

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: P591212

Luminaire Tested: **CTN-CA10-310-727-U-T4-SSS-HM-EX120**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591212
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-11)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-310-727-U-T4-SSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE, 120D 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: 22265 lumens
Efficiency: N/A
Efficacy: 71.3 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

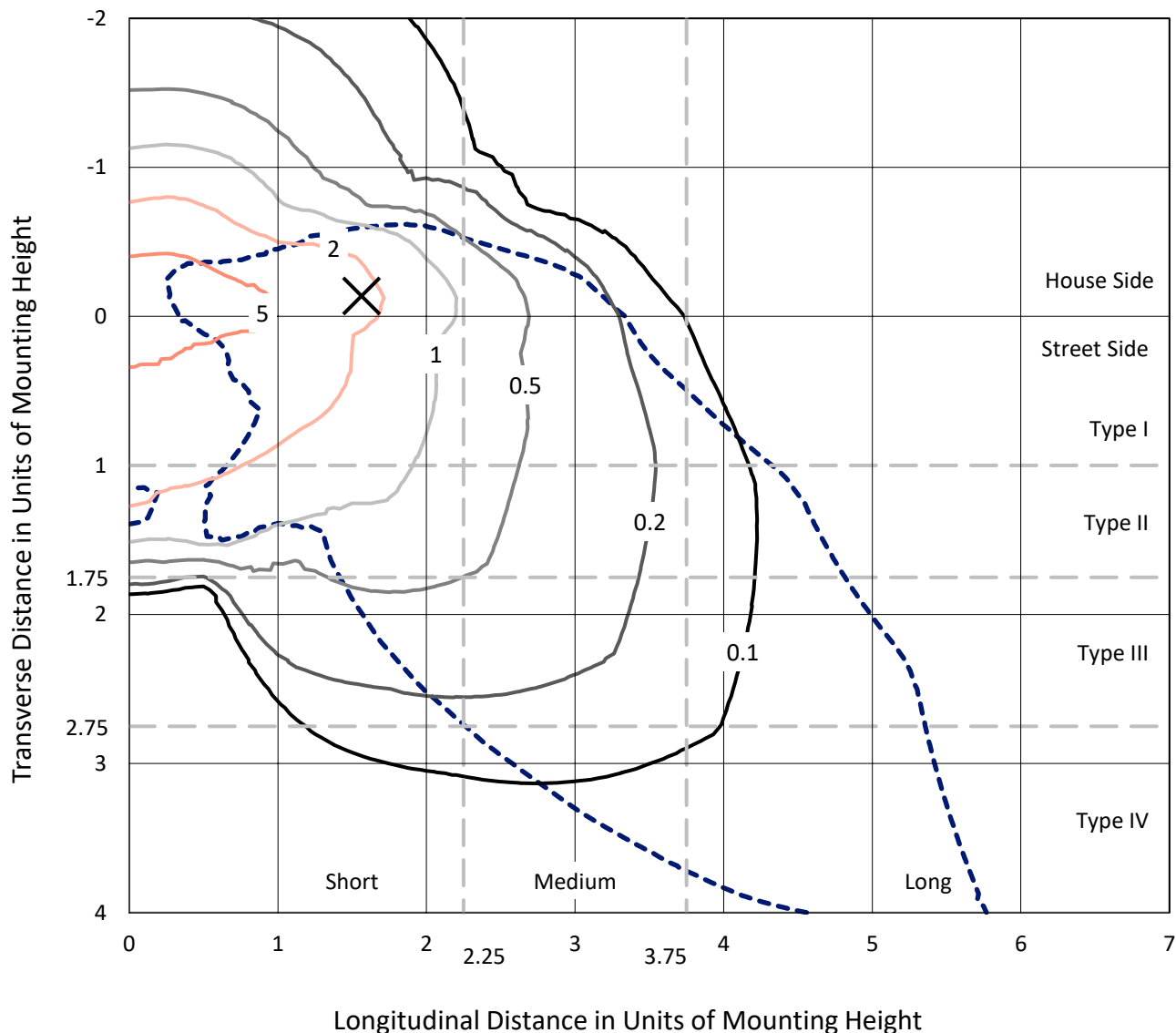
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P591212
 CATALOG NUMBER: CTN-CA10-310-727-U-T4-SSS-HM-EX120

Iso-Footcandle Lines of Horizontal Illumination

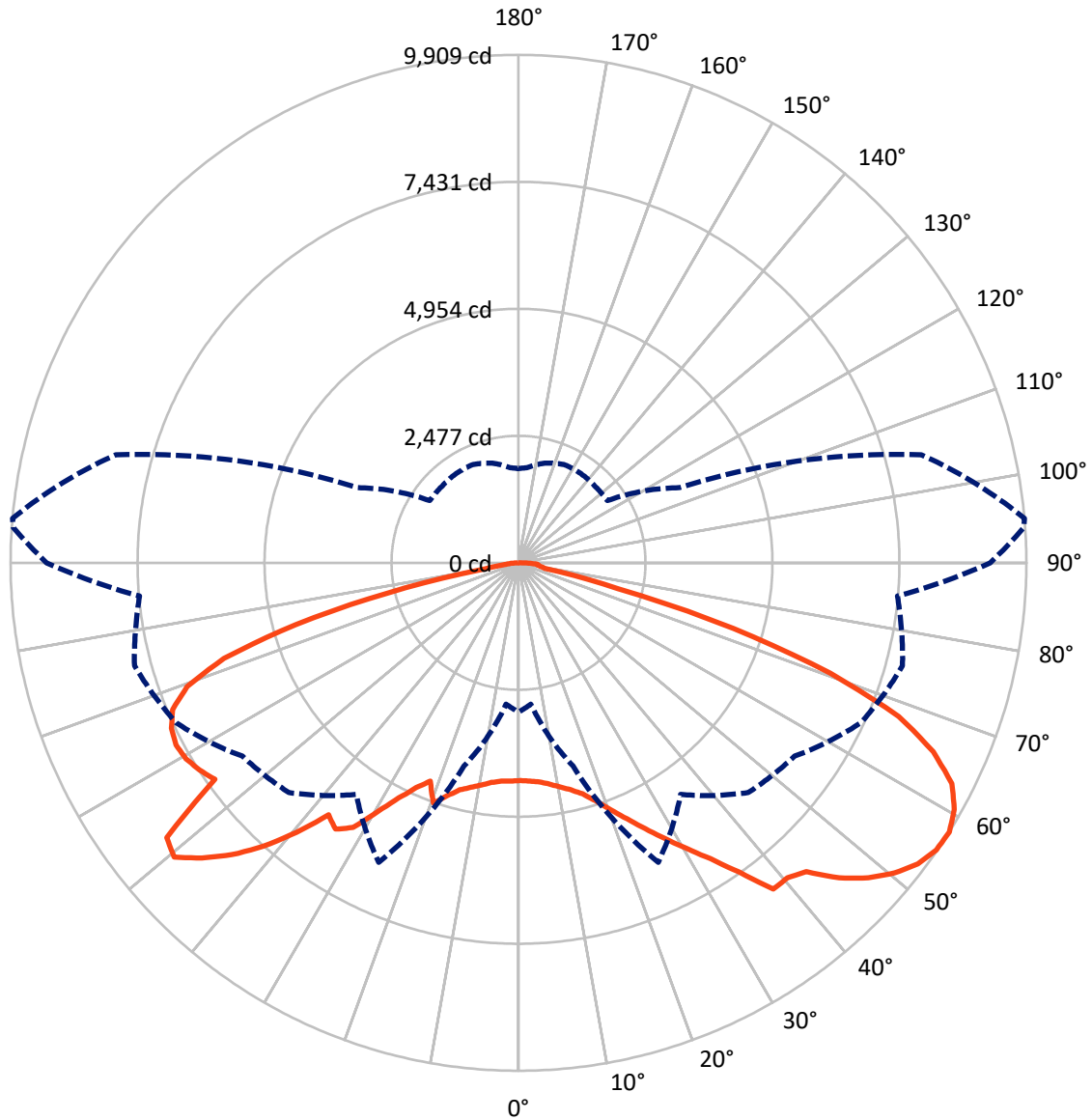
× Max cd
 - - - 1/2 Max cd



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

REPORT NUMBER: P591212
CATALOG NUMBER: CTN-CA10-310-727-U-T4-SSS-HM-EX120

Luminous Intensity Polar Plot



— Vertical Plane Through 95-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

REPORT NUMBER: P591212
 CATALOG NUMBER: CTN-CA10-310-727-U-T4-SSS-HM-EX120

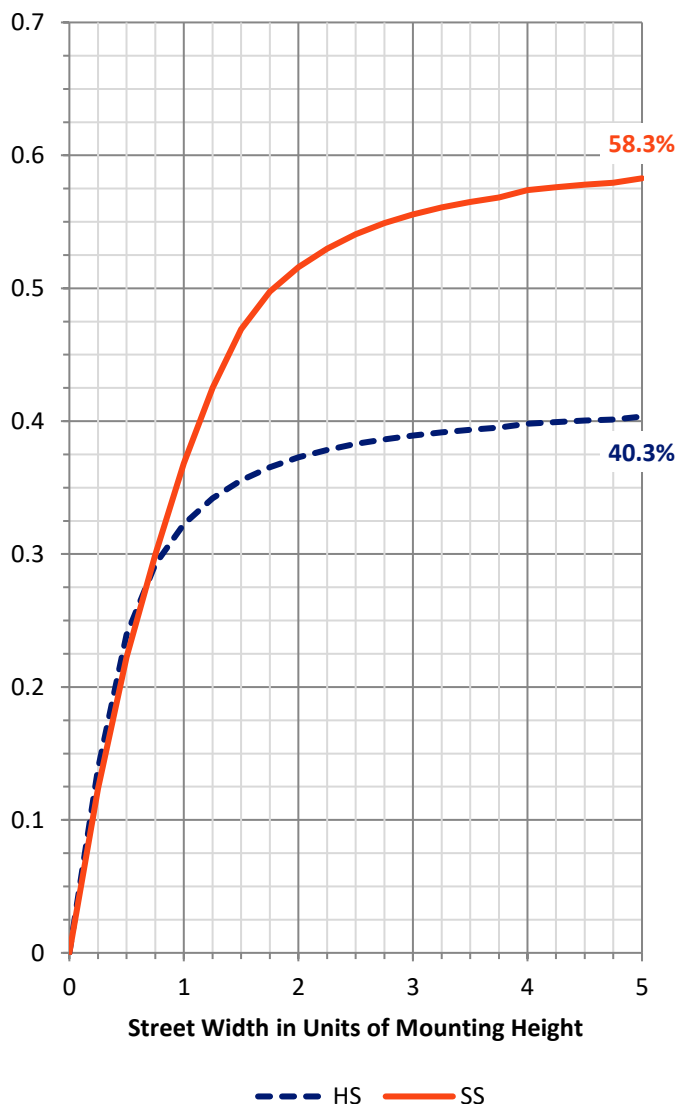
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9170.2	0.0	9170.2
	% Fixture	41.2	0.0	41.2
Street Side	Lumens	13094.7	0.0	13094.7
	% Fixture	58.8	0.0	58.8
Total	Lumens	22265.0	0.0	22265.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	414.8	1.9
10°-20°	1268.6	5.7
20°-30°	2004.6	9.0
30°-40°	2769.9	12.4
40°-50°	3734.8	16.8
50°-60°	4399.5	19.8
60°-70°	3930.4	17.7
70°-80°	2934.7	13.2
80°-90°	807.8	3.6
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°	22265.0	100.0
0°-180°	22265.0	100.0

Coefficient of Utilization

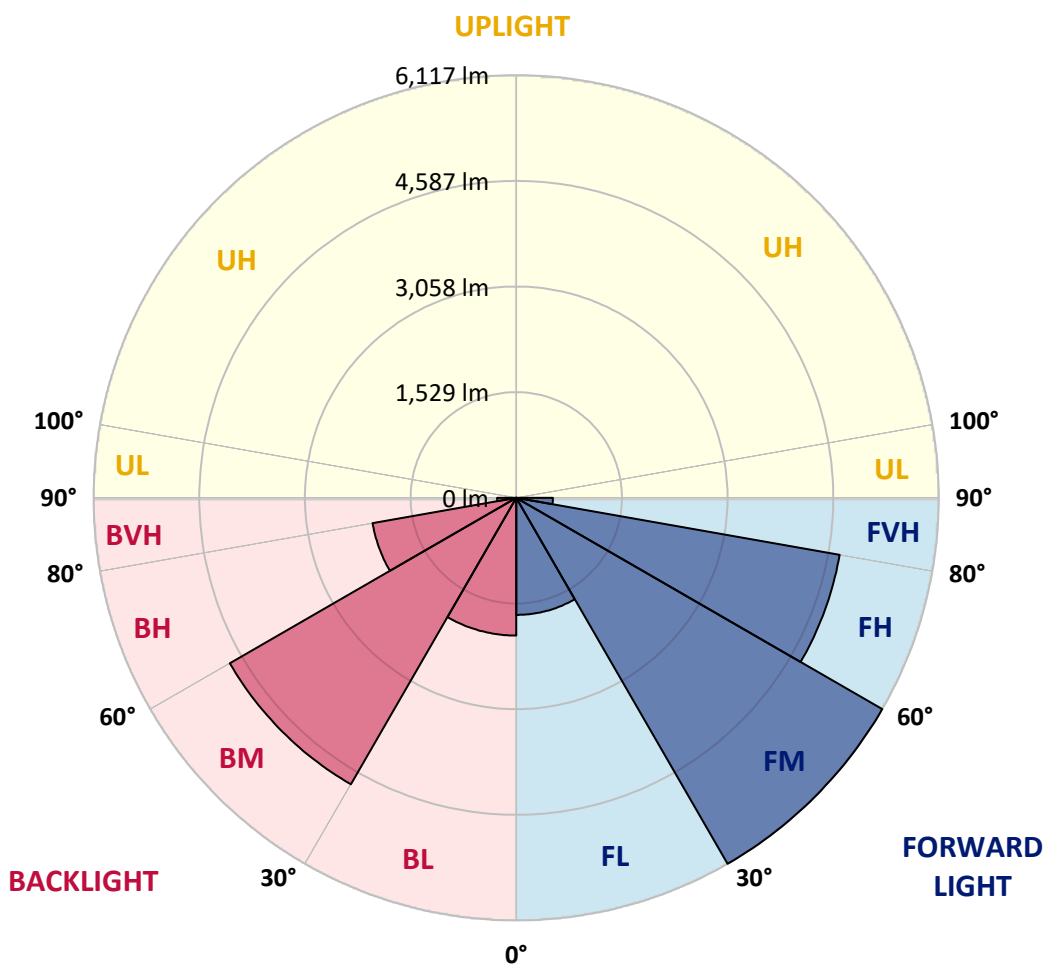


REPORT NUMBER: P591212
 CATALOG NUMBER: CTN-CA10-310-727-U-T4-SSS-HM-EX120

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1694.7	7.6			
FM (30°-60°)	6116.6	27.5			
FH (60°-80°)	4752.9	21.3			G2/5000
FVH (80°-90°)	530.6	2.4			G4/750
BL (0°-30°)	1993.3	9.0	B3/2500		
BM (30°-60°)	4787.6	21.5	B3/5000		
BH (60°-80°)	2112.2	9.5	B3/2500		G3/2500
BVH (80°-90°)	277.2	1.2			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 III Short





REPORT NUMBER: P591212

CATALOG NUMBER: CTN-CA10-310-727-U-T4-SSS-HM-EX120

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4248.0	4248.0	4248.0	4248.0	4248.0	4248.0	4248.0	4248.0	4248.0	4248.0	4248.0
2.5°	4192.2	4165.6	4166.8	4203.6	4149.1	4188.4	4183.3	4244.2	4235.3	4259.4	4267.0
5°	4158.0	4135.1	4136.4	4183.3	4146.5	4182.1	4158.0	4213.8	4234.0	4270.8	4278.4
7.5°	4166.8	4146.5	4154.2	4198.5	4152.9	4188.4	4190.9	4242.9	4253.1	4316.5	4326.6
10°	4189.7	4168.1	4173.2	4208.7	4179.5	4242.9	4235.3	4303.8	4306.3	4395.1	4407.8
12.5°	4159.2	4144.0	4144.0	4188.4	4203.6	4267.0	4286.0	4357.0	4372.3	4475.0	4491.5
15°	4104.7	4079.3	4116.1	4182.1	4212.5	4308.9	4344.4	4450.9	4468.6	4575.1	4610.7
17.5°	4010.9	3996.9	4132.6	4152.9	4037.5	4111.0	4261.9	4559.9	4620.8	4746.3	4812.3
20°	3730.6	3573.4	3210.7	3276.7	3631.7	3896.7	3943.7	4086.9	4348.2	4973.3	5076.0
22.5°	2742.8	2878.5	3357.8	3397.1	3385.7	3605.1	4098.4	4236.6	4360.8	4590.4	5272.6
25°	2840.4	2832.8	3067.4	3565.8	3548.0	3589.9	3796.6	4468.6	4592.9	4821.2	5531.3
27.5°	2927.9	2934.3	2916.5	3385.7	3717.9	3761.1	3824.5	4283.5	4884.6	5145.8	5814.0
30°	3101.7	3075.0	3026.9	3025.6	3866.3	3929.7	4037.5	4190.9	5153.4	5568.0	6167.8
32.5°	3394.6	3364.2	3300.8	3200.6	3341.3	4104.7	4253.1	4448.3	4755.2	6086.7	6582.5
35°	3611.4	3589.9	3546.8	3477.0	3364.2	4192.2	4463.6	4722.2	5128.0	6302.2	7126.5
37.5°	3879.0	3848.6	3799.1	3712.9	3627.9	3593.7	4666.4	5032.9	5647.9	6156.4	7244.4
40°	4182.1	4164.3	4074.3	3962.7	3868.8	3773.7	4805.9	5438.7	6316.2	6810.7	7136.6
42.5°	4410.3	4396.4	4343.1	4253.1	4161.8	4100.9	4259.4	5937.0	7044.1	7443.5	7683.2
45°	4609.4	4594.2	4594.2	4570.1	4544.7	4549.8	4618.3	6294.6	7735.1	7983.7	8200.5
47.5°	4762.8	4736.2	4629.7	4651.2	4688.0	4798.3	5006.3	5472.9	8291.8	8442.7	8635.5
50°	5136.9	5096.3	4751.4	4831.3	4950.5	5128.0	5395.6	5982.7	7742.8	8834.6	8985.4
52.5°	5481.8	5294.1	3924.6	5096.3	5230.7	5493.2	5810.2	6534.3	7126.5	8707.7	9253.0
55°	4890.9	4699.4	3944.9	5583.3	5560.4	5891.4	6200.8	6987.0	7461.2	7273.6	9185.8
57.5°	2911.5	2766.9	4104.7	6448.1	5512.2	6336.5	6574.9	7373.7	7755.4	7419.4	9203.6
60°	1507.7	1585.1	1524.2	3815.6	4746.3	6531.8	6961.6	7746.6	7954.5	7528.5	9215.0
62.5°	202.9	145.8	60.9	2791.0	3373.0	5442.5	7447.3	8101.6	8100.3	7565.2	9135.1
65°	12.7	13.9	27.9	2777.0	3720.5	6456.9	8251.2	8388.2	8172.6	7500.6	8868.8
67.5°	5.1	6.3	25.4	2758.0	4014.7	6787.9	9197.2	8479.5	8180.2	7326.8	8284.2
70°	5.1	6.3	25.4	2569.1	4215.0	6846.2	9357.0	8445.3	8086.4	6899.5	7197.5
72.5°	6.3	7.6	22.8	2231.8	4093.3	6687.7	9095.8	8375.5	7750.4	6039.8	5588.3
75°	6.3	7.6	22.8	1803.2	3621.6	6341.6	8889.1	7792.2	6794.2	4513.0	3624.1
77.5°	5.1	6.3	22.8	1407.5	3019.2	5620.0	8063.6	6775.2	5372.8	2626.1	1431.6
80°	5.1	6.3	22.8	980.2	2300.3	4606.8	6568.5	5276.4	3021.8	750.7	403.2
82.5°	5.1	6.3	21.6	611.2	1626.9	3388.2	4488.9	2432.1	648.0	292.9	314.5
85°	5.1	5.1	16.5	299.3	1039.8	2250.8	2236.9	407.0	257.4	190.2	238.4
87.5°	2.5	3.8	8.9	137.0	580.8	1186.9	891.4	156.0	110.3	77.4	133.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P591212

CATALOG NUMBER: CTN-CA10-310-727-U-T4-SSS-HM-EX120

CANDELA DISTRIBUTION (continued):

	94°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4248.0	4248.0	4248.0	4248.0	4248.0	4248.0	4248.0	4248.0	4248.0	4248.0	4248.0
2.5°	4269.5	4263.2	4281.0	4326.6	4324.1	4358.3	4331.7	4383.7	4392.5	4381.1	4398.9
5°	4292.4	4294.9	4343.1	4391.3	4373.5	4429.3	4440.7	4518.1	4520.6	4510.5	4533.3
7.5°	4349.4	4358.3	4406.5	4463.6	4488.9	4535.8	4529.5	4629.7	4620.8	4615.7	4642.4
10°	4429.3	4445.8	4497.8	4587.8	4576.4	4648.7	4615.7	4682.9	4680.4	4670.3	4699.4
12.5°	4527.0	4543.4	4609.4	4695.6	4696.9	4702.0	4675.3	4709.6	4698.2	4674.1	4696.9
15°	4658.8	4677.9	4767.9	4831.3	4776.8	4762.8	4712.1	4693.1	4650.0	4586.6	4605.6
17.5°	4866.8	4882.0	4983.5	5019.0	4925.1	4869.3	4724.8	4617.0	4495.3	4406.5	4423.0
20°	5129.3	5143.2	5225.7	5216.8	5091.2	4954.3	4729.9	4547.3	4320.3	4146.5	4141.5
22.5°	5418.4	5427.3	5505.9	5427.3	5204.1	5005.0	4719.7	4439.5	4057.8	3833.3	3809.2
25°	5736.7	5744.3	5743.0	5568.0	5268.8	4975.9	4625.9	4259.4	3769.9	3530.3	3504.9
27.5°	6093.0	6094.3	5954.8	5677.1	5240.9	4868.1	4444.5	3936.0	3506.2	3298.2	3279.2
30°	6472.2	6469.6	6148.8	5687.2	5133.1	4663.9	4164.3	3630.4	3269.1	3083.9	3057.3
32.5°	6904.6	6883.0	6321.3	5651.7	4936.5	4371.0	3802.9	3374.3	3082.6	2870.9	2831.6
35°	7458.7	7405.5	6468.4	5528.7	4644.9	3975.4	3468.1	3151.1	2902.6	2687.0	2647.7
37.5°	8144.7	8076.3	6699.1	5355.0	4308.9	3648.2	3222.1	3000.2	2773.2	2527.2	2476.5
40°	7946.9	8078.8	6974.3	5167.3	3984.2	3387.0	3077.6	2927.9	2694.6	2422.0	2373.8
42.5°	8252.5	8236.0	7350.9	4945.4	3672.3	3182.8	3019.2	2906.4	2652.8	2376.3	2320.5
45°	8772.4	8768.6	7756.7	4729.9	3368.0	3019.2	2974.9	2848.1	2593.2	2319.3	2258.4
47.5°	9194.7	9182.0	8144.7	4492.7	3086.5	2891.2	2884.8	2730.1	2486.7	2231.8	2176.0
50°	9488.9	9507.9	8360.3	4264.5	2820.2	2759.3	2735.2	2564.0	2337.0	2126.5	2083.4
52.5°	9720.9	9756.4	8454.1	4242.9	2586.8	2589.4	2547.5	2391.6	2214.0	2044.1	1998.5
55°	9835.0	9889.6	8357.8	4103.4	2358.6	2373.8	2333.2	2234.3	2129.1	1973.1	1940.1
57.5°	9882.0	9908.6	8134.6	3470.7	2113.9	2111.3	2124.0	2113.9	2014.9	1861.5	1837.4
60°	9802.1	9766.6	7648.9	2637.6	1865.3	1876.7	1957.9	1947.7	1860.2	1743.6	1710.6
62.5°	9556.1	9486.3	6760.0	1950.3	1666.2	1758.8	1845.0	1815.9	1709.3	1602.8	1577.5
65°	9086.9	8890.3	5386.7	1522.9	1571.1	1697.9	1777.8	1734.7	1613.0	1487.4	1472.2
67.5°	8244.9	7998.9	3535.3	1365.7	1530.5	1645.9	1729.6	1657.4	1539.4	1403.7	1382.2
70°	6728.3	6458.2	1673.8	1273.1	1439.2	1553.4	1614.2	1540.7	1420.2	1284.5	1269.3
72.5°	4691.8	4384.9	901.6	1173.0	1334.0	1432.9	1473.5	1383.4	1278.2	1218.6	1214.8
75°	2338.3	1998.5	817.9	1070.2	1198.3	1284.5	1353.0	1290.9	1198.3	1089.3	1061.4
77.5°	622.6	535.1	769.7	956.1	1090.5	1188.2	1227.5	1162.8	1056.3	963.7	947.2
80°	432.4	441.3	719.0	792.5	951.0	1038.5	1075.3	992.9	939.6	848.3	823.0
82.5°	366.5	385.5	580.8	597.3	755.8	849.6	914.3	900.3	824.2	750.7	740.5
85°	343.6	365.2	371.5	413.4	541.5	651.8	763.4	769.7	719.0	625.2	594.7
87.5°	197.8	195.3	178.8	210.5	296.7	361.4	437.5	417.2	339.8	294.2	287.8
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)