

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: P591277

Luminaire Tested: **CTN-CA8-480-727-U-T1-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591277
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-480-727-U-T1-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: 51151 lumens
Efficiency: N/A
Efficacy: 106.4 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B5 - U0 - G5

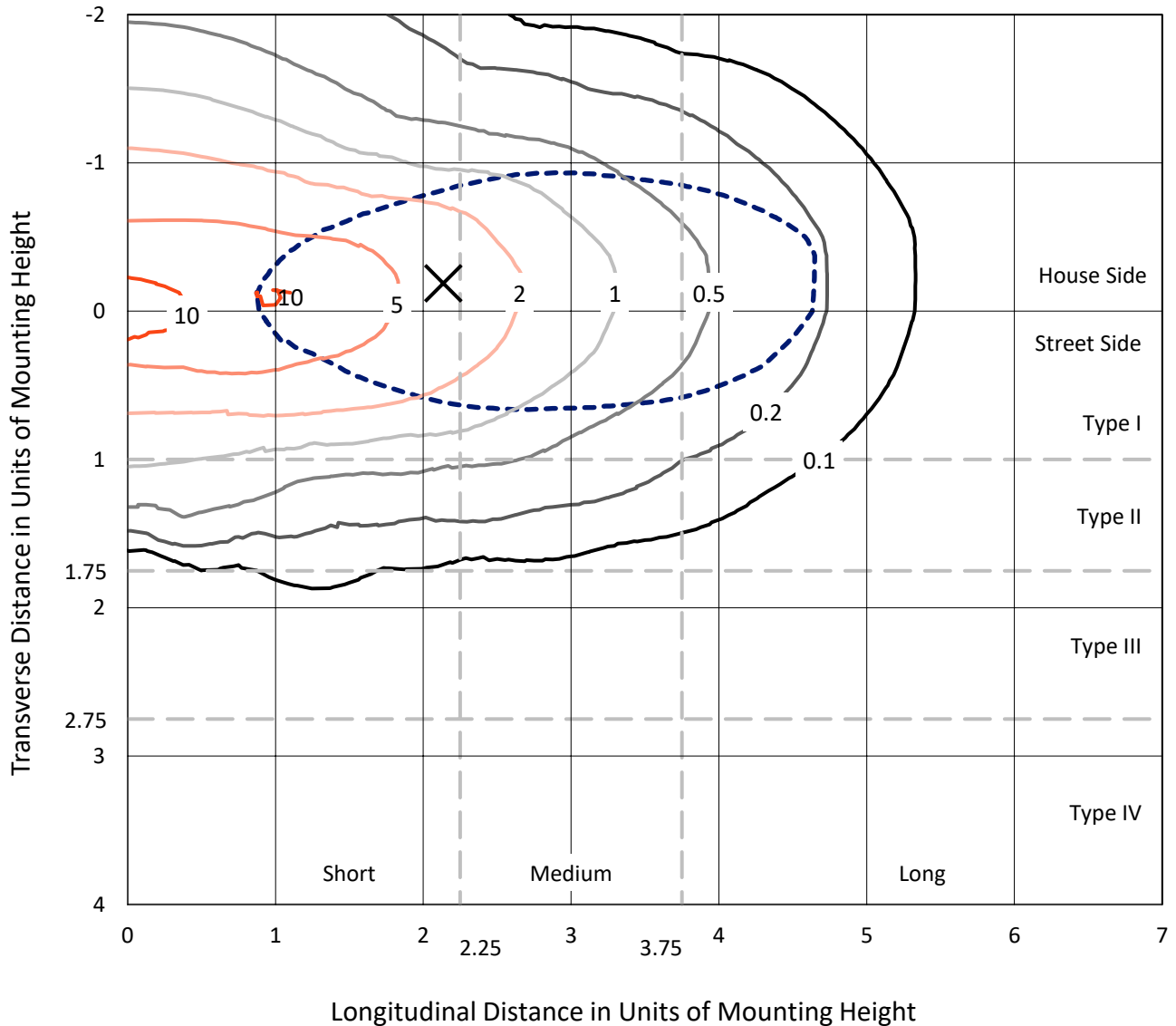
Input Watts (W): 480.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

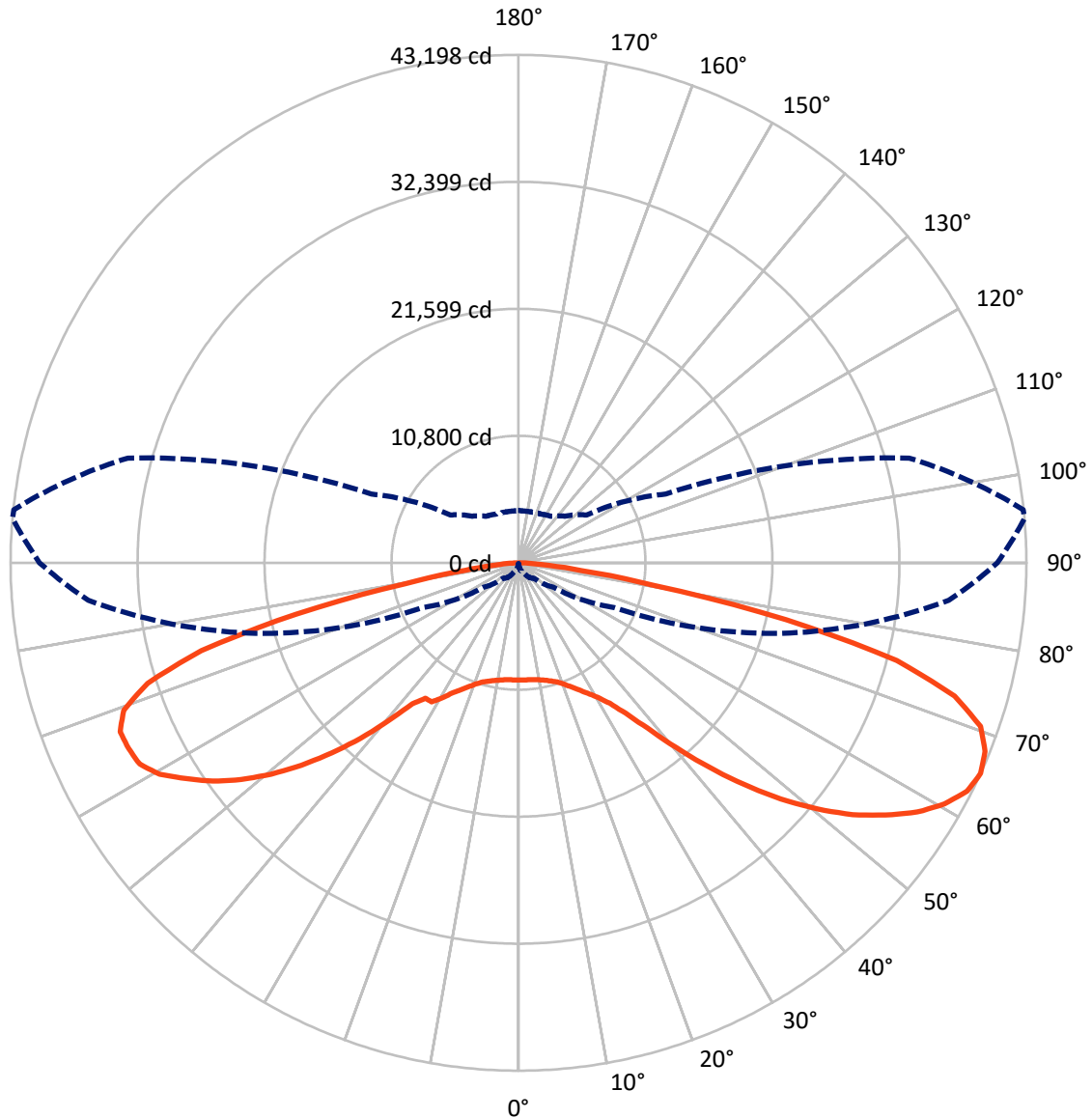
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 11.1 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 95-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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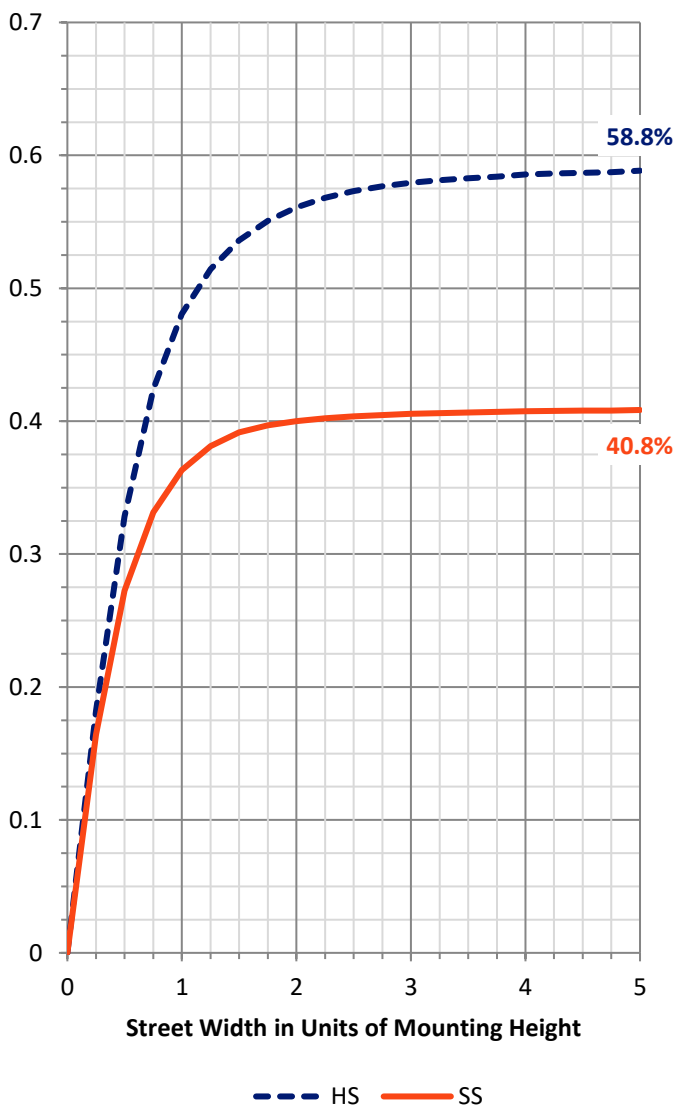
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	30329.5	0.0	30329.5
	% Fixture	59.3	0.0	59.3
Street Side	Lumens	20821.5	0.0	20821.5
	% Fixture	40.7	0.0	40.7
Total	Lumens	51151.0	0.0	51151.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	949.0	1.9
10°-20°	2732.9	5.3
20°-30°	4107.6	8.0
30°-40°	5727.1	11.2
40°-50°	8222.4	16.1
50°-60°	10481.4	20.5
60°-70°	10913.3	21.3
70°-80°	7027.6	13.7
80°-90°	989.7	1.9
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°	51151.0	100.0
0°-180°	51151.0	100.0

Coefficient of Utilization

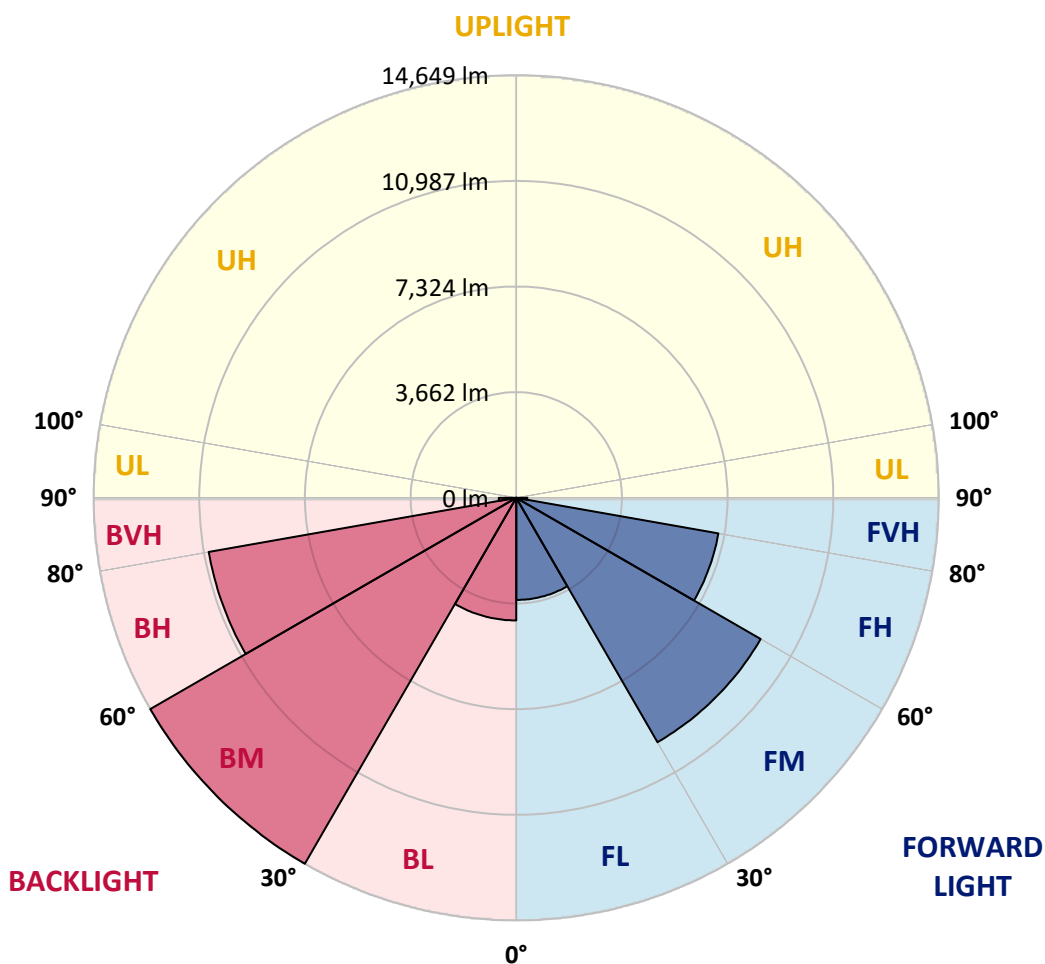


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3539.7	6.9			
FM (30°-60°)	9782.0	19.1			
FH (60°-80°)	7115.0	13.9			G3/7500
FVH (80°-90°)	384.9	0.8			G3/500
BL (0°-30°)	4249.9	8.3	B4/5000		
BM (30°-60°)	14648.8	28.6	B5		
BH (60°-80°)	10825.9	21.2	B5		G5
BVH (80°-90°)	604.9	1.2			G4/750
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5
 Type I Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	9969.1	9969.1	9969.1	9969.1	9969.1	9969.1	9969.1	9969.1	9969.1	9969.1	9969.1
2.5°	9998.9	9917.0	9933.8	10013.8	9866.8	9946.8	9887.3	9984.0	9959.8	9967.3	10013.8
5°	9915.2	9831.5	9863.1	9961.7	9824.1	9920.8	9876.1	9956.1	9948.7	9976.6	10006.3
7.5°	9838.9	9749.7	9790.6	9863.1	9788.7	9872.4	9848.2	9948.7	9944.9	10026.8	10047.2
10°	9753.4	9671.5	9706.9	9796.2	9734.8	9835.2	9855.7	9974.7	10013.8	10125.4	10134.7
12.5°	9602.7	9522.7	9539.5	9652.9	9662.2	9814.8	9885.4	10073.3	10114.2	10242.5	10248.1
15°	9063.3	9044.7	9202.8	9385.1	9459.5	9686.4	9922.6	10179.3	10240.7	10402.5	10419.2
17.5°	7545.7	7359.7	7080.7	7302.0	7789.3	8416.1	9833.4	10337.4	10450.8	10612.7	10662.9
20°	5060.8	5230.1	5860.6	6143.3	6576.6	7633.1	9811.0	10508.5	10754.0	10949.3	11044.2
22.5°	4181.1	4171.8	4926.9	5879.2	6219.5	6705.0	9018.7	10711.2	11118.6	11373.4	11492.4
25°	3883.5	3887.2	4024.8	5228.2	6070.8	6584.1	8284.0	10445.3	11518.4	11883.0	12024.3
27.5°	3647.3	3662.2	3779.3	4186.7	5944.3	6558.0	8304.5	9684.6	11940.6	12427.9	12591.6
30°	3459.4	3452.0	3593.3	3933.7	4947.4	6567.3	8401.2	9837.1	11548.2	13201.7	13292.8
32.5°	3303.2	3282.7	3426.0	3768.2	4320.6	6494.8	8546.3	10264.9	11271.1	13945.6	14300.9
35°	3152.5	3145.1	3271.6	3608.2	4171.8	5393.7	8715.5	10794.9	12171.3	13969.8	15684.6
37.5°	3035.4	3029.8	3130.2	3448.3	4037.9	4913.9	8855.0	11462.6	13343.0	15002.0	16830.3
40°	2940.5	2925.6	3005.6	3306.9	3885.4	4833.9	7713.1	12160.1	14773.3	17410.6	19605.3
42.5°	2860.5	2840.1	2918.2	3167.4	3738.4	4744.6	7162.5	12863.1	16454.6	20092.6	22304.1
45°	2750.8	2748.9	2828.9	3061.4	3582.2	4614.4	7214.6	11689.5	18344.3	22659.3	25138.6
47.5°	2695.0	2682.0	2741.5	2962.8	3435.3	4417.3	7164.4	11187.4	19791.3	25235.3	27900.5
50°	2607.6	2596.4	2654.1	2849.4	3290.2	4168.1	6982.1	11496.1	18599.1	27675.5	30497.0
52.5°	2451.4	2018.0	2568.5	2754.5	3134.0	3898.4	6636.2	11667.2	19062.2	29937.1	32914.9
55°	963.4	1292.6	2458.8	2635.5	2974.0	3645.4	6111.7	11618.9	20594.8	31962.6	34998.0
57.5°	838.8	842.5	1633.0	2200.3	2784.3	3381.3	5471.9	11343.6	21947.0	33696.0	37027.1
60°	119.0	120.9	827.7	926.2	1826.4	2403.0	4820.9	10850.7	22748.6	35429.5	38777.3
62.5°	80.0	83.7	753.3	840.7	1666.5	2131.5	4216.4	9974.7	23135.4	36482.2	40038.3
65°	57.7	59.5	682.6	760.7	1484.2	1891.5	3654.7	9022.4	23170.8	36725.8	40730.2
67.5°	53.9	55.8	628.7	701.2	1350.3	1679.5	3169.3	8183.6	22194.3	36798.3	40702.3
70°	55.8	55.8	572.9	634.2	1197.8	1456.3	2629.9	7348.5	19731.8	35849.8	39787.2
72.5°	55.8	57.7	500.3	558.0	1032.3	1233.1	2155.6	5974.0	15980.4	33164.1	37577.6
75°	55.8	57.7	394.3	461.3	857.4	989.5	1768.8	4817.2	12307.0	27987.9	32877.7
77.5°	57.7	57.7	290.1	353.4	662.1	744.0	1342.9	3701.2	9068.9	19400.7	22889.9
80°	57.7	61.4	204.6	260.4	489.2	537.5	974.6	2362.1	4884.1	9838.9	11364.1
82.5°	59.5	61.4	152.5	195.3	338.5	386.9	595.2	1162.4	2257.9	4553.1	5157.5
85°	55.8	57.7	124.6	135.8	193.4	232.5	370.1	576.6	794.2	1791.1	1861.8
87.5°	39.1	37.2	39.1	44.6	63.2	102.3	174.8	195.3	191.6	481.7	559.8
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: P591277

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CANDELA DISTRIBUTION (continued):

	95°	96°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	9969.1	9969.1	9969.1	9969.1	9969.1	9969.1	9969.1	9969.1	9969.1	9969.1	9969.1
2.5°	9985.9	9989.6	9974.7	10032.4	9974.7	10006.3	9922.6	10052.8	10039.8	10004.5	10049.1
5°	9984.0	9993.3	9989.6	10041.7	9969.1	9995.2	9911.5	10049.1	10002.6	9971.0	10024.9
7.5°	10028.6	10041.7	10036.1	10071.4	9987.7	9985.9	9904.0	10006.3	9961.7	9894.7	9961.7
10°	10127.2	10127.2	10110.5	10130.9	10010.0	9997.0	9859.4	9976.6	9900.3	9840.8	9922.6
12.5°	10253.7	10264.9	10222.1	10218.4	10051.0	10011.9	9838.9	9896.6	9786.9	9731.1	9811.0
15°	10439.7	10447.1	10391.3	10356.0	10151.4	10065.8	9786.9	9775.7	9623.2	9569.2	9626.9
17.5°	10655.4	10653.6	10575.5	10560.6	10320.6	10121.6	9744.1	9628.8	9433.5	9372.1	9422.3
20°	11001.4	10980.9	10895.4	10809.8	10460.1	10157.0	9682.7	9440.9	9169.4	9081.9	9122.9
22.5°	11466.4	11458.9	11325.0	11077.6	10608.9	10190.5	9578.5	9212.1	8851.3	8693.2	8719.3
25°	11976.0	11970.4	11778.8	11408.7	10739.1	10214.6	9457.6	8955.5	8468.2	8228.2	8222.7
27.5°	12567.4	12552.5	12294.0	11765.8	10919.5	10222.1	9327.5	8683.9	8088.8	7789.3	7802.3
30°	13287.2	13261.2	12907.8	12162.0	11148.3	10244.4	9215.9	8378.9	7735.4	7417.3	7409.9
32.5°	14241.3	14204.1	13655.5	12682.7	11444.0	10300.2	9081.9	8077.6	7406.2	7086.3	7058.4
35°	15693.9	15617.7	14710.0	13348.6	11773.2	10337.4	8868.1	7791.2	7088.1	6786.8	6764.5
37.5°	17844.0	17715.7	16038.0	14047.9	12100.6	10329.9	8624.4	7482.4	6829.6	6537.6	6532.0
40°	20678.5	20477.6	17632.0	14797.5	12414.9	10289.0	8362.2	7207.2	6613.8	6362.8	6381.4
42.5°	23779.0	23566.9	19521.6	15560.0	12651.1	10162.6	8081.3	6946.8	6414.8	6214.0	6215.8
45°	26903.6	26706.5	21695.9	16277.9	12768.3	9924.5	7789.3	6699.4	6204.7	6029.8	6050.3
47.5°	30015.2	29870.2	23849.6	16884.3	12710.6	9550.6	7437.8	6465.1	5996.4	5853.1	5899.6
50°	32909.3	32754.9	26144.8	17386.5	12420.5	9029.9	7077.0	6234.4	5827.1	5702.5	5741.5
52.5°	35591.3	35384.8	28603.6	17676.6	11897.9	8481.2	6758.9	6031.7	5663.4	5538.8	5579.7
55°	37869.7	37860.4	30854.1	17700.8	11081.4	7919.5	6452.0	5797.3	5503.5	5401.2	5410.5
57.5°	40003.0	40086.7	32790.2	17406.9	10114.2	7398.7	6100.5	5555.6	5319.3	5213.3	5222.6
60°	41632.3	41736.4	34103.3	16551.4	9083.8	6824.0	5722.9	5298.9	5090.6	4990.1	5019.9
62.5°	42802.1	42668.2	34798.9	15323.8	8051.6	6206.5	5313.8	4971.5	4806.0	4744.6	4746.5
65°	43198.3	43155.5	34391.6	13811.7	7077.0	5598.3	4830.2	4564.2	4461.9	4419.1	4450.8
67.5°	42792.8	42818.9	32805.1	12526.5	6150.7	4912.0	4287.1	4116.0	4063.9	4062.0	4095.5
70°	41682.5	41477.9	29514.9	11499.8	5282.1	4149.5	3703.1	3621.2	3604.5	3645.4	3673.3
72.5°	38781.0	38483.4	24476.4	9865.0	4054.6	3052.1	2804.7	2916.3	2912.6	2934.9	2961.0
75°	33223.6	32440.6	19172.0	7854.4	3003.8	2159.4	1871.1	1867.4	1861.8	2051.5	2120.3
77.5°	23286.1	22763.5	14153.9	5981.5	1997.5	1292.6	1283.3	1383.8	1400.5	1275.9	1300.1
80°	11682.1	11910.9	8168.7	3695.6	1328.0	911.4	956.0	941.1	954.1	969.0	978.3
82.5°	5384.4	5499.8	3909.5	1800.4	855.6	691.9	654.7	712.3	738.4	736.5	730.9
85°	1910.1	1921.3	1236.8	771.9	524.5	450.1	457.5	531.9	561.7	535.7	522.6
87.5°	554.3	526.4	252.9	228.8	241.8	239.9	247.4	262.2	282.7	279.0	258.5
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)