

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: P591021

Luminaire Tested: **CTN-CA10-210-722-U-T3-HSS-HM-EX120**

Issue Date: 12/14/2021

Test Information

Test Method: LM-79-08
Report Number: P591021
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2112-474-2)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 12/14/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-210-722-U-T3-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (10) 2200K CCT, 70 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25893 lumens
Efficiency: N/A
Efficacy: 121.6 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

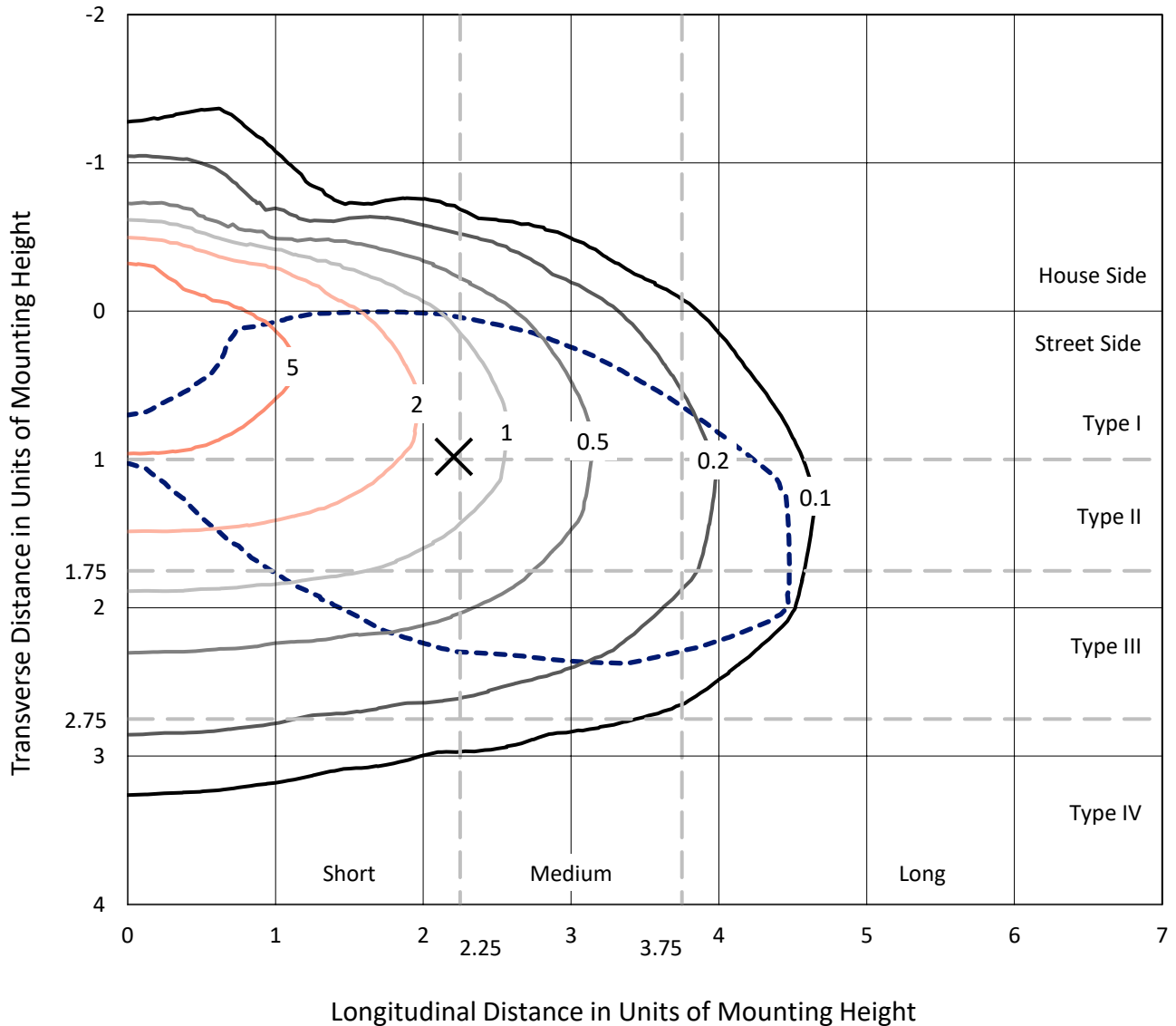
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

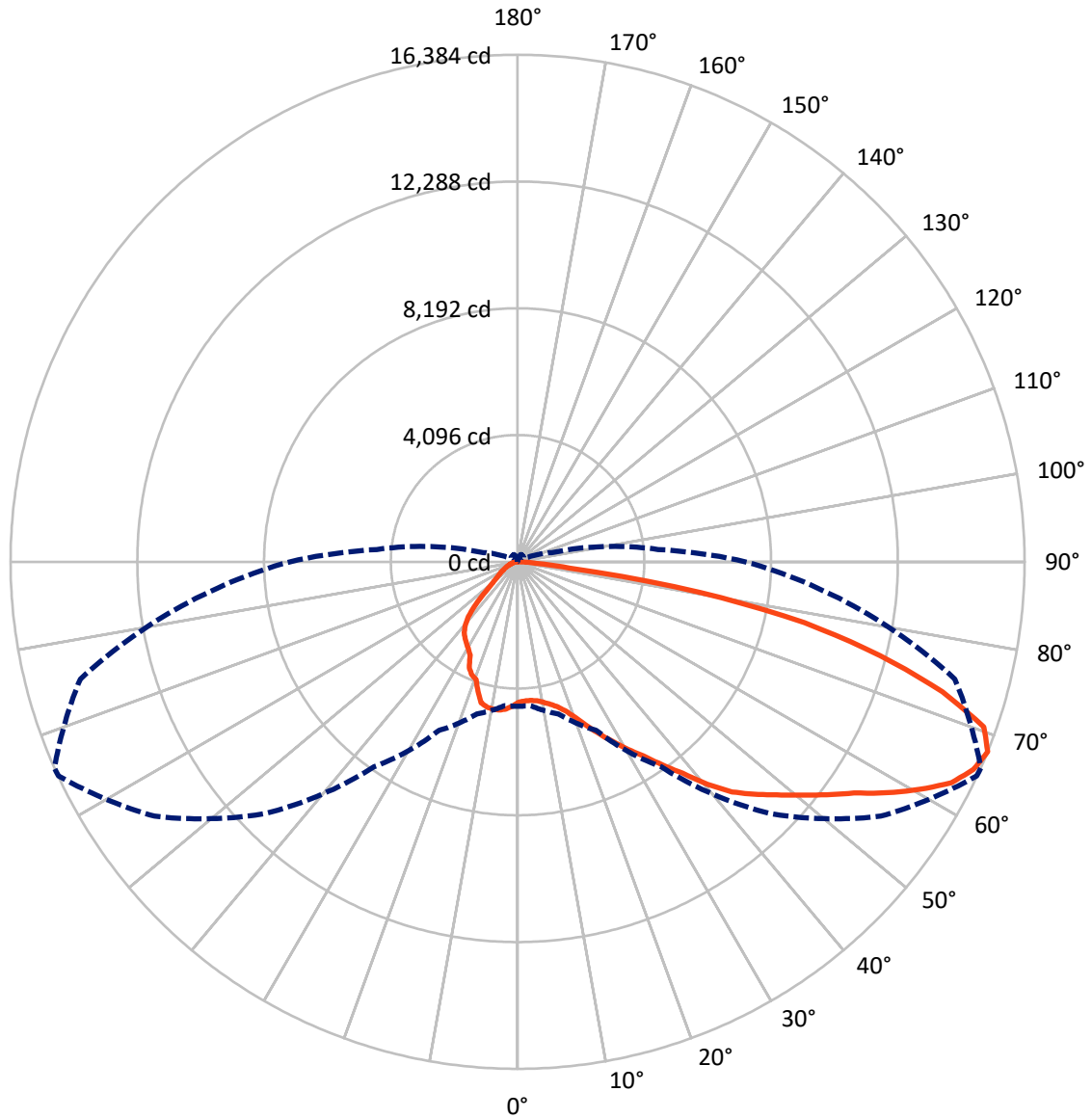
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.1 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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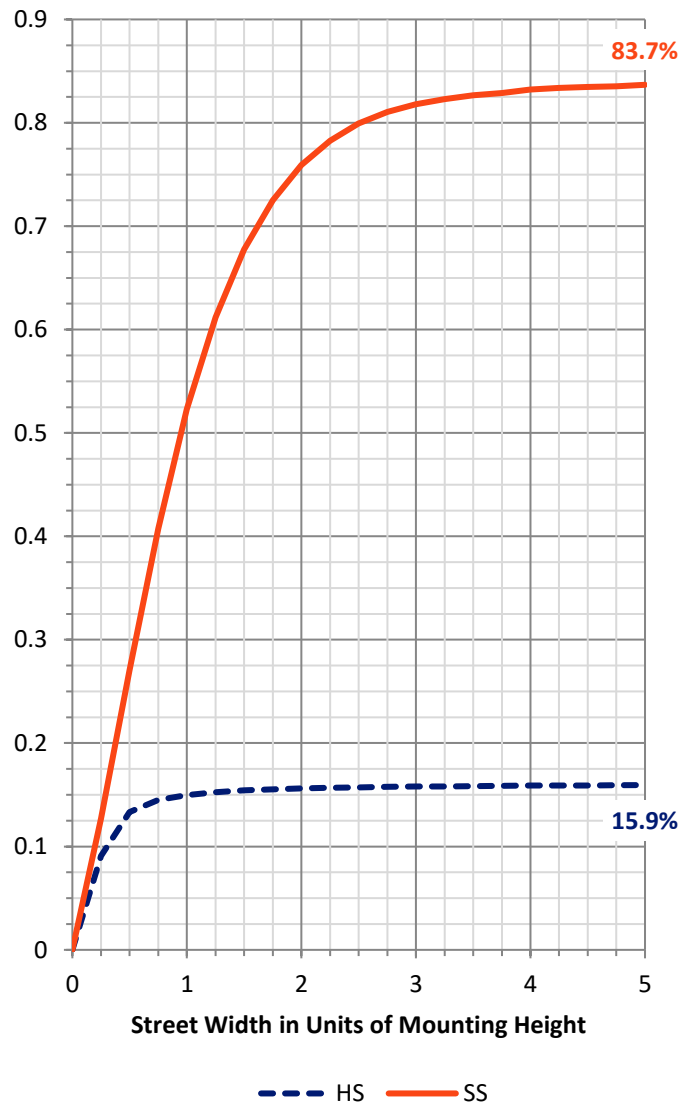
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4179.7	0.0	4179.7
	% Fixture	16.1	0.0	16.1
Street Side	Lumens	21713.3	0.0	21713.3
	% Fixture	83.9	0.0	83.9
Total	Lumens	25893.0	0.0	25893.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	449.3	1.7
10°-20°	1354.6	5.2
20°-30°	2201.9	8.5
30°-40°	3216.5	12.4
40°-50°	4284.0	16.5
50°-60°	5182.3	20.0
60°-70°	5548.2	21.4
70°-80°	3292.6	12.7
80°-90°	363.6	1.4
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°	25893.0	100.0
0°-180°	25893.0	100.0

Coefficient of Utilization



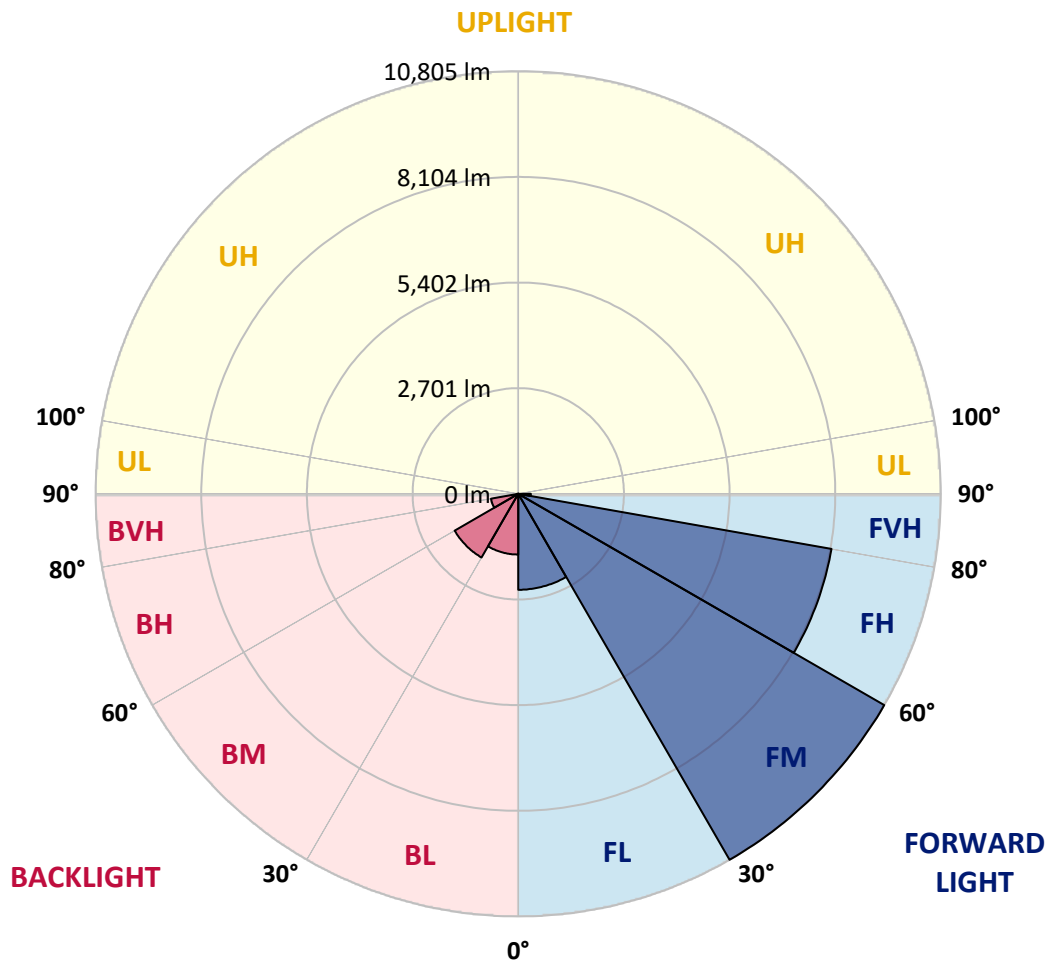
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2453.5	9.5			
FM (30°-60°)	10804.7	41.7			
FH (60°-80°)	8132.8	31.4			G4/12000
FVH (80°-90°)	322.3	1.2			G3/500
BL (0°-30°)	1552.3	6.0	B3/2500		
BM (30°-60°)	1878.1	7.3	B2/2500		
BH (60°-80°)	708.0	2.7	B2/1000		G2/1000
BVH (80°-90°)	41.3	0.2			G1/100
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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	4534.1	4534.1	4534.1	4534.1	4534.1	4534.1	4534.1	4534.1	4534.1	4534.1	4534.1
2.5°	4475.8	4450.5	4461.9	4491.7	4434.6	4470.9	4445.2	4490.0	4502.3	4507.2	4525.1
5°	4563.4	4530.0	4530.8	4549.6	4484.7	4500.6	4457.0	4488.4	4498.2	4511.2	4554.9
7.5°	4717.1	4680.0	4676.8	4681.7	4600.9	4583.0	4521.4	4528.0	4535.3	4543.0	4599.7
10°	4928.4	4890.4	4883.9	4871.3	4764.8	4718.0	4626.6	4612.4	4619.3	4606.6	4673.9
12.5°	5182.0	5136.3	5112.2	5076.0	4952.8	4879.4	4758.7	4719.6	4725.7	4699.2	4746.1
15°	5448.6	5400.1	5387.1	5331.2	5179.5	5079.2	4923.1	4863.5	4865.2	4834.6	4832.5
17.5°	5733.2	5690.0	5679.4	5643.9	5475.9	5356.5	5163.6	5082.9	5076.8	5046.6	4956.9
20°	6056.2	6028.8	6023.1	6002.7	5850.7	5710.8	5491.4	5383.0	5376.9	5329.2	5137.5
22.5°	6453.3	6421.1	6404.0	6386.4	6272.7	6127.1	5891.4	5738.5	5762.6	5682.3	5372.0
25°	6848.4	6822.7	6808.0	6796.6	6702.8	6565.0	6326.5	6147.1	6171.1	6085.1	5657.0
27.5°	7240.6	7184.0	7207.6	7234.5	7140.8	7031.1	6771.7	6576.4	6583.8	6490.8	5998.3
30°	7605.2	7575.4	7616.2	7641.5	7573.0	7487.3	7215.0	7026.2	7037.2	6926.7	6389.7
32.5°	7928.9	7886.1	7977.0	8026.4	7985.6	7915.0	7652.1	7473.1	7476.3	7409.5	6857.0
35°	8166.6	8169.5	8295.1	8427.6	8427.2	8327.7	8104.2	8021.1	8059.0	8029.2	7430.2
37.5°	8408.8	8387.2	8532.4	8729.3	8793.7	8705.2	8572.7	8622.1	8673.0	8764.4	7971.7
40°	8523.4	8524.2	8699.9	8927.5	9076.3	9059.6	9013.1	9343.0	9448.6	9475.9	7754.8
42.5°	8385.2	8395.0	8708.5	9111.0	9342.1	9430.6	9532.6	10094.4	10165.8	10011.2	8010.5
45°	8204.1	8217.6	8585.8	9174.2	9577.8	9826.9	10107.9	10655.9	10711.3	10505.8	8382.3
47.5°	8034.1	8059.0	8442.3	9136.2	9764.6	10273.4	10622.4	11184.7	11252.4	10981.3	8728.9
50°	7810.7	7866.1	8257.1	9035.5	9905.2	10662.0	11097.9	11821.2	11847.3	11445.3	9041.2
52.5°	7594.6	7610.9	8047.6	8906.7	10011.2	11014.3	11665.0	12475.2	12505.4	11953.3	9329.5
55°	7298.5	7323.0	7811.1	8745.2	10076.5	11309.5	12239.1	13157.0	13183.9	12563.7	9639.4
57.5°	6972.8	6990.7	7504.5	8497.3	10027.6	11571.7	12851.1	14015.7	14081.7	13191.6	9917.9
60°	6563.8	6587.4	7108.9	8153.6	9858.7	11877.5	13607.1	14933.5	14933.5	13768.2	10138.5
62.5°	5987.7	6020.7	6548.7	7658.6	9508.1	12054.4	14210.6	15732.6	15727.3	14222.4	10213.1
65°	5318.2	5323.5	5802.1	6962.2	8925.8	11960.2	14440.5	16199.5	16187.7	14551.0	10110.3
67.5°	4668.6	4662.9	5087.8	6009.7	8086.3	11496.6	14330.8	16369.9	16384.2	14630.1	9727.5
70°	3747.1	3739.8	4130.4	4883.9	6816.6	10498.1	13707.4	15937.3	15980.6	14178.3	9091.8
72.5°	2681.3	2670.3	2857.4	3355.7	5005.8	8635.9	12153.1	14274.6	14353.7	12731.3	7931.0
75°	1570.2	1582.0	1777.3	2064.0	2972.8	5681.0	9857.1	11988.0	12100.9	10830.4	6238.0
77.5°	873.4	870.9	1014.5	1230.2	1462.2	2845.2	6881.4	9440.8	9479.1	8486.7	4194.8
80°	421.6	419.6	458.3	578.2	833.8	1278.3	3379.8	5865.7	5982.0	5157.9	2050.9
82.5°	303.4	305.0	326.6	317.2	311.1	563.9	1127.8	1847.5	1686.8	1301.9	634.0
85°	227.9	227.9	247.5	228.3	223.0	287.0	548.4	660.1	633.6	579.4	376.8
87.5°	107.2	101.9	108.5	102.8	95.4	127.2	240.6	278.9	258.1	225.1	164.7
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°	4534.1	4534.1	4534.1	4534.1	4534.1	4534.1	4534.1	4534.1	4534.1	4534.1	4534.1
2.5°	4555.7	4564.6	4611.5	4672.7	4678.4	4731.0	4747.3	4812.6	4810.1	4792.2	4810.9
5°	4586.3	4613.6	4693.9	4779.9	4802.0	4868.0	4882.3	4946.3	4950.4	4928.4	4946.7
7.5°	4635.2	4675.1	4751.0	4836.2	4846.0	4904.7	4902.3	4963.0	4952.4	4933.2	4957.7
10°	4695.1	4726.1	4776.7	4832.9	4828.5	4875.3	4860.7	4904.3	4882.3	4866.8	4894.9
12.5°	4755.5	4756.7	4760.8	4796.2	4768.5	4779.1	4750.2	4782.4	4748.5	4722.4	4739.6
15°	4815.8	4781.6	4724.1	4702.1	4625.0	4585.4	4543.9	4582.6	4503.5	4461.9	4472.5
17.5°	4901.0	4818.7	4625.4	4345.7	4108.4	3977.5	3879.2	3803.4	3805.0	3842.5	3865.0
20°	4969.1	4656.0	4183.8	4010.9	3833.6	3594.2	3222.8	3120.8	3053.6	3052.3	3063.4
22.5°	4945.1	4483.9	4184.2	3913.9	3528.2	3049.9	2889.2	2795.9	2638.9	2303.3	2276.0
25°	5166.5	4636.4	4208.3	3713.3	3041.7	2799.1	2578.5	2397.1	2000.8	1938.4	1935.9
27.5°	5431.9	4842.3	4240.9	3280.3	2847.2	2519.8	2239.3	1801.0	1611.0	1584.1	1574.7
30°	5738.9	5084.9	4041.9	3141.6	2640.1	2194.9	1823.0	1383.1	1228.5	1219.1	1221.6
32.5°	6123.8	5361.8	3834.4	3027.5	2389.4	1818.5	1243.2	1054.8	966.3	869.7	900.7
35°	6534.0	5202.4	3958.3	2886.4	2075.4	1367.6	944.3	837.9	766.1	641.0	590.0
37.5°	6372.6	5312.0	4102.3	2731.5	1683.2	927.2	730.7	638.5	571.2	466.9	464.8
40°	6571.5	5626.0	4205.0	2481.9	1217.1	657.7	532.5	494.2	463.2	405.3	397.1
42.5°	6923.0	5900.0	4274.7	2161.8	727.4	489.3	454.6	460.3	433.4	389.0	383.7
45°	7269.2	6139.7	4209.1	1673.8	517.4	441.2	443.2	440.8	408.1	391.8	386.1
47.5°	7584.4	6342.4	4024.4	1104.2	448.9	430.2	434.7	423.6	386.9	377.6	376.8
50°	7855.1	6556.5	3186.5	846.1	431.8	415.5	425.3	407.3	344.1	333.9	323.3
52.5°	8021.9	6200.5	2830.9	649.9	413.9	392.7	395.5	410.2	324.2	258.1	241.8
55°	7996.6	5585.6	2632.0	541.1	385.3	360.8	366.6	390.2	293.2	201.8	182.7
57.5°	8116.9	5535.1	2425.6	460.3	332.3	327.0	315.6	355.5	266.7	133.7	126.8
60°	8097.3	5529.0	2164.7	362.1	293.6	274.8	260.5	289.5	191.2	49.7	45.3
62.5°	8065.5	5372.0	1868.3	324.6	270.3	263.0	250.8	283.4	162.7	34.7	25.7
65°	7906.1	5117.1	1532.3	284.2	252.4	237.3	236.5	268.3	134.1	19.2	8.6
67.5°	7361.7	4562.2	1140.0	261.8	241.8	234.0	248.3	258.5	128.8	19.6	7.7
70°	6684.9	3830.3	735.6	236.1	226.7	230.8	242.6	261.4	125.2	17.9	6.9
72.5°	5589.7	2963.0	446.1	210.8	205.1	217.3	239.3	261.4	115.8	15.1	5.7
75°	4252.3	1976.3	331.9	186.3	179.8	195.3	218.1	251.2	113.8	13.0	3.7
77.5°	2640.1	933.3	261.8	156.6	149.6	165.5	183.1	207.1	115.4	12.6	2.0
80°	1067.9	389.8	205.5	126.0	117.4	126.0	148.4	176.6	91.7	17.9	0.0
82.5°	449.3	274.4	168.0	100.3	93.8	82.8	101.1	130.9	72.2	14.3	0.0
85°	297.2	190.4	120.3	68.1	59.9	40.4	49.3	59.1	41.2	0.0	0.0
87.5°	134.6	84.4	52.6	23.2	19.6	11.0	6.5	5.7	0.0	0.0	0.0
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)