

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: P591439

Luminaire Tested: **CTN-CA6-230-740-U-T3-SSS-HM-EX90**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591439  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-7)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA6-230-740-U-T3-SSS-HM-EX90  
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (6) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23865 lumens  
Efficiency: N/A  
Efficacy: 104.8 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type III - Medium  
BUG Rating: B3 - U0 - G3

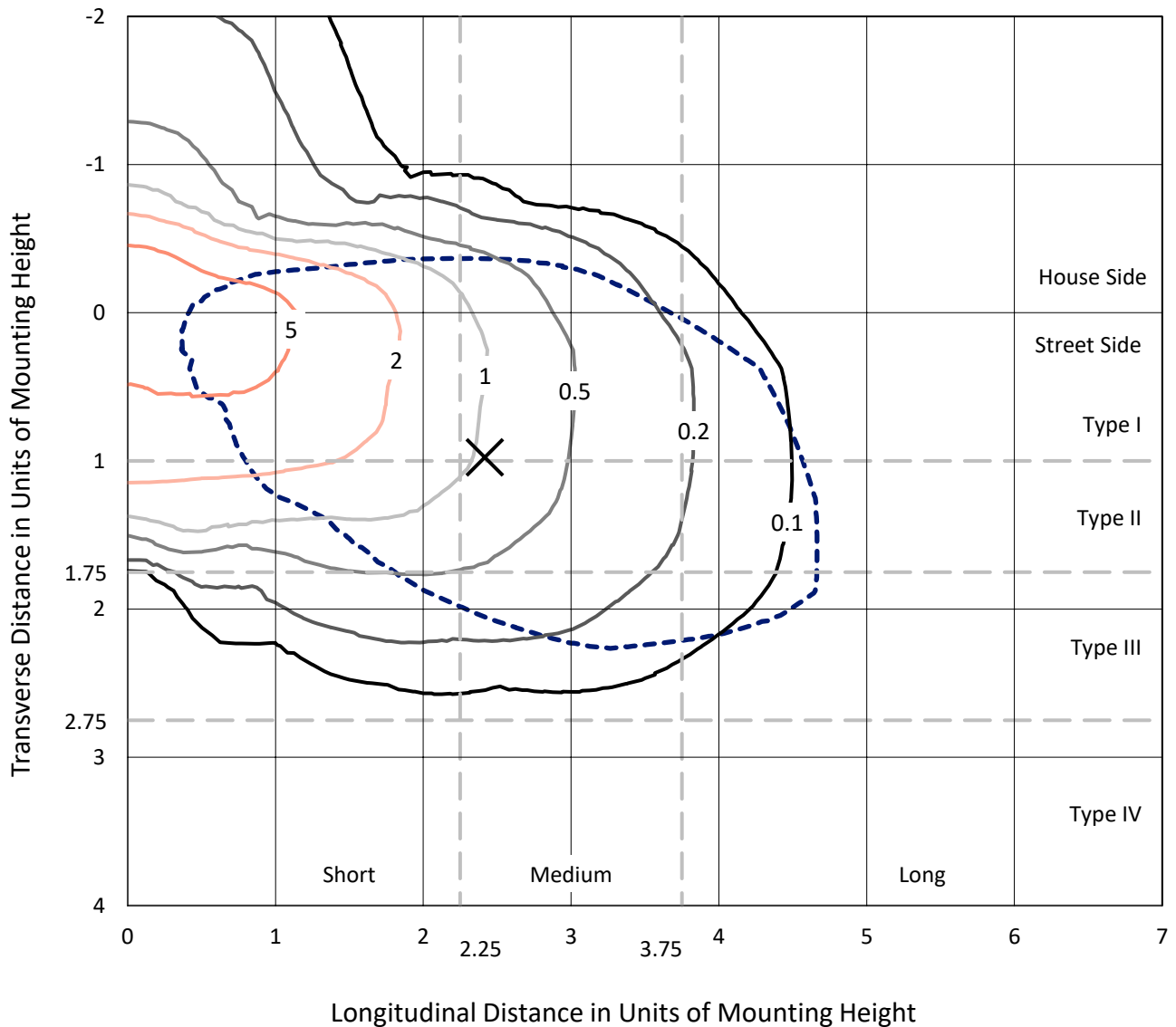
Input Watts (W): 227.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

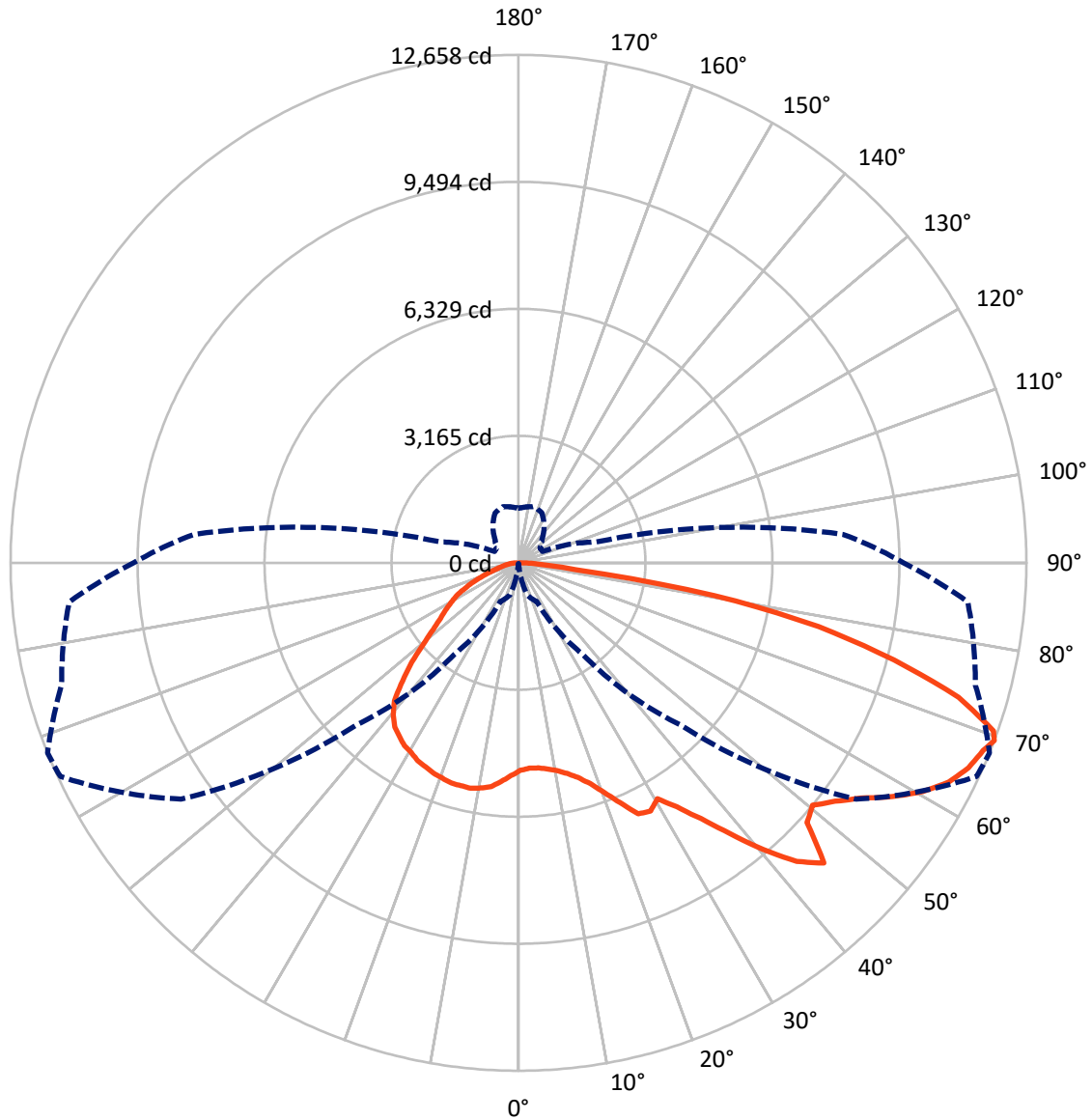
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.2 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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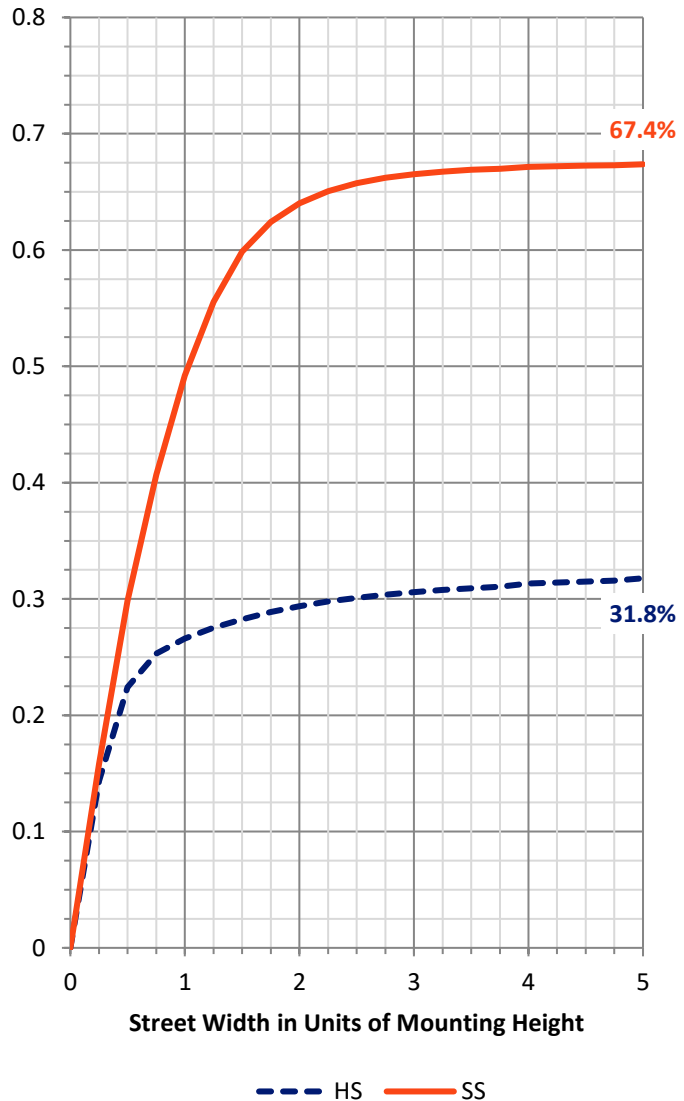
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7784.4	0.0	7784.4
	% Fixture	32.6	0.0	32.6
<b>Street Side</b>	Lumens	16080.6	0.0	16080.6
	% Fixture	67.4	0.0	67.4
<b>Total</b>	Lumens	23865.0	0.0	23865.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	516.7	2.2
10°-20°	1598.7	6.7
20°-30°	2457.9	10.3
30°-40°	3192.4	13.4
40°-50°	3940.5	16.5
50°-60°	4425.6	18.5
60°-70°	4325.1	18.1
70°-80°	2904.4	12.2
80°-90°	503.7	2.1
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°	23865.0	100.0
0°-180°	23865.0	100.0

**Coefficient of Utilization**

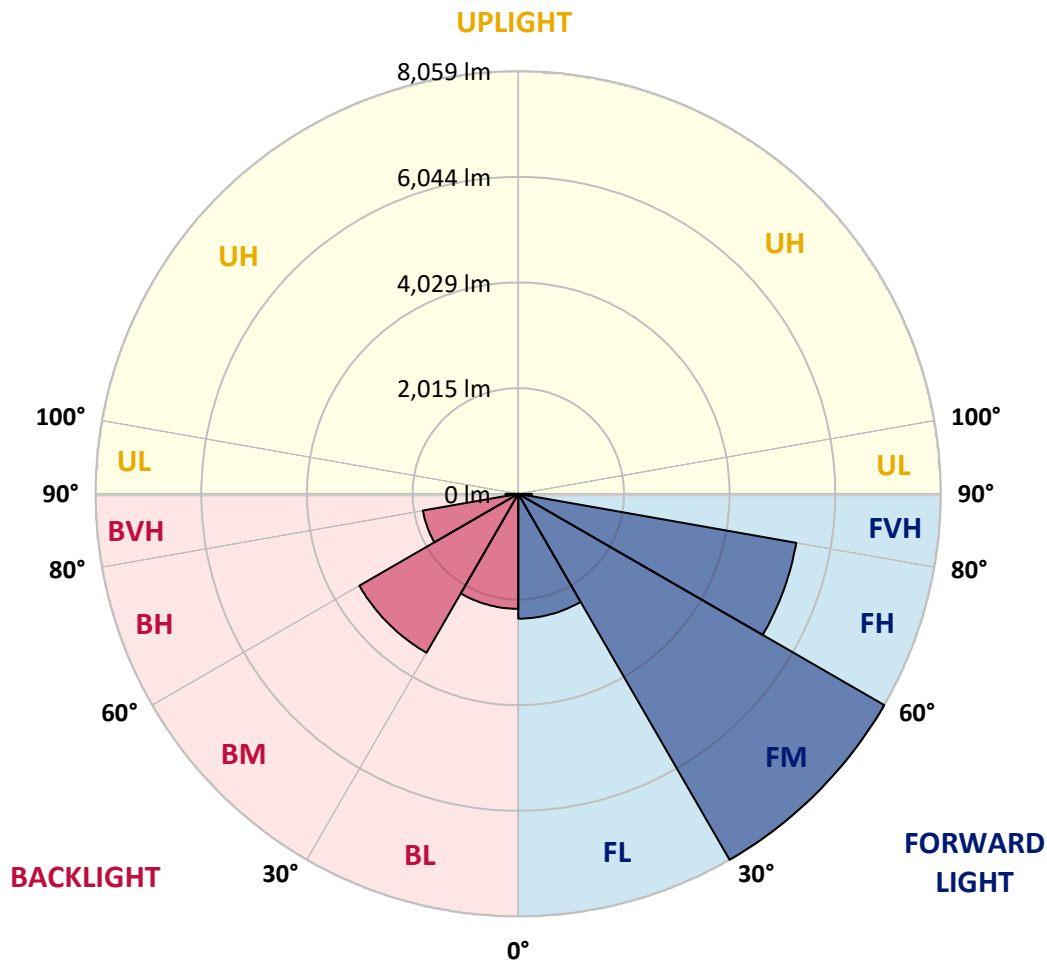


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2379.6	10.0			
FM (30°-60°)	8058.6	33.8			
FH (60°-80°)	5382.8	22.6			G3/7500
FVH (80°-90°)	259.7	1.1			G3/500
BL (0°-30°)	2193.7	9.2	B3/2500		
BM (30°-60°)	3499.8	14.7	B3/5000		
BH (60°-80°)	1846.8	7.7	B3/2500		G3/2500
BVH (80°-90°)	244.1	1.0			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**  
 Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	5173.2	5173.2	5173.2	5173.2	5173.2	5173.2	5173.2	5173.2	5173.2	5173.2	5173.2
2.5°	5068.9	5038.0	5049.7	5092.3	5006.0	5062.5	5035.8	5093.4	5123.2	5110.4	5191.3
5°	5116.8	5082.7	5084.8	5114.7	5022.0	5069.9	5040.1	5101.9	5134.9	5116.8	5225.4
7.5°	5262.7	5225.4	5214.7	5212.6	5125.3	5161.5	5101.9	5151.9	5186.0	5176.4	5298.9
10°	5486.3	5441.6	5421.3	5409.6	5305.3	5294.6	5220.1	5242.4	5268.0	5278.6	5410.7
12.5°	5732.3	5671.6	5658.8	5623.7	5489.5	5466.1	5375.5	5386.2	5386.2	5410.7	5541.7
15°	5941.0	5891.0	5891.0	5854.7	5723.8	5690.8	5566.2	5553.4	5551.3	5570.4	5687.6
17.5°	5806.8	5779.1	5754.6	5736.5	5534.2	5481.0	5818.5	5796.2	5785.5	5804.7	5872.8
20°	5356.4	5430.9	5273.3	5050.8	5082.7	5723.8	6143.3	6102.9	6109.3	6128.4	6109.3
22.5°	4714.3	4530.0	4819.7	4899.5	5032.7	5506.5	6439.4	6482.0	6494.7	6495.8	6395.7
25°	4040.2	4142.4	4535.4	5144.5	5127.4	5522.5	6259.4	6865.3	6929.2	6922.8	6749.3
27.5°	4234.0	4214.8	4518.3	4918.7	5424.5	5861.1	6370.2	6639.6	7005.9	7411.6	7176.3
30°	4403.3	4387.3	4419.3	4979.4	5620.5	6199.8	6784.4	6740.7	6818.5	7553.2	7680.0
32.5°	4554.5	4542.8	4580.1	4641.8	5294.6	6565.0	7228.5	7219.9	7246.6	7304.1	8274.2
35°	4697.2	4698.3	4744.1	4845.2	5336.1	6640.6	7667.2	7757.7	7828.0	7954.7	8171.9
37.5°	4795.2	4797.3	4833.5	4956.0	5161.5	6266.9	8111.2	8433.9	8559.6	8787.4	8479.7
40°	4794.1	4810.1	4897.4	5057.1	5331.9	6019.8	8248.6	9200.6	9402.9	9569.1	9051.5
42.5°	4694.0	4702.5	4865.5	5154.1	5483.1	6207.2	7821.6	9948.2	10172.9	10127.1	9524.3
45°	4602.4	4600.3	4785.6	5141.3	5618.3	6464.9	7879.1	9926.9	10673.4	10618.0	9958.8
47.5°	4480.0	4483.2	4679.1	5085.9	5741.9	6740.7	8305.1	9027.0	9673.4	11039.7	10312.4
50°	4326.6	4345.8	4544.9	5001.8	5803.6	6998.4	8673.5	9422.1	9498.8	9915.2	10658.4
52.5°	4072.1	4038.0	4401.2	4904.9	5847.3	7185.9	9024.9	9801.2	9873.6	9722.4	11010.9
55°	2311.9	2868.8	4221.2	4792.0	5860.1	7298.7	9297.5	10232.5	10345.4	10202.7	11297.4
57.5°	1452.5	1497.2	3656.8	4492.8	5752.5	7369.0	9631.9	10824.6	10991.8	10652.1	11514.6
60°	514.3	554.8	1778.4	2062.7	4715.3	7175.2	10140.9	11522.1	11577.4	11074.8	11674.4
62.5°	54.3	71.3	1205.5	1514.3	3661.1	6621.5	10492.3	12083.3	12033.2	11387.9	11760.6
65°	19.2	26.6	1059.6	1354.5	3407.6	6449.0	10608.4	12322.9	12321.8	11588.1	11698.8
67.5°	14.9	20.2	921.1	1176.7	3041.3	6079.4	10415.7	12502.8	12485.8	11786.2	11535.9
69°	14.9	21.3	829.5	1060.6	2776.2	5725.9	10266.6	12597.6	12658.3	11789.4	11240.9
70°	14.9	21.3	771.0	979.7	2560.0	5402.2	10052.5	12525.2	12556.1	11687.1	10935.3
72.5°	14.9	21.3	597.4	758.2	1946.6	4158.4	8806.6	11413.5	11472.0	10789.4	9827.8
75°	14.9	21.3	420.6	551.6	1277.9	2790.0	7012.3	9506.2	9664.9	9118.6	8052.7
77.5°	14.9	21.3	251.3	377.0	801.9	1531.3	4825.0	7286.0	7644.8	7135.8	5755.7
80°	14.9	20.2	118.2	205.5	456.8	811.4	2210.7	4485.3	4952.8	4464.0	3010.4
82.5°	14.9	20.2	96.9	148.0	231.1	403.6	863.6	1469.5	1442.9	1296.0	970.1
85°	13.8	18.1	79.9	108.6	166.1	255.6	481.3	598.5	570.8	504.8	508.0
87.5°	9.6	10.6	27.7	49.0	67.1	126.7	233.2	253.4	258.8	216.2	226.8
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°	5173.2	5173.2	5173.2	5173.2	5173.2	5173.2	5173.2	5173.2	5173.2	5173.2	5173.2
2.5°	5229.7	5236.0	5266.9	5322.3	5321.2	5380.9	5364.9	5503.3	5508.7	5506.5	5517.2
5°	5277.6	5313.8	5381.9	5500.1	5568.3	5657.7	5640.7	5780.2	5788.7	5777.0	5806.8
7.5°	5360.6	5405.4	5517.2	5663.1	5681.2	5794.0	5770.6	5883.5	5878.2	5856.9	5908.0
10°	5477.8	5531.0	5632.2	5715.2	5767.4	5833.4	5807.9	5903.7	5885.6	5862.2	5911.2
12.5°	5597.0	5622.6	5679.0	5772.8	5777.0	5791.9	5762.1	5839.8	5819.6	5784.5	5835.6
15°	5711.0	5714.2	5704.6	5747.2	5702.5	5712.1	5647.1	5696.1	5660.9	5645.0	5678.0
17.5°	5859.0	5820.7	5752.5	5734.4	5629.0	5584.3	5488.4	5486.3	5424.5	5402.2	5424.5
20°	6036.8	5953.8	5796.2	5646.0	5463.9	5372.4	5209.4	5165.8	5115.7	5067.8	5094.4
22.5°	6282.8	6122.0	5850.5	5570.4	5269.1	5089.1	4888.9	4765.4	4671.7	4579.0	4606.7
25°	6562.9	6338.2	5927.2	5441.6	5035.8	4717.4	4457.6	4246.8	4112.6	3977.4	4038.0
27.5°	6942.0	6632.1	5974.0	5345.7	4732.4	4305.3	3891.1	3616.4	3476.9	3380.0	3349.1
30°	7383.9	7012.3	6058.1	5157.2	4375.6	3798.5	3272.4	2965.7	2817.7	2771.9	2791.1
32.5°	7922.8	7474.4	6229.6	4999.6	4013.6	3260.7	2647.3	2407.7	2301.2	2293.8	2291.6
35°	8643.7	8064.4	6376.5	4754.7	3534.4	2633.5	2106.3	1908.3	1904.0	1900.8	1908.3
37.5°	9197.4	8665.0	6533.1	4515.1	2965.7	2056.3	1684.7	1564.3	1551.5	1588.8	1598.4
40°	9634.0	9095.2	6767.4	4110.5	2299.1	1535.6	1293.8	1249.1	1339.6	1421.6	1438.7
42.5°	10028.0	9457.3	6818.5	3679.2	1675.1	1178.8	1072.3	1146.9	1286.4	1380.1	1398.2
45°	10397.6	9837.4	6623.6	3038.1	1198.0	998.9	1020.2	1132.0	1288.5	1388.6	1399.3
47.5°	10801.1	10091.9	6412.7	2442.8	985.0	957.3	1009.5	1137.3	1301.3	1402.5	1407.8
50°	11067.4	10274.0	5885.6	1910.4	923.3	931.8	1005.3	1149.0	1303.4	1375.8	1380.1
52.5°	11176.0	10419.9	5408.6	1529.2	892.4	912.6	1010.6	1169.2	1298.1	1338.6	1336.4
55°	11244.1	10487.0	4998.6	1272.5	864.7	897.7	1020.2	1184.2	1309.8	1351.3	1351.3
57.5°	11200.5	10336.9	4694.0	1084.1	837.0	887.1	1031.9	1206.5	1420.6	1494.0	1486.6
60°	11168.5	10055.7	4261.7	957.3	804.0	875.3	1046.8	1284.3	1657.0	1731.5	1707.0
62.5°	11003.5	9818.3	3793.1	876.4	766.7	868.9	1059.6	1388.6	1690.0	1685.7	1637.8
65°	10582.8	9334.8	3054.1	794.4	728.4	860.4	1063.8	1434.4	1554.7	1487.6	1473.8
67.5°	9986.5	8637.3	2409.8	712.4	685.8	842.3	1099.0	1380.1	1479.1	1421.6	1400.3
69°	9596.8	8120.8	2002.0	661.3	658.1	827.4	1112.8	1374.8	1451.4	1386.5	1358.8
70°	9282.6	7673.6	1728.3	628.3	636.8	815.7	1099.0	1373.7	1439.7	1358.8	1327.9
72.5°	7934.5	6216.8	1116.0	549.5	574.0	784.8	1046.8	1338.6	1415.2	1362.0	1319.4
75°	6148.7	4525.8	722.0	474.9	508.0	732.6	994.6	1316.2	1437.6	1340.7	1249.1
77.5°	3945.4	2421.6	559.1	399.3	436.6	659.2	900.9	1225.7	1396.1	1308.7	1190.5
80°	1718.7	898.8	431.3	323.7	353.5	535.6	773.1	1089.4	1323.7	1314.1	1234.2
82.5°	729.4	579.3	332.2	248.1	281.1	396.1	605.9	933.9	1169.2	1215.0	1302.4
85°	413.2	347.2	221.5	170.4	208.7	291.8	431.3	716.7	952.0	1055.3	1128.8
87.5°	177.8	144.8	102.2	91.6	118.2	151.2	185.3	336.5	508.0	619.8	666.6
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)