

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: STREETWORKS

Report Number: P510233

Luminaire Tested: **VERD-M-CA4-230-740-U-T4**

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P510233  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-181-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/6/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: VERD-M-CA4-230-740-U-T4  
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE  
(4) 70 CRI, 4000K, 1050mA LEDS AND TYPE IV OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 32356 lumens  
Efficiency: N/A  
Efficacy: 138.7 lumens/watt  
Luminous Opening: Rectangular (W 1.35' x L: 1.58' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G5

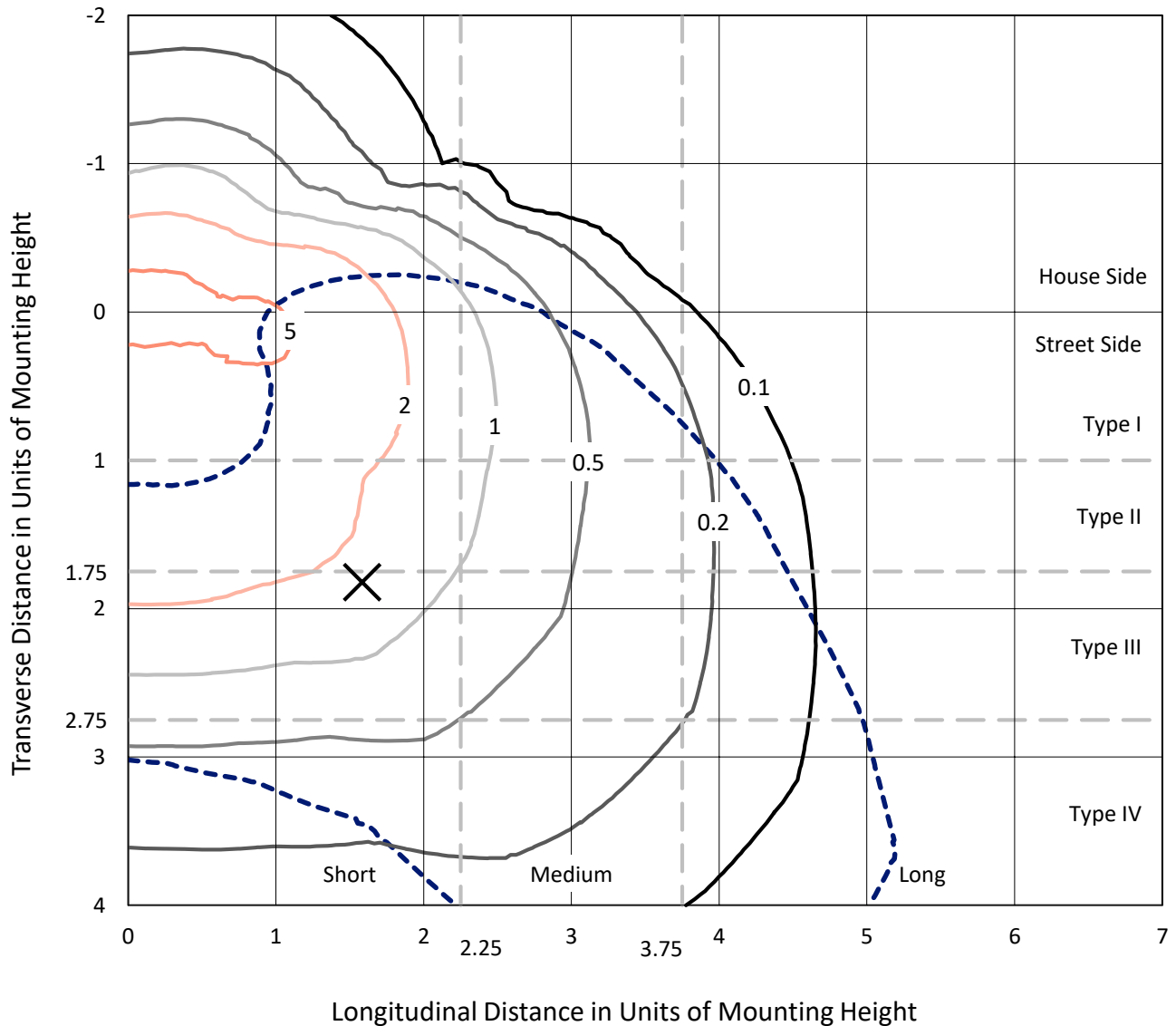
Input Watts (W): 233.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

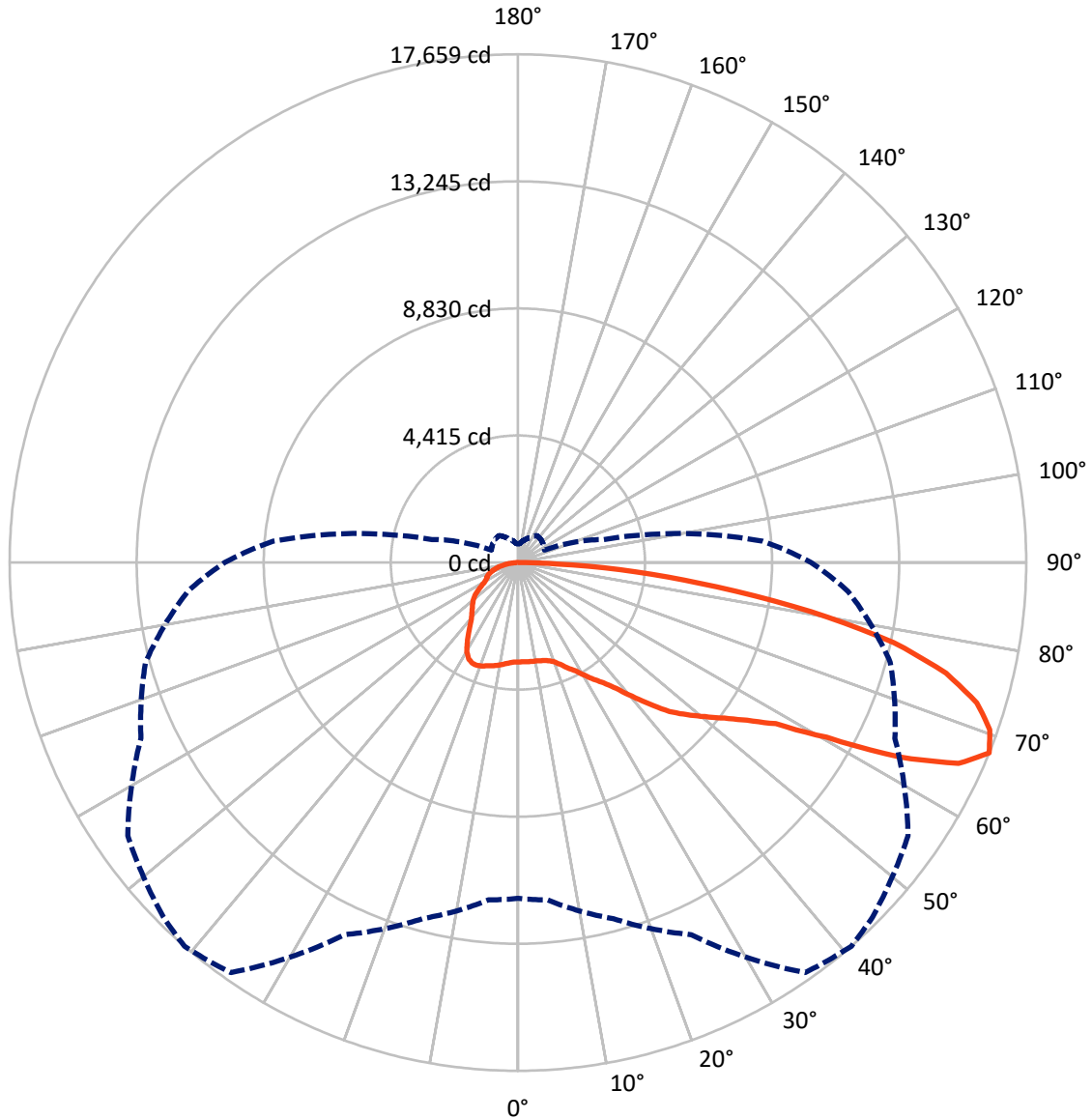
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.8 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 41-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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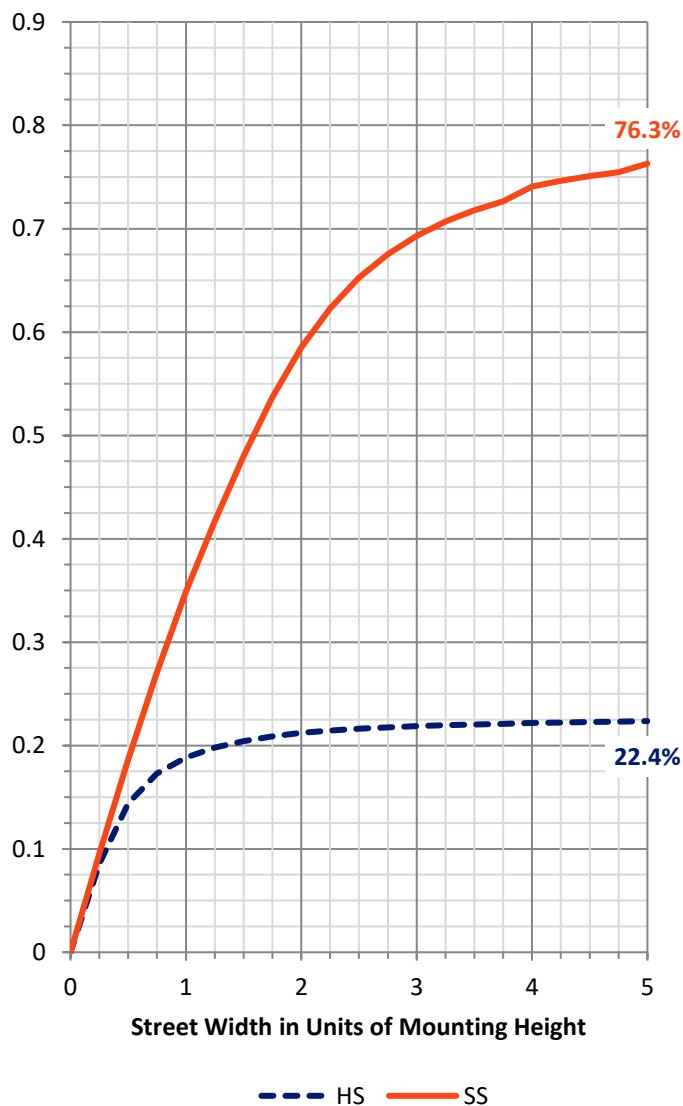
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7322.0	0.0	7322.0
	% Fixture	22.6	0.0	22.6
<b>Street Side</b>	Lumens	25034.0	0.0	25034.0
	% Fixture	77.4	0.0	77.4
<b>Total</b>	Lumens	32356.0	0.0	32356.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	333.8	1.0
10°-20°	1035.3	3.2
20°-30°	1851.4	5.7
30°-40°	2903.0	9.0
40°-50°	4501.8	13.9
50°-60°	6346.4	19.6
60°-70°	8090.1	25.0
70°-80°	6054.1	18.7
80°-90°	1239.9	3.8
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°	32356.0	100.0
0°-180°	32356.0	100.0

**Coefficient of Utilization**



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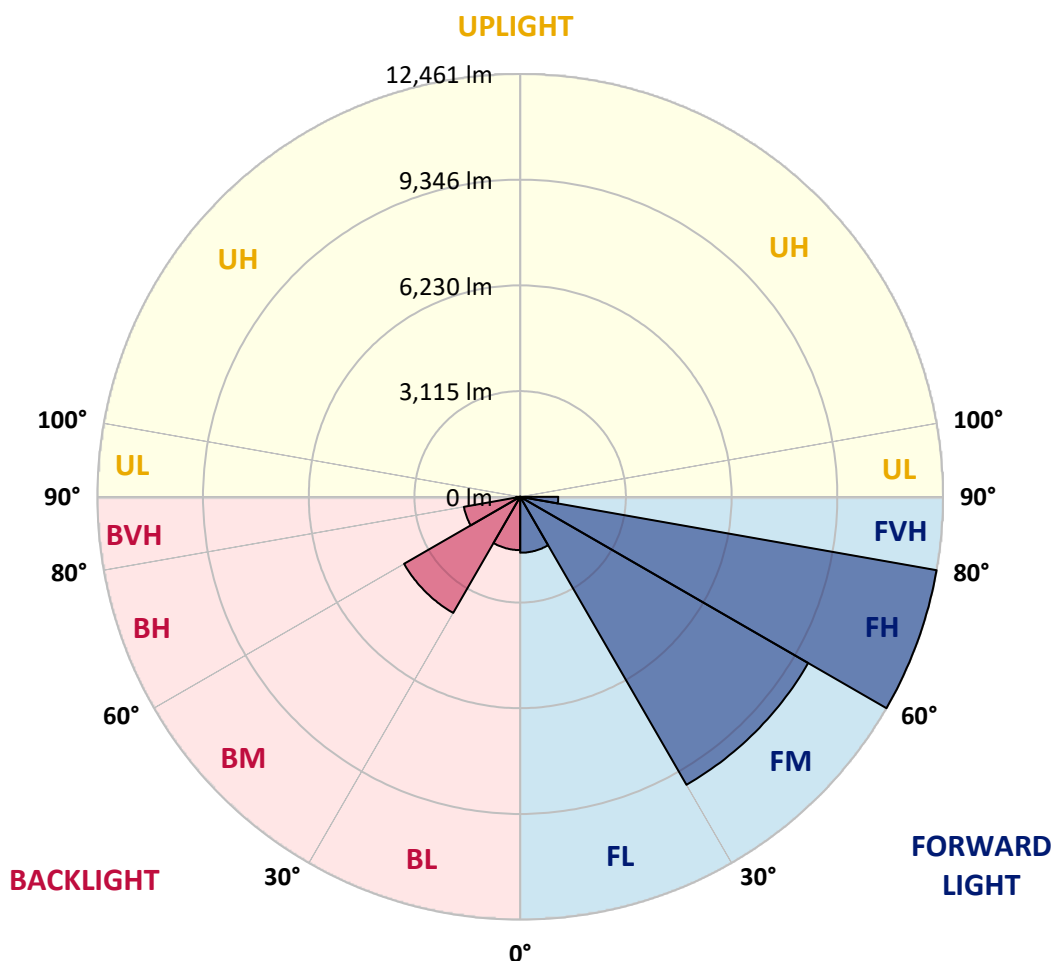
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1648.6	5.1			
FM	(30°-60°)	9800.4	30.3			
FH	(60°-80°)	12461.0	38.5			G5
FVH	(80°-90°)	1124.1	3.5			G5
BL	(0°-30°)	1572.0	4.9	B3/2500		
BM	(30°-60°)	3950.9	12.2	B3/5000		
BH	(60°-80°)	1683.3	5.2	B3/2500		G3/2500
BVH	(80°-90°)	115.8	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-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	41°	45°	55°	65°	75°	85°
0°	3454.6	3454.6	3454.6	3454.6	3454.6	3454.6	3454.6	3454.6	3454.6	3454.6	3454.6
2.5°	3412.1	3451.6	3445.8	3438.5	3450.2	3451.6	3418.0	3431.1	3438.5	3450.2	3469.2
5°	3420.9	3460.4	3457.5	3444.3	3453.1	3457.5	3426.7	3450.2	3450.2	3454.6	3476.5
7.5°	3401.8	3439.9	3439.9	3435.5	3454.6	3472.1	3444.3	3464.8	3476.5	3488.2	3502.9
10°	3384.3	3416.5	3428.2	3425.3	3469.2	3473.6	3454.6	3504.4	3523.4	3535.1	3552.7
12.5°	3365.2	3404.8	3420.9	3437.0	3483.8	3500.0	3489.7	3541.0	3580.5	3601.0	3620.0
15°	3356.4	3400.4	3426.7	3450.2	3501.4	3530.7	3530.7	3608.3	3655.2	3681.5	3715.2
17.5°	3418.0	3463.3	3483.8	3502.9	3549.7	3589.3	3586.4	3677.2	3746.0	3787.0	3848.5
20°	3570.2	3624.4	3636.1	3643.5	3672.8	3687.4	3683.0	3781.1	3876.3	3953.9	4022.8
22.5°	3835.3	3867.5	3873.4	3844.1	3851.4	3863.1	3855.8	3910.0	4018.4	4109.2	4232.2
25°	4052.0	4103.3	4088.7	4046.2	4052.0	4068.2	4046.2	4129.7	4207.3	4325.9	4450.4
27.5°	4280.5	4318.6	4302.5	4276.1	4270.2	4258.5	4254.1	4361.0	4475.3	4569.0	4753.5
30°	4558.7	4579.2	4532.4	4520.7	4530.9	4538.2	4510.4	4646.6	4750.6	4885.3	5134.2
32.5°	5027.3	5046.4	4979.0	4798.9	4803.3	4837.0	4813.5	4984.9	5181.1	5345.1	5598.5
35°	5624.8	5624.8	5572.1	5318.8	5126.9	5128.4	5134.2	5375.9	5740.5	6108.1	6368.8
37.5°	6229.6	6250.1	6150.6	5919.2	5676.1	5547.2	5438.8	5749.3	6226.7	7046.8	7434.8
40°	6859.3	6891.5	6742.2	6529.8	6250.1	6103.7	5977.8	6166.7	6811.0	7976.7	8284.2
42.5°	7410.0	7455.3	7301.6	7077.5	6882.8	6717.3	6526.9	6603.1	7453.9	8859.7	9034.0
45°	7922.5	7947.4	7817.1	7632.5	7471.5	7380.7	7247.4	7335.3	8189.0	9723.7	9691.5
47.5°	8300.3	8336.9	8218.3	8118.7	7953.3	7899.1	7897.6	8139.2	9016.4	10412.0	10262.6
50°	8913.9	8886.1	8619.6	8498.0	8397.0	8414.5	8457.0	8874.4	9988.8	11075.4	10743.0
52.5°	9943.4	9892.1	9300.5	9047.2	8922.7	8979.8	9001.8	9540.7	10970.0	11648.0	11139.8
55°	11274.6	11110.5	10680.0	10000.5	9609.5	9663.7	9638.8	10256.8	11754.9	12194.2	11434.2
57.5°	12154.7	12308.4	12101.9	11713.9	10743.0	10565.8	10507.2	10965.6	12481.2	12717.0	11738.8
60°	12919.1	13173.9	13501.9	13253.0	12990.8	12327.5	11781.2	11771.0	13121.2	13065.5	11861.8
62.5°	13726.0	13860.7	14365.9	14519.7	15005.9	14884.3	14152.1	12790.2	13761.1	13320.3	11933.5
65°	12910.3	13090.4	14010.1	14849.2	16649.0	16824.7	16586.0	14685.2	14204.8	13450.7	11831.0
67.5°	11668.5	11768.1	12809.3	14264.9	17392.9	17659.4	17419.2	16545.0	14450.9	13393.6	11514.7
70°	10076.7	10193.8	11188.1	13173.9	17354.8	17390.0	17296.2	16716.3	14352.8	13125.6	10718.1
72.5°	8170.0	8317.9	9192.1	11254.0	16523.0	16675.3	16527.4	16376.6	14077.4	12375.8	9345.9
75°	6181.3	6377.5	7158.1	8972.5	14601.7	15369.1	15388.1	15853.8	13008.4	10609.7	6783.2
77.5°	4216.1	4403.5	5143.0	6835.9	12121.0	13346.7	13665.9	14175.6	10868.9	7840.5	3700.6
80°	2373.8	2356.2	3294.9	4883.8	9244.9	10321.2	10722.5	10702.0	7632.5	4025.7	754.2
82.5°	1096.8	1099.8	1685.5	3117.7	6258.9	6969.2	7131.7	6207.7	2678.4	682.4	240.2
85°	546.2	552.1	811.3	1564.0	3533.6	4082.8	3880.7	2583.2	574.1	199.2	143.5
87.5°	216.7	207.9	320.7	642.9	1275.5	1351.7	1180.3	516.9	104.0	70.3	48.3
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°	3454.6	3454.6	3454.6	3454.6	3454.6	3454.6	3454.6	3454.6	3454.6	3454.6	3454.6
2.5°	3464.8	3467.7	3480.9	3454.6	3461.9	3456.0	3451.6	3475.1	3473.6	3478.0	3470.7
5°	3475.1	3482.4	3495.6	3483.8	3495.6	3489.7	3494.1	3526.3	3530.7	3529.2	3529.2
7.5°	3502.9	3510.2	3535.1	3520.5	3546.8	3539.5	3541.0	3571.7	3577.6	3568.8	3565.9
10°	3561.5	3567.3	3602.5	3599.5	3609.8	3603.9	3598.1	3611.3	3608.3	3595.1	3589.3
12.5°	3628.8	3644.9	3684.5	3685.9	3699.1	3669.8	3639.1	3634.7	3625.9	3605.4	3601.0
15°	3729.9	3748.9	3808.9	3794.3	3785.5	3722.5	3671.3	3630.3	3595.1	3577.6	3561.5
17.5°	3874.8	3907.1	3990.5	3945.1	3880.7	3788.4	3699.1	3609.8	3535.1	3472.1	3447.2
20°	4059.4	4096.0	4166.3	4106.2	4008.1	3870.5	3725.5	3564.4	3401.8	3262.7	3242.2
22.5°	4279.0	4337.6	4388.9	4251.2	4106.2	3932.0	3725.5	3494.1	3224.6	3016.7	2965.4
25°	4535.3	4580.7	4564.6	4371.3	4161.9	3942.2	3684.5	3369.6	2988.9	2747.2	2706.2
27.5°	4813.5	4834.0	4709.6	4428.4	4167.7	3882.2	3568.8	3148.5	2713.6	2523.2	2483.7
30°	5156.2	5094.7	4857.5	4463.5	4109.2	3748.9	3362.3	2824.9	2489.5	2322.6	2277.2
32.5°	5525.2	5412.5	4962.9	4438.6	3980.3	3526.3	3043.1	2596.4	2340.1	2136.6	2098.5
35°	6228.2	5907.5	5116.7	4364.0	3756.2	3229.0	2734.1	2420.7	2182.0	1963.8	1928.6
37.5°	7177.1	6619.2	5331.9	4260.0	3491.2	2940.6	2504.2	2233.2	2026.8	1801.2	1745.6
40°	7915.2	7338.2	5677.5	4148.7	3246.6	2666.7	2337.2	2135.1	1924.2	1684.1	1635.8
42.5°	8618.1	7995.7	6102.2	4024.2	2994.7	2476.3	2264.0	2113.2	1896.4	1651.9	1606.5
45°	9239.0	8527.3	6468.3	3899.7	2710.6	2300.6	2209.8	2070.7	1856.9	1610.9	1566.9
47.5°	9741.3	8984.2	6786.1	3765.0	2452.9	2167.3	2139.5	1993.1	1780.7	1527.4	1474.7
50°	10195.3	9370.8	7005.8	3621.5	2201.0	2059.0	2023.8	1851.0	1629.9	1405.8	1372.2
52.5°	10475.0	9632.9	7137.6	3644.9	1962.3	1937.4	1880.3	1703.1	1498.1	1306.3	1262.3
55°	10767.9	9880.4	7136.1	3513.1	1763.2	1754.4	1700.2	1564.0	1402.9	1241.8	1215.5
57.5°	10887.9	9902.4	7002.8	2893.7	1587.4	1531.8	1520.1	1448.3	1307.7	1155.4	1126.1
60°	10968.5	9805.7	6751.0	1975.5	1366.3	1326.8	1383.9	1335.5	1208.1	1048.5	1019.2
62.5°	10889.4	9700.3	6090.5	1426.3	1197.9	1219.9	1274.0	1221.3	1088.1	943.1	918.2
65°	10700.5	9297.6	4809.1	1111.5	1123.2	1171.5	1214.0	1126.1	881.6	738.1	723.4
67.5°	10185.0	8531.7	3094.3	1019.2	1080.7	1130.5	1145.2	953.3	798.1	660.5	644.3
70°	9099.9	6849.1	1192.0	960.7	1038.3	1060.2	1000.2	874.3	733.7	615.1	600.4
72.5°	7118.5	4497.2	688.3	878.7	947.5	927.0	928.4	784.9	661.9	549.2	537.4
75°	4424.0	1628.4	612.1	782.0	802.5	840.6	792.2	681.0	569.7	502.3	487.7
77.5°	1463.0	462.8	566.7	673.6	719.0	691.2	663.4	581.4	487.7	434.9	427.6
80°	354.4	347.1	508.2	527.2	563.8	516.9	514.0	483.3	411.5	380.7	373.4
82.5°	218.2	249.0	404.2	328.0	376.4	380.7	433.5	398.3	300.2	311.9	301.7
85°	134.7	191.8	212.3	158.2	159.6	213.8	259.2	240.2	180.1	169.9	168.4
87.5°	45.4	39.5	45.4	33.7	45.4	77.6	117.2	111.3	74.7	51.3	48.3
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)