

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: STREETWORKS

Report Number: P510851

Luminaire Tested: **CST-CA8-480-740-U-T4**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510851
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-12)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-CA8-480-740-U-T4
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 70121 lumens
Efficiency: N/A
Efficacy: 145.8 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U0 - G5

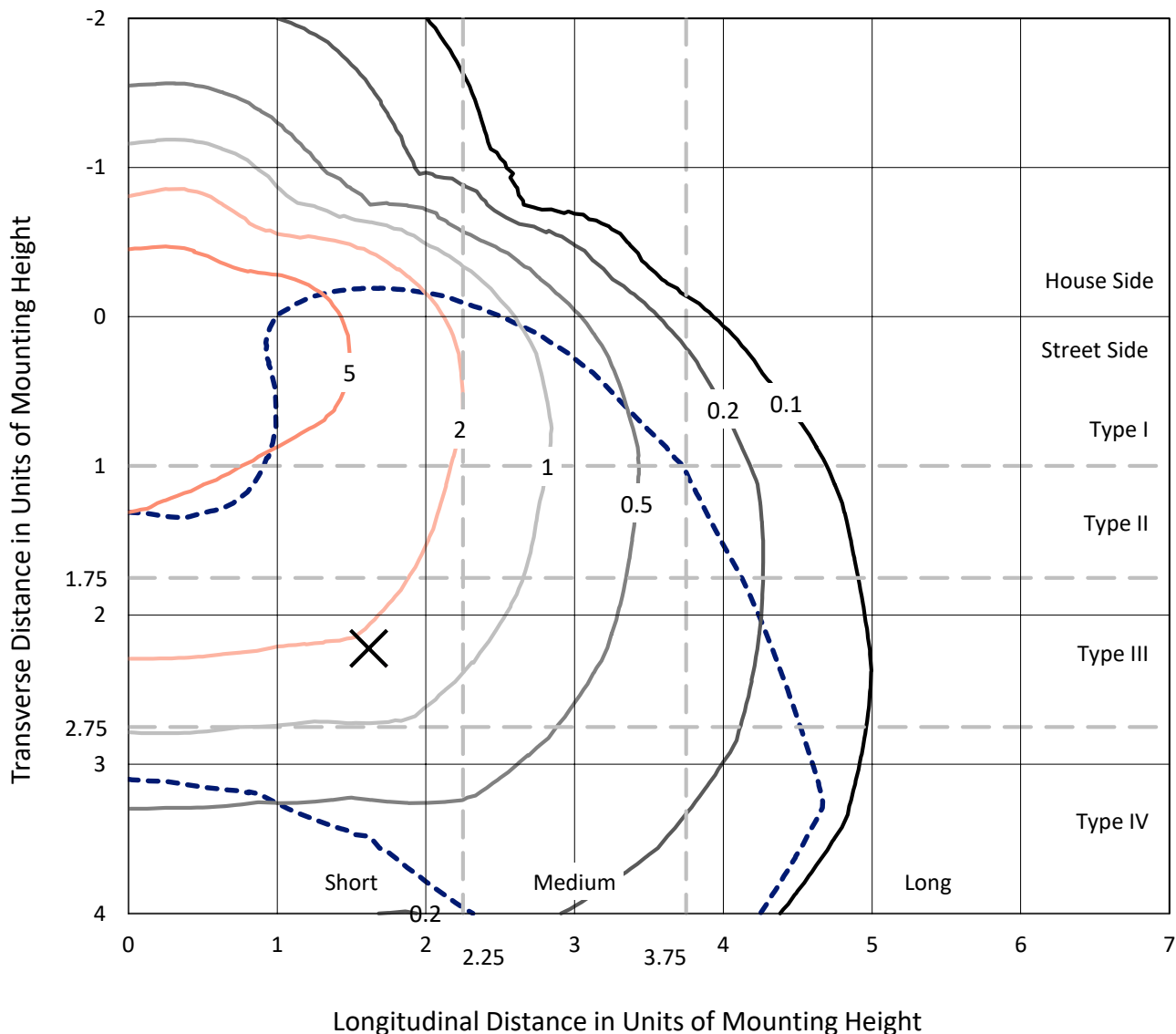
Input Watts (W): 480.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

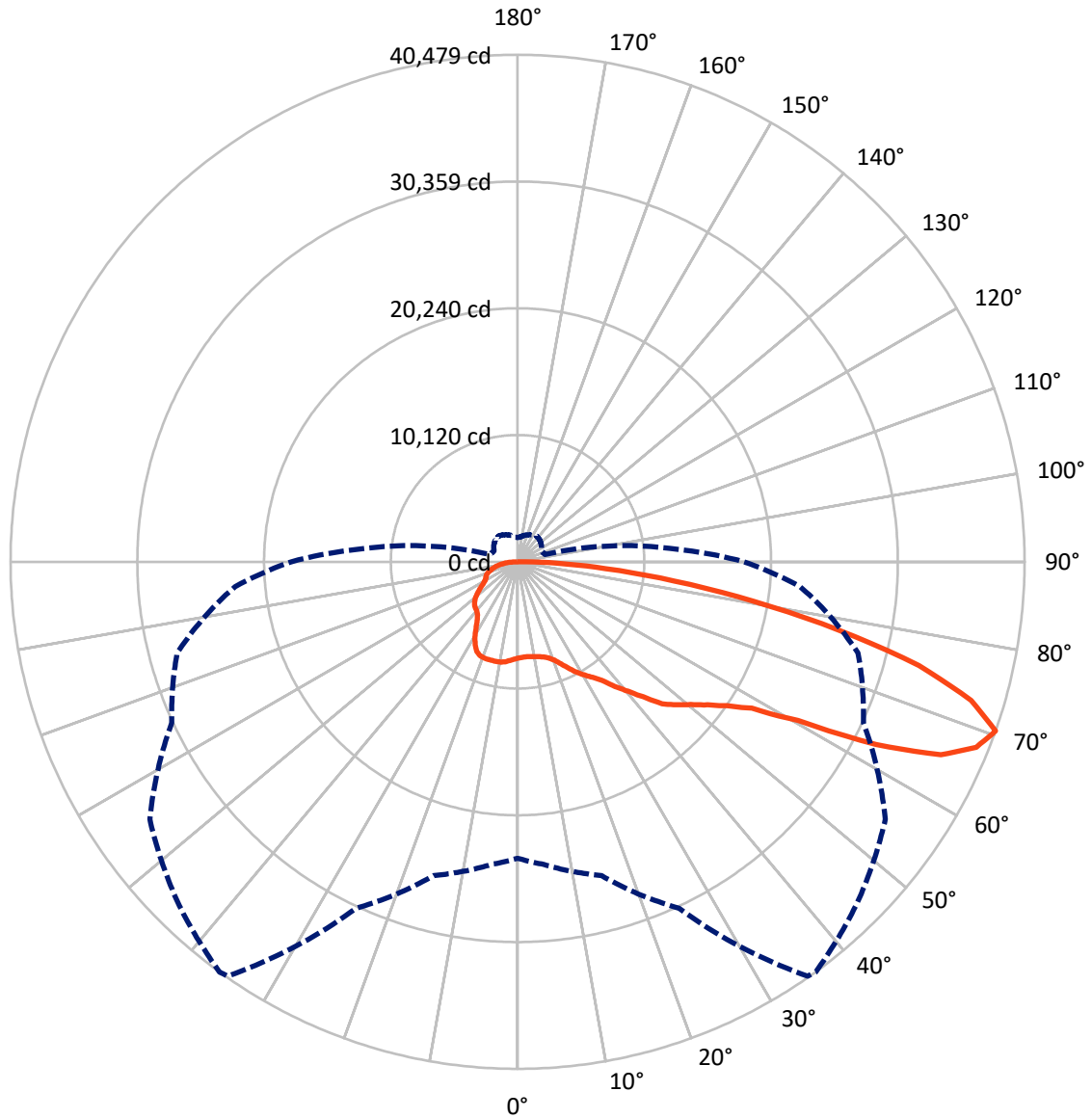
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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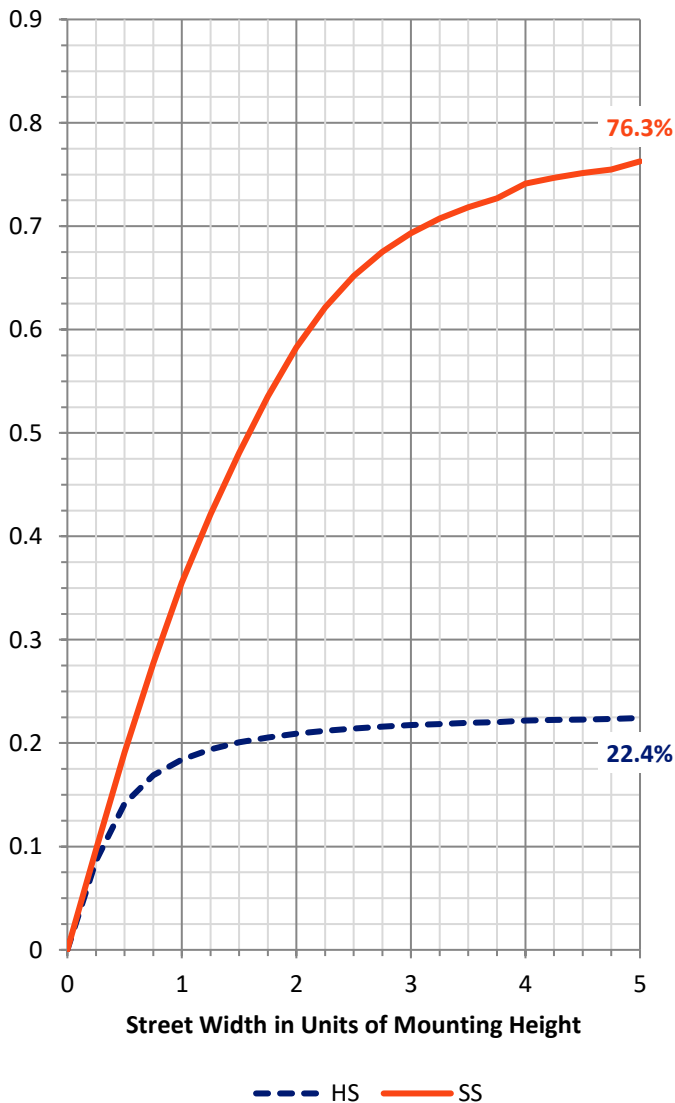
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	15976.6	0.0	15976.6
	% Fixture	22.8	0.0	22.8
Street Side	Lumens	54144.4	0.0	54144.4
	% Fixture	77.2	0.0	77.2
Total	Lumens	70121.0	0.0	70121.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	744.1	1.1
10°-20°	2300.3	3.3
20°-30°	4149.3	5.9
30°-40°	6426.5	9.2
40°-50°	9761.9	13.9
50°-60°	13530.6	19.3
60°-70°	17594.5	25.1
70°-80°	12993.3	18.5
80°-90°	2620.5	3.7
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°	70121.0	100.0
0°-180°	70121.0	100.0



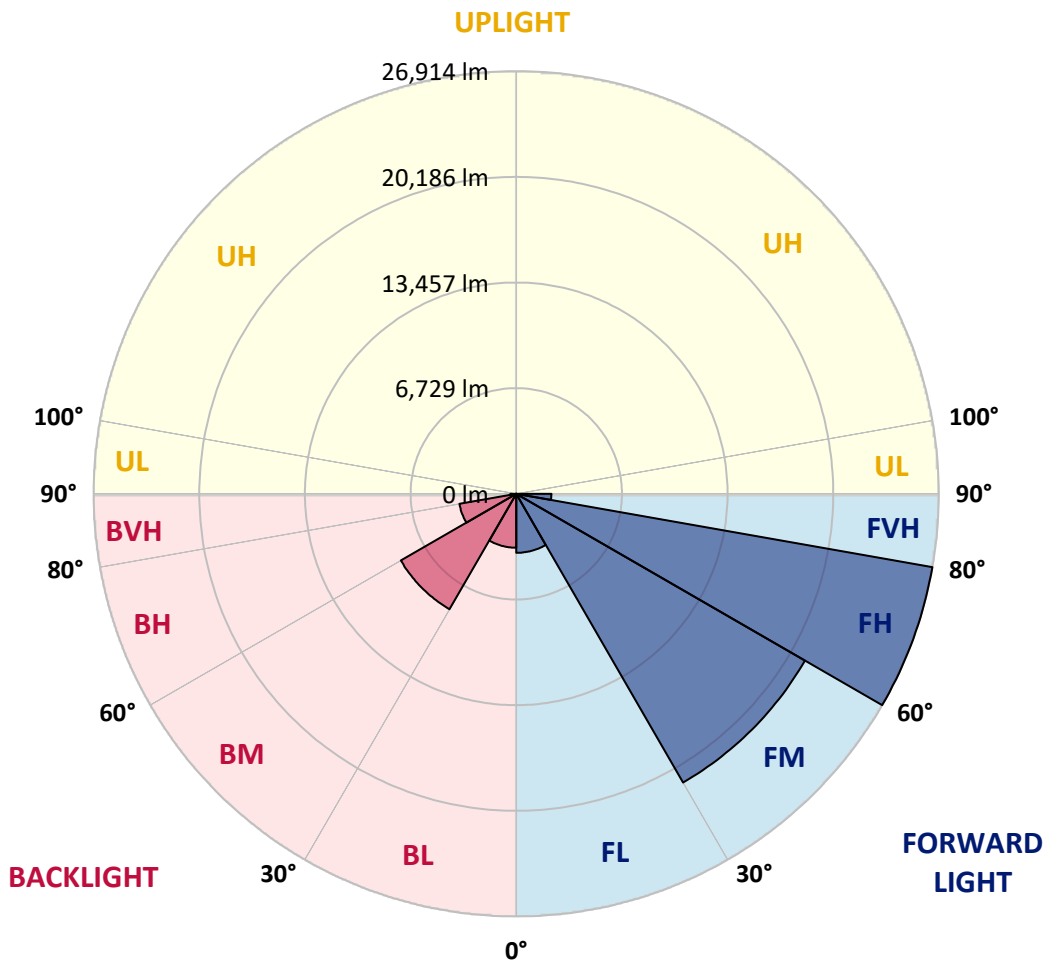
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3759.2	5.4			
FM (30°-60°)	21232.5	30.3			
FH (60°-80°)	26914.0	38.4			G5
FVH (80°-90°)	2238.7	3.2			G5
BL (0°-30°)	3434.6	4.9	B4/5000		
BM (30°-60°)	8486.6	12.1	B4/8500		
BH (60°-80°)	3673.8	5.2	B4/5000		G4/5000
BVH (80°-90°)	381.7	0.5			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	7680.3	7680.3	7680.3	7680.3	7680.3	7680.3	7680.3	7680.3	7680.3	7680.3	7680.3
2.5°	7633.9	7623.7	7617.9	7629.5	7633.9	7635.3	7638.2	7635.3	7628.1	7654.2	7686.1
5°	7635.3	7629.5	7617.9	7607.7	7607.7	7607.7	7609.2	7642.6	7657.1	7654.2	7693.4
7.5°	7646.9	7642.6	7620.8	7613.6	7631.0	7636.8	7665.8	7655.7	7671.6	7697.8	7731.2
10°	7648.4	7642.6	7623.7	7639.7	7689.1	7697.8	7710.8	7739.9	7745.7	7777.6	7811.0
12.5°	7662.9	7662.9	7670.2	7705.0	7757.3	7767.5	7816.8	7840.0	7874.9	7890.9	7931.5
15°	7739.9	7738.4	7755.8	7795.0	7879.2	7885.1	7946.0	8015.7	8041.9	8081.1	8146.4
17.5°	7922.8	7931.5	7933.0	7962.0	8062.2	8065.1	8165.3	8230.6	8290.1	8359.8	8509.4
20°	8356.9	8340.9	8323.5	8323.5	8362.7	8383.0	8460.0	8564.5	8686.5	8809.9	8985.6
22.5°	8902.8	8934.7	8870.9	8837.5	8856.3	8833.1	8891.2	8975.4	9117.7	9302.1	9524.2
25°	9554.7	9557.6	9553.2	9418.2	9376.1	9390.6	9438.5	9516.9	9705.7	9852.3	10174.6
27.5°	10190.6	10177.5	10131.1	9988.8	9948.1	9968.5	9967.0	10183.3	10376.4	10563.7	10942.7
30°	10768.4	10803.3	10720.5	10481.0	10485.3	10482.4	10549.2	10828.0	11180.8	11529.2	11918.3
32.5°	11787.7	11681.7	11569.9	11096.6	11009.5	10999.3	11038.5	11453.7	11976.4	12564.4	13031.9
35°	12747.3	12721.2	12610.9	12130.3	11626.5	11617.8	11564.1	12069.3	12804.0	13892.8	14476.5
37.5°	13728.8	13691.0	13582.2	13172.7	12671.8	12623.9	12172.4	12725.6	13718.6	15446.3	16278.3
40°	14899.0	14875.8	14707.3	14183.2	13669.3	13596.7	13127.7	13415.2	14872.9	17515.2	18101.8
42.5°	15925.5	15921.1	15728.0	15241.6	14804.6	14732.0	14332.8	14631.8	16477.2	19542.0	19887.6
45°	16679.0	16793.7	16802.4	16525.1	16223.1	16159.2	16053.2	16465.5	18332.6	21381.5	21330.7
47.5°	17314.9	17413.6	17310.5	17168.2	17065.2	17069.5	17233.6	18052.4	20164.9	22984.4	22589.5
50°	18377.6	18316.7	17780.9	17696.7	17827.4	17904.3	18380.5	19765.6	22262.8	24488.5	23719.0
52.5°	19910.8	19677.1	18625.9	18454.6	18949.7	18978.7	19736.6	21297.3	24359.3	25779.2	24752.8
55°	22008.7	21815.7	20628.0	19836.8	20086.5	20282.5	21349.6	22866.8	26071.1	26993.0	25548.4
57.5°	25109.9	25124.4	24156.0	22681.0	21831.6	22040.7	22874.1	24392.7	27485.2	28009.3	26044.9
60°	27595.5	28055.7	27766.8	27093.2	25873.6	25731.3	25096.9	25982.5	28693.1	28873.1	26519.7
62.5°	29318.9	29527.9	30521.0	30663.3	32057.1	32116.6	29077.9	27845.2	30020.1	29439.4	26619.9
65°	29231.8	29361.0	30930.4	32841.1	36958.6	37142.9	35364.4	30663.3	30929.0	29692.0	26328.0
67.5°	27196.2	27390.8	29385.6	32957.2	39570.4	39500.8	38372.7	34586.2	31228.1	29286.9	24937.1
70°	23661.0	24260.6	25936.0	30507.9	40386.4	40479.3	38400.2	35839.2	30457.1	28141.4	22618.5
72.5°	19501.4	19690.1	21272.7	26389.0	38001.0	37864.5	36826.4	34185.5	29063.3	26069.6	18560.6
75°	14830.8	14830.8	16747.2	21030.2	32633.5	33112.6	33516.2	30962.4	25747.3	21248.0	12638.4
77.5°	9845.1	10197.9	11741.2	15803.5	25831.5	26185.7	27579.5	26391.9	21081.0	15581.4	5772.6
80°	5222.3	5265.9	6921.0	10501.3	18476.4	19144.2	21060.7	20355.1	15163.2	7300.0	1459.1
82.5°	1826.4	1993.4	3043.1	6086.2	12173.8	12590.5	13971.3	12095.4	5355.9	1615.9	807.2
85°	907.4	939.4	1340.1	2897.9	6854.2	7056.0	8162.4	4711.3	862.4	705.6	548.8
87.5°	437.0	447.2	514.0	1036.6	2979.2	3117.1	3300.1	1533.2	319.4	268.6	238.1
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7680.3	7680.3	7680.3	7680.3	7680.3	7680.3	7680.3	7680.3	7680.3	7680.3	7680.3
2.5°	7693.4	7706.5	7731.2	7738.4	7721.0	7752.9	7783.4	7811.0	7809.6	7819.7	7856.0
5°	7710.8	7738.4	7764.5	7811.0	7856.0	7882.1	7906.8	7930.1	7937.3	7959.1	7980.9
7.5°	7764.5	7792.1	7851.7	7933.0	7935.9	8001.2	8043.3	8050.6	8056.4	8056.4	8107.2
10°	7847.3	7898.1	7993.9	8050.6	8101.4	8079.6	8123.2	8095.6	8075.2	8084.0	8118.8
12.5°	7989.6	8034.6	8172.5	8235.0	8188.5	8179.8	8136.2	8073.8	8002.7	7995.4	8027.3
15°	8213.2	8297.4	8420.8	8480.3	8364.2	8261.1	8114.4	7986.7	7848.8	7797.9	7818.3
17.5°	8573.2	8674.9	8809.9	8769.2	8557.3	8354.0	8111.5	7841.5	7574.4	7388.5	7436.4
20°	9100.3	9175.8	9286.1	9122.0	8812.8	8477.4	8079.6	7652.8	7201.2	6862.9	6823.7
22.5°	9653.4	9768.1	9701.3	9397.9	8992.8	8525.3	8012.8	7378.4	6680.0	6256.1	6192.2
25°	10319.8	10357.6	10126.7	9669.4	9043.6	8449.8	7796.5	6977.6	6147.2	5747.9	5729.0
27.5°	11026.9	10941.2	10511.5	9794.2	8987.0	8226.2	7362.4	6344.6	5665.2	5312.4	5257.2
30°	11825.4	11626.5	10829.4	9807.3	8773.6	7790.7	6813.6	5849.5	5273.2	4918.9	4862.3
32.5°	12853.3	12384.4	11124.2	9672.3	8323.5	7151.9	6154.4	5427.1	4920.4	4564.6	4513.8
35°	14167.3	13376.0	11436.3	9428.4	7768.9	6513.0	5608.5	5068.4	4634.3	4206.0	4137.8
37.5°	15681.5	14759.6	11809.4	9120.6	7160.6	5951.2	5239.8	4840.5	4422.4	3937.4	3856.1
40°	17441.2	16144.7	12384.4	8753.3	6614.7	5546.1	5061.2	4762.1	4304.8	3799.5	3706.6
42.5°	18965.6	17609.6	13068.2	8358.4	6099.3	5209.3	4981.3	4709.8	4230.7	3696.4	3590.5
45°	20375.4	18819.0	13736.0	7879.2	5556.3	4978.4	4885.5	4579.2	4100.1	3568.7	3458.3
47.5°	21520.9	19796.1	14316.8	7439.3	5122.2	4766.5	4676.4	4330.9	3880.8	3414.8	3333.5
50°	22400.7	20530.8	14634.8	7089.4	4663.4	4525.4	4406.4	4050.7	3618.0	3215.9	3146.2
52.5°	23300.9	21266.8	14791.6	7106.9	4236.5	4166.8	4044.9	3740.0	3409.0	3099.7	3024.2
55°	23825.0	21568.8	14626.0	6684.4	3844.5	3763.2	3657.2	3499.0	3301.5	3027.1	2956.0
57.5°	24131.4	21756.1	14122.2	5451.7	3372.7	3295.7	3313.1	3300.1	3137.5	2848.5	2783.2
60°	24352.0	21349.6	13090.0	4007.1	2970.5	2912.4	3056.2	3009.7	2868.9	2643.8	2588.7
62.5°	24173.5	20575.8	11231.6	3012.6	2642.4	2765.8	2892.1	2806.4	2614.8	2410.1	2346.2
65°	23084.6	19057.1	8536.9	2420.3	2536.4	2706.3	2807.9	2670.0	2475.4	2233.0	2203.9
67.5°	21102.8	16304.4	5035.1	2218.4	2456.5	2636.6	2720.8	2537.9	2366.5	2134.2	2099.4
70°	18078.6	12205.8	2248.9	2066.0	2317.2	2495.7	2550.9	2378.1	2192.3	1974.5	1939.7
72.5°	13455.8	7359.5	1515.7	1907.7	2111.0	2269.3	2330.2	2147.3	2015.2	1916.5	1906.3
75°	7472.7	2555.3	1398.1	1727.7	1886.0	2028.2	2103.7	1974.5	1870.0	1735.0	1679.8
77.5°	2379.6	1086.0	1328.5	1544.8	1745.1	1862.7	1851.1	1656.6	1623.2	1459.1	1444.6
80°	949.5	946.6	1228.3	1264.6	1489.6	1588.3	1562.2	1316.8	1360.4	1264.6	1226.8
82.5°	744.8	866.8	984.4	965.5	1158.6	1274.7	1238.4	966.9	1093.3	1004.7	919.0
85°	566.2	759.3	631.6	628.7	808.7	946.6	969.8	743.4	744.8	678.0	604.0
87.5°	291.8	280.2	242.5	241.0	270.0	384.7	471.9	422.5	333.9	251.2	241.0
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)