

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: P232690

Luminaire Tested: **CTN-8-4-D-E1-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232690
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-8-4-D-E1-T3-7030
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 3000K LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 42100 lumens
Efficiency: N/A
Efficacy: 129.5 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B4 - U0 - G5

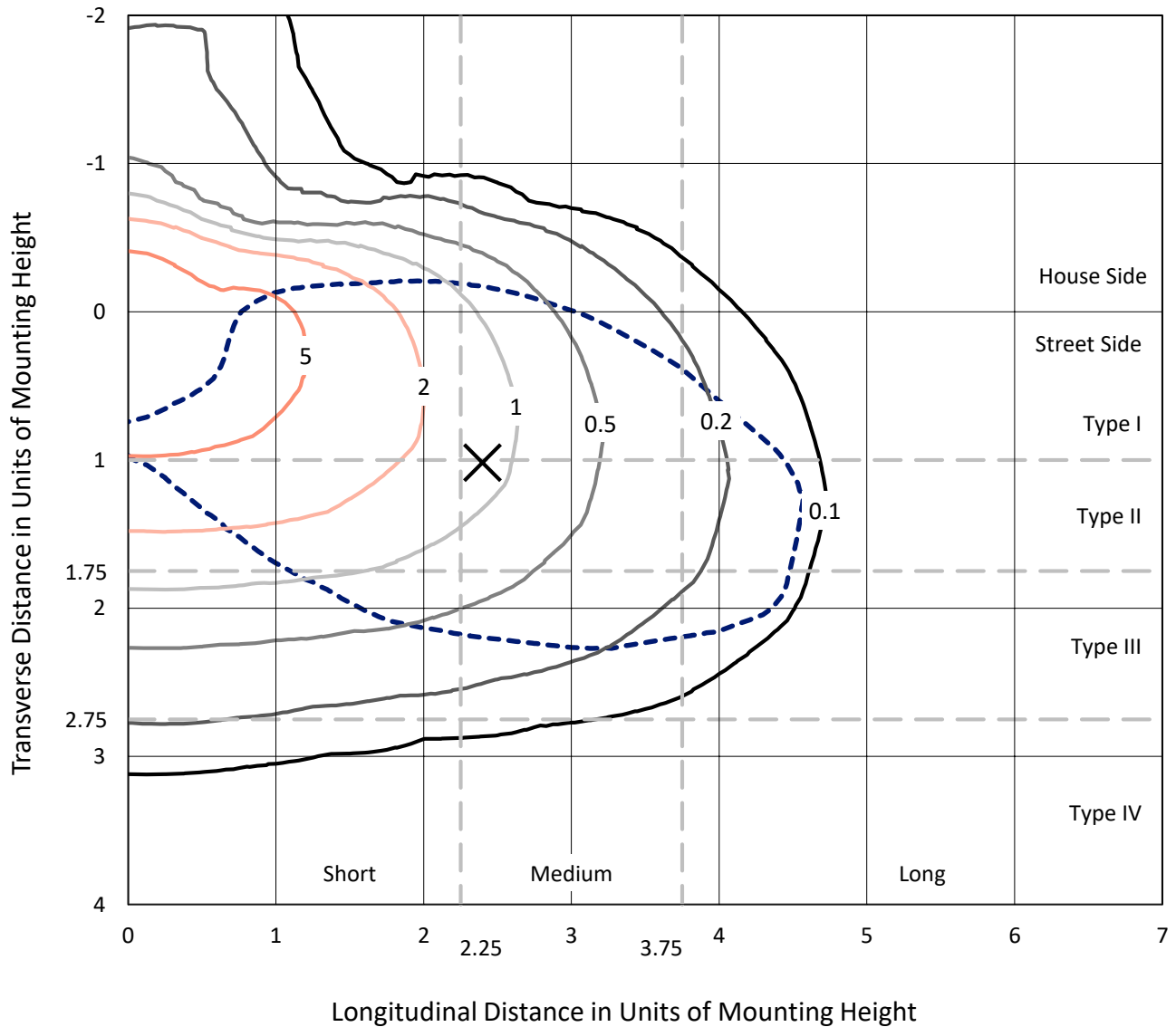
Input Watts (W): 325
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

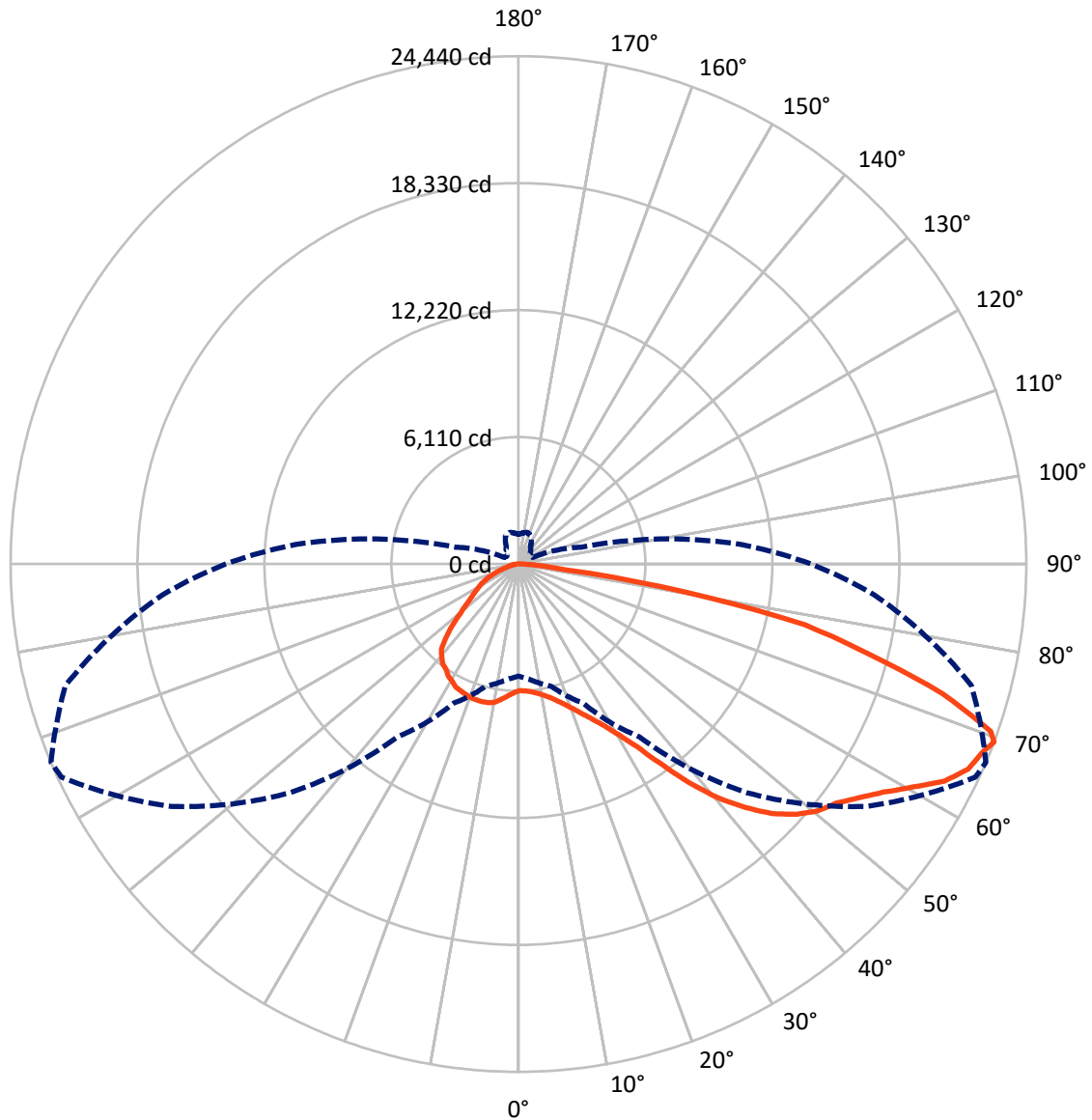
× Max cd
 - - - 1/2 Max cd



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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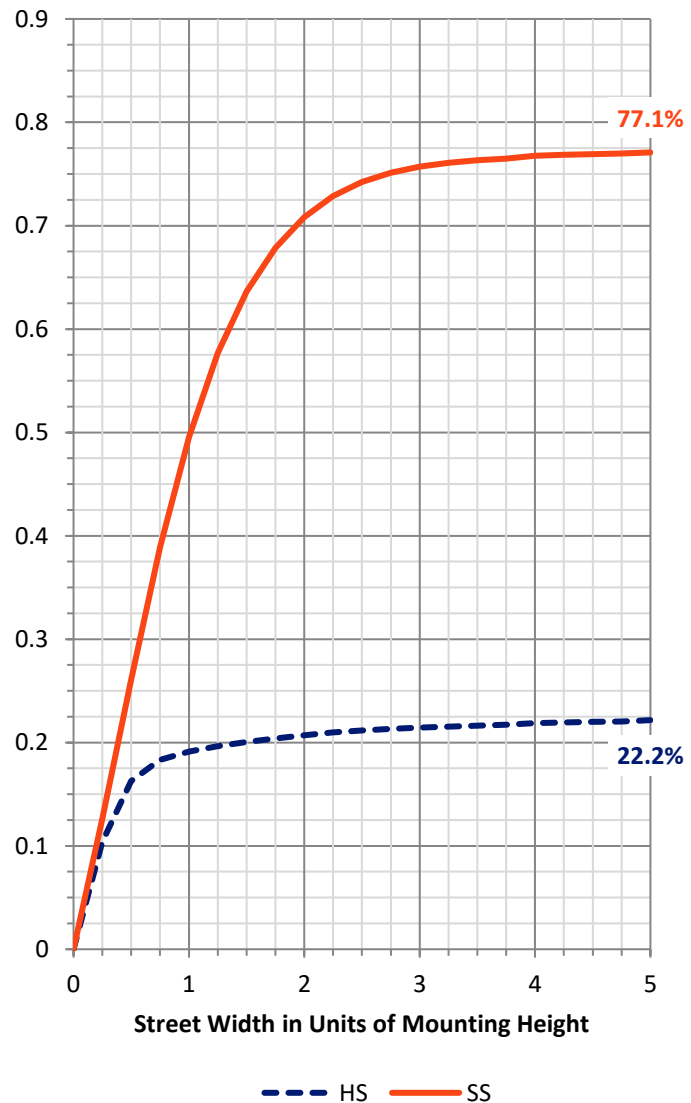
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9576.9	0.0	9576.9
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	32523.1	0.0	32523.1
	% Fixture	77.3	0.0	77.3
Total	Lumens	42100.0	0.0	42100.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	618.5	1.5
10°-20°	1986.3	4.7
20°-30°	3454.2	8.2
30°-40°	5203.3	12.4
40°-50°	7186.3	17.1
50°-60°	8576.9	20.4
60°-70°	9033.0	21.5
70°-80°	5298.8	12.6
80°-90°	742.6	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°	42100.0	100.0
0°-180°	42100.0	100.0

Coefficient of Utilization



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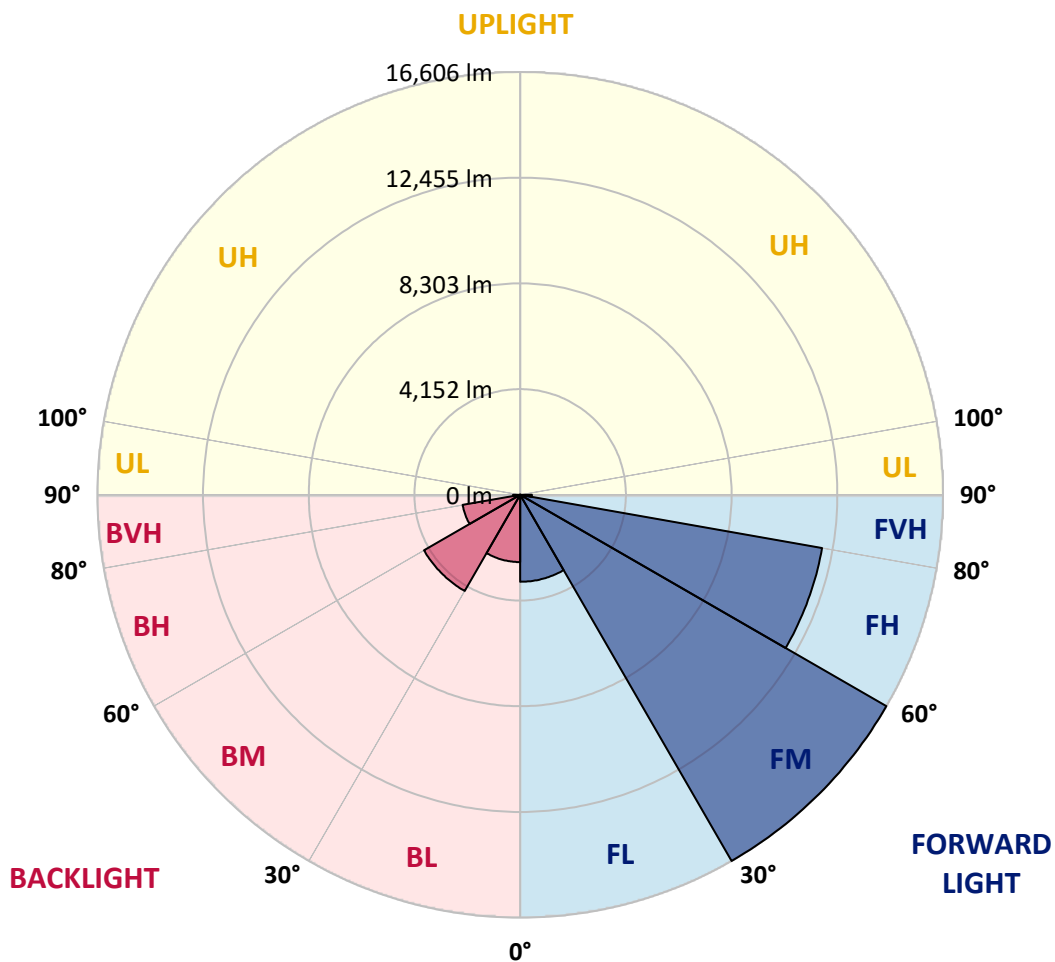
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3416.4	8.1			
FM (30°-60°)	16606.5	39.4			
FH (60°-80°)	12038.8	28.6			G5
FVH (80°-90°)	461.5	1.1			G3/500
BL (0°-30°)	2642.6	6.3	B4/5000		
BM (30°-60°)	4360.0	10.4	B3/5000		
BH (60°-80°)	2293.1	5.4	B3/2500		G3/2500
BVH (80°-90°)	281.1	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-G5

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	6092.5	6092.5	6092.5	6092.5	6092.5	6092.5	6092.5	6092.5	6092.5	6092.5	6092.5
2.5°	6118.1	6126.2	6118.1	6104.6	6060.1	6080.3	6062.8	6119.4	6115.4	6093.8	6132.9
5°	6260.9	6270.4	6252.8	6242.1	6173.3	6182.8	6145.0	6176.0	6165.2	6128.9	6189.5
7.5°	6494.1	6503.5	6481.9	6467.1	6370.1	6348.5	6279.8	6289.2	6269.0	6211.1	6281.1
10°	6808.0	6816.1	6779.7	6743.4	6619.4	6566.8	6452.3	6433.4	6403.8	6347.2	6418.6
12.5°	7146.3	7158.4	7114.0	7066.8	6922.6	6836.3	6673.3	6615.3	6579.0	6510.2	6588.4
15°	7508.8	7523.6	7477.8	7423.9	7264.9	7131.5	6928.0	6840.4	6805.4	6719.1	6767.6
17.5°	7984.5	7980.5	7942.7	7868.6	7678.6	7483.2	7232.5	7101.8	7077.6	6994.0	7006.1
20°	8535.7	8516.8	8481.8	8379.3	8173.2	7930.6	7603.1	7437.4	7413.1	7343.0	7268.9
22.5°	9134.0	9115.1	9081.4	8950.7	8747.2	8429.2	8037.1	7841.7	7809.3	7721.7	7597.7
25°	9722.9	9702.7	9683.8	9559.8	9361.7	9000.6	8528.9	8279.6	8264.8	8175.9	7948.1
27.5°	10334.7	10322.6	10328.0	10221.5	10023.4	9648.8	9113.8	8842.9	8817.3	8704.1	8394.2
30°	10964.0	10966.7	11017.9	10904.7	10722.8	10345.5	9814.5	9538.3	9542.3	9441.2	8988.5
32.5°	11527.3	11530.0	11644.6	11588.0	11488.2	11112.3	10624.4	10430.4	10469.5	10461.4	9997.8
35°	11934.3	11951.8	12207.9	12284.7	12246.9	11919.5	11625.7	11672.9	11796.8	12147.2	11660.7
37.5°	12317.0	12323.7	12651.2	12829.1	12969.2	12772.5	12713.2	13160.6	13356.0	13841.1	13121.5
40°	12427.5	12520.5	12934.2	13182.2	13508.3	13605.3	13905.8	14567.5	14797.9	15090.4	14105.3
42.5°	12326.4	12458.5	12977.3	13566.2	14019.0	14500.1	15051.3	15800.5	16009.4	16190.0	15047.2
45°	12114.9	12215.9	12755.0	13636.3	14457.0	15411.1	16047.2	16944.7	17133.3	17016.1	15783.0
47.5°	11833.2	11910.0	12511.1	13524.5	14807.4	16227.7	16959.5	17862.4	17999.8	17726.3	16283.0
50°	11442.4	11534.1	12205.2	13370.8	15064.8	16911.0	17692.6	18552.3	18668.2	18168.3	16773.5
52.5°	10960.0	11074.5	11854.8	13109.4	15257.5	17420.4	18204.7	19011.9	19129.1	18804.3	17161.6
55°	10412.9	10571.9	11375.0	12791.4	15270.9	17691.2	18524.0	19685.7	19852.8	19502.4	17501.2
57.5°	9857.7	9960.1	10810.4	12304.9	15017.6	17781.5	18906.7	20470.0	20713.9	20178.9	17871.8
60°	9179.8	9278.2	10120.4	11654.0	14512.2	17920.3	19672.2	21592.5	21786.6	20967.2	18187.1
62.5°	8378.0	8489.8	9253.9	10763.2	13764.3	17976.9	20452.4	22786.5	23008.8	21684.1	18369.1
65°	7359.2	7483.2	8179.9	9685.2	12695.7	17575.3	20789.3	23669.1	23783.7	22234.0	18290.9
67.5°	6246.1	6348.5	6903.7	8344.3	11217.4	16528.2	20612.8	23995.3	24111.2	22607.2	17823.3
69°	5394.4	5552.1	6085.7	7388.9	10154.1	15570.1	20343.3	24263.4	24440.0	22565.5	17208.8
70°	4712.5	4889.1	5371.5	6546.6	9251.2	14575.6	19842.0	24059.9	24109.8	22162.5	16654.9
72.5°	2978.2	3036.1	3255.8	4037.4	6508.9	11330.6	17363.8	21359.4	21345.9	19773.3	14539.2
75°	1471.6	1547.0	1963.4	2266.7	3207.3	7287.8	13667.3	17543.0	17545.7	16688.6	11953.2
77.5°	884.0	916.4	1022.8	1460.8	1832.7	3270.6	9276.8	13888.3	14101.2	13582.4	8601.7
80°	609.1	592.9	623.9	718.3	986.4	1719.5	3813.7	7851.1	8081.5	7453.5	3664.1
82.5°	479.7	466.3	475.7	500.0	470.3	796.4	1613.1	2347.5	2278.8	2009.3	1408.2
85°	335.6	308.6	326.1	316.7	280.3	467.6	784.3	975.7	968.9	1001.3	766.8
87.5°	106.5	94.3	97.0	94.3	78.2	165.8	281.6	380.0	350.4	355.8	269.5
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°	6092.5	6092.5	6092.5	6092.5	6092.5	6092.5	6092.5	6092.5	6092.5	6092.5	6092.5
2.5°	6142.3	6131.6	6143.7	6207.0	6192.2	6247.4	6260.9	6351.2	6355.3	6347.2	6387.6
5°	6217.8	6228.6	6274.4	6375.5	6409.2	6527.7	6581.7	6692.2	6702.9	6707.0	6746.1
7.5°	6327.0	6345.8	6444.2	6576.3	6639.6	6794.6	6875.4	7011.5	7021.0	7035.8	7080.3
10°	6488.7	6515.6	6593.8	6774.4	6794.6	6917.2	6991.3	7108.6	7100.5	7120.7	7161.1
12.5°	6651.7	6666.5	6725.8	6849.8	6836.3	6956.3	6988.6	7065.4	7060.0	7058.7	7088.3
15°	6826.9	6801.3	6809.4	6856.6	6806.7	6880.8	6857.9	6914.5	6840.4	6810.7	6831.0
17.5°	7012.9	6950.9	6871.4	6836.3	6742.0	6729.9	6651.7	6624.8	6573.6	6557.4	6573.6
20°	7233.9	7101.8	6909.1	6808.0	6601.9	6495.4	6345.8	6258.2	6139.6	6149.1	6172.0
22.5°	7458.9	7273.0	6981.9	6711.0	6419.9	6204.3	5906.5	5827.0	5672.0	5626.2	5672.0
25°	7735.2	7485.9	7018.3	6624.8	6145.0	5761.0	5459.1	5177.5	5060.2	4945.7	4988.8
27.5°	8097.7	7760.8	7150.3	6518.3	5833.7	5321.6	4841.9	4478.1	4332.5	4209.9	4218.0
30°	8568.0	8128.7	7200.2	6294.6	5459.1	4719.3	4115.6	3711.3	3529.3	3479.5	3457.9
32.5°	9437.2	8721.6	7289.1	6131.6	4992.8	4064.3	3323.2	2889.2	2774.7	2796.3	2866.3
35°	10977.5	9962.8	7558.7	5790.6	4478.1	3350.1	2582.0	2246.4	2265.3	2304.4	2296.3
37.5°	12306.2	11082.6	8007.4	5550.7	3848.7	2537.5	1950.0	1772.1	1885.3	1962.1	1959.4
40°	13209.1	11899.3	8595.0	5102.0	3053.6	1808.5	1435.2	1336.8	1481.0	1645.4	1673.7
42.5°	14105.3	12641.8	8879.3	4704.5	2144.0	1276.2	1039.0	1064.6	1249.2	1404.2	1432.5
45°	14749.4	13180.8	9004.6	3995.6	1369.2	977.0	906.9	1001.3	1200.7	1323.3	1336.8
47.5°	15222.4	13586.4	8868.5	3232.9	1008.0	893.5	894.8	1014.7	1215.5	1354.3	1359.7
50°	15640.2	13872.1	8320.0	2521.3	906.9	865.2	912.3	1053.8	1258.7	1398.8	1394.8
52.5°	15925.9	13955.7	7654.3	2065.9	878.6	849.0	927.1	1090.2	1272.1	1366.5	1358.4
55°	16115.9	13830.4	7142.2	1700.7	854.4	847.6	951.4	1136.0	1285.6	1323.3	1304.5
57.5°	16233.1	13577.0	6709.7	1462.1	834.2	847.6	978.4	1153.5	1335.5	1404.2	1382.6
60°	16198.1	13463.8	6123.5	1266.7	805.9	850.3	993.2	1179.1	1536.3	1698.0	1702.0
62.5°	16128.0	13242.8	5550.7	1111.8	772.2	866.5	1012.0	1327.4	1886.6	1888.0	1820.6
65°	15795.2	12577.1	4717.9	971.6	737.1	870.5	1016.1	1571.3	2115.7	1937.8	1850.2
67.5°	14878.8	11602.8	3743.6	840.9	698.1	846.3	1012.0	1537.6	1708.7	1529.5	1485.0
69°	14079.7	10757.8	3127.8	762.7	669.8	822.0	1016.1	1474.3	1582.1	1475.6	1435.2
70°	13497.5	10073.3	2657.5	715.6	644.2	809.9	1016.1	1451.4	1564.6	1463.5	1424.4
72.5°	11585.3	7913.1	1592.9	597.0	570.0	762.7	1006.7	1416.3	1578.0	1491.8	1440.6
75°	8875.3	5755.6	927.1	490.5	479.7	684.6	956.8	1394.8	1623.9	1493.1	1381.3
77.5°	5686.8	2656.1	691.3	398.9	389.5	592.9	893.5	1324.7	1668.3	1565.9	1424.4
80°	1975.6	1204.7	516.1	315.3	301.9	485.1	783.0	1194.0	1588.8	1599.6	1493.1
82.5°	1083.5	793.7	365.2	234.5	222.4	304.6	609.1	1029.6	1470.2	1583.4	1591.5
85°	595.6	447.4	239.9	150.9	169.8	261.4	421.8	800.5	1183.2	1375.9	1436.5
87.5°	241.2	161.7	94.3	59.3	70.1	103.8	142.8	409.7	714.2	921.8	1014.7
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)