

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: P232728

Luminaire Tested: **CTN-8-3-D-E1-T4-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232728
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-8-3-D-E1-T4-7050
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 5000K LEDS AND TYPE IV OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31194 lumens
Efficiency: N/A
Efficacy: 138.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

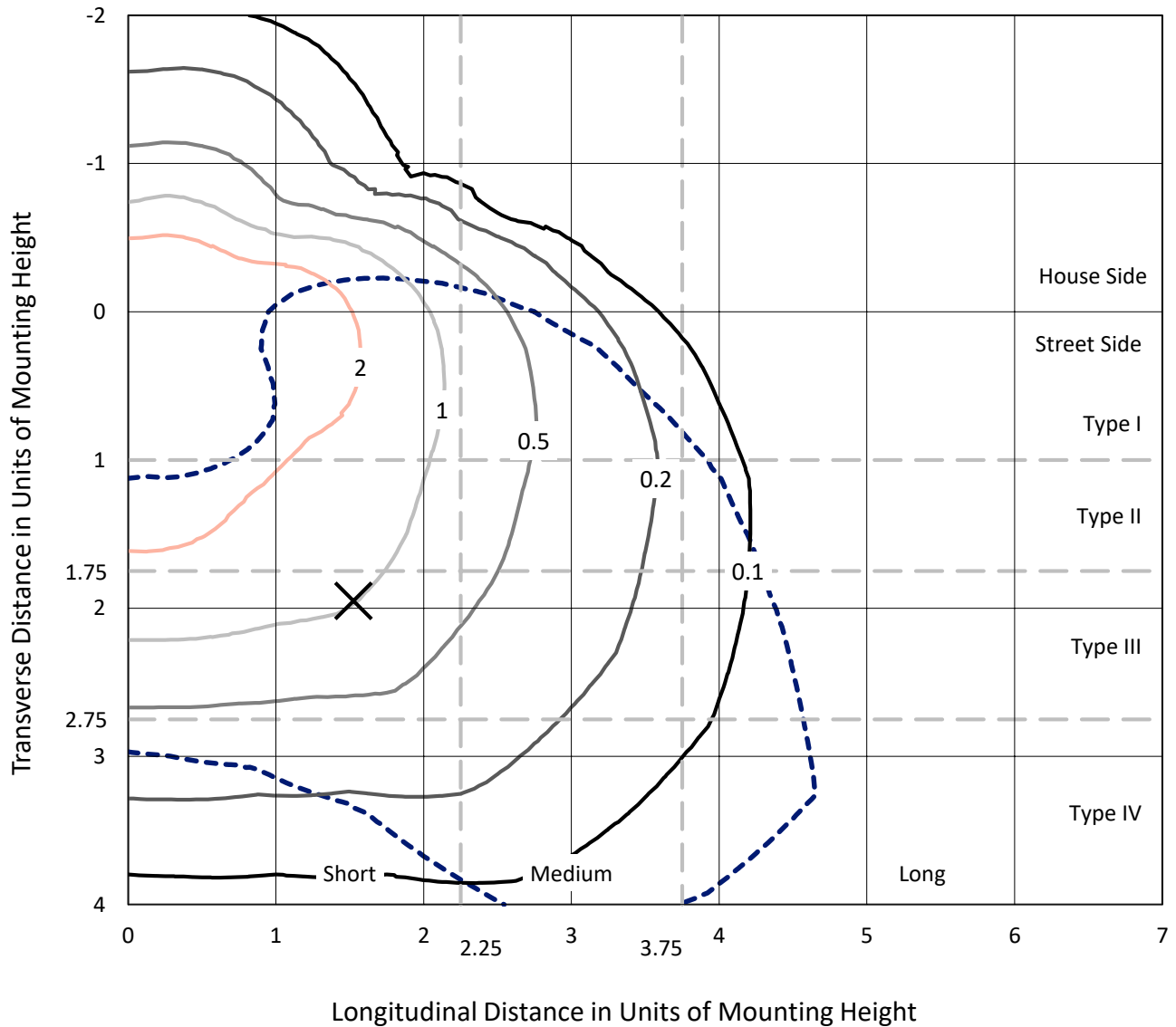
Input Watts (W): 226
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

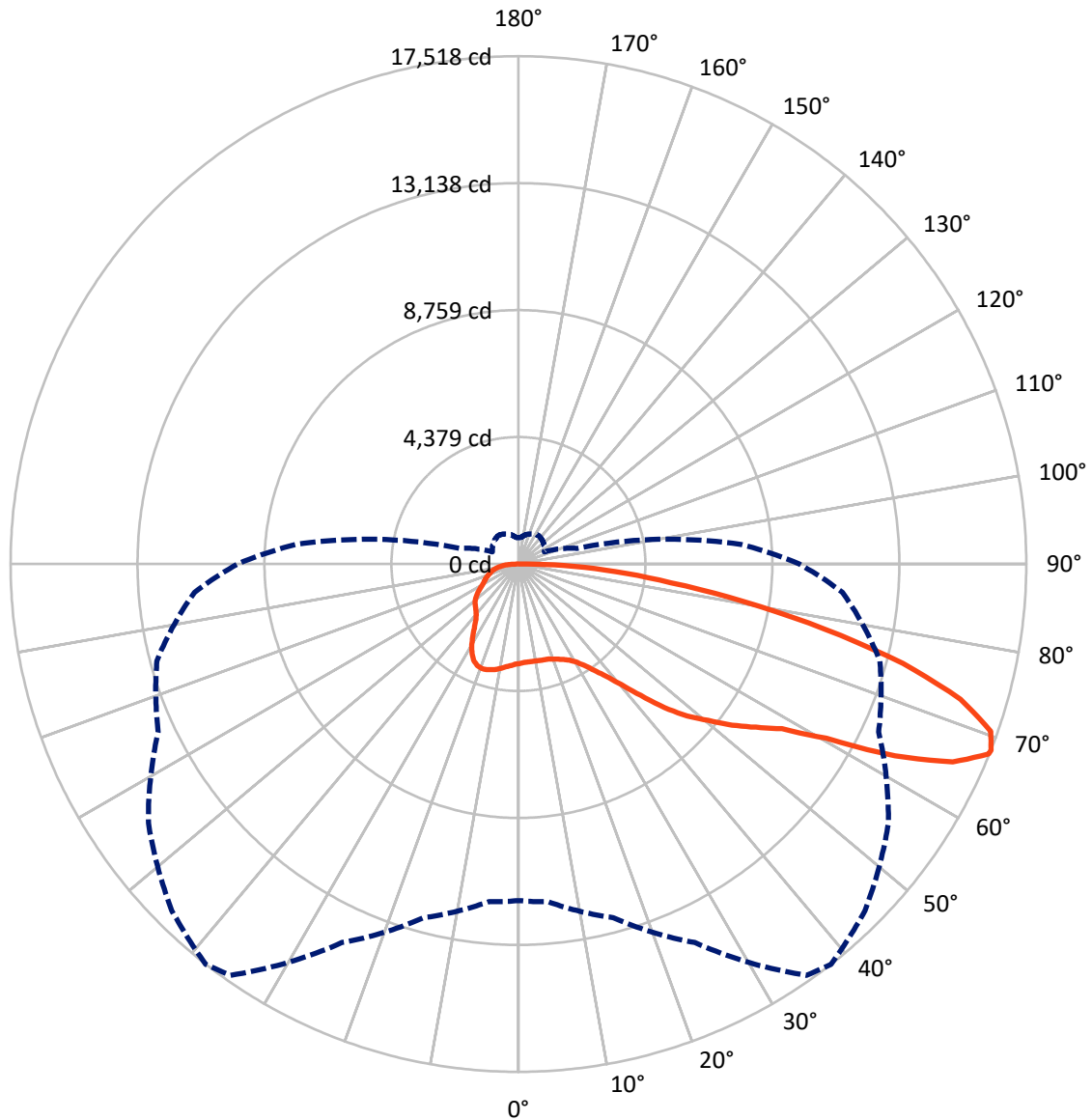
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 3.9 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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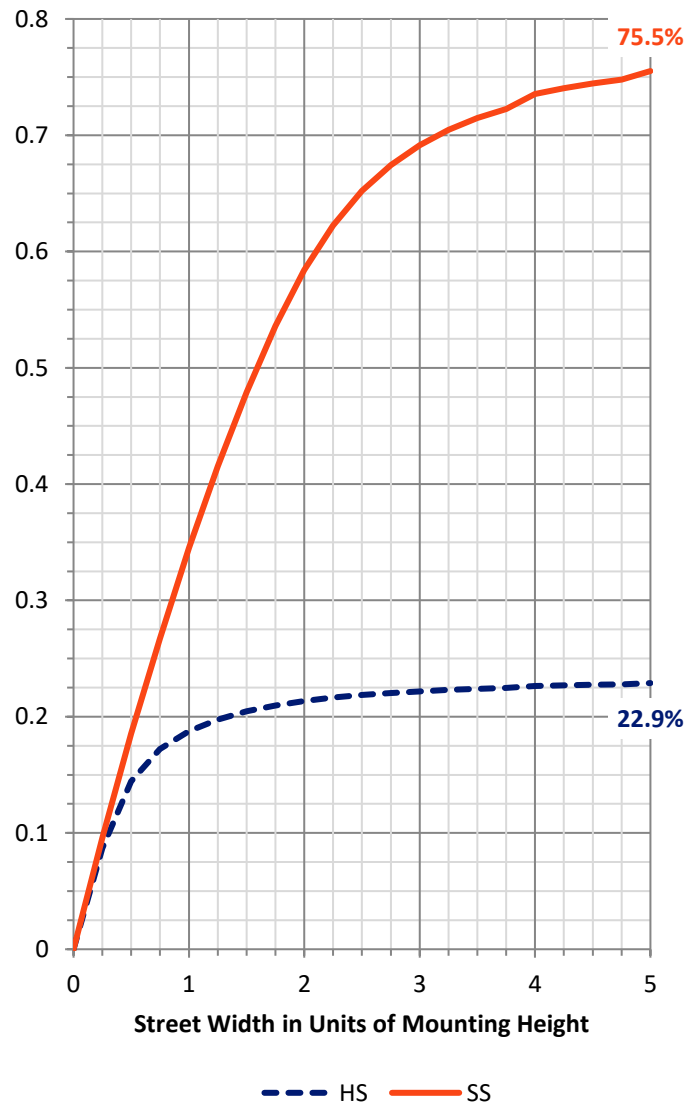
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7280.0	0.0	7280.0
	% Fixture	23.3	0.0	23.3
Street Side	Lumens	23914.0	0.0	23914.0
	% Fixture	76.7	0.0	76.7
Total	Lumens	31194.0	0.0	31194.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	332.3	1.1
10°-20°	1025.9	3.3
20°-30°	1742.9	5.6
30°-40°	2639.4	8.5
40°-50°	4365.5	14.0
50°-60°	6288.3	20.2
60°-70°	7930.4	25.4
70°-80°	5644.2	18.1
80°-90°	1225.1	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°	31194.0	100.0
0°-180°	31194.0	100.0



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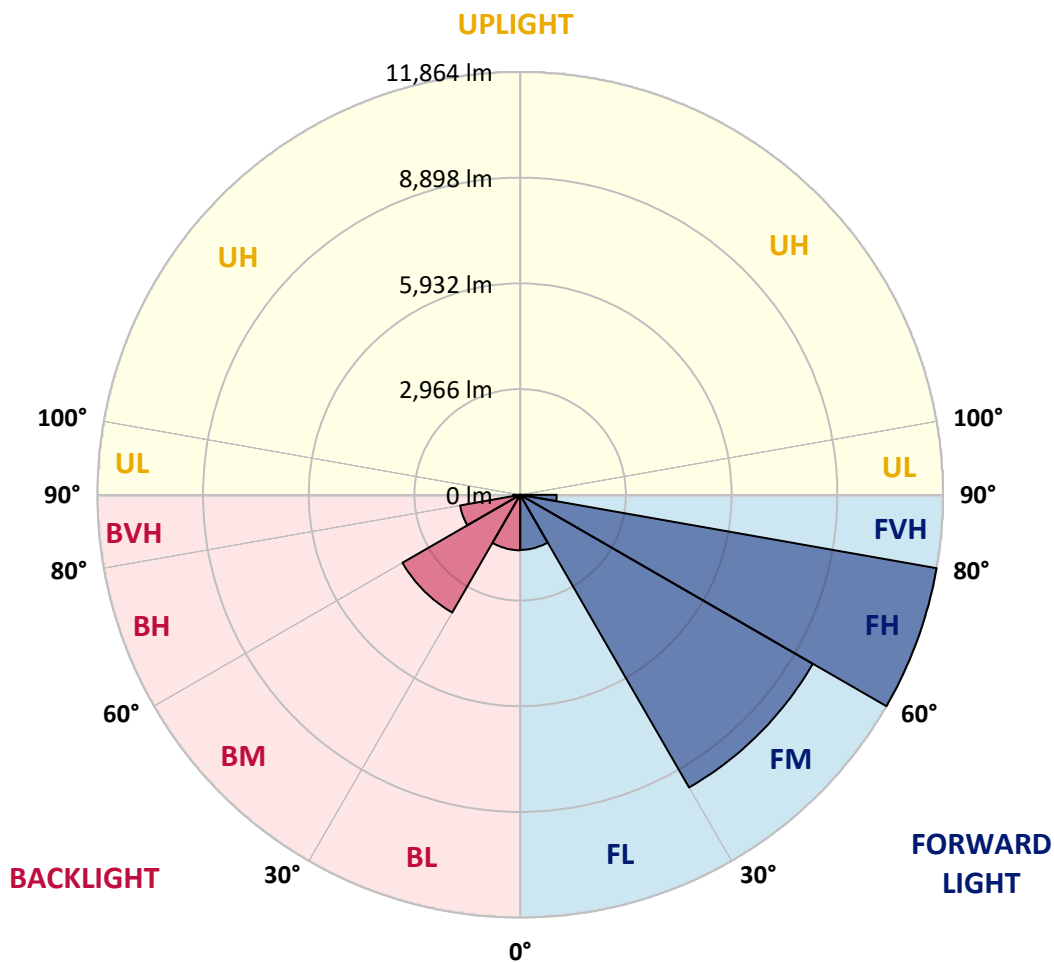
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1545.5	5.0			
FM	(30°-60°)	9480.8	30.4			
FH	(60°-80°)	11863.6	38.0			G4/12000
FVH	(80°-90°)	1024.1	3.3			G5
BL	(0°-30°)	1555.6	5.0	B3/2500		
BM	(30°-60°)	3812.3	12.2	B3/5000		
BH	(60°-80°)	1711.0	5.5	B3/2500		G3/2500
BVH	(80°-90°)	201.0	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°	3436.5	3436.5	3436.5	3436.5	3436.5	3436.5	3436.5	3436.5	3436.5	3436.5	3436.5
2.5°	3424.3	3430.4	3426.3	3424.3	3398.0	3404.1	3414.2	3400.0	3434.5	3432.4	3452.7
5°	3391.9	3394.9	3395.9	3405.1	3379.7	3392.9	3405.1	3395.9	3432.4	3422.3	3450.7
7.5°	3382.8	3381.8	3382.8	3400.0	3372.6	3392.9	3407.1	3404.1	3443.6	3435.5	3469.9
10°	3359.5	3360.5	3363.5	3382.8	3368.6	3395.9	3421.3	3434.5	3487.2	3480.1	3519.6
12.5°	3318.9	3327.0	3338.2	3370.6	3373.7	3410.1	3447.6	3474.0	3542.9	3549.0	3598.6
15°	3283.5	3297.6	3316.9	3360.5	3378.7	3420.3	3467.9	3516.5	3606.7	3634.1	3696.9
17.5°	3294.6	3315.9	3341.2	3385.8	3399.0	3442.6	3496.3	3561.1	3672.6	3731.4	3812.5
20°	3363.5	3377.7	3399.0	3440.5	3457.8	3501.3	3544.9	3608.8	3753.7	3848.9	3949.3
22.5°	3449.7	3469.9	3484.1	3509.4	3529.7	3568.2	3613.8	3676.7	3847.9	3967.5	4105.3
25°	3541.9	3552.0	3572.3	3589.5	3614.8	3645.2	3696.9	3773.9	3955.4	4102.3	4294.8
27.5°	3627.0	3632.1	3670.6	3684.8	3734.4	3756.7	3797.3	3899.6	4095.2	4276.6	4513.7
30°	3751.7	3761.8	3791.2	3824.6	3897.6	3919.9	3961.4	4068.9	4281.7	4513.7	4798.5
32.5°	3987.8	4014.1	4010.1	4045.5	4131.7	4161.1	4217.8	4357.7	4589.7	4856.3	5194.8
35°	4466.1	4503.6	4457.0	4409.4	4455.0	4494.5	4581.6	4786.3	5073.1	5513.0	5847.4
37.5°	5249.5	5287.0	5120.8	4968.8	4869.4	4900.9	5019.4	5309.3	5748.1	6512.2	6885.1
40°	6164.6	6205.1	5974.1	5700.4	5476.5	5464.3	5500.8	5869.7	6503.1	7623.9	7914.8
42.5°	6962.1	7068.6	6766.6	6530.4	6240.6	6192.0	6103.8	6476.7	7301.6	8653.5	8817.7
45°	7737.4	7840.8	7602.6	7439.5	7143.5	7064.5	6897.3	7123.3	8085.0	9554.5	9561.6
47.5°	8448.8	8531.9	8255.3	8150.9	7859.0	7824.6	7653.3	7811.4	8810.6	10317.6	10173.7
50°	9244.4	9331.5	8890.7	8762.0	8526.9	8480.2	8424.5	8538.0	9642.6	10975.3	10693.5
52.5°	10217.2	10184.8	9640.6	9345.7	9221.0	9232.2	9169.4	9295.0	10525.3	11532.6	11103.0
55°	11381.6	11215.4	10617.5	10170.6	9883.8	9938.5	9856.5	10040.9	11397.9	12002.9	11398.9
57.5°	12043.4	12089.0	12032.3	11457.6	10728.0	10719.9	10590.2	10767.5	12159.9	12386.9	11579.3
60°	13008.2	13196.7	13268.6	13113.6	12458.9	12200.5	11550.9	11510.3	12803.5	12718.3	11671.5
62.5°	13618.2	13706.4	14139.1	14326.6	14537.4	14582.0	13550.3	12405.2	13278.7	12887.6	11710.0
65°	13326.4	13415.6	14224.3	14959.0	16209.5	16460.9	16132.5	13823.0	13600.0	12925.1	11581.3
67.5°	11830.6	11940.0	13025.4	14531.3	17220.9	17491.5	16961.5	15457.6	13705.4	12902.8	11301.6
68°	11611.7	11692.8	12629.2	14406.7	17322.3	17517.9	16906.8	15581.2	13711.5	12909.9	11215.4
70°	9929.4	10072.3	11058.4	13272.7	17159.1	17283.8	16565.2	15512.3	13573.7	12794.3	10585.1
72.5°	7739.4	7937.0	8687.0	11023.9	15848.8	15950.1	15348.1	14752.3	13157.1	11992.7	9073.1
75°	5607.2	5776.5	6498.0	8507.6	13342.6	13702.4	13601.0	13708.4	11794.1	10161.5	6571.0
77.5°	3872.3	4017.2	4690.1	6348.0	10345.9	10801.0	11326.9	11605.6	9691.3	7538.8	3123.3
80°	2480.8	2592.3	3164.9	4470.2	7460.7	7888.4	8454.9	8743.7	6893.2	3792.2	554.3
82.5°	1458.3	1534.3	1925.5	2884.2	5028.6	5289.0	5562.6	5078.2	2766.6	725.6	349.6
85°	724.6	775.3	1015.4	1631.6	3126.4	3365.5	3456.8	2166.7	584.7	265.5	238.2
87.5°	324.3	338.5	435.8	734.7	1485.7	1565.7	1527.2	673.9	117.6	99.3	85.1
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°	3436.5	3436.5	3436.5	3436.5	3436.5	3436.5	3436.5	3436.5	3436.5	3436.5	3436.5
2.5°	3454.7	3446.6	3444.6	3457.8	3443.6	3460.8	3455.7	3494.2	3499.3	3485.1	3508.4
5°	3459.8	3455.7	3458.8	3483.1	3478.0	3513.5	3522.6	3561.1	3561.1	3550.0	3574.3
7.5°	3483.1	3483.1	3492.2	3536.8	3536.8	3567.2	3577.3	3619.9	3618.9	3618.9	3641.2
10°	3541.9	3541.9	3561.1	3617.9	3603.7	3643.2	3648.3	3670.6	3665.5	3666.5	3689.8
12.5°	3629.0	3634.1	3667.5	3717.2	3708.1	3722.3	3712.1	3708.1	3671.6	3671.6	3686.8
15°	3729.4	3750.6	3796.2	3841.8	3811.4	3806.4	3748.6	3697.9	3619.9	3586.5	3603.7
17.5°	3860.1	3896.6	3949.3	3981.7	3923.9	3882.4	3778.0	3646.3	3519.6	3445.6	3447.6
20°	4005.0	4053.7	4118.5	4129.7	4044.5	3941.2	3766.9	3560.1	3342.2	3224.7	3216.6
22.5°	4166.1	4226.9	4301.9	4258.4	4119.5	3951.3	3702.0	3427.4	3134.5	2936.9	2933.8
25°	4362.7	4428.6	4476.2	4354.6	4136.8	3899.6	3589.5	3220.6	2858.8	2646.0	2631.8
27.5°	4613.1	4656.6	4621.2	4404.3	4085.1	3776.0	3399.0	2955.1	2572.0	2379.5	2358.2
30°	4910.0	4904.9	4712.4	4390.1	3980.7	3580.4	3139.6	2667.3	2336.9	2171.7	2152.5
32.5°	5270.8	5197.8	4800.5	4322.2	3812.5	3324.0	2831.5	2428.1	2166.7	1999.5	1979.2
35°	5846.4	5640.7	4915.1	4219.9	3578.4	3014.9	2540.6	2243.7	2034.9	1843.4	1803.9
37.5°	6739.2	6305.5	5105.6	4112.4	3309.8	2711.9	2323.8	2109.9	1931.6	1714.7	1668.1
40°	7657.3	7077.7	5395.4	3996.9	3058.5	2482.9	2201.1	2047.1	1868.7	1660.0	1613.4
42.5°	8454.9	7798.2	5743.0	3852.0	2801.1	2302.5	2138.3	2026.8	1848.5	1649.8	1605.2
45°	9159.2	8445.8	6105.8	3683.8	2531.5	2156.5	2084.6	1998.5	1818.1	1626.5	1586.0
47.5°	9746.0	8961.6	6425.0	3497.3	2267.0	2049.1	2031.9	1931.6	1760.3	1575.9	1541.4
50°	10200.0	9328.5	6638.9	3289.5	2041.0	1965.0	1955.9	1829.2	1663.0	1486.7	1452.2
52.5°	10522.3	9574.7	6763.5	3211.5	1863.7	1867.7	1852.5	1717.7	1556.6	1381.3	1353.9
55°	10727.0	9744.0	6733.1	3111.2	1684.3	1730.9	1732.9	1635.6	1493.8	1323.5	1301.2
57.5°	10805.0	9736.9	6553.7	2608.5	1510.0	1566.7	1594.1	1578.9	1453.2	1287.0	1268.8
60°	10762.4	9622.4	6171.7	1911.3	1329.6	1406.6	1473.5	1470.5	1364.1	1207.0	1187.7
62.5°	10691.5	9356.8	5422.8	1368.1	1193.8	1293.1	1374.2	1346.8	1245.5	1107.7	1094.5
65°	10437.1	8888.6	4192.5	1094.5	1137.0	1229.3	1296.2	1249.5	1150.2	1006.3	999.2
67.5°	9874.7	7952.3	2447.4	998.2	1095.5	1175.6	1223.2	1165.4	1073.2	933.4	921.2
68°	9684.2	7712.1	2081.5	989.1	1087.4	1162.4	1206.0	1145.2	1055.0	919.2	907.0
70°	8722.4	6250.7	993.1	951.6	1051.9	1101.6	1126.9	1071.2	983.0	862.4	854.3
72.5°	6788.9	3770.9	663.8	894.8	983.0	1030.6	1036.7	949.6	866.5	777.3	772.2
75°	4011.1	1251.6	617.2	810.7	887.7	953.6	970.8	883.7	791.5	688.1	686.1
77.5°	976.9	485.4	582.7	723.6	804.6	868.5	881.7	817.8	736.8	620.2	616.2
80°	402.3	403.3	543.2	599.9	690.1	752.0	771.2	714.5	641.5	566.5	558.4
82.5°	334.4	340.5	461.1	442.9	552.3	624.3	643.5	604.0	578.7	497.6	489.5
85°	238.2	302.0	306.1	297.9	387.1	444.9	542.2	522.9	495.6	426.6	386.1
87.5°	111.5	176.3	132.8	127.7	196.6	263.5	310.1	325.3	281.7	218.9	202.7
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)