

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: P591348

Luminaire Tested: **CTN-CA8-230-730-U-T1-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591348
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-CA8-230-730-U-T1-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22368 lumens
Efficiency: N/A
Efficacy: 97.9 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B4 - U0 - G4

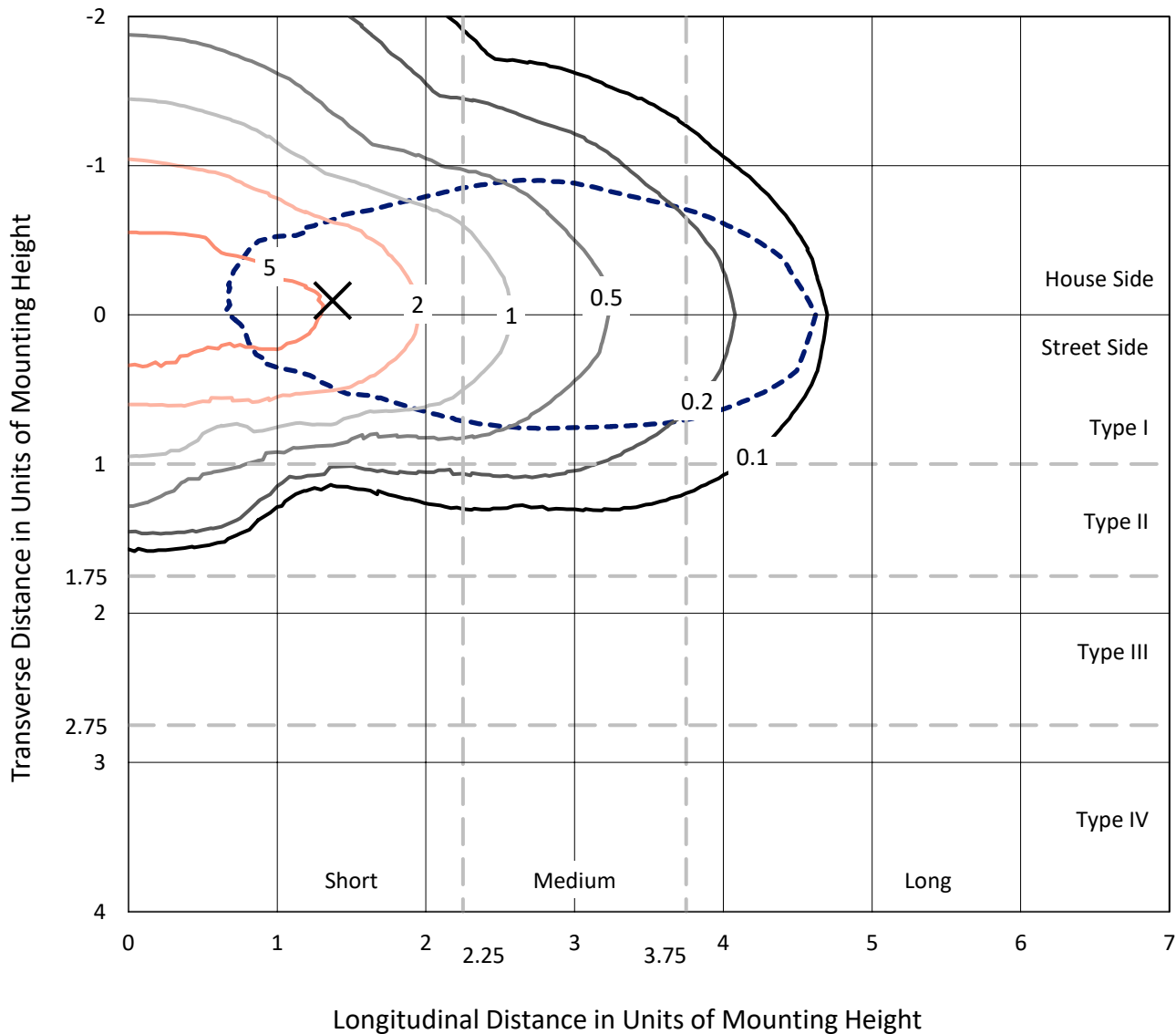
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

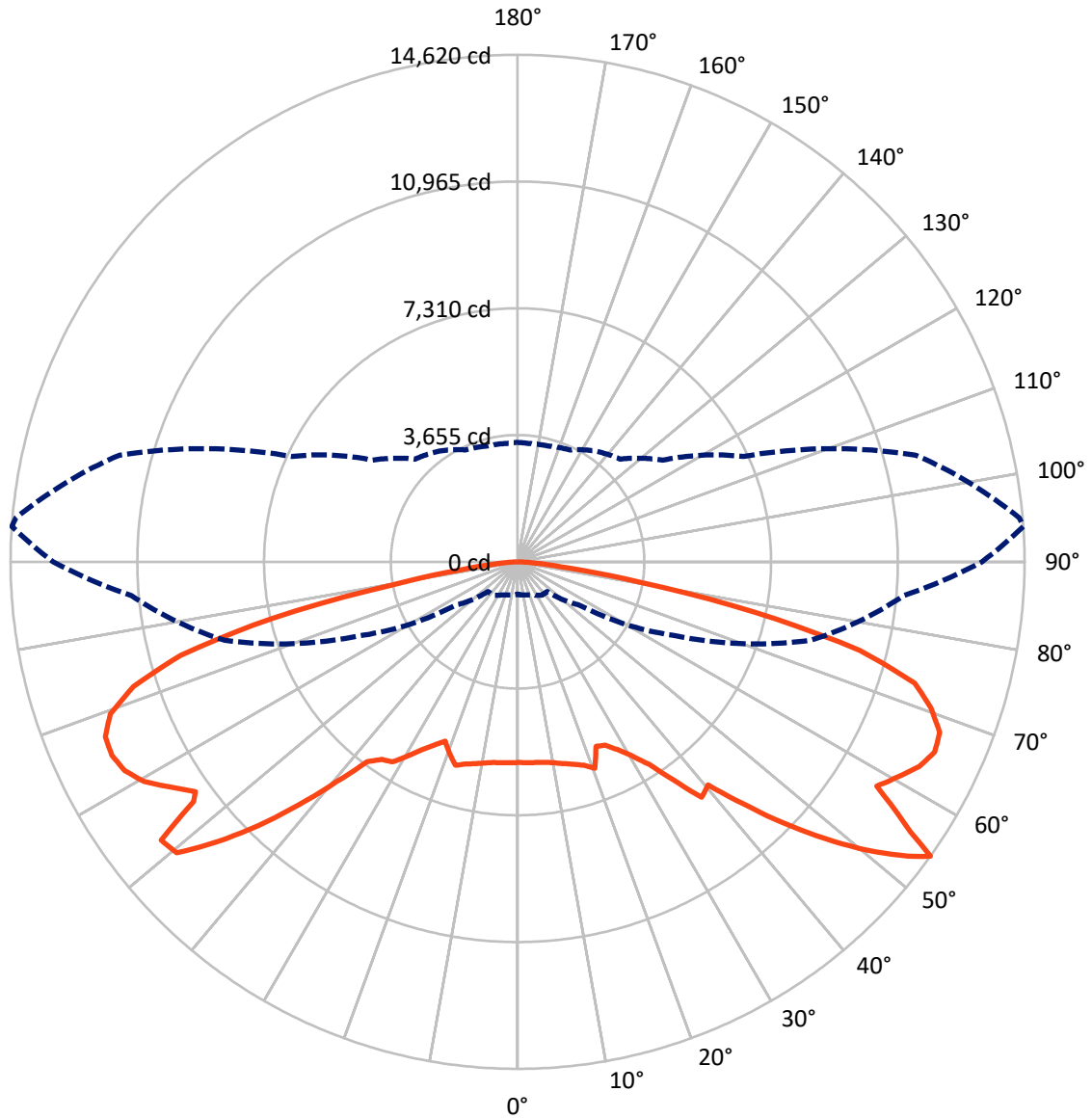
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.3 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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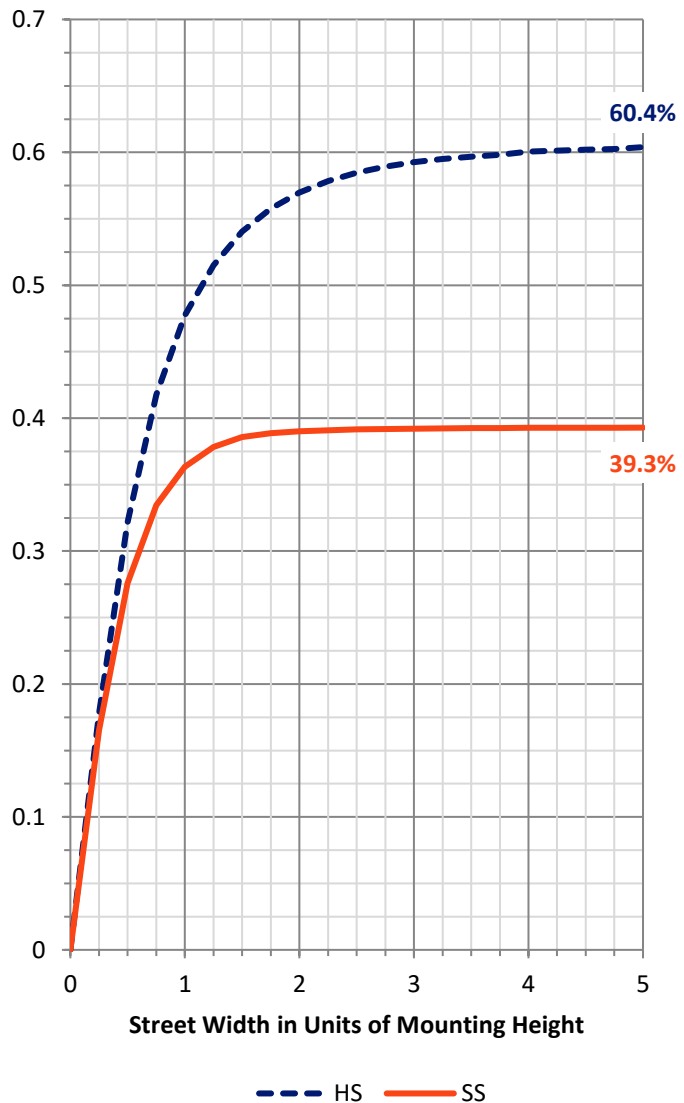
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13624.0	0.0	13624.0
	% Fixture	60.9	0.0	60.9
Street Side	Lumens	8744.0	0.0	8744.0
	% Fixture	39.1	0.0	39.1
Total	Lumens	22368.0	0.0	22368.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	552.0	2.5
10°-20°	1579.3	7.1
20°-30°	2255.8	10.1
30°-40°	2984.7	13.3
40°-50°	3929.1	17.6
50°-60°	4334.9	19.4
60°-70°	3906.0	17.5
70°-80°	2470.3	11.0
80°-90°	356.0	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°	22368.0	100.0
0°-180°	22368.0	100.0

Coefficient of Utilization

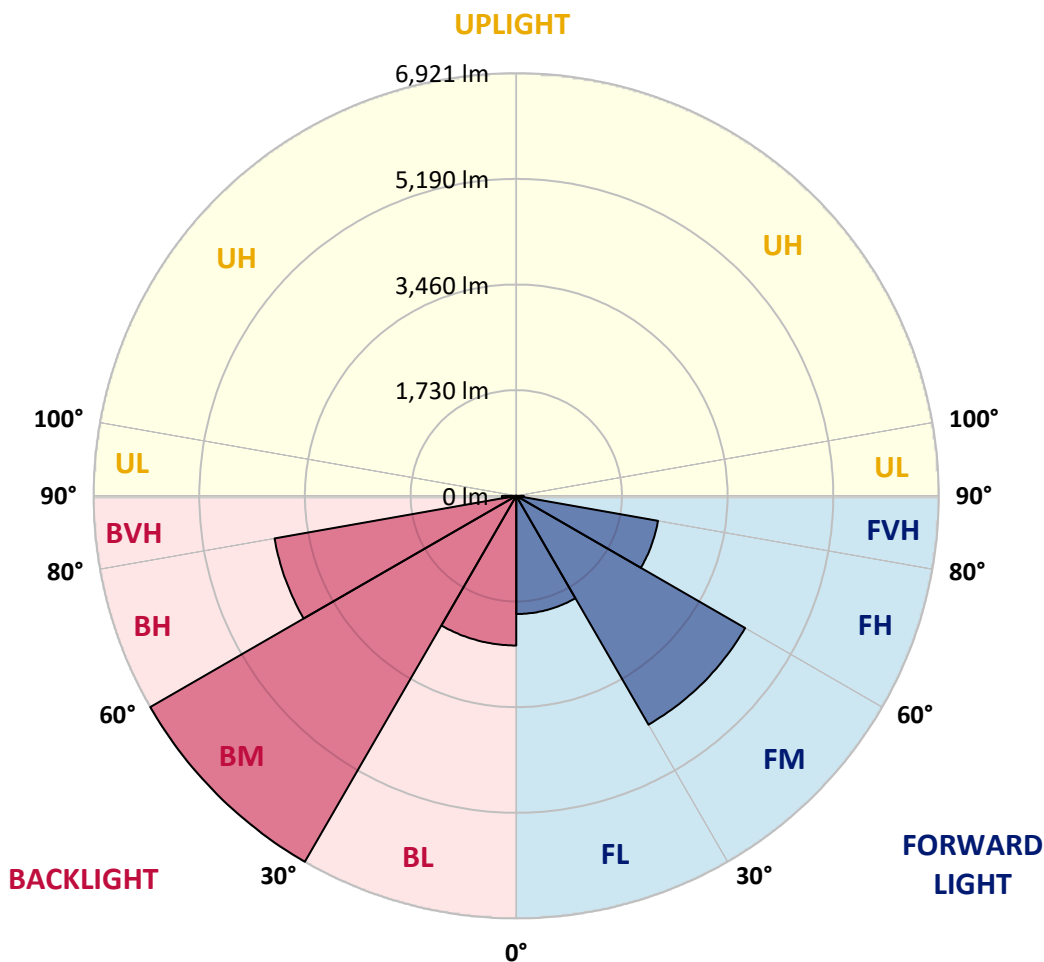


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1935.8	8.7			
FM (30°-60°)	4328.0	19.3			
FH (60°-80°)	2357.0	10.5			G2/5000
FVH (80°-90°)	123.3	0.6			G2/225
BL (0°-30°)	2451.3	11.0	B3/2500		
BM (30°-60°)	6920.6	30.9	B4/8500		
BH (60°-80°)	4019.3	18.0	B4/5000		G4/5000
BVH (80°-90°)	232.7	1.0			G3/500
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°	5783.8	5783.8	5783.8	5783.8	5783.8	5783.8	5783.8	5783.8	5783.8	5783.8	5783.8
2.5°	5794.7	5754.4	5759.9	5802.3	5712.0	5768.6	5742.5	5789.2	5770.7	5796.8	5816.4
5°	5743.5	5705.5	5715.3	5767.5	5695.7	5759.9	5722.9	5768.6	5775.1	5806.6	5825.1
7.5°	5701.1	5664.1	5670.7	5719.6	5673.9	5730.5	5708.7	5769.7	5770.7	5826.2	5840.4
10°	5658.7	5620.6	5629.3	5671.8	5642.4	5703.3	5717.4	5789.2	5805.5	5882.8	5883.9
12.5°	5568.4	5534.7	5539.0	5597.8	5598.9	5687.0	5715.3	5826.2	5859.9	5947.0	5955.7
15°	5212.7	5236.6	5328.0	5402.0	5470.5	5589.1	5685.9	5867.6	5913.2	6018.8	6043.8
17.5°	4351.2	4314.2	4115.1	4220.6	4550.2	4865.7	5033.2	5412.9	5838.2	6128.6	6161.3
20°	3051.3	3110.0	3422.2	3565.8	3800.7	4371.8	4896.2	5114.8	5253.0	5778.4	6188.5
22.5°	2420.3	2437.7	2884.8	3421.1	3597.3	3843.2	4465.4	5195.3	5411.8	5564.1	5631.5
25°	2252.8	2265.9	2337.7	3039.3	3520.1	3781.2	4054.2	5003.8	5598.9	5788.1	5868.6
27.5°	2112.5	2126.6	2197.3	2433.4	3449.4	3781.2	4091.2	4529.6	5780.5	6067.7	6136.2
30°	2008.1	2008.1	2080.9	2282.2	2891.4	3793.1	4168.4	4582.9	5497.7	6420.2	6481.1
32.5°	1912.3	1913.4	1992.8	2186.5	2505.2	3742.0	4277.2	4778.7	5278.0	6772.6	6930.3
35°	1826.4	1829.7	1901.5	2097.3	2407.3	3016.4	4397.9	5030.0	5700.0	6733.4	7613.5
37.5°	1753.5	1755.7	1817.7	2009.2	2324.6	2185.4	4476.3	5332.4	6266.8	7082.6	7756.0
40°	1701.3	1698.0	1742.6	1916.7	2203.9	1997.2	3788.8	5646.7	6940.1	8175.8	8426.0
42.5°	1649.1	1643.7	1688.3	1819.9	1507.7	1945.0	3510.3	5953.5	7715.7	9376.8	9599.8
45°	1588.2	1590.4	1633.9	1632.8	1427.2	1875.4	3540.8	5243.2	8545.7	10604.9	10888.8
47.5°	1555.5	1545.8	1567.5	1185.7	1360.8	1779.6	3527.7	4867.9	9277.8	11778.6	12060.4
50°	1494.6	1492.5	1098.7	1123.7	1294.5	1669.8	3323.2	5002.8	8371.7	12866.4	13151.4
52.5°	1403.3	1239.0	1019.3	1080.2	1228.1	1540.3	2373.6	5058.2	8348.8	12758.7	14168.5
54°	932.2	955.1	986.6	1049.7	1180.3	1210.7	2171.2	5053.9	8745.9	11177.1	13390.7
55°	534.1	748.4	960.5	1024.7	1146.5	847.4	2092.9	5031.0	8999.3	11245.6	12071.2
57.5°	462.3	464.5	528.7	855.0	588.5	726.6	1871.0	4845.0	9473.6	11875.4	12111.5
60°	40.2	39.2	44.6	60.9	77.2	169.7	942.0	3107.8	9141.8	12416.1	12782.6
62.5°	16.3	17.4	21.8	29.4	46.8	76.1	778.9	2754.3	9282.1	12745.7	13147.1
65°	3.3	3.3	5.4	9.8	17.4	45.7	663.6	2453.0	9210.3	12853.4	13389.6
67.5°	0.0	0.0	3.3	7.6	14.1	37.0	574.4	2257.2	8800.2	12816.4	13299.4
70°	0.0	0.0	3.3	7.6	13.1	35.9	491.7	2083.1	7783.2	12429.1	12964.3
72.5°	0.0	0.0	3.3	6.5	12.0	32.6	421.0	1839.5	6597.5	11496.9	12225.7
75°	0.0	0.0	3.3	6.5	10.9	29.4	354.6	1578.4	5511.8	9908.7	10784.4
77.5°	0.0	0.0	3.3	6.5	9.8	26.1	278.5	1260.8	4328.3	7184.9	7654.8
80°	0.0	0.0	3.3	6.5	8.7	20.7	205.6	796.3	2400.8	3644.1	3837.7
82.5°	0.0	0.0	2.2	5.4	7.6	13.1	97.9	301.3	1131.3	1668.7	1618.6
85°	0.0	0.0	2.2	5.4	6.5	9.8	42.4	76.1	376.4	553.7	515.6
87.5°	0.0	0.0	2.2	4.4	5.4	6.5	10.9	13.1	119.7	159.9	165.3
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°	5783.8	5783.8	5783.8	5783.8	5783.8	5783.8	5783.8	5783.8	5783.8	5783.8	5783.8
2.5°	5803.4	5803.4	5802.3	5830.6	5794.7	5797.9	5764.2	5851.2	5841.4	5814.3	5846.9
5°	5809.9	5815.3	5814.3	5828.4	5800.1	5817.5	5770.7	5856.7	5842.5	5820.8	5854.5
7.5°	5837.1	5846.9	5839.3	5864.3	5807.7	5825.1	5777.3	5852.3	5838.2	5806.6	5842.5
10°	5895.8	5905.6	5890.4	5902.4	5842.5	5833.8	5775.1	5853.4	5823.0	5799.0	5843.6
12.5°	5972.0	5983.9	5953.5	5951.3	5875.2	5857.8	5772.9	5826.2	5781.6	5762.0	5802.3
15°	6056.8	6071.0	6035.1	6027.5	5943.7	5886.0	5764.2	5776.2	5712.0	5685.9	5728.3
17.5°	6167.8	6180.8	6153.6	6149.3	6040.5	5942.6	5752.2	5713.1	5622.8	5601.0	5623.9
20°	6353.8	6362.5	6326.6	6294.0	6134.1	5973.1	5732.7	5630.4	5492.3	5446.6	5472.7
22.5°	5782.7	5852.3	6558.3	6436.5	6203.7	6004.6	5683.7	5512.9	5319.3	5233.4	5250.8
25°	5857.8	5864.3	6131.9	6605.1	6279.8	6025.3	5626.1	5367.2	5100.7	4975.6	4997.3
27.5°	6129.7	6122.1	6016.6	6623.6	6370.1	6037.2	5554.3	5213.8	4884.2	4734.1	4739.5
30°	6482.2	6470.2	6310.3	5988.3	6499.6	6041.6	5491.2	5037.6	4691.6	4531.7	4527.4
32.5°	6964.0	6930.3	6682.3	6237.4	5952.4	6071.0	5402.0	4870.0	4507.8	4350.1	4338.1
35°	7703.7	7641.7	7190.3	6553.9	5857.8	6071.0	5280.1	4689.5	4338.1	4188.0	4179.3
37.5°	8620.8	8637.1	7839.7	6908.6	6003.5	5502.1	5134.4	4520.9	4191.3	4058.6	4058.6
40°	8456.5	8673.0	8593.6	7271.9	6153.6	5410.7	4977.7	4358.8	4069.4	3968.3	3981.3
42.5°	9541.0	9457.3	9468.1	7636.3	6259.2	5317.1	4808.0	4208.7	3961.7	3875.8	3885.6
45°	10744.1	10649.5	8667.5	7962.6	6308.1	5177.9	4636.2	4054.2	3843.2	3771.4	3797.5
47.5°	11932.0	11847.1	9518.2	7883.2	6262.4	4964.7	4424.1	3920.4	3718.1	3666.9	3706.1
50°	13081.8	12962.1	10435.2	7046.7	6100.3	4669.9	4207.6	3780.1	3609.3	3578.8	3608.2
52.5°	14107.6	13948.8	11364.2	7172.9	5329.1	4371.8	4015.0	3645.2	3510.3	3476.6	3506.0
54°	14619.9	14523.1	11883.0	7187.0	5108.3	4186.9	3899.7	3559.3	3454.8	3426.5	3442.9
55°	13747.5	13941.1	12190.9	7175.1	4948.4	4074.9	3823.6	3502.7	3415.7	3385.2	3401.5
57.5°	12208.3	11999.4	11397.9	7028.2	4513.3	3794.2	3600.6	3359.1	3299.3	3260.1	3283.0
60°	12595.5	12557.5	10404.7	6705.2	4037.9	3479.8	3380.9	3191.6	3151.3	3118.7	3149.2
62.5°	13000.2	12975.2	10563.6	6203.7	3564.7	3170.9	3128.5	2995.8	2971.8	2957.7	2965.3
65°	13218.9	13058.9	10559.2	5532.5	3130.7	2854.4	2847.8	2748.9	2759.7	2753.2	2784.7
67.5°	13126.4	12955.6	10092.5	5048.4	2722.7	2493.2	2513.9	2472.6	2512.8	2524.8	2548.7
70°	12643.4	12698.9	9075.5	4581.8	2317.0	2099.4	2164.7	2159.3	2218.0	2263.7	2301.8
72.5°	11975.5	11762.3	7606.9	3894.3	1695.9	1493.5	1606.7	1682.8	1748.1	1802.5	1838.4
75°	10192.6	9942.4	5616.3	3036.0	1228.1	1030.1	1060.6	1094.3	1136.7	1261.8	1335.8
77.5°	6988.0	6883.6	4039.0	2289.8	782.1	621.1	739.7	807.1	843.0	837.6	850.7
80°	3583.2	3564.7	2391.0	1369.5	527.6	454.7	538.5	545.0	602.6	647.2	649.4
82.5°	1444.6	1516.4	955.1	750.6	366.6	343.7	379.6	427.5	476.5	502.6	509.1
85°	511.3	499.3	290.4	352.4	232.8	240.4	268.7	323.1	374.2	380.7	366.6
87.5°	137.1	142.5	62.0	129.4	127.3	139.2	154.5	176.2	213.2	224.1	213.2
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)