

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: P232713

Luminaire Tested: **CTN-10-3-D-E1-T4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232713
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-10-3-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: 30385 lumens
Efficiency: N/A
Efficacy: 143.3 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

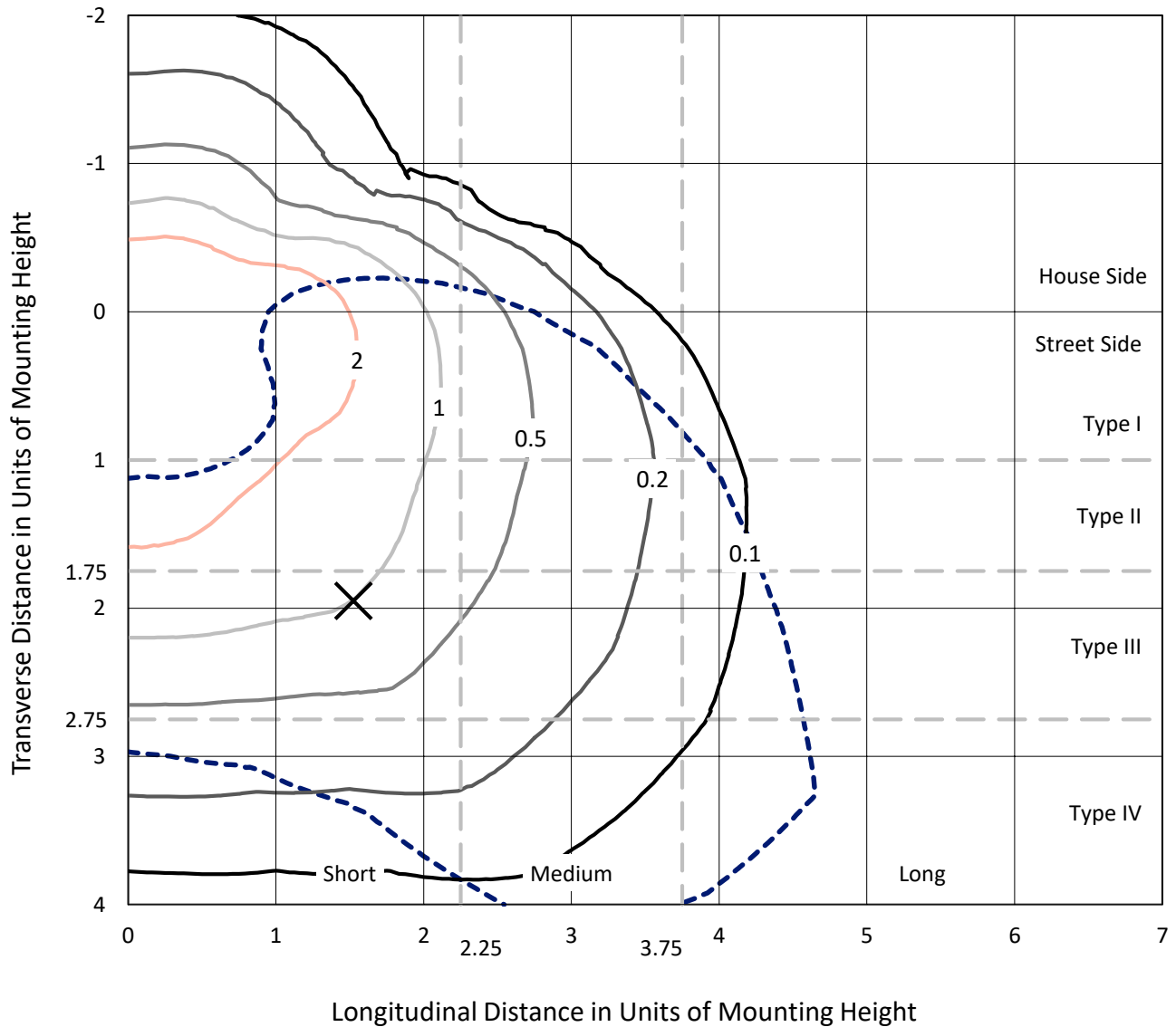
Input Watts (W): 212
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

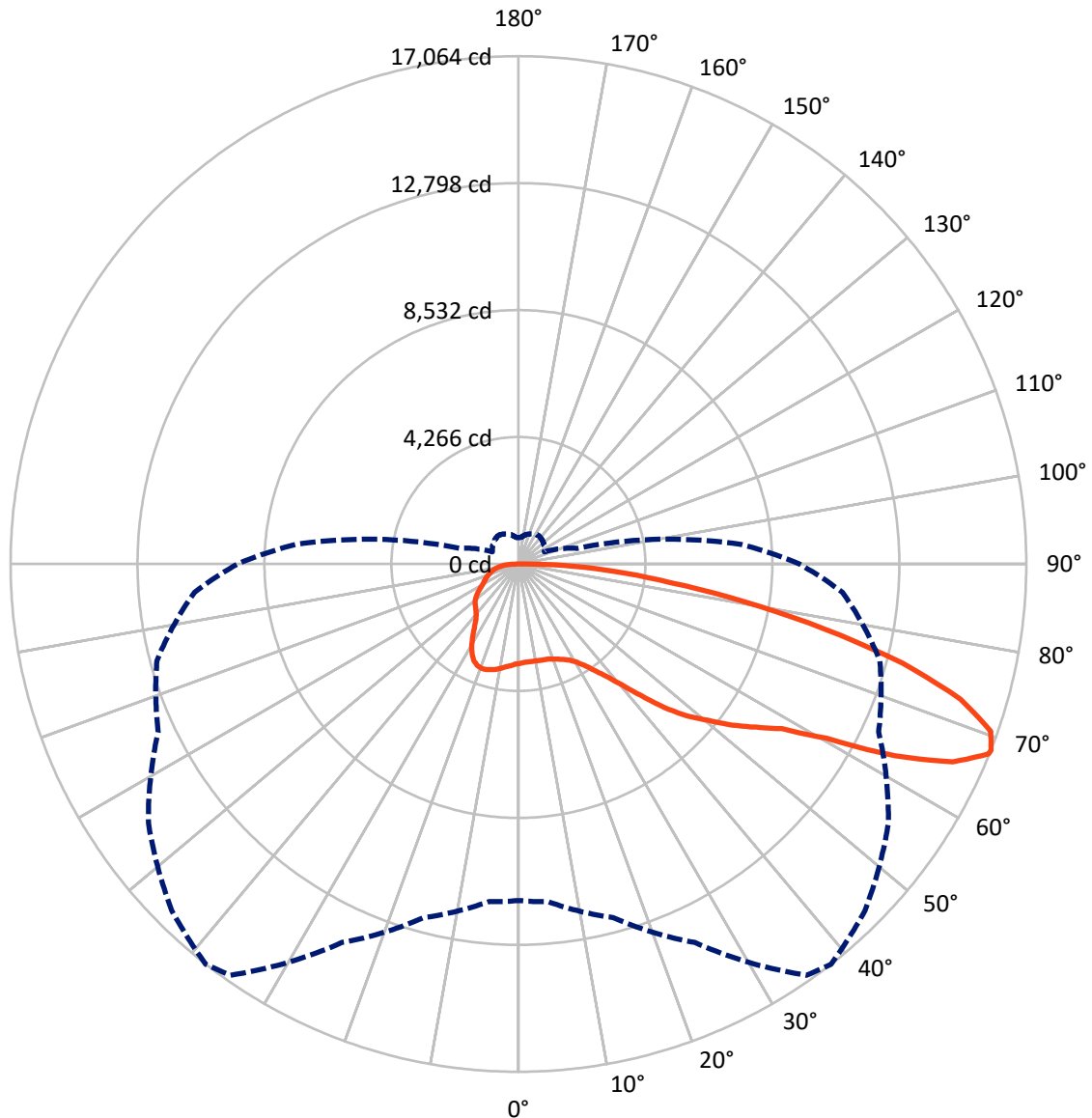
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 3.8 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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

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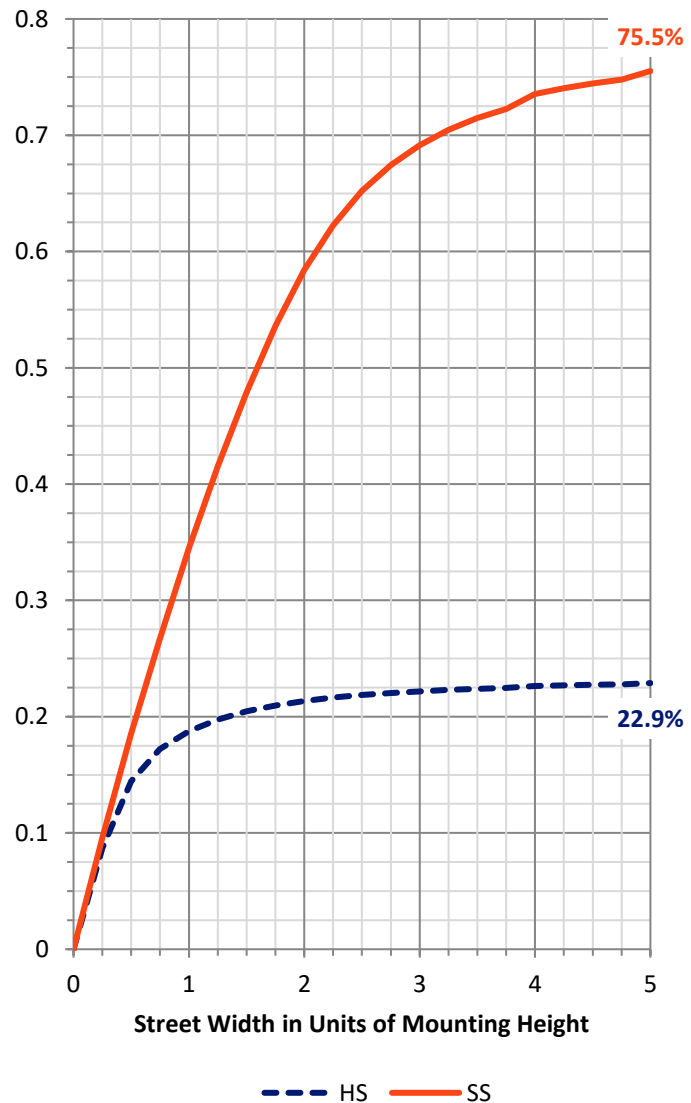
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7091.2	0.0	7091.2
	% Fixture	23.3	0.0	23.3
Street Side	Lumens	23293.8	0.0	23293.8
	% Fixture	76.7	0.0	76.7
Total	Lumens	30385.0	0.0	30385.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	323.7	1.1
10°-20°	999.3	3.3
20°-30°	1697.7	5.6
30°-40°	2570.9	8.5
40°-50°	4252.3	14.0
50°-60°	6125.2	20.2
60°-70°	7724.7	25.4
70°-80°	5497.8	18.1
80°-90°	1193.3	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°	30385.0	100.0
0°-180°	30385.0	100.0



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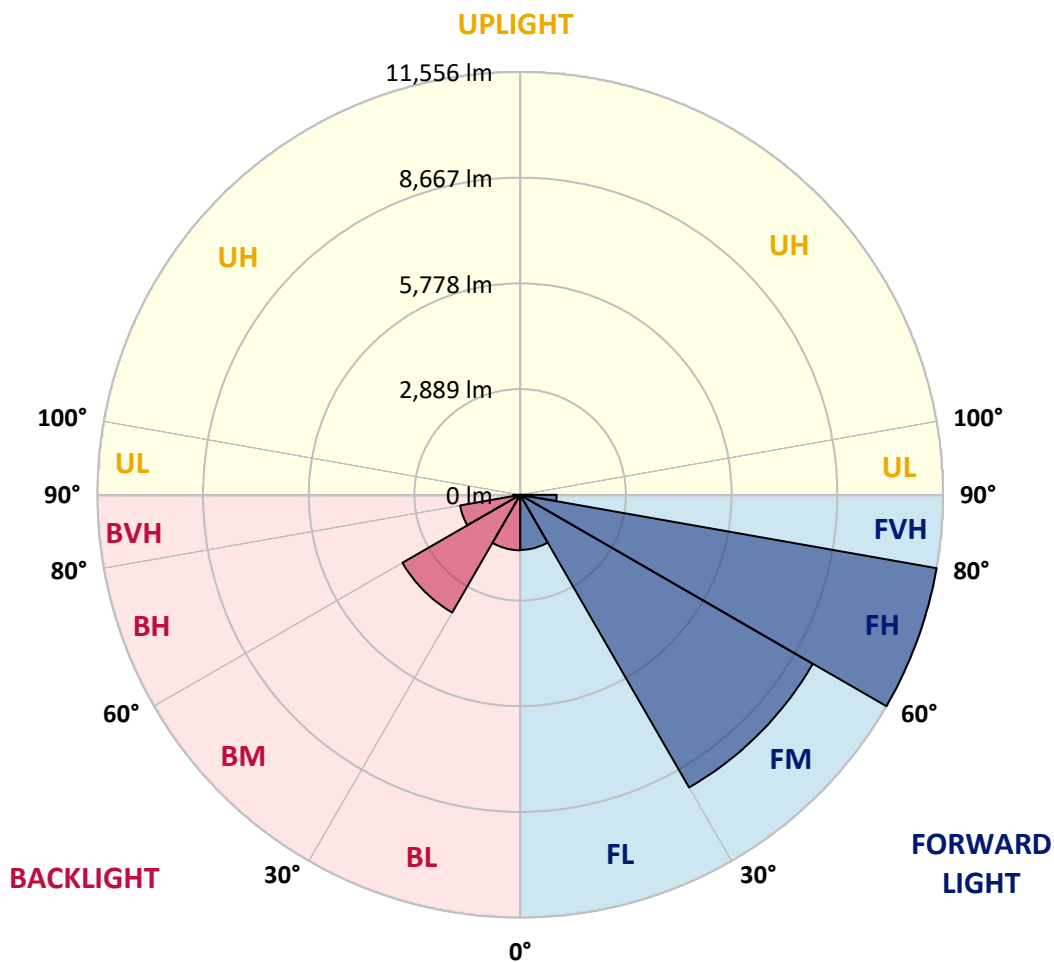
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1505.4	5.0			
FM	(30°-60°)	9235.0	30.4			
FH	(60°-80°)	11555.9	38.0			G4/12000
FVH	(80°-90°)	997.5	3.3			G5
BL	(0°-30°)	1515.3	5.0	B3/2500		
BM	(30°-60°)	3713.4	12.2	B3/5000		
BH	(60°-80°)	1666.7	5.5	B3/2500		G3/2500
BVH	(80°-90°)	195.8	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	3347.4	3347.4	3347.4	3347.4	3347.4	3347.4	3347.4	3347.4	3347.4	3347.4	3347.4
2.5°	3335.5	3341.4	3337.5	3335.5	3309.8	3315.8	3325.6	3311.8	3345.4	3343.4	3363.2
5°	3303.9	3306.9	3307.9	3316.8	3292.1	3304.9	3316.8	3307.9	3343.4	3333.5	3361.2
7.5°	3295.0	3294.1	3295.0	3311.8	3285.2	3304.9	3318.7	3315.8	3354.3	3346.4	3379.9
10°	3272.3	3273.3	3276.3	3295.0	3281.2	3307.9	3332.6	3345.4	3396.7	3389.8	3428.3
12.5°	3232.9	3240.7	3251.6	3283.2	3286.2	3321.7	3358.2	3383.9	3451.0	3456.9	3505.3
15°	3198.3	3212.1	3230.9	3273.3	3291.1	3331.6	3378.0	3425.3	3513.2	3539.8	3601.1
17.5°	3209.2	3229.9	3254.6	3298.0	3310.8	3353.3	3405.6	3468.8	3577.4	3634.6	3713.6
20°	3276.3	3290.1	3310.8	3351.3	3368.1	3410.5	3453.0	3515.2	3656.3	3749.1	3846.8
22.5°	3360.2	3379.9	3393.8	3418.4	3438.2	3475.7	3520.1	3581.3	3748.1	3864.6	3998.9
25°	3450.0	3459.9	3479.6	3496.4	3521.1	3550.7	3601.1	3676.1	3852.8	3995.9	4183.5
27.5°	3532.9	3537.9	3575.4	3589.2	3637.6	3659.3	3698.8	3798.5	3989.0	4165.7	4396.7
30°	3654.4	3664.2	3692.9	3725.4	3796.5	3818.2	3858.7	3963.3	4170.6	4396.7	4674.1
32.5°	3884.4	3910.0	3906.1	3940.6	4024.5	4053.2	4108.4	4244.7	4470.7	4730.3	5060.0
35°	4350.3	4386.8	4341.4	4295.0	4339.4	4377.9	4462.8	4662.2	4941.6	5370.0	5695.7
37.5°	5113.3	5149.9	4988.0	4839.9	4743.2	4773.8	4889.3	5171.6	5599.0	6343.3	6706.6
40°	6004.7	6044.2	5819.1	5552.6	5334.5	5322.6	5358.1	5717.5	6334.4	7426.2	7709.5
42.5°	6781.6	6885.2	6591.1	6361.1	6078.7	6031.4	5945.5	6308.8	7112.3	8429.1	8589.0
45°	7536.7	7637.4	7405.5	7246.5	6958.3	6881.3	6718.4	6938.5	7875.3	9306.7	9313.6
47.5°	8229.7	8310.7	8041.2	7939.5	7655.2	7621.6	7454.8	7608.8	8582.1	10050.0	9909.8
50°	9004.6	9089.5	8660.1	8534.7	8305.7	8260.3	8206.0	8316.6	9392.5	10690.6	10416.2
52.5°	9952.2	9920.7	9390.6	9103.3	8981.9	8992.8	8931.6	9054.0	10252.3	11233.5	10815.0
55°	11086.5	10924.6	10342.2	9906.8	9627.5	9680.8	9600.8	9780.5	11102.3	11691.6	11103.2
57.5°	11731.1	11775.5	11720.2	11160.5	10449.8	10441.9	10315.5	10488.3	11844.6	12065.7	11279.0
60°	12670.8	12854.4	12924.5	12773.5	12135.8	11884.1	11251.3	11211.8	12471.4	12388.5	11368.8
62.5°	13265.1	13350.9	13772.4	13955.1	14160.4	14203.8	13198.9	12083.5	12934.4	12553.3	11406.3
65°	12980.8	13067.6	13855.4	14571.0	15789.2	16034.0	15714.1	13464.5	13247.3	12589.9	11280.9
67.5°	11523.8	11630.4	12687.6	14154.5	16774.3	17037.9	16521.6	15056.7	13350.0	12568.1	11008.5
68°	11310.5	11389.5	12301.6	14033.0	16873.0	17063.5	16468.3	15177.1	13355.9	12575.1	10924.6
70°	9671.9	9811.1	10771.6	12928.4	16714.1	16835.5	16135.6	15110.0	13221.6	12462.5	10310.6
72.5°	7538.7	7731.2	8461.7	10738.0	15437.7	15536.4	14950.1	14369.7	12815.9	11681.7	8837.8
75°	5461.8	5626.6	6329.5	8287.0	12996.6	13347.0	13248.3	13352.9	11488.2	9898.0	6400.6
77.5°	3771.8	3913.0	4568.4	6183.4	10077.6	10520.8	11033.2	11304.6	9439.9	7343.3	3042.3
80°	2416.5	2525.1	3082.8	4354.2	7267.3	7683.8	8235.6	8517.0	6714.5	3693.8	540.0
82.5°	1420.5	1494.5	1875.5	2809.4	4898.1	5151.8	5418.4	4946.5	2694.9	706.8	340.6
85°	705.8	755.2	989.1	1589.3	3045.3	3278.3	3367.1	2110.5	569.6	258.6	232.0
87.5°	315.9	329.7	424.5	715.7	1447.1	1525.1	1487.6	656.4	114.5	96.7	82.9
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°	3347.4	3347.4	3347.4	3347.4	3347.4	3347.4	3347.4	3347.4	3347.4	3347.4	3347.4
2.5°	3365.1	3357.2	3355.3	3368.1	3354.3	3371.1	3366.1	3403.6	3408.6	3394.7	3417.4
5°	3370.1	3366.1	3369.1	3392.8	3387.8	3422.4	3431.3	3468.8	3468.8	3457.9	3481.6
7.5°	3392.8	3392.8	3401.7	3445.1	3445.1	3474.7	3484.6	3526.0	3525.0	3525.0	3546.8
10°	3450.0	3450.0	3468.8	3524.1	3510.2	3548.7	3553.7	3575.4	3570.5	3571.4	3594.1
12.5°	3534.9	3539.8	3572.4	3620.8	3611.9	3625.7	3615.9	3611.9	3576.4	3576.4	3591.2
15°	3632.6	3653.4	3697.8	3742.2	3712.6	3707.7	3651.4	3602.0	3526.0	3493.5	3510.2
17.5°	3760.0	3795.5	3846.8	3878.4	3822.2	3781.7	3680.0	3551.7	3428.3	3356.2	3358.2
20°	3901.1	3948.5	4011.7	4022.6	3939.6	3839.0	3669.2	3467.8	3255.6	3141.0	3133.2
22.5°	4058.1	4117.3	4190.4	4147.9	4012.7	3848.8	3606.0	3338.5	3053.2	2860.7	2857.7
25°	4249.6	4313.8	4360.2	4241.7	4029.5	3798.5	3496.4	3137.1	2784.7	2577.4	2563.6
27.5°	4493.4	4535.9	4501.3	4290.1	3979.1	3678.0	3310.8	2878.5	2505.3	2317.8	2297.1
30°	4782.6	4777.7	4590.2	4276.2	3877.4	3487.5	3058.1	2598.1	2276.3	2115.4	2096.7
32.5°	5134.1	5063.0	4676.0	4210.1	3713.6	3237.8	2758.0	2365.2	2110.5	1947.6	1927.9
35°	5694.8	5494.4	4787.6	4110.4	3485.6	2936.7	2474.7	2185.5	1982.2	1795.6	1757.1
37.5°	6564.4	6141.9	4973.2	4005.8	3224.0	2641.6	2263.5	2055.2	1881.5	1670.2	1624.8
40°	7458.8	6894.1	5255.5	3893.2	2979.2	2418.5	2144.0	1994.0	1820.3	1616.9	1571.5
42.5°	8235.6	7596.0	5594.1	3752.1	2728.4	2242.8	2082.8	1974.3	1800.5	1607.0	1563.6
45°	8921.7	8226.7	5947.5	3588.2	2465.9	2100.6	2030.5	1946.6	1770.9	1584.3	1544.9
47.5°	9493.2	8729.2	6258.4	3406.6	2208.2	1996.0	1979.2	1881.5	1714.6	1535.0	1501.4
50°	9935.5	9086.5	6466.7	3204.2	1988.1	1914.0	1905.2	1781.8	1619.9	1448.1	1414.6
52.5°	10249.4	9326.4	6588.1	3128.2	1815.3	1819.3	1804.5	1673.2	1516.2	1345.5	1318.8
55°	10448.8	9491.3	6558.5	3030.5	1640.6	1686.0	1688.0	1593.2	1455.0	1289.2	1267.5
57.5°	10524.8	9484.3	6383.8	2540.9	1470.8	1526.1	1552.8	1537.9	1415.5	1253.7	1235.9
60°	10483.3	9372.8	6011.6	1861.7	1295.1	1370.1	1435.3	1432.3	1328.7	1175.7	1156.9
62.5°	10414.2	9114.2	5282.1	1332.6	1162.8	1259.6	1338.5	1311.9	1213.2	1078.9	1066.1
65°	10166.5	8658.1	4083.8	1066.1	1107.6	1197.4	1262.5	1217.1	1120.4	980.2	973.3
67.5°	9618.6	7746.0	2383.9	972.3	1067.1	1145.1	1191.5	1135.2	1045.4	909.1	897.3
68°	9433.0	7512.1	2027.6	963.4	1059.2	1132.2	1174.7	1115.5	1027.6	895.3	883.5
70°	8496.2	6088.6	967.4	926.9	1024.6	1073.0	1097.7	1043.4	957.5	840.0	832.2
72.5°	6612.8	3673.1	646.6	871.6	957.5	1003.9	1009.8	924.9	844.0	757.1	752.2
75°	3907.1	1219.1	601.2	789.7	864.7	928.9	945.7	860.8	770.9	670.3	668.3
77.5°	951.6	472.8	567.6	704.8	783.8	846.0	858.8	796.6	717.6	604.1	600.2
80°	391.9	392.9	529.1	584.4	672.2	732.5	751.2	695.9	624.9	551.8	543.9
82.5°	325.8	331.7	449.1	431.4	538.0	608.1	626.8	588.3	563.7	484.7	476.8
85°	232.0	294.2	298.1	290.2	377.1	433.4	528.1	509.4	482.7	415.6	376.1
87.5°	108.6	171.8	129.3	124.4	191.5	256.7	302.1	316.9	274.4	213.2	197.4
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)