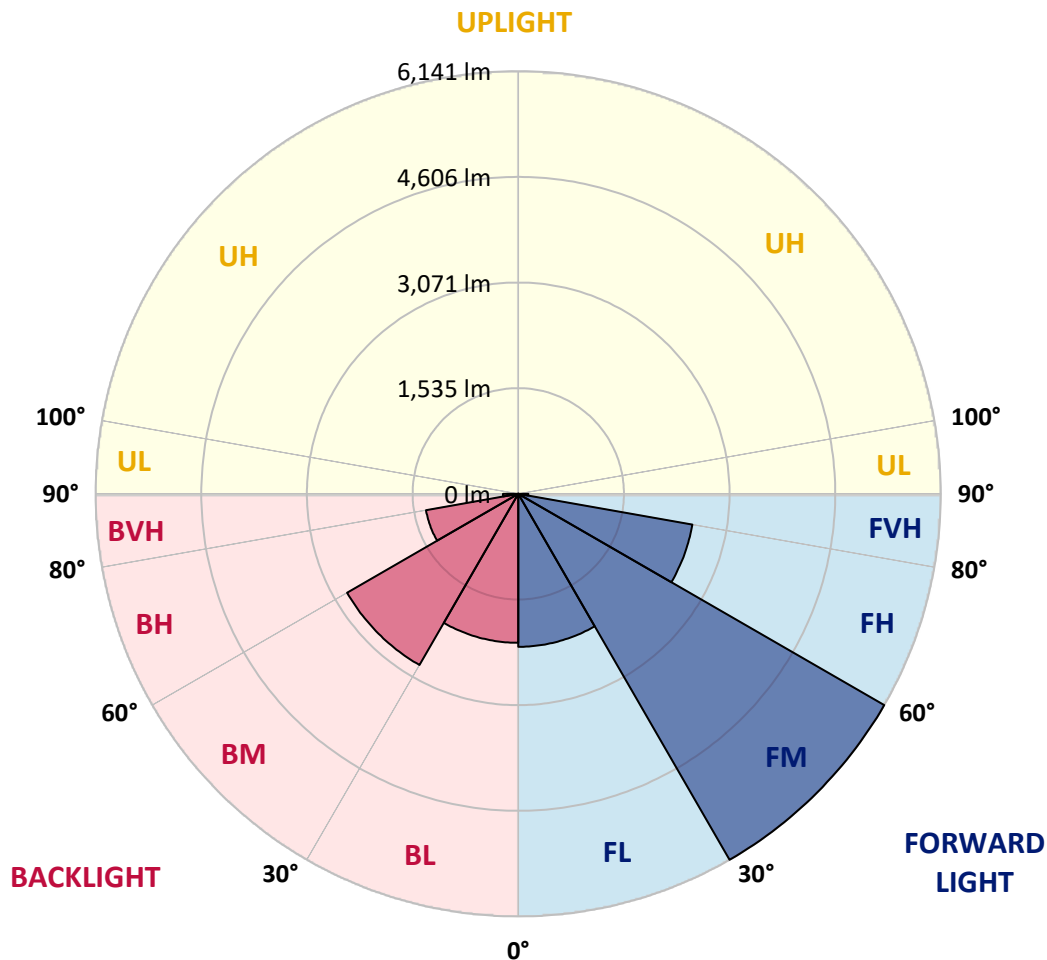
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2223.0	12.6			
FM (30°-60°)	6141.3	34.7			
FH (60°-80°)	2569.6	14.5			G2/5000
FVH (80°-90°)	144.7	0.8			G2/225
BL (0°-30°)	2164.9	12.2	B3/2500		
BM (30°-60°)	2872.3	16.2	B3/5000		
BH (60°-80°)	1360.8	7.7	B3/2500		G3/2500
BVH (80°-90°)	221.3	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°	5146.5	5146.5	5146.5	5146.5	5146.5	5146.5	5146.5	5146.5	5146.5	5146.5	5146.5
2.5°	5035.3	5007.7	5015.1	5057.5	4976.0	5035.3	5010.9	5068.1	5087.2	5085.1	5167.7
5°	5076.6	5040.6	5051.2	5079.8	4990.8	5036.3	5017.3	5078.7	5094.6	5095.6	5207.9
7.5°	5228.0	5186.7	5176.1	5178.3	5094.6	5128.5	5079.8	5127.4	5156.0	5152.8	5277.8
10°	5448.3	5402.8	5379.5	5372.1	5270.4	5255.6	5196.3	5213.2	5255.6	5260.9	5388.0
12.5°	5675.0	5639.0	5605.1	5588.2	5448.3	5415.5	5328.7	5343.5	5375.3	5381.6	5514.0
15°	5875.2	5841.3	5836.0	5816.9	5675.0	5611.5	5506.6	5490.7	5515.1	5535.2	5650.6
17.5°	5679.2	5635.8	5608.3	5614.6	5542.6	5381.6	5317.0	5426.1	5629.5	5700.4	5809.5
20°	5126.4	5179.3	5157.1	5071.3	4994.0	5254.5	5199.4	5176.1	5302.2	5393.3	5657.0
22.5°	4503.6	4503.6	4715.4	4863.7	4893.3	5039.5	5340.3	5445.2	5458.9	5458.9	5382.7
25°	4011.1	4150.9	4509.9	5073.4	5076.6	5046.9	5130.6	5705.7	5801.0	5790.5	5662.3
27.5°	4201.7	4178.4	4419.9	4811.8	5365.7	5331.8	5168.7	5428.2	6214.1	6165.4	6001.2
30°	4370.1	4346.8	4390.2	4876.4	5448.3	5641.1	5501.3	5424.0	6236.4	6501.2	6402.7
32.5°	4527.9	4501.5	4551.2	4625.4	5184.6	5948.3	5849.8	5798.9	5918.6	6176.0	6857.0
35°	4655.0	4659.3	4716.5	4825.6	5081.9	5844.5	6199.3	6218.4	6428.1	6412.2	6756.4
37.5°	4749.3	4757.8	4807.6	4936.8	5032.1	4827.7	6531.9	6752.2	7075.2	7043.4	6790.3
40°	4754.6	4773.7	4873.2	5032.1	5144.4	4299.2	6470.4	7341.1	7660.9	7567.7	7253.2
42.5°	4656.1	4665.6	4831.9	5100.9	3904.1	4471.8	6000.2	7927.9	8070.8	7956.5	7606.9
45°	4568.2	4566.1	4744.0	4985.5	3689.1	4674.1	5987.5	7757.3	8447.9	8358.9	7913.0
47.5°	4444.3	4443.2	4616.9	3751.6	3735.7	4892.3	6303.1	6726.8	8760.4	8665.0	8191.6
49°	4344.7	4355.3	4478.2	3384.0	3756.9	5014.1	6456.7	6902.6	8454.3	8807.0	8346.2
50°	4290.7	4301.3	4001.5	3347.0	3763.2	5084.0	6537.2	7031.8	7609.0	8566.5	8445.8
52.5°	4045.0	3951.7	3102.3	3269.6	3765.3	5166.6	5621.0	7306.1	7252.1	7140.9	7996.7
55°	2437.1	2758.1	2808.9	3181.7	3731.4	3752.6	5490.7	7624.9	7601.6	7439.6	6885.6
57.5°	1477.5	1462.7	2169.2	2937.1	2498.6	3146.8	5705.7	8046.5	7908.8	7692.7	7003.2
60°	521.1	460.7	465.0	501.0	929.9	2354.5	4551.2	6059.5	7972.3	7938.4	7110.2
62.5°	41.3	39.2	39.2	41.3	59.3	884.4	3608.6	6078.6	8192.6	8104.7	7134.5
65°	5.3	5.3	5.3	11.7	30.7	799.7	3613.9	6177.1	8356.8	8206.4	7069.9
67.5°	0.0	0.0	3.2	8.5	24.4	707.5	3508.0	6235.3	8504.0	8291.1	7010.6
70°	0.0	0.0	2.1	7.4	21.2	585.7	3378.7	6286.1	8435.2	8171.5	6711.9
72.5°	0.0	0.0	2.1	6.4	18.0	386.6	2995.3	5910.1	7944.8	7658.8	6098.7
75°	0.0	0.0	2.1	5.3	16.9	220.3	2454.1	5221.7	7069.9	6767.0	5139.1
77.5°	0.0	0.0	1.1	4.2	14.8	120.7	1695.7	4322.5	5840.2	5507.7	3850.1
80°	0.0	0.0	1.1	4.2	13.8	82.6	771.1	2807.8	3892.4	3476.2	2109.9
82.5°	0.0	0.0	1.1	4.2	10.6	56.1	311.4	787.0	1204.3	1029.5	671.5
85°	0.0	0.0	1.1	3.2	7.4	36.0	153.6	323.0	486.2	467.1	340.0
87.5°	0.0	0.0	1.1	3.2	5.3	10.6	45.5	105.9	189.6	192.8	145.1
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°	5146.5	5146.5	5146.5	5146.5	5146.5	5146.5	5146.5	5146.5	5146.5	5146.5	5146.5
2.5°	5206.9	5216.4	5248.2	5295.8	5303.2	5367.9	5357.3	5478.0	5489.7	5518.3	5550.0
5°	5261.9	5294.8	5366.8	5475.9	5555.3	5652.8	5643.2	5779.9	5793.6	5786.2	5834.9
7.5°	5342.4	5391.2	5503.4	5650.6	5677.1	5797.9	5782.0	5900.6	5902.7	5886.8	5934.5
10°	5460.0	5517.2	5621.0	5704.7	5768.2	5841.3	5830.7	5936.6	5926.0	5908.0	5957.8
12.5°	5573.3	5605.1	5668.7	5767.2	5778.8	5808.5	5790.5	5889.0	5878.4	5852.9	5899.6
15°	5675.0	5690.9	5692.0	5740.7	5714.2	5736.4	5688.8	5759.7	5735.4	5725.8	5758.7
17.5°	5805.3	5775.6	5732.2	5729.0	5639.0	5608.3	5532.0	5551.1	5500.2	5496.0	5514.0
20°	5822.2	5883.7	5758.7	5629.5	5478.0	5400.7	5256.6	5257.7	5200.5	5178.3	5188.9
22.5°	5358.3	5509.8	5789.4	5542.6	5285.2	5111.5	4926.2	4870.0	4762.0	4716.5	4698.5
25°	5539.4	5342.4	5321.2	5396.4	5035.3	4770.5	4501.5	4336.2	4208.1	4104.3	4111.7
27.5°	5820.1	5563.8	5045.9	5076.6	4720.7	4348.9	3943.3	3710.3	3580.0	3479.4	3467.7
30°	6191.9	5869.9	5105.2	4399.8	4359.5	3819.4	3321.5	3064.2	2931.8	2895.8	2873.5
32.5°	6653.7	6234.2	5238.6	4245.1	3607.5	3246.3	2688.2	2480.6	2418.1	2414.9	2389.5
35°	7202.3	6716.2	5361.5	4039.7	3110.8	2643.7	2148.0	2011.4	2020.9	2021.9	2043.1
37.5°	6851.7	7171.6	5515.1	3844.8	2626.7	1964.8	1727.5	1641.7	1669.2	1713.7	1734.9
40°	6857.0	6528.7	5694.1	3519.6	2041.0	1498.7	1351.5	1332.4	1450.0	1540.0	1562.3
42.5°	7132.4	6486.3	5628.4	3148.9	1494.5	1139.7	1125.9	1228.6	1398.1	1498.7	1516.7
45°	7427.9	6687.6	4675.2	2623.6	1083.5	963.8	1069.8	1212.7	1397.0	1504.0	1514.6
47.5°	7708.6	6814.7	4481.3	2050.5	870.6	908.8	1052.8	1212.7	1404.5	1513.5	1519.9
49°	7833.6	6917.4	4301.3	1658.7	816.6	887.6	1043.3	1214.9	1406.6	1499.8	1503.0
50°	7907.7	6975.7	4156.2	1537.9	790.1	873.8	1039.0	1218.0	1403.4	1483.9	1487.1
52.5°	8023.2	7069.9	3822.5	1225.5	740.4	842.0	1032.7	1230.8	1391.7	1439.4	1437.3
55°	6616.6	6608.1	3544.0	1028.4	702.2	813.4	1030.6	1241.3	1397.0	1445.8	1443.6
57.5°	6341.2	5426.1	2985.8	841.0	670.5	789.1	1032.7	1257.2	1492.4	1577.1	1566.5
60°	6361.3	5343.5	2540.9	729.8	633.4	769.0	1039.0	1328.2	1724.3	1810.1	1783.6
62.5°	6291.4	5141.2	2274.0	655.6	594.2	750.9	1043.3	1426.7	1754.0	1761.4	1715.8
65°	6125.2	4887.0	1915.0	574.1	552.9	734.0	1042.2	1462.7	1618.4	1558.0	1543.2
67.5°	5816.9	4616.9	1515.7	503.1	508.4	708.6	1066.6	1400.2	1531.6	1482.8	1460.6
70°	5451.5	4040.7	1068.7	437.4	468.2	680.0	1063.4	1385.4	1486.0	1414.0	1383.3
72.5°	4801.2	3396.7	719.2	377.1	417.3	647.2	1009.4	1340.9	1456.4	1408.7	1366.3
75°	3816.2	2542.0	417.3	325.2	367.5	599.5	956.4	1313.4	1472.2	1381.2	1293.2
77.5°	2608.7	1447.9	311.4	272.2	316.7	538.1	867.5	1221.2	1423.5	1345.1	1227.6
80°	1169.3	523.2	238.3	221.4	265.9	436.4	747.8	1080.3	1348.3	1348.3	1265.7
82.5°	465.0	329.4	165.2	173.7	217.1	332.6	592.1	932.1	1188.4	1242.4	1328.2
85°	262.7	192.8	105.9	126.0	166.3	257.4	431.1	724.5	968.1	1072.9	1163.0
87.5°	103.8	73.1	42.4	71.0	96.4	132.4	188.5	354.8	521.1	641.9	709.6
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)