

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: P591124

Luminaire Tested: **CTN-CA10-630-722-U-T2-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591124
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-630-722-U-T2-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 54641 lumens
Efficiency: N/A
Efficacy: 86.5 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

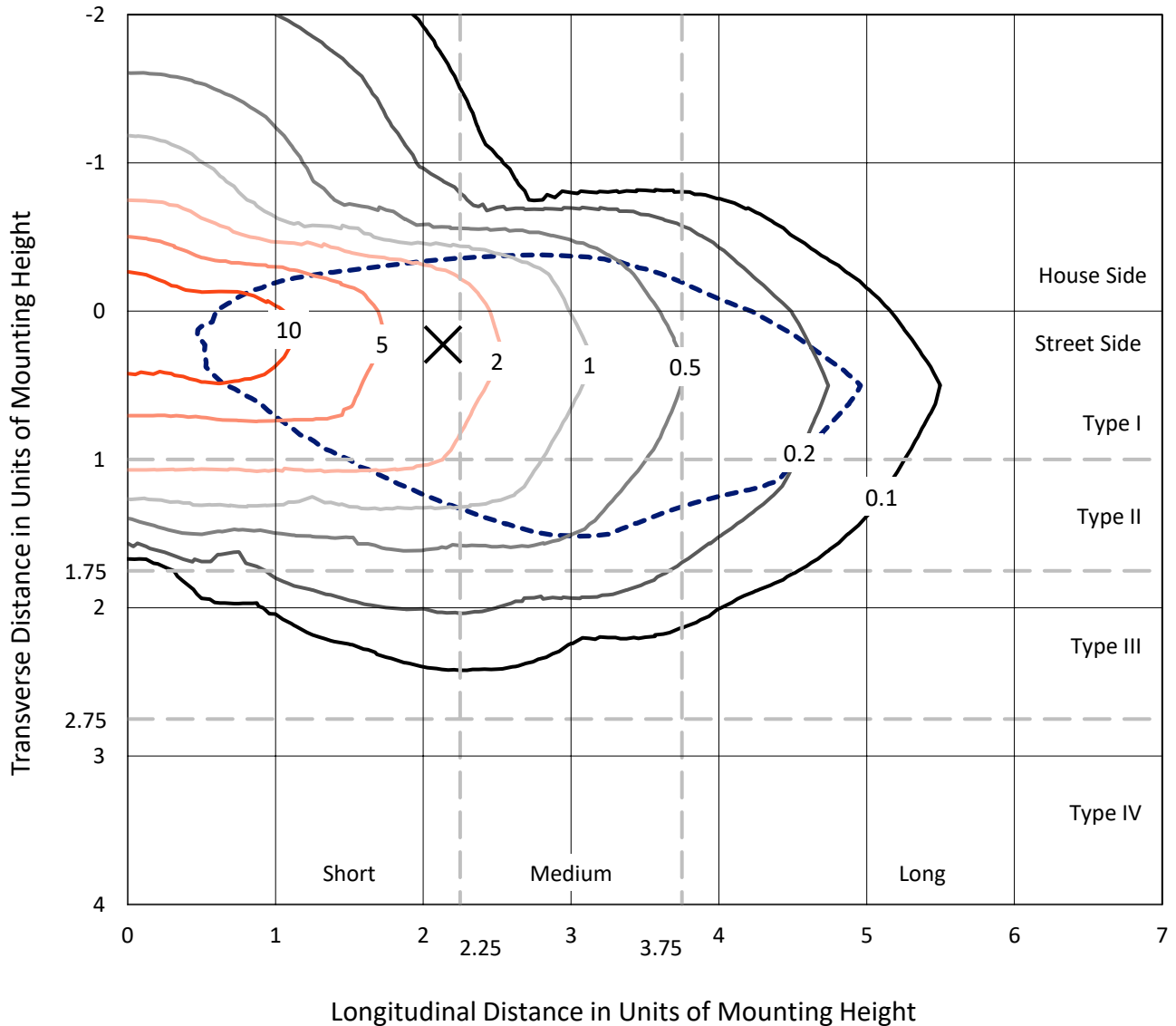
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

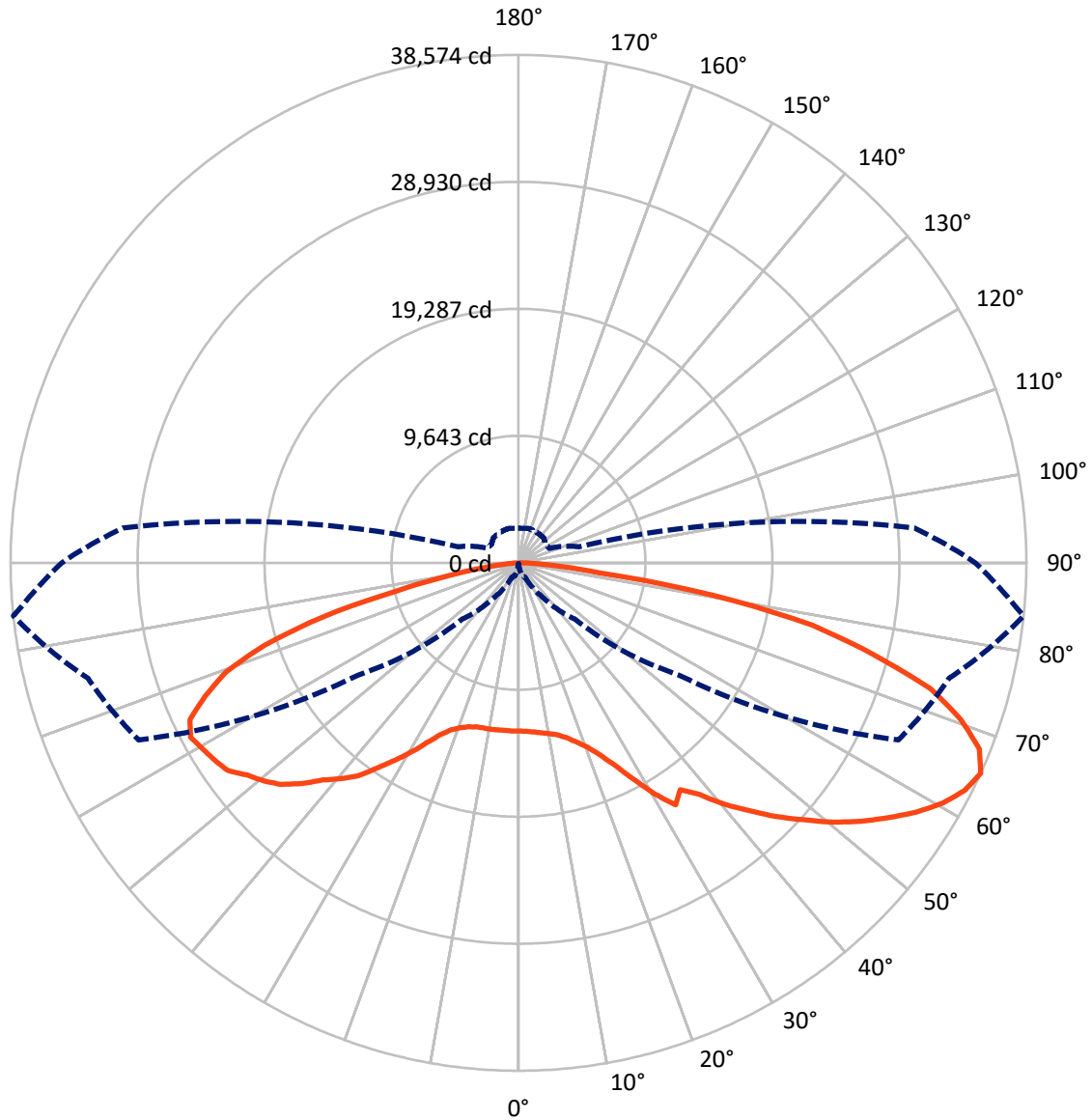
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 16.5 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 84-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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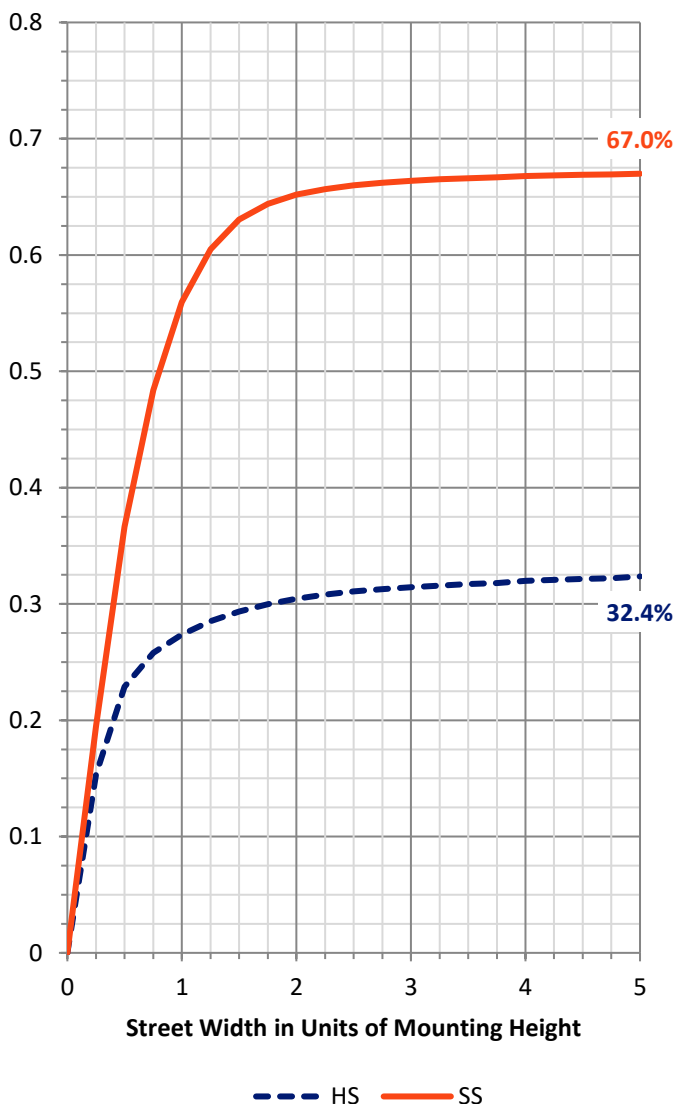
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	18088.9	0.0	18088.9
	% Fixture	33.1	0.0	33.1
Street Side	Lumens	36552.1	0.0	36552.1
	% Fixture	66.9	0.0	66.9
Total	Lumens	54641.0	0.0	54641.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1233.1	2.3
10°-20°	3670.5	6.7
20°-30°	5514.8	10.1
30°-40°	7333.6	13.4
40°-50°	9054.7	16.6
50°-60°	10175.0	18.6
60°-70°	9979.4	18.3
70°-80°	6489.0	11.9
80°-90°	1190.8	2.2
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°	54641.0	100.0
0°-180°	54641.0	100.0

Coefficient of Utilization

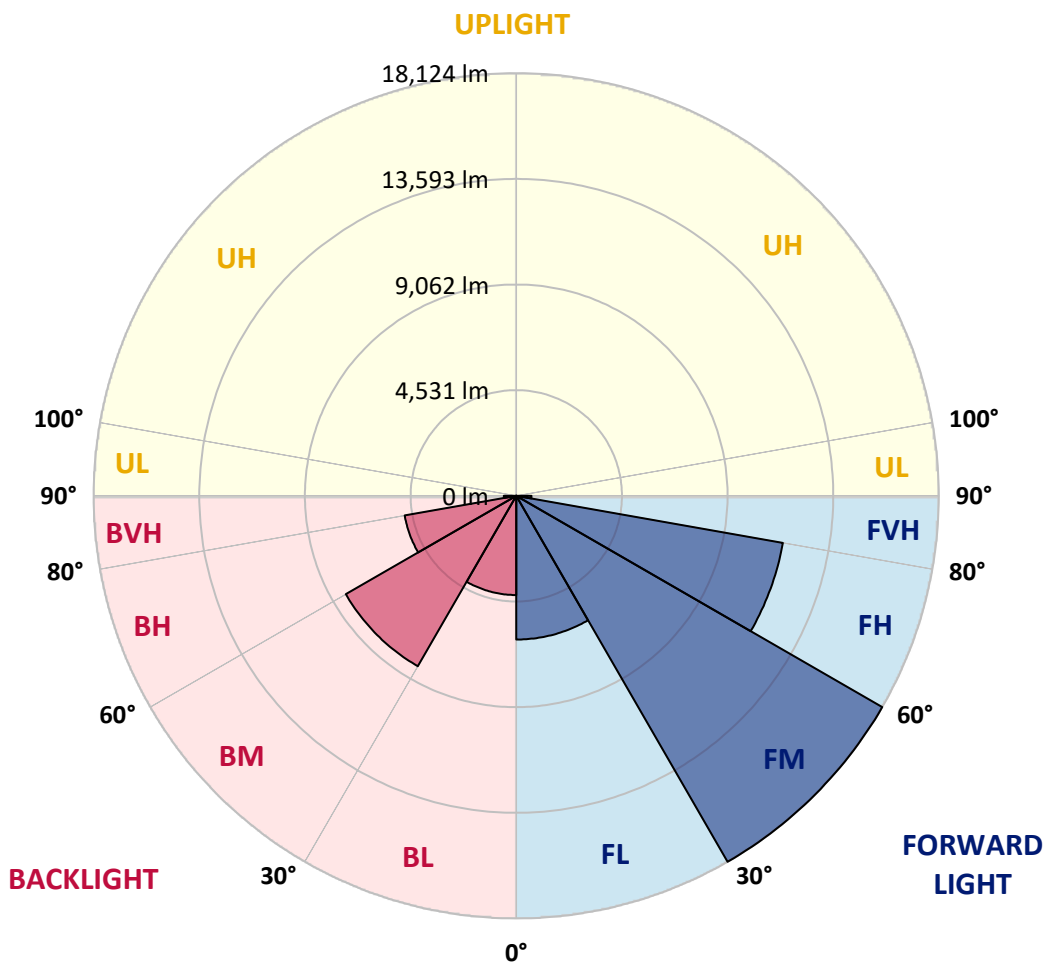


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	6163.2	11.3			
FM	(30°-60°)	18124.2	33.2			
FH	(60°-80°)	11610.5	21.2			G4/12000
FVH	(80°-90°)	654.2	1.2			G4/750
BL	(0°-30°)	4255.2	7.8	B4/5000		
BM	(30°-60°)	8439.2	15.4	B4/8500		
BH	(60°-80°)	4857.9	8.9	B4/5000		G4/5000
BVH	(80°-90°)	536.6	1.0			G4/750
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	84°	85°
0°	12773.4	12773.4	12773.4	12773.4	12773.4	12773.4	12773.4	12773.4	12773.4	12773.4	12773.4
2.5°	13321.9	13196.4	13210.4	13270.8	13038.4	13115.1	12984.9	13008.2	12852.5	12824.6	12840.8
5°	14258.6	14123.8	14123.8	14160.9	13770.5	13665.9	13303.3	13242.9	13012.8	12910.6	12915.2
7.5°	14742.0	14609.5	14583.9	14618.8	14337.6	14360.8	13989.0	13633.4	13224.3	13043.0	13033.7
10°	15453.2	15304.4	15216.1	15218.4	14839.6	14695.5	14421.2	14172.6	13547.4	13194.1	13149.9
12.5°	16027.2	15913.3	15866.9	15832.0	15413.7	15318.4	14802.4	14600.2	13933.2	13424.2	13366.1
15°	16359.6	16252.7	16185.3	16106.2	15873.8	15718.1	15495.0	15034.8	14391.0	13793.7	13721.7
17.5°	15492.7	15309.1	14990.7	14851.2	14797.8	15023.2	15983.1	15748.3	14981.4	14319.0	14242.3
20°	13205.7	13373.1	13614.8	13066.3	13235.9	14911.6	16712.8	16691.9	15806.4	14948.8	14848.9
22.5°	11234.9	10793.3	11555.6	12392.3	12926.8	14507.2	16996.4	17781.9	16924.3	15834.3	15718.1
25°	9210.5	9461.5	10488.8	12173.8	12922.2	14200.5	16840.7	18618.6	18353.7	17040.5	16903.4
27.5°	8936.3	8940.9	9928.7	11218.6	13177.8	14911.6	17010.3	18651.2	19969.0	18600.0	18335.1
30°	8878.2	8850.3	9117.6	10684.0	12727.0	15576.3	18102.7	18941.7	20361.7	20343.1	19989.9
32.5°	8606.3	8590.0	8868.9	9580.1	11762.4	16280.6	19136.9	20296.7	20220.0	21914.3	21819.0
35°	8218.1	8276.2	8622.5	9361.6	11309.2	15694.9	20199.0	21849.2	21979.3	21151.9	21530.8
37.5°	7813.7	7846.3	8181.0	9073.4	10551.6	14669.9	21007.8	23371.5	23817.7	22323.3	22021.2
40°	7262.9	7330.3	7723.1	8727.1	10398.2	13719.4	20436.1	25105.3	25800.2	24110.6	23645.7
42.5°	6679.6	6712.1	7190.9	8164.7	10142.5	13733.3	19262.4	26602.0	27627.0	25742.1	25270.3
45°	6168.3	6177.5	6626.1	7497.7	9638.2	13647.3	18521.0	26662.5	29814.0	27489.9	26897.2
47.5°	5543.1	5631.4	6075.3	6944.5	8994.4	13359.1	18867.3	24786.9	32008.0	29156.3	28614.7
50°	4250.8	4320.6	5180.5	6403.0	8290.2	12878.0	19104.4	26297.6	29563.0	30964.4	30576.3
52.5°	3655.9	3537.3	4155.6	5794.1	7646.4	12076.2	19204.3	28417.2	29558.3	32600.6	32212.5
55°	1564.1	2398.5	3744.2	4757.5	7058.4	11007.1	19132.3	30490.3	30999.3	34143.8	34009.0
57.5°	1236.4	1294.5	2751.8	3848.8	6361.2	9742.8	18806.9	31861.5	32263.6	35689.4	35305.9
60°	227.8	258.0	1352.6	1626.9	4606.4	7855.6	17621.6	32056.8	33186.3	37035.1	36544.7
62.5°	104.6	123.2	1087.7	1355.0	3683.8	6461.1	16605.9	31994.0	34039.3	38034.4	37602.2
65°	48.8	62.8	973.8	1229.5	3188.7	6028.8	14846.6	31824.4	33851.0	38573.6	37871.8
67.5°	37.2	53.5	894.8	1104.0	2651.8	5598.8	13175.5	30044.1	32944.6	37739.3	36765.5
70°	37.2	53.5	818.1	1004.0	2249.8	5052.7	10695.7	27815.2	30876.1	35631.3	34820.2
72.5°	39.5	53.5	727.5	908.7	1949.9	4362.4	8355.3	24257.0	28396.3	32721.5	31868.5
75°	39.5	53.5	627.5	804.2	1643.2	3653.5	5594.2	17338.0	24459.2	27850.1	26901.8
77.5°	39.5	53.5	520.6	671.7	1338.7	2919.1	3618.7	9347.7	19243.8	22839.3	21623.7
80°	39.5	53.5	388.1	509.0	1006.3	2059.2	2161.4	4713.3	10354.0	15004.6	15216.1
82.5°	39.5	51.1	269.6	371.9	657.7	1129.5	1194.6	2275.3	3820.9	6154.3	6240.3
85°	37.2	44.2	192.9	246.4	360.2	425.3	581.0	1131.9	1831.4	2626.3	2605.4
87.5°	23.2	23.2	62.8	97.6	146.4	167.3	260.3	418.3	632.2	866.9	818.1
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°	12773.4	12773.4	12773.4	12773.4	12773.4	12773.4	12773.4	12773.4	12773.4	12773.4	12773.4
2.5°	12838.5	12785.1	12717.7	12699.1	12541.0	12466.7	12315.6	12383.0	12306.3	12243.5	12315.6
5°	12857.1	12778.1	12636.3	12469.0	12132.0	11978.6	11764.8	11788.0	11676.4	11590.5	11639.3
7.5°	12903.6	12806.0	12582.9	12206.3	11804.3	11562.6	11339.4	11513.8	11437.1	11372.0	11420.8
10°	12926.8	12850.1	12455.0	12057.6	11478.9	11346.4	11067.5	11046.6	11053.6	11046.6	11123.3
12.5°	12989.6	12880.3	12306.3	11799.6	11306.9	10956.0	10784.0	10781.7	10560.9	10465.6	10507.4
15°	13175.5	12938.5	12206.3	11492.8	10949.0	10716.6	10172.7	10175.1	10082.1	9972.9	9970.5
17.5°	13547.4	13112.8	12206.3	11286.0	10619.0	10149.5	9675.4	9417.4	9354.6	9368.6	9359.3
20°	14037.8	13405.6	12201.7	10981.5	10154.1	9668.4	8985.1	8766.6	8569.1	8583.0	8583.0
22.5°	14742.0	13837.9	12211.0	10702.6	9710.2	9050.2	8280.9	8004.3	7792.8	7799.8	7799.8
25°	15753.0	14579.3	12320.2	10533.0	9115.3	8322.7	7546.5	7116.5	6900.4	6902.7	6907.3
27.5°	17040.5	15613.5	12699.1	10172.7	8620.2	7462.8	6612.2	6296.1	6079.9	6024.2	6024.2
30°	18497.8	16854.6	13189.5	9938.0	7853.2	6493.6	5787.1	5552.4	5292.1	5215.4	5215.4
32.5°	20113.1	18100.4	13696.1	9649.8	7130.4	5661.6	5073.6	4857.4	4532.1	4436.8	4404.2
35°	21793.4	19387.9	14312.0	9245.4	6221.7	4976.0	4455.4	4192.7	3958.0	3832.5	3802.3
37.5°	22699.8	20854.5	14867.5	8836.4	5519.8	4434.4	3853.4	3648.9	3493.2	3404.9	3388.6
40°	23945.5	21921.2	15155.7	8160.0	4764.5	3883.6	3297.9	3288.6	3309.6	3230.5	3225.9
42.5°	25214.5	22974.1	15076.7	7253.6	4176.5	3321.2	3019.0	3179.4	3295.6	3225.9	3230.5
45°	26801.9	24391.8	15364.8	6300.7	3595.4	3009.8	2960.9	3149.2	3309.6	3293.3	3293.3
47.5°	28407.9	25763.0	14832.6	5134.0	3205.0	2919.1	2967.9	3100.4	3300.3	3353.7	3342.1
50°	29716.4	26702.0	14504.9	4143.9	2984.2	2921.4	2991.2	3040.0	3258.4	3344.4	3342.1
52.5°	30773.9	27596.8	13282.4	3497.8	2858.7	2930.7	3065.5	3030.7	3184.1	3274.7	3328.2
55°	32270.6	28835.5	11890.3	3249.1	2793.6	2921.4	3091.1	3063.2	3126.0	3167.8	3207.3
57.5°	33428.0	29451.4	10026.3	3088.8	2735.5	2907.5	3070.2	3072.5	3102.7	3086.4	3070.2
60°	34399.5	30013.9	8201.9	2933.1	2661.1	2877.3	2981.9	3014.4	3005.1	2984.2	2942.4
62.5°	34873.6	30622.8	6370.5	2768.0	2582.1	2789.0	2837.8	2875.0	2854.0	2784.3	2779.7
65°	34694.7	30185.8	4722.6	2589.1	2486.8	2691.3	2689.0	2705.3	2714.6	2626.3	2635.6
67.5°	33690.6	28266.1	3597.8	2361.3	2377.6	2551.9	2540.3	2549.6	2524.0	2463.6	2472.9
70°	30771.5	26086.1	2551.9	1977.8	2154.5	2333.4	2349.7	2389.2	2331.1	2224.2	2231.2
72.5°	26455.6	22339.6	1789.6	1575.8	1891.8	2119.6	2110.3	2108.0	2029.0	2070.8	2121.9
75°	22565.0	17107.9	1359.6	1269.0	1494.4	1824.4	1929.0	1936.0	1947.6	2366.0	2396.2
77.5°	17370.6	10349.4	1157.4	1001.7	1159.7	1513.0	1708.2	1787.3	2454.3	2542.6	2496.1
80°	10351.7	5977.7	894.8	780.9	936.6	1155.1	1459.6	1887.2	2465.9	2203.3	2108.0
82.5°	5038.7	2772.7	650.8	595.0	690.3	839.0	1145.8	2198.6	2087.1	1703.6	1680.3
85°	1880.2	936.6	390.5	406.7	460.2	550.8	871.6	2098.7	1601.3	1387.5	1310.8
87.5°	469.5	172.0	158.0	162.7	206.8	276.6	446.2	1011.0	776.3	643.8	629.8
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)