

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: P591355

Luminaire Tested: **CTN-CA8-230-730-U-T3-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591355
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-7)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-230-730-U-T3-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24378 lumens
Efficiency: N/A
Efficacy: 106.7 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G3

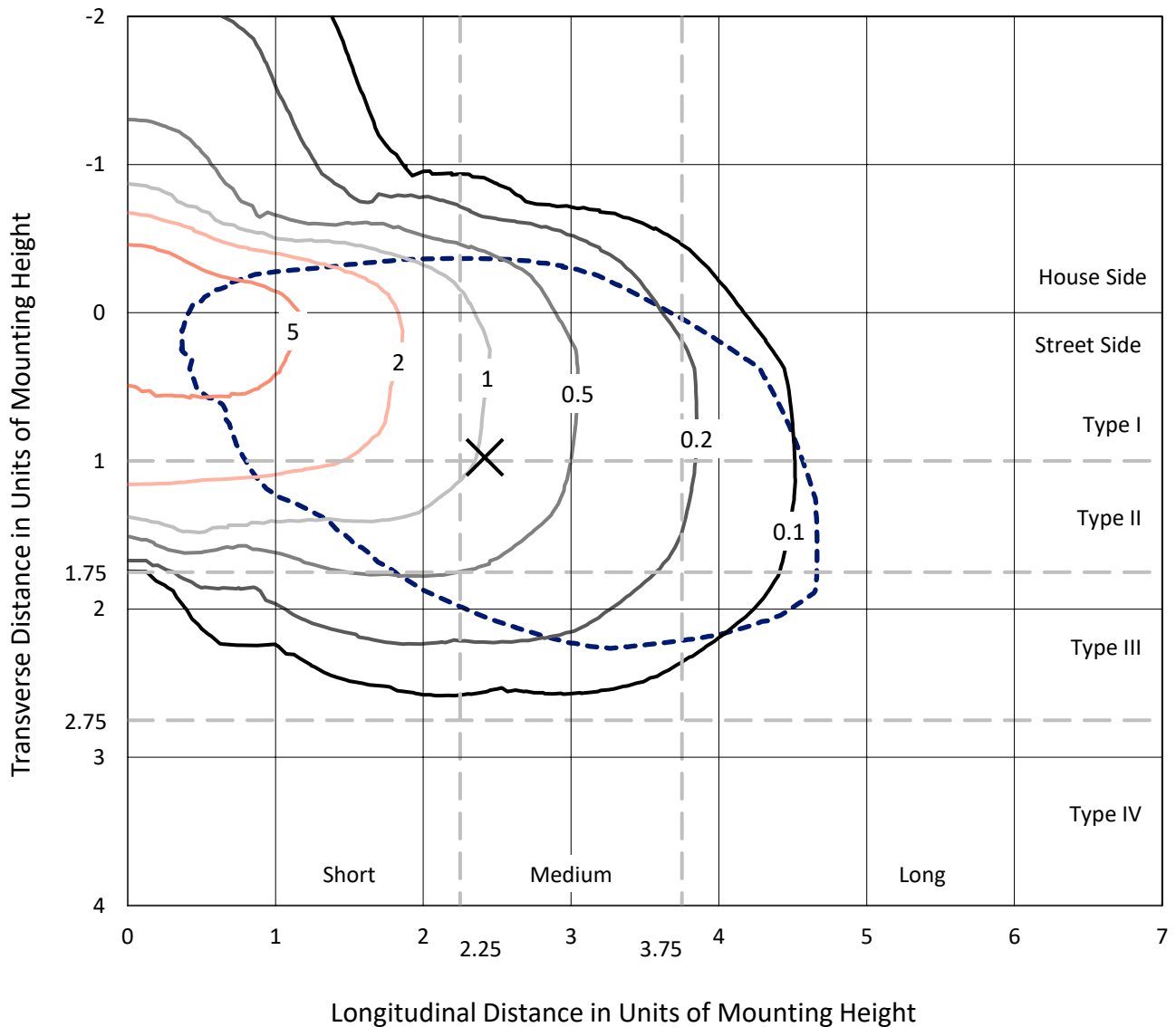
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

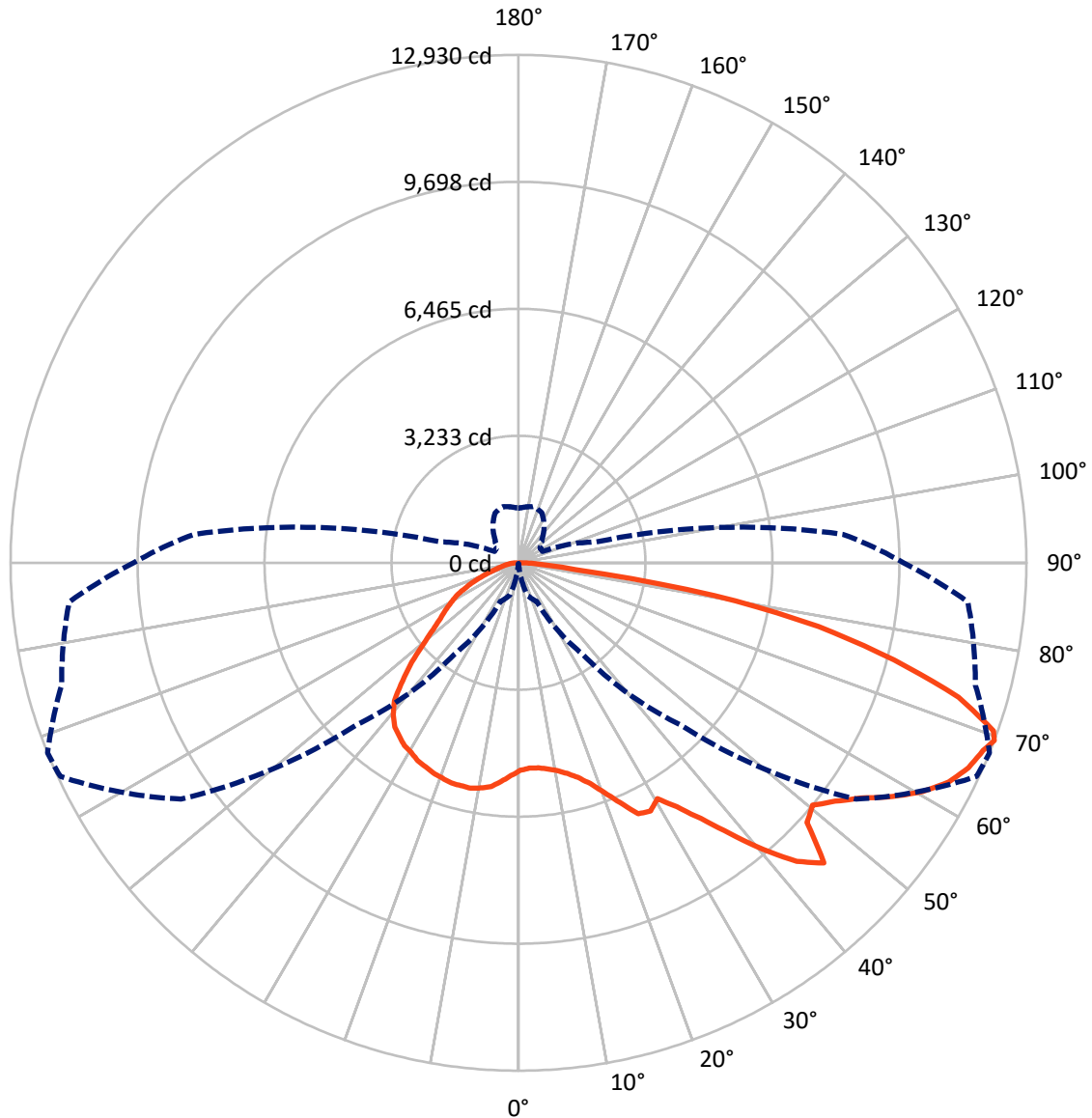
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.4 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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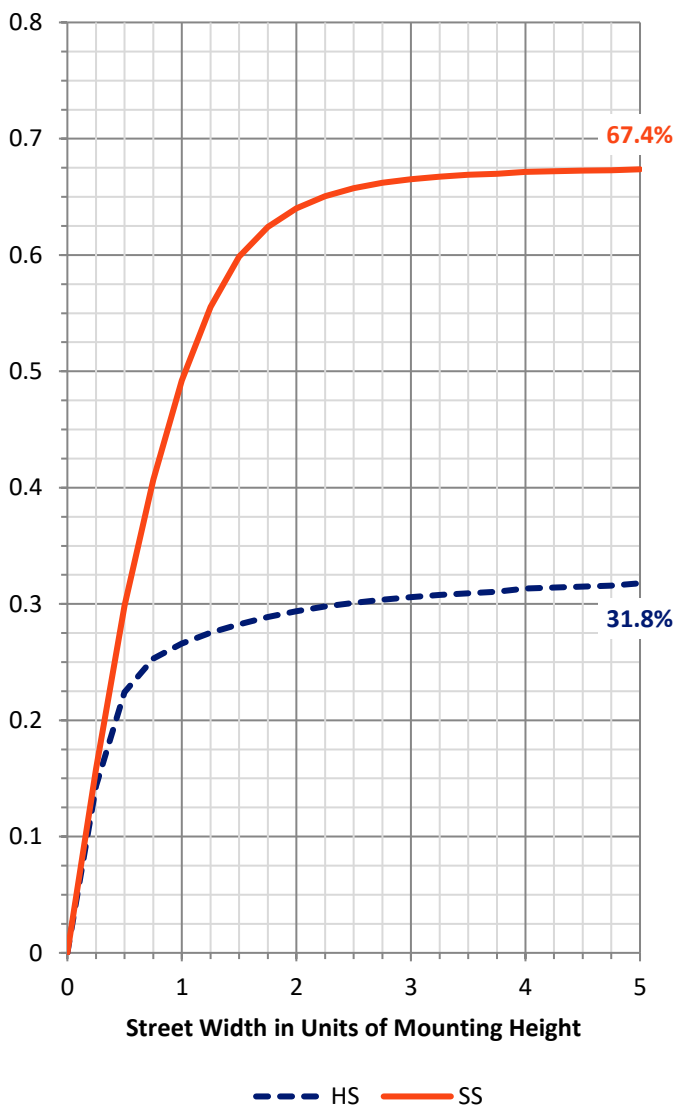
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7951.7	0.0	7951.7
	% Fixture	32.6	0.0	32.6
Street Side	Lumens	16426.3	0.0	16426.3
	% Fixture	67.4	0.0	67.4
Total	Lumens	24378.0	0.0	24378.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	527.8	2.2
10°-20°	1633.0	6.7
20°-30°	2510.8	10.3
30°-40°	3261.0	13.4
40°-50°	4025.2	16.5
50°-60°	4520.7	18.5
60°-70°	4418.1	18.1
70°-80°	2966.9	12.2
80°-90°	514.6	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°	24378.0	100.0
0°-180°	24378.0	100.0

Coefficient of Utilization

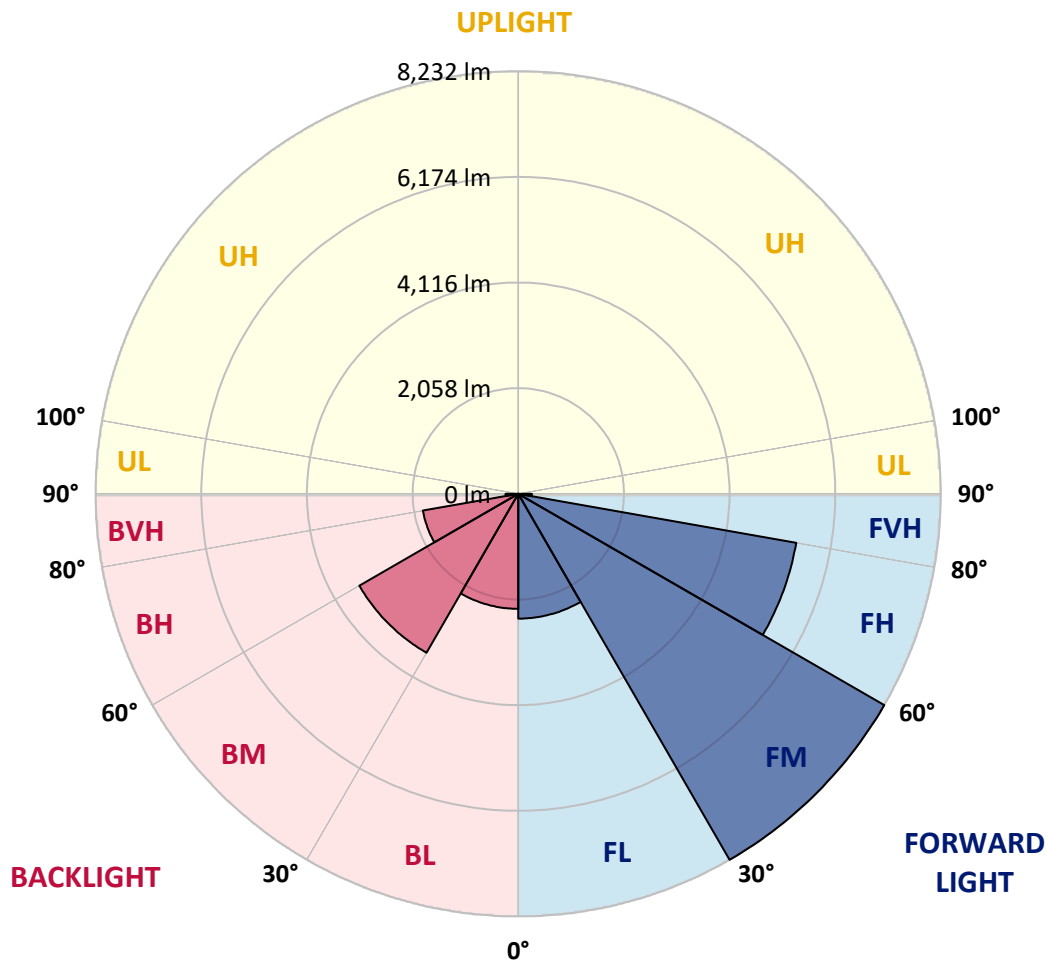


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2430.7	10.0			
FM (30°-60°)	8231.8	33.8			
FH (60°-80°)	5498.5	22.6			G3/7500
FVH (80°-90°)	265.2	1.1			G3/500
BL (0°-30°)	2240.9	9.2	B3/2500		
BM (30°-60°)	3575.1	14.7	B3/5000		
BH (60°-80°)	1886.5	7.7	B3/2500		G3/2500
BVH (80°-90°)	249.3	1.0			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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	5284.4	5284.4	5284.4	5284.4	5284.4	5284.4	5284.4	5284.4	5284.4	5284.4	5284.4
2.5°	5177.8	5146.3	5158.2	5201.8	5113.6	5171.3	5144.1	5202.8	5233.3	5220.2	5302.9
5°	5226.8	5192.0	5194.1	5224.6	5130.0	5178.9	5148.4	5211.5	5245.3	5226.8	5337.7
7.5°	5375.8	5337.7	5326.8	5324.7	5235.5	5272.5	5211.5	5262.7	5297.5	5287.7	5412.8
10°	5604.2	5558.5	5537.9	5525.9	5419.3	5408.4	5332.3	5355.1	5381.2	5392.1	5527.0
12.5°	5855.5	5793.5	5780.4	5744.6	5607.5	5583.6	5491.1	5502.0	5502.0	5527.0	5660.8
15°	6068.7	6017.6	6017.6	5980.6	5846.8	5813.1	5685.8	5672.8	5670.6	5690.2	5809.8
17.5°	5931.6	5903.4	5878.3	5859.9	5653.2	5598.8	5943.6	5920.8	5909.9	5929.5	5999.1
20°	5471.5	5547.7	5386.7	5159.3	5192.0	5846.8	6275.4	6234.1	6240.6	6260.2	6240.6
22.5°	4815.6	4627.4	4923.3	5004.9	5140.8	5624.9	6577.8	6621.3	6634.4	6635.4	6533.2
25°	4127.0	4231.5	4632.8	5255.1	5237.6	5641.2	6394.0	7012.9	7078.2	7071.6	6894.3
27.5°	4325.0	4305.4	4615.4	5024.4	5541.1	5987.1	6507.1	6782.3	7156.5	7570.9	7330.5
30°	4498.0	4481.6	4514.3	5086.4	5741.3	6333.0	6930.2	6885.6	6965.0	7715.6	7845.0
32.5°	4652.4	4640.5	4678.5	4741.6	5408.4	6706.1	7383.8	7375.1	7402.3	7461.1	8452.0
35°	4798.2	4799.3	4846.0	4949.4	5450.9	6783.4	7832.0	7924.5	7996.3	8125.7	8347.6
37.5°	4898.3	4900.4	4937.4	5062.5	5272.5	6401.6	8285.6	8615.2	8743.6	8976.3	8662.0
40°	4897.2	4913.5	5002.7	5165.9	5446.5	6149.2	8425.9	9398.4	9605.1	9774.8	9246.1
42.5°	4794.9	4803.6	4970.1	5264.8	5601.0	6340.7	7989.7	10162.0	10391.5	10344.8	9729.1
45°	4701.4	4699.2	4888.5	5251.8	5739.1	6603.9	8048.5	10140.3	10902.8	10846.2	10172.9
47.5°	4576.3	4579.5	4779.7	5195.2	5865.3	6885.6	8483.6	9221.1	9881.4	11277.0	10534.0
50°	4419.6	4439.2	4642.6	5109.3	5928.4	7148.9	8859.9	9624.7	9703.0	10128.3	10887.6
52.5°	4159.7	4124.9	4495.8	5010.3	5973.0	7340.3	9218.9	10011.9	10085.9	9931.4	11247.6
55°	2361.6	2930.5	4311.9	4895.0	5986.0	7455.6	9497.4	10452.5	10567.8	10422.0	11540.2
57.5°	1483.7	1529.4	3735.4	4589.3	5876.2	7527.4	9838.9	11057.3	11228.0	10881.0	11762.1
60°	525.4	566.7	1816.6	2107.0	4816.7	7329.4	10358.9	11769.8	11826.3	11312.9	11925.3
62.5°	55.5	72.9	1231.4	1546.8	3739.8	6763.8	10717.9	12343.0	12291.9	11632.7	12013.4
65°	19.6	27.2	1082.3	1383.7	3480.9	6587.6	10836.4	12587.8	12586.7	11837.2	11950.3
67.5°	15.2	20.7	940.9	1202.0	3106.7	6210.1	10639.5	12771.6	12754.2	12039.5	11783.9
69°	15.2	21.8	847.4	1083.4	2835.8	5849.0	10487.3	12868.4	12930.4	12042.8	11482.6
70°	15.2	21.8	787.6	1000.8	2615.0	5518.3	10268.6	12794.4	12826.0	11938.4	11170.4
72.5°	15.2	21.8	610.2	774.5	1988.5	4247.8	8995.9	11658.8	11718.6	11021.4	10039.1
75°	15.2	21.8	429.7	563.5	1305.3	2850.0	7163.0	9710.6	9872.7	9314.6	8225.8
77.5°	15.2	21.8	256.7	385.1	819.1	1564.2	4928.7	7442.6	7809.2	7289.2	5879.4
80°	15.2	20.7	120.7	209.9	466.7	828.9	2258.2	4581.7	5059.3	4560.0	3075.1
82.5°	15.2	20.7	99.0	151.2	236.0	412.3	882.2	1501.1	1473.9	1323.8	991.0
85°	14.1	18.5	81.6	111.0	169.7	261.1	491.7	611.3	583.0	515.6	518.9
87.5°	9.8	10.9	28.3	50.0	68.5	129.4	238.2	258.9	264.3	220.8	231.7
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°	5284.4	5284.4	5284.4	5284.4	5284.4	5284.4	5284.4	5284.4	5284.4	5284.4	5284.4
2.5°	5342.1	5348.6	5380.1	5436.7	5435.6	5496.5	5480.2	5621.6	5627.1	5624.9	5635.8
5°	5391.0	5428.0	5497.6	5618.4	5688.0	5779.4	5762.0	5904.5	5913.2	5901.2	5931.6
7.5°	5475.9	5521.6	5635.8	5784.8	5803.3	5918.6	5894.7	6010.0	6004.5	5982.8	6035.0
10°	5595.5	5649.9	5753.3	5838.1	5891.4	5958.8	5932.7	6030.6	6012.1	5988.2	6038.3
12.5°	5717.4	5743.5	5801.1	5896.8	5901.2	5916.4	5886.0	5965.4	5944.7	5908.8	5961.0
15°	5833.7	5837.0	5827.2	5870.7	5825.0	5834.8	5768.5	5818.5	5782.6	5766.3	5800.0
17.5°	5985.0	5945.8	5876.2	5857.7	5750.0	5704.3	5606.4	5604.2	5541.1	5518.3	5541.1
20°	6166.6	6081.8	5920.8	5767.4	5581.4	5487.8	5321.4	5276.8	5225.7	5176.7	5203.9
22.5°	6417.9	6253.6	5976.2	5690.2	5382.3	5198.5	4994.0	4867.8	4772.1	4677.4	4705.7
25°	6704.0	6474.5	6054.6	5558.5	5144.1	4818.9	4553.4	4338.1	4201.0	4062.8	4124.9
27.5°	7091.2	6774.7	6102.4	5460.6	4834.1	4397.9	3974.7	3694.1	3551.6	3452.6	3421.1
30°	7542.6	7163.0	6188.4	5268.1	4469.7	3880.1	3342.7	3029.5	2878.3	2831.5	2851.1
32.5°	8093.1	7635.1	6363.5	5107.1	4099.8	3330.8	2704.2	2459.5	2350.7	2343.1	2340.9
35°	8829.5	8237.7	6513.6	4856.9	3610.3	2690.1	2151.6	1949.3	1944.9	1941.7	1949.3
37.5°	9395.1	8851.2	6673.5	4612.2	3029.5	2100.5	1720.9	1597.9	1584.9	1623.0	1632.8
40°	9841.1	9290.7	6912.8	4198.8	2348.5	1568.6	1321.6	1276.0	1368.4	1452.2	1469.6
42.5°	10243.6	9660.6	6965.0	3758.3	1711.1	1204.2	1095.4	1171.5	1314.0	1409.8	1428.3
45°	10621.1	10048.9	6766.0	3103.4	1223.7	1020.3	1042.1	1156.3	1316.2	1418.5	1429.3
47.5°	11033.3	10308.9	6550.6	2495.4	1006.2	977.9	1031.2	1161.7	1329.3	1432.6	1438.0
50°	11305.3	10494.9	6012.1	1951.5	943.1	951.8	1026.9	1173.7	1331.4	1405.4	1409.8
52.5°	11416.2	10643.9	5524.8	1562.0	911.6	932.2	1032.3	1194.4	1326.0	1367.3	1365.2
55°	11485.8	10712.4	5106.0	1299.9	883.3	917.0	1042.1	1209.6	1338.0	1380.4	1380.4
57.5°	11441.2	10559.1	4794.9	1107.4	855.0	906.1	1054.1	1232.5	1451.1	1526.2	1518.5
60°	11408.6	10271.9	4353.3	977.9	821.3	894.2	1069.3	1311.9	1692.6	1768.7	1743.7
62.5°	11240.0	10029.3	3874.7	895.2	783.2	887.6	1082.3	1418.5	1726.3	1722.0	1673.0
65°	10810.3	9535.5	3119.7	811.5	744.0	878.9	1086.7	1465.2	1588.2	1519.6	1505.5
67.5°	10201.2	8823.0	2461.6	727.7	700.5	860.4	1122.6	1409.8	1510.9	1452.2	1430.4
69°	9803.0	8295.4	2045.0	675.5	672.2	845.2	1136.7	1404.3	1482.6	1416.3	1388.0
70°	9482.2	7838.5	1765.5	641.8	650.5	833.2	1122.6	1403.2	1470.7	1388.0	1356.5
72.5°	8105.0	6350.4	1140.0	561.3	586.3	801.7	1069.3	1367.3	1445.7	1391.3	1347.8
75°	6280.8	4623.1	737.5	485.1	518.9	748.4	1016.0	1344.5	1468.5	1369.5	1276.0
77.5°	4030.2	2473.6	571.1	407.9	446.0	673.3	920.3	1252.0	1426.1	1336.9	1216.1
80°	1755.7	918.1	440.5	330.7	361.1	547.2	789.7	1112.8	1352.1	1342.3	1260.7
82.5°	745.1	591.8	339.4	253.5	287.2	404.7	618.9	954.0	1194.4	1241.2	1330.4
85°	422.1	354.6	226.3	174.0	213.2	298.1	440.5	732.1	972.5	1078.0	1153.0
87.5°	181.7	147.9	104.4	93.5	120.7	154.5	189.3	343.7	518.9	633.1	680.9
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)