

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: P591276

Luminaire Tested: **CTN-CA8-480-727-U-T1-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591276
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-480-727-U-T1-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38245 lumens
Efficiency: N/A
Efficacy: 79.5 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B5 - U0 - G5

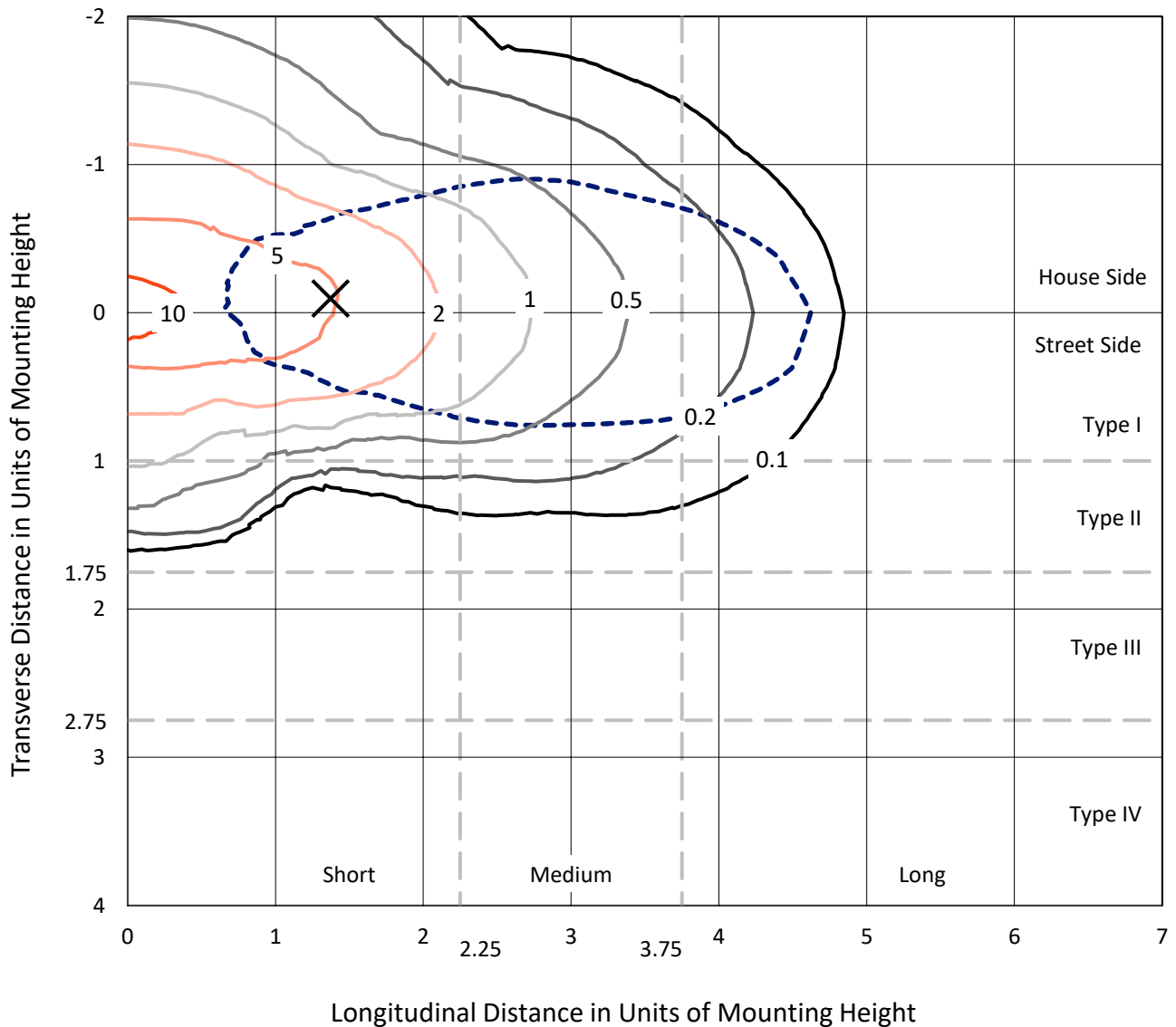
Input Watts (W): 480.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P591276
 CATALOG NUMBER: CTN-CA8-480-727-U-T1-SSS-HM-EX180

Iso-Footcandle Lines of Horizontal Illumination

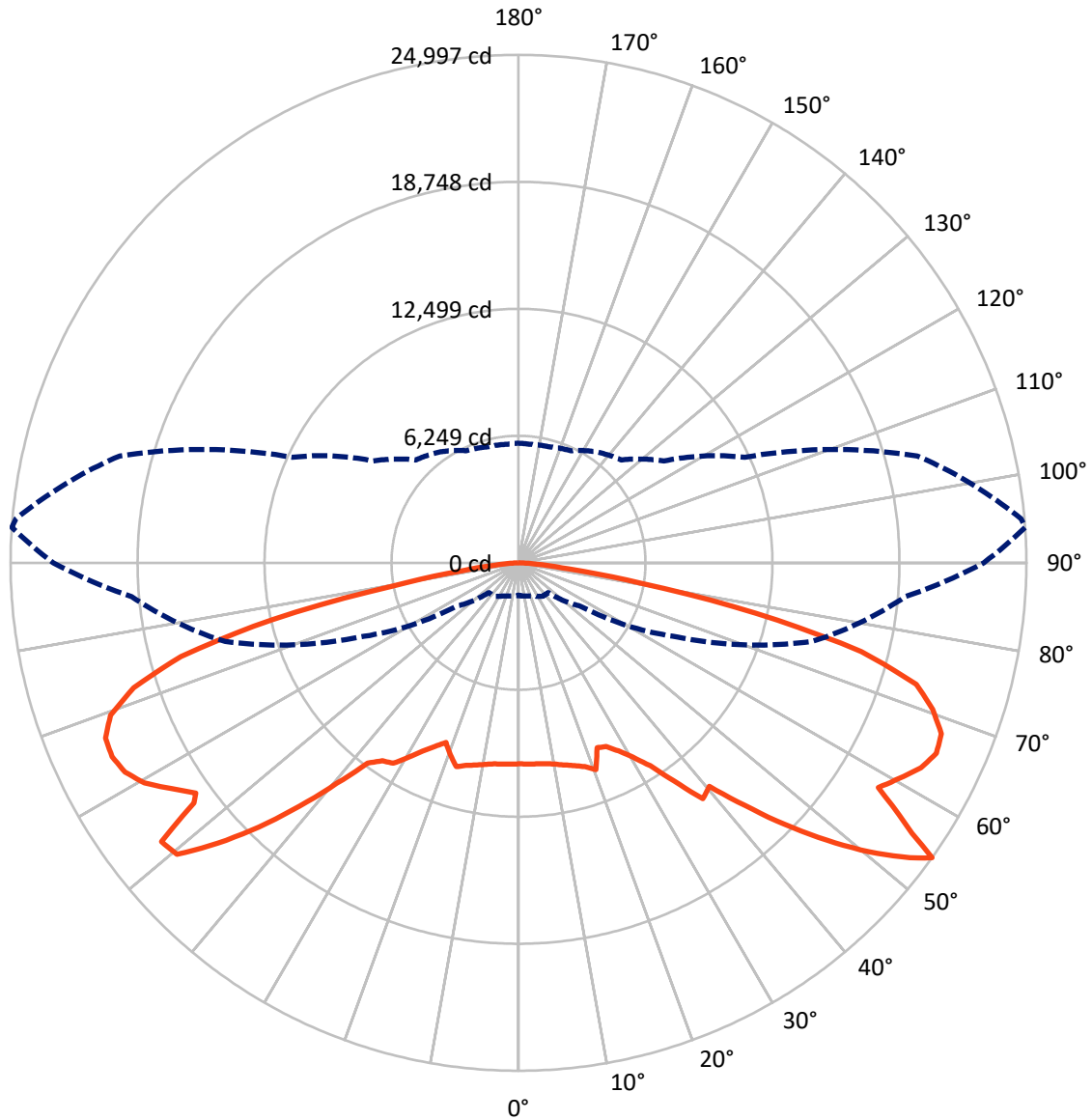
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 11 fc
 Type I - Short - N/A

REPORT NUMBER: P591276
CATALOG NUMBER: CTN-CA8-480-727-U-T1-SSS-HM-EX180

Luminous Intensity Polar Plot



— Vertical Plane Through 94-Deg Lateral - - - Horizontal Cone Through 54-Deg Vertical

REPORT NUMBER: P591276
 CATALOG NUMBER: CTN-CA8-480-727-U-T1-SSS-HM-EX180

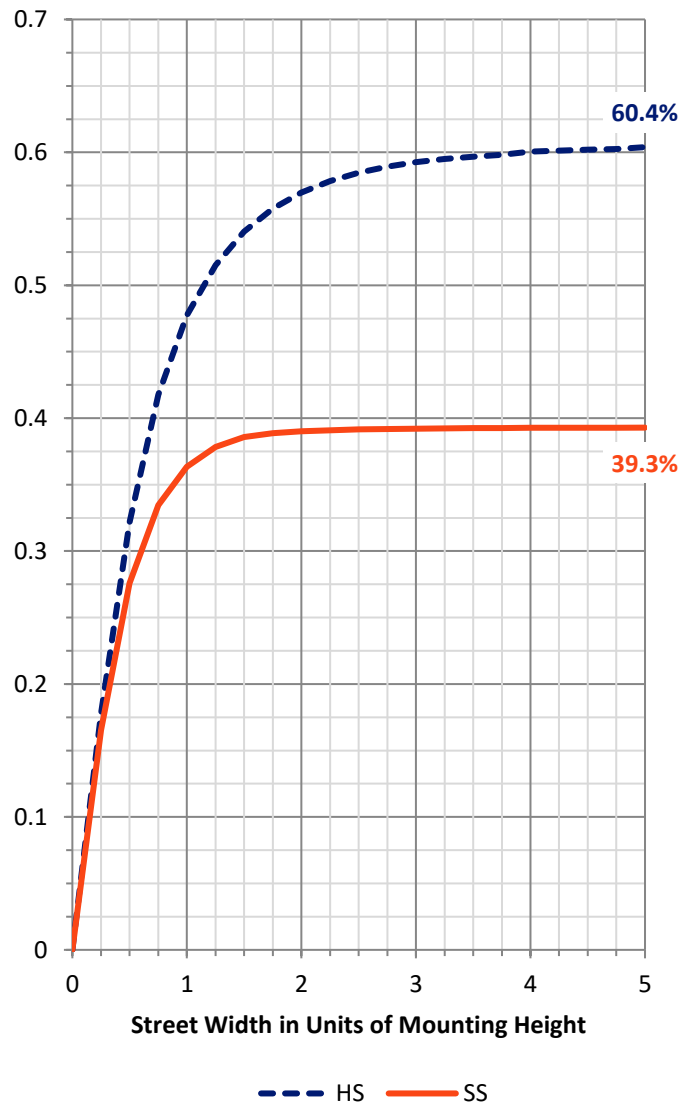
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	23294.4	0.0	23294.4
	% Fixture	60.9	0.0	60.9
Street Side	Lumens	14950.6	0.0	14950.6
	% Fixture	39.1	0.0	39.1
Total	Lumens	38245.0	0.0	38245.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	943.8	2.5
10°-20°	2700.4	7.1
20°-30°	3856.9	10.1
30°-40°	5103.2	13.3
40°-50°	6718.0	17.6
50°-60°	7411.8	19.4
60°-70°	6678.6	17.5
70°-80°	4223.7	11.0
80°-90°	608.7	1.6
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°	38245.0	100.0
0°-180°	38245.0	100.0

Coefficient of Utilization

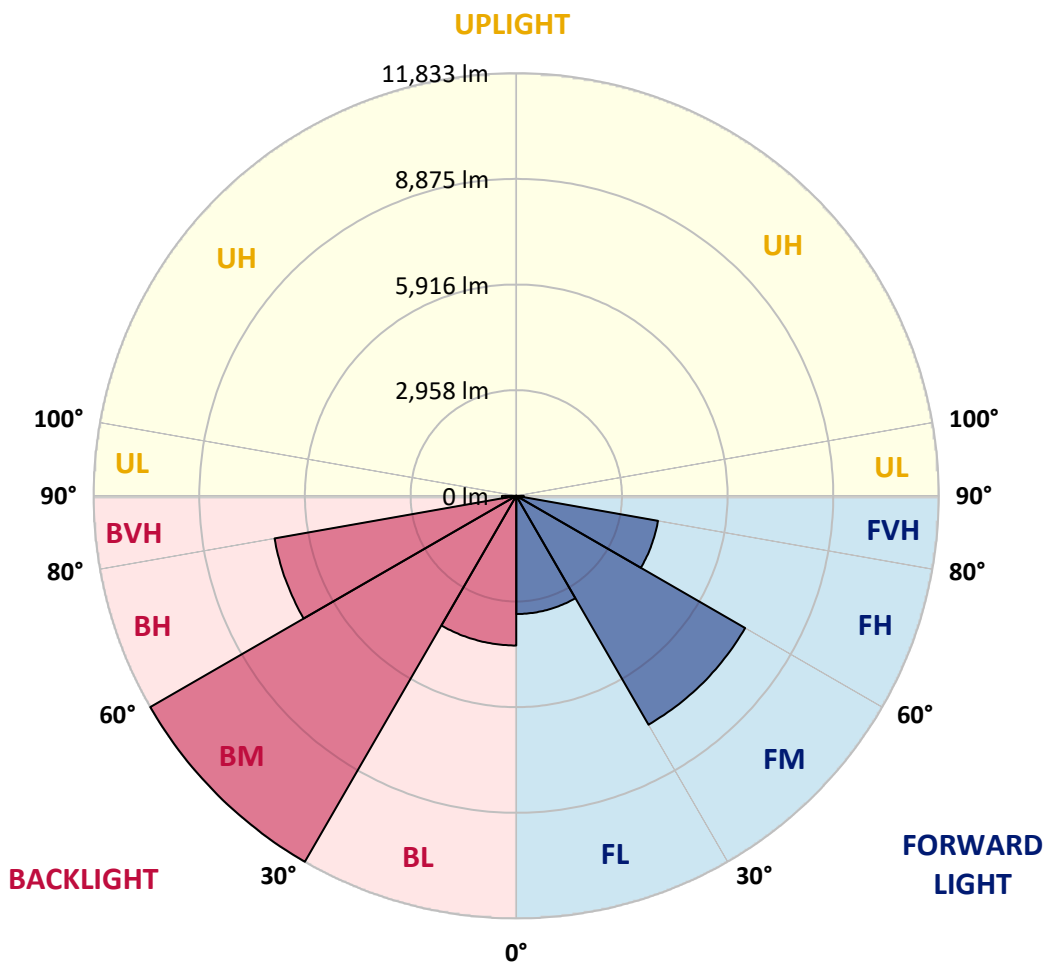


REPORT NUMBER: P591276
 CATALOG NUMBER: CTN-CA8-480-727-U-T1-SSS-HM-EX180

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3309.8	8.7			
FM (30°-60°)	7400.0	19.3			
FH (60°-80°)	4030.0	10.5			G2/5000
FVH (80°-90°)	210.8	0.6			G2/225
BL (0°-30°)	4191.3	11.0	B4/5000		
BM (30°-60°)	11832.9	30.9	B5		
BH (60°-80°)	6872.3	18.0	B5		G5
BVH (80°-90°)	397.9	1.0			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5
 Type I Short





REPORT NUMBER: P591276

CATALOG NUMBER: CTN-CA8-480-727-U-T1-SSS-HM-EX180

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	9889.2	9889.2	9889.2	9889.2	9889.2	9889.2	9889.2	9889.2	9889.2	9889.2	9889.2
2.5°	9907.8	9839.0	9848.3	9920.8	9766.4	9863.1	9818.5	9898.5	9866.9	9911.5	9945.0
5°	9820.4	9755.3	9772.0	9861.3	9738.5	9848.3	9785.0	9863.1	9874.3	9928.2	9959.9
7.5°	9747.8	9684.6	9695.7	9779.4	9701.3	9798.0	9760.8	9865.0	9866.9	9961.7	9985.9
10°	9675.3	9610.2	9625.1	9697.6	9647.4	9751.5	9775.7	9898.5	9926.4	10058.4	10060.3
12.5°	9520.9	9463.3	9470.7	9571.1	9573.0	9723.6	9772.0	9961.7	10019.4	10168.2	10183.0
15°	8912.7	8953.6	9109.9	9236.3	9353.5	9556.3	9721.8	10032.4	10110.5	10290.9	10333.7
17.5°	7439.7	7376.4	7036.1	7216.5	7780.0	8319.4	8605.8	9254.9	9982.2	10478.8	10534.6
20°	5217.1	5317.5	5851.3	6096.8	6498.6	7475.0	8371.5	8745.3	8981.5	9879.9	10581.1
22.5°	4138.3	4168.1	4932.5	5849.4	6150.7	6571.1	7635.0	8883.0	9253.1	9513.5	9628.8
25°	3851.9	3874.2	3997.0	5196.6	6018.7	6465.1	6931.9	8555.6	9573.0	9896.6	10034.3
27.5°	3612.0	3636.1	3757.0	4160.6	5897.8	6465.1	6995.1	7744.7	9883.6	10374.6	10491.8
30°	3433.4	3433.4	3558.0	3902.1	4943.7	6485.5	7127.2	7835.8	9400.0	10977.2	11081.4
32.5°	3269.7	3271.6	3407.4	3738.4	4283.4	6398.1	7313.2	8170.6	9024.3	11579.8	11849.5
35°	3122.8	3128.4	3251.1	3585.9	4116.0	5157.5	7519.6	8600.3	9746.0	11512.9	13017.6
37.5°	2998.2	3001.9	3107.9	3435.3	3974.6	3736.6	7653.6	9117.3	10715.0	12109.9	13261.2
40°	2908.9	2903.3	2979.6	3277.2	3768.2	3414.8	6478.1	9654.8	11866.3	13979.1	14406.9
42.5°	2819.6	2810.3	2886.6	3111.6	2577.8	3325.5	6002.0	10179.3	13192.4	16032.5	16413.8
45°	2715.5	2719.2	2793.6	2791.7	2440.2	3206.5	6054.0	8964.8	14611.5	18132.3	18617.8
47.5°	2659.7	2642.9	2680.1	2027.3	2326.8	3042.8	6031.7	8323.1	15863.2	20139.2	20620.9
50°	2555.5	2551.8	1878.5	1921.3	2213.3	2855.0	5682.0	8553.8	14313.9	21999.1	22486.4
52.5°	2399.3	2118.4	1742.7	1846.9	2099.8	2633.6	4058.3	8648.6	14274.9	21815.0	24225.4
54°	1593.9	1633.0	1686.9	1794.8	2018.0	2070.1	3712.4	8641.2	14953.7	19110.6	22895.6
55°	913.2	1279.6	1642.3	1752.0	1960.4	1448.9	3578.5	8602.1	15387.1	19227.8	20639.5
57.5°	790.5	794.2	903.9	1461.9	1006.2	1242.4	3199.1	8284.1	16198.0	20304.7	20708.3
60°	68.8	67.0	76.3	104.2	132.1	290.1	1610.7	5313.8	15630.7	21229.1	21855.9
62.5°	27.9	29.8	37.2	50.2	80.0	130.2	1331.7	4709.3	15870.7	21792.6	22479.0
65°	5.6	5.6	9.3	16.7	29.8	78.1	1134.5	4194.1	15747.9	21976.8	22893.7
67.5°	0.0	0.0	5.6	13.0	24.2	63.2	982.0	3859.3	15046.7	21913.5	22739.3
70°	0.0	0.0	5.6	13.0	22.3	61.4	840.7	3561.7	13307.7	21251.4	22166.5
72.5°	0.0	0.0	5.6	11.2	20.5	55.8	719.8	3145.1	11280.4	19657.5	20903.6
75°	0.0	0.0	5.6	11.2	18.6	50.2	606.3	2698.7	9424.2	16942.0	18439.2
77.5°	0.0	0.0	5.6	11.2	16.7	44.6	476.1	2155.6	7400.6	12284.8	13088.2
80°	0.0	0.0	5.6	11.2	14.9	35.3	351.5	1361.5	4104.8	6230.7	6561.8
82.5°	0.0	0.0	3.7	9.3	13.0	22.3	167.4	515.2	1934.3	2853.1	2767.6
85°	0.0	0.0	3.7	9.3	11.2	16.7	72.5	130.2	643.5	946.7	881.6
87.5°	0.0	0.0	3.7	7.4	9.3	11.2	18.6	22.3	204.6	273.4	282.7
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: P591276

CATALOG NUMBER: CTN-CA8-480-727-U-T1-SSS-HM-EX180

CANDELA DISTRIBUTION (continued):

	94°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	9889.2	9889.2	9889.2	9889.2	9889.2	9889.2	9889.2	9889.2	9889.2	9889.2	9889.2
2.5°	9922.7	9922.7	9920.8	9969.2	9907.8	9913.4	9855.7	10004.5	9987.8	9941.3	9997.1
5°	9933.8	9943.1	9941.3	9965.4	9917.1	9946.8	9866.9	10013.8	9989.6	9952.4	10010.1
7.5°	9980.3	9997.1	9984.0	10026.8	9930.1	9959.9	9878.0	10006.4	9982.2	9928.2	9989.6
10°	10080.8	10097.5	10071.5	10091.9	9989.6	9974.7	9874.3	10008.2	9956.1	9915.2	9991.5
12.5°	10210.9	10231.4	10179.3	10175.6	10045.4	10015.7	9870.6	9961.7	9885.5	9852.0	9920.8
15°	10356.0	10380.2	10318.8	10305.8	10162.6	10064.0	9855.7	9876.2	9766.4	9721.8	9794.3
17.5°	10545.7	10568.0	10521.6	10514.1	10328.1	10160.7	9835.2	9768.3	9613.9	9576.7	9615.8
20°	10863.8	10878.7	10817.3	10761.5	10488.1	10212.8	9801.8	9626.9	9390.7	9312.6	9357.2
22.5°	9887.3	10006.4	11213.4	11005.1	10607.1	10266.7	9718.1	9426.1	9095.0	8948.1	8977.8
25°	10015.7	10026.8	10484.4	11293.4	10737.3	10302.1	9619.5	9176.8	8721.2	8507.3	8544.5
27.5°	10480.6	10467.6	10287.2	11325.0	10891.7	10322.5	9496.7	8914.6	8351.0	8094.4	8103.7
30°	11083.2	11062.8	10789.4	10238.8	11113.0	10330.0	9388.9	8613.3	8021.8	7748.4	7741.0
32.5°	11907.2	11849.5	11425.5	10664.8	10177.5	10380.2	9236.3	8326.8	7707.5	7437.8	7417.3
35°	13171.9	13065.9	12294.1	11206.0	10015.7	10380.2	9028.0	8018.1	7417.3	7160.7	7145.8
37.5°	14739.8	14767.7	13404.4	11812.3	10264.9	9407.5	8778.8	7729.8	7166.3	6939.4	6939.4
40°	14459.0	14829.1	14693.3	12433.5	10521.6	9251.2	8511.0	7452.7	6957.9	6785.0	6807.3
42.5°	16313.3	16170.1	16188.7	13056.6	10702.0	9091.3	8220.8	7196.0	6773.8	6626.9	6643.6
45°	18370.4	18208.6	14819.8	13614.6	10785.7	8853.2	7927.0	6931.9	6571.1	6448.3	6493.0
47.5°	20401.4	20256.4	16274.3	13478.8	10707.5	8488.7	7564.3	6703.1	6357.2	6269.8	6336.7
50°	22367.4	22162.8	17842.2	12048.5	10430.4	7984.6	7194.2	6463.2	6171.2	6119.1	6169.3
52.5°	24121.3	23849.7	19430.6	12264.3	9111.7	7475.0	6865.0	6232.6	6002.0	5944.3	5994.5
54°	24997.3	24831.8	20317.7	12288.5	8734.2	7158.8	6667.8	6085.6	5907.1	5858.7	5886.6
55°	23505.6	23836.7	20844.1	12268.0	8460.8	6967.2	6537.6	5988.9	5840.1	5788.1	5816.0
57.5°	20873.8	20516.7	19488.2	12016.9	7716.8	6487.4	6156.3	5743.4	5641.1	5574.2	5613.2
60°	21536.0	21470.9	17790.1	11464.5	6904.0	5949.9	5780.6	5457.0	5388.2	5332.4	5384.5
62.5°	22227.9	22185.1	18061.7	10607.1	6094.9	5421.7	5349.1	5122.2	5081.3	5057.1	5070.1
65°	22601.7	22328.3	18054.2	9459.5	5352.8	4880.4	4869.3	4700.0	4718.6	4707.5	4761.4
67.5°	22443.6	22151.6	17256.3	8631.9	4655.4	4262.9	4298.3	4227.6	4296.4	4316.9	4357.8
70°	21617.8	21712.7	15517.3	7834.0	3961.6	3589.6	3701.2	3691.9	3792.4	3870.5	3935.6
72.5°	20475.8	20111.3	13006.4	6658.5	2899.6	2553.7	2747.1	2877.3	2988.9	3081.9	3143.3
75°	17427.4	16999.6	9602.8	5191.0	2099.8	1761.3	1813.4	1871.1	1943.6	2157.5	2284.0
77.5°	11948.1	11769.6	6905.9	3915.1	1337.3	1062.0	1264.7	1380.1	1441.4	1432.1	1454.5
80°	6126.6	6094.9	4088.1	2341.6	902.1	777.4	920.7	931.8	1030.4	1106.7	1110.4
82.5°	2470.0	2592.7	1633.0	1283.3	626.8	587.7	649.1	730.9	814.6	859.3	870.4
85°	874.2	853.7	496.6	602.6	398.0	411.0	459.4	552.4	639.8	651.0	626.8
87.5°	234.3	243.6	106.0	221.3	217.6	238.1	264.1	301.3	364.5	383.1	364.5
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)