

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: P591181

Luminaire Tested: **CTN-CA8-480-722-U-T1-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591181
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-CA8-480-722-U-T1-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 49230 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B5 - U0 - G5

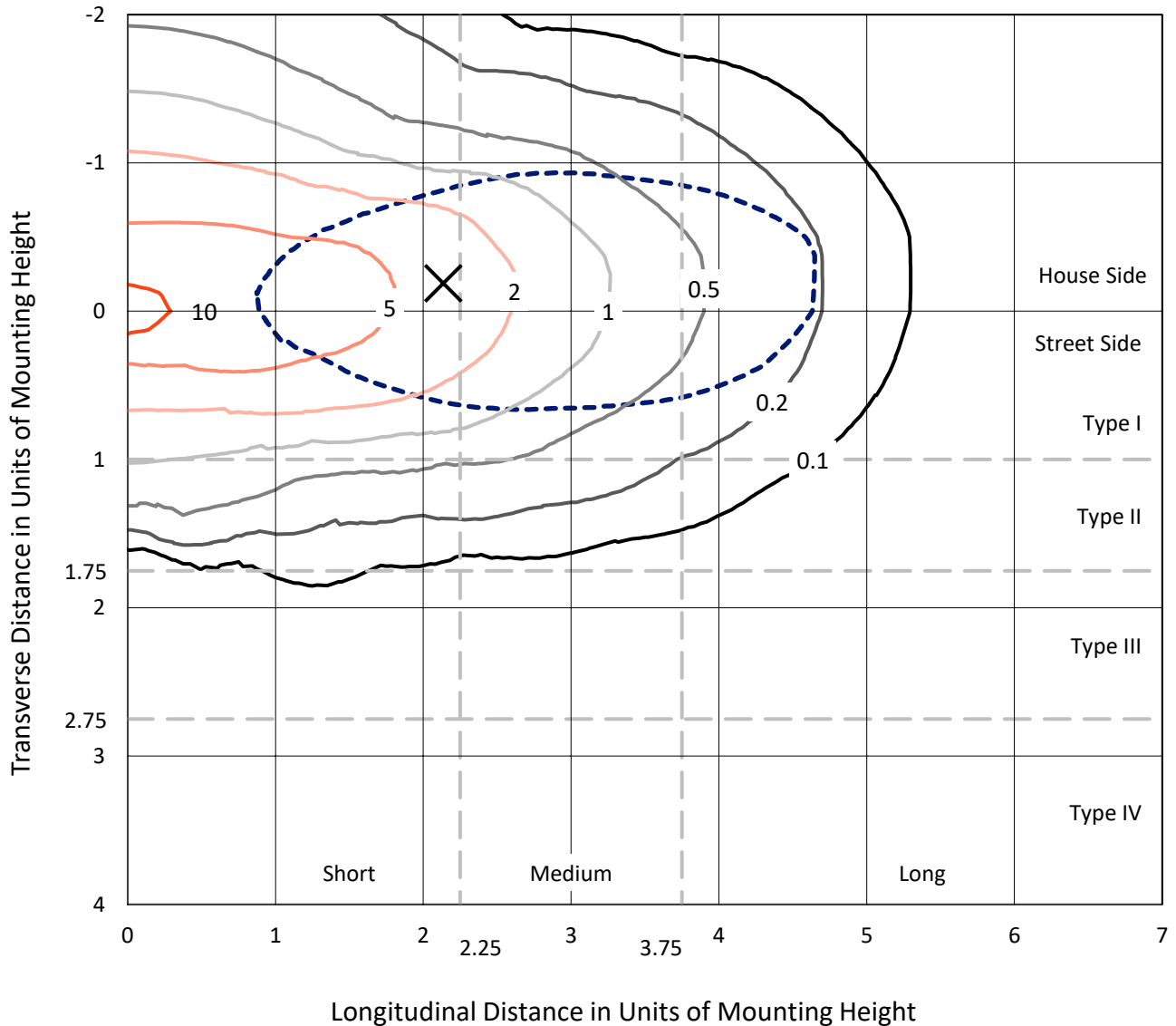
Input Watts (W): 480.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

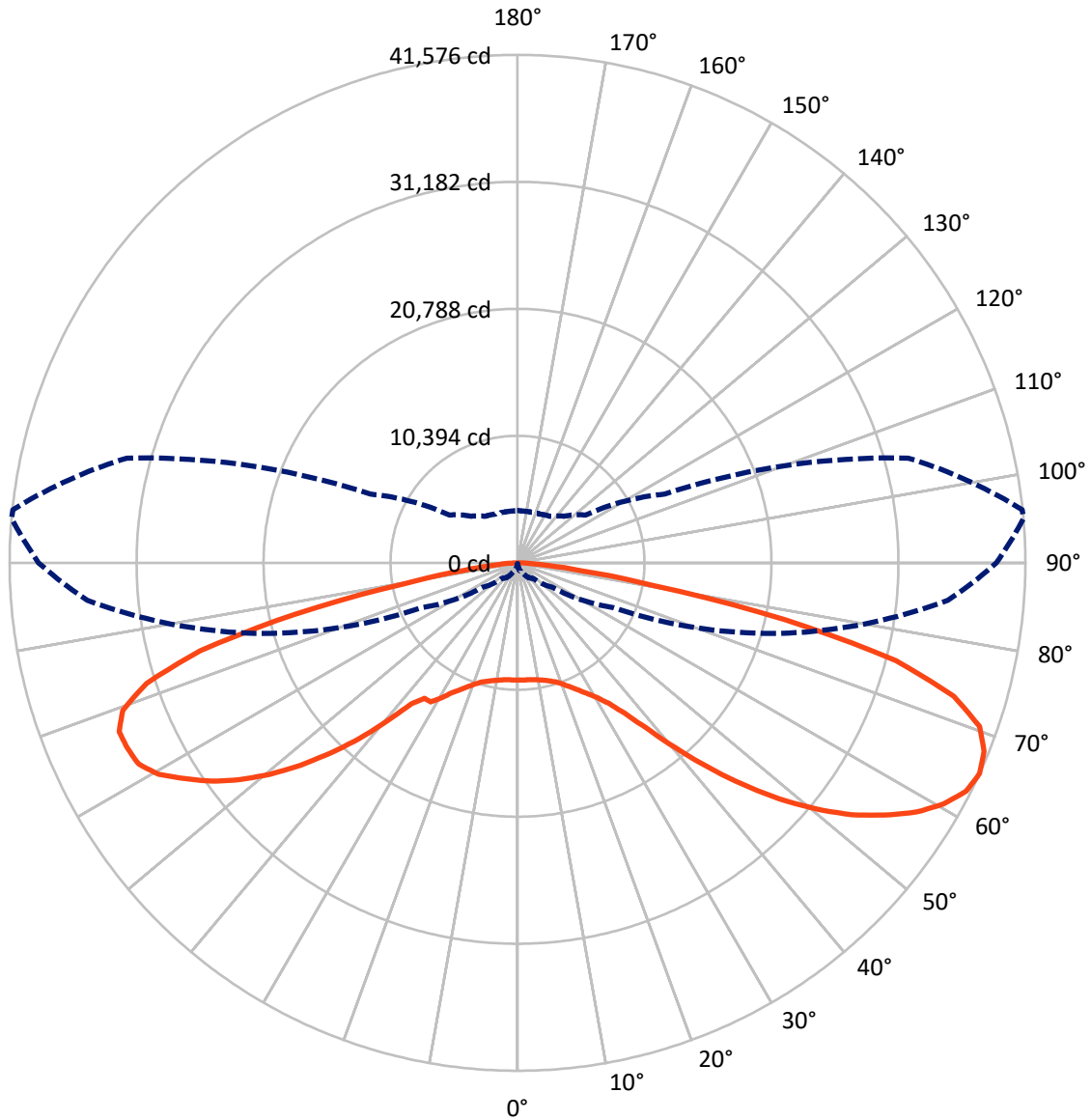
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10.7 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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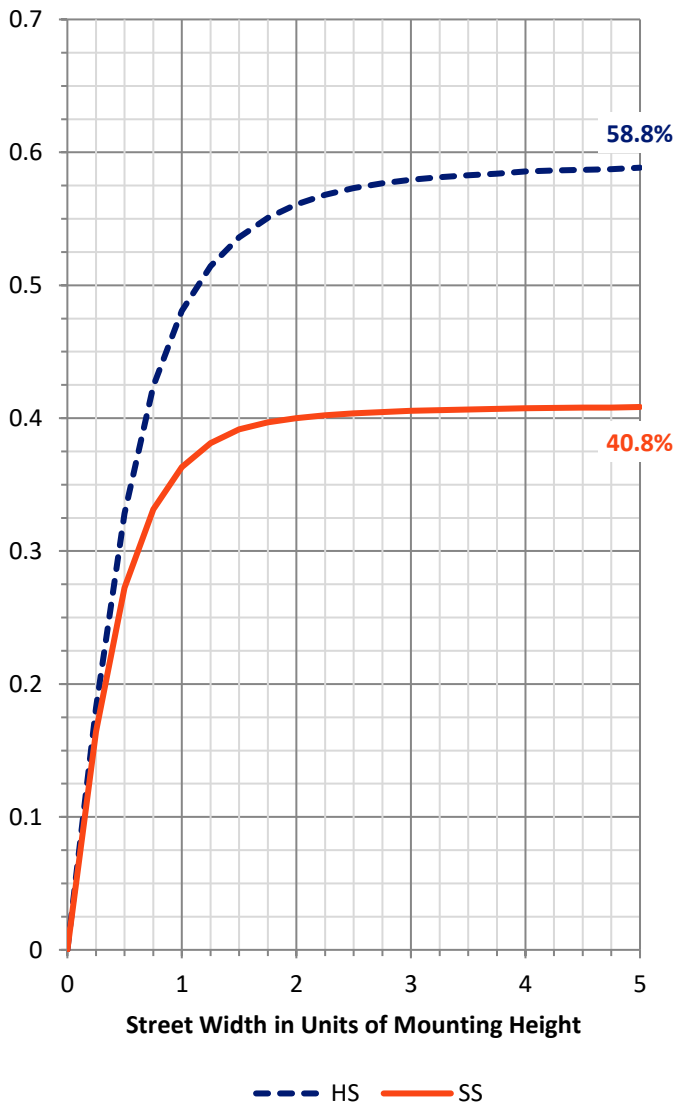
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	29190.5	0.0	29190.5
	% Fixture	59.3	0.0	59.3
Street Side	Lumens	20039.5	0.0	20039.5
	% Fixture	40.7	0.0	40.7
Total	Lumens	49230.0	0.0	49230.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	913.4	1.9
10°-20°	2630.3	5.3
20°-30°	3953.4	8.0
30°-40°	5512.0	11.2
40°-50°	7913.6	16.1
50°-60°	10087.7	20.5
60°-70°	10503.5	21.3
70°-80°	6763.6	13.7
80°-90°	952.6	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°	49230.0	100.0
0°-180°	49230.0	100.0

Coefficient of Utilization

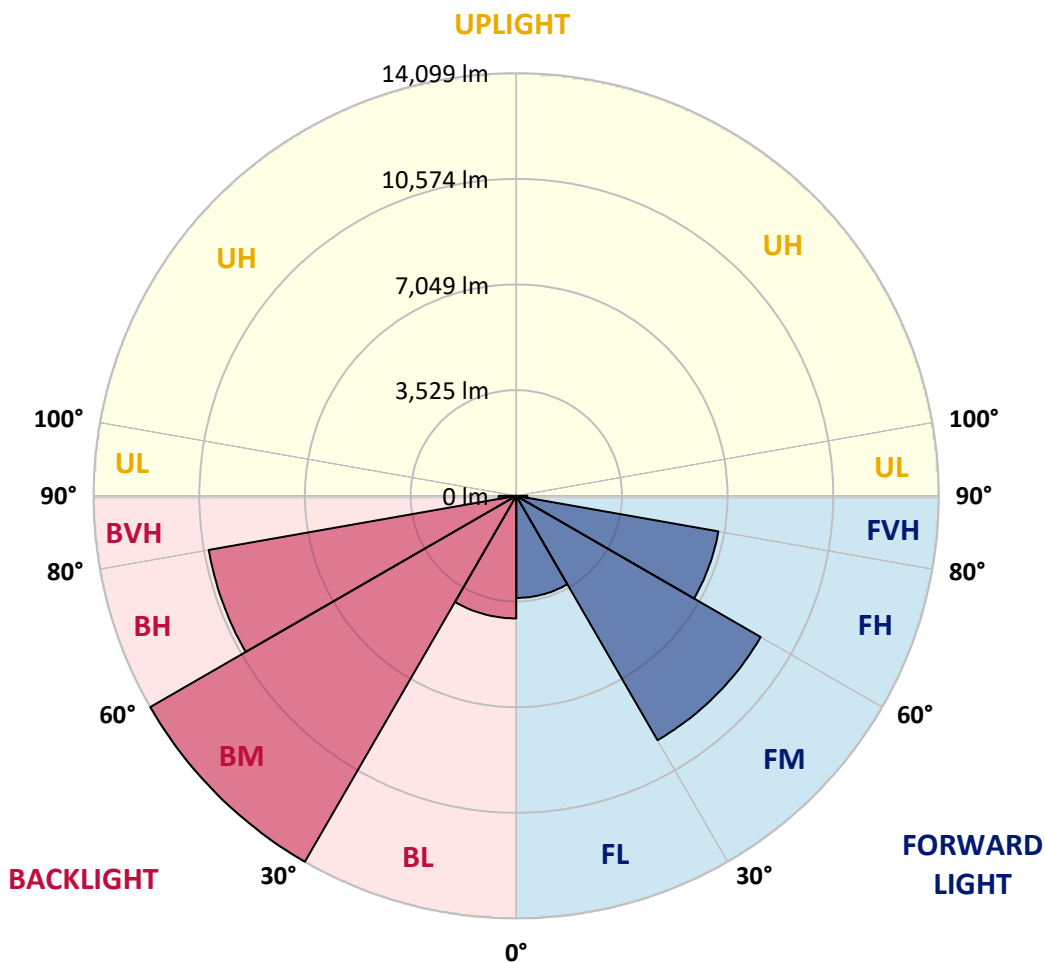


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3406.7	6.9			
FM (30°-60°)	9414.6	19.1			
FH (60°-80°)	6847.7	13.9			G3/7500
FVH (80°-90°)	370.4	0.8			G3/500
BL (0°-30°)	4090.3	8.3	B4/5000		
BM (30°-60°)	14098.7	28.6	B5		
BH (60°-80°)	10419.4	21.2	B5		G5
BVH (80°-90°)	582.1	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°	9594.7	9594.7	9594.7	9594.7	9594.7	9594.7	9594.7	9594.7	9594.7	9594.7	9594.7
2.5°	9623.4	9544.6	9560.7	9637.7	9496.3	9573.2	9516.0	9609.1	9585.8	9592.9	9637.7
5°	9542.8	9462.3	9492.7	9587.6	9455.1	9548.2	9505.2	9582.2	9575.0	9601.9	9630.5
7.5°	9469.4	9383.5	9422.9	9492.7	9421.1	9501.6	9478.4	9575.0	9571.5	9650.2	9669.9
10°	9387.1	9308.3	9342.3	9428.3	9369.2	9465.8	9485.5	9600.1	9637.7	9745.1	9754.0
12.5°	9242.1	9165.1	9181.2	9290.4	9299.4	9446.2	9514.2	9695.0	9734.4	9857.9	9863.2
15°	8723.0	8705.1	8857.2	9032.7	9104.3	9322.6	9550.0	9797.0	9856.1	10011.8	10027.9
17.5°	7262.3	7083.3	6814.8	7027.8	7496.8	8100.0	9464.1	9949.2	10058.4	10214.1	10262.4
20°	4870.8	5033.7	5640.5	5912.6	6329.7	7346.4	9442.6	10113.8	10350.1	10538.1	10629.4
22.5°	4024.1	4015.1	4741.9	5658.4	5986.0	6453.2	8680.0	10309.0	10701.0	10946.2	11060.8
25°	3737.6	3741.2	3873.7	5031.9	5842.8	6336.8	7972.9	10053.0	11085.9	11436.7	11572.7
27.5°	3510.3	3524.6	3637.4	4029.4	5721.0	6311.8	7992.6	9320.9	11492.2	11961.2	12118.7
30°	3329.5	3322.4	3458.4	3786.0	4761.6	6320.7	8085.7	9467.6	11114.5	12705.9	12793.6
32.5°	3179.1	3159.5	3297.3	3626.7	4158.3	6250.9	8225.3	9879.3	10847.8	13421.9	13763.8
35°	3034.2	3027.0	3148.7	3472.7	4015.1	5191.2	8388.2	10389.5	11714.2	13445.2	15095.6
37.5°	2921.4	2916.0	3012.7	3318.8	3886.2	4729.3	8522.5	11032.1	12841.9	14438.6	16198.3
40°	2830.1	2815.8	2892.7	3182.7	3739.4	4652.4	7423.4	11703.4	14218.5	16756.8	18869.0
42.5°	2753.1	2733.4	2808.6	3048.5	3598.0	4566.4	6893.5	12380.1	15836.7	19338.0	21466.4
45°	2647.5	2645.7	2722.7	2946.4	3447.7	4441.1	6943.6	11250.5	17655.4	21808.3	24194.5
47.5°	2593.8	2581.3	2638.6	2851.6	3306.2	4251.4	6895.3	10767.2	19048.0	24287.6	26852.7
50°	2509.7	2498.9	2554.4	2742.4	3166.6	4011.5	6719.9	11064.4	17900.6	26636.1	29351.6
52.5°	2359.3	1942.2	2472.1	2651.1	3016.3	3752.0	6386.9	11229.1	18346.3	28812.8	31678.7
55°	927.3	1244.1	2366.5	2536.5	2862.3	3508.5	5882.1	11182.5	19821.4	30762.2	33683.6
57.5°	807.3	810.9	1571.7	2117.6	2679.7	3254.3	5266.4	10917.6	21122.7	32430.5	35636.5
60°	114.6	116.4	796.6	891.5	1757.8	2312.8	4639.8	10443.2	21894.2	34098.9	37321.0
62.5°	77.0	80.6	725.0	809.1	1603.9	2051.4	4058.1	9600.1	22266.6	35112.1	38534.7
65°	55.5	57.3	657.0	732.1	1428.5	1820.5	3517.5	8683.6	22300.6	35346.6	39200.6
67.5°	51.9	53.7	605.0	674.9	1299.6	1616.4	3050.3	7876.3	21360.8	35416.4	39173.7
70°	53.7	53.7	551.3	610.4	1152.8	1401.6	2531.1	7072.5	18990.8	34503.4	38293.0
72.5°	53.7	55.5	481.5	537.0	993.5	1186.8	2074.7	5749.7	15380.2	31918.6	36166.4
75°	53.7	55.5	379.5	443.9	825.2	952.3	1702.3	4636.3	11844.8	26936.8	31642.9
77.5°	55.5	55.5	279.2	340.1	637.3	716.0	1292.4	3562.2	8728.3	18672.1	22030.3
80°	55.5	59.1	196.9	250.6	470.8	517.3	938.0	2273.4	4700.7	9469.4	10937.3
82.5°	57.3	59.1	146.8	188.0	325.8	372.3	572.8	1118.8	2173.1	4382.1	4963.8
85°	53.7	55.5	119.9	130.7	186.2	223.8	356.2	554.9	764.4	1723.8	1791.9
87.5°	37.6	35.8	37.6	43.0	60.9	98.5	168.3	188.0	184.4	463.6	538.8
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):

	95°	96°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	9594.7	9594.7	9594.7	9594.7	9594.7	9594.7	9594.7	9594.7	9594.7	9594.7	9594.7
2.5°	9610.8	9614.4	9600.1	9655.6	9600.1	9630.5	9550.0	9675.3	9662.8	9628.7	9671.7
5°	9609.1	9618.0	9614.4	9664.5	9594.7	9619.8	9539.2	9671.7	9627.0	9596.5	9648.4
7.5°	9652.0	9664.5	9659.2	9693.2	9612.6	9610.8	9532.1	9630.5	9587.6	9523.1	9587.6
10°	9746.9	9746.9	9730.8	9750.5	9634.1	9621.6	9489.1	9601.9	9528.5	9471.2	9550.0
12.5°	9868.6	9879.3	9838.2	9834.6	9673.5	9635.9	9469.4	9524.9	9419.3	9365.6	9442.6
15°	10047.6	10054.8	10001.1	9967.1	9770.2	9687.8	9419.3	9408.6	9261.8	9209.9	9265.4
17.5°	10255.3	10253.5	10178.3	10164.0	9933.1	9741.5	9378.1	9267.1	9079.2	9020.1	9068.5
20°	10588.2	10568.5	10486.2	10403.8	10067.3	9775.5	9319.1	9086.4	8825.0	8740.9	8780.3
22.5°	11035.7	11028.6	10899.7	10661.6	10210.5	9807.7	9218.8	8866.2	8518.9	8366.7	8391.8
25°	11526.2	11520.8	11336.5	10980.2	10335.8	9831.0	9102.5	8619.1	8150.2	7919.2	7913.9
27.5°	12095.4	12081.1	11832.3	11323.9	10509.5	9838.2	8977.2	8357.8	7785.0	7496.8	7509.3
30°	12788.2	12763.1	12423.0	11705.2	10729.6	9859.7	8869.8	8064.2	7444.9	7138.8	7131.6
32.5°	13706.5	13670.7	13142.6	12206.4	11014.2	9913.4	8740.9	7774.2	7128.0	6820.1	6793.3
35°	15104.5	15031.1	14157.6	12847.3	11331.1	9949.2	8535.0	7498.6	6821.9	6531.9	6510.5
37.5°	17173.9	17050.3	15435.7	13520.3	11646.1	9942.0	8300.5	7201.4	6573.1	6292.1	6286.7
40°	19901.9	19708.6	16969.8	14241.7	11948.7	9902.6	8048.1	6936.5	6365.5	6123.8	6141.7
42.5°	22885.9	22681.9	18788.5	14975.7	12176.0	9780.9	7777.8	6685.9	6173.9	5980.6	5982.4
45°	25893.2	25703.5	20881.1	15666.6	12288.8	9551.8	7496.8	6447.8	5971.6	5803.4	5823.1
47.5°	28888.0	28748.4	22954.0	16250.2	12233.3	9192.0	7158.5	6222.3	5771.2	5633.3	5678.1
50°	31673.3	31524.8	25162.9	16733.5	11954.0	8690.7	6811.2	6000.3	5608.3	5488.3	5525.9
52.5°	34254.6	34055.9	27529.4	17012.7	11451.0	8162.7	6505.1	5805.2	5450.7	5330.8	5370.2
55°	36447.4	36438.5	29695.3	17036.0	10665.2	7622.1	6209.7	5579.6	5296.8	5198.3	5207.3
57.5°	38500.6	38581.2	31558.8	16753.2	9734.4	7120.9	5871.4	5346.9	5119.6	5017.5	5026.5
60°	40068.7	40169.0	32822.6	15929.8	8742.7	6567.7	5508.0	5099.9	4899.4	4802.7	4831.4
62.5°	41194.7	41065.8	33492.1	14748.3	7749.2	5973.4	5114.2	4784.8	4625.5	4566.4	4568.2
65°	41576.0	41534.8	33100.0	13293.0	6811.2	5388.1	4648.8	4392.8	4294.4	4253.2	4283.6
67.5°	41185.7	41210.8	31573.1	12056.1	5919.7	4727.6	4126.1	3961.4	3911.3	3909.5	3941.7
70°	40117.1	39920.2	28406.5	11068.0	5083.8	3993.6	3564.0	3485.2	3469.1	3508.5	3535.4
72.5°	37324.6	37038.2	23557.2	9494.5	3902.3	2937.5	2699.4	2806.8	2803.2	2824.7	2849.8
75°	31975.9	31222.3	18452.0	7559.4	2890.9	2078.3	1800.8	1797.2	1791.9	1974.4	2040.7
77.5°	22411.6	21908.6	13622.4	5756.8	1922.5	1244.1	1235.1	1331.8	1347.9	1228.0	1251.3
80°	11243.4	11463.6	7862.0	3556.9	1278.1	877.1	920.1	905.8	918.3	932.6	941.6
82.5°	5182.2	5293.2	3762.7	1732.8	823.4	665.9	630.1	685.6	710.7	708.9	703.5
85°	1838.4	1849.1	1190.4	742.9	504.8	433.2	440.4	512.0	540.6	515.5	503.0
87.5°	533.4	506.6	243.4	220.2	232.7	230.9	238.1	252.4	272.1	268.5	248.8
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)