

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: P591229

Luminaire Tested: **CTN-CA10-760-727-U-T1-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591229
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-CA10-760-727-U-T1-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 76676 lumens
Efficiency: N/A
Efficacy: 100.6 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B5 - U0 - G5

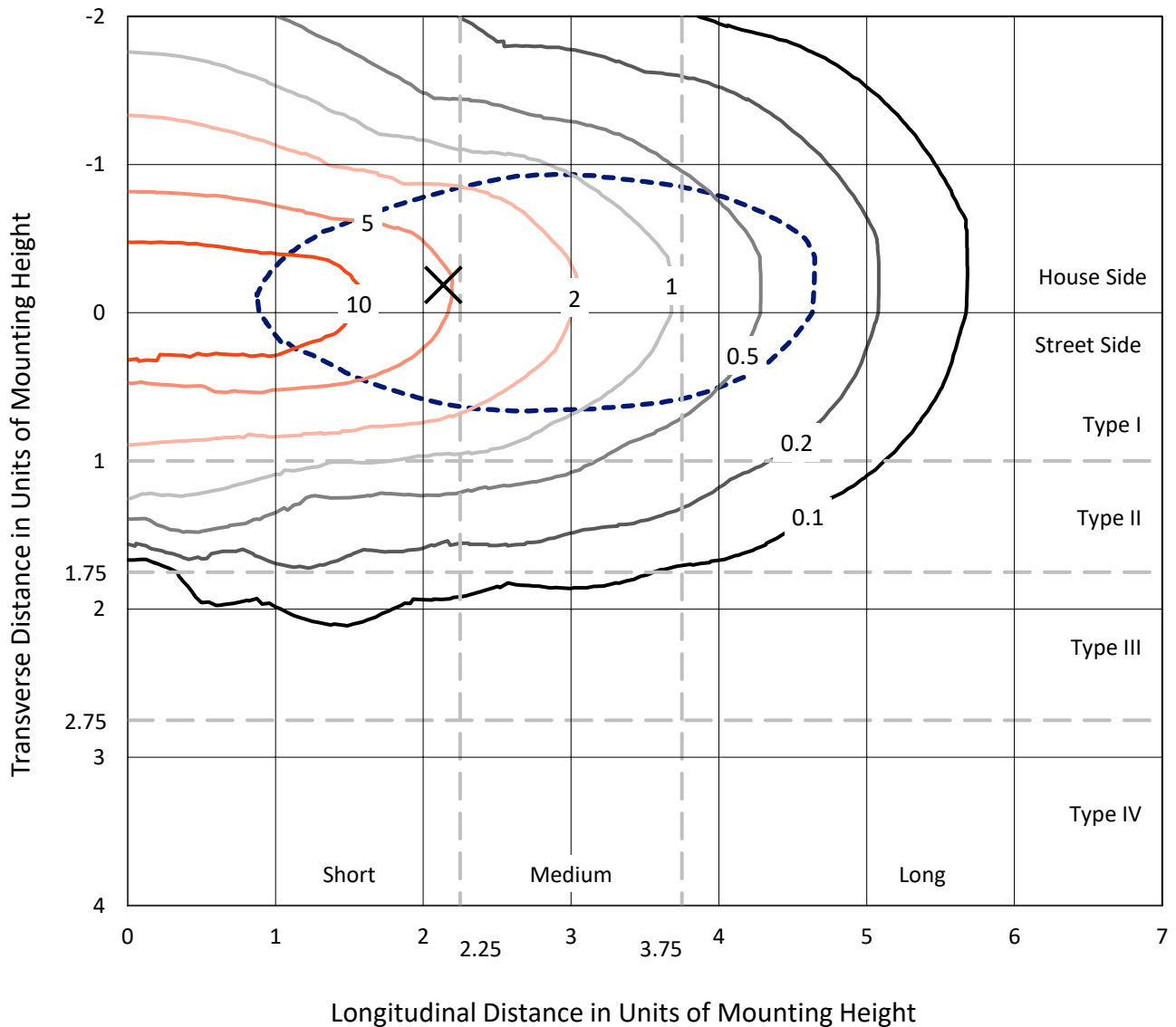
Input Watts (W): 761.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P591229
 CATALOG NUMBER: CTN-CA10-760-727-U-T1-SSS-HM-EX90

Iso-Footcandle Lines of Horizontal Illumination

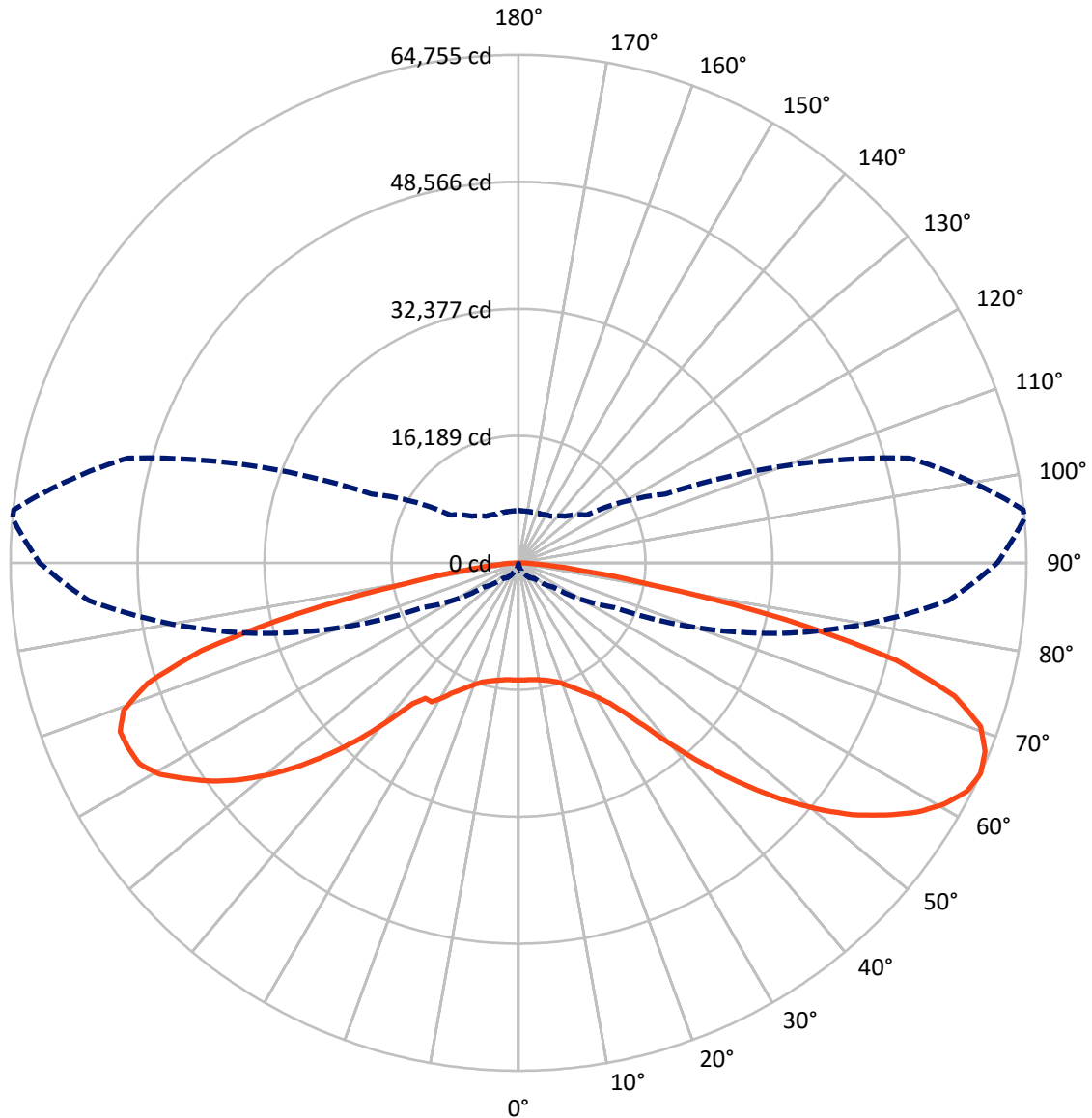
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 16.6 fc
 Type I - Short - N/A

REPORT NUMBER: P591229
CATALOG NUMBER: CTN-CA10-760-727-U-T1-SSS-HM-EX90

Luminous Intensity Polar Plot



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

REPORT NUMBER: P591229
 CATALOG NUMBER: CTN-CA10-760-727-U-T1-SSS-HM-EX90

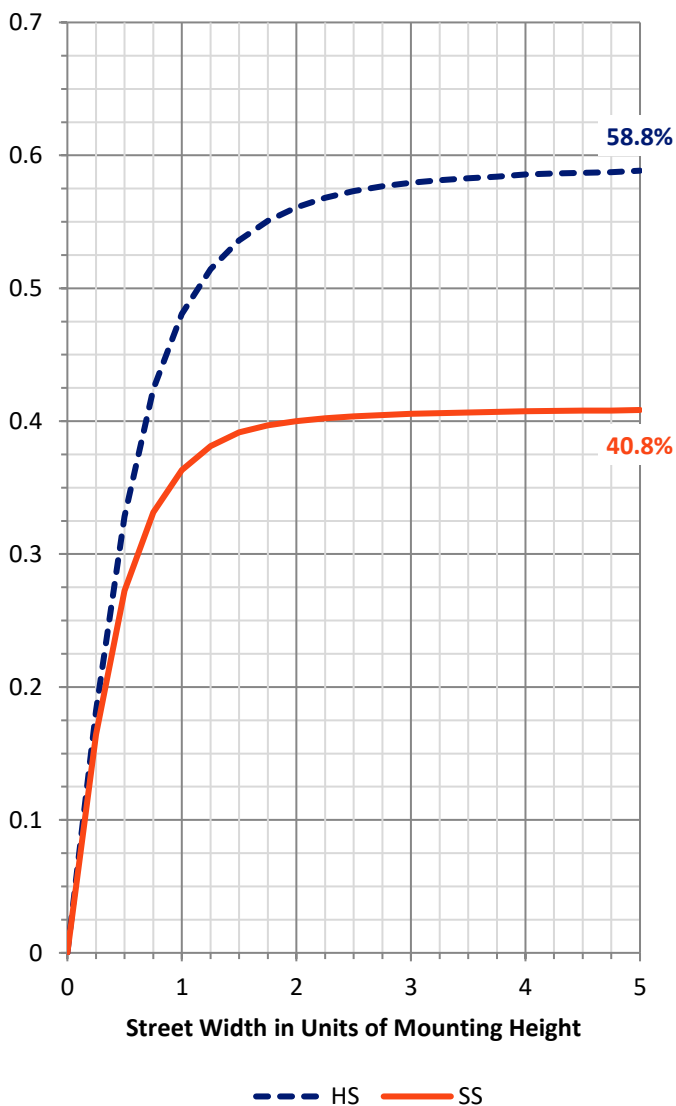
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	45464.4	0.0	45464.4
	% Fixture	59.3	0.0	59.3
Street Side	Lumens	31211.6	0.0	31211.6
	% Fixture	40.7	0.0	40.7
Total	Lumens	76676.0	0.0	76676.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1422.6	1.9
10°-20°	4096.7	5.3
20°-30°	6157.4	8.0
30°-40°	8584.9	11.2
40°-50°	12325.4	16.1
50°-60°	15711.7	20.5
60°-70°	16359.2	21.3
70°-80°	10534.4	13.7
80°-90°	1483.6	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°	76676.0	100.0
0°-180°	76676.0	100.0

Coefficient of Utilization

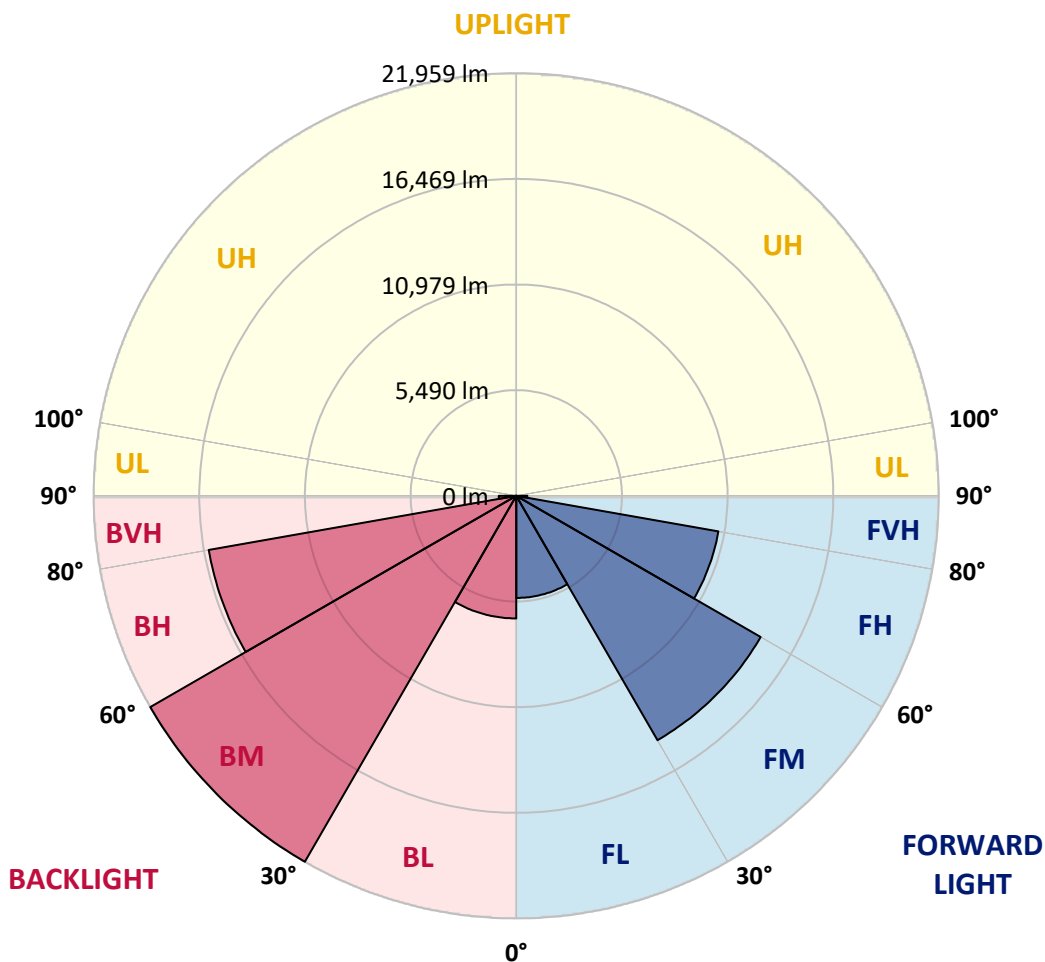


REPORT NUMBER: P591229
 CATALOG NUMBER: CTN-CA10-760-727-U-T1-SSS-HM-EX90

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	5306.0	6.9			
FM (30°-60°)	14663.3	19.1			
FH (60°-80°)	10665.4	13.9			G4/12000
FVH (80°-90°)	576.9	0.8			G4/750
BL (0°-30°)	6370.7	8.3	B5		
BM (30°-60°)	21958.8	28.6	B5		
BH (60°-80°)	16228.2	21.2	B5		G5
BVH (80°-90°)	906.7	1.2			G5
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





REPORT NUMBER: P591229

CATALOG NUMBER: CTN-CA10-760-727-U-T1-SSS-HM-EX90

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	14943.8	14943.8	14943.8	14943.8	14943.8	14943.8	14943.8	14943.8	14943.8	14943.8	14943.8
2.5°	14988.5	14865.8	14890.9	15010.8	14790.5	14910.4	14821.2	14966.1	14929.9	14941.1	15010.8
5°	14863.0	14737.5	14784.9	14932.7	14726.4	14871.4	14804.4	14924.3	14913.2	14955.0	14999.6
7.5°	14748.7	14614.9	14676.2	14784.9	14673.4	14798.9	14762.6	14913.2	14907.6	15030.3	15060.9
10°	14620.4	14497.8	14550.7	14684.6	14592.6	14743.1	14773.8	14952.2	15010.8	15178.0	15192.0
12.5°	14394.6	14274.7	14299.8	14469.9	14483.8	14712.4	14818.4	15100.0	15161.3	15353.7	15362.0
15°	13586.1	13558.2	13795.2	14068.4	14179.9	14520.1	14874.1	15258.9	15350.9	15593.5	15618.5
17.5°	11311.0	11032.2	10614.0	10945.8	11676.3	12615.8	14740.3	15495.9	15665.9	15908.5	15983.8
20°	7586.2	7839.9	8785.1	9208.9	9858.5	11442.1	14706.9	15752.4	16120.4	16413.1	16555.3
22.5°	6267.5	6253.6	7385.5	8813.0	9323.2	10050.9	13519.2	16056.3	16666.8	17048.8	17227.2
25°	5821.4	5827.0	6033.3	7837.2	9100.1	9869.6	12417.9	15657.6	17266.3	17812.7	18024.6
27.5°	5467.3	5489.6	5665.3	6275.9	8910.5	9830.6	12448.6	14517.3	17899.2	18629.6	18875.0
30°	5185.7	5174.6	5386.5	5896.7	7416.2	9844.5	12593.5	14745.9	17310.9	19789.4	19926.1
32.5°	4951.5	4920.9	5135.6	5648.6	6476.6	9735.8	12811.0	15387.1	16895.5	20904.7	21437.2
35°	4725.7	4714.6	4904.1	5408.8	6253.6	8085.3	13064.7	16181.7	18244.9	20940.9	23511.5
37.5°	4550.1	4541.7	4692.3	5169.0	6052.8	7366.0	13273.8	17182.6	20001.3	22488.3	25228.9
40°	4407.9	4385.6	4505.5	4957.1	5824.2	7246.1	11562.0	18228.1	22145.3	26098.8	29388.6
42.5°	4288.0	4257.3	4374.4	4748.0	5603.9	7112.3	10736.7	19282.0	24665.7	30119.1	33434.1
45°	4123.5	4120.7	4240.6	4589.1	5369.7	6917.1	10814.8	17522.8	27498.3	33966.6	37683.0
47.5°	4039.9	4020.3	4109.6	4441.3	5149.5	6621.6	10739.5	16770.0	29667.4	37828.0	41823.3
50°	3908.8	3892.1	3978.5	4271.3	4932.0	6248.0	10466.3	17232.8	27880.3	41485.9	45715.3
52.5°	3674.6	3025.0	3850.3	4129.1	4697.8	5843.7	9947.7	17489.3	28574.5	44876.1	49339.8
55°	1444.2	1937.7	3685.8	3950.6	4458.1	5464.5	9161.5	17416.8	30871.9	47912.3	52462.4
57.5°	1257.4	1263.0	2447.9	3298.2	4173.7	5068.6	8202.4	17004.2	32898.8	50510.8	55504.1
60°	178.4	181.2	1240.7	1388.4	2737.8	3602.1	7226.6	16265.4	34100.4	53109.2	58127.7
62.5°	119.9	125.5	1129.2	1260.2	2498.1	3195.1	6320.5	14952.2	34680.3	54687.2	60017.9
65°	86.4	89.2	1023.2	1140.3	2224.8	2835.4	5478.5	13524.7	34733.3	55052.5	61055.1
67.5°	80.9	83.6	942.4	1051.1	2024.1	2517.6	4750.8	12267.3	33269.6	55161.2	61013.3
70°	83.6	83.6	858.7	950.7	1795.5	2183.0	3942.3	11015.5	29578.2	53739.3	59641.6
72.5°	83.6	86.4	750.0	836.4	1547.4	1848.5	3231.3	8955.2	23954.8	49713.4	56329.4
75°	83.6	86.4	591.1	691.4	1285.3	1483.2	2651.4	7221.0	18448.4	41954.3	49284.0
77.5°	86.4	86.4	434.9	529.7	992.5	1115.2	2013.0	5548.2	13594.4	29081.9	34312.3
80°	86.4	92.0	306.7	390.3	733.3	805.7	1460.9	3540.8	7321.4	14748.7	17034.9
82.5°	89.2	92.0	228.6	292.7	507.4	579.9	892.2	1742.5	3384.7	6825.1	7731.2
85°	83.6	86.4	186.8	203.5	290.0	348.5	554.8	864.3	1190.5	2684.9	2790.8
87.5°	58.5	55.8	58.5	66.9	94.8	153.3	262.1	292.7	287.2	722.1	839.2
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: P591229

CATALOG NUMBER: CTN-CA10-760-727-U-T1-SSS-HM-EX90

CANDELA DISTRIBUTION (continued):

	95°	96°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	14943.8	14943.8	14943.8	14943.8	14943.8	14943.8	14943.8	14943.8	14943.8	14943.8	14943.8
2.5°	14968.9	14974.5	14952.2	15038.6	14952.2	14999.6	14874.1	15069.3	15049.8	14996.8	15063.7
5°	14966.1	14980.1	14974.5	15052.6	14943.8	14982.9	14857.4	15063.7	14994.0	14946.6	15027.5
7.5°	15033.1	15052.6	15044.2	15097.2	14971.7	14968.9	14846.3	14999.6	14932.7	14832.3	14932.7
10°	15180.8	15180.8	15155.7	15186.4	15005.2	14985.7	14779.4	14955.0	14840.7	14751.5	14874.1
12.5°	15370.4	15387.1	15323.0	15317.4	15066.5	15008.0	14748.7	14835.1	14670.6	14587.0	14706.9
15°	15649.2	15660.4	15576.7	15523.8	15217.1	15088.8	14670.6	14653.9	14425.3	14344.4	14430.8
17.5°	15972.6	15969.8	15852.7	15830.4	15470.8	15172.5	14606.5	14433.6	14140.9	14048.9	14124.2
20°	16491.2	16460.5	16332.3	16204.0	15679.9	15225.4	14514.5	14152.0	13745.0	13614.0	13675.3
22.5°	17188.2	17177.1	16976.3	16605.5	15902.9	15275.6	14358.4	13809.1	13268.2	13031.3	13070.3
25°	17952.1	17943.8	17656.6	17101.8	16098.1	15311.9	14177.1	13424.4	12693.9	12334.2	12325.9
27.5°	18838.7	18816.4	18428.9	17637.1	16368.5	15323.0	13982.0	13017.3	12125.1	11676.3	11695.8
30°	19917.7	19878.7	19348.9	18230.9	16711.5	15356.5	13814.7	12560.1	11595.4	11118.7	11107.5
32.5°	21348.0	21292.2	20469.7	19011.6	17154.8	15440.1	13614.0	12108.4	11101.9	10622.4	10580.6
35°	23525.4	23411.1	22050.5	20009.7	17648.2	15495.9	13293.3	11679.1	10625.2	10173.5	10140.1
37.5°	26748.4	26556.0	24041.2	21058.0	18138.9	15484.7	12928.1	11216.2	10237.6	9799.9	9791.6
40°	30997.3	30696.2	26430.5	22181.6	18610.1	15423.4	12535.0	10803.6	9914.2	9537.9	9565.7
42.5°	35645.0	35327.1	29263.2	23324.7	18964.2	15233.8	12114.0	10413.3	9615.9	9314.8	9317.6
45°	40328.9	40033.3	32522.4	24400.8	19139.8	14876.9	11676.3	10042.5	9300.9	9038.8	9069.5
47.5°	44993.2	44775.8	35750.9	25309.7	19053.4	14316.5	11149.3	9691.2	8988.6	8773.9	8843.6
50°	49331.4	49100.0	39191.3	26062.5	18618.5	13535.9	10608.5	9345.5	8734.9	8548.1	8606.7
52.5°	53351.8	53042.3	42877.1	26497.4	17835.0	12713.4	10131.7	9041.6	8489.6	8302.8	8364.1
55°	56767.1	56753.2	46250.6	26533.7	16611.1	11871.4	9671.7	8690.3	8249.8	8096.4	8110.4
57.5°	59965.0	60090.4	49153.0	26093.2	15161.3	11090.8	9144.7	8327.8	7973.8	7814.9	7828.8
60°	62407.3	62563.4	51121.3	24810.7	13616.7	10229.3	8578.8	7943.1	7630.8	7480.3	7524.9
62.5°	64161.0	63960.2	52164.1	22970.6	12069.4	9303.7	7965.4	7452.4	7204.3	7112.3	7115.1
65°	64754.8	64690.7	51553.5	20703.9	10608.5	8392.0	7240.5	6841.8	6688.5	6624.4	6671.8
67.5°	64147.0	64186.0	49175.3	18777.4	9220.0	7363.2	6426.4	6169.9	6091.8	6089.1	6139.2
70°	62482.6	62175.9	44243.3	17238.4	7918.0	6220.1	5551.0	5428.3	5403.2	5464.5	5506.4
72.5°	58133.2	57687.1	36690.5	14787.7	6077.9	4575.2	4204.4	4371.6	4366.1	4399.5	4438.5
75°	49802.6	48628.8	28739.0	11773.9	4502.7	3236.9	2804.8	2799.2	2790.8	3075.2	3178.4
77.5°	34906.1	34122.7	21216.9	8966.3	2994.3	1937.7	1923.7	2074.3	2099.4	1912.6	1948.8
80°	17511.6	17854.5	12245.0	5539.8	1990.7	1366.1	1433.0	1410.7	1430.3	1452.6	1466.5
82.5°	8071.3	8244.2	5860.4	2698.8	1282.5	1037.1	981.4	1067.8	1106.8	1104.1	1095.7
85°	2863.3	2880.0	1854.0	1157.0	786.2	674.7	685.9	797.4	842.0	803.0	783.4
87.5°	830.8	789.0	379.2	342.9	362.4	359.7	370.8	393.1	423.8	418.2	387.5
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)