

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: P232694

Luminaire Tested: **CTN-10-9-D-E1-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232694
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-10-9-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: 90262 lumens
Efficiency: N/A
Efficacy: 118.8 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B5 - U0 - G5

Input Watts (W): 760
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

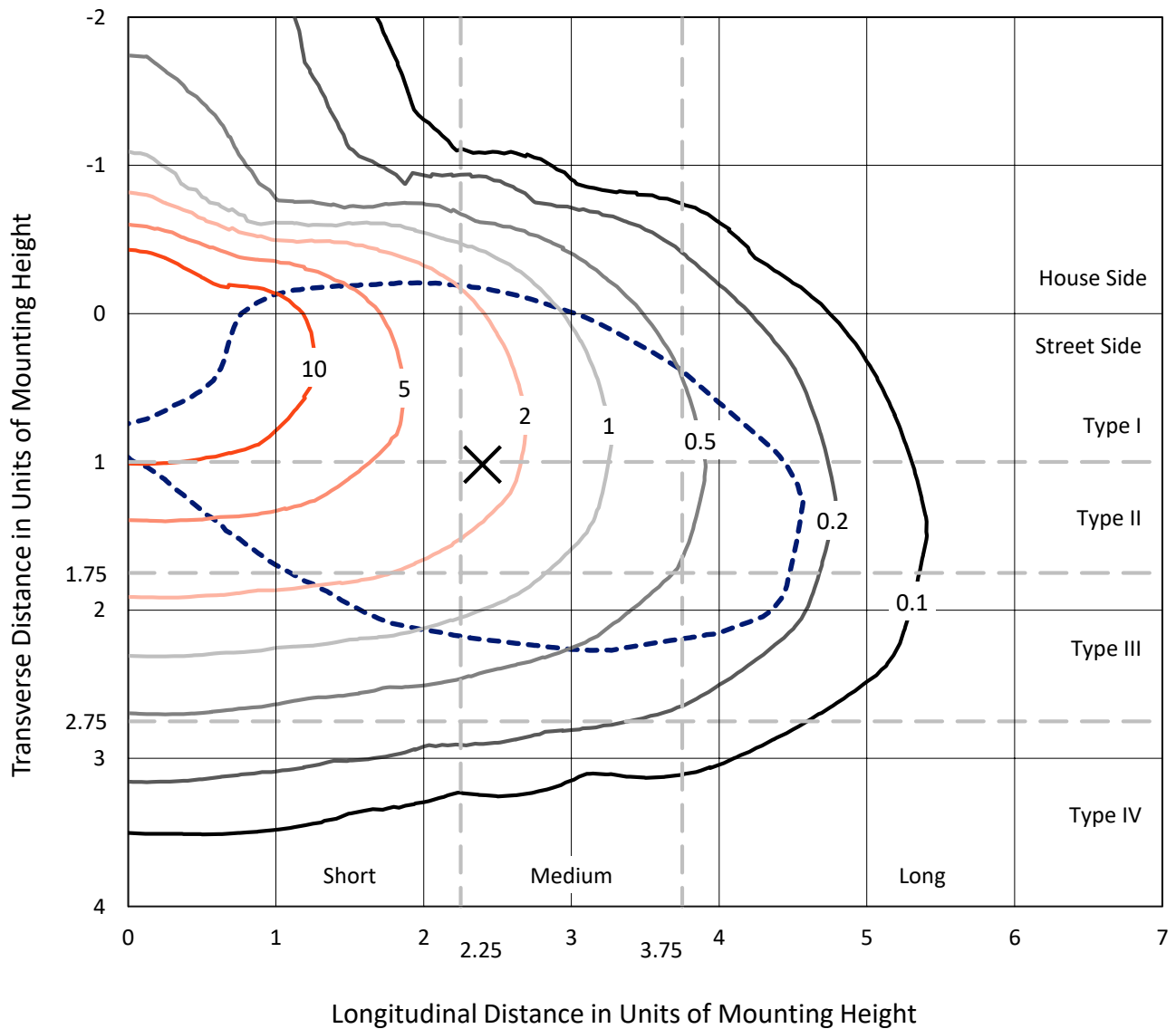


REPORT NUMBER: P232694

CATALOG NUMBER: CTN-10-9-D-E1-T3-7030

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

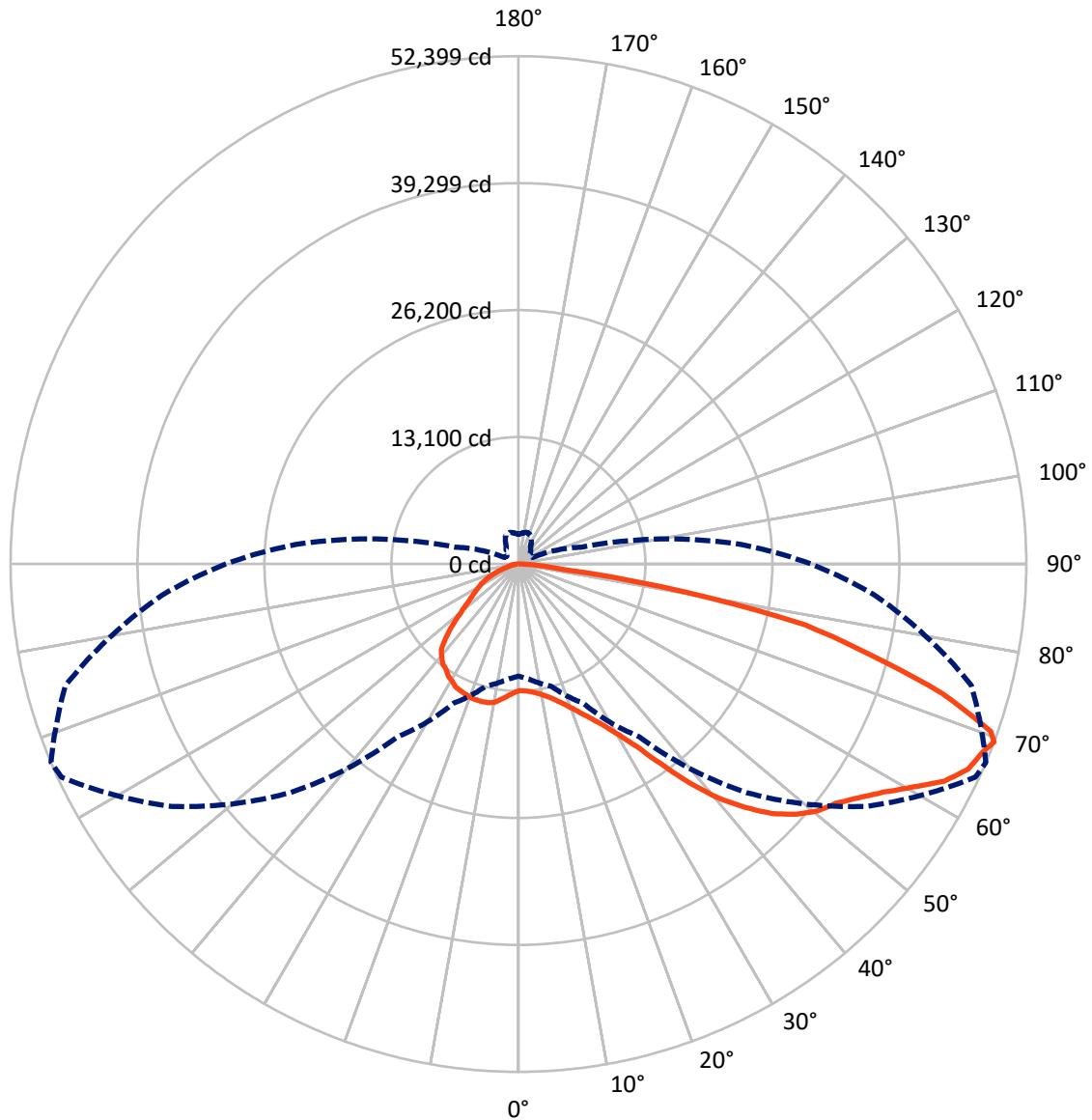


Based on 30 foot mounting height. Maximum calculated value = 17.2 fc
 Type III - Medium - Semi-Cutoff

REPORT NUMBER: P232694

CATALOG NUMBER: CTN-10-9-D-E1-T3-7030

Luminous Intensity Polar Plot



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

REPORT NUMBER: P232694

CATALOG NUMBER: CTN-10-9-D-E1-T3-7030

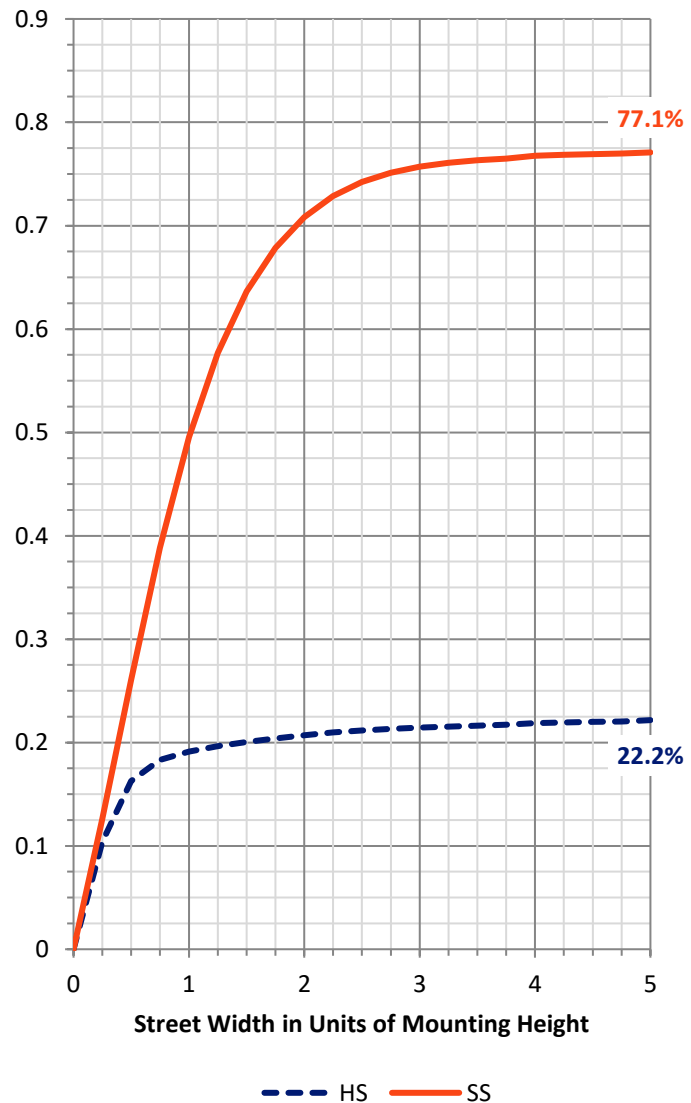
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	20532.7	0.0	20532.7
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	69729.3	0.0	69729.3
	% Fixture	77.3	0.0	77.3
Total	Lumens	90262.0	0.0	90262.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1326.0	1.5
10°-20°	4258.6	4.7
20°-30°	7405.8	8.2
30°-40°	11155.9	12.4
40°-50°	15407.4	17.1
50°-60°	18388.7	20.4
60°-70°	19366.7	21.5
70°-80°	11360.7	12.6
80°-90°	1592.2	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°	90262.0	100.0
0°-180°	90262.0	100.0



REPORT NUMBER: P232694

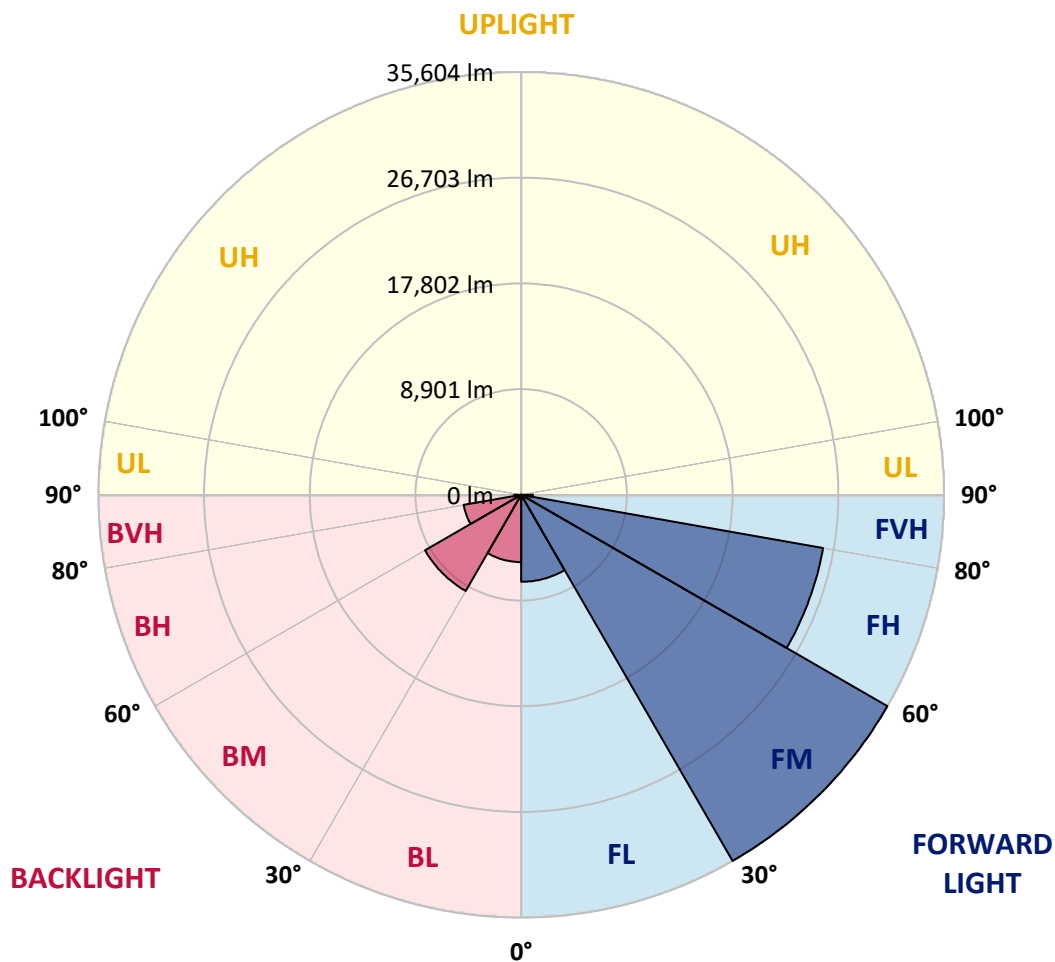
CATALOG NUMBER: CTN-10-9-D-E1-T3-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	7324.7	8.1			
FM	(30°-60°)	35604.1	39.4			
FH	(60°-80°)	25811.0	28.6			G5
FVH	(80°-90°)	989.5	1.1			G5
BL	(0°-30°)	5665.8	6.3	B5		
BM	(30°-60°)	9347.9	10.4	B5		
BH	(60°-80°)	4916.4	5.4	B4/5000		G4/5000
BVH	(80°-90°)	602.7	0.7			G4/750
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5

Type III Medium





REPORT NUMBER: P232694

CATALOG NUMBER: CTN-10-9-D-E1-T3-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	13062.2	13062.2	13062.2	13062.2	13062.2	13062.2	13062.2	13062.2	13062.2	13062.2	13062.2
2.5°	13117.1	13134.4	13117.1	13088.2	12992.9	13036.2	12998.6	13120.0	13111.3	13065.1	13148.9
5°	13423.4	13443.6	13406.0	13382.9	13235.6	13255.8	13174.9	13241.3	13218.2	13140.2	13270.2
7.5°	13923.2	13943.4	13897.2	13865.4	13657.4	13611.2	13463.8	13484.0	13440.7	13316.5	13466.7
10°	14596.4	14613.7	14535.7	14457.7	14191.9	14079.2	13833.6	13793.2	13729.6	13608.3	13761.4
12.5°	15321.6	15347.6	15252.2	15151.1	14842.0	14657.1	14307.5	14183.2	14105.2	13957.9	14125.4
15°	16098.8	16130.6	16032.3	15916.8	15575.8	15289.8	14853.5	14665.7	14590.6	14405.7	14509.7
17.5°	17118.7	17110.0	17029.1	16870.2	16462.8	16043.9	15506.5	15226.2	15174.2	14995.1	15021.1
20°	18300.4	18259.9	18184.8	17965.2	17523.2	17003.1	16301.0	15945.7	15893.7	15743.4	15584.5
22.5°	19583.2	19542.7	19470.5	19190.3	18754.0	18072.1	17231.4	16812.4	16743.1	16555.3	16289.5
25°	20845.8	20802.5	20762.0	20496.2	20071.5	19297.2	18285.9	17751.4	17719.6	17529.0	17040.7
27.5°	22157.5	22131.5	22143.1	21914.8	21490.1	20686.9	19539.9	18959.1	18904.2	18661.5	17997.0
30°	23506.8	23512.5	23622.3	23379.6	22989.6	22180.6	21042.3	20450.0	20458.6	20241.9	19271.2
32.5°	24714.5	24720.2	24965.8	24844.5	24630.7	23824.6	22778.7	22362.6	22446.4	22429.1	21435.2
35°	25587.0	25624.6	26173.5	26338.2	26257.3	25555.2	24925.4	25026.5	25292.3	26043.5	25000.5
37.5°	26407.6	26422.0	27124.1	27505.5	27805.9	27384.1	27257.0	28216.2	28635.2	29675.3	28132.4
40°	26644.5	26843.8	27730.8	28262.4	28961.6	29169.7	29814.0	31232.6	31726.6	32353.6	30241.6
42.5°	26427.8	26710.9	27823.3	29085.9	30056.7	31088.1	32269.8	33876.2	34324.0	34711.2	32261.1
45°	25974.2	26190.9	27346.6	29236.1	30995.7	33041.2	34404.9	36329.2	36733.7	36482.3	33838.7
47.5°	25370.3	25535.0	26823.6	28996.3	31746.9	34792.1	36361.0	38296.7	38591.4	38004.9	34910.6
50°	24532.4	24728.9	26167.7	28666.9	32298.7	36256.9	37932.7	39776.0	40024.5	38952.6	35962.2
52.5°	23498.1	23743.7	25416.5	28106.4	32711.9	37349.1	39030.6	40761.2	41012.6	40316.3	36794.3
55°	22325.1	22666.0	24388.0	27424.6	32740.7	37929.8	39715.3	42205.9	42564.1	41812.9	37522.4
57.5°	21134.7	21354.3	23177.4	26381.6	32197.6	38123.4	40535.9	43887.4	44410.3	43263.3	38317.0
60°	19681.4	19892.3	21698.1	24986.1	31114.1	38421.0	42177.0	46294.1	46710.2	44953.5	38993.0
62.5°	17962.3	18202.1	19840.3	23076.3	29510.6	38542.3	43849.8	48854.0	49330.7	46490.6	39383.1
65°	15778.1	16043.9	17537.6	20764.9	27219.4	37681.3	44572.1	50746.4	50992.0	47669.4	39215.5
67.5°	13391.6	13611.2	14801.5	17890.1	24049.9	35436.4	44193.7	51445.6	51694.1	48469.7	38212.9
69°	11565.6	11903.6	13047.8	15841.6	21770.3	33382.2	43615.8	52020.6	52399.1	48380.1	36895.5
70°	10103.6	10482.1	11516.5	14035.9	19834.6	31249.9	42541.0	51584.3	51691.2	47516.3	35708.0
72.5°	6385.2	6509.4	6980.4	8656.1	13955.0	24292.6	37227.7	45794.3	45765.4	42393.7	31171.9
75°	3155.0	3316.8	4209.6	4859.7	6876.4	15625.0	29302.6	37612.0	37617.8	35780.2	25627.5
77.5°	1895.3	1964.7	2192.9	3131.9	3929.4	7012.2	19889.5	29776.4	30232.9	29120.5	18442.0
80°	1305.9	1271.3	1337.7	1540.0	2114.9	3686.7	8176.5	16832.6	17326.7	15980.3	7855.8
82.5°	1028.6	999.7	1019.9	1071.9	1008.3	1707.5	3458.4	5033.0	4885.7	4307.8	3019.2
85°	719.4	661.6	699.2	679.0	601.0	1002.6	1681.5	2091.8	2077.4	2146.7	1644.0
87.5°	228.2	202.2	208.0	202.2	167.6	355.4	603.8	814.8	751.2	762.8	577.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P232694

CATALOG NUMBER: CTN-10-9-D-E1-T3-7030

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	13062.2	13062.2	13062.2	13062.2	13062.2	13062.2	13062.2	13062.2	13062.2	13062.2	13062.2
2.5°	13169.1	13146.0	13172.0	13307.8	13276.0	13394.5	13423.4	13616.9	13625.6	13608.3	13694.9
5°	13330.9	13354.0	13452.3	13668.9	13741.2	13995.4	14111.0	14347.9	14371.0	14379.7	14463.5
7.5°	13564.9	13605.4	13816.3	14099.4	14235.2	14567.5	14740.8	15032.7	15052.9	15084.7	15180.0
10°	13911.6	13969.4	14137.0	14524.2	14567.5	14830.4	14989.3	15240.7	15223.3	15266.7	15353.4
12.5°	14261.2	14293.0	14420.1	14686.0	14657.1	14914.2	14983.5	15148.2	15136.7	15133.8	15197.3
15°	14636.8	14581.9	14599.3	14700.4	14593.5	14752.4	14703.3	14824.6	14665.7	14602.2	14645.5
17.5°	15035.5	14902.6	14732.2	14657.1	14454.8	14428.8	14261.2	14203.5	14093.7	14059.0	14093.7
20°	15509.4	15226.2	14813.1	14596.4	14154.3	13926.1	13605.4	13417.6	13163.3	13183.6	13232.7
22.5°	15991.9	15593.2	14969.1	14388.4	13764.3	13302.0	12663.5	12493.0	12160.8	12062.5	12160.8
25°	16584.2	16049.7	15047.1	14203.5	13174.9	12351.5	11704.3	11100.4	10849.1	10603.5	10695.9
27.5°	17361.4	16639.1	15330.3	13975.2	12507.5	11409.6	10381.0	9600.9	9288.9	9026.0	9043.3
30°	18369.7	17427.8	15437.2	13495.6	11704.3	10118.1	8823.7	7956.9	7566.9	7460.0	7413.8
32.5°	20233.3	18699.1	15627.8	13146.0	10704.6	8713.9	7124.8	6194.5	5948.9	5995.2	6145.4
35°	23535.7	21360.1	16205.7	12415.0	9600.9	7182.6	5535.8	4816.3	4856.8	4940.6	4923.2
37.5°	26384.4	23761.0	17167.8	11900.7	8251.6	5440.4	4180.7	3799.3	4042.0	4206.7	4200.9
40°	28320.2	25511.9	18427.5	10938.6	6547.0	3877.3	3077.0	2866.1	3175.3	3527.7	3588.4
42.5°	30241.6	27103.9	19037.1	10086.3	4596.8	2736.1	2227.6	2282.5	2678.3	3010.6	3071.3
45°	31622.6	28259.6	19305.8	8566.6	2935.5	2094.7	1944.5	2146.7	2574.3	2837.2	2866.1
47.5°	32636.7	29129.2	19014.0	6931.3	2161.1	1915.6	1918.4	2175.6	2606.1	2903.7	2915.2
50°	33532.4	29741.7	17838.1	5405.7	1944.5	1854.9	1956.0	2259.4	2698.5	2999.0	2990.4
52.5°	34144.9	29920.9	16410.8	4429.2	1883.8	1820.2	1987.8	2337.4	2727.4	2929.7	2912.3
55°	34552.3	29652.2	15312.9	3646.2	1831.8	1817.3	2039.8	2435.6	2756.3	2837.2	2796.8
57.5°	34803.7	29109.0	14385.5	3134.8	1788.4	1817.3	2097.6	2473.2	2863.2	3010.6	2964.3
60°	34728.5	28866.3	13128.7	2715.9	1727.8	1823.1	2129.4	2528.1	3293.7	3640.4	3649.1
62.5°	34578.3	28392.5	11900.7	2383.6	1655.5	1857.8	2169.8	2845.9	4044.9	4047.8	3903.3
65°	33864.7	26965.2	10115.2	2083.1	1580.4	1866.4	2178.5	3368.8	4536.1	4154.7	3966.9
67.5°	31900.0	24876.3	8026.3	1802.9	1496.6	1814.4	2169.8	3296.6	3663.5	3279.3	3183.9
69°	30186.7	23064.7	6705.9	1635.3	1435.9	1762.4	2178.5	3160.8	3392.0	3163.7	3077.0
70°	28938.5	21597.0	5697.6	1534.2	1381.1	1736.4	2178.5	3111.7	3354.4	3137.7	3053.9
72.5°	24838.7	16965.6	3415.1	1279.9	1222.1	1635.3	2158.3	3036.6	3383.3	3198.4	3088.6
75°	19028.5	12339.9	1987.8	1051.7	1028.6	1467.7	2051.4	2990.4	3481.5	3201.3	2961.5
77.5°	12192.5	5694.7	1482.2	855.2	835.0	1271.3	1915.6	2840.1	3576.9	3357.3	3053.9
80°	4235.6	2583.0	1106.6	676.1	647.2	1040.1	1678.6	2559.9	3406.4	3429.5	3201.3
82.5°	2322.9	1701.8	783.0	502.7	476.7	653.0	1305.9	2207.4	3152.1	3394.8	3412.2
85°	1277.0	959.2	514.3	323.6	364.0	560.5	904.3	1716.2	2536.7	2949.9	3079.9
87.5°	517.2	346.7	202.2	127.1	150.2	222.5	306.3	878.3	1531.3	1976.2	2175.6
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)