

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: P591165

Luminaire Tested: **CTN-CA8-230-722-U-T4-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591165
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-12)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-230-722-U-T4-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12844 lumens
Efficiency: N/A
Efficacy: 56.2 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

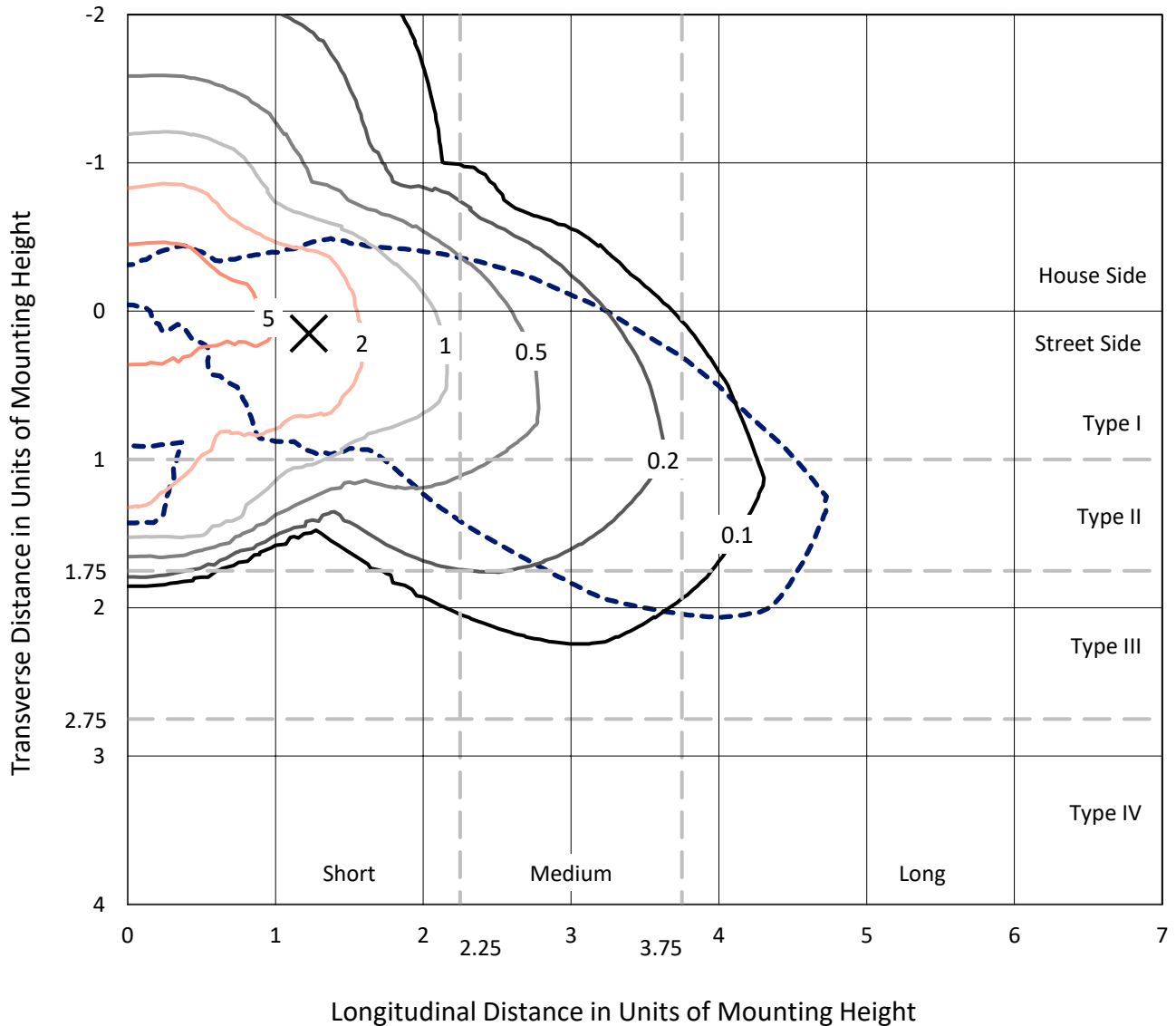
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P591165
 CATALOG NUMBER: CTN-CA8-230-722-U-T4-SSS-HM-EX180

Iso-Footcandle Lines of Horizontal Illumination

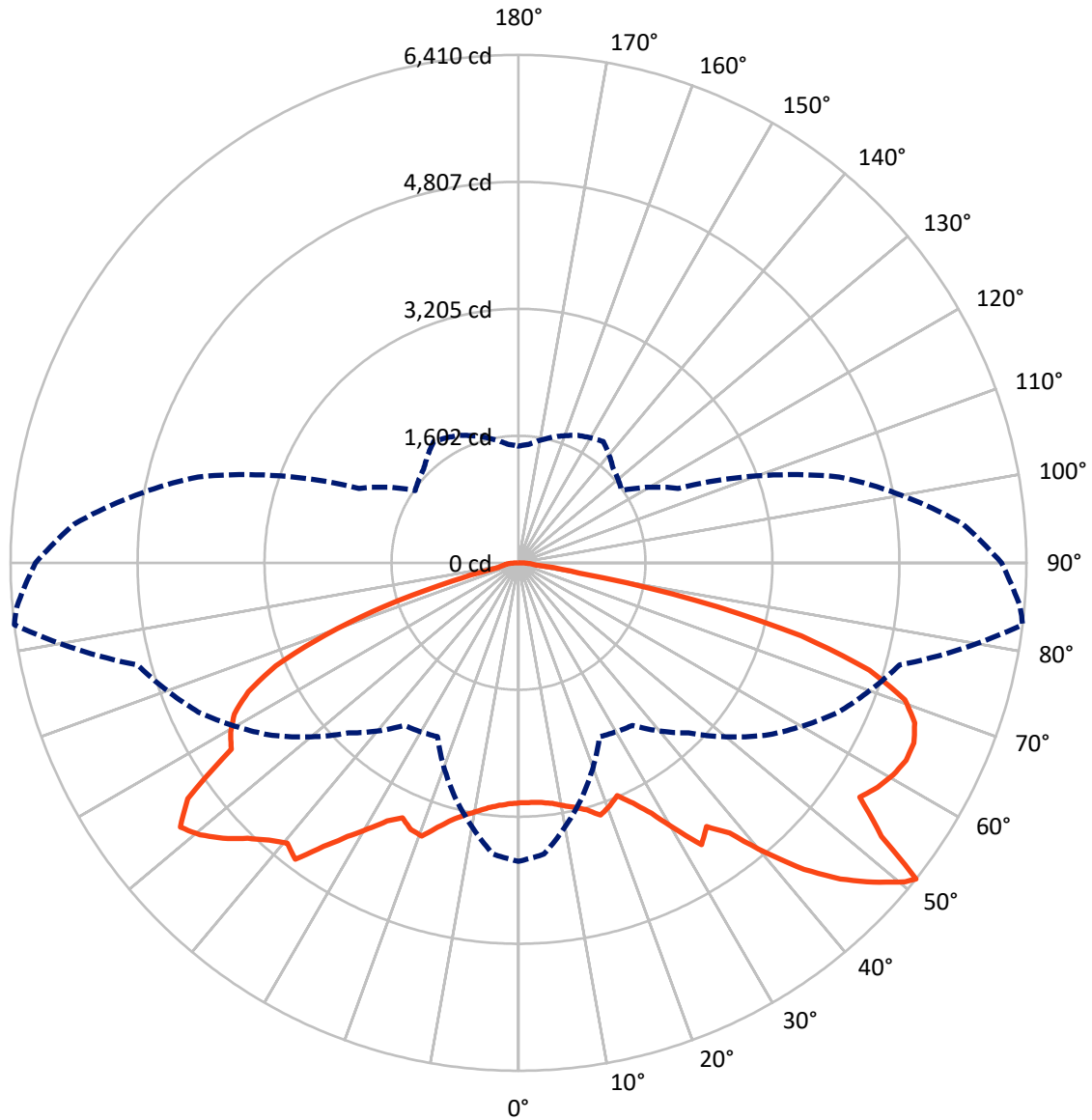
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 8 fc
 Type II - Short - N/A

REPORT NUMBER: P591165
CATALOG NUMBER: CTN-CA8-230-722-U-T4-SSS-HM-EX180

Luminous Intensity Polar Plot



— Vertical Plane Through 83-Deg Lateral - - - Horizontal Cone Through 51-Deg Vertical

REPORT NUMBER: P591165
 CATALOG NUMBER: CTN-CA8-230-722-U-T4-SSS-HM-EX180

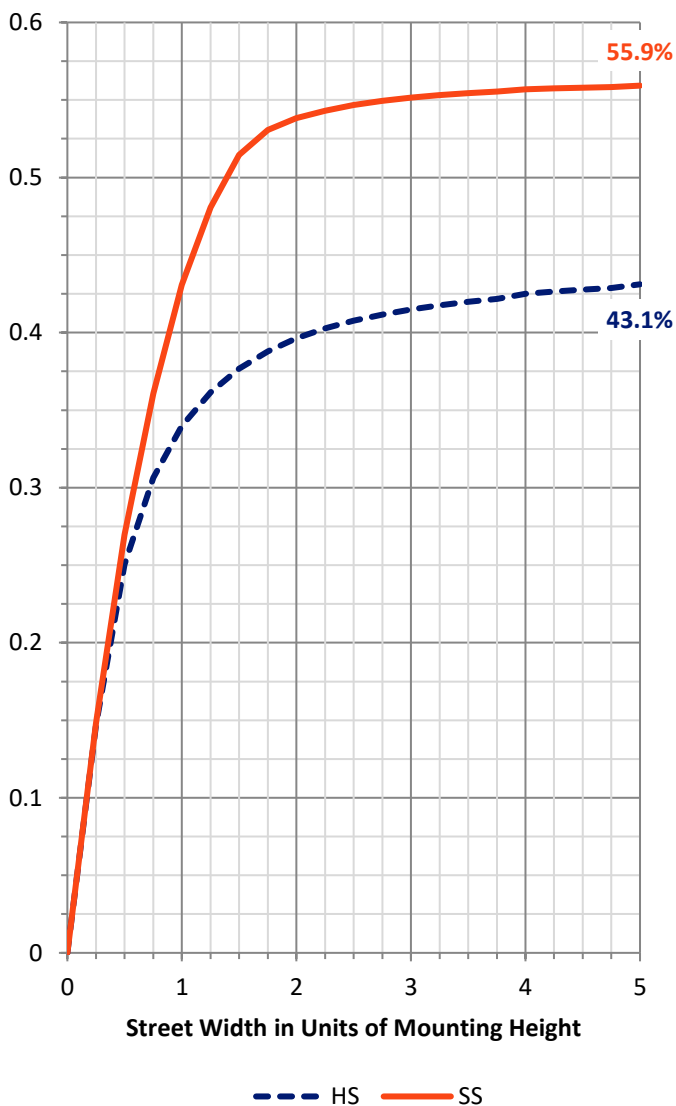
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5661.1	0.0	5661.1
	% Fixture	44.1	0.0	44.1
Street Side	Lumens	7182.9	0.0	7182.9
	% Fixture	55.9	0.0	55.9
Total	Lumens	12844.0	0.0	12844.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	295.7	2.3
10°-20°	900.0	7.0
20°-30°	1398.1	10.9
30°-40°	1870.7	14.6
40°-50°	2427.0	18.9
50°-60°	2584.8	20.1
60°-70°	1800.6	14.0
70°-80°	1256.2	9.8
80°-90°	310.8	2.4
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°	12844.0	100.0
0°-180°	12844.0	100.0

Coefficient of Utilization

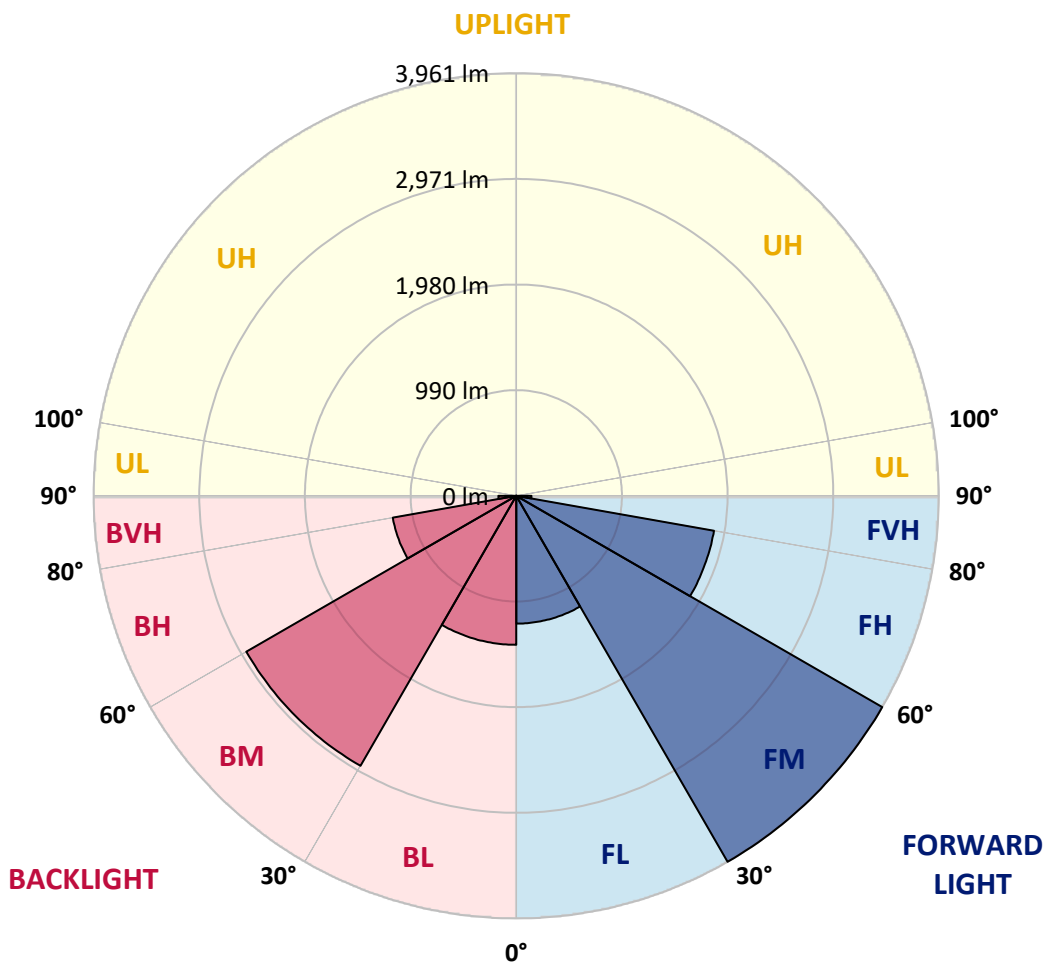


REPORT NUMBER: P591165
 CATALOG NUMBER: CTN-CA8-230-722-U-T4-SSS-HM-EX180

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1197.6	9.3			
FM	(30°-60°)	3960.7	30.8			
FH	(60°-80°)	1881.9	14.7			G2/5000
FVH	(80°-90°)	142.7	1.1			G2/225
BL	(0°-30°)	1396.3	10.9	B3/2500		
BM	(30°-60°)	2921.8	22.7	B3/5000		
BH	(60°-80°)	1174.9	9.1	B3/2500		G3/2500
BVH	(80°-90°)	168.1	1.3			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3
 Type II Short





REPORT NUMBER: P591165

CATALOG NUMBER: CTN-CA8-230-722-U-T4-SSS-HM-EX180

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	83°	85°
0°	3027.4	3027.4	3027.4	3027.4	3027.4	3027.4	3027.4	3027.4	3027.4	3027.4	3027.4
2.5°	2991.3	2970.5	2972.3	3000.3	2963.3	2987.6	2984.0	3027.4	3019.2	3028.3	3034.6
5°	2965.1	2948.8	2948.8	2985.8	2959.7	2985.8	2967.8	3005.7	3018.3	3038.2	3045.4
7.5°	2970.5	2953.3	2960.6	2993.1	2964.2	2991.3	2990.3	3026.5	3031.0	3066.2	3077.9
10°	2985.8	2966.9	2970.5	2996.7	2980.4	3027.4	3019.2	3068.9	3068.9	3115.8	3133.9
12.5°	2954.2	2941.6	2948.8	2984.0	2998.5	3047.2	3058.1	3108.6	3115.8	3166.4	3189.0
15°	2919.9	2901.9	2925.3	2975.9	3000.3	3070.7	3094.2	3171.8	3182.7	3235.0	3260.3
17.5°	2753.8	2742.1	2785.4	2826.0	2839.6	2908.2	2954.2	3083.3	3238.6	3347.9	3377.7
20°	2423.3	2421.5	2341.2	2324.0	2534.4	2785.4	2817.0	2927.1	3106.8	3277.5	3338.0
22.5°	2023.4	2077.5	2338.5	2421.5	2416.1	2515.4	2919.9	3023.8	3103.2	3189.9	3226.0
25°	2023.4	2018.8	2173.2	2530.8	2531.7	2574.1	2664.4	3184.5	3260.3	3359.6	3388.5
27.5°	2087.5	2092.0	2082.0	2343.0	2656.3	2696.0	2734.8	3003.9	3468.9	3579.0	3626.9
30°	2195.8	2203.0	2163.3	2164.2	2697.8	2817.0	2891.0	2996.7	3614.2	3896.8	3918.5
32.5°	2409.8	2407.1	2357.4	2293.3	2367.4	2935.3	3043.6	3180.9	3384.9	4239.9	4290.5
35°	2580.4	2568.7	2534.4	2490.2	2392.6	2901.9	3189.0	3378.6	3638.6	4087.4	4354.6
37.5°	2770.0	2752.9	2714.1	2659.9	2571.4	2025.2	3332.5	3604.3	4007.9	4326.6	4343.8
40°	2984.0	2965.1	2911.8	2832.3	2719.5	2074.8	3396.6	3883.3	4489.1	4809.7	4806.9
42.5°	3148.4	3129.4	3101.4	3017.4	2390.8	2288.8	2962.4	4275.2	5010.1	5288.2	5264.7
45°	3287.4	3271.1	3273.9	3185.4	2242.8	2551.5	3300.0	4480.1	5501.3	5690.9	5660.2
47.5°	3395.7	3370.5	3301.8	2679.8	2300.5	2733.0	3574.5	3907.7	5915.7	6023.1	5988.8
50°	3659.4	3616.9	3208.8	2379.1	2446.8	2955.1	3835.4	4310.4	5388.4	6325.6	6265.1
51°	3766.8	3690.1	3075.2	2420.6	2504.6	3035.5	3796.6	4456.6	4977.6	6409.6	6355.4
52.5°	3879.7	3728.0	2708.6	2483.8	2575.0	3146.5	3225.1	4681.4	5092.3	5736.0	6055.6
55°	3273.0	3332.5	2797.1	2715.0	2708.6	2719.5	3293.7	5016.4	5331.5	5223.2	5160.0
57.5°	1924.9	1960.2	2841.4	3040.0	2343.9	2159.7	3475.2	5269.2	5538.3	5343.3	5272.8
60°	967.9	1013.0	1034.7	943.5	1264.0	1970.1	2927.1	3819.2	5664.7	5433.6	5348.7
62.5°	42.4	70.4	28.0	30.7	51.5	687.1	2150.7	3923.0	5771.2	5488.6	5376.7
65°	3.6	3.6	4.5	9.0	22.6	721.4	2393.5	4066.6	5814.6	5483.2	5333.3
67.5°	0.9	0.9	1.8	6.3	16.3	781.0	2678.9	4125.3	5816.4	5391.1	5207.8
70°	0.0	0.9	1.8	5.4	14.4	817.1	2741.2	4113.5	5742.3	5174.4	4922.5
72.5°	0.0	0.0	0.9	4.5	12.6	771.1	2668.9	4090.1	5489.5	4629.1	4271.5
75°	0.0	0.0	0.9	3.6	10.8	784.6	2676.1	3826.4	4793.4	3685.6	3251.3
77.5°	0.0	0.0	0.9	3.6	9.9	724.1	2450.4	3313.6	3788.5	2294.2	1819.3
80°	0.0	0.0	0.9	3.6	9.0	621.2	2015.2	2586.8	2120.0	778.3	502.0
82.5°	0.0	0.0	0.9	3.6	7.2	420.7	1339.0	1292.9	427.1	223.0	200.4
85°	0.0	0.0	0.9	2.7	5.4	251.0	670.8	176.1	165.2	141.8	128.2
87.5°	0.0	0.0	0.9	1.8	3.6	106.5	206.8	54.2	68.6	57.8	51.5
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: P591165

CATALOG NUMBER: CTN-CA8-230-722-U-T4-SSS-HM-EX180

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3027.4	3027.4	3027.4	3027.4	3027.4	3027.4	3027.4	3027.4	3027.4	3027.4	3027.4
2.5°	3040.0	3040.0	3049.9	3083.3	3079.7	3106.8	3091.5	3124.9	3127.6	3121.3	3136.6
5°	3051.7	3062.6	3096.0	3131.2	3116.8	3156.5	3175.4	3219.7	3217.9	3212.5	3230.5
7.5°	3085.2	3107.7	3141.1	3183.6	3198.9	3231.4	3233.2	3293.7	3290.1	3287.4	3305.5
10°	3141.1	3170.9	3207.9	3272.0	3263.0	3310.0	3290.1	3334.3	3333.4	3331.6	3349.7
12.5°	3198.9	3242.3	3287.4	3349.7	3348.8	3350.6	3333.4	3356.0	3351.5	3338.9	3352.4
15°	3280.2	3338.0	3400.3	3445.4	3405.7	3397.5	3359.6	3346.1	3319.9	3283.8	3294.6
17.5°	3414.7	3471.6	3551.0	3575.4	3510.4	3473.4	3370.5	3295.5	3214.3	3159.2	3170.9
20°	3535.7	3641.3	3717.2	3715.4	3632.3	3534.8	3375.0	3248.6	3091.5	2984.9	2975.9
22.5°	3384.9	3562.8	3893.2	3854.4	3709.0	3570.9	3369.6	3173.6	2912.7	2747.5	2741.2
25°	3471.6	3475.2	3771.3	3932.1	3743.4	3555.6	3304.6	3042.7	2708.6	2537.1	2527.2
27.5°	3692.8	3672.9	3590.8	3849.0	3711.8	3477.0	3173.6	2819.7	2522.7	2373.7	2366.5
30°	3955.5	3894.1	3700.9	3446.3	3581.7	3324.4	2972.3	2591.3	2354.7	2219.3	2208.5
32.5°	4269.7	4140.6	3801.1	3402.1	3155.6	3094.2	2712.3	2410.7	2215.7	2074.8	2046.8
35°	4642.6	4449.4	3897.7	3327.1	2823.3	2752.9	2467.6	2248.2	2084.8	1942.1	1914.1
37.5°	4641.7	4843.1	4040.4	3224.2	2617.5	2370.1	2289.7	2139.8	1993.6	1821.1	1789.5
40°	4676.0	4682.4	4197.5	3124.0	2425.1	2173.2	2184.1	2086.6	1935.8	1746.2	1713.7
42.5°	5093.2	4786.2	4389.8	2989.4	2243.7	2027.9	2138.9	2067.6	1905.1	1711.0	1674.8
45°	5456.1	5102.2	3968.2	2842.3	2053.2	1915.0	2102.8	2023.4	1861.7	1668.5	1627.9
47.5°	5772.1	5353.2	4075.6	2585.0	1867.2	1822.9	2033.3	1938.5	1784.1	1604.4	1568.3
50°	6012.3	5560.9	4169.5	2239.2	1686.6	1730.8	1920.4	1823.8	1674.8	1529.5	1498.8
51°	6094.5	5627.7	4188.5	2223.8	1590.9	1687.5	1867.2	1773.3	1639.6	1500.6	1472.6
52.5°	6182.9	5714.3	4216.5	2258.1	1455.4	1616.2	1780.5	1698.3	1587.3	1468.1	1436.5
55°	5141.0	5369.4	4145.1	2185.9	1298.3	1474.4	1621.6	1584.6	1523.2	1417.5	1395.0
57.5°	4953.2	4543.3	3438.2	1850.9	1160.2	1305.6	1467.2	1491.6	1444.6	1337.2	1320.9
60°	4993.8	4501.8	3061.7	1380.5	1023.0	1154.8	1351.6	1373.3	1332.7	1251.4	1228.8
62.5°	4986.6	4395.2	2730.3	972.4	903.8	1076.2	1268.6	1277.6	1221.6	1153.9	1133.1
65°	4867.4	4150.6	2278.0	735.8	837.9	1032.9	1219.8	1224.3	1154.8	1068.1	1057.3
67.5°	4602.0	3763.2	1584.6	646.5	800.9	999.5	1187.3	1167.4	1100.6	1009.4	993.2
70°	4093.7	3066.2	740.4	595.0	744.9	938.1	1107.8	1084.4	1011.2	926.4	911.9
72.5°	3282.0	2130.8	351.2	544.4	686.2	861.4	1010.3	973.3	912.8	881.2	873.1
75°	2148.0	1000.4	293.4	490.3	608.5	768.4	926.4	912.8	856.8	793.6	762.9
77.5°	871.3	263.6	265.4	435.2	546.2	707.9	837.0	826.1	752.1	695.2	682.6
80°	219.4	197.7	242.9	359.3	475.8	616.7	734.0	703.3	676.3	614.9	595.0
82.5°	167.0	158.9	190.5	278.1	390.9	508.3	626.6	639.2	594.1	547.1	537.2
85°	116.5	144.5	115.6	197.7	289.8	400.9	525.5	548.1	517.4	464.1	428.0
87.5°	64.1	75.8	47.9	103.8	153.5	219.4	301.6	304.3	251.9	231.1	217.6
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)