

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: P591373

Luminaire Tested: **CTN-CA8-480-730-U-T1-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591373
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-CA8-480-730-U-T1-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D 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: 59312 lumens
Efficiency: N/A
Efficacy: 123.4 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B5 - U0 - G5

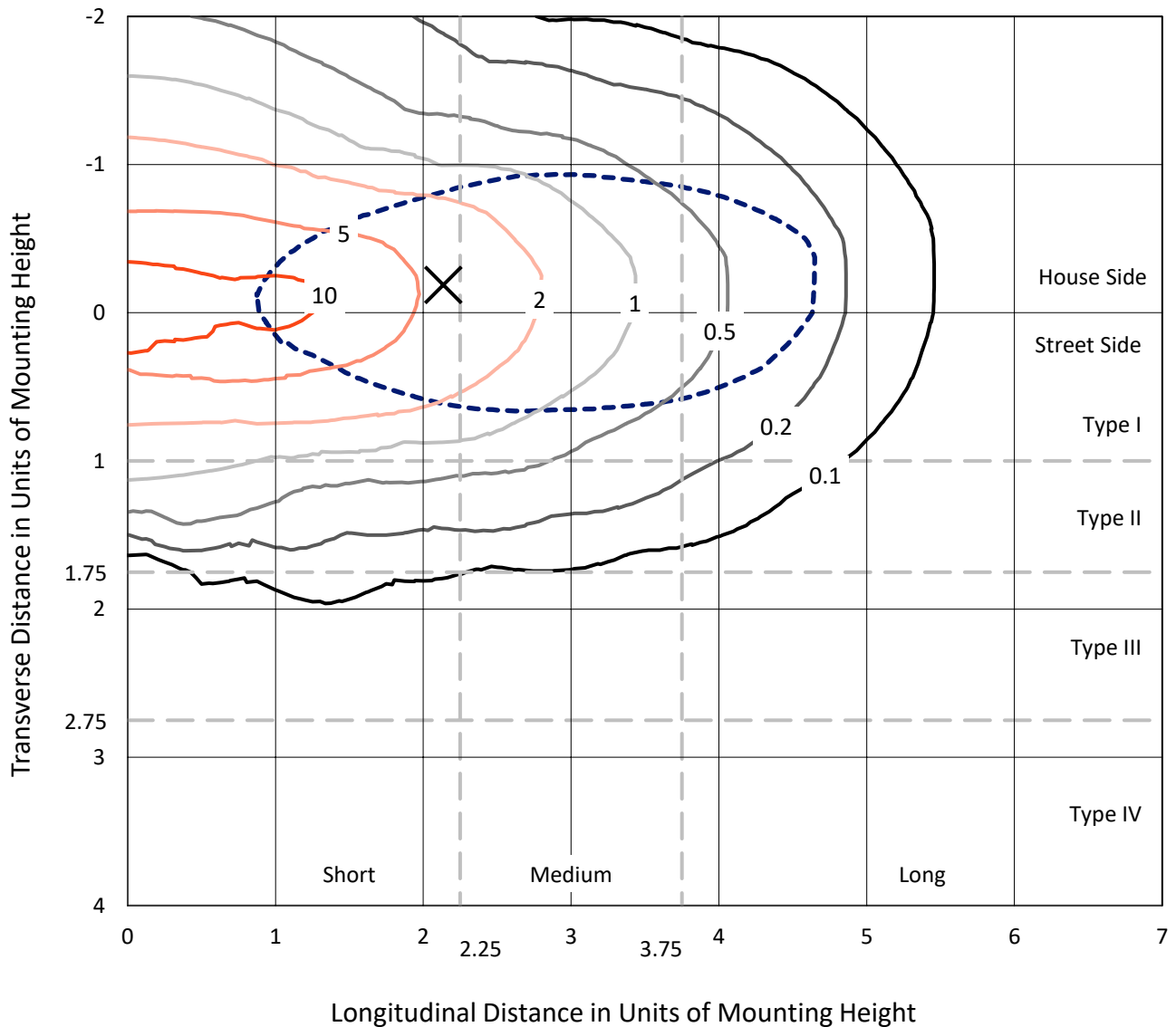
Input Watts (W): 480.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

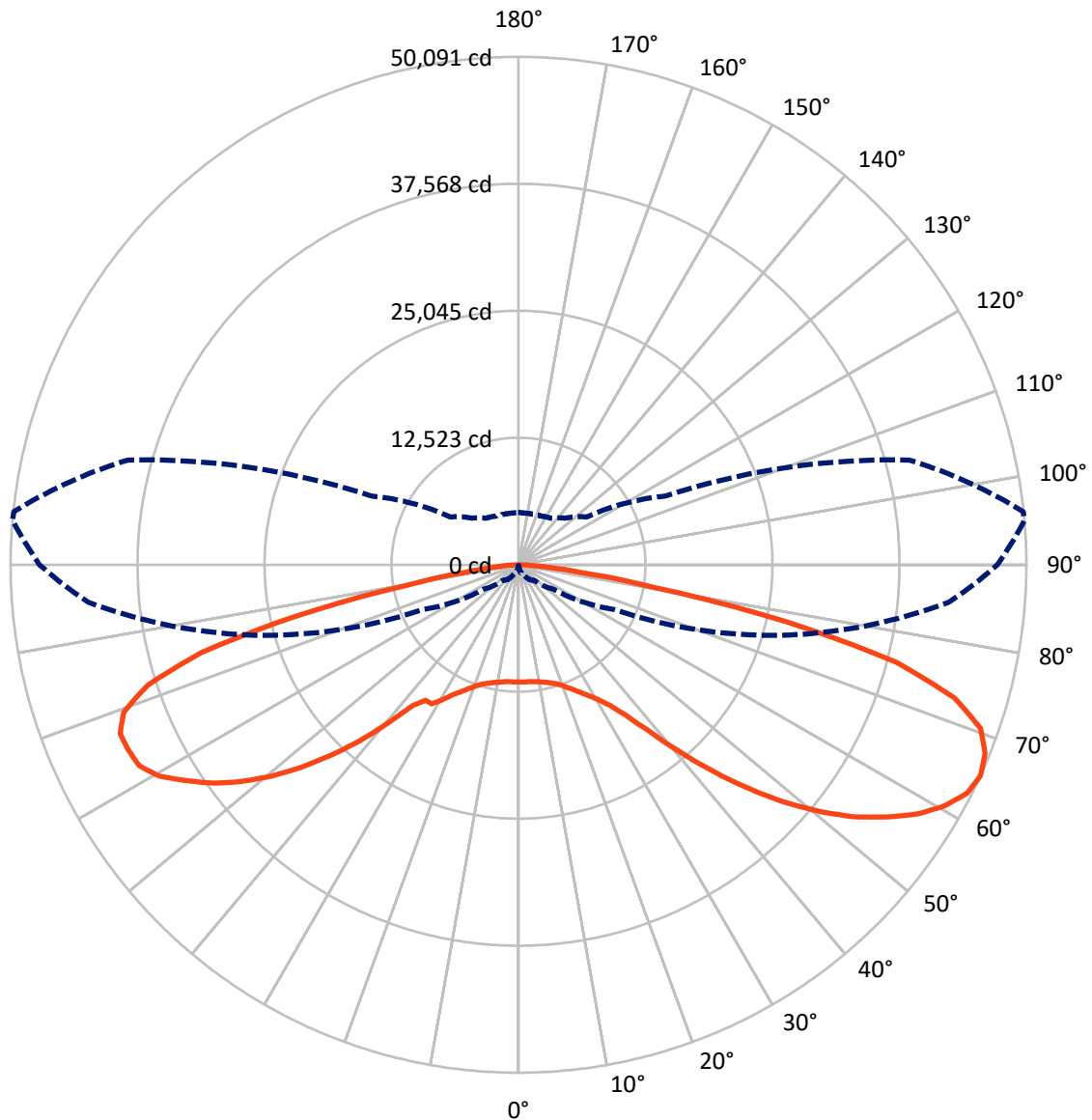
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 12.8 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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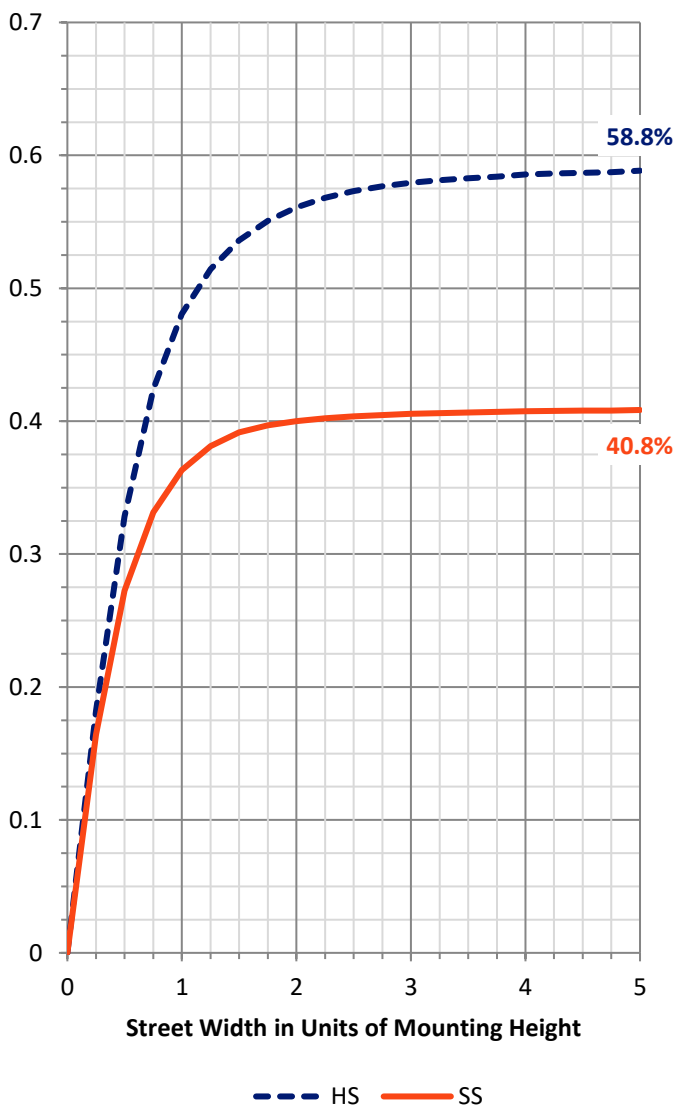
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	35168.5	0.0	35168.5
	% Fixture	59.3	0.0	59.3
Street Side	Lumens	24143.5	0.0	24143.5
	% Fixture	40.7	0.0	40.7
Total	Lumens	59312.0	0.0	59312.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1100.5	1.9
10°-20°	3169.0	5.3
20°-30°	4763.0	8.0
30°-40°	6640.8	11.2
40°-50°	9534.2	16.1
50°-60°	12153.6	20.5
60°-70°	12654.5	21.3
70°-80°	8148.8	13.7
80°-90°	1147.6	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°	59312.0	100.0
0°-180°	59312.0	100.0

Coefficient of Utilization

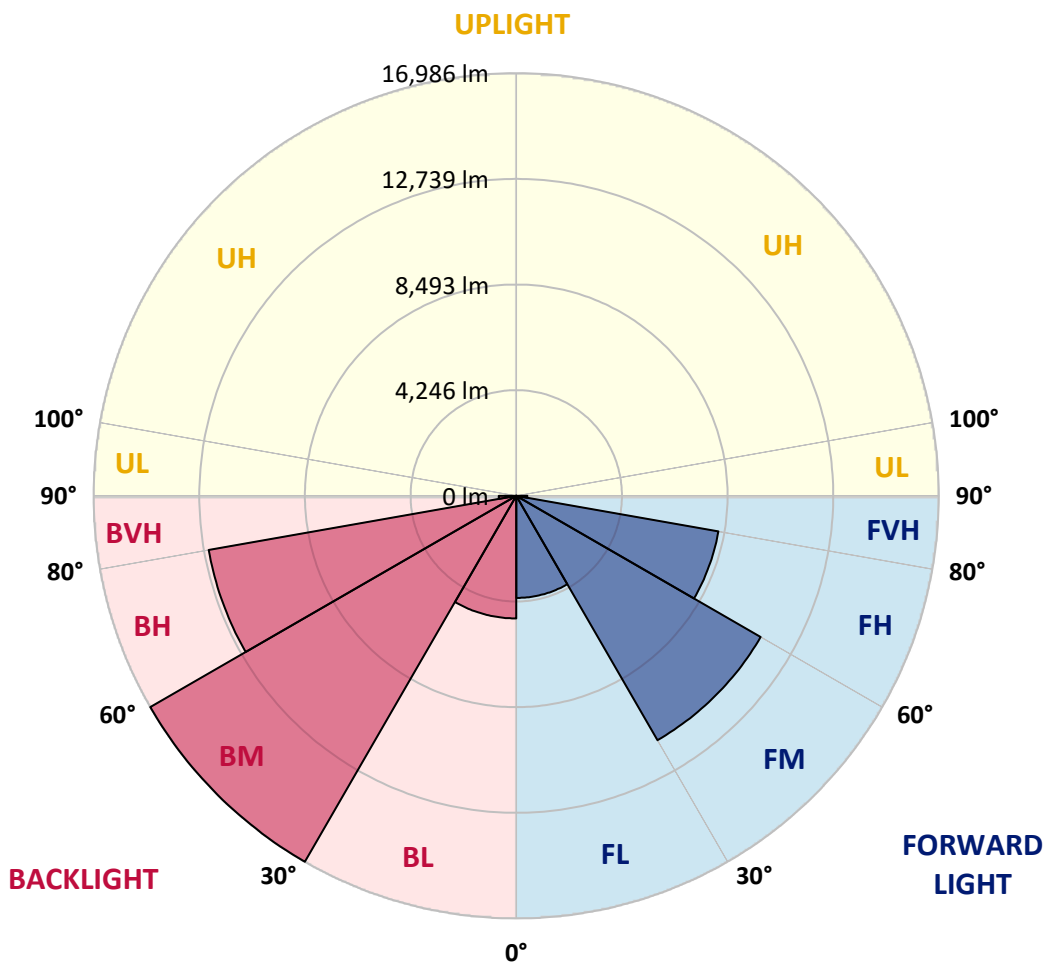


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4104.4	6.9			
FM	(30°-60°)	11342.7	19.1			
FH	(60°-80°)	8250.1	13.9			G4/12000
FVH	(80°-90°)	446.3	0.8			G3/500
BL	(0°-30°)	4928.0	8.3	B4/5000		
BM	(30°-60°)	16986.0	28.6	B5		
BH	(60°-80°)	12553.2	21.2	B5		G5
BVH	(80°-90°)	701.4	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°	11559.7	11559.7	11559.7	11559.7	11559.7	11559.7	11559.7	11559.7	11559.7	11559.7	11559.7
2.5°	11594.2	11499.3	11518.7	11611.4	11441.1	11533.8	11464.8	11576.9	11548.9	11557.5	11611.4
5°	11497.1	11400.1	11436.7	11551.0	11391.5	11503.6	11451.8	11544.6	11535.9	11568.3	11602.8
7.5°	11408.7	11305.2	11352.6	11436.7	11350.5	11447.5	11419.5	11535.9	11531.6	11626.5	11650.3
10°	11309.5	11214.6	11255.6	11359.1	11287.9	11404.4	11428.1	11566.1	11611.4	11740.8	11751.6
12.5°	11134.8	11042.1	11061.5	11193.0	11203.8	11380.7	11462.6	11680.4	11727.9	11876.7	11883.2
15°	10509.4	10487.8	10671.1	10882.5	10968.7	11231.9	11505.8	11803.4	11874.5	12062.2	12081.6
17.5°	8749.5	8533.9	8210.4	8467.0	9032.1	9758.9	11402.2	11986.7	12118.2	12305.9	12364.1
20°	5868.3	6064.5	6795.6	7123.4	7625.9	8850.9	11376.4	12185.1	12469.8	12696.2	12806.2
22.5°	4848.2	4837.4	5713.0	6817.2	7211.9	7774.7	10457.6	12420.2	12892.5	13187.9	13326.0
25°	4503.1	4507.4	4667.0	6062.4	7039.3	7634.6	9605.7	12111.8	13356.2	13778.9	13942.8
27.5°	4229.2	4246.5	4382.3	4854.6	6892.7	7604.4	9629.5	11229.7	13845.7	14410.8	14600.6
30°	4011.4	4002.8	4166.7	4561.3	5736.7	7615.1	9741.6	11406.5	13390.7	15307.9	15413.6
32.5°	3830.2	3806.5	3972.6	4369.4	5009.9	7531.0	9909.8	11902.6	13069.3	16170.6	16582.5
35°	3655.5	3646.9	3793.6	4183.9	4837.4	6254.3	10106.1	12517.2	14113.2	16198.6	18187.1
37.5°	3519.7	3513.2	3629.7	3998.4	4682.1	5697.9	10267.8	13291.5	15471.8	17395.6	19515.6
40°	3409.7	3392.4	3485.2	3834.5	4505.3	5605.1	8943.6	14100.2	17130.3	20188.4	22733.3
42.5°	3316.9	3293.2	3383.8	3672.8	4334.9	5501.6	8305.3	14915.4	19079.9	23298.3	25862.6
45°	3189.7	3187.5	3280.3	3549.9	4153.7	5350.7	8365.7	13554.6	21271.1	26274.5	29149.4
47.5°	3125.0	3109.9	3178.9	3435.6	3983.3	5122.1	8307.4	12972.3	22949.0	29261.5	32352.0
50°	3023.6	3010.7	3077.5	3304.0	3815.1	4833.1	8096.1	13330.3	21566.6	32091.0	35362.7
52.5°	2842.5	2340.0	2978.3	3194.0	3634.0	4520.3	7694.9	13528.7	22103.6	34713.5	38166.3
55°	1117.1	1498.9	2851.1	3056.0	3448.5	4227.0	7086.8	13472.6	23880.6	37062.1	40581.8
57.5°	972.7	977.0	1893.5	2551.3	3228.5	3920.8	6344.9	13153.4	25448.5	39072.1	42934.7
60°	138.0	140.2	959.7	1074.0	2117.8	2786.4	5590.0	12581.9	26378.0	41082.1	44964.1
62.5°	92.7	97.0	873.4	974.8	1932.4	2471.5	4889.1	11566.1	26826.6	42302.8	46426.3
65°	66.9	69.0	791.5	882.1	1721.0	2193.3	4237.8	10461.9	26867.6	42585.3	47228.6
67.5°	62.5	64.7	728.9	813.1	1565.7	1947.5	3674.9	9489.3	25735.4	42669.4	47196.2
70°	64.7	64.7	664.2	735.4	1388.9	1688.7	3049.5	8520.9	22880.0	41569.5	46135.2
72.5°	64.7	66.9	580.1	647.0	1196.9	1429.9	2499.6	6927.2	18530.0	38455.3	43573.1
75°	64.7	66.9	457.2	534.9	994.2	1147.3	2051.0	5585.7	14270.6	32453.3	38123.2
77.5°	66.9	66.9	336.4	409.8	767.8	862.7	1557.1	4291.7	10515.9	22496.1	26542.0
80°	66.9	71.2	237.2	301.9	567.2	623.3	1130.1	2739.0	5663.4	11408.7	13177.2
82.5°	69.0	71.2	176.8	226.4	392.5	448.6	690.1	1347.9	2618.2	5279.5	5980.4
85°	64.7	66.9	144.5	157.4	224.3	269.6	429.2	668.6	920.9	2076.9	2158.8
87.5°	45.3	43.1	45.3	51.8	73.3	118.6	202.7	226.4	222.1	558.6	649.2
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°	11559.7	11559.7	11559.7	11559.7	11559.7	11559.7	11559.7	11559.7	11559.7	11559.7	11559.7
2.5°	11579.1	11583.4	11566.1	11633.0	11566.1	11602.8	11505.8	11656.7	11641.6	11600.6	11652.4
5°	11576.9	11587.7	11583.4	11643.8	11559.7	11589.9	11492.8	11652.4	11598.5	11561.8	11624.4
7.5°	11628.7	11643.8	11637.3	11678.3	11581.2	11579.1	11484.2	11602.8	11551.0	11473.4	11551.0
10°	11743.0	11743.0	11723.6	11747.3	11607.1	11592.0	11432.4	11568.3	11479.9	11410.9	11505.8
12.5°	11889.6	11902.6	11853.0	11848.7	11654.6	11609.3	11408.7	11475.6	11348.3	11283.6	11376.4
15°	12105.3	12113.9	12049.2	12008.3	11771.0	11671.8	11348.3	11335.4	11158.5	11096.0	11162.8
17.5°	12355.5	12353.3	12262.7	12245.5	11967.3	11736.5	11298.7	11165.0	10938.6	10867.4	10925.6
20°	12756.6	12732.9	12633.7	12534.5	12129.0	11777.5	11227.5	10947.2	10632.3	10530.9	10578.4
22.5°	13295.8	13287.2	13131.9	12845.0	12301.6	11816.3	11106.8	10681.9	10263.5	10080.2	10110.4
25°	13886.7	13880.2	13658.1	13228.9	12452.5	11844.3	10966.6	10384.3	9819.3	9541.0	9534.6
27.5°	14572.5	14555.3	14255.5	13643.0	12661.7	11853.0	10815.6	10069.4	9379.3	9032.1	9047.2
30°	15407.1	15377.0	14967.2	14102.4	12927.0	11878.9	10686.2	9715.7	8969.5	8600.7	8592.1
32.5°	16513.5	16470.4	15834.2	14706.2	13269.9	11943.6	10530.9	9366.4	8587.8	8216.9	8184.5
35°	18197.9	18109.4	17057.0	15478.3	13651.6	11986.7	10282.9	9034.2	8219.0	7869.6	7843.8
37.5°	20690.9	20542.1	18596.8	16289.2	14031.2	11978.1	10000.4	8676.2	7919.2	7580.6	7574.2
40°	23977.7	23744.8	20445.1	17158.3	14395.7	11930.6	9696.3	8357.0	7669.1	7377.9	7399.5
42.5°	27572.8	27327.0	22636.3	18042.6	14669.6	11784.0	9370.7	8055.1	7438.3	7205.4	7207.5
45°	31196.0	30967.4	25157.4	18875.0	14805.4	11507.9	9032.1	7768.3	7194.6	6991.9	7015.6
47.5°	34804.1	34635.9	27654.8	19578.1	14738.6	11074.4	8624.5	7496.5	6953.1	6787.0	6840.9
50°	38159.9	37980.9	30316.1	20160.4	14402.1	10470.6	8206.1	7229.1	6756.8	6612.3	6657.6
52.5°	41269.8	41030.4	33167.2	20496.8	13796.1	9834.3	7837.3	6994.0	6567.0	6422.5	6470.0
55°	43911.7	43900.9	35776.8	20524.9	12849.4	9183.0	7481.4	6722.3	6381.5	6262.9	6273.7
57.5°	46385.3	46482.4	38021.8	20184.1	11727.9	8579.2	7073.8	6441.9	6168.0	6045.1	6055.9
60°	48274.6	48395.3	39544.4	19192.1	10533.1	7912.8	6636.0	6144.3	5902.8	5786.3	5820.8
62.5°	49631.1	49475.8	40351.0	17768.7	9336.2	7196.8	6161.6	5764.7	5572.8	5501.6	5503.8
65°	50090.5	50040.9	39878.7	16015.3	8206.1	6491.5	5600.8	5292.4	5173.8	5124.2	5160.9
67.5°	49620.3	49650.5	38039.1	14525.1	7132.1	5695.7	4971.1	4772.7	4712.3	4710.1	4749.0
70°	48332.8	48095.6	34224.0	13334.6	6124.9	4811.5	4293.9	4199.0	4179.6	4227.0	4259.4
72.5°	44968.4	44623.4	28381.6	11438.9	4701.5	3539.1	3252.2	3381.6	3377.3	3403.2	3433.4
75°	38524.3	37616.4	22230.8	9107.6	3483.0	2503.9	2169.6	2165.3	2158.8	2378.8	2458.6
77.5°	27001.3	26395.3	16412.1	6935.8	2316.2	1498.9	1488.1	1604.6	1624.0	1479.5	1507.5
80°	13546.0	13811.2	9472.0	4285.3	1539.9	1056.8	1108.5	1091.3	1106.4	1123.6	1134.4
82.5°	6243.5	6377.2	4533.3	2087.6	992.1	802.3	759.1	826.0	856.2	854.0	847.6
85°	2214.9	2227.8	1434.2	895.0	608.2	521.9	530.5	616.8	651.3	621.1	606.0
87.5°	642.7	610.3	293.3	265.3	280.4	278.2	286.8	304.1	327.8	323.5	299.8
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)