

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: P232733

Luminaire Tested: **CTN-10-8-D-E1-T4-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232733
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-20)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-10-8-D-E1-T4-7050
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 5000K LEDS AND TYPE IV OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 80394 lumens
Efficiency: N/A
Efficacy: 127.4 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B5 - U0 - G5

Input Watts (W): 631
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

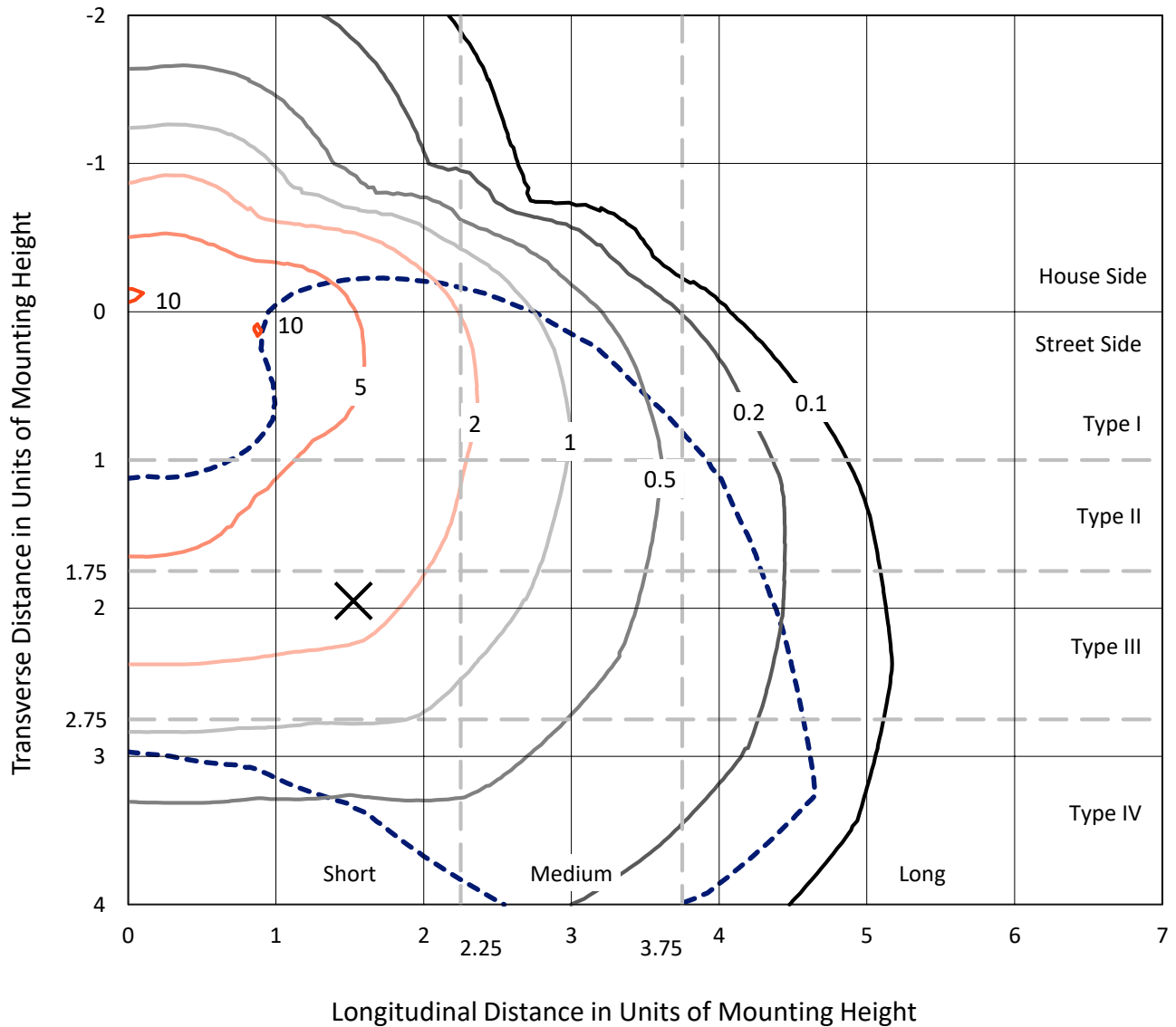


REPORT NUMBER: P232733

CATALOG NUMBER: CTN-10-8-D-E1-T4-7050

Iso-Footcandle Lines of Horizontal Illumination

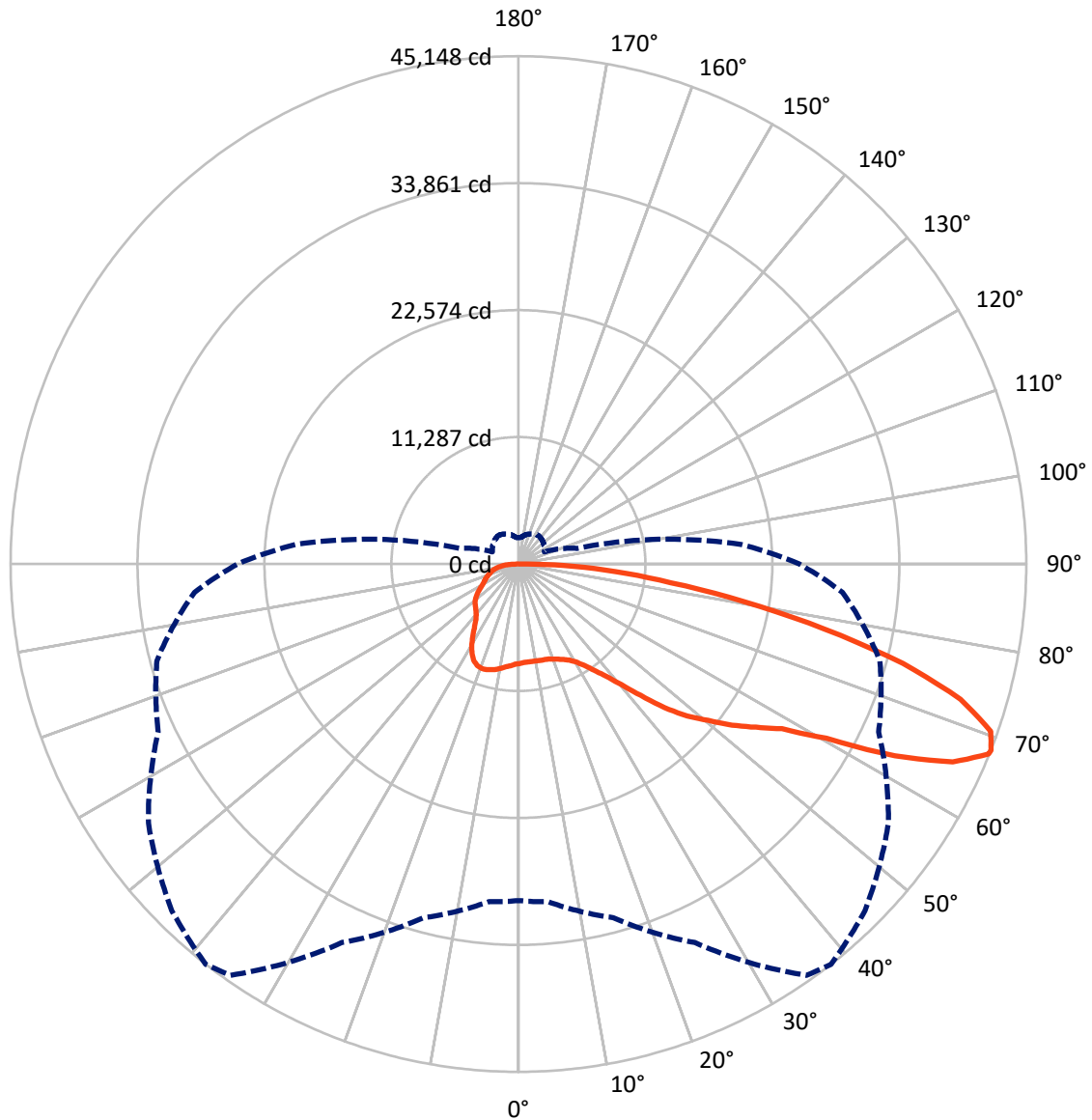
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10.2 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P232733
CATALOG NUMBER: CTN-10-8-D-E1-T4-7050

Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

REPORT NUMBER: P232733

CATALOG NUMBER: CTN-10-8-D-E1-T4-7050

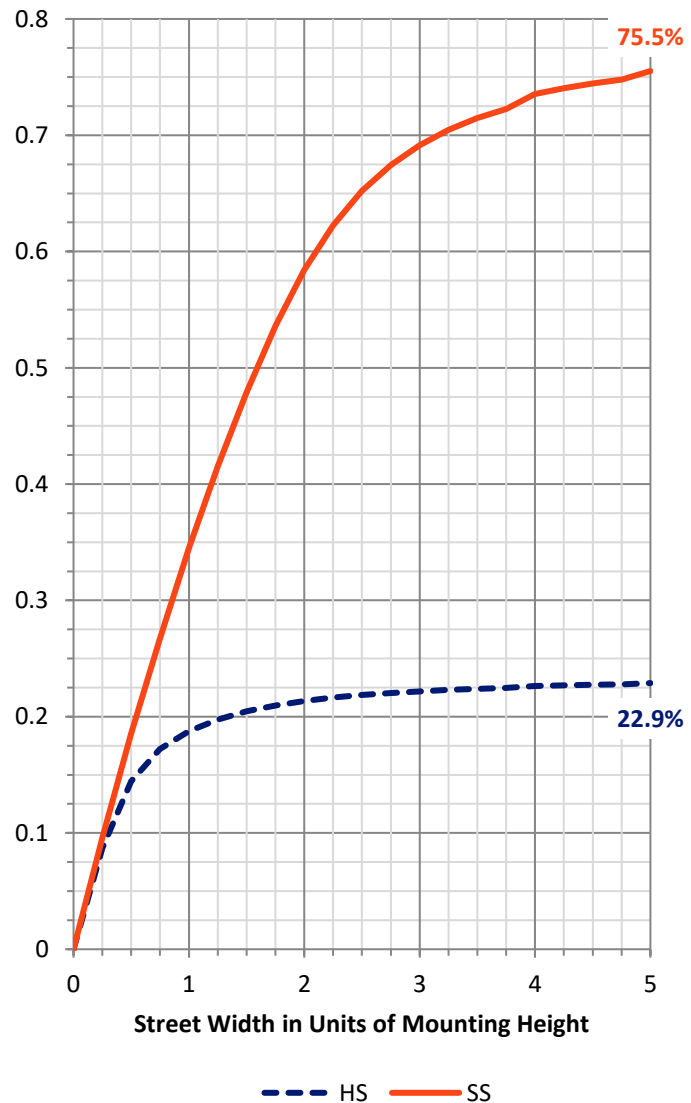
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	18762.2	0.0	18762.2
	% Fixture	23.3	0.0	23.3
Street Side	Lumens	61631.8	0.0	61631.8
	% Fixture	76.7	0.0	76.7
Total	Lumens	80394.0	0.0	80394.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	856.5	1.1
10°-20°	2644.0	3.3
20°-30°	4491.9	5.6
30°-40°	6802.3	8.5
40°-50°	11250.9	14.0
50°-60°	16206.3	20.2
60°-70°	20438.5	25.4
70°-80°	14546.4	18.1
80°-90°	3157.4	3.9
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°	80394.0	100.0
0°-180°	80394.0	100.0



REPORT NUMBER: P232733

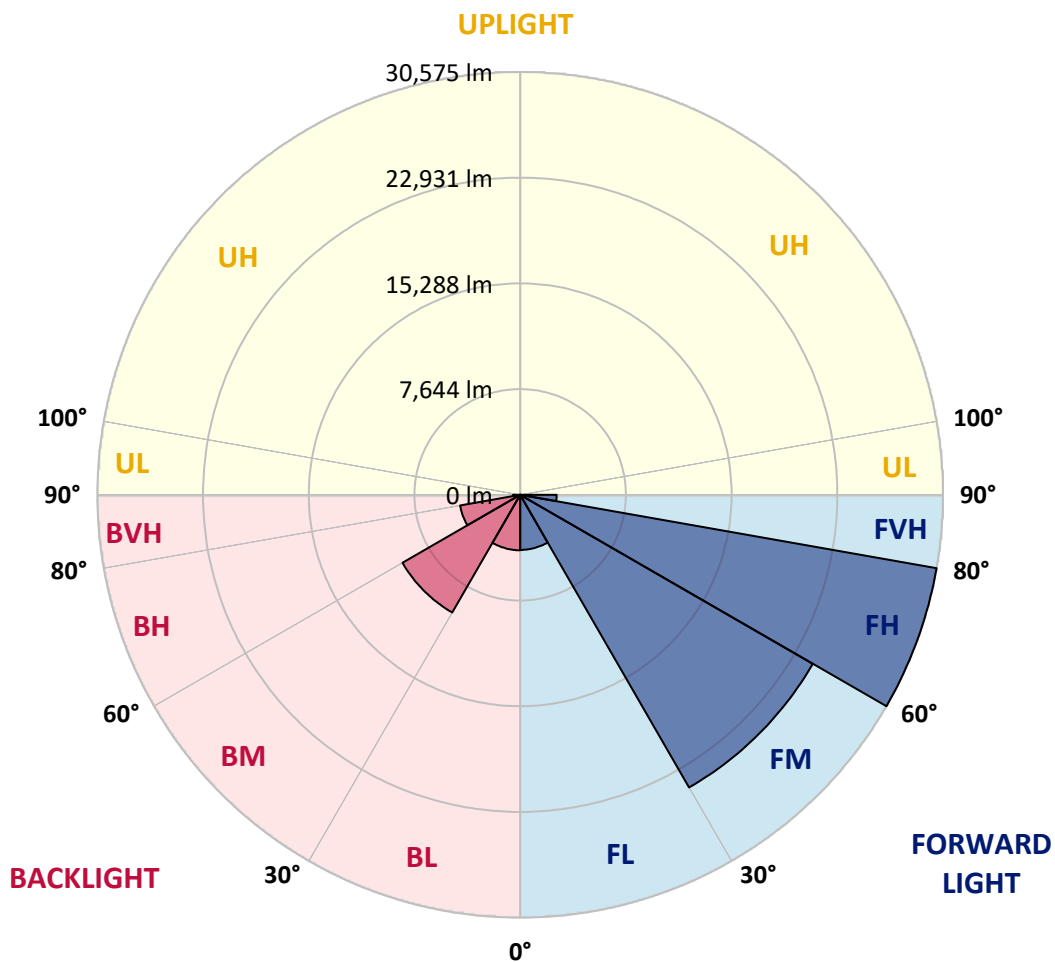
CATALOG NUMBER: CTN-10-8-D-E1-T4-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3983.1	5.0			
FM (30°-60°)	24434.3	30.4			
FH (60°-80°)	30575.1	38.0			G5
FVH (80°-90°)	2639.2	3.3			G5
BL (0°-30°)	4009.2	5.0	B4/5000		
BM (30°-60°)	9825.1	12.2	B5		
BH (60°-80°)	4409.7	5.5	B4/5000		G4/5000
BVH (80°-90°)	518.1	0.6			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 IV Short





REPORT NUMBER: P232733

CATALOG NUMBER: CTN-10-8-D-E1-T4-7050

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	8856.6	8856.6	8856.6	8856.6	8856.6	8856.6	8856.6	8856.6	8856.6	8856.6	8856.6
2.5°	8825.3	8840.9	8830.5	8825.3	8757.3	8773.0	8799.1	8762.6	8851.4	8846.1	8898.4
5°	8741.7	8749.5	8752.1	8775.6	8710.3	8744.3	8775.6	8752.1	8846.1	8820.0	8893.2
7.5°	8718.2	8715.6	8718.2	8762.6	8692.1	8744.3	8780.9	8773.0	8874.9	8854.0	8942.8
10°	8658.1	8660.7	8668.5	8718.2	8681.6	8752.1	8817.4	8851.4	8987.2	8968.9	9070.8
12.5°	8553.6	8574.5	8603.3	8686.8	8694.7	8788.7	8885.3	8953.2	9130.8	9146.5	9274.5
15°	8462.2	8498.8	8548.4	8660.7	8707.7	8814.8	8937.6	9062.9	9295.4	9365.9	9527.8
17.5°	8490.9	8545.8	8611.1	8726.0	8760.0	8872.3	9010.7	9177.8	9465.1	9616.6	9825.6
20°	8668.5	8705.1	8760.0	8867.0	8911.4	9023.7	9136.1	9300.6	9674.1	9919.6	10178.2
22.5°	8890.5	8942.8	8979.3	9044.6	9096.9	9196.1	9313.7	9475.6	9917.0	10225.2	10580.4
25°	9128.2	9154.3	9206.6	9251.0	9316.3	9394.6	9527.8	9726.3	10193.8	10572.5	11068.8
27.5°	9347.6	9360.7	9459.9	9496.5	9624.5	9681.9	9786.4	10050.2	10554.3	11021.8	11632.9
30°	9668.9	9695.0	9770.7	9856.9	10045.0	10102.4	10209.5	10486.4	11034.8	11632.9	12366.8
32.5°	10277.4	10345.3	10334.9	10426.3	10648.3	10724.0	10870.3	11230.7	11828.8	12515.7	13388.1
35°	11510.2	11606.8	11486.7	11363.9	11481.4	11583.3	11807.9	12335.5	13074.6	14208.2	15070.1
37.5°	13529.1	13625.7	13197.4	12805.6	12549.7	12630.6	12936.2	13683.2	14814.1	16783.4	17744.5
40°	15887.5	15992.0	15396.5	14691.3	14114.1	14082.8	14176.8	15127.5	16759.9	19648.5	20398.1
42.5°	17943.0	18217.3	17439.0	16830.4	16083.4	15958.1	15730.8	16692.0	18818.0	22302.1	22725.2
45°	19941.0	20207.5	19593.7	19173.2	18410.5	18206.8	17775.9	18358.3	20836.9	24624.0	24642.3
47.5°	21774.5	21988.7	21275.7	21006.7	20254.5	20165.7	19724.3	20131.7	22706.9	26590.7	26219.8
50°	23824.8	24049.4	22913.3	22581.6	21975.6	21855.5	21711.8	22004.4	24851.2	28285.7	27559.7
52.5°	26332.1	26248.5	24846.0	24086.0	23764.7	23793.4	23631.5	23955.4	27126.1	29722.2	28614.8
55°	29333.1	28904.7	27363.8	26212.0	25472.8	25613.9	25402.3	25877.7	29374.9	30934.1	29377.5
57.5°	31038.6	31156.1	31009.8	29528.9	27648.5	27627.6	27293.3	27750.3	31338.9	31924.0	29842.4
60°	33525.0	34010.8	34196.2	33796.6	32109.4	31443.4	29769.2	29664.8	32997.4	32778.0	30080.0
62.5°	35097.3	35324.5	36439.8	36922.9	37466.2	37581.1	34922.3	31971.0	34222.3	33214.2	30179.3
65°	34345.1	34574.9	36659.1	38552.7	41775.6	42423.4	41577.2	35624.9	35050.3	33310.8	29847.6
67.5°	30490.1	30772.2	33569.4	37450.5	44382.2	45079.6	43713.6	39837.7	35321.9	33253.4	29126.7
68°	29925.9	30134.9	32548.2	37129.3	44643.4	45147.5	43572.6	40156.3	35337.6	33271.6	28904.7
70°	25590.4	25958.6	28499.9	34206.7	44222.9	44544.2	42692.4	39978.7	34982.4	32973.9	27280.2
72.5°	19946.3	20455.6	22388.3	28411.1	40845.9	41107.0	39555.6	38019.9	33908.9	30908.0	23383.4
75°	14451.1	14887.2	16746.8	21926.0	34386.9	35314.1	35052.9	35329.7	30396.1	26188.5	16934.9
77.5°	9979.7	10353.2	12087.4	16360.3	26663.8	27836.5	29192.0	29910.3	24976.6	19429.1	8049.5
80°	6393.7	6681.0	8156.6	11520.6	19228.0	20330.2	21790.2	22534.6	17765.4	9773.3	1428.7
82.5°	3758.4	3954.3	4962.4	7433.2	12959.7	13631.0	14336.1	13087.7	7130.2	1870.0	901.1
85°	1867.4	1998.0	2617.0	4205.0	8057.4	8673.8	8908.8	5584.0	1507.0	684.3	613.8
87.5°	835.8	872.3	1123.1	1893.6	3828.9	4035.2	3936.0	1736.8	303.0	256.0	219.4
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: P232733

CATALOG NUMBER: CTN-10-8-D-E1-T4-7050

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	8856.6	8856.6	8856.6	8856.6	8856.6	8856.6	8856.6	8856.6	8856.6	8856.6	8856.6
2.5°	8903.6	8882.7	8877.5	8911.4	8874.9	8919.3	8906.2	9005.5	9018.5	8982.0	9042.0
5°	8916.7	8906.2	8914.1	8976.7	8963.7	9055.1	9078.6	9177.8	9177.8	9149.1	9211.8
7.5°	8976.7	8976.7	9000.2	9115.2	9115.2	9193.5	9219.6	9329.3	9326.7	9326.7	9384.2
10°	9128.2	9128.2	9177.8	9324.1	9287.5	9389.4	9402.5	9459.9	9446.9	9449.5	9509.5
12.5°	9352.8	9365.9	9452.1	9580.1	9556.6	9593.1	9567.0	9556.6	9462.5	9462.5	9501.7
15°	9611.4	9666.3	9783.8	9901.3	9823.0	9809.9	9661.0	9530.4	9329.3	9243.1	9287.5
17.5°	9948.3	10042.3	10178.2	10261.7	10112.9	10005.8	9736.8	9397.2	9070.8	8880.1	8885.3
20°	10321.8	10447.2	10614.3	10643.1	10423.7	10157.3	9708.0	9175.2	8613.7	8310.7	8289.8
22.5°	10737.1	10893.8	11087.1	10974.8	10616.9	10183.4	9540.9	8833.1	8078.3	7569.0	7561.1
25°	11243.8	11413.5	11536.3	11222.9	10661.3	10050.2	9251.0	8300.3	7367.9	6819.4	6782.8
27.5°	11888.9	12001.2	11909.8	11350.9	10528.1	9731.5	8760.0	7616.0	6628.7	6132.5	6077.6
30°	12654.1	12641.1	12144.8	11314.3	10259.1	9227.5	8091.3	6874.2	6022.8	5597.1	5547.5
32.5°	13583.9	13395.9	12372.1	11139.3	9825.6	8566.7	7297.4	6257.9	5584.0	5153.1	5100.8
35°	15067.4	14537.2	12667.2	10875.5	9222.2	7770.1	6547.8	5782.5	5244.5	4750.9	4649.0
37.5°	17368.4	16250.6	13158.2	10598.7	8530.1	6989.2	5988.8	5437.8	4978.1	4419.2	4299.0
40°	19734.7	18240.8	13905.2	10300.9	7882.4	6398.9	5672.8	5275.8	4816.1	4278.1	4158.0
42.5°	21790.2	20097.8	14801.0	9927.4	7219.0	5934.0	5510.9	5223.6	4763.9	4252.0	4137.1
45°	23605.4	21766.7	15736.1	9493.9	6524.3	5557.9	5372.5	5150.5	4685.6	4191.9	4087.5
47.5°	25117.6	23096.1	16558.8	9013.3	5842.6	5281.0	5236.6	4978.1	4536.7	4061.3	3972.5
50°	26287.7	24041.6	17109.9	8477.9	5260.2	5064.3	5040.8	4714.3	4286.0	3831.5	3742.7
52.5°	27118.3	24676.2	17431.1	8276.8	4803.1	4813.5	4774.4	4427.0	4011.7	3559.9	3489.4
55°	27645.8	25112.4	17352.8	8018.2	4340.8	4460.9	4466.2	4215.4	3849.8	3411.0	3353.5
57.5°	27847.0	25094.1	16890.5	6722.8	3891.6	4037.8	4108.4	4069.2	3745.3	3317.0	3270.0
60°	27737.3	24799.0	15905.8	4925.8	3426.7	3625.2	3797.5	3789.7	3515.5	3110.6	3061.0
62.5°	27554.4	24114.7	13975.7	3525.9	3076.7	3332.6	3541.6	3471.1	3209.9	2854.7	2820.7
65°	26898.9	22908.0	10805.0	2820.7	2930.4	3168.1	3340.5	3220.3	2964.4	2593.5	2575.2
67.5°	25449.3	20494.7	6307.5	2572.6	2823.3	3029.7	3152.4	3003.6	2765.9	2405.5	2374.1
68°	24958.3	19875.8	5364.6	2549.1	2802.5	2995.7	3108.0	2951.3	2718.9	2368.9	2337.6
70°	22479.7	16109.5	2559.6	2452.5	2711.0	2839.0	2904.3	2760.7	2533.4	2222.6	2201.7
72.5°	17496.4	9718.5	1710.7	2306.2	2533.4	2656.2	2671.9	2447.3	2233.1	2003.2	1990.2
75°	10337.5	3225.6	1590.6	2089.4	2287.9	2457.7	2502.1	2277.5	2039.8	1773.4	1768.2
77.5°	2517.8	1251.0	1501.8	1864.8	2073.8	2238.3	2272.3	2107.7	1898.8	1598.4	1588.0
80°	1036.9	1039.5	1399.9	1546.2	1778.6	1938.0	1987.6	1841.3	1653.3	1460.0	1439.1
82.5°	861.9	877.6	1188.4	1141.4	1423.4	1608.9	1658.5	1556.6	1491.3	1282.4	1261.5
85°	613.8	778.3	788.8	767.9	997.7	1146.6	1397.3	1347.7	1277.2	1099.6	995.1
87.5°	287.3	454.5	342.1	329.1	506.7	679.1	799.2	838.4	726.1	564.1	522.4
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)