

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: P232691

Luminaire Tested: **CTN-10-4-D-E1-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232691
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-19)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-10-4-D-E1-T3-7030
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 3000K LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 41933 lumens
Efficiency: N/A
Efficacy: 136.1 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B4 - U0 - G4

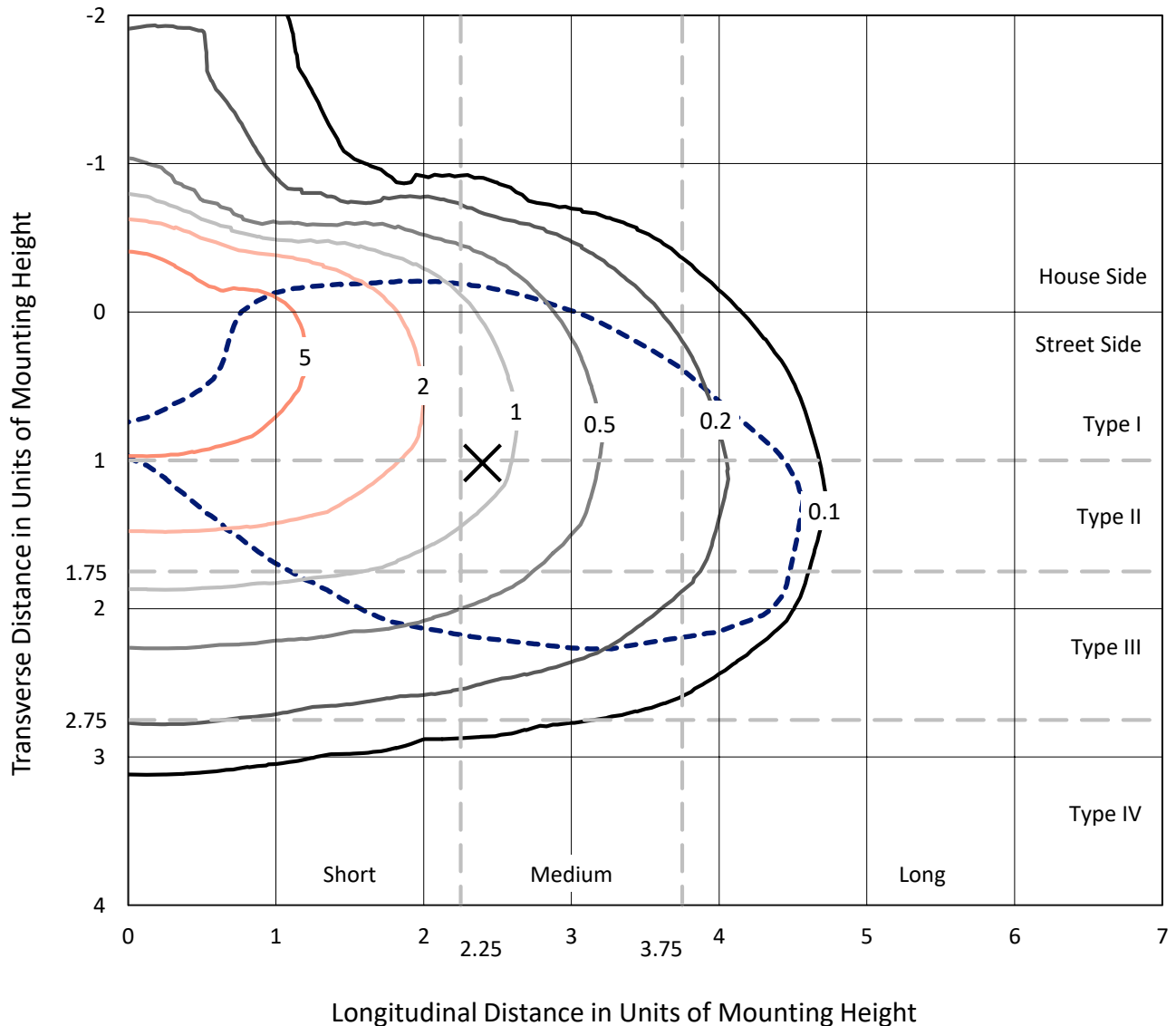
Input Watts (W): 308
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

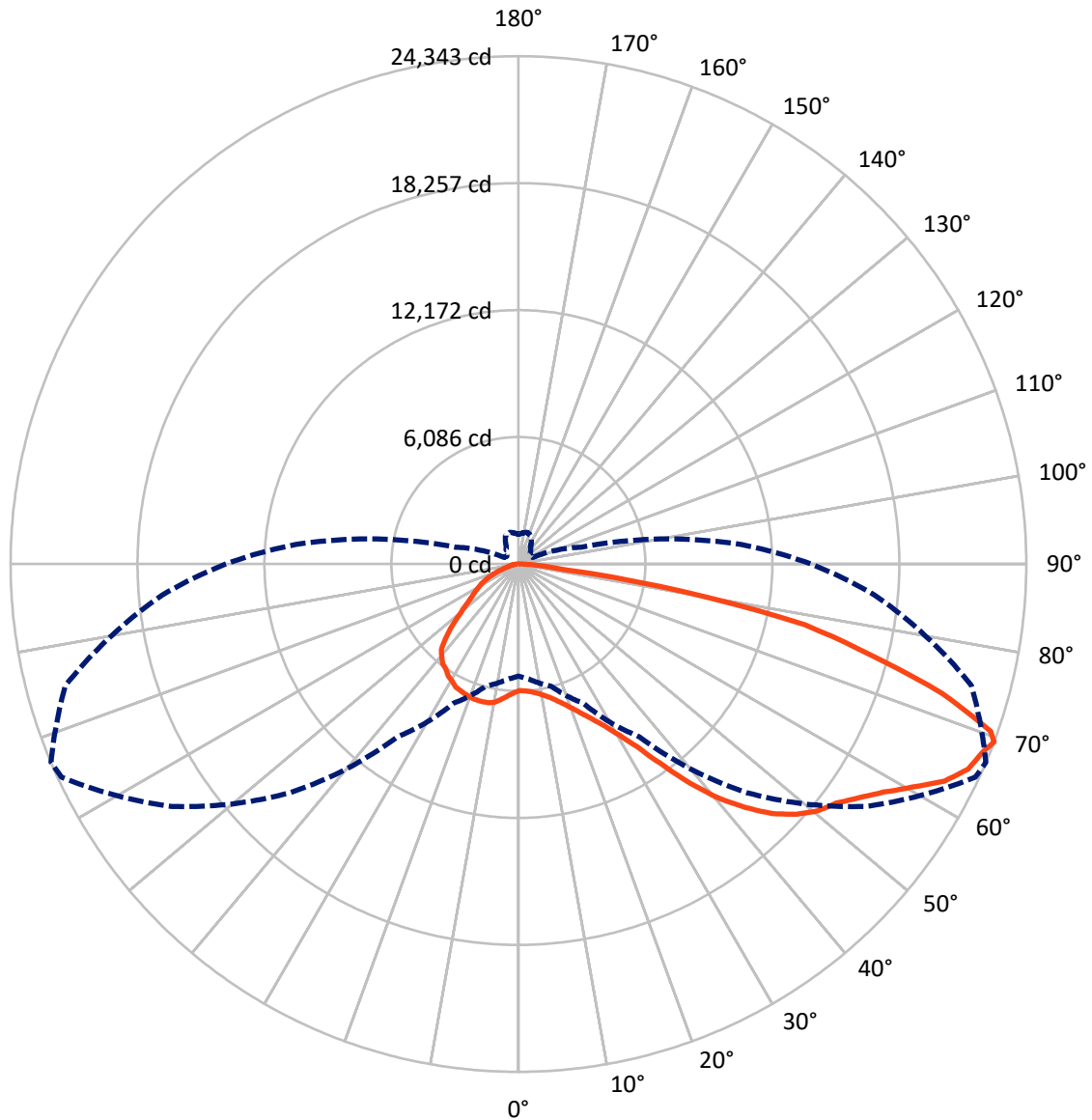
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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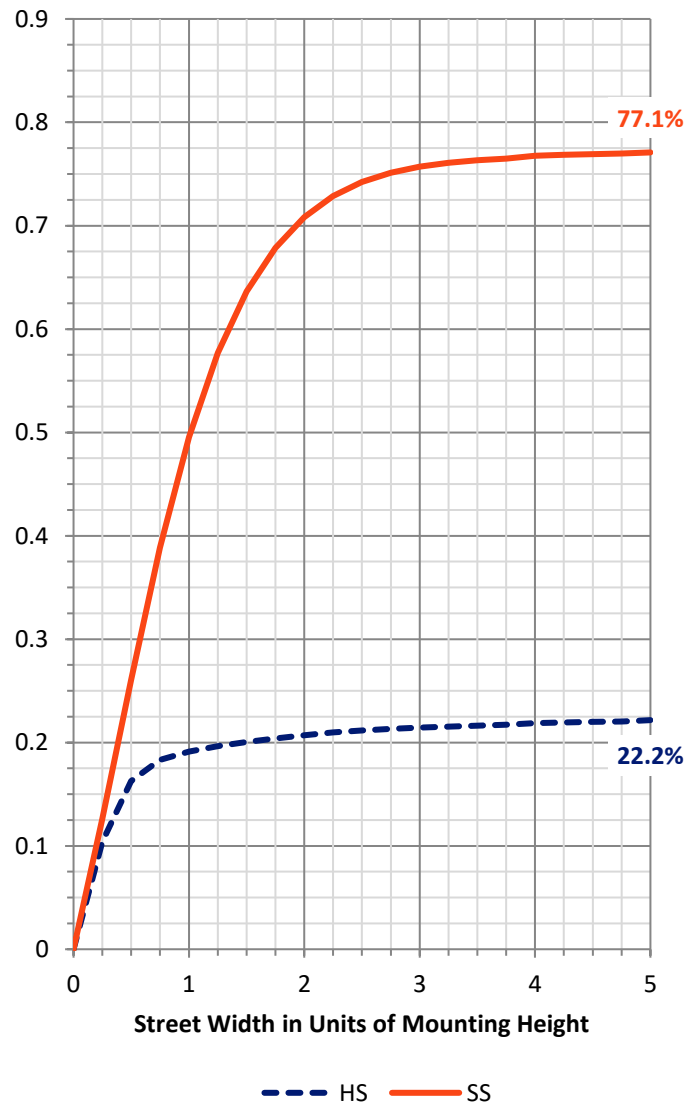
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9538.9	0.0	9538.9
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	32394.1	0.0	32394.1
	% Fixture	77.3	0.0	77.3
Total	Lumens	41933.0	0.0	41933.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	616.0	1.5
10°-20°	1978.4	4.7
20°-30°	3440.5	8.2
30°-40°	5182.7	12.4
40°-50°	7157.8	17.1
50°-60°	8542.8	20.4
60°-70°	8997.2	21.5
70°-80°	5277.8	12.6
80°-90°	739.7	1.8
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°	41933.0	100.0
0°-180°	41933.0	100.0

Coefficient of Utilization



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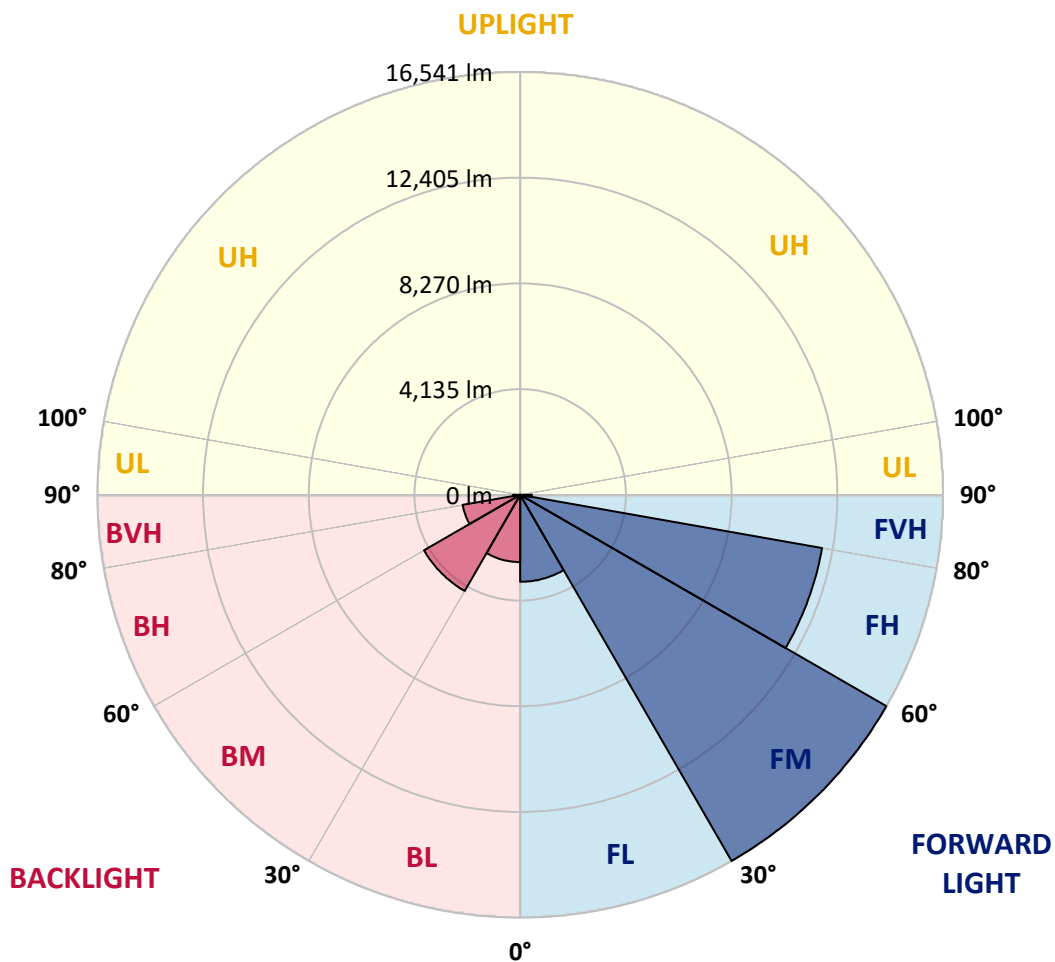
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3402.8	8.1			
FM	(30°-60°)	16540.6	39.4			
FH	(60°-80°)	11991.0	28.6			G4/12000
FVH	(80°-90°)	459.7	1.1			G3/500
BL	(0°-30°)	2632.1	6.3	B4/5000		
BM	(30°-60°)	4342.7	10.4	B3/5000		
BH	(60°-80°)	2284.0	5.4	B3/2500		G3/2500
BVH	(80°-90°)	280.0	0.7			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	6068.3	6068.3	6068.3	6068.3	6068.3	6068.3	6068.3	6068.3	6068.3	6068.3	6068.3
2.5°	6093.8	6101.9	6093.8	6080.4	6036.1	6056.2	6038.8	6095.2	6091.1	6069.6	6108.6
5°	6236.1	6245.5	6228.0	6217.3	6148.8	6158.2	6120.7	6151.5	6140.8	6104.5	6164.9
7.5°	6468.3	6477.7	6456.2	6441.5	6344.8	6323.3	6254.9	6264.3	6244.1	6186.4	6256.2
10°	6781.0	6789.1	6752.9	6716.6	6593.1	6540.8	6426.7	6407.9	6378.4	6322.0	6393.1
12.5°	7117.9	7130.0	7085.7	7038.8	6895.1	6809.2	6646.8	6589.1	6552.9	6484.4	6562.3
15°	7479.0	7493.8	7448.1	7394.4	7236.1	7103.2	6900.5	6813.3	6778.4	6692.5	6740.8
17.5°	7952.8	7948.8	7911.2	7837.4	7648.1	7453.5	7203.8	7073.7	7049.5	6966.3	6978.4
20°	8501.8	8483.0	8448.1	8346.1	8140.7	7899.1	7573.0	7407.9	7383.7	7313.9	7240.1
22.5°	9097.8	9079.0	9045.4	8915.2	8712.5	8395.8	8005.2	7810.5	7778.3	7691.1	7567.6
25°	9684.3	9664.2	9645.4	9521.9	9324.6	8964.9	8495.1	8246.8	8232.0	8143.4	7916.6
27.5°	10293.7	10281.6	10287.0	10181.0	9983.6	9610.5	9077.6	8807.8	8782.3	8669.6	8360.9
30°	10920.5	10923.2	10974.2	10861.5	10680.3	10304.4	9775.6	9500.4	9504.5	9403.8	8952.8
32.5°	11481.6	11484.3	11598.4	11542.0	11442.7	11068.2	10582.3	10389.0	10427.9	10419.9	9958.1
35°	11887.0	11904.4	12159.4	12235.9	12198.4	11872.2	11579.6	11626.6	11750.0	12099.0	11614.5
37.5°	12268.2	12274.9	12601.0	12778.2	12917.8	12721.8	12662.8	13108.4	13303.0	13786.2	13069.5
40°	12378.2	12470.8	12882.9	13129.9	13454.7	13551.3	13850.7	14509.7	14739.2	15030.5	14049.3
42.5°	12277.5	12409.1	12925.9	13512.4	13963.4	14442.6	14991.6	15737.9	15945.9	16125.8	14987.5
45°	12066.8	12167.5	12704.4	13582.2	14399.6	15350.0	15983.5	16877.4	17065.3	16948.6	15720.4
47.5°	11786.3	11862.8	12461.4	13470.8	14748.6	16163.4	16892.2	17791.5	17928.4	17655.9	16218.4
50°	11397.0	11488.3	12156.7	13317.8	15005.0	16843.9	17622.4	18478.7	18594.2	18096.2	16707.0
52.5°	10916.5	11030.6	11807.8	13057.4	15196.9	17351.2	18132.4	18936.4	19053.2	18729.7	17093.5
55°	10371.6	10529.9	11329.9	12740.6	15210.4	17621.0	18450.6	19607.6	19774.0	19425.0	17431.8
57.5°	9818.5	9920.6	10767.5	12256.1	14958.0	17711.0	18831.7	20388.8	20631.7	20098.8	17800.9
60°	9143.4	9241.4	10080.3	11607.8	14454.7	17849.2	19594.1	21506.9	21700.1	20884.0	18115.0
62.5°	8344.8	8456.2	9217.2	10720.5	13709.7	17905.6	20371.3	22696.1	22917.6	21598.1	18296.2
65°	7330.0	7453.5	8147.4	9646.7	12645.3	17505.6	20706.9	23575.3	23689.3	22145.8	18218.3
67.5°	6221.3	6323.3	6876.3	8311.2	11172.9	16462.7	20531.0	23900.1	24015.5	22517.6	17752.6
69°	5373.0	5530.1	6061.6	7359.5	10113.8	15508.3	20262.6	24167.2	24343.0	22476.0	17140.5
70°	4693.8	4869.7	5350.2	6520.6	9214.5	14517.8	19763.3	23964.5	24014.2	22074.6	16588.9
72.5°	2966.4	3024.1	3242.9	4021.4	6483.1	11285.6	17294.9	21274.6	21261.2	19694.8	14481.5
75°	1465.7	1540.9	1955.7	2257.7	3194.6	7258.9	13613.1	17473.4	17476.1	16622.4	11905.7
77.5°	880.5	912.7	1018.8	1455.0	1825.5	3257.6	9240.0	13833.2	14045.3	13528.5	8567.6
80°	606.7	590.6	621.5	715.4	982.5	1712.7	3798.6	7819.9	8049.5	7424.0	3649.6
82.5°	477.8	464.4	473.8	498.0	468.4	793.3	1606.7	2338.2	2269.7	2001.3	1402.6
85°	334.2	307.4	324.8	315.4	279.2	465.8	781.2	971.8	965.1	997.3	763.7
87.5°	106.0	94.0	96.6	94.0	77.9	165.1	280.5	378.5	349.0	354.4	268.4
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°	6068.3	6068.3	6068.3	6068.3	6068.3	6068.3	6068.3	6068.3	6068.3	6068.3	6068.3
2.5°	6118.0	6107.2	6119.3	6182.4	6167.6	6222.7	6236.1	6326.0	6330.0	6322.0	6362.3
5°	6193.1	6203.9	6249.5	6350.2	6383.7	6501.9	6555.5	6665.6	6676.3	6680.4	6719.3
7.5°	6301.9	6320.6	6418.6	6550.2	6613.3	6767.6	6848.2	6983.7	6993.1	7007.9	7052.2
10°	6462.9	6489.8	6567.6	6747.5	6767.6	6889.8	6963.6	7080.4	7072.3	7092.4	7132.7
12.5°	6625.3	6640.1	6699.2	6822.7	6809.2	6928.7	6960.9	7037.4	7032.0	7030.7	7060.2
15°	6799.8	6774.3	6782.4	6829.4	6779.7	6853.5	6830.7	6887.1	6813.3	6783.7	6803.9
17.5°	6985.1	6923.3	6844.1	6809.2	6715.3	6703.2	6625.3	6598.5	6547.5	6531.4	6547.5
20°	7205.2	7073.7	6881.7	6781.0	6575.7	6469.6	6320.6	6233.4	6115.3	6124.7	6147.5
22.5°	7429.3	7244.1	6954.2	6684.4	6394.5	6179.7	5883.1	5803.9	5649.5	5603.9	5649.5
25°	7704.5	7456.2	6990.4	6598.5	6120.7	5738.1	5437.4	5156.9	5040.1	4926.1	4969.0
27.5°	8065.6	7730.0	7122.0	6492.5	5810.6	5300.5	4822.7	4460.3	4315.3	4193.2	4201.2
30°	8534.0	8096.4	7171.6	6269.6	5437.4	4700.6	4099.2	3696.6	3515.3	3465.7	3444.2
32.5°	9399.8	8687.0	7260.2	6107.2	4973.0	4048.2	3310.0	2877.8	2763.7	2785.2	2855.0
35°	10934.0	9923.2	7528.7	5767.6	4460.3	3336.8	2571.7	2237.5	2256.3	2295.2	2287.2
37.5°	12257.4	11038.7	7975.6	5528.7	3833.5	2527.5	1942.2	1765.1	1877.8	1954.3	1951.6
40°	13156.7	11852.1	8560.9	5081.8	3041.5	1801.3	1429.5	1331.5	1475.1	1638.9	1667.1
42.5°	14049.3	12591.6	8844.1	4685.8	2135.5	1271.1	1034.9	1060.4	1244.3	1398.6	1426.8
45°	14690.9	13128.5	8968.9	3979.8	1363.7	973.1	903.3	997.3	1195.9	1318.1	1331.5
47.5°	15162.0	13532.6	8833.3	3220.1	1004.0	889.9	891.3	1010.7	1210.7	1349.0	1354.3
50°	15578.1	13817.1	8287.0	2511.3	903.3	861.7	908.7	1049.6	1253.7	1393.3	1389.2
52.5°	15862.7	13900.3	7624.0	2057.7	875.1	845.6	923.5	1085.9	1267.1	1361.0	1353.0
55°	16052.0	13775.5	7113.9	1693.9	851.0	844.3	947.6	1131.5	1280.5	1318.1	1299.3
57.5°	16168.7	13523.2	6683.1	1456.3	830.9	844.3	974.5	1149.0	1330.2	1398.6	1377.1
60°	16133.8	13410.4	6099.2	1261.7	802.7	847.0	989.2	1174.5	1530.2	1691.2	1695.3
62.5°	16064.0	13190.3	5528.7	1107.4	769.1	863.1	1008.0	1322.1	1879.1	1880.5	1813.4
65°	15732.5	12527.2	4699.2	967.8	734.2	867.1	1012.1	1565.1	2107.3	1930.2	1842.9
67.5°	14819.8	11556.8	3728.8	837.6	695.3	842.9	1008.0	1531.5	1702.0	1523.5	1479.2
69°	14023.8	10715.2	3115.4	759.7	667.1	818.8	1012.1	1468.4	1575.8	1469.8	1429.5
70°	13444.0	10033.3	2646.9	712.7	641.6	806.7	1012.1	1445.6	1558.4	1457.7	1418.8
72.5°	11539.3	7881.7	1586.5	594.6	567.8	759.7	1002.7	1410.7	1571.8	1485.9	1434.9
75°	8840.0	5732.7	923.5	488.6	477.8	681.9	953.0	1389.2	1617.4	1487.2	1375.8
77.5°	5664.3	2645.6	688.6	397.3	387.9	590.6	889.9	1319.4	1661.7	1559.7	1418.8
80°	1967.7	1200.0	514.1	314.1	300.7	483.2	779.8	1189.2	1582.5	1593.2	1487.2
82.5°	1079.2	790.6	363.7	233.6	221.5	303.3	606.7	1025.5	1464.4	1577.1	1585.2
85°	593.3	445.6	238.9	150.3	169.1	260.4	420.1	797.3	1178.5	1370.4	1430.8
87.5°	240.3	161.1	94.0	59.1	69.8	103.4	142.3	408.0	711.4	918.1	1010.7
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)