

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: P232718

Luminaire Tested: **CTN-10-9-D-E1-T4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232718
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-10-9-D-E1-T4-7030
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 3000K LEDS AND TYPE IV OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 88933 lumens
Efficiency: N/A
Efficacy: 117.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B5 - U0 - G5

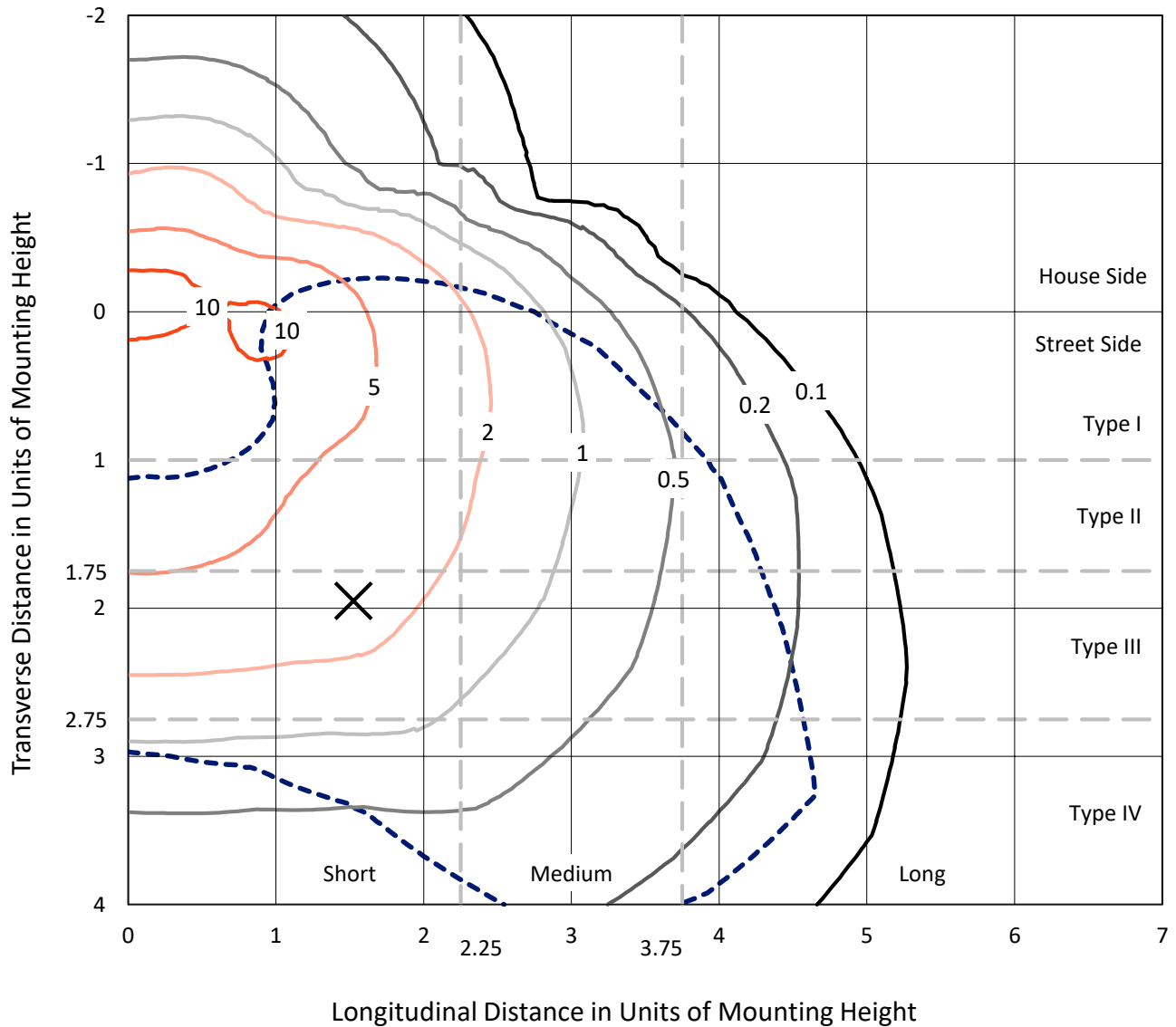
Input Watts (W): 760
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P232718
 CATALOG NUMBER: CTN-10-9-D-E1-T4-7030

Iso-Footcandle Lines of Horizontal Illumination

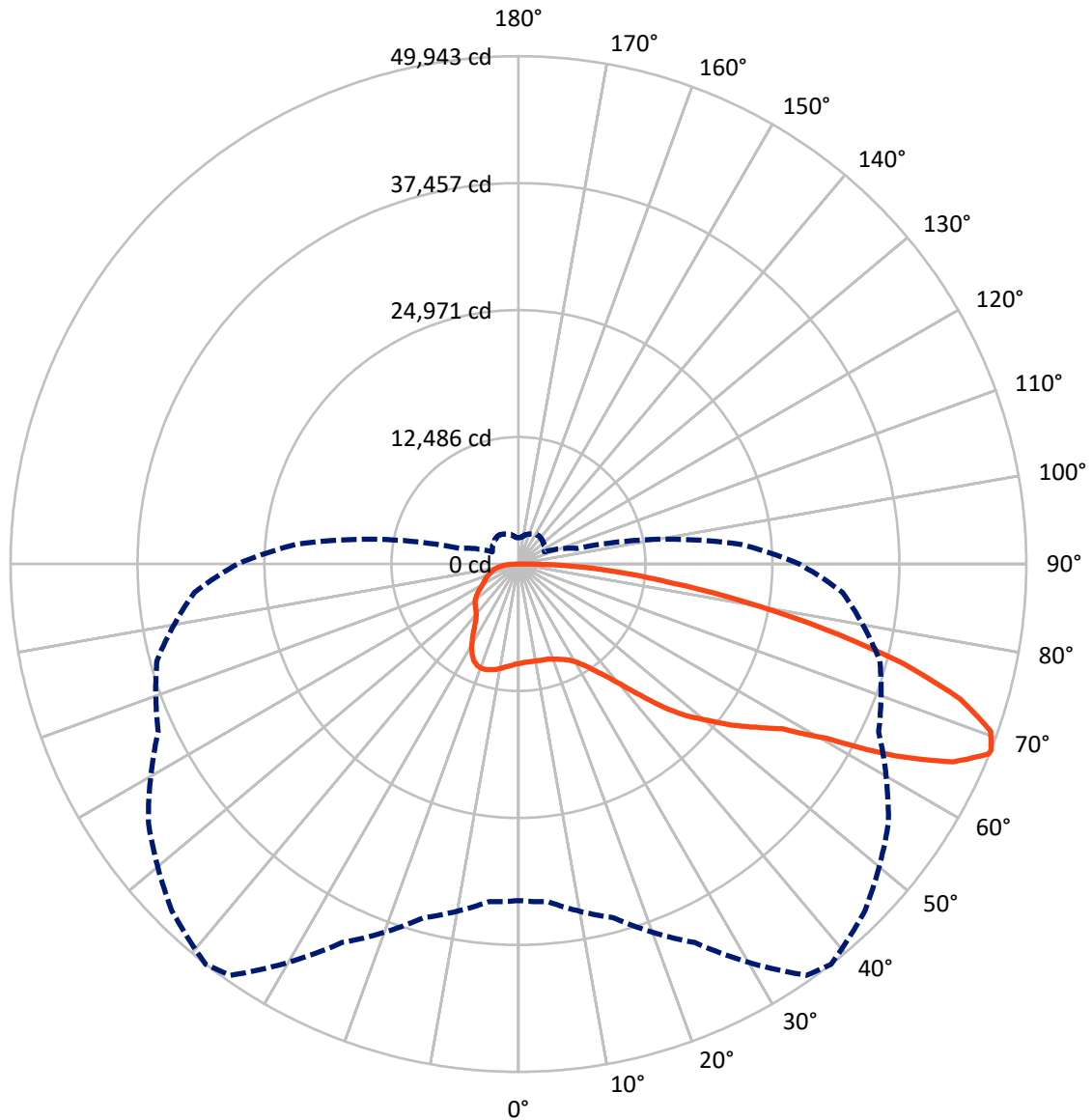
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 11.2 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P232718
CATALOG NUMBER: CTN-10-9-D-E1-T4-7030

Luminous Intensity Polar Plot



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

REPORT NUMBER: P232718

CATALOG NUMBER: CTN-10-9-D-E1-T4-7030

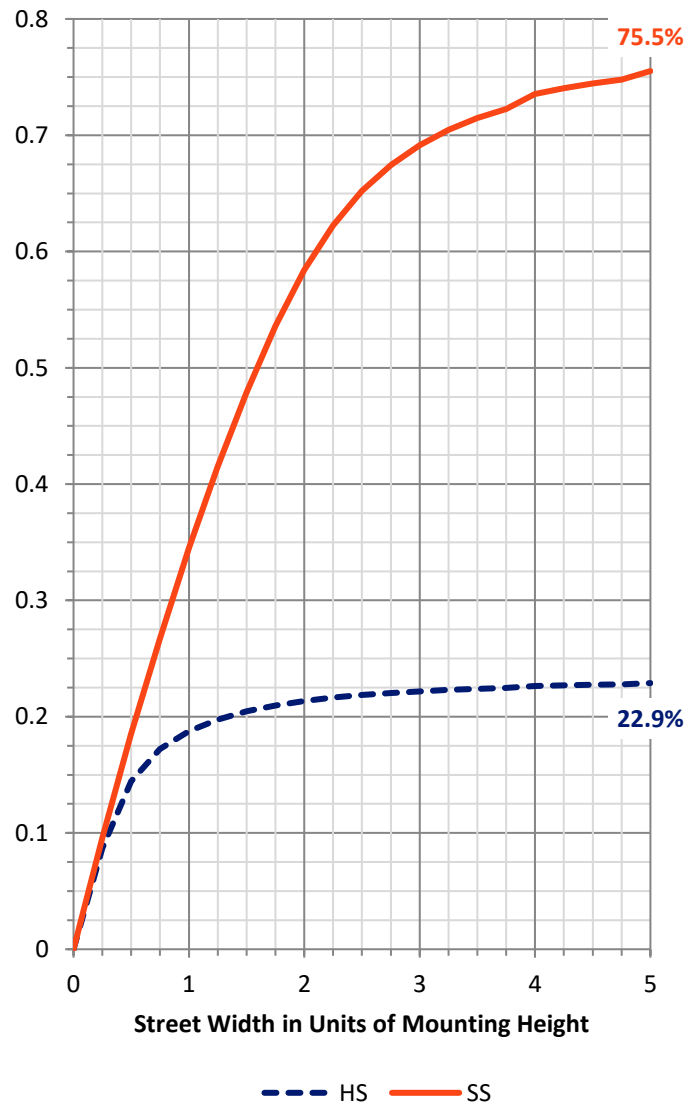
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	20755.0	0.0	20755.0
	% Fixture	23.3	0.0	23.3
Street Side	Lumens	68178.0	0.0	68178.0
	% Fixture	76.7	0.0	76.7
Total	Lumens	88933.0	0.0	88933.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	947.5	1.1
10°-20°	2924.8	3.3
20°-30°	4969.0	5.6
30°-40°	7524.8	8.5
40°-50°	12445.9	14.0
50°-60°	17927.6	20.2
60°-70°	22609.3	25.4
70°-80°	16091.4	18.1
80°-90°	3492.7	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°	88933.0	100.0
0°-180°	88933.0	100.0



REPORT NUMBER: P232718

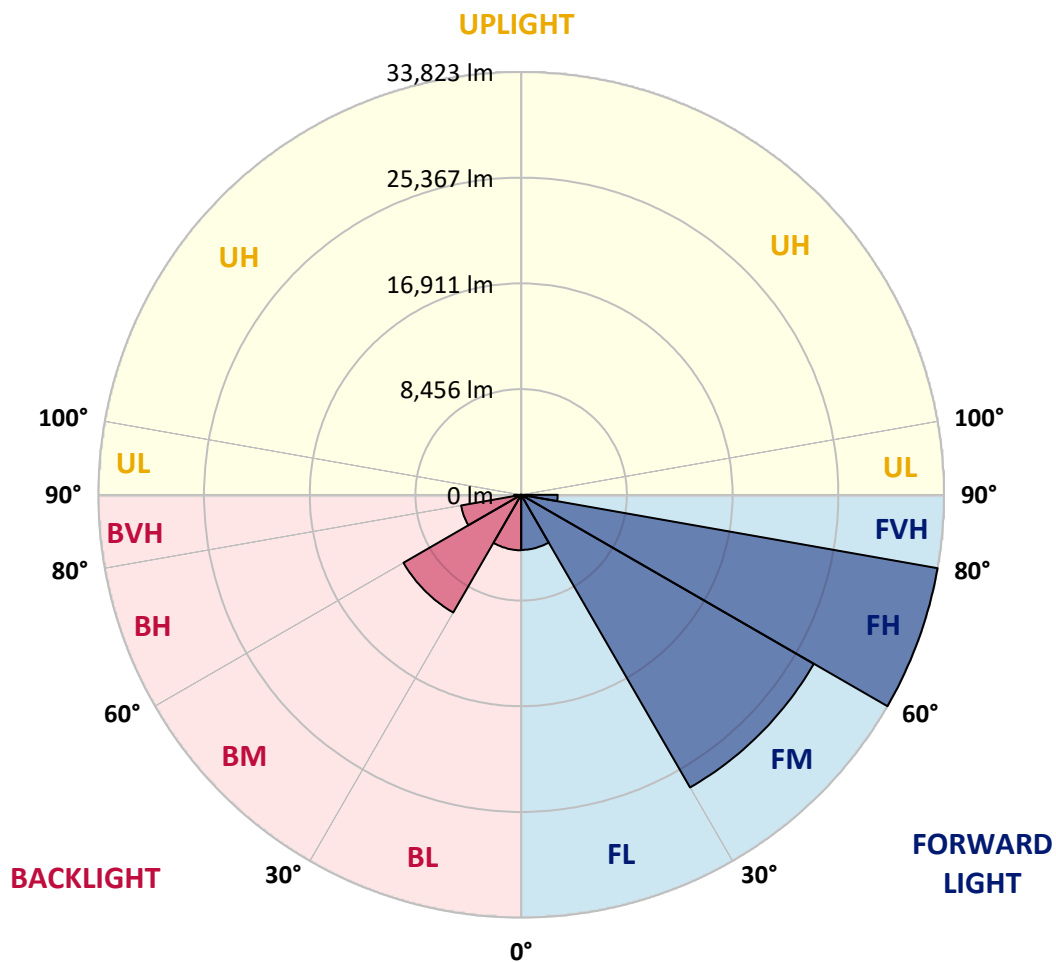
CATALOG NUMBER: CTN-10-9-D-E1-T4-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4406.2	5.0			
FM	(30°-60°)	27029.5	30.4			
FH	(60°-80°)	33822.7	38.0			G5
FVH	(80°-90°)	2919.6	3.3			G5
BL	(0°-30°)	4435.0	5.0	B4/5000		
BM	(30°-60°)	10868.7	12.2	B5		
BH	(60°-80°)	4878.1	5.5	B4/5000		G4/5000
BVH	(80°-90°)	573.2	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: P232718

CATALOG NUMBER: CTN-10-9-D-E1-T4-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	9797.3	9797.3	9797.3	9797.3	9797.3	9797.3	9797.3	9797.3	9797.3	9797.3	9797.3
2.5°	9762.6	9780.0	9768.4	9762.6	9687.5	9704.8	9733.7	9693.3	9791.5	9785.7	9843.5
5°	9670.2	9678.8	9681.7	9707.7	9635.5	9673.1	9707.7	9681.7	9785.7	9756.8	9837.7
7.5°	9644.2	9641.3	9644.2	9693.3	9615.3	9673.1	9713.5	9704.8	9817.5	9794.4	9892.6
10°	9577.7	9580.6	9589.3	9644.2	9603.7	9681.7	9754.0	9791.5	9941.8	9921.5	10034.2
12.5°	9462.1	9485.3	9517.0	9609.5	9618.2	9722.2	9829.1	9904.2	10100.7	10118.0	10259.6
15°	9361.0	9401.5	9456.4	9580.6	9632.6	9751.1	9886.9	10025.5	10282.7	10360.7	10539.8
17.5°	9392.8	9453.5	9525.7	9652.8	9690.4	9814.6	9967.8	10152.7	10470.5	10638.1	10869.2
20°	9589.3	9629.7	9690.4	9808.8	9858.0	9982.2	10106.4	10288.5	10701.6	10973.2	11259.2
22.5°	9834.9	9892.6	9933.1	10005.3	10063.1	10172.9	10302.9	10482.0	10970.3	11311.2	11704.2
25°	10097.8	10126.7	10184.4	10233.6	10305.8	10392.5	10539.8	10759.4	11276.6	11695.5	12244.4
27.5°	10340.5	10354.9	10464.7	10505.1	10646.7	10710.3	10825.8	11117.7	11675.3	12192.4	12868.5
30°	10695.8	10724.7	10808.5	10903.9	11111.9	11175.4	11293.9	11600.2	12206.9	12868.5	13680.4
32.5°	11369.0	11444.1	11432.6	11533.7	11779.3	11863.1	12024.9	12423.6	13085.2	13845.1	14810.1
35°	12732.7	12839.6	12706.7	12570.9	12700.9	12813.6	13062.1	13645.7	14463.4	15717.3	16670.7
37.5°	14966.1	15073.0	14599.1	14165.8	13882.6	13972.2	14310.2	15136.5	16387.6	18566.0	19629.3
40°	17575.0	17690.6	17031.9	16251.8	15613.3	15578.6	15682.6	16734.3	18540.0	21735.5	22564.7
42.5°	19848.8	20152.2	19291.2	18618.0	17791.7	17653.0	17401.7	18464.9	20816.7	24670.9	25139.0
45°	22059.1	22353.8	21674.8	21209.6	20366.0	20140.6	19663.9	20308.2	23050.1	27239.4	27259.6
47.5°	24087.3	24324.2	23535.5	23237.9	22405.8	22307.5	21819.3	22270.0	25118.7	29415.0	29004.7
50°	26355.3	26603.8	25347.0	24980.1	24309.8	24176.9	24018.0	24341.5	27490.8	31290.1	30486.9
52.5°	29129.0	29036.5	27485.0	26644.2	26288.9	26320.7	26141.5	26499.8	30007.3	32879.1	31654.1
55°	32448.7	31974.8	30270.2	28996.1	28178.4	28334.4	28100.4	28626.2	32494.9	34219.7	32497.8
57.5°	34335.3	34465.3	34303.5	32665.3	30585.1	30562.0	30192.2	30697.8	34667.6	35314.7	33012.0
60°	37085.8	37623.2	37828.4	37386.3	35519.9	34783.1	32931.2	32815.6	36502.2	36259.5	33275.0
62.5°	38825.1	39076.5	40310.2	40844.7	41445.6	41572.8	38631.6	35366.8	37857.2	36742.0	33384.8
65°	37993.0	38247.3	40552.9	42647.5	46212.8	46929.3	45993.2	39408.7	38773.1	36848.9	33017.8
67.5°	33728.6	34040.6	37134.9	41428.3	49096.3	49867.7	48356.6	44069.0	39073.6	36785.4	32220.4
68°	33104.5	33335.6	36005.3	41072.9	49385.2	49942.8	48200.6	44421.5	39090.9	36805.6	31974.8
70°	28308.4	28715.8	31527.0	37839.9	48920.0	49275.4	47226.9	44225.1	38698.0	36476.2	30177.7
72.5°	22064.9	22628.2	24766.3	31428.8	45184.3	45473.2	43757.0	42058.1	37510.5	34190.8	25867.0
75°	15986.0	16468.5	18525.6	24254.9	38039.3	39064.9	38776.0	39082.3	33624.6	28970.1	18733.6
77.5°	11039.7	11452.8	13371.2	18098.0	29495.9	30793.1	32292.6	33087.2	27629.5	21492.8	8904.5
80°	7072.8	7390.6	9023.0	12744.3	21270.3	22489.6	24104.6	24928.1	19652.4	10811.4	1580.4
82.5°	4157.6	4374.3	5489.5	8222.7	14336.2	15078.8	15858.8	14477.8	7887.5	2068.7	996.8
85°	2065.8	2210.2	2895.0	4651.6	8913.2	9595.0	9855.1	6177.1	1667.1	757.0	679.0
87.5°	924.5	965.0	1242.4	2094.7	4235.6	4463.8	4354.0	1921.3	335.1	283.1	242.7
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: P232718

CATALOG NUMBER: CTN-10-9-D-E1-T4-7030

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	9797.3	9797.3	9797.3	9797.3	9797.3	9797.3	9797.3	9797.3	9797.3	9797.3	9797.3
2.5°	9849.3	9826.2	9820.4	9858.0	9817.5	9866.6	9852.2	9962.0	9976.4	9936.0	10002.4
5°	9863.7	9852.2	9860.9	9930.2	9915.7	10016.9	10042.9	10152.7	10152.7	10120.9	10190.2
7.5°	9930.2	9930.2	9956.2	10083.3	10083.3	10170.0	10198.9	10320.2	10317.3	10317.3	10380.9
10°	10097.8	10097.8	10152.7	10314.5	10274.0	10386.7	10401.1	10464.7	10450.3	10453.1	10519.6
12.5°	10346.2	10360.7	10456.0	10597.6	10571.6	10612.0	10583.2	10571.6	10467.6	10467.6	10510.9
15°	10632.3	10692.9	10823.0	10953.0	10866.3	10851.9	10687.2	10542.7	10320.2	10224.9	10274.0
17.5°	11005.0	11109.0	11259.2	11351.7	11187.0	11068.5	10771.0	10395.4	10034.2	9823.3	9829.1
20°	11418.1	11556.8	11741.7	11773.5	11530.8	11236.1	10739.2	10149.8	9528.6	9193.4	9170.3
22.5°	11877.5	12050.9	12264.7	12140.4	11744.6	11265.0	10554.3	9771.3	8936.3	8372.9	8364.2
25°	12438.0	12625.8	12761.6	12414.9	11793.7	11117.7	10233.6	9181.9	8150.4	7543.7	7503.3
27.5°	13151.7	13275.9	13174.8	12556.5	11646.4	10765.2	9690.4	8424.9	7332.8	6783.9	6723.2
30°	13998.2	13983.7	13434.8	12516.0	11348.8	10207.6	8950.8	7604.4	6662.5	6191.6	6136.7
32.5°	15026.8	14818.7	13686.2	12322.5	10869.2	9476.6	8072.4	6922.5	6177.1	5700.4	5642.6
35°	16667.8	16081.3	14012.6	12030.6	10201.8	8595.4	7243.2	6396.7	5801.5	5255.5	5142.8
37.5°	19213.2	17976.6	14555.8	11724.4	9436.1	7731.5	6624.9	6015.3	5506.8	4888.5	4755.6
40°	21830.8	20178.2	15382.1	11395.0	8719.6	7078.6	6275.4	5836.2	5327.7	4732.5	4599.6
42.5°	24104.6	22232.4	16373.1	10981.9	7985.8	6564.3	6096.2	5778.4	5269.9	4703.6	4576.5
45°	26112.6	24078.6	17407.5	10502.3	7217.2	6148.2	5943.1	5697.5	5183.2	4637.2	4521.6
47.5°	27785.5	25549.2	18317.6	9970.6	6463.2	5842.0	5792.9	5506.8	5018.5	4492.7	4394.5
50°	29079.8	26595.1	18927.2	9378.4	5818.9	5602.2	5576.2	5215.0	4741.2	4238.5	4140.2
52.5°	29998.6	27297.2	19282.6	9155.9	5313.2	5324.8	5281.5	4897.2	4437.8	3938.0	3860.0
55°	30582.2	27779.7	19195.9	8869.9	4801.9	4934.8	4940.5	4663.2	4258.7	3773.3	3709.7
57.5°	30804.7	27759.5	18684.5	7436.8	4304.9	4466.7	4544.7	4501.4	4143.1	3669.3	3617.3
60°	30683.4	27433.0	17595.3	5449.0	3790.6	4010.2	4200.9	4192.2	3888.9	3441.0	3386.1
62.5°	30481.1	26676.0	15460.1	3900.4	3403.5	3686.6	3917.8	3839.8	3550.8	3157.9	3120.3
65°	29755.9	25341.2	11952.6	3120.3	3241.7	3504.6	3695.3	3562.4	3279.2	2869.0	2848.8
67.5°	28152.4	22671.6	6977.4	2845.9	3123.2	3351.5	3487.3	3322.6	3059.7	2661.0	2626.3
68°	27609.2	21986.8	5934.4	2819.9	3100.1	3313.9	3438.2	3264.8	3007.7	2620.5	2585.8
70°	24867.4	17820.6	2831.4	2713.0	2999.0	3140.6	3212.8	3053.9	2802.5	2458.7	2435.6
72.5°	19354.8	10750.7	1892.4	2551.2	2802.5	2938.3	2955.7	2707.2	2470.3	2216.0	2201.6
75°	11435.5	3568.2	1759.5	2311.4	2530.9	2718.7	2767.9	2519.4	2256.5	1961.8	1956.0
77.5°	2785.2	1383.9	1661.3	2062.9	2294.0	2476.0	2513.6	2331.6	2100.5	1768.2	1756.6
80°	1147.0	1149.9	1548.6	1710.4	1967.5	2143.8	2198.7	2036.9	1828.9	1615.1	1592.0
82.5°	953.4	970.8	1314.6	1262.6	1574.6	1779.7	1834.6	1722.0	1649.7	1418.6	1395.5
85°	679.0	861.0	872.5	849.4	1103.7	1268.4	1545.7	1490.8	1412.8	1216.4	1100.8
87.5°	317.8	502.7	378.5	364.0	560.5	751.2	884.1	927.4	803.2	624.1	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

(END OF REPORT)