

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: P591243

Luminaire Tested: **CTN-CA6-230-727-U-T2-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591243
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-6)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA6-230-727-U-T2-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (6) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16013 lumens
Efficiency: N/A
Efficacy: 70.3 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

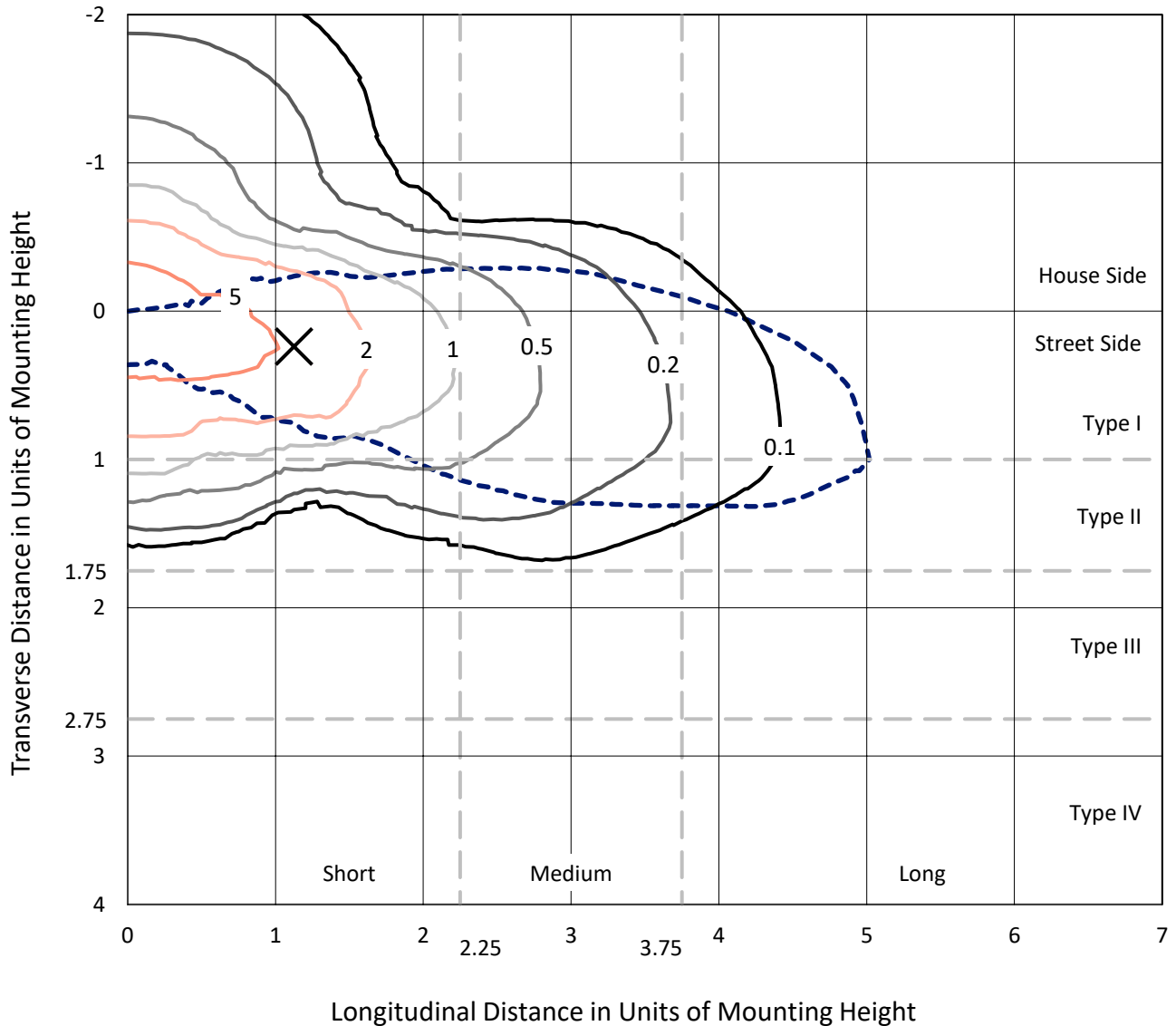
Input Watts (W): 227.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

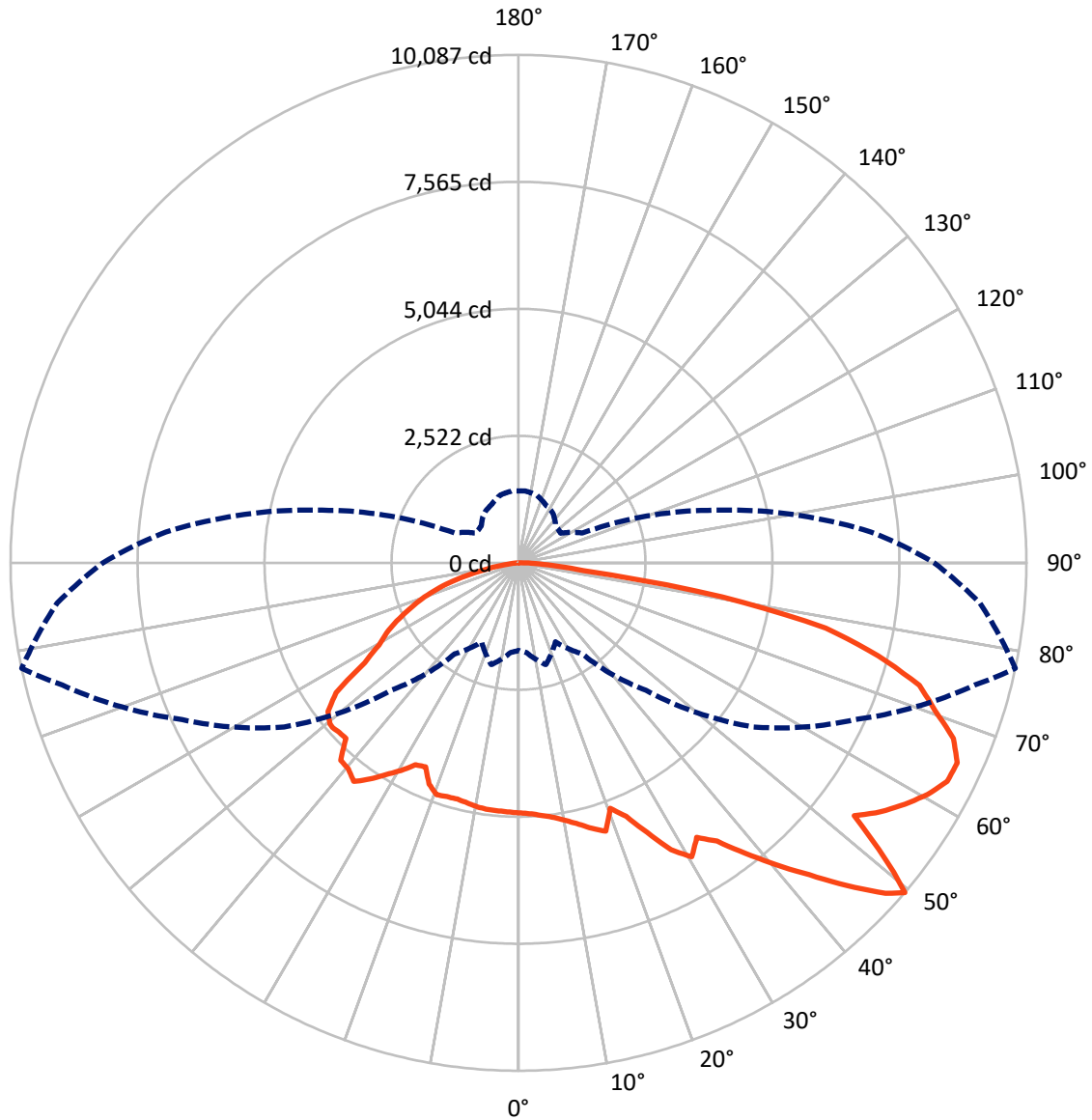
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.1 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral - - - Horizontal Cone Through 49-Deg Vertical

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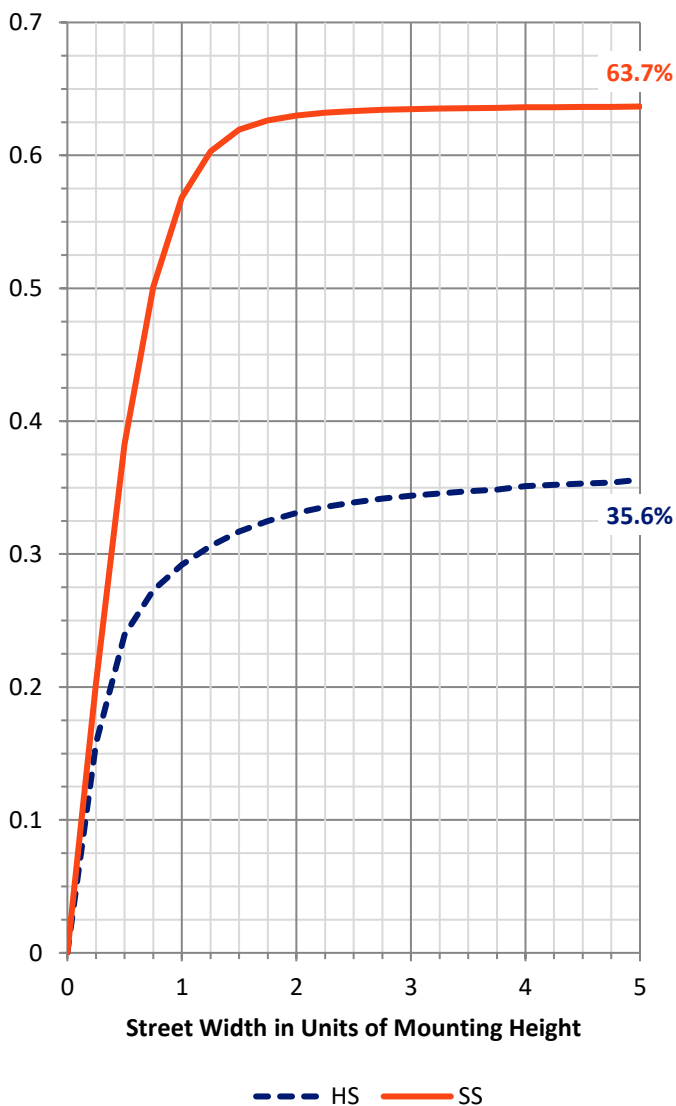
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5849.8	0.0	5849.8
	% Fixture	36.5	0.0	36.5
Street Side	Lumens	10163.2	0.0	10163.2
	% Fixture	63.5	0.0	63.5
Total	Lumens	16013.0	0.0	16013.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	481.3	3.0
10°-20°	1415.4	8.8
20°-30°	1992.8	12.4
30°-40°	2498.1	15.6
40°-50°	2819.6	17.6
50°-60°	2709.3	16.9
60°-70°	2213.3	13.8
70°-80°	1552.7	9.7
80°-90°	330.5	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°	16013.0	100.0
0°-180°	16013.0	100.0

Coefficient of Utilization

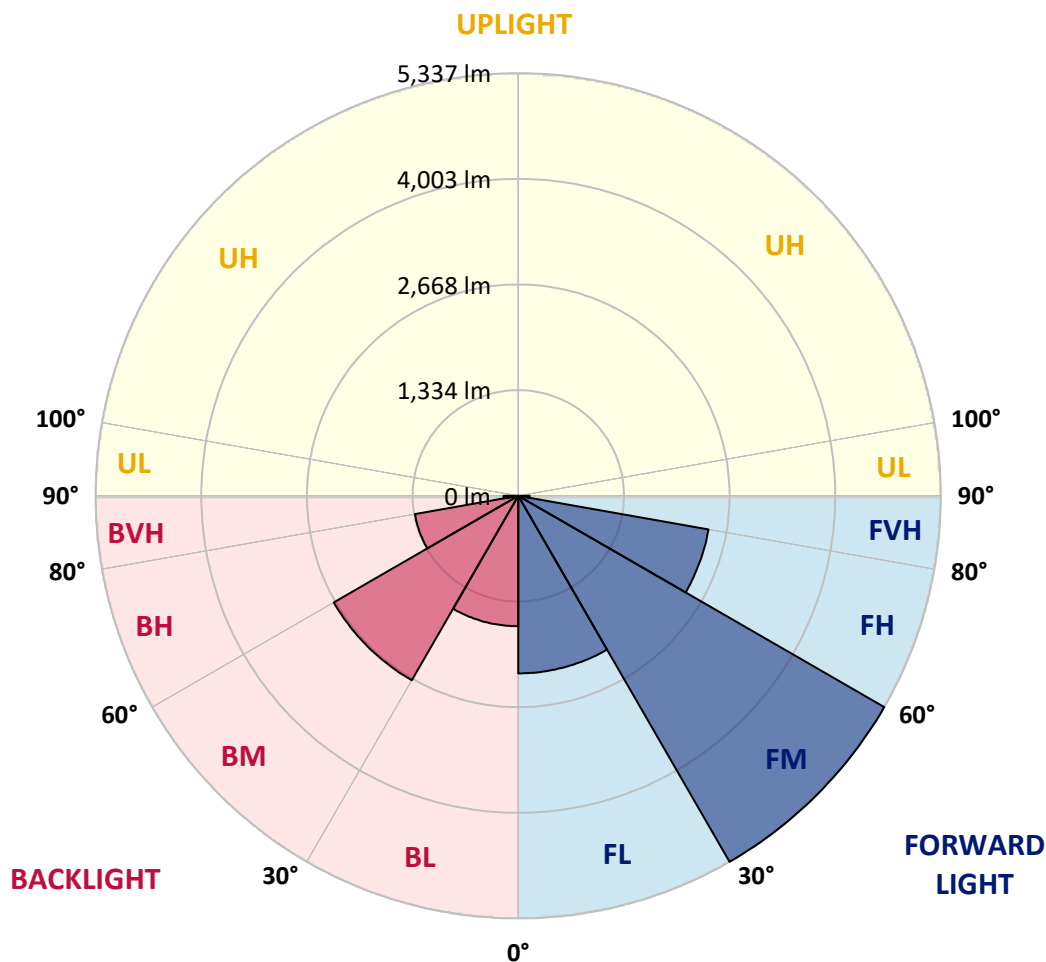


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2242.3	14.0			
FM (30°-60°)	5336.9	33.3			
FH (60°-80°)	2440.1	15.2			G2/5000
FVH (80°-90°)	143.9	0.9			G2/225
BL (0°-30°)	1647.2	10.3	B3/2500		
BM (30°-60°)	2690.0	16.8	B3/5000		
BH (60°-80°)	1325.9	8.3	B3/2500		G3/2500
BVH (80°-90°)	186.6	1.2			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	4966.9	4966.9	4966.9	4966.9	4966.9	4966.9	4966.9	4966.9	4966.9	4966.9	4966.9
2.5°	5171.6	5123.8	5134.6	5159.8	5062.4	5089.5	5046.2	5065.1	5013.7	4992.1	5001.1
5°	5540.4	5484.5	5497.1	5509.7	5366.3	5305.0	5184.2	5156.2	5077.8	5041.7	5037.2
7.5°	5716.2	5658.5	5672.0	5672.0	5562.9	5572.8	5450.2	5320.3	5163.4	5106.6	5081.4
10°	5998.5	5933.5	5923.6	5906.5	5764.0	5700.9	5599.0	5523.2	5285.2	5204.0	5134.6
12.5°	6205.0	6154.5	6155.4	6136.4	5975.9	5929.9	5750.5	5661.2	5425.8	5327.6	5215.7
15°	6290.6	6254.6	6278.0	6221.2	6113.9	6045.4	5960.6	5817.2	5573.7	5472.7	5334.8
17.5°	5891.2	5826.2	5654.0	5683.7	5676.5	5697.3	5614.3	5699.1	5660.3	5605.3	5514.2
20°	4988.5	5057.0	5177.9	5070.6	5062.4	5332.1	5525.0	5498.9	5282.5	5202.2	5293.3
22.5°	4239.1	4155.3	4410.5	4791.9	4899.2	5174.3	5502.5	5814.5	5570.1	5467.3	5191.4
25°	3566.4	3651.2	4048.0	4625.1	4962.3	5043.5	5419.5	6006.6	6045.4	5933.5	5575.5
27.5°	3460.0	3459.1	3726.9	4286.0	5053.4	5307.7	5423.1	5911.0	6526.0	6449.3	6038.1
30°	3435.7	3423.1	3525.0	4091.3	4805.4	5544.9	5769.4	5940.7	6522.4	6778.5	6566.6
32.5°	3331.1	3321.2	3425.8	3691.8	4468.2	5771.2	6101.3	6326.7	6360.1	6499.8	7103.1
35°	3163.3	3186.8	3323.9	3617.8	4191.3	5325.8	6437.6	6790.2	6870.5	6788.4	6792.9
37.5°	3002.8	3020.9	3161.5	3486.2	3989.4	4332.0	6668.5	7235.7	7414.2	7320.4	6882.2
40°	2794.5	2819.8	2986.6	3346.4	3856.8	3738.7	6333.9	7758.7	8006.7	7886.7	7389.9
42.5°	2560.1	2571.8	2769.3	3116.5	2765.7	3758.5	5860.5	8238.4	8585.6	8466.6	7866.9
45°	2359.9	2367.1	2528.5	2749.4	2493.3	3726.9	5533.2	8011.2	9261.9	9142.9	8371.9
47.5°	2078.5	2129.9	2304.9	1900.9	2315.7	3649.4	5643.2	7104.0	9895.8	9807.5	8862.4
49°	1741.3	1787.3	2094.8	1731.4	2205.7	3580.0	5681.0	7369.1	9381.8	10087.0	9198.8
50°	1600.6	1634.0	1605.1	1670.9	2125.4	3509.6	5620.6	7582.8	8622.6	9660.5	9415.2
52.5°	1391.4	1294.9	1102.8	1500.5	1940.6	3235.5	4631.4	8157.3	8543.2	8348.4	8821.8
55°	587.9	837.7	975.7	1230.9	1753.9	1964.0	4288.7	8783.1	8926.5	8729.9	7927.3
57.5°	459.9	468.9	536.5	916.2	970.3	1521.3	4149.0	9051.8	9215.9	9045.5	8234.8
60°	67.6	66.7	88.4	105.5	240.8	699.8	2711.6	6443.0	8894.9	9339.5	8516.2
62.5°	24.3	25.2	25.2	29.8	44.2	306.6	1971.2	6011.1	9109.5	9555.0	8751.5
65°	1.8	2.7	4.5	9.9	23.4	289.5	1748.5	6117.5	9040.1	9575.7	8866.0
67.5°	0.0	0.9	2.7	7.2	18.9	285.0	1625.9	5938.0	8748.8	9312.4	8615.3
70°	0.0	0.0	1.8	6.3	17.1	274.1	1412.1	5329.4	8227.6	8772.3	8159.1
72.5°	0.0	0.0	1.8	6.3	15.3	261.5	1160.6	4691.8	7753.3	8323.2	7497.2
75°	0.0	0.0	1.8	5.4	13.5	238.1	848.5	3400.5	6945.3	7380.8	6557.5
77.5°	0.0	0.0	1.8	5.4	12.6	205.6	573.5	1948.7	5714.4	6241.0	5509.7
80°	0.0	0.0	1.8	4.5	11.7	156.0	324.6	973.0	2986.6	4102.1	3938.0
82.5°	0.0	0.0	1.8	4.5	9.0	83.0	151.5	424.7	1101.0	1299.4	1516.7
85°	0.0	0.0	1.8	3.6	7.2	20.7	51.4	202.0	601.5	668.2	652.0
87.5°	0.0	0.0	1.8	3.6	5.4	8.1	17.1	57.7	222.7	248.9	212.8
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°	4966.9	4966.9	4966.9	4966.9	4966.9	4966.9	4966.9	4966.9	4966.9	4966.9	4966.9
2.5°	4999.3	4971.4	4945.2	4948.8	4886.6	4873.1	4814.5	4850.5	4826.2	4795.5	4815.4
5°	5010.1	4974.1	4928.1	4876.7	4740.5	4691.8	4610.7	4634.1	4601.6	4565.6	4584.5
7.5°	5033.6	4991.2	4915.5	4782.0	4623.3	4537.6	4443.8	4524.1	4514.2	4493.4	4514.2
10°	5043.5	5006.5	4877.6	4722.5	4502.5	4443.8	4372.6	4359.1	4361.8	4366.3	4396.9
12.5°	5069.7	5014.6	4816.3	4632.3	4432.1	4315.8	4245.5	4286.9	4201.3	4163.4	4179.6
15°	5133.7	5029.1	4768.5	4507.0	4307.7	4215.7	4042.6	4042.6	4020.9	3983.9	3994.8
17.5°	5262.6	5086.8	4755.8	4424.0	4168.8	4010.1	3851.4	3767.5	3744.1	3755.8	3763.0
20°	5332.1	5193.2	4749.5	4314.9	4012.8	3828.8	3588.1	3528.6	3450.1	3460.9	3473.6
22.5°	4914.6	4733.3	4739.6	4181.4	3819.8	3586.3	3323.0	3219.3	3171.5	3162.4	3186.8
25°	5212.1	4846.9	4283.3	4108.4	3607.9	3310.3	3043.4	2900.9	2827.9	2823.4	2838.7
27.5°	5607.1	5159.8	4220.2	3765.7	3382.5	2975.8	2680.9	2579.0	2506.9	2503.3	2506.0
30°	6067.0	5577.3	4377.1	3343.7	3076.8	2589.8	2355.4	2283.2	2217.4	2188.6	2189.5
32.5°	6578.3	5955.2	4528.6	3262.5	2466.3	2253.5	2071.3	2015.4	1925.2	1883.8	1872.0
35°	7057.1	6356.5	4718.0	3126.4	2139.9	1954.1	1826.0	1751.2	1680.9	1645.7	1634.0
37.5°	6635.1	6726.2	4885.7	3014.6	1891.0	1619.5	1584.4	1534.8	1498.7	1471.7	1467.2
40°	6731.6	6058.9	4984.9	2803.5	1634.0	1414.9	1358.0	1382.4	1419.4	1396.8	1395.9
42.5°	7053.5	6162.6	4894.7	2511.4	1430.2	1220.1	1236.3	1327.4	1404.9	1390.5	1392.3
45°	7514.3	6486.3	4200.4	2162.4	1232.7	1099.2	1204.7	1311.1	1408.5	1413.0	1413.0
47.5°	7991.3	6850.6	4071.4	1697.1	1087.5	1052.3	1199.3	1291.3	1403.1	1432.0	1428.4
49°	8255.5	7027.4	4035.3	1396.8	1022.6	1042.4	1198.4	1272.4	1392.3	1432.9	1428.4
50°	8409.7	7148.2	3967.7	1276.9	984.7	1040.6	1199.3	1260.7	1381.5	1426.6	1424.8
52.5°	8733.5	7301.5	3731.5	1051.4	892.7	1034.3	1213.8	1249.8	1348.1	1395.9	1413.9
55°	7216.7	7042.7	3334.7	944.1	851.3	1021.7	1213.8	1256.1	1319.3	1347.2	1364.4
57.5°	7306.0	6021.9	2622.3	890.9	823.3	1008.2	1194.8	1255.2	1303.9	1308.4	1303.0
60°	7578.3	6161.7	1955.0	836.8	790.8	991.0	1154.2	1226.4	1263.4	1263.4	1247.1
62.5°	7741.5	6227.5	1563.6	777.3	756.6	955.9	1093.8	1170.5	1198.4	1183.1	1180.4
65°	7782.1	6280.7	1134.4	713.3	717.8	918.0	1031.6	1098.3	1137.1	1111.0	1116.4
67.5°	7642.4	5901.1	828.7	647.5	673.6	866.6	970.3	1029.8	1057.8	1044.2	1046.9
70°	7125.7	5488.1	583.4	534.7	602.4	787.2	892.7	961.3	975.7	952.3	955.9
72.5°	6295.1	4850.5	367.9	418.4	530.2	714.2	801.7	844.9	847.6	876.5	891.8
75°	5482.7	3892.0	266.0	330.0	421.1	610.5	732.2	772.8	802.6	946.8	970.3
77.5°	4394.2	2462.7	226.3	260.6	330.9	506.8	652.9	715.1	982.9	1054.1	1036.1
80°	2662.9	1529.4	170.4	205.6	275.9	389.6	559.1	736.7	994.6	927.9	890.0
82.5°	1229.1	664.6	115.4	167.7	219.1	290.4	441.0	860.3	852.2	710.6	703.4
85°	441.9	196.6	63.1	119.9	153.3	200.2	339.1	852.2	668.2	597.0	559.1
87.5°	112.7	35.2	26.2	58.6	77.6	106.4	184.9	450.9	347.2	305.7	294.9
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)