

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: P591274

Luminaire Tested: **CTN-CA8-330-727-U-T4-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591274
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-10)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-330-727-U-T4-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26292 lumens
Efficiency: N/A
Efficacy: 79.3 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

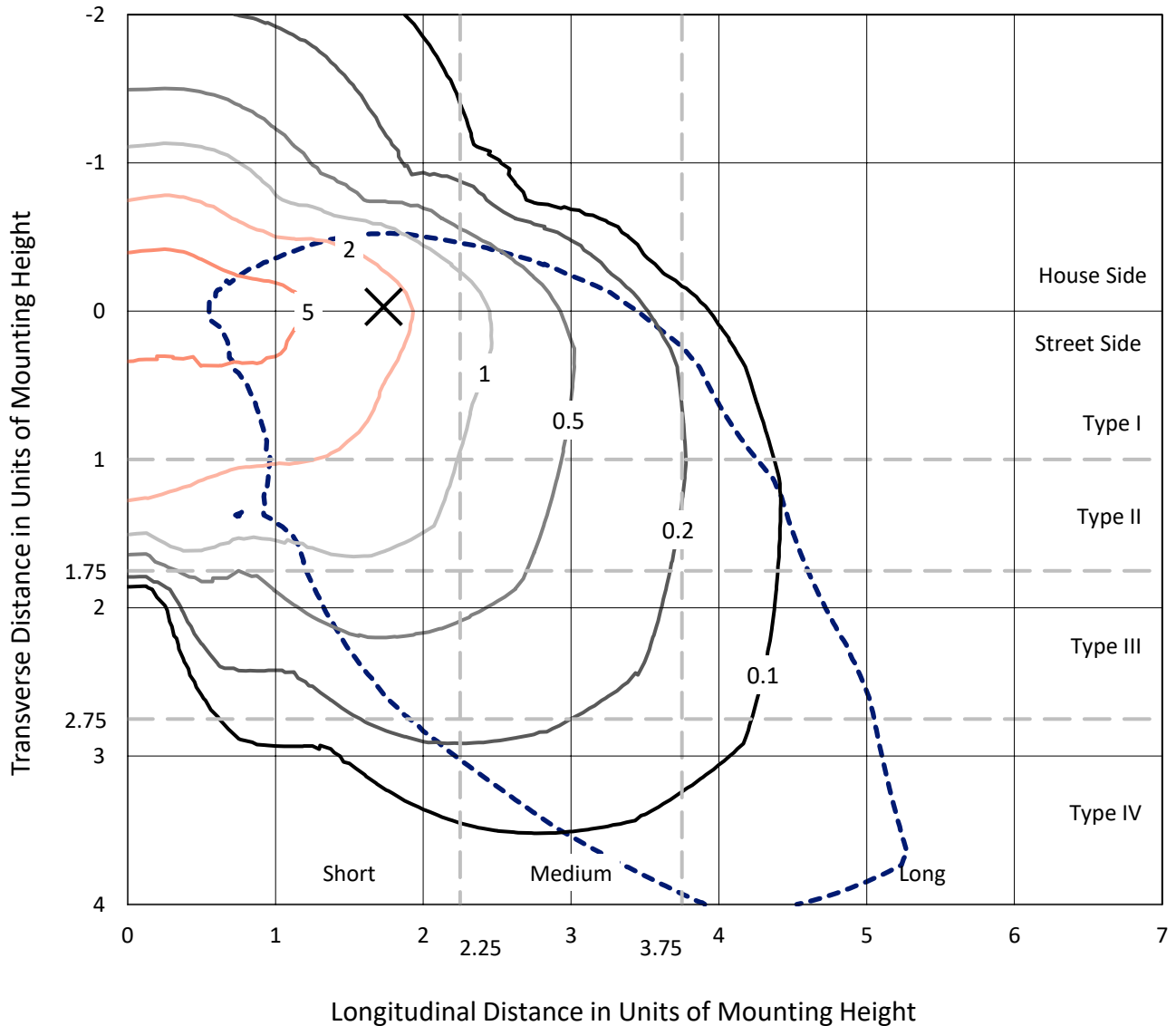
Input Watts (W): 331.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

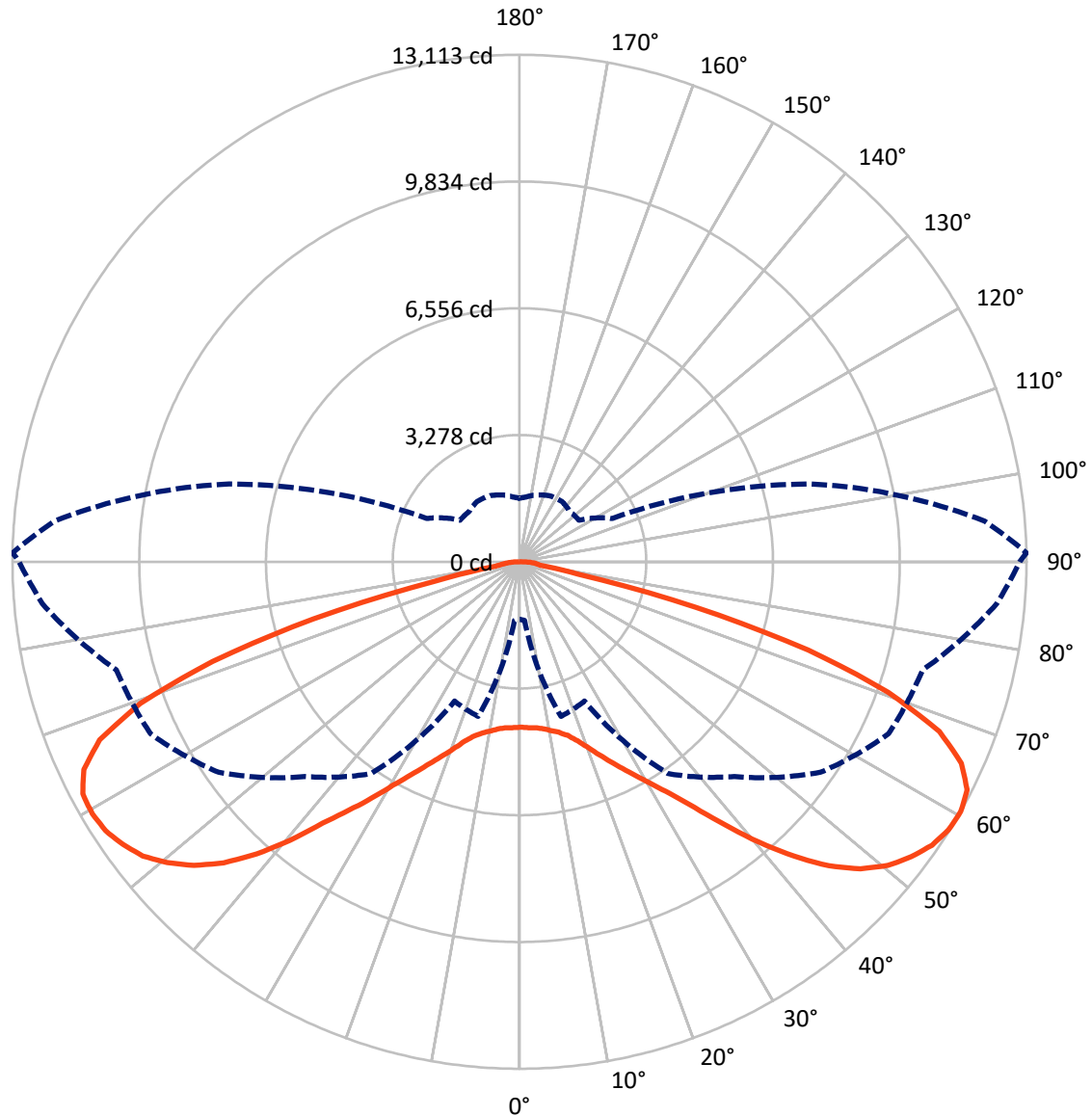
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.2 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 91-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

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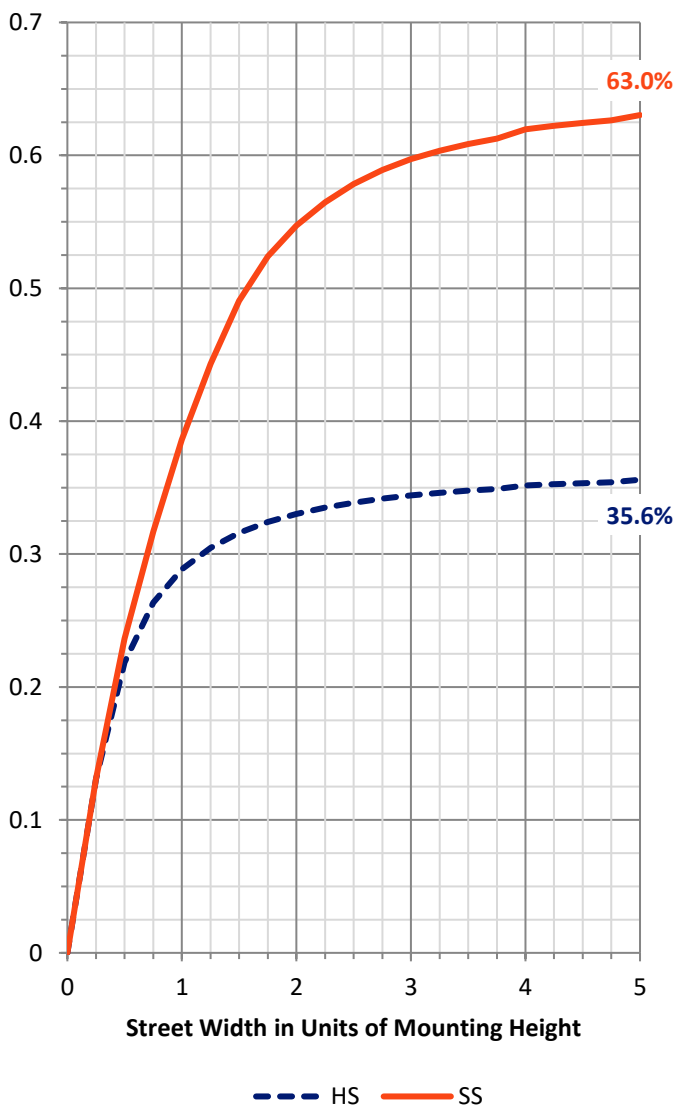
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9548.3	0.0	9548.3
	% Fixture	36.3	0.0	36.3
Street Side	Lumens	16743.7	0.0	16743.7
	% Fixture	63.7	0.0	63.7
Total	Lumens	26292.0	0.0	26292.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	416.9	1.6
10°-20°	1278.6	4.9
20°-30°	2096.0	8.0
30°-40°	2960.2	11.3
40°-50°	4167.0	15.8
50°-60°	5243.4	19.9
60°-70°	5277.8	20.1
70°-80°	3882.8	14.8
80°-90°	969.3	3.7
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°	26292.0	100.0
0°-180°	26292.0	100.0



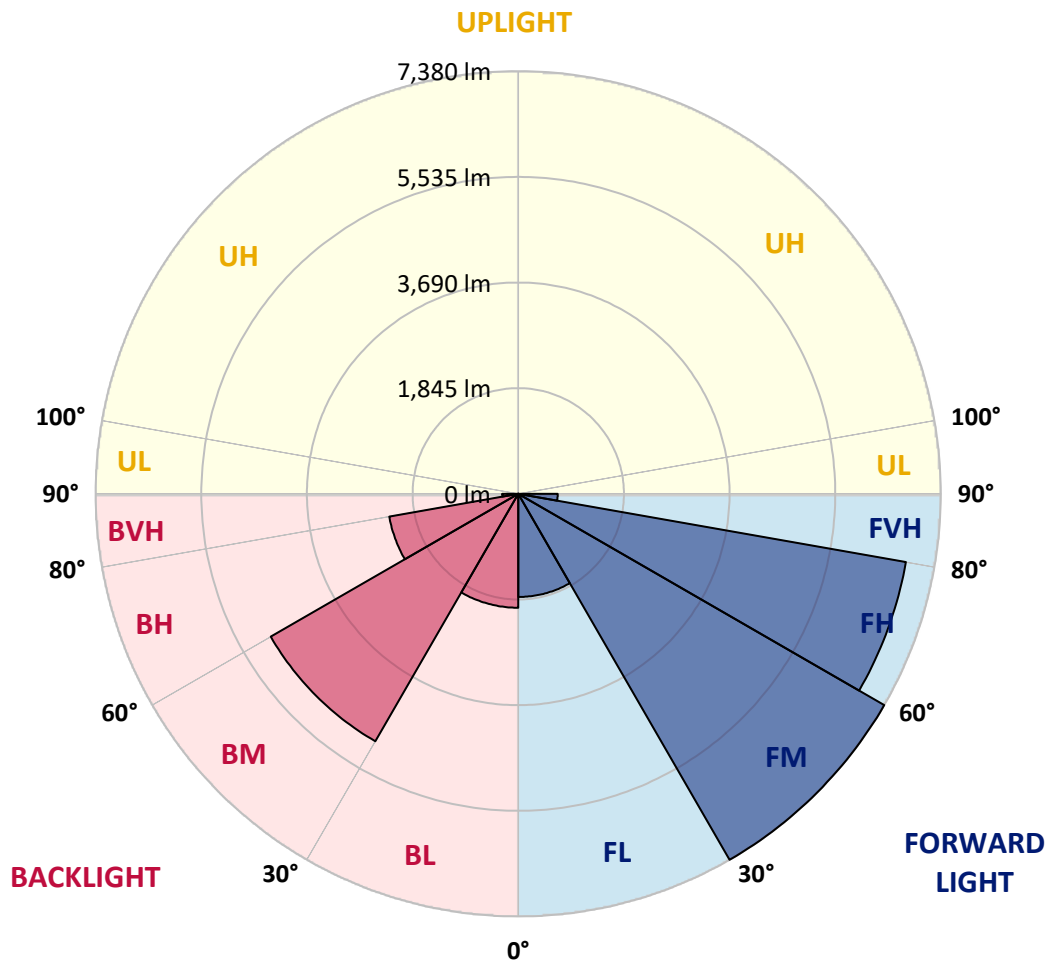
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1801.3	6.9			
FM	(30°-60°)	7380.1	28.1			
FH	(60°-80°)	6873.8	26.1			G3/7500
FVH	(80°-90°)	688.4	2.6			G4/750
BL	(0°-30°)	1990.2	7.6	B3/2500		
BM	(30°-60°)	4990.4	19.0	B3/5000		
BH	(60°-80°)	2286.8	8.7	B3/2500		G3/2500
BVH	(80°-90°)	280.8	1.1			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4276.1	4276.1	4276.1	4276.1	4276.1	4276.1	4276.1	4276.1	4276.1	4276.1	4276.1
2.5°	4233.8	4206.9	4208.2	4247.9	4187.7	4226.1	4217.1	4278.6	4267.1	4288.9	4294.0
5°	4204.3	4182.5	4182.5	4229.9	4189.0	4222.3	4194.1	4247.9	4267.1	4299.1	4305.5
7.5°	4215.9	4192.8	4201.8	4242.8	4196.6	4231.2	4228.7	4276.1	4287.6	4341.4	4349.1
10°	4236.4	4215.9	4218.4	4253.0	4222.3	4286.3	4274.8	4342.7	4341.4	4425.9	4432.3
12.5°	4200.5	4185.1	4185.1	4231.2	4249.2	4317.1	4340.1	4410.6	4418.3	4513.1	4520.7
15°	4144.1	4118.5	4156.9	4226.1	4263.3	4369.6	4409.3	4520.7	4541.2	4630.9	4650.1
17.5°	4026.3	4037.8	4145.4	4096.7	3927.6	4085.2	4522.0	4664.2	4709.0	4815.4	4861.5
20°	3661.2	3519.0	3237.2	3314.0	3662.5	4112.1	4679.6	4846.1	4944.8	5070.3	5148.4
22.5°	2765.7	2855.4	3381.9	3437.0	3452.4	3752.1	4899.9	5069.0	5199.7	5358.5	5462.3
25°	2868.2	2859.2	3039.9	3604.8	3620.2	3791.8	4613.0	5359.8	5477.7	5698.0	5801.8
27.5°	2963.0	2963.0	2952.8	3403.7	3794.4	3963.5	4762.9	5145.9	5842.8	6082.3	6204.0
30°	3120.6	3125.7	3068.1	3066.8	3937.9	4121.1	5052.4	5242.0	6165.6	6619.1	6647.2
32.5°	3433.1	3415.2	3343.5	3233.3	3406.2	4304.2	5335.5	5589.1	5854.3	7222.4	7196.8
35°	3658.6	3644.5	3593.3	3516.4	3437.0	4387.5	5600.6	5952.9	6387.2	7400.5	7892.4
37.5°	3931.5	3908.4	3850.8	3759.8	3708.6	3788.0	5873.5	6364.1	7053.3	7611.9	8677.7
40°	4229.9	4223.5	4135.1	4017.3	3946.8	4005.8	6082.3	6876.5	7879.6	8509.9	9543.6
42.5°	4459.2	4454.1	4381.1	4313.2	4279.9	4399.0	5563.5	7555.5	8825.0	9325.9	10377.6
45°	4665.5	4657.8	4655.2	4632.2	4659.1	4948.6	6132.3	7974.4	9753.7	10027.9	11136.0
47.5°	4821.8	4798.7	4733.4	4739.8	4815.4	5303.4	6724.1	7342.8	10507.0	10646.6	11727.8
50°	5193.3	5170.2	4944.8	4952.4	5098.5	5744.1	7233.9	8074.3	9806.2	11182.1	12181.3
52.5°	5525.1	5334.2	5211.2	5216.3	5416.2	6213.0	7813.0	8831.4	9639.7	11606.1	12547.6
55°	4771.8	4648.8	5845.3	5678.8	5789.0	6724.1	8375.3	9487.3	10097.0	11930.2	12757.7
57.5°	2800.3	2784.9	6433.3	6578.1	6450.0	7276.2	8944.1	10033.0	10498.0	12232.5	12898.6
60°	1486.0	1521.9	4137.7	3976.3	6685.7	7852.7	9495.0	10528.7	10795.2	12388.8	12937.1
62.5°	137.1	121.7	2719.6	3089.8	5992.6	8605.9	10148.3	11033.5	10996.3	12472.1	12869.2
65°	26.9	35.9	2668.4	3052.7	6658.8	9854.9	11215.4	11421.6	11105.2	12372.1	12513.1
67.5°	20.5	30.7	2521.1	3019.4	7067.4	10335.3	12443.9	11558.7	11111.6	12053.2	11729.1
70°	20.5	32.0	2225.1	2822.1	7260.9	10355.8	12734.7	11504.9	10968.1	11330.7	10252.0
72.5°	20.5	32.0	1869.0	2445.5	6931.6	9911.3	12224.8	11206.4	10434.0	9756.3	7996.2
75°	20.5	29.5	1466.8	1986.9	5991.4	9225.9	11349.9	9907.4	8782.7	7139.2	5130.5
77.5°	20.5	28.2	1081.2	1555.2	4999.8	8137.1	9870.3	8143.5	6620.3	3738.0	1888.2
80°	19.2	28.2	658.4	1096.6	3852.0	6564.0	7756.6	6017.0	3479.3	940.3	545.7
82.5°	19.2	26.9	313.9	702.0	2706.8	4689.8	5061.3	2577.4	740.4	434.3	434.3
85°	16.7	24.3	167.8	381.7	1769.1	3074.5	2441.6	436.8	289.5	293.4	334.3
87.5°	10.2	12.8	79.4	171.7	1019.7	1643.6	940.3	160.1	120.4	126.8	189.6
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):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4276.1	4276.1	4276.1	4276.1	4276.1	4276.1	4276.1	4276.1	4276.1	4276.1	4276.1
2.5°	4297.8	4291.4	4305.5	4350.4	4342.7	4374.7	4349.1	4393.9	4402.9	4390.1	4410.6
5°	4311.9	4320.9	4368.3	4410.6	4387.5	4438.8	4452.8	4515.6	4514.3	4502.8	4528.4
7.5°	4358.0	4382.4	4429.8	4482.3	4493.8	4534.8	4529.7	4609.1	4600.2	4595.0	4620.7
10°	4437.5	4474.6	4519.5	4606.6	4578.4	4647.6	4600.2	4654.0	4648.8	4636.0	4659.1
12.5°	4525.9	4577.1	4630.9	4710.3	4698.8	4697.5	4655.2	4671.9	4657.8	4627.1	4646.3
15°	4659.1	4721.9	4796.2	4847.4	4779.5	4753.9	4687.3	4651.4	4602.7	4531.0	4542.5
17.5°	4866.6	4940.9	5020.3	5029.3	4924.3	4857.6	4696.2	4568.1	4441.3	4345.2	4354.2
20°	5145.9	5213.8	5272.7	5230.4	5088.2	4939.6	4696.2	4493.8	4256.8	4080.1	4067.3
22.5°	5472.5	5493.0	5549.4	5445.6	5201.0	4993.4	4683.4	4382.4	3996.8	3761.1	3732.9
25°	5824.8	5822.3	5797.9	5582.7	5271.4	4964.0	4586.1	4191.5	3699.6	3453.6	3433.1
27.5°	6207.8	6175.8	6009.3	5698.0	5242.0	4857.6	4401.6	3870.0	3429.3	3217.9	3211.5
30°	6639.6	6555.0	6218.1	5709.5	5131.8	4647.6	4101.8	3545.9	3188.5	3000.2	2982.2
32.5°	7143.0	6977.7	6384.6	5672.4	4933.2	4327.3	3736.8	3291.0	2991.2	2784.9	2745.2
35°	7800.2	7510.7	6538.4	5550.7	4638.6	3946.8	3399.8	3064.2	2808.0	2596.6	2554.4
37.5°	8626.4	8201.1	6770.2	5372.6	4301.7	3607.4	3166.7	2914.3	2681.2	2431.4	2380.1
40°	9543.6	9013.3	7041.8	5199.7	3981.4	3355.0	3014.3	2843.9	2599.2	2325.1	2276.4
42.5°	10412.2	9830.6	7449.2	4975.5	3676.5	3152.6	2959.2	2823.4	2560.8	2278.9	2226.4
45°	11214.1	10549.2	7869.3	4750.0	3366.5	2987.4	2913.1	2763.2	2501.8	2225.1	2164.9
47.5°	11868.7	11115.5	8240.8	4516.9	3093.7	2858.0	2824.7	2647.9	2398.1	2138.0	2081.7
50°	12344.0	11549.7	8458.6	4300.4	2831.1	2728.6	2669.7	2483.9	2252.0	2035.5	1994.6
52.5°	12680.9	11925.1	8567.5	4276.1	2592.8	2554.4	2489.0	2314.8	2129.1	1961.2	1912.6
55°	12940.9	12130.0	8474.0	4133.9	2367.3	2335.3	2267.4	2159.8	2048.4	1892.1	1860.0
57.5°	13081.8	12223.5	8260.1	3487.0	2127.8	2072.7	2063.7	2040.7	1943.3	1788.3	1764.0
60°	13112.6	12074.9	7775.8	2651.7	1876.7	1840.8	1908.7	1879.3	1792.2	1676.9	1642.3
62.5°	12992.2	11757.3	6857.3	1983.0	1667.9	1726.8	1796.0	1751.2	1650.0	1537.2	1515.5
65°	12557.9	11028.3	5526.3	1543.6	1571.8	1673.0	1734.5	1680.7	1557.7	1429.6	1415.5
67.5°	11708.6	9893.4	3638.1	1388.6	1527.0	1628.2	1697.4	1611.5	1487.3	1348.9	1332.3
70°	10116.3	7820.7	1733.2	1295.1	1441.2	1541.1	1596.2	1498.8	1378.4	1242.6	1224.7
72.5°	7813.0	5315.0	956.9	1192.6	1334.8	1427.1	1466.8	1351.5	1240.0	1183.7	1178.5
75°	4702.6	2284.1	864.7	1091.4	1197.8	1283.6	1354.0	1266.9	1169.6	1059.4	1031.2
77.5°	1552.6	663.6	813.5	971.0	1091.4	1195.2	1228.5	1144.0	1022.3	928.7	921.1
80°	544.4	556.0	758.4	808.3	950.5	1037.6	1074.8	977.4	919.8	822.4	803.2
82.5°	443.2	498.3	612.3	609.8	750.7	853.2	909.5	885.2	809.6	731.5	723.8
85°	362.5	456.0	388.2	426.6	538.0	649.5	757.1	759.6	702.0	622.6	570.1
87.5°	215.2	233.1	193.4	217.8	284.4	365.1	422.7	403.5	330.5	279.3	272.9
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)