

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: P591225

Luminaire Tested: **CTN-CA10-630-727-U-T4-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591225
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-CA10-630-727-U-T4-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 34352 lumens
Efficiency: N/A
Efficacy: 54.4 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

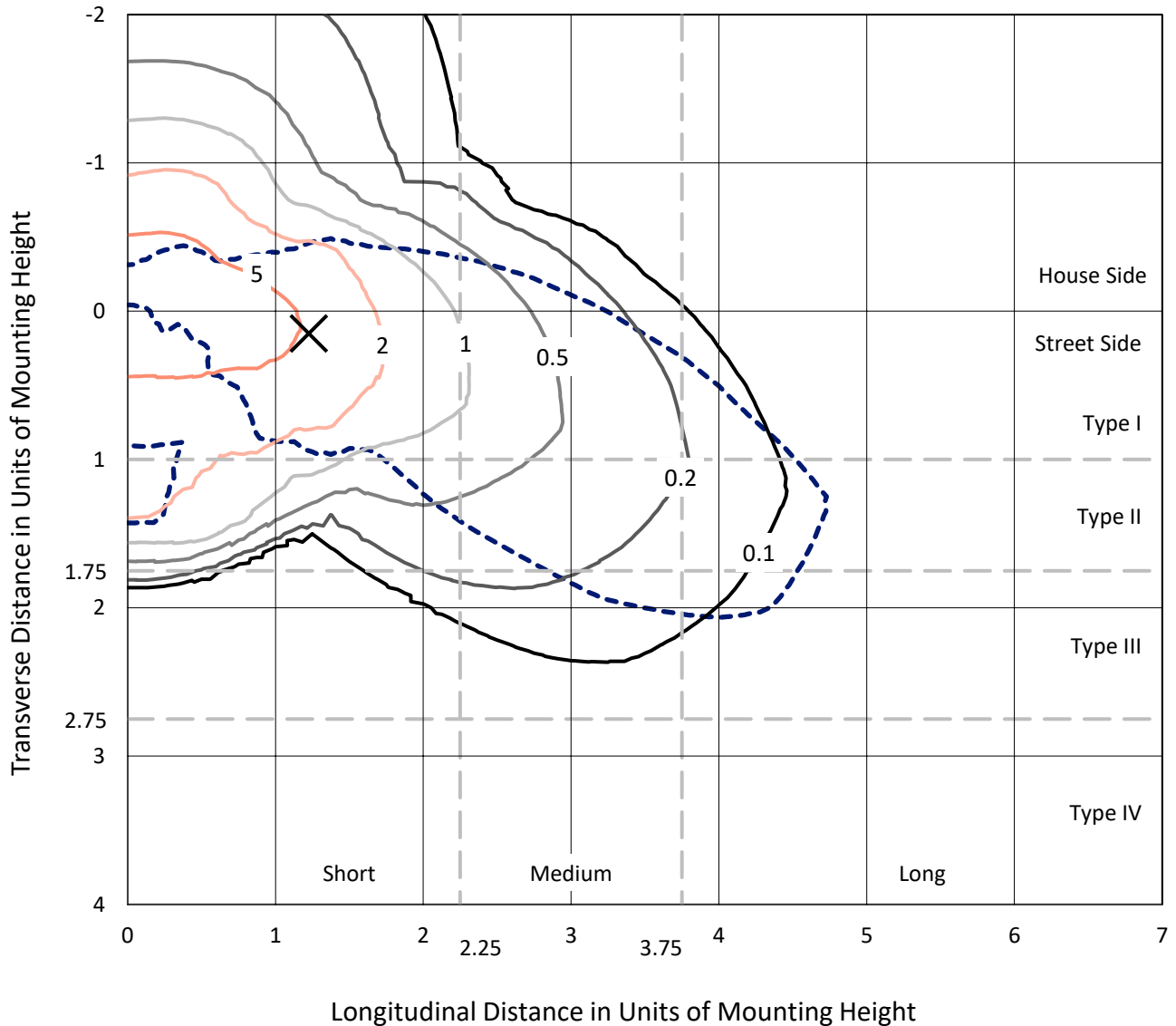
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

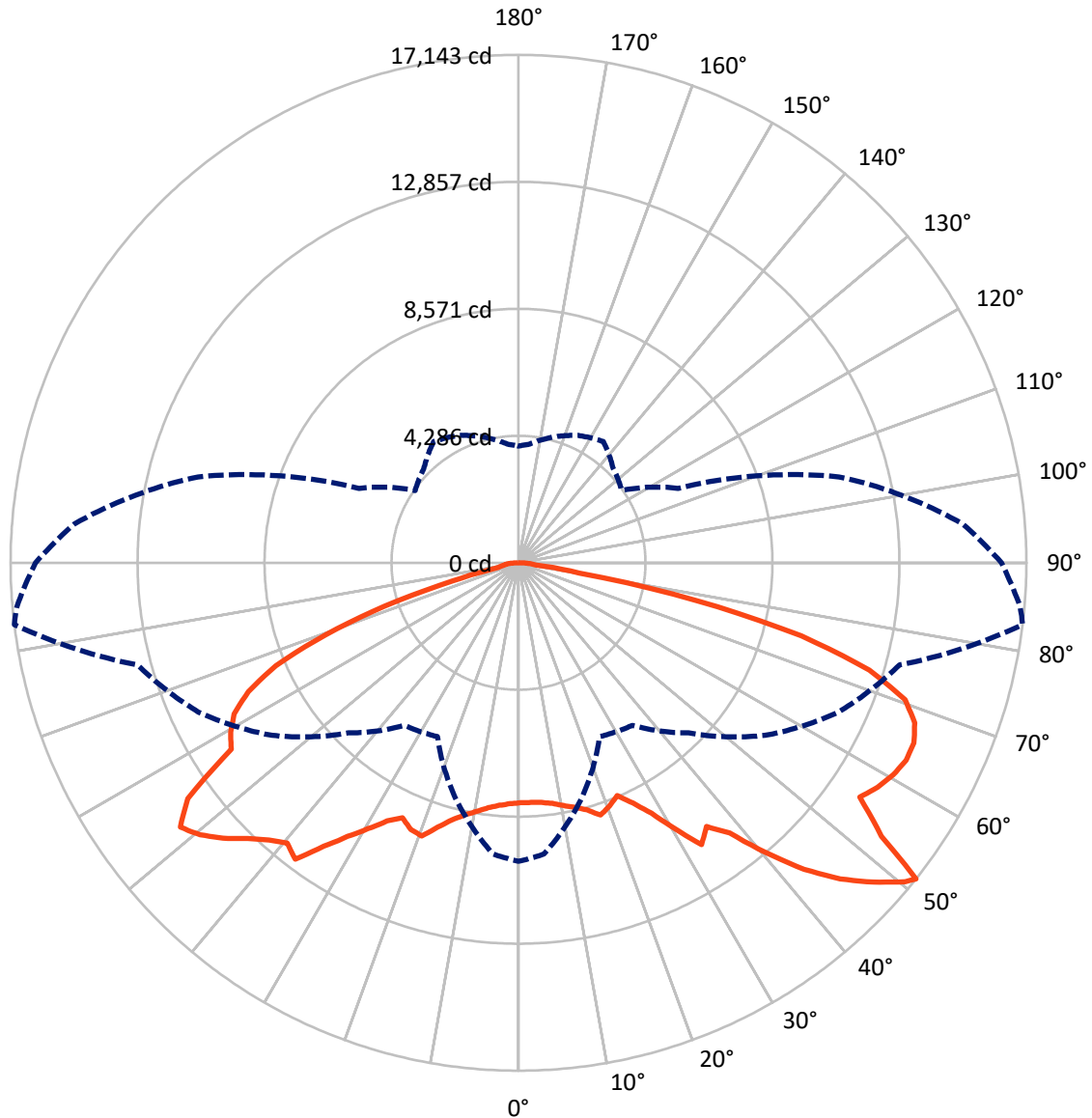
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.6 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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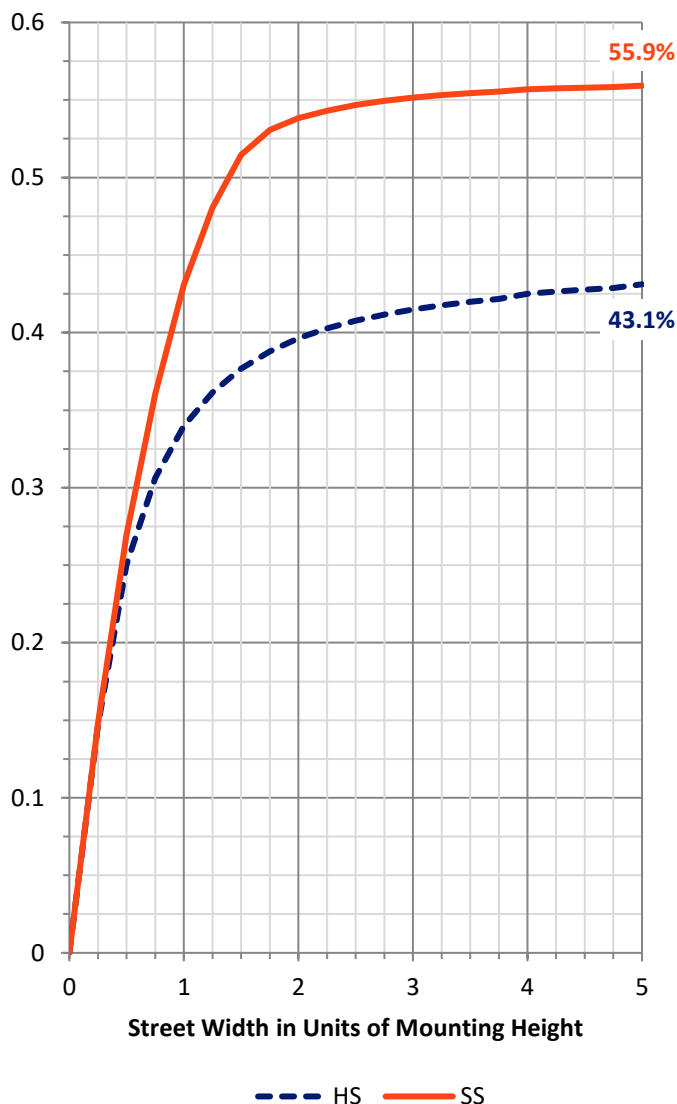
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	15140.9	0.0	15140.9
	% Fixture	44.1	0.0	44.1
Street Side	Lumens	19211.1	0.0	19211.1
	% Fixture	55.9	0.0	55.9
Total	Lumens	34352.0	0.0	34352.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	790.9	2.3
10°-20°	2407.1	7.0
20°-30°	3739.3	10.9
30°-40°	5003.3	14.6
40°-50°	6491.2	18.9
50°-60°	6913.2	20.1
60°-70°	4815.8	14.0
70°-80°	3359.9	9.8
80°-90°	831.3	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°	34352.0	100.0
0°-180°	34352.0	100.0

Coefficient of Utilization



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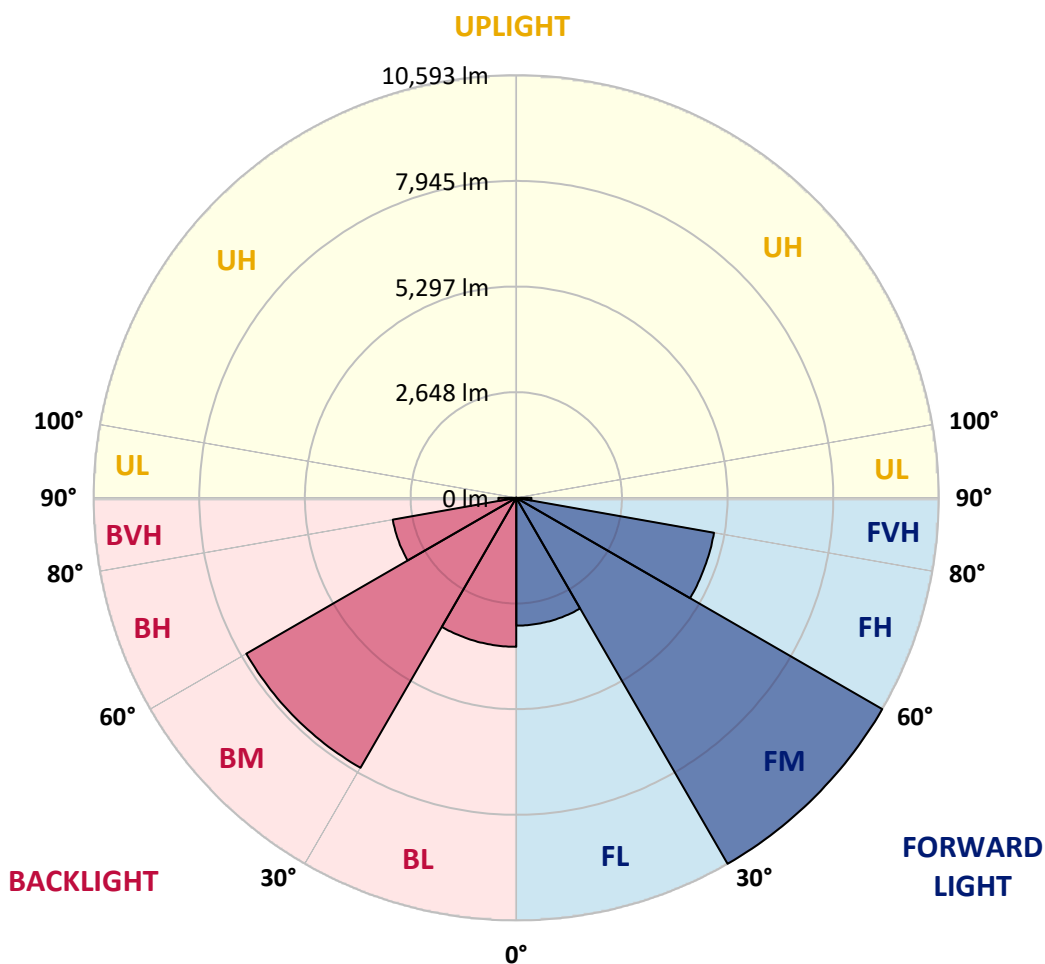
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3203.0	9.3			
FM (30°-60°)	10593.1	30.8			
FH (60°-80°)	5033.4	14.7			G3/7500
FVH (80°-90°)	381.6	1.1			G3/500
BL (0°-30°)	3734.4	10.9	B4/5000		
BM (30°-60°)	7814.6	22.7	B4/8500		
BH (60°-80°)	3142.3	9.1	B4/5000		G4/5000
BVH (80°-90°)	449.6	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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	83°	85°
0°	8096.9	8096.9	8096.9	8096.9	8096.9	8096.9	8096.9	8096.9	8096.9	8096.9	8096.9
2.5°	8000.3	7944.7	7949.6	8024.4	7925.4	7990.6	7981.0	8096.9	8075.1	8099.3	8116.2
5°	7930.2	7886.8	7886.8	7985.8	7915.8	7985.8	7937.5	8038.9	8072.7	8125.8	8145.2
7.5°	7944.7	7898.8	7918.2	8005.1	7927.8	8000.3	7997.9	8094.4	8106.5	8200.7	8232.1
10°	7985.8	7935.1	7944.7	8014.8	7971.3	8096.9	8075.1	8207.9	8207.9	8333.5	8381.8
12.5°	7901.3	7867.5	7886.8	7981.0	8019.6	8150.0	8179.0	8314.2	8333.5	8468.7	8529.1
15°	7809.5	7761.2	7824.0	7959.2	8024.4	8212.8	8275.6	8483.2	8512.2	8652.3	8719.9
17.5°	7365.2	7333.8	7449.7	7558.4	7594.6	7778.1	7901.3	8246.6	8661.9	8954.1	9033.8
20°	6481.4	6476.5	6261.6	6215.7	6778.4	7449.7	7534.2	7828.8	8309.4	8765.8	8927.6
22.5°	5411.6	5556.5	6254.4	6476.5	6462.0	6727.7	7809.5	8087.2	8299.7	8531.5	8628.1
25°	5411.6	5399.5	5812.5	6768.7	6771.1	6884.6	7126.1	8517.0	8719.9	8985.5	9062.8
27.5°	5583.0	5595.1	5568.6	6266.4	7104.4	7210.6	7314.5	8034.1	9277.7	9572.3	9700.3
30°	5872.8	5892.1	5785.9	5788.3	7215.5	7534.2	7732.2	8014.8	9666.5	10422.3	10480.3
32.5°	6445.1	6437.9	6305.1	6133.6	6331.6	7850.6	8140.3	8507.4	9053.1	11340.0	11475.2
35°	6901.5	6870.1	6778.4	6660.1	6399.3	7761.2	8529.1	9036.2	9731.7	10931.9	11646.6
37.5°	7408.6	7362.8	7258.9	7114.0	6877.4	5416.4	8913.1	9639.9	10719.3	11571.8	11617.7
40°	7981.0	7930.2	7787.8	7575.3	7273.4	5549.2	9084.5	10386.1	12006.4	12863.7	12856.5
42.5°	8420.4	8369.7	8294.9	8070.3	6394.4	6121.5	7923.0	11434.1	13399.8	14143.6	14080.8
45°	8792.3	8748.9	8756.1	8519.5	5998.4	6824.3	8826.1	11982.3	14713.4	15220.6	15138.5
47.5°	9082.1	9014.5	8831.0	7167.2	6152.9	7309.6	9560.2	10451.3	15821.8	16109.2	16017.4
50°	9787.2	9673.7	8582.2	6363.0	6544.1	7903.7	10258.1	11528.3	14411.6	16918.2	16756.4
51°	10074.6	9869.3	8224.8	6474.1	6698.7	8118.6	10154.3	11919.5	13312.9	17142.7	16997.9
52.5°	10376.4	9970.8	7244.4	6643.1	6887.0	8415.6	8625.7	12520.8	13619.5	15341.3	16196.1
55°	8753.7	8913.1	7481.1	7261.3	7244.4	7273.4	8809.2	13416.7	14259.5	13969.7	13800.6
57.5°	5148.4	5242.6	7599.4	8130.7	6268.9	5776.2	9294.6	14092.8	14812.5	14290.9	14102.5
60°	2588.7	2709.4	2767.4	2523.5	3380.7	5269.1	7828.8	10214.7	15150.5	14532.3	14305.3
62.5°	113.5	188.4	74.9	82.1	137.6	1837.7	5752.1	10492.4	15435.5	14679.6	14380.2
65°	9.7	9.7	12.1	24.1	60.4	1929.4	6401.7	10876.3	15551.4	14665.2	14264.3
67.5°	2.4	2.4	4.8	16.9	43.5	2088.8	7164.7	11033.3	15556.2	14418.8	13928.6
70°	0.0	2.4	4.8	14.5	38.6	2185.4	7331.4	11001.9	15358.2	13839.3	13165.6
72.5°	0.0	0.0	2.4	12.1	33.8	2062.2	7138.2	10939.1	14682.1	12380.7	11424.5
75°	0.0	0.0	2.4	9.7	29.0	2098.5	7157.5	10234.0	12820.2	9857.3	8695.7
77.5°	0.0	0.0	2.4	9.7	26.6	1936.7	6553.8	8862.4	10132.6	6136.0	4865.8
80°	0.0	0.0	2.4	9.7	24.1	1661.4	5389.9	6918.4	5670.0	2081.6	1342.6
82.5°	0.0	0.0	2.4	9.7	19.3	1125.3	3581.2	3458.0	1142.2	596.5	536.1
85°	0.0	0.0	2.4	7.2	14.5	671.3	1794.2	470.9	441.9	379.1	342.9
87.5°	0.0	0.0	2.4	4.8	9.7	284.9	553.0	144.9	183.5	154.5	137.6
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°	8096.9	8096.9	8096.9	8096.9	8096.9	8096.9	8096.9	8096.9	8096.9	8096.9	8096.9
2.5°	8130.7	8130.7	8157.2	8246.6	8236.9	8309.4	8268.3	8357.7	8364.9	8348.0	8389.1
5°	8162.1	8191.0	8280.4	8374.6	8335.9	8442.2	8492.9	8611.2	8606.4	8591.9	8640.2
7.5°	8251.4	8311.8	8401.1	8514.6	8555.7	8642.6	8647.4	8809.2	8799.6	8792.3	8840.6
10°	8401.1	8480.8	8579.8	8751.3	8727.1	8852.7	8799.6	8917.9	8915.5	8910.7	8959.0
12.5°	8555.7	8671.6	8792.3	8959.0	8956.5	8961.4	8915.5	8975.9	8963.8	8930.0	8966.2
15°	8773.0	8927.6	9094.2	9214.9	9108.7	9086.9	8985.5	8949.3	8879.3	8782.7	8811.6
17.5°	9132.8	9285.0	9497.5	9562.7	9388.8	9289.8	9014.5	8814.1	8596.7	8449.4	8480.8
20°	9456.4	9738.9	9941.8	9937.0	9714.8	9454.0	9026.6	8688.5	8268.3	7983.4	7959.2
22.5°	9053.1	9528.8	10412.7	10308.8	9920.0	9550.6	9012.1	8488.1	7790.2	7348.3	7331.4
25°	9285.0	9294.6	10086.7	10516.5	10011.8	9509.5	8838.2	8137.9	7244.4	6785.6	6759.1
27.5°	9876.6	9823.5	9603.7	10294.3	9927.3	9299.4	8488.1	7541.5	6747.0	6348.5	6329.2
30°	10579.3	10415.1	9898.3	9217.3	9579.6	8891.3	7949.6	6930.5	6297.8	5935.6	5906.6
32.5°	11419.6	11074.3	10166.4	9099.0	8439.8	8275.6	7254.1	6447.5	5925.9	5549.2	5474.4
35°	12417.0	11900.2	10424.7	8898.6	7551.1	7362.8	6599.7	6012.9	5575.8	5194.3	5119.4
37.5°	12414.5	12953.1	10806.3	8623.3	7000.5	6338.9	6124.0	5723.1	5331.9	4870.7	4786.2
40°	12506.3	12523.2	11226.5	8355.2	6486.2	5812.5	5841.4	5580.6	5177.4	4670.2	4583.3
42.5°	13622.0	12800.9	11740.8	7995.4	6000.8	5423.7	5720.7	5529.9	5095.3	4576.1	4479.5
45°	14592.7	13646.1	10613.1	7601.8	5491.3	5121.8	5624.1	5411.6	4979.3	4462.6	4353.9
47.5°	15437.9	14317.4	10900.5	6913.6	4993.8	4875.5	5438.2	5184.6	4771.7	4291.1	4194.5
50°	16080.2	14872.8	11151.6	5988.7	4510.9	4629.2	5136.3	4877.9	4479.5	4090.7	4008.6
51°	16300.0	15051.5	11202.3	5947.7	4254.9	4513.3	4993.8	4742.7	4385.3	4013.4	3938.6
52.5°	16536.6	15283.3	11277.2	6039.4	3892.7	4322.5	4762.0	4542.3	4245.2	3926.5	3842.0
55°	13749.9	14360.9	11086.4	5846.3	3472.5	3943.4	4337.0	4238.0	4073.8	3791.3	3730.9
57.5°	13247.7	12151.3	9195.6	4950.4	3103.0	3491.8	3924.1	3989.3	3863.7	3576.3	3532.9
60°	13356.3	12040.3	8188.6	3692.2	2736.0	3088.5	3615.0	3672.9	3564.3	3346.9	3286.6
62.5°	13337.0	11755.3	7302.4	2600.8	2417.2	2878.5	3392.8	3417.0	3267.2	3086.1	3030.6
65°	13018.3	11100.9	6092.6	1968.1	2240.9	2762.5	3262.4	3274.5	3088.5	2856.7	2827.7
67.5°	12308.3	10064.9	4238.0	1729.0	2141.9	2673.2	3175.5	3122.4	2943.7	2699.8	2656.3
70°	10948.8	8200.7	1980.1	1591.4	1992.2	2509.0	2963.0	2900.2	2704.6	2477.6	2439.0
72.5°	8777.8	5699.0	939.4	1456.1	1835.3	2303.7	2702.2	2603.2	2441.4	2356.9	2335.1
75°	5744.8	2675.6	784.8	1311.2	1627.6	2055.0	2477.6	2441.4	2291.7	2122.6	2040.5
77.5°	2330.3	705.1	710.0	1163.9	1461.0	1893.2	2238.5	2209.6	2011.5	1859.4	1825.6
80°	586.8	528.8	649.6	961.1	1272.6	1649.3	1963.2	1881.1	1808.7	1644.5	1591.4
82.5°	446.7	425.0	509.5	743.8	1045.6	1359.5	1675.9	1709.7	1588.9	1463.4	1436.8
85°	311.5	386.4	309.1	528.8	775.2	1072.2	1405.4	1465.8	1383.7	1241.2	1144.6
87.5°	171.5	202.8	128.0	277.7	410.5	586.8	806.5	813.8	673.7	618.2	582.0
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)