

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: P591156

Luminaire Tested: **CTN-CA8-230-722-U-T1-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591156
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-230-722-U-T1-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18566 lumens
Efficiency: N/A
Efficacy: 81.3 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B4 - U0 - G4

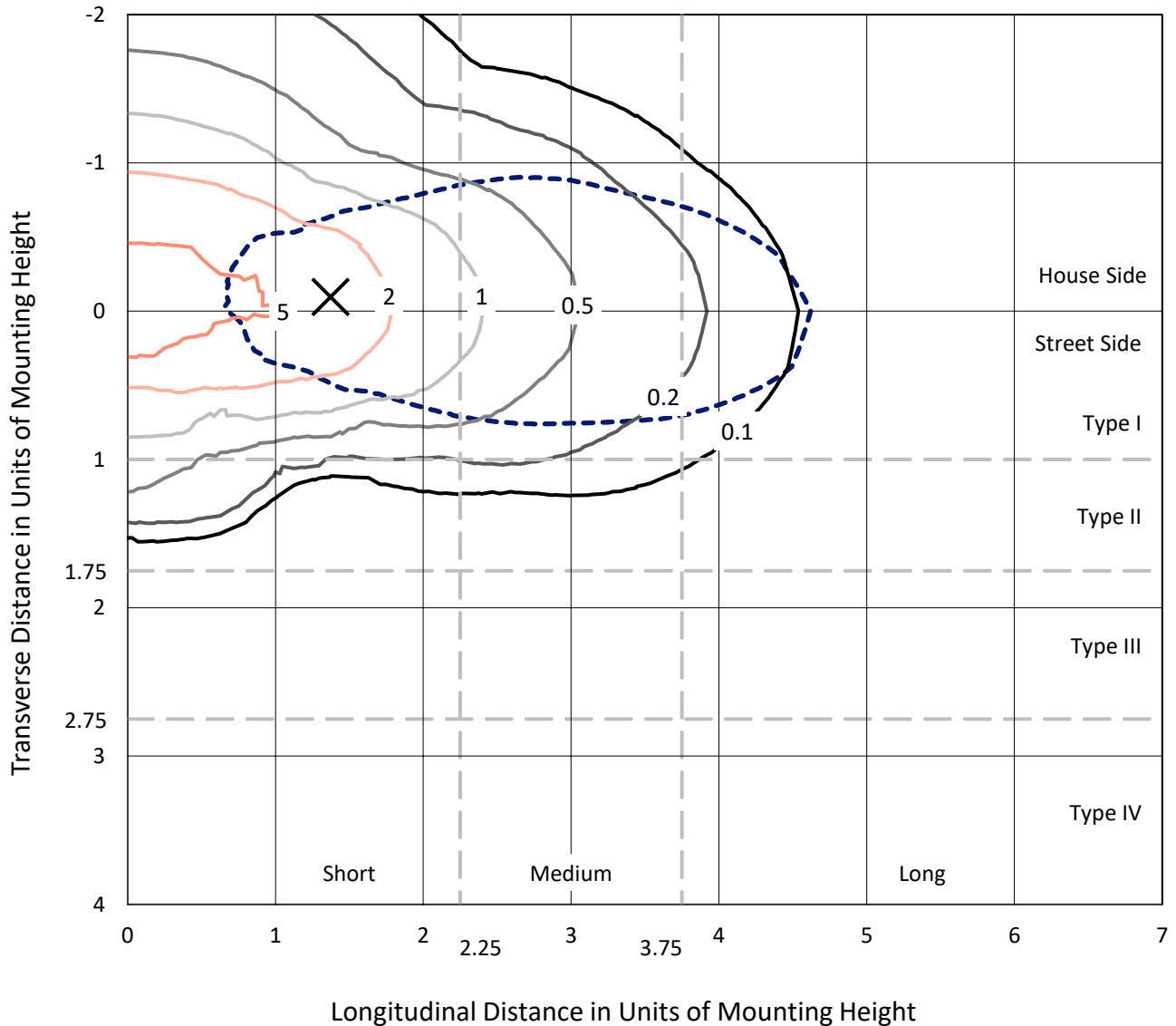
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

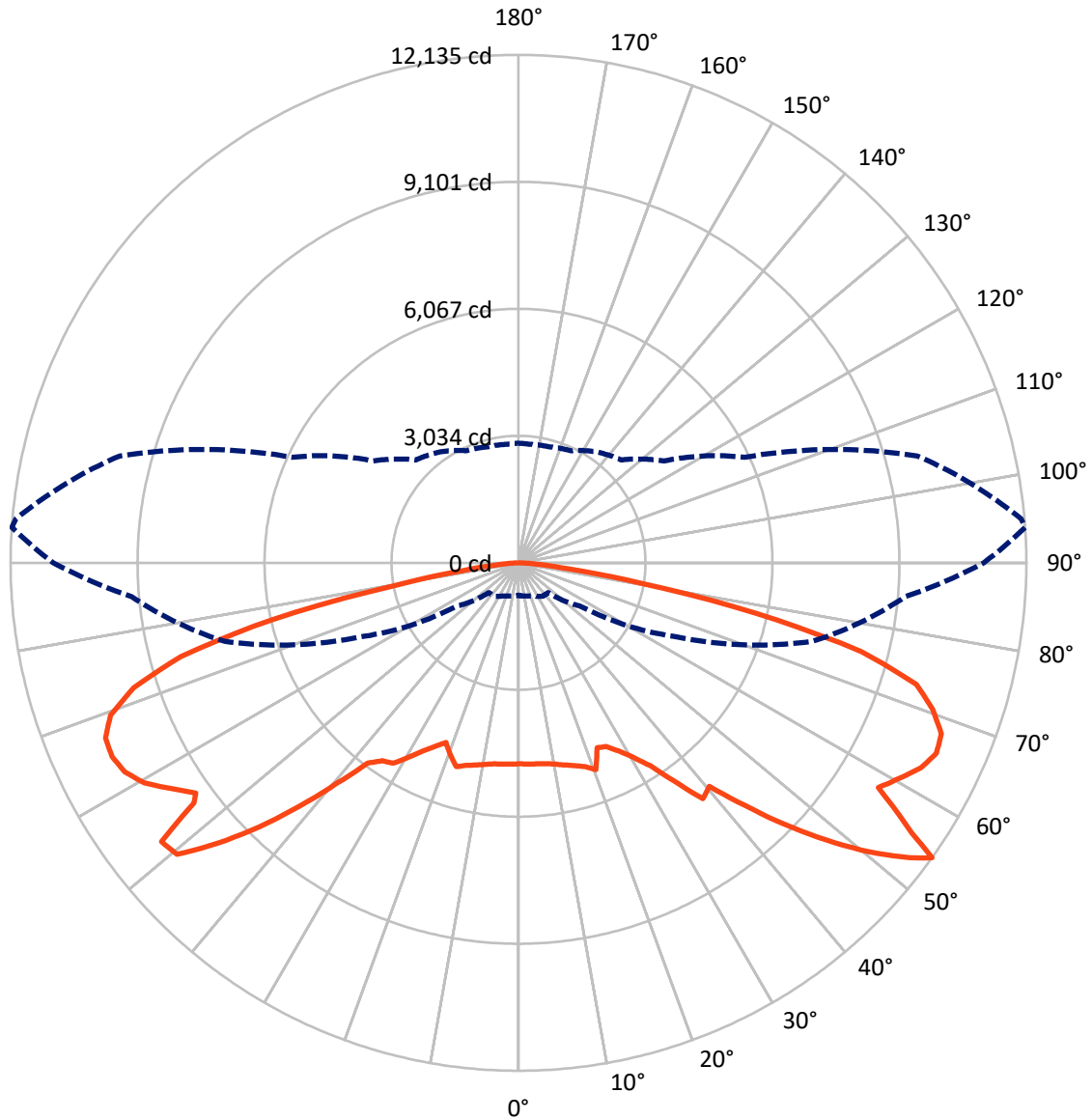
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.7 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 94-Deg Lateral - - - Horizontal Cone Through 54-Deg Vertical

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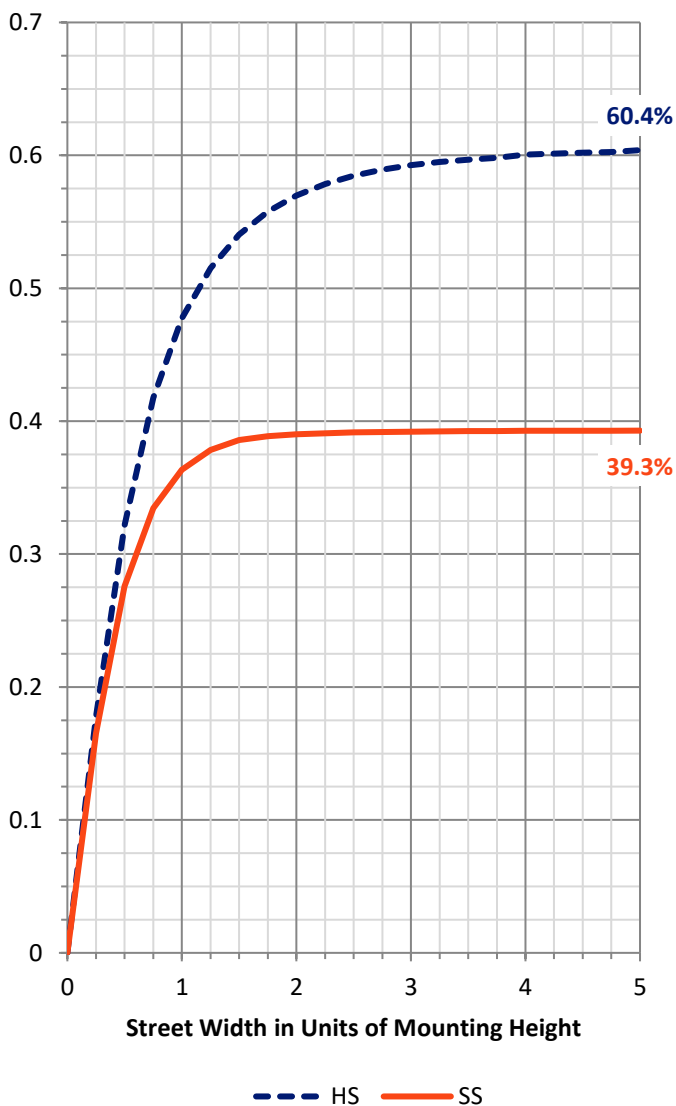
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11308.2	0.0	11308.2
	% Fixture	60.9	0.0	60.9
Street Side	Lumens	7257.8	0.0	7257.8
	% Fixture	39.1	0.0	39.1
Total	Lumens	18566.0	0.0	18566.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	458.1	2.5
10°-20°	1310.9	7.1
20°-30°	1872.3	10.1
30°-40°	2477.3	13.3
40°-50°	3261.2	17.6
50°-60°	3598.0	19.4
60°-70°	3242.1	17.5
70°-80°	2050.4	11.0
80°-90°	295.5	1.6
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°	18566.0	100.0
0°-180°	18566.0	100.0

Coefficient of Utilization

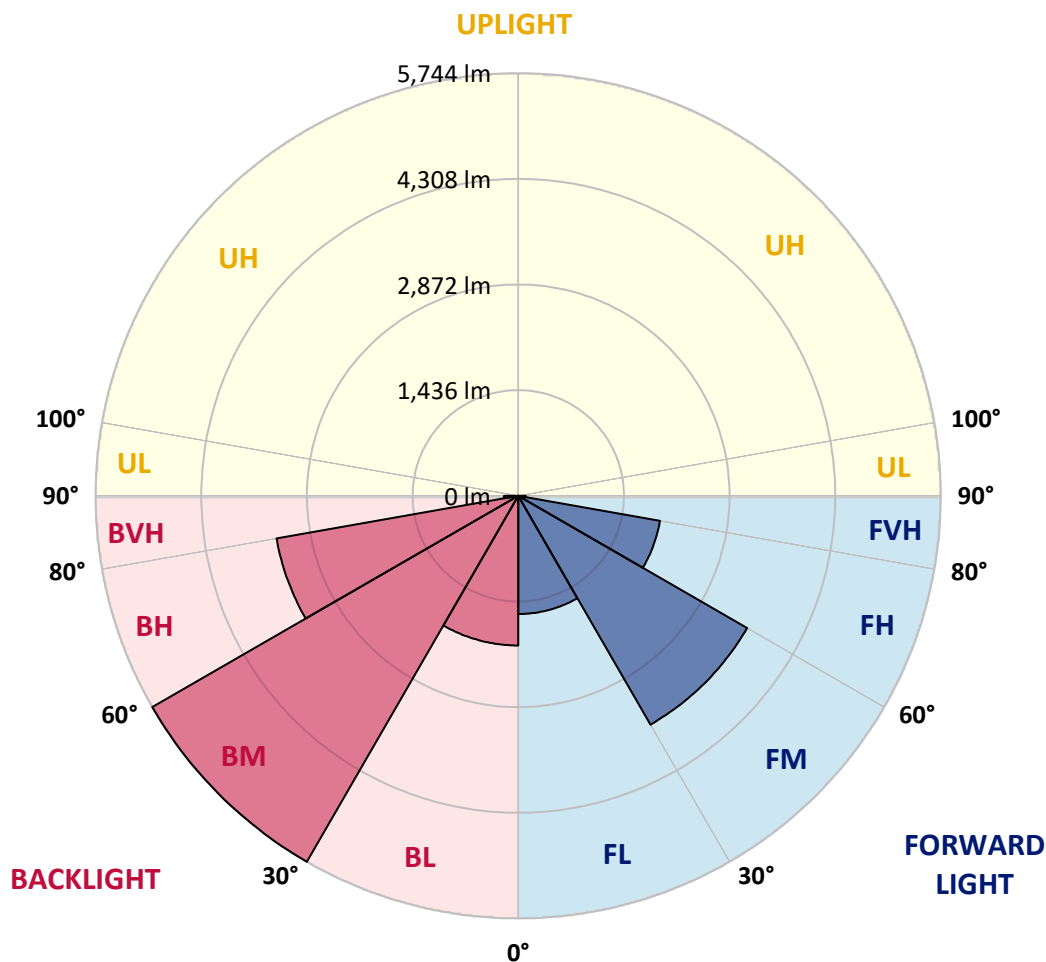


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1606.7	8.7			
FM (30°-60°)	3592.3	19.3			
FH (60°-80°)	1956.4	10.5			G2/5000
FVH (80°-90°)	102.3	0.6			G2/225
BL (0°-30°)	2034.7	11.0	B3/2500		
BM (30°-60°)	5744.3	30.9	B4/8500		
BH (60°-80°)	3336.1	18.0	B4/5000		G4/5000
BVH (80°-90°)	193.2	1.0			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4
 Type I Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4800.7	4800.7	4800.7	4800.7	4800.7	4800.7	4800.7	4800.7	4800.7	4800.7	4800.7
2.5°	4809.7	4776.3	4780.8	4816.0	4741.1	4788.1	4766.4	4805.2	4789.9	4811.5	4827.8
5°	4767.3	4735.7	4743.8	4787.1	4727.6	4780.8	4750.1	4788.1	4793.5	4819.7	4835.0
7.5°	4732.1	4701.4	4706.8	4747.4	4709.5	4756.5	4738.4	4789.0	4789.9	4835.9	4847.6
10°	4696.9	4665.3	4672.5	4707.7	4683.3	4733.9	4745.6	4805.2	4818.8	4882.9	4883.8
12.5°	4621.9	4593.9	4597.5	4646.3	4647.2	4720.3	4743.8	4835.9	4863.9	4936.1	4943.4
15°	4326.7	4346.5	4422.4	4483.8	4540.7	4639.1	4719.4	4870.2	4908.1	4995.7	5016.5
17.5°	3611.6	3580.9	3415.7	3503.2	3776.8	4038.6	4177.7	4492.8	4845.8	5086.9	5114.0
20°	2532.6	2581.4	2840.5	2959.7	3154.7	3628.7	4063.9	4245.4	4360.1	4796.2	5136.6
22.5°	2008.9	2023.4	2394.5	2839.6	2985.9	3189.9	3706.4	4312.2	4491.9	4618.3	4674.3
25°	1869.9	1880.7	1940.3	2522.7	2921.8	3138.5	3365.1	4153.3	4647.2	4804.3	4871.1
27.5°	1753.4	1765.2	1823.8	2019.8	2863.1	3138.5	3395.8	3759.7	4798.0	5036.3	5093.2
30°	1666.7	1666.7	1727.2	1894.3	2399.9	3148.4	3459.9	3803.9	4563.2	5328.9	5379.4
32.5°	1587.3	1588.2	1654.1	1814.8	2079.4	3106.0	3550.2	3966.4	4380.8	5621.4	5752.3
35°	1516.0	1518.7	1578.3	1740.8	1998.1	2503.7	3650.4	4175.0	4731.2	5588.9	6319.4
37.5°	1455.5	1457.3	1508.7	1667.6	1929.5	1813.9	3715.4	4426.0	5201.6	5878.7	6437.6
40°	1412.1	1409.4	1446.4	1590.9	1829.3	1657.7	3144.8	4686.9	5760.5	6786.2	6993.8
42.5°	1368.8	1364.3	1401.3	1510.5	1251.4	1614.4	2913.6	4941.5	6404.2	7783.0	7968.0
45°	1318.2	1320.0	1356.1	1355.2	1184.6	1556.6	2938.9	4352.0	7093.1	8802.3	9038.0
47.5°	1291.1	1283.0	1301.1	984.2	1129.5	1477.1	2928.1	4040.5	7700.8	9776.5	10010.4
50°	1240.6	1238.8	911.9	932.7	1074.4	1385.9	2758.3	4152.4	6948.7	10679.4	10916.0
52.5°	1164.7	1028.4	846.0	896.6	1019.4	1278.5	1970.1	4198.5	6929.7	10590.1	11760.2
54°	773.8	792.7	818.9	871.3	979.6	1004.9	1802.2	4194.9	7259.3	9277.2	11114.6
55°	443.3	621.2	797.3	850.5	951.7	703.4	1737.2	4175.9	7469.7	9334.1	10019.4
57.5°	383.7	385.5	438.8	709.7	488.5	603.1	1553.0	4021.5	7863.3	9856.9	10052.8
60°	33.4	32.5	37.0	50.6	64.1	140.9	781.9	2579.6	7587.9	10305.6	10609.9
62.5°	13.5	14.4	18.1	24.4	38.8	63.2	646.5	2286.1	7704.4	10579.2	10912.4
65°	2.7	2.7	4.5	8.1	14.4	37.9	550.8	2036.0	7644.8	10668.6	11113.7
67.5°	0.0	0.0	2.7	6.3	11.7	30.7	476.7	1873.5	7304.4	10637.9	11038.8
70°	0.0	0.0	2.7	6.3	10.8	29.8	408.1	1729.0	6460.2	10316.5	10760.7
72.5°	0.0	0.0	2.7	5.4	9.9	27.1	349.4	1526.8	5476.1	9542.7	10147.6
75°	0.0	0.0	2.7	5.4	9.0	24.4	294.3	1310.1	4575.0	8224.5	8951.3
77.5°	0.0	0.0	2.7	5.4	8.1	21.7	231.1	1046.5	3592.6	5963.6	6353.7
80°	0.0	0.0	2.7	5.4	7.2	17.2	170.6	660.9	1992.7	3024.7	3185.4
82.5°	0.0	0.0	1.8	4.5	6.3	10.8	81.3	250.1	939.0	1385.0	1343.5
85°	0.0	0.0	1.8	4.5	5.4	8.1	35.2	63.2	312.4	459.6	428.0
87.5°	0.0	0.0	1.8	3.6	4.5	5.4	9.0	10.8	99.3	132.7	137.2
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):

	94°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4800.7	4800.7	4800.7	4800.7	4800.7	4800.7	4800.7	4800.7	4800.7	4800.7	4800.7
2.5°	4816.9	4816.9	4816.0	4839.5	4809.7	4812.4	4784.4	4856.7	4848.5	4826.0	4853.1
5°	4822.4	4826.9	4826.0	4837.7	4814.2	4828.7	4789.9	4861.2	4849.4	4831.4	4859.4
7.5°	4844.9	4853.1	4846.7	4867.5	4820.6	4835.0	4795.3	4857.6	4845.8	4819.7	4849.4
10°	4893.7	4901.8	4889.2	4899.1	4849.4	4842.2	4793.5	4858.5	4833.2	4813.3	4850.4
12.5°	4956.9	4966.8	4941.5	4939.7	4876.5	4862.1	4791.7	4835.9	4798.9	4782.6	4816.0
15°	5027.3	5039.1	5009.3	5002.9	4933.4	4885.6	4784.4	4794.4	4741.1	4719.4	4754.6
17.5°	5119.4	5130.2	5107.7	5104.1	5013.8	4932.5	4774.5	4742.0	4667.1	4649.0	4668.0
20°	5273.8	5281.0	5251.2	5224.2	5091.4	4957.8	4758.3	4673.4	4558.7	4520.8	4542.5
22.5°	4799.8	4857.6	5443.6	5342.4	5149.2	4984.0	4717.6	4575.9	4415.2	4343.8	4358.3
25°	4862.1	4867.5	5089.6	5482.4	5212.4	5001.1	4669.8	4454.9	4233.7	4129.8	4147.9
27.5°	5087.8	5081.5	4993.9	5497.7	5287.4	5011.1	4610.2	4327.6	4054.0	3929.4	3933.9
30°	5380.4	5370.4	5237.7	4970.4	5394.8	5014.7	4557.8	4181.3	3894.2	3761.5	3757.8
32.5°	5780.3	5752.3	5546.5	5177.2	4940.6	5039.1	4483.8	4042.3	3741.6	3610.7	3600.7
35°	6394.3	6342.8	5968.1	5439.9	4862.1	5039.1	4382.7	3892.4	3600.7	3476.1	3468.9
37.5°	7155.4	7169.0	6507.2	5734.3	4983.1	4566.8	4261.7	3752.4	3478.9	3368.7	3368.7
40°	7019.1	7198.8	7132.9	6035.9	5107.7	4491.0	4131.6	3617.9	3377.7	3293.8	3304.6
42.5°	7919.3	7849.8	7858.8	6338.3	5195.3	4413.4	3990.8	3493.3	3288.3	3217.0	3225.1
45°	8917.9	8839.3	7194.3	6609.2	5235.9	4297.8	3848.1	3365.1	3189.9	3130.3	3152.0
47.5°	9903.9	9833.4	7900.3	6543.3	5198.0	4120.8	3672.1	3254.0	3086.1	3043.7	3076.2
50°	10858.2	10758.9	8661.5	5849.0	5063.4	3876.1	3492.4	3137.6	2995.8	2970.5	2994.9
52.5°	11709.6	11577.8	9432.5	5953.7	4423.3	3628.7	3332.6	3025.6	2913.6	2885.7	2910.0
54°	12134.9	12054.6	9863.2	5965.4	4240.0	3475.2	3236.9	2954.3	2867.6	2844.1	2857.7
55°	11410.8	11571.5	10118.7	5955.5	4107.3	3382.2	3173.7	2907.3	2835.1	2809.8	2823.4
57.5°	10133.2	9959.8	9460.5	5833.6	3746.1	3149.3	2988.6	2788.1	2738.5	2706.0	2724.9
60°	10454.6	10423.0	8636.2	5565.4	3351.5	2888.4	2806.2	2649.1	2615.7	2588.6	2613.9
62.5°	10790.5	10769.7	8768.0	5149.2	2958.8	2631.9	2596.7	2486.6	2466.7	2455.0	2461.3
65°	10972.0	10839.3	8764.4	4592.1	2598.5	2369.2	2363.8	2281.6	2290.6	2285.2	2311.4
67.5°	10895.2	10753.5	8377.1	4190.3	2259.9	2069.4	2086.6	2052.3	2085.7	2095.6	2115.5
70°	10494.3	10540.4	7532.9	3803.0	1923.2	1742.6	1796.8	1792.2	1841.0	1878.9	1910.5
72.5°	9940.0	9763.0	6313.9	3232.4	1407.6	1239.7	1333.6	1396.8	1451.0	1496.1	1525.9
75°	8460.1	8252.5	4661.6	2520.0	1019.4	855.0	880.3	908.3	943.5	1047.4	1108.8
77.5°	5800.2	5713.5	3352.4	1900.6	649.2	515.6	614.0	669.9	699.7	695.2	706.1
80°	2974.1	2958.8	1984.6	1136.7	437.9	377.4	446.9	452.4	500.2	537.2	539.0
82.5°	1199.0	1258.6	792.7	623.0	304.3	285.3	315.1	354.8	395.5	417.1	422.6
85°	424.4	414.4	241.1	292.5	193.2	199.5	223.0	268.2	310.6	316.0	304.3
87.5°	113.8	118.3	51.5	107.4	105.6	115.6	128.2	146.3	177.0	186.0	177.0
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)