

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: P237567

Luminaire Tested: **CTN-8-3-D-E1-T2-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237567
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-25)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-8-3-D-E1-T2-7050-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 5000K LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28688 lumens
Efficiency: N/A
Efficacy: 126.9 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B3 - U0 - G4

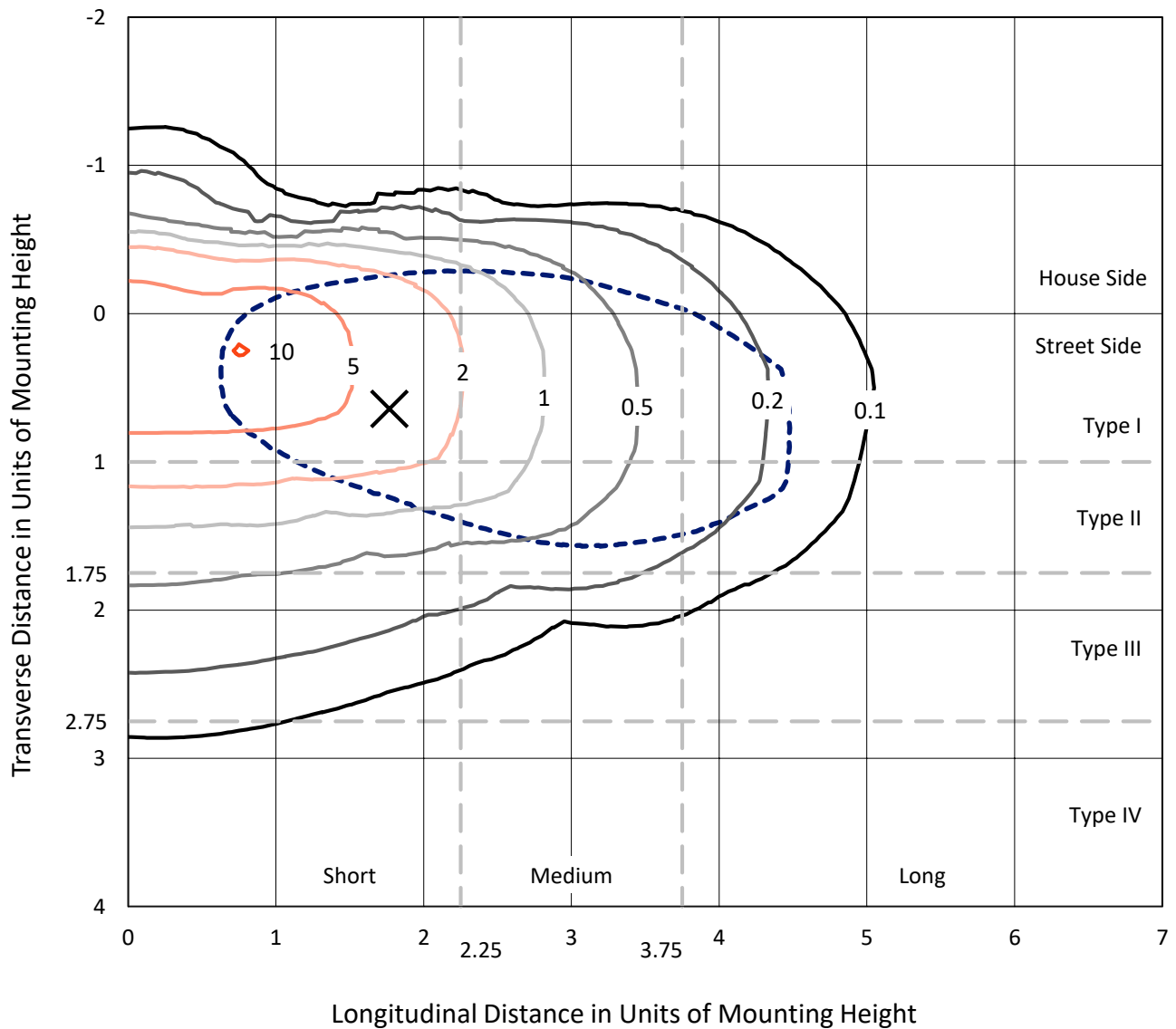
Input Watts (W): 226
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

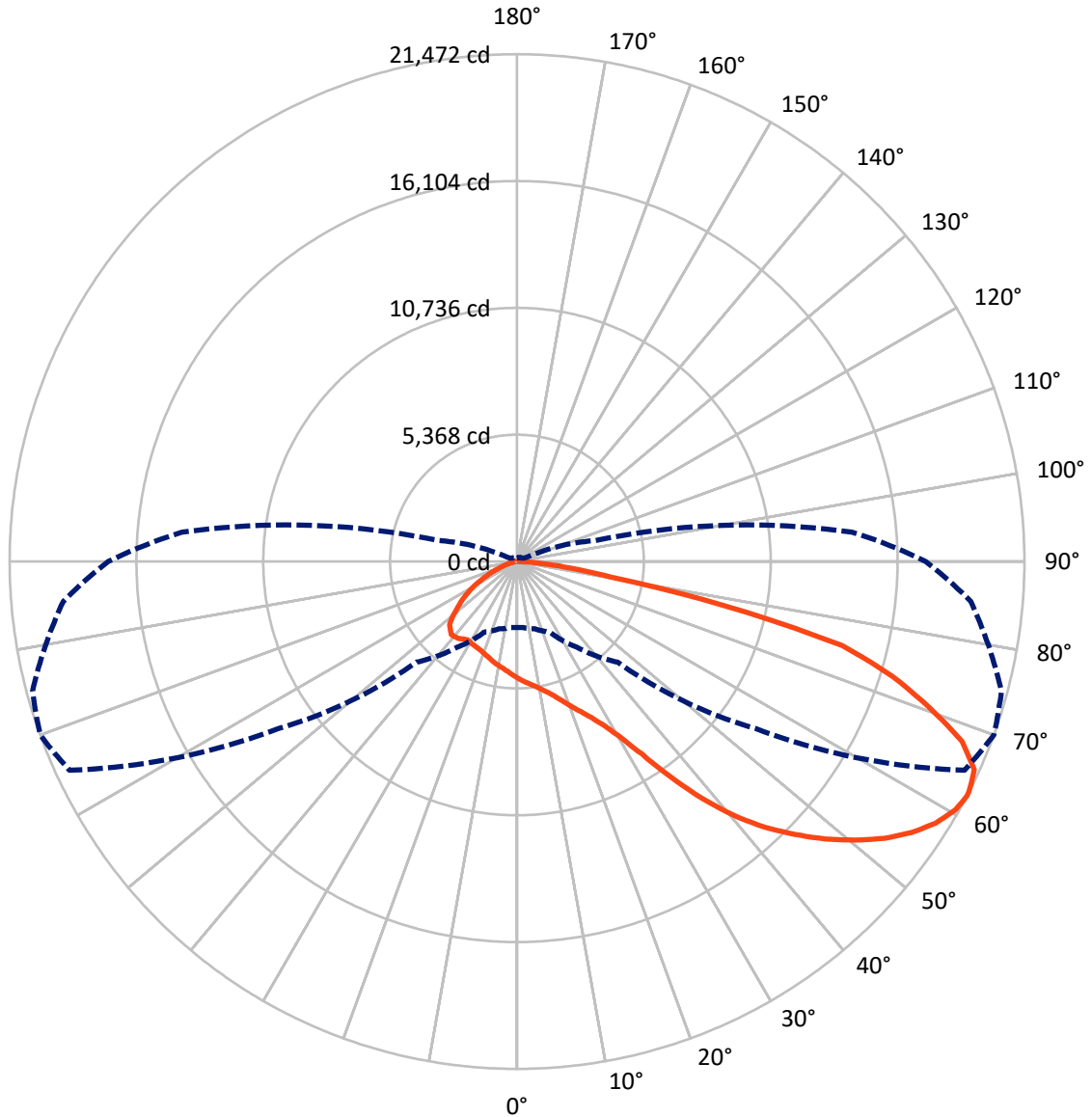
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.2 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral - - - Horizontal Cone Through 62-Deg Vertical

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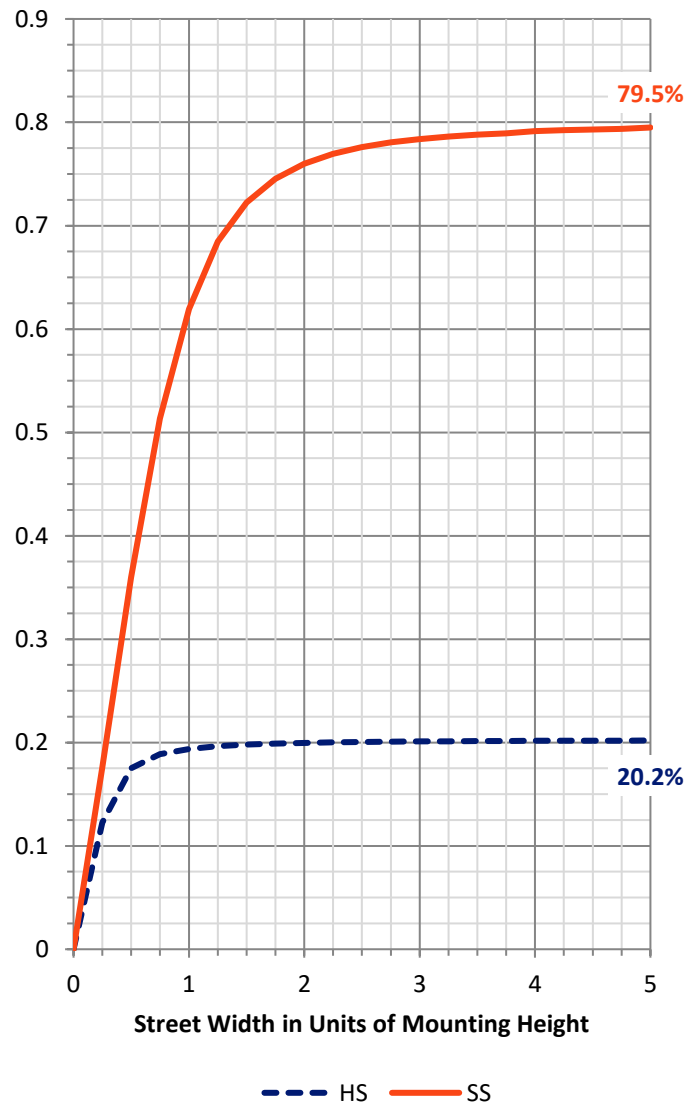
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5868.4	0.0	5868.4
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	22819.6	0.0	22819.6
	% Fixture	79.5	0.0	79.5
Total	Lumens	28688.0	0.0	28688.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	470.1	1.6
10°-20°	1430.3	5.0
20°-30°	2408.1	8.4
30°-40°	3636.1	12.7
40°-50°	5099.0	17.8
50°-60°	5959.5	20.8
60°-70°	5781.9	20.2
70°-80°	3380.0	11.8
80°-90°	522.8	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°	28688.0	100.0
0°-180°	28688.0	100.0



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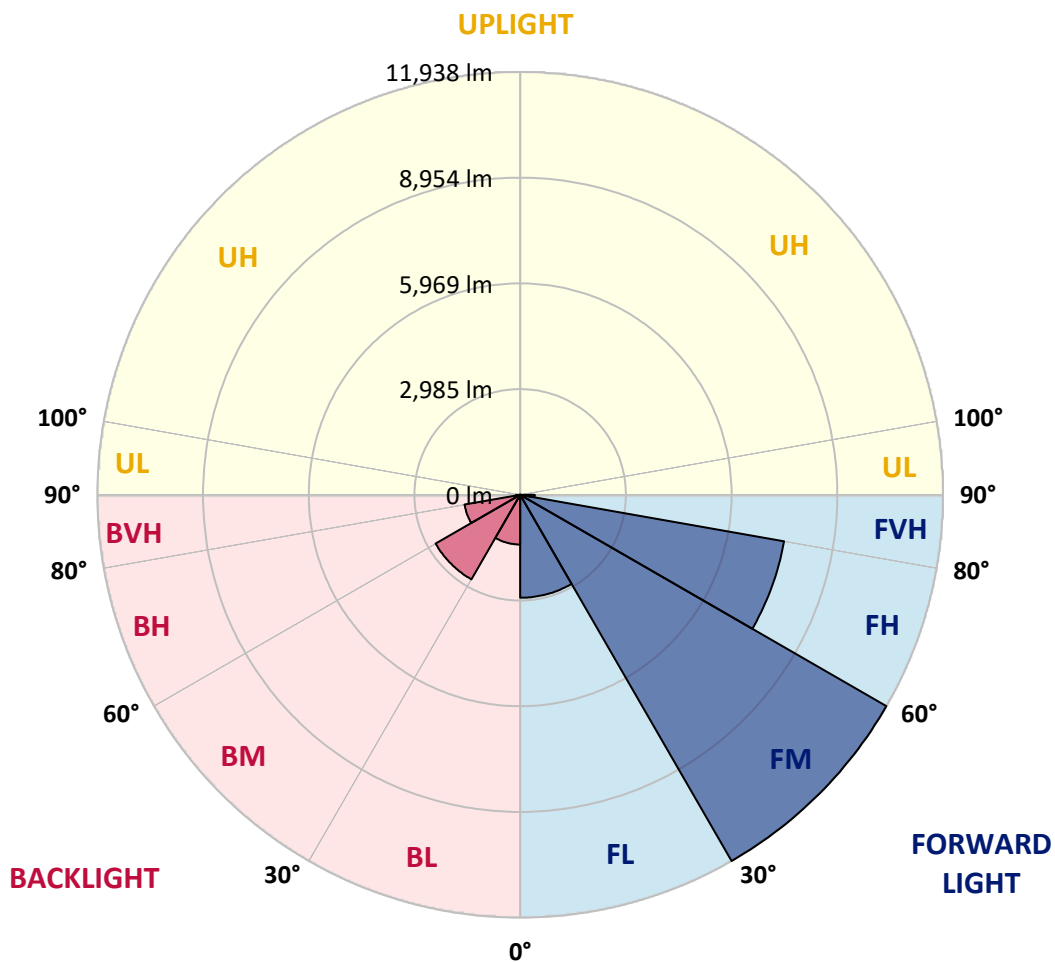
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2905.5	10.1			
FM	(30°-60°)	11938.1	41.6			
FH	(60°-80°)	7566.3	26.4			G4/12000
FVH	(80°-90°)	409.7	1.4			G3/500
BL	(0°-30°)	1403.1	4.9	B3/2500		
BM	(30°-60°)	2756.6	9.6	B3/5000		
BH	(60°-80°)	1595.6	5.6	B3/2500		G3/2500
BVH	(80°-90°)	113.1	0.4			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	4935.4	4935.4	4935.4	4935.4	4935.4	4935.4	4935.4	4935.4	4935.4	4935.4	4935.4
2.5°	5356.0	5320.5	5305.3	5327.6	5178.7	5181.7	5109.7	5098.6	5064.1	5015.5	4961.8
5°	5662.1	5620.5	5599.2	5612.4	5455.3	5428.0	5310.4	5252.6	5184.7	5123.9	5007.4
7.5°	5956.0	5913.4	5897.2	5890.1	5700.6	5659.0	5509.0	5406.7	5314.5	5236.4	5078.3
10°	6251.9	6208.3	6174.9	6184.0	5985.4	5911.4	5738.1	5597.2	5478.6	5377.3	5159.4
12.5°	6545.8	6493.1	6456.6	6456.6	6261.0	6189.1	5994.5	5814.1	5663.1	5535.4	5261.8
15°	6846.8	6777.9	6769.8	6769.8	6562.0	6474.8	6283.3	6083.7	5898.2	5734.0	5385.4
17.5°	7157.9	7070.7	7068.7	7081.9	6891.4	6793.1	6612.7	6426.2	6190.1	5982.3	5536.4
20°	7362.6	7284.6	7266.3	7305.9	7155.9	7092.0	6898.5	6767.7	6540.7	6293.4	5731.0
22.5°	7518.7	7471.1	7488.3	7553.1	7480.2	7425.4	7221.7	7104.2	6899.5	6646.1	5993.5
25°	7675.8	7644.4	7683.9	7798.4	7804.5	7819.7	7649.4	7499.4	7308.9	7082.9	6335.0
27.5°	7627.1	7618.0	7737.6	7973.7	8103.4	8172.4	8077.1	8024.4	7850.1	7611.9	6764.7
30°	7662.6	7640.3	7784.2	8083.2	8372.0	8571.6	8571.6	8691.2	8615.2	8376.1	7420.4
32.5°	7557.2	7515.6	7680.8	8109.5	8606.1	8994.2	9166.5	9590.1	9722.9	9636.8	8720.6
35°	7071.8	7103.2	7426.5	8004.1	8767.2	9407.7	9863.8	10771.8	11180.2	11277.5	10217.5
37.5°	6768.7	6781.9	7111.3	7831.8	8824.0	9814.1	10626.9	12135.9	12714.6	12774.4	11530.9
40°	6351.2	6400.9	6769.8	7600.8	8791.6	10157.7	11448.8	13480.7	14124.3	14074.6	12680.1
42.5°	6021.8	6036.0	6358.3	7233.9	8649.7	10431.3	12277.8	14701.9	15375.9	15237.0	13816.2
45°	5611.4	5637.7	5942.8	6777.9	8397.3	10570.1	12993.3	15847.1	16464.3	16291.0	14800.2
47.5°	5114.8	5230.3	5549.6	6286.3	7969.7	10556.0	13599.3	16838.2	17542.6	17276.1	15720.4
50°	4119.6	4260.5	4899.0	5843.5	7409.2	10357.3	14081.7	17929.7	18532.7	18264.2	16560.6
52.5°	3598.7	3626.1	3951.4	5345.9	6752.5	9913.4	14410.1	18831.7	19460.0	19177.3	17368.3
55°	3363.6	3392.0	3556.1	4540.2	6149.5	9127.0	14530.7	19692.1	20249.5	19925.2	18034.1
57.5°	3157.9	3167.0	3360.6	3839.9	5574.9	8091.3	14276.3	20409.6	20886.9	20446.1	18496.2
60°	2922.8	2959.2	3149.8	3505.5	4927.3	6888.3	13404.7	20868.7	21319.7	20927.5	18975.6
62°	2791.0	2800.1	2949.1	3297.7	4425.7	6018.8	12319.3	20895.0	21471.7	21223.4	19270.5
62.5°	2752.5	2758.6	2899.4	3245.0	4322.3	5846.5	12023.4	20873.8	21462.6	21275.1	19335.4
65°	2531.6	2545.8	2672.4	2995.7	3869.3	5174.6	10637.0	20526.1	21267.0	21187.9	19329.3
67.5°	2263.0	2267.1	2401.8	2692.7	3402.1	4543.2	8934.5	19861.3	20309.3	20206.9	18483.1
70°	1850.5	1924.5	2071.5	2327.9	2814.3	3769.0	6796.1	17790.9	18525.6	18627.0	16967.0
72.5°	1406.6	1401.6	1453.3	1631.6	2050.2	2895.4	4587.8	14906.6	16609.2	17157.5	15293.8
75°	868.5	902.0	1118.8	1261.7	1469.5	2042.1	2876.1	10376.6	14202.3	15149.9	13518.2
77.5°	674.9	681.0	793.5	1040.8	1204.0	1447.2	1793.8	5654.0	8903.0	11259.3	10528.6
80°	513.8	525.0	598.9	652.7	847.2	881.7	1196.9	2924.8	4054.8	5679.3	7072.8
82.5°	310.1	327.3	396.3	427.7	467.2	441.9	643.5	1577.9	2247.8	2906.5	3601.8
85°	156.1	187.5	263.5	249.3	211.8	195.6	275.7	763.1	1074.2	1421.9	1652.9
87.5°	39.5	47.6	61.8	74.0	62.8	51.7	75.0	206.7	212.8	203.7	570.6
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°	4935.4	4935.4	4935.4	4935.4	4935.4	4935.4	4935.4	4935.4	4935.4	4935.4	4935.4
2.5°	4943.5	4902.0	4826.0	4782.4	4674.0	4632.4	4554.4	4582.8	4565.5	4548.3	4549.3
5°	4951.7	4876.7	4731.7	4627.4	4470.3	4390.2	4287.8	4271.6	4227.0	4199.7	4202.7
7.5°	4968.9	4861.5	4656.7	4490.5	4269.6	4143.9	4007.1	3983.8	3916.9	3886.5	3890.6
10°	5012.5	4885.8	4608.1	4363.9	4114.6	3940.2	3780.1	3728.4	3664.6	3630.1	3628.1
12.5°	5079.3	4922.3	4539.2	4267.6	3964.6	3738.6	3554.1	3471.0	3379.8	3349.4	3352.4
15°	5185.8	4968.9	4481.4	4134.8	3783.2	3548.0	3320.0	3219.7	3123.4	3087.9	3084.9
17.5°	5315.5	5011.4	4440.9	3978.8	3626.1	3344.3	3143.7	3006.9	2844.7	2821.4	2796.1
20°	5444.2	5096.6	4404.4	3865.2	3439.6	3139.6	2877.1	2737.3	2505.2	2418.1	2386.6
22.5°	5631.7	5231.4	4399.3	3730.5	3252.1	2915.7	2562.0	2336.0	2080.6	1932.6	1900.2
25°	5882.0	5379.3	4412.5	3628.1	3042.3	2630.9	2153.6	1827.2	1584.0	1416.8	1382.3
27.5°	6207.3	5581.0	4452.0	3515.6	2851.8	2289.4	1695.5	1360.0	1154.3	1014.4	982.0
30°	6686.7	5919.5	4513.8	3411.2	2574.1	1844.5	1246.5	980.0	819.9	733.7	732.7
32.5°	7805.5	6675.5	4549.3	3281.5	2315.7	1394.5	896.9	709.4	581.7	549.3	576.6
35°	9088.5	7746.7	4822.9	3141.7	1911.3	1025.6	640.5	504.7	452.0	460.1	475.3
37.5°	10272.2	8776.4	5240.5	2914.6	1530.3	722.6	460.1	401.3	390.2	419.6	446.9
40°	11320.1	9666.2	5598.2	2665.3	1082.4	504.7	368.9	370.9	359.8	372.9	382.1
42.5°	12347.7	10491.1	5976.2	2329.9	721.6	372.9	333.4	351.7	338.5	340.5	327.3
45°	13369.3	11361.6	6139.4	1915.4	483.4	323.3	312.1	333.4	332.4	324.3	305.0
47.5°	14250.9	11961.6	6346.1	1445.2	359.8	293.9	296.9	312.1	322.3	308.1	299.0
50°	15009.0	12598.0	6187.0	956.7	321.3	274.6	285.8	285.8	302.0	277.7	266.5
52.5°	15733.6	13231.4	5778.6	630.4	294.9	261.5	272.6	265.5	272.6	248.3	245.3
55°	16168.4	13558.8	5285.1	491.5	278.7	250.3	255.4	253.4	247.3	221.9	227.0
57.5°	16646.7	13935.8	4670.9	412.5	271.6	237.1	238.2	235.1	216.9	199.6	200.7
60°	17028.8	14217.5	4014.2	363.8	263.5	230.1	215.9	210.8	185.5	175.3	176.3
62°	17296.3	14230.7	3441.6	338.5	253.4	225.0	202.7	191.5	163.2	155.1	154.0
62.5°	17325.7	14181.0	3301.8	332.4	249.3	223.0	201.7	185.5	157.1	151.0	149.0
65°	17216.3	13628.7	2633.9	299.0	232.1	210.8	187.5	161.1	134.8	126.7	123.6
67.5°	16401.5	12639.6	2011.7	271.6	210.8	202.7	173.3	141.9	119.6	109.5	107.4
70°	14812.4	11300.8	1436.0	237.1	189.5	184.4	174.3	129.7	110.5	96.3	94.2
72.5°	13047.0	9875.9	977.0	210.8	168.2	152.0	128.7	122.6	103.4	85.1	83.1
75°	11103.2	7865.3	695.2	181.4	144.9	128.7	108.4	113.5	97.3	76.0	74.0
77.5°	8518.9	5784.7	515.8	149.0	112.5	104.4	91.2	100.3	88.2	68.9	67.9
80°	5817.1	3995.0	366.9	112.5	74.0	74.0	77.0	86.1	78.0	61.8	60.8
82.5°	3270.4	2102.9	216.9	81.1	50.7	50.7	59.8	69.9	64.9	53.7	52.7
85°	1355.0	761.1	114.5	50.7	33.4	34.5	42.6	51.7	50.7	42.6	41.6
87.5°	471.2	191.5	33.4	17.2	14.2	15.2	17.2	24.3	24.3	21.3	22.3
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)