

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: P232784

Luminaire Tested: **CTN-8-3-D-E1-T2-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232784
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-7)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-8-3-D-E1-T2-7030
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 3000K LEDS AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30381 lumens
Efficiency: N/A
Efficacy: 134.4 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B3 - U0 - G4

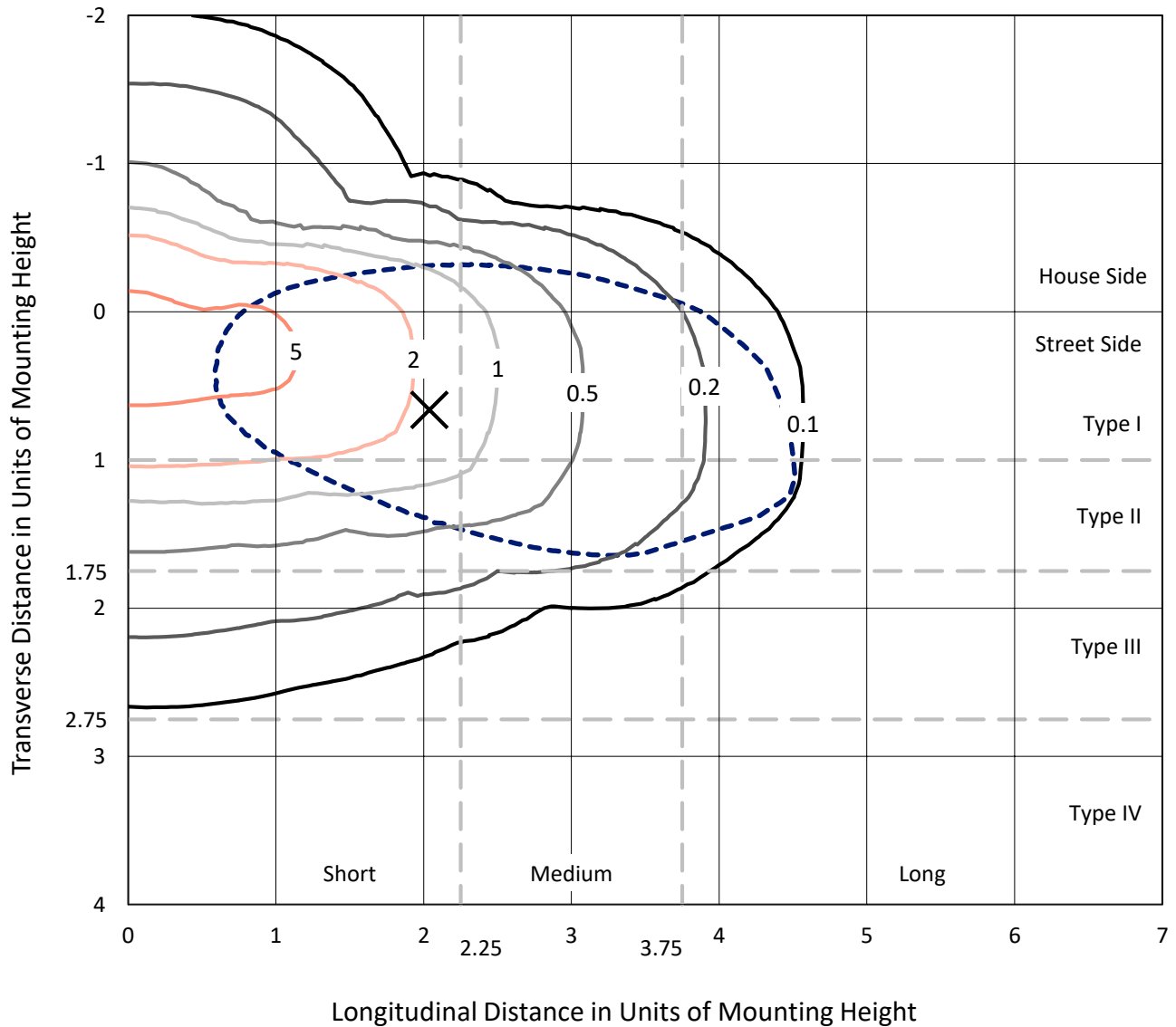
Input Watts (W): 226
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

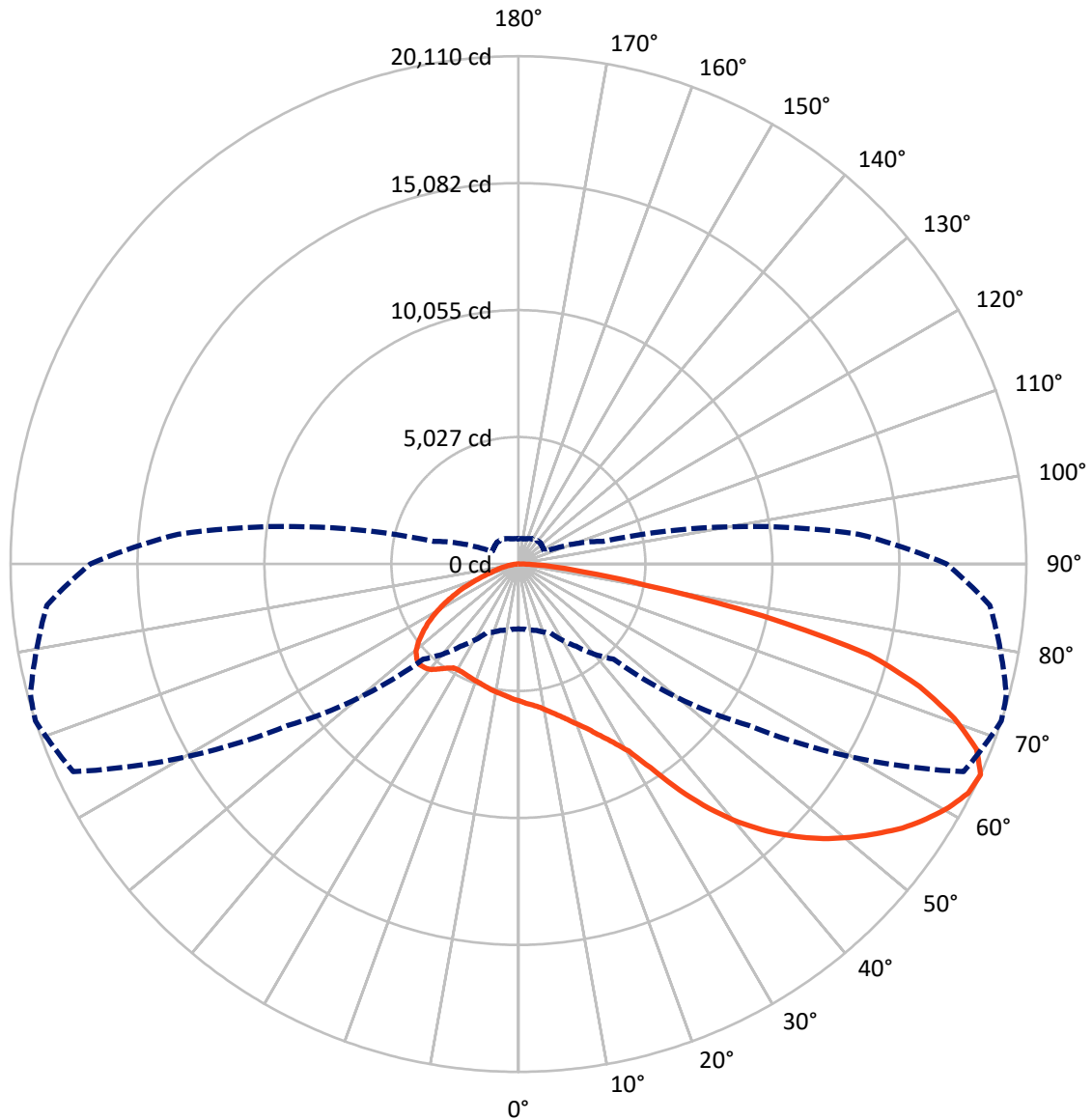
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.1 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 72-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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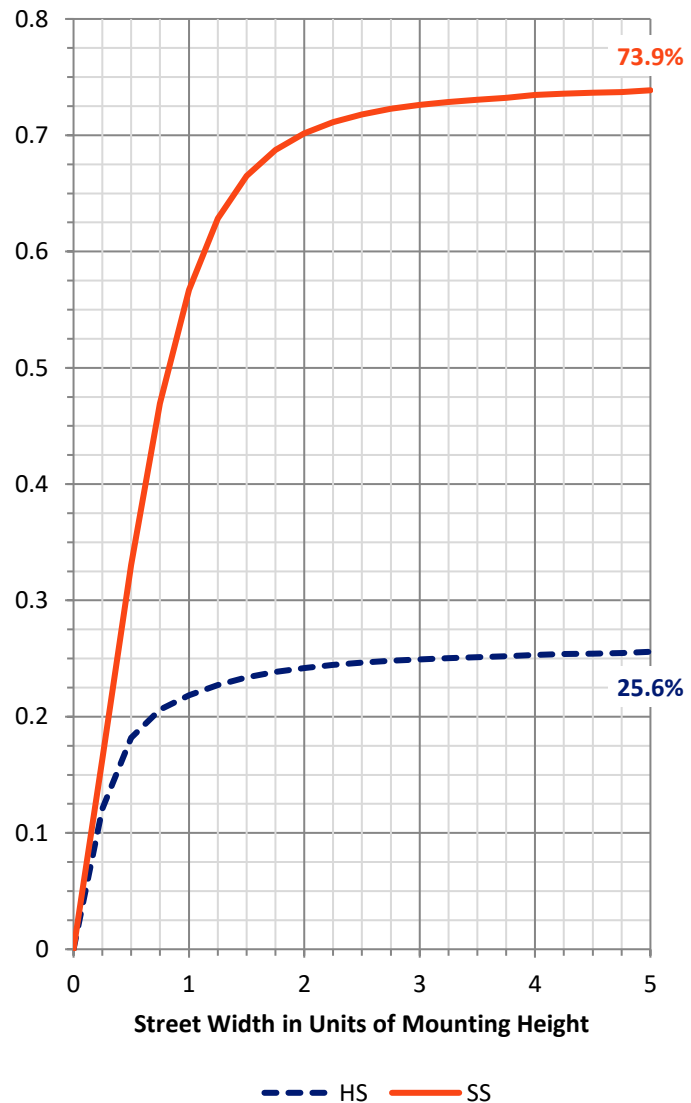
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7914.0	0.0	7914.0
	% Fixture	26.0	0.0	26.0
Street Side	Lumens	22467.0	0.0	22467.0
	% Fixture	74.0	0.0	74.0
Total	Lumens	30381.0	0.0	30381.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	521.4	1.7
10°-20°	1589.3	5.2
20°-30°	2662.1	8.8
30°-40°	3864.1	12.7
40°-50°	5225.1	17.2
50°-60°	6099.1	20.1
60°-70°	6072.7	20.0
70°-80°	3682.4	12.1
80°-90°	664.7	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°	30381.0	100.0
0°-180°	30381.0	100.0



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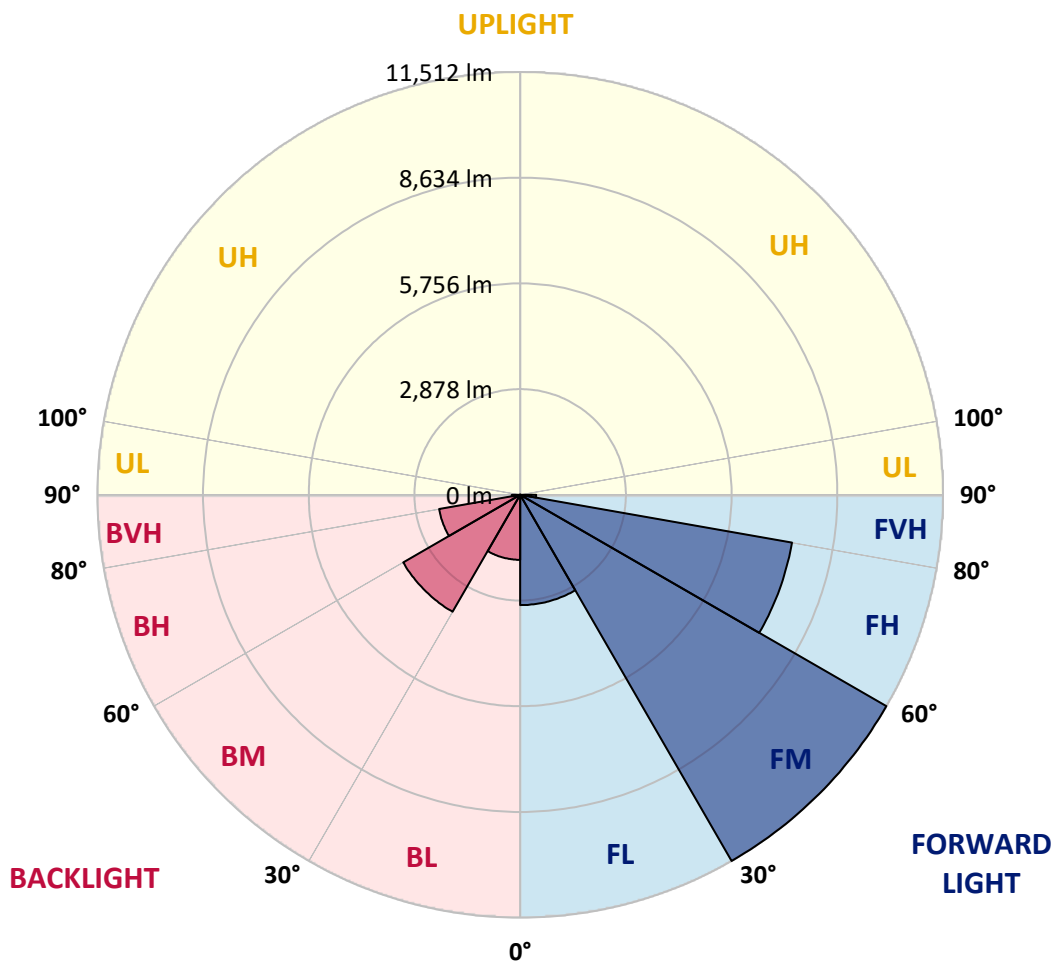
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3002.7	9.9			
FM	(30°-60°)	11512.0	37.9			
FH	(60°-80°)	7515.0	24.7			G4/12000
FVH	(80°-90°)	437.3	1.4			G3/500
BL	(0°-30°)	1770.2	5.8	B3/2500		
BM	(30°-60°)	3676.2	12.1	B3/5000		
BH	(60°-80°)	2240.1	7.4	B3/2500		G3/2500
BVH	(80°-90°)	227.5	0.7			G3/500
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°	72°	75°	85°
0°	5422.8	5422.8	5422.8	5422.8	5422.8	5422.8	5422.8	5422.8	5422.8	5422.8	5422.8
2.5°	5704.9	5694.1	5697.7	5702.9	5638.2	5627.3	5573.7	5546.4	5516.5	5495.5	5448.1
5°	5998.5	5997.6	5974.2	5974.5	5872.9	5833.8	5734.8	5661.8	5598.4	5565.5	5466.9
7.5°	6264.9	6237.3	6235.0	6228.4	6113.6	6051.2	5920.0	5809.1	5712.1	5661.5	5508.6
10°	6515.1	6495.7	6496.0	6488.1	6370.4	6292.5	6134.7	5995.3	5865.7	5800.3	5577.7
12.5°	6782.1	6760.1	6756.5	6728.8	6620.7	6545.7	6373.1	6201.7	6044.9	5970.9	5682.2
15°	7056.0	7035.0	7024.4	6992.5	6871.9	6792.0	6647.3	6435.5	6257.0	6164.9	5819.7
17.5°	7308.5	7295.7	7278.0	7253.3	7147.7	7060.3	6915.6	6714.4	6501.0	6383.3	5977.8
20°	7464.4	7453.2	7465.1	7465.1	7404.2	7340.8	7195.1	7022.5	6792.0	6646.3	6159.7
22.5°	7583.8	7572.2	7624.9	7651.5	7657.7	7643.6	7500.6	7350.0	7109.9	6959.7	6384.6
25°	7613.0	7614.3	7703.4	7823.1	7911.9	7953.3	7843.2	7732.4	7525.2	7337.1	6692.0
27.5°	7604.5	7613.0	7727.1	7940.8	8153.6	8254.2	8214.4	8150.0	7985.9	7825.8	7102.7
30°	7592.0	7614.3	7764.9	8027.7	8335.4	8534.7	8574.5	8672.1	8591.6	8482.4	7754.1
32.5°	7436.8	7456.8	7672.5	8059.9	8490.3	8852.0	9066.0	9480.0	9611.2	9589.8	8762.2
35°	7073.4	7112.9	7432.8	7975.4	8609.7	9175.2	9683.2	10550.0	11004.1	10967.6	9925.2
37.5°	6703.2	6751.5	7135.3	7817.9	8663.6	9519.1	10358.6	11746.2	12295.0	12241.7	11042.9
40°	6367.5	6423.0	6810.4	7581.8	8649.1	9840.7	11068.2	12870.4	13444.5	13349.8	12039.5
42.5°	5979.5	6060.0	6412.8	7267.1	8536.3	10067.3	11770.2	13944.6	14464.5	14319.8	12946.4
45°	5618.1	5682.9	6021.9	6836.0	8364.4	10234.0	12412.4	14940.0	15392.1	15223.4	13781.9
47.5°	5226.5	5308.7	5649.3	6392.5	8022.7	10271.5	13000.3	15824.1	16249.6	16074.0	14561.2
50°	4193.4	4325.9	5095.3	5958.4	7492.3	10135.3	13522.5	16653.4	17020.4	16881.6	15367.4
52.5°	3656.1	3682.1	4071.4	5460.3	6846.6	9779.2	13899.3	17466.9	17745.1	17603.7	16080.9
55°	3415.7	3422.9	3597.2	4621.5	6220.2	9100.9	14081.8	18245.9	18455.0	18259.0	16756.3
57.5°	3168.8	3209.2	3384.5	3900.1	5631.3	8122.0	13955.2	18927.2	19051.8	18831.1	17376.5
60°	2964.6	2997.5	3172.4	3522.6	4985.1	6984.0	13365.3	19470.0	19579.9	19354.6	17958.5
62.5°	2779.5	2803.5	2938.9	3267.1	4401.5	5974.9	12264.4	19615.4	19984.0	19804.8	18496.4
65°	2569.3	2591.4	2717.0	3009.6	3974.4	5329.1	11157.0	19451.9	20109.9	20001.4	18738.4
67.5°	2319.8	2349.4	2462.8	2715.0	3534.4	4773.1	9849.6	19037.3	19572.6	19405.9	18216.6
70°	1992.0	2040.3	2168.9	2387.5	3020.5	4056.6	7857.3	17674.4	18310.3	18119.9	16823.1
72.5°	1570.4	1580.9	1674.0	1855.8	2392.1	3227.0	5302.8	14955.4	16616.3	16562.3	14881.4
75°	1170.9	1206.7	1356.0	1496.1	1747.6	2315.2	3223.4	10900.2	14345.8	14345.8	12541.6
77.5°	955.5	974.3	1073.6	1191.3	1362.9	1624.7	2049.2	6159.0	9888.1	10891.0	9426.8
80°	746.7	740.2	747.1	800.0	962.1	1074.2	1362.3	3165.5	5108.4	5806.8	6175.1
82.5°	409.0	409.4	454.1	428.1	530.7	603.7	826.3	1780.5	2669.3	2963.9	3308.2
85°	207.2	202.2	225.2	210.1	245.6	275.5	375.2	884.5	1362.3	1476.7	1558.9
87.5°	74.0	70.4	80.9	97.0	90.8	96.3	129.6	318.0	526.4	563.3	552.1
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°	5422.8	5422.8	5422.8	5422.8	5422.8	5422.8	5422.8	5422.8	5422.8	5422.8	5422.8
2.5°	5434.6	5403.1	5364.9	5333.0	5265.6	5230.4	5202.5	5210.4	5180.1	5136.4	5135.7
5°	5431.0	5370.8	5289.0	5221.2	5112.7	5056.8	5004.2	4990.4	4945.4	4902.0	4899.6
7.5°	5443.5	5363.6	5230.8	5122.6	4981.2	4894.1	4812.5	4780.6	4727.7	4682.0	4679.7
10°	5478.0	5372.5	5190.6	5040.7	4863.8	4744.4	4638.9	4574.8	4513.6	4466.6	4465.9
12.5°	5539.8	5398.8	5155.5	4959.8	4749.7	4591.6	4456.7	4373.9	4288.4	4253.5	4251.6
15°	5627.0	5437.3	5109.8	4852.3	4609.3	4429.1	4262.4	4152.9	4058.2	4024.7	4031.9
17.5°	5738.8	5500.1	5072.9	4733.6	4454.4	4237.1	4063.8	3953.7	3814.2	3783.3	3791.9
20°	5877.5	5597.1	5065.0	4625.1	4284.8	4026.0	3813.2	3735.3	3558.7	3517.3	3511.7
22.5°	6057.1	5711.5	5061.8	4509.0	4085.8	3783.3	3531.1	3432.2	3283.9	3214.2	3198.4
25°	6279.3	5844.0	5056.2	4392.9	3864.2	3506.8	3200.0	3060.9	2968.2	2862.6	2860.3
27.5°	6572.0	6021.9	5069.3	4277.9	3622.5	3184.2	2844.6	2675.9	2622.6	2554.2	2518.7
30°	7076.4	6338.9	5105.2	4138.8	3358.2	2813.0	2455.2	2327.3	2261.9	2192.5	2180.7
32.5°	7923.1	7024.8	5216.0	3988.2	3063.9	2411.5	2136.6	2002.8	1894.3	1858.5	1848.9
35°	8983.5	7839.2	5500.7	3827.1	2745.6	2093.6	1874.2	1697.7	1594.1	1585.5	1584.9
37.5°	9936.1	8708.0	5871.9	3628.5	2394.7	1866.7	1613.8	1461.6	1383.6	1391.5	1412.3
40°	10857.4	9478.7	6265.5	3430.5	2054.1	1626.6	1361.0	1288.0	1253.1	1281.4	1295.2
42.5°	11722.9	10182.7	6549.0	3161.9	1759.2	1368.9	1186.7	1229.8	1242.3	1265.6	1275.1
45°	12531.7	10904.1	6759.7	2838.3	1493.8	1187.0	1161.7	1236.0	1271.5	1289.6	1288.6
47.5°	13314.3	11593.6	6822.9	2410.5	1288.6	1167.0	1184.7	1227.1	1282.7	1315.9	1313.6
50°	14095.2	12221.0	6769.9	1975.8	1247.2	1205.8	1206.7	1199.8	1264.6	1291.6	1281.4
52.5°	14795.3	12807.0	6470.7	1653.6	1274.8	1246.5	1232.7	1197.9	1216.3	1235.0	1225.8
55°	15424.6	13295.9	6001.5	1494.8	1298.5	1272.8	1291.3	1223.5	1187.0	1171.2	1174.2
57.5°	16010.3	13673.0	5462.2	1396.1	1293.6	1266.6	1314.6	1216.6	1163.3	1096.9	1084.1
60°	16565.6	13920.6	4854.9	1311.0	1270.2	1257.4	1264.0	1216.9	1141.3	1055.2	1034.1
62.5°	16958.2	13933.8	4157.8	1235.0	1225.2	1243.2	1224.2	1207.4	1147.2	1081.8	1068.6
65°	16950.3	13524.4	3468.3	1147.9	1168.9	1205.4	1172.5	1117.0	1025.9	1006.5	999.9
67.5°	16214.8	12488.3	2799.5	1018.7	1077.9	1154.5	1098.6	1008.1	929.6	906.5	910.8
70°	14615.4	11023.5	2067.6	825.7	941.1	1067.7	1032.8	932.2	846.0	828.0	847.4
72.5°	12719.8	9469.5	1469.8	654.7	781.6	944.7	930.9	844.1	768.4	776.0	793.4
75°	10619.4	7538.0	1078.2	563.3	613.6	805.3	840.1	784.5	736.5	760.5	759.9
77.5°	7914.5	5566.8	821.0	472.5	508.0	626.7	740.5	719.4	850.3	1033.5	1039.4
80°	5200.8	3614.3	554.1	388.0	415.6	470.2	604.4	693.1	870.7	754.6	745.4
82.5°	2881.7	1918.3	343.6	301.9	312.0	341.0	438.0	723.7	639.5	593.5	595.8
85°	1277.8	742.8	202.9	202.5	203.2	206.8	281.1	548.8	449.8	435.7	442.9
87.5°	442.6	195.6	63.8	50.6	57.2	71.7	146.3	334.7	234.8	194.7	195.3
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)