

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: P510707

Luminaire Tested: **CTN-CA8-230-727-U-T2**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510707
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-10)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-CA8-230-727-U-T2
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30131 lumens
Efficiency: N/A
Efficacy: 131.9 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G4

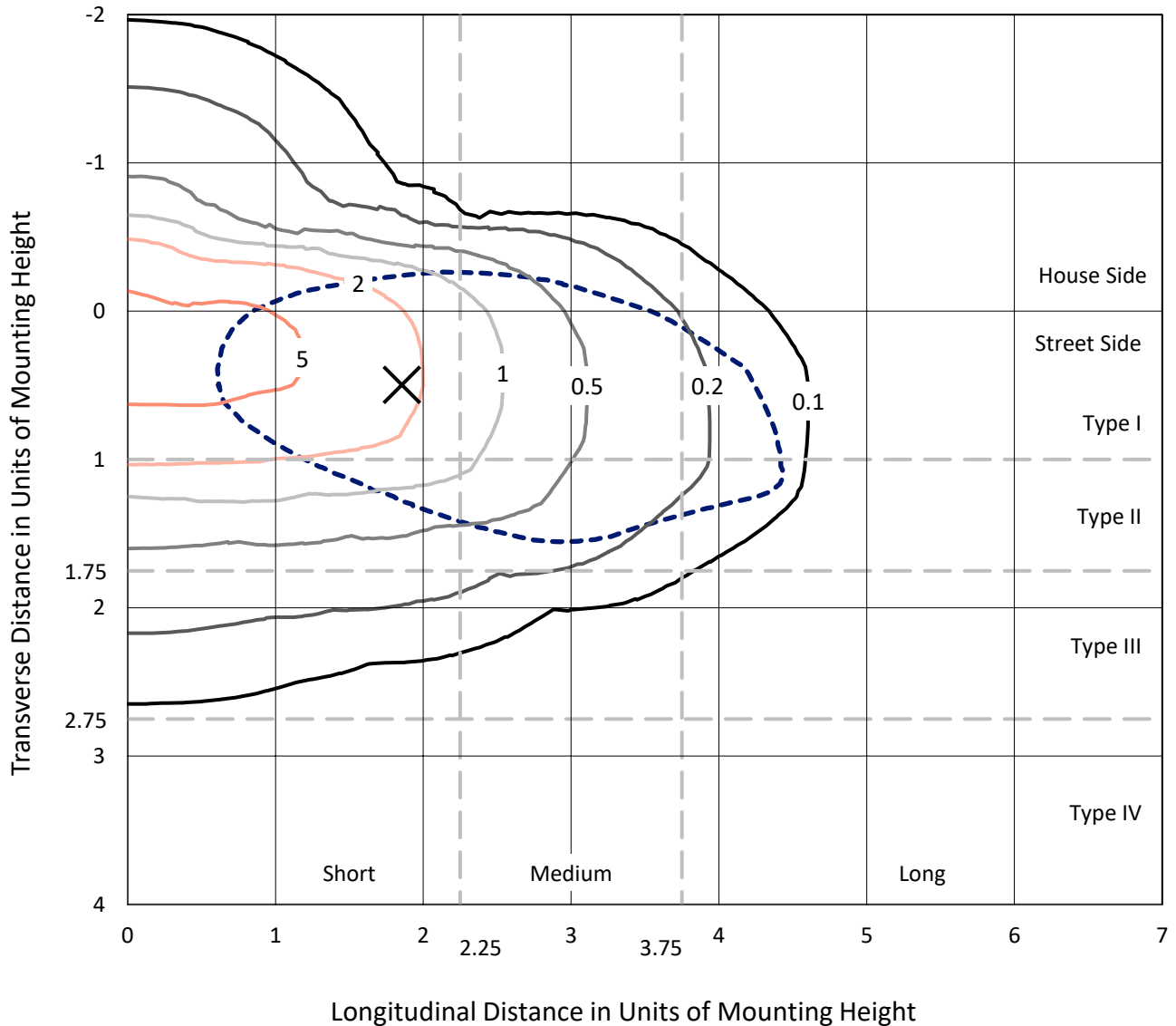
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

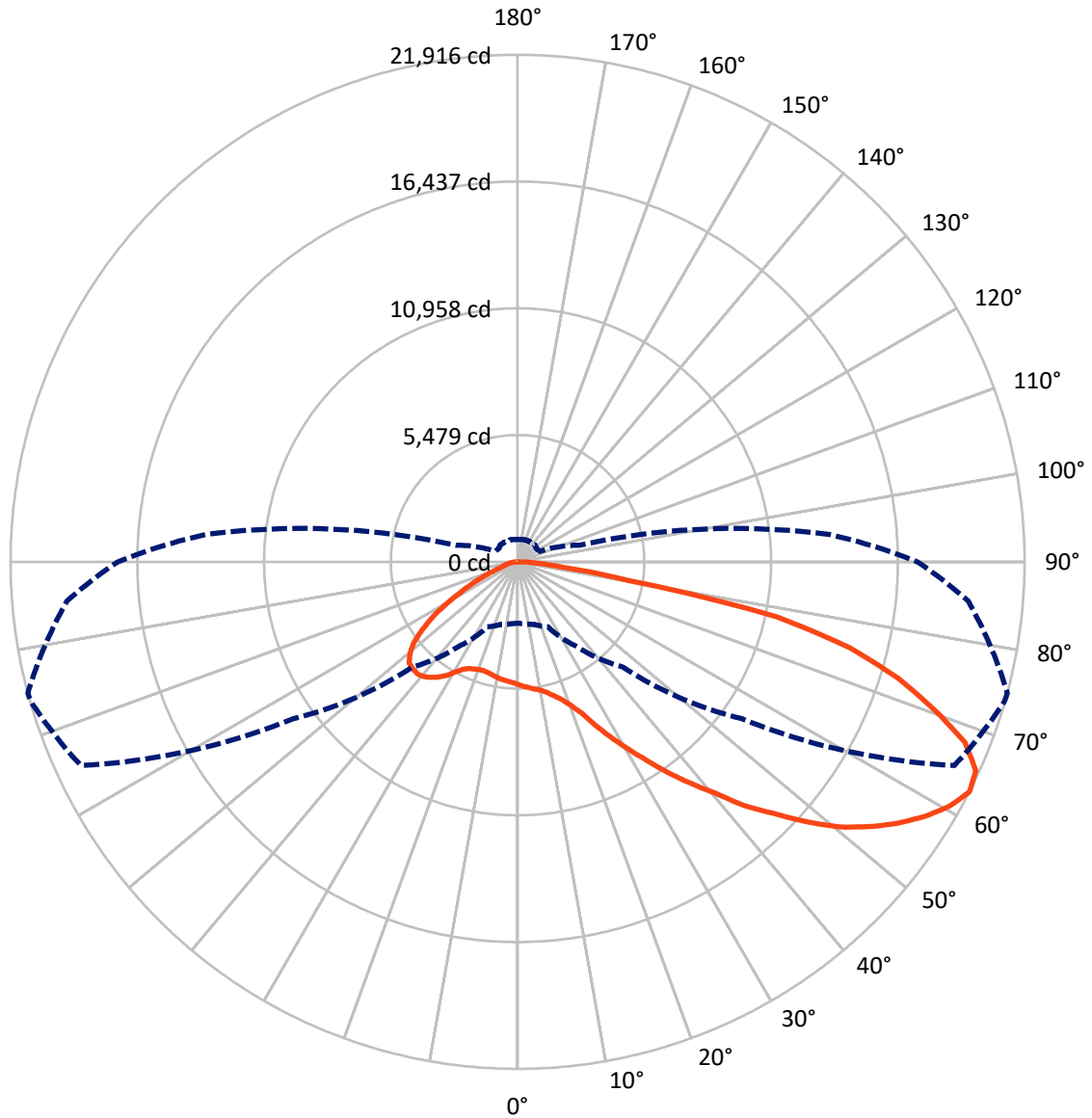
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.9 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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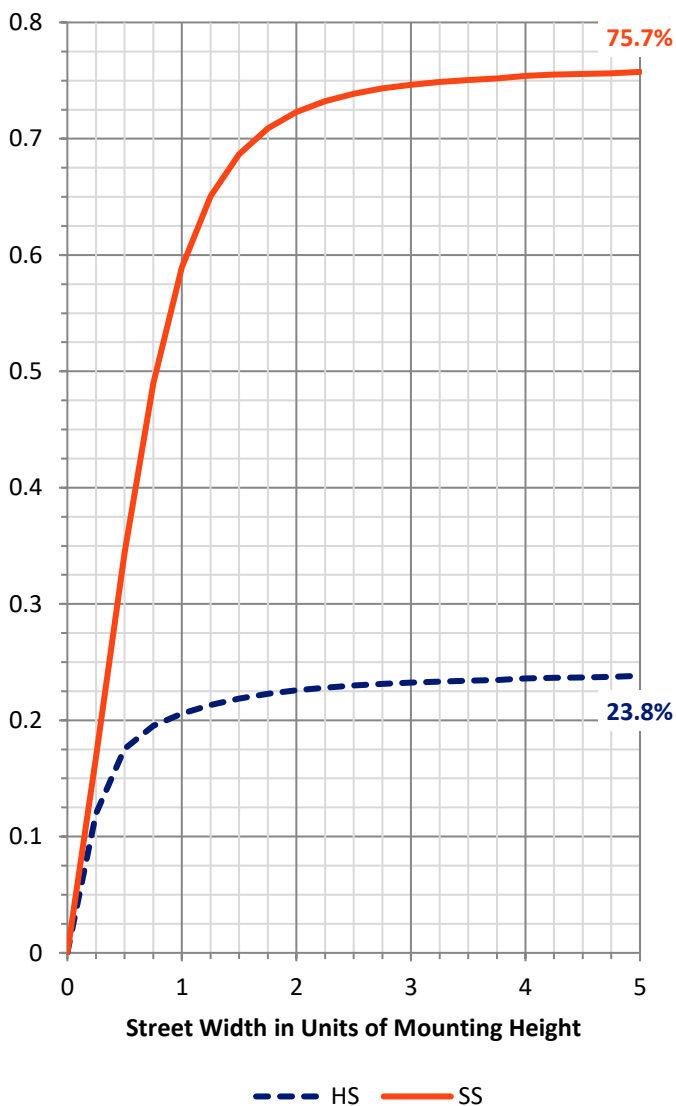
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7300.2	0.0	7300.2
	% Fixture	24.2	0.0	24.2
Street Side	Lumens	22830.8	0.0	22830.8
	% Fixture	75.8	0.0	75.8
Total	Lumens	30131.0	0.0	30131.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	511.0	1.7
10°-20°	1550.8	5.1
20°-30°	2674.7	8.9
30°-40°	3943.9	13.1
40°-50°	5198.9	17.3
50°-60°	6118.6	20.3
60°-70°	6087.4	20.2
70°-80°	3550.0	11.8
80°-90°	495.7	1.6
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°	30131.0	100.0
0°-180°	30131.0	100.0

Coefficient of Utilization



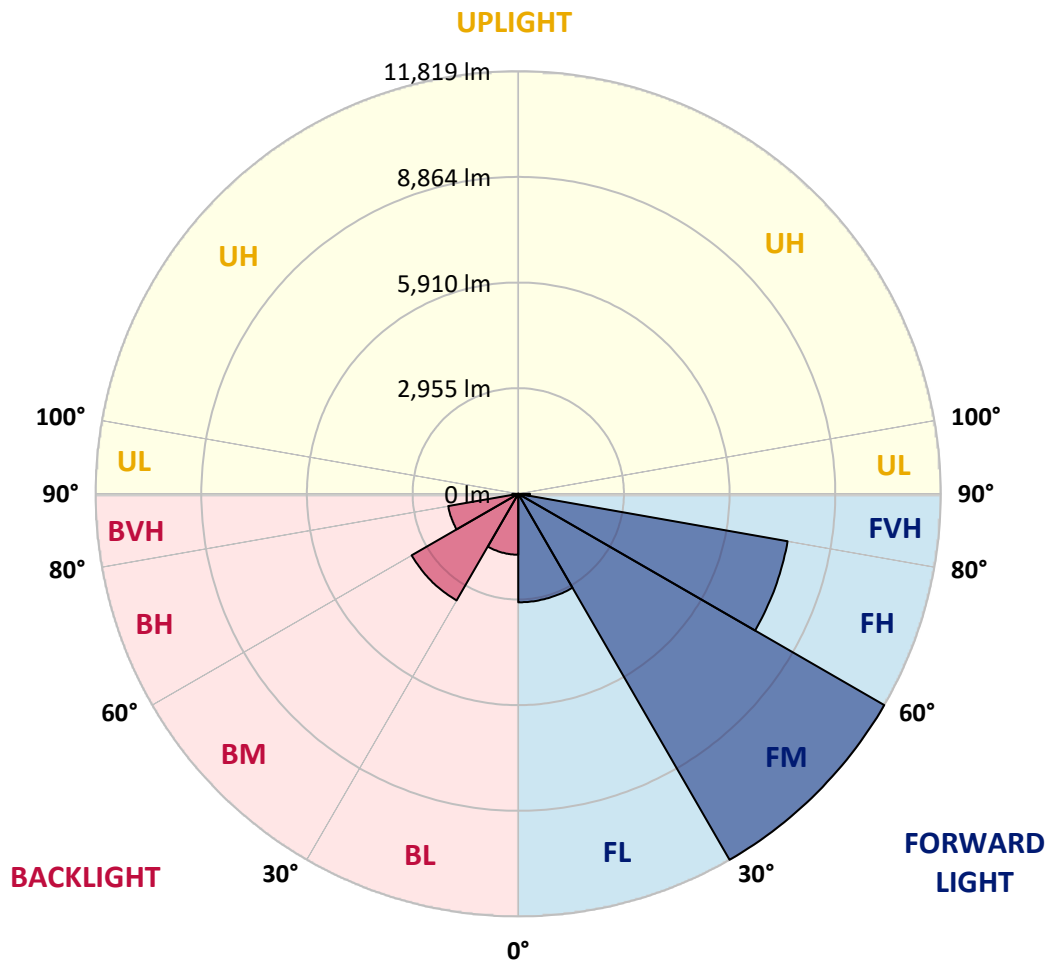
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3034.1	10.1			
FM (30°-60°)	11819.2	39.2			
FH (60°-80°)	7648.6	25.4			G4/12000
FVH (80°-90°)	328.9	1.1			G3/500
BL (0°-30°)	1702.4	5.6	B3/2500		
BM (30°-60°)	3442.3	11.4	B3/5000		
BH (60°-80°)	1988.8	6.6	B3/2500		G3/2500
BVH (80°-90°)	166.8	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	5311.4	5311.4	5311.4	5311.4	5311.4	5311.4	5311.4	5311.4	5311.4	5311.4	5311.4
2.5°	5602.2	5579.3	5582.4	5566.3	5542.1	5524.1	5477.0	5426.1	5395.7	5393.3	5349.9
5°	5883.8	5891.2	5893.1	5841.6	5790.8	5733.1	5661.2	5563.2	5483.2	5470.8	5386.4
7.5°	6140.5	6139.9	6136.2	6107.7	6084.1	5998.5	5854.6	5700.8	5570.6	5558.8	5421.8
10°	6403.5	6401.6	6364.4	6316.6	6263.3	6184.5	6061.1	5877.0	5666.1	5650.6	5454.7
12.5°	6690.0	6669.5	6645.9	6588.3	6525.0	6388.6	6259.0	6058.7	5838.5	5810.6	5512.9
15°	6926.2	6905.1	6872.3	6833.2	6766.9	6662.7	6525.0	6287.5	6051.2	6023.9	5643.8
17.5°	7160.0	7150.1	7126.5	7085.0	7034.1	6944.2	6817.7	6616.2	6306.7	6273.2	5861.5
20°	7351.6	7328.1	7310.7	7329.9	7334.3	7267.9	7198.5	7029.2	6688.1	6636.6	6128.7
22.5°	7460.8	7455.8	7550.7	7621.4	7649.9	7664.8	7643.1	7506.7	7197.8	7107.9	6500.8
25°	7564.3	7556.3	7685.3	7862.0	8030.1	8115.6	8173.3	8191.3	7907.9	7826.7	7099.2
27.5°	7567.4	7589.8	7777.0	8073.5	8329.6	8590.7	8867.2	8898.9	8650.2	8585.7	7780.1
30°	7584.2	7594.1	7779.5	8120.0	8653.3	9071.9	9432.2	9610.1	9395.6	9365.8	8529.9
32.5°	7371.5	7384.5	7672.9	8201.2	8897.6	9569.8	10048.0	10312.1	10258.8	10221.0	9329.8
35°	7150.1	7161.3	7496.1	8085.9	9079.3	10021.9	10604.2	11123.3	11220.6	11192.1	10222.2
37.5°	6802.8	6840.0	7191.0	7948.2	9110.9	10354.3	11135.0	11931.3	12225.2	12139.7	11166.0
40°	6425.8	6453.1	6861.7	7659.8	9075.6	10572.6	11656.6	12825.5	13181.5	13135.6	12103.1
42.5°	5949.5	6022.7	6432.0	7291.5	8893.9	10708.4	12139.0	13839.4	14356.6	14418.0	12963.8
45°	5548.3	5546.4	5926.6	6758.2	8564.6	10740.6	12583.0	14864.5	15621.1	15505.7	14101.7
47.5°	5076.4	5095.6	5492.5	6227.3	8079.0	10638.3	12929.1	16076.2	16842.1	16779.5	15035.0
50°	3984.3	4122.6	4874.2	5770.9	7422.3	10353.1	13217.4	17256.3	17987.5	18016.0	15883.4
52.5°	3434.9	3488.2	3903.1	5311.4	6839.4	9874.3	13533.7	18584.0	19094.4	19021.8	16846.4
55°	3214.8	3243.3	3442.3	4486.0	6275.7	9133.3	13685.6	19796.4	19957.6	19945.8	17639.0
57.5°	3055.4	3077.1	3218.5	3743.7	5656.8	8182.0	13557.3	20585.2	20835.7	20758.8	18386.8
60°	2825.3	2842.7	3053.5	3373.5	5019.9	7221.4	12767.8	20943.0	21472.6	21444.1	19047.9
62.5°	2652.3	2682.1	2799.9	3100.0	4476.1	6430.1	11827.1	20831.4	21890.6	21916.0	19552.7
65°	2469.4	2496.0	2595.9	2858.2	3983.1	5909.8	10812.6	20272.0	21698.3	21765.9	19634.5
67.5°	2243.6	2264.1	2382.5	2609.5	3407.0	5389.5	9668.4	19282.9	20631.7	20849.4	18819.7
70°	1959.6	1967.1	2112.2	2266.6	2829.0	4605.1	7687.7	17663.8	19088.2	19092.5	17281.1
72.5°	1559.6	1565.8	1604.3	1721.5	2125.2	3644.5	5650.6	14759.1	17211.7	17180.1	15358.7
75°	1060.4	1115.0	1248.3	1359.9	1533.0	2559.3	3514.3	9943.8	14582.3	14830.4	12615.9
77.5°	837.8	842.8	897.9	1000.3	1149.7	1911.9	1969.5	5501.8	10871.5	11461.2	9916.5
80°	584.2	592.8	563.1	587.9	801.8	1308.5	1151.0	2394.3	4533.8	4840.7	5953.9
82.5°	278.4	288.4	331.1	307.6	398.7	556.3	607.7	1237.2	1958.4	2009.8	2318.0
85°	183.6	183.6	184.2	174.3	232.5	242.5	276.0	527.7	956.2	988.5	982.9
87.5°	58.9	65.1	63.3	73.8	89.3	80.6	84.3	165.6	328.0	324.9	271.6
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°	5311.4	5311.4	5311.4	5311.4	5311.4	5311.4	5311.4	5311.4	5311.4	5311.4	5311.4
2.5°	5318.8	5293.4	5233.9	5181.8	5130.3	5091.3	5057.8	5013.1	4992.0	4972.8	5013.1
5°	5334.4	5289.1	5182.4	5075.8	4977.8	4905.8	4861.8	4829.6	4800.4	4800.4	4814.1
7.5°	5352.3	5290.9	5138.4	4987.1	4840.1	4758.3	4695.6	4654.7	4631.1	4632.4	4661.5
10°	5364.1	5269.9	5088.2	4884.1	4724.1	4592.7	4531.3	4472.4	4427.7	4401.1	4430.8
12.5°	5377.8	5263.0	5020.6	4790.5	4595.8	4446.9	4319.2	4275.2	4231.8	4198.3	4214.4
15°	5462.1	5289.1	4964.1	4671.4	4445.7	4260.3	4092.9	4012.2	3999.8	3976.9	3982.5
17.5°	5599.8	5359.2	4927.5	4525.7	4265.2	4046.3	3834.3	3730.1	3705.3	3693.5	3699.7
20°	5805.0	5492.5	4938.7	4423.4	4061.8	3816.9	3542.8	3420.6	3338.2	3343.1	3367.3
22.5°	6118.8	5707.7	4999.5	4311.1	3841.7	3520.5	3243.9	3077.7	2994.6	2976.6	3003.9
25°	6618.6	6054.3	5066.5	4203.9	3629.0	3200.5	2894.1	2714.3	2607.6	2600.8	2631.2
27.5°	7259.2	6585.8	5212.2	4110.8	3364.8	2816.0	2511.5	2357.7	2244.2	2230.6	2220.7
30°	7914.7	7176.1	5475.7	3969.4	3056.6	2419.1	2154.3	2034.0	1906.9	1855.4	1866.6
32.5°	8609.3	7726.2	5784.6	3870.2	2711.8	2070.0	1839.9	1725.2	1608.6	1534.2	1516.8
35°	9308.8	8273.1	6044.4	3722.0	2385.0	1792.8	1572.6	1454.2	1352.5	1291.7	1287.4
37.5°	10127.3	8842.4	6252.8	3564.5	2045.8	1575.7	1311.0	1242.7	1193.7	1140.4	1146.0
40°	10947.1	9506.0	6419.6	3304.0	1764.3	1342.6	1115.6	1129.3	1139.8	1095.1	1091.4
42.5°	11628.0	10063.5	6495.9	2966.7	1515.0	1139.8	1029.4	1091.4	1137.3	1108.2	1104.5
45°	12319.5	10532.9	6466.1	2548.1	1307.9	1043.1	1022.6	1085.8	1144.8	1137.9	1134.8
47.5°	13071.1	11148.1	6414.6	2071.2	1159.6	1033.8	1037.5	1067.2	1141.7	1154.1	1149.1
50°	13990.1	11714.2	6110.1	1613.0	1087.7	1048.6	1071.0	1055.5	1118.7	1144.1	1148.5
52.5°	14904.8	12150.2	5702.7	1397.8	1059.2	1062.9	1117.5	1064.8	1092.7	1115.0	1135.5
55°	15610.5	12594.2	5043.5	1268.2	1049.9	1069.7	1130.5	1084.6	1084.0	1084.0	1090.8
57.5°	16333.0	13188.9	4384.3	1184.4	1033.8	1077.2	1115.0	1088.3	1079.6	1067.2	1059.2
60°	16835.9	13409.1	3537.2	1129.3	1017.0	1066.6	1071.6	1067.9	1041.2	1029.4	1020.1
62.5°	17282.4	13528.7	2754.0	1066.0	994.1	1041.8	1015.8	1007.7	992.2	963.7	968.6
65°	17162.7	13272.0	2098.5	994.7	977.9	1012.1	966.8	947.6	948.8	919.0	929.0
67.5°	16392.5	12120.4	1506.9	885.5	933.9	953.1	911.0	896.7	875.6	860.7	874.4
70°	14836.6	10744.4	1016.4	734.9	833.5	875.0	847.1	822.3	789.4	779.5	794.4
72.5°	12487.5	8968.9	701.4	591.0	719.3	773.3	762.8	737.3	713.8	738.0	767.1
75°	10258.8	6635.4	572.4	484.3	553.2	644.3	675.3	682.8	753.5	989.1	1013.3
77.5°	7384.5	4113.3	514.7	393.8	441.5	515.3	577.3	602.8	920.3	881.2	879.3
80°	4305.6	2397.4	392.5	310.7	357.2	377.7	451.5	707.6	793.8	680.9	664.2
82.5°	1964.6	1057.9	273.5	248.7	248.1	249.9	307.6	680.9	609.0	536.4	516.6
85°	722.5	372.1	166.2	143.9	165.0	143.2	201.5	499.2	352.9	347.3	289.6
87.5°	178.0	76.3	56.4	47.1	38.4	36.6	61.4	164.3	86.2	78.8	75.7
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)