

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: 768839_320MP

Luminaire Tested: **GSM-AM-320-MP-MT-AS-FG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: 768839_320MP
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GSM-AM-320-MP-MT-AS-FG
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE-VERTICAL LAMP-SQUARE DISTRIBUTION
Light Source: 320 WATT PULSE-START CLEAR ED-28 VBU BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 34000 (1 lamp)
Luminaire Lumens: 24023.4 lumens
Efficiency: 70.7%
Efficacy: 68.6 lumens/watt
Luminous Opening: Point Source (0' x 0' x 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G3

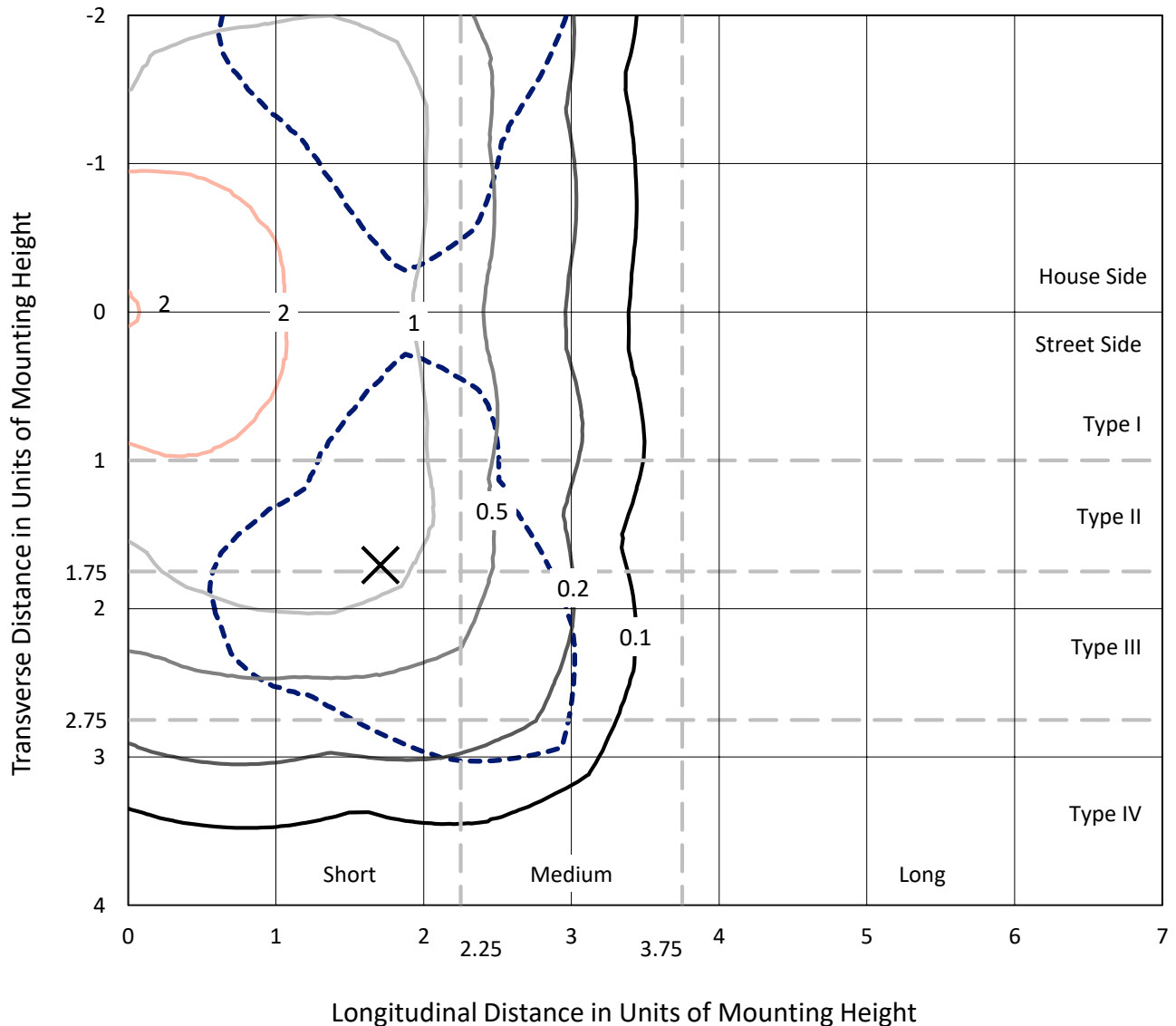
Input Watts (W): 350
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

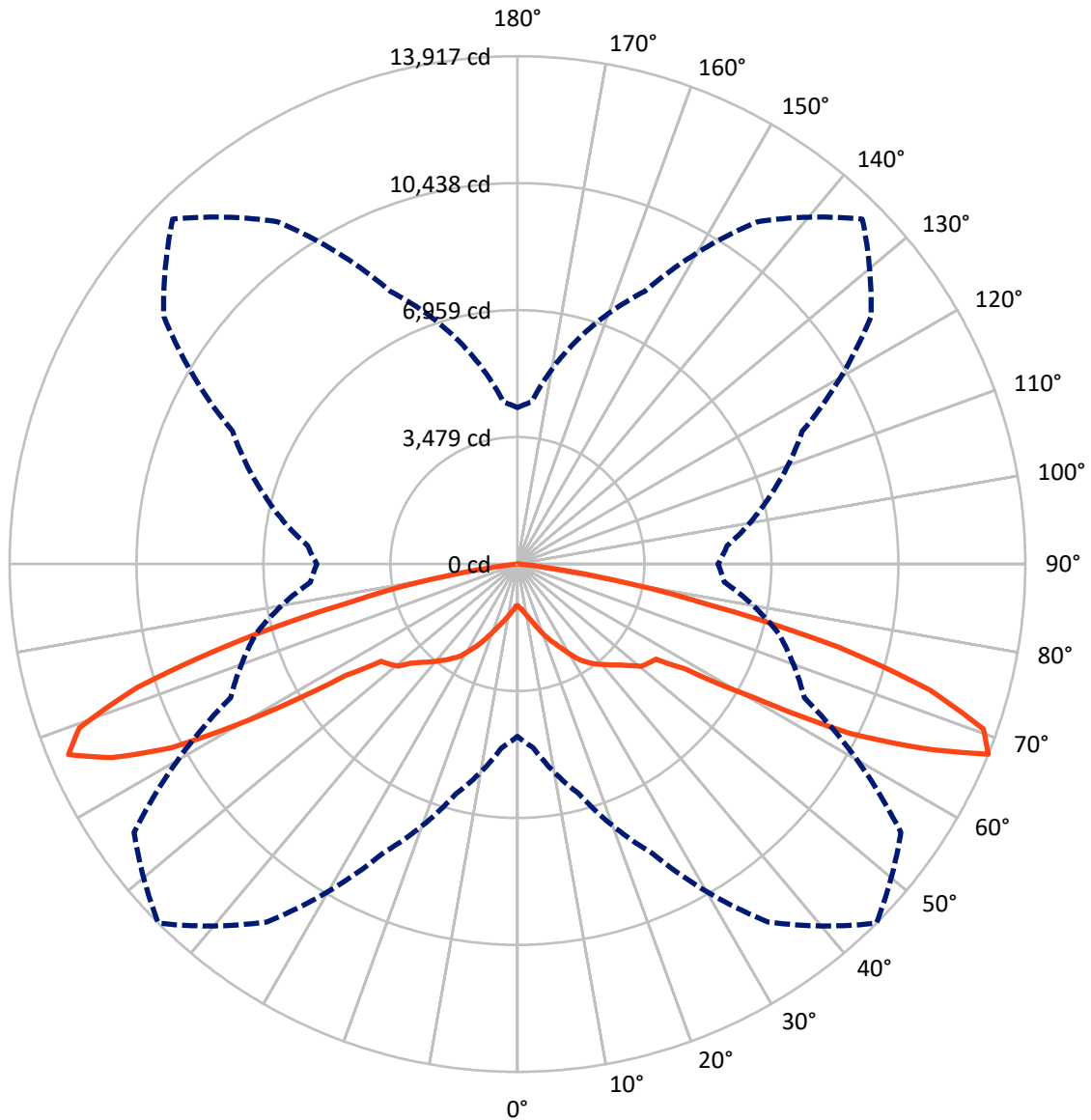
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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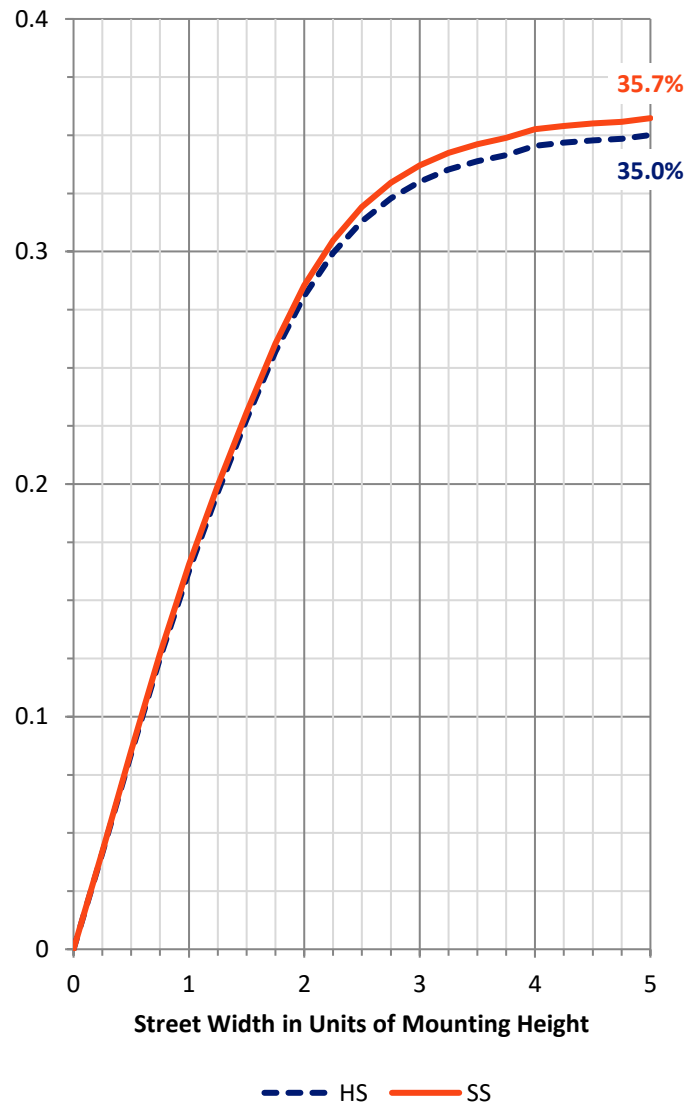
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11855.3	0.0	11855.3
	% Lamp	34.9	0.0	34.9
Street Side	Lumens	12168.0	0.0	12168.0
	% Lamp	35.8	0.0	35.8
Total	Lumens	24023.4	0.0	24023.4
	% Lamp	70.7	0.0	70.7

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	124.5	0.5	0.4
10°-20°	479.9	2.0	1.4
20°-30°	1077.1	4.5	3.2
30°-40°	1930.5	8.0	5.7
40°-50°	2905.4	12.1	8.5
50°-60°	4377.5	18.2	12.9
60°-70°	8241.3	34.3	24.2
70°-80°	4549.0	18.9	13.4
80°-90°	338.2	1.4	1.0
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-90°	24023.4	100.0	70.7
0°-180°	24023.4	100.0	70.7



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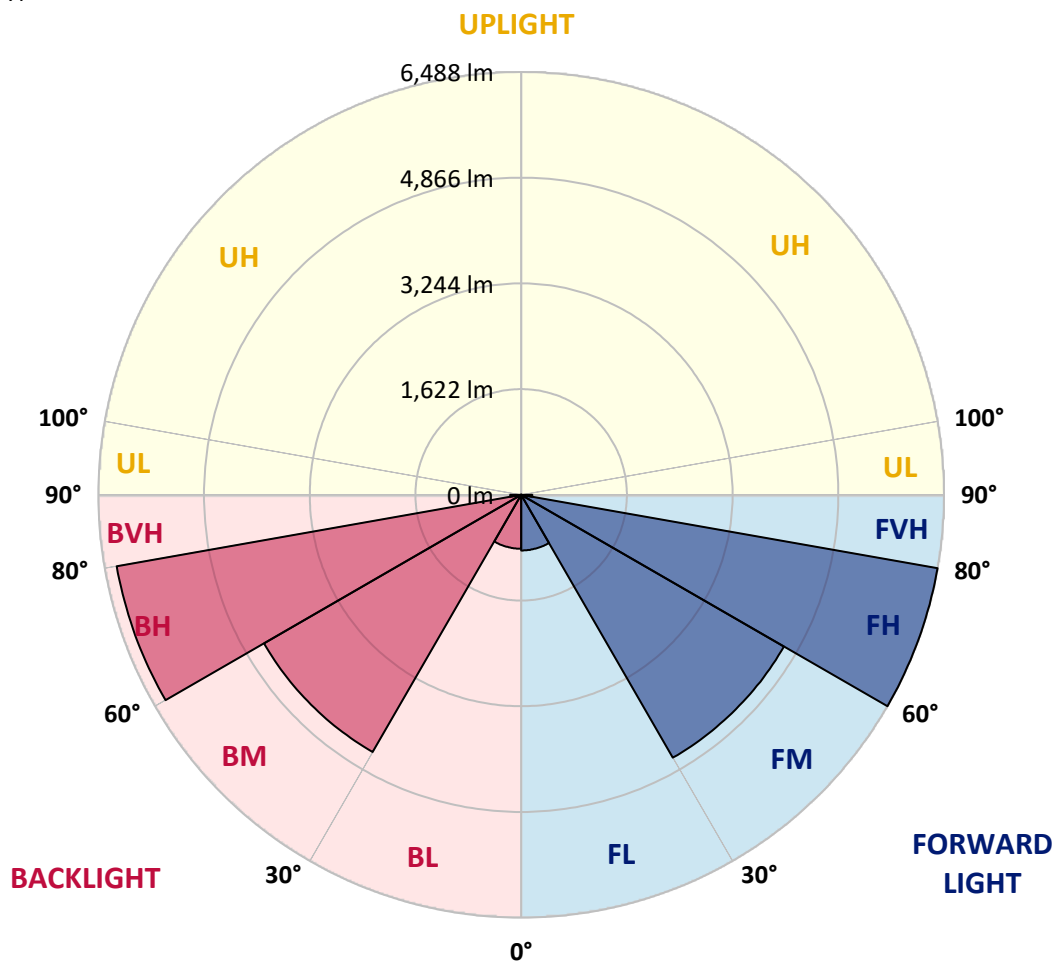
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	854.2	2.5			
FM (30°-60°)	4656.5	13.7			
FH (60°-80°)	6488.1	19.1			G3/7500
FVH (80°-90°)	169.2	0.5			G2/225
BL (0°-30°)	827.2	2.4	B2/1000		
BM (30°-60°)	4556.9	13.4	B3/5000		
BH (60°-80°)	6302.2	18.5	B5		G3/7500
BVH (80°-90°)	169.0	0.5			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	
Trapped Light	9976.6	29.3			

BUG Rating: B5-U0-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1139.9	1139.9	1139.9	1139.9	1139.9	1139.9	1139.9	1139.9	1139.9	1139.9	1139.9
2.5°	1185.3	1194.7	1185.3	1194.7	1190.0	1198.5	1194.7	1198.5	1194.7	1194.7	1190.0
5°	1240.1	1244.8	1249.5	1258.0	1253.3	1253.3	1253.3	1258.0	1267.4	1267.4	1275.9
7.5°	1322.2	1330.7	1322.2	1322.2	1330.7	1340.2	1349.6	1354.3	1358.1	1362.8	1367.6
10°	1394.9	1399.7	1394.9	1404.4	1412.9	1431.8	1440.3	1445.0	1454.4	1454.4	1454.4
12.5°	1495.1	1499.8	1509.2	1527.2	1545.1	1554.6	1564.0	1559.3	1564.0	1559.3	1554.6
15°	1595.2	1599.9	1622.6	1654.7	1682.1	1704.7	1704.7	1704.7	1709.4	1691.5	1691.5
17.5°	1686.8	1709.4	1759.5	1814.3	1851.1	1869.1	1873.8	1878.5	1864.3	1851.1	1841.7
20°	1796.3	1823.7	1896.4	1969.2	2019.2	2060.8	2078.7	2083.4	2060.8	2041.9	2028.7
22.5°	1896.4	1933.3	2023.9	2106.1	2188.3	2247.8	2278.9	2278.9	2247.8	2220.4	2206.2
25°	1987.1	2028.7	2146.7	2265.7	2352.6	2430.1	2484.8	2480.1	2438.6	2402.7	2380.0
27.5°	2106.1	2151.4	2306.3	2448.0	2562.3	2639.7	2703.0	2707.7	2630.3	2593.4	2580.2
30°	2251.6	2306.3	2480.1	2635.0	2780.4	2876.8	2899.4	2880.6	2803.1	2757.8	2725.7
32.5°	2433.8	2484.8	2685.1	2867.3	3036.4	3131.8	3131.8	3090.2	3004.3	2931.6	2894.7
35°	2617.1	2662.4	2894.7	3086.4	3222.4	3309.3	3309.3	3273.4	3172.4	3127.1	3077.0
37.5°	2799.3	2849.4	3109.1	3286.7	3409.4	3478.4	3478.4	3423.6	3378.3	3336.7	3273.4
40°	2926.8	2976.9	3273.4	3451.0	3569.1	3619.1	3646.5	3596.4	3578.5	3528.4	3455.7
42.5°	3009.0	3086.4	3436.8	3633.3	3738.1	3778.7	3810.8	3792.9	3797.6	3706.0	3619.1
45°	3072.3	3181.8	3564.3	3783.4	3883.6	3943.1	3952.5	3952.5	3952.5	3842.9	3751.3
47.5°	3145.0	3249.8	3665.4	3952.5	4070.6	4157.4	4116.8	4162.2	4112.1	3965.7	3879.8
50°	3181.8	3281.9	3706.0	4170.7	4385.1	4403.9	4439.8	4454.0	4284.9	4080.0	4007.3
52.5°	3236.6	3304.6	3669.2	4212.2	4531.4	4504.1	4581.5	4522.0	4326.5	4116.8	4029.9
55°	3491.6	3573.8	3870.3	4357.7	4681.6	4604.2	4896.0	4773.2	4622.1	4267.0	4189.6
57.5°	3938.3	4084.7	4754.3	5547.7	5844.2	5429.6	6254.1	6076.6	5557.1	4931.9	4831.8
60°	4686.3	4859.2	5894.3	7471.5	8292.2	7407.3	8752.2	7850.2	6824.6	6240.9	6117.2
62.5°	4905.4	5333.3	6614.9	8761.6	10438.9	10211.3	10967.8	8976.0	7544.2	6655.5	6468.5
65°	4968.7	5096.2	6555.4	9140.3	11414.6	12166.3	12143.7	9148.8	7603.7	6268.3	6140.8
67.5°	4722.2	5060.3	6518.6	8747.4	11975.6	13917.3	12827.4	8674.7	7426.2	5694.1	5497.6
70°	4002.6	4654.2	5866.9	7352.5	10798.8	13543.3	11387.2	7002.1	6158.7	4504.1	4335.0
72.5°	3054.3	3546.4	4489.9	5379.6	8976.0	11815.9	9226.3	5096.2	4726.9	3364.1	3304.6
75°	1905.9	2247.8	2922.1	3433.1	6692.3	9085.6	6668.7	3222.4	3017.5	2023.9	1983.3
77.5°	811.3	884.0	1390.2	1696.2	4080.0	5360.7	3893.0	1586.7	1294.8	907.6	765.9
80°	519.4	561.0	948.2	1135.2	2311.1	2707.7	1791.6	1071.0	748.0	528.9	442.0
82.5°	282.4	309.8	464.7	611.1	683.8	693.2	496.8	561.0	359.8	250.3	232.3
85°	72.7	72.7	82.2	100.1	114.3	141.7	122.8	100.1	72.7	64.2	64.2
87.5°	0.0	0.0	4.7	0.0	13.2	9.4	9.4	9.4	0.0	0.0	0.0
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1139.9	1139.9	1139.9	1139.9	1139.9	1139.9	1139.9	1139.9	1139.9	1139.9
2.5°	1194.7	1185.3	1180.6	1162.6	1153.2	1135.2	1117.3	1107.8	1103.1	1103.1
5°	1272.2	1267.4	1267.4	1253.3	1244.8	1207.9	1207.9	1190.0	1194.7	1194.7
7.5°	1362.8	1362.8	1354.3	1344.9	1326.9	1303.3	1294.8	1290.1	1280.7	1275.9
10°	1462.9	1454.4	1454.4	1431.8	1422.3	1399.7	1390.2	1367.6	1358.1	1358.1
12.5°	1559.3	1554.6	1554.6	1549.8	1540.4	1513.0	1477.1	1462.9	1454.4	1449.7
15°	1682.1	1682.1	1664.1	1659.4	1654.7	1614.1	1581.9	1554.6	1540.4	1531.9
17.5°	1828.4	1814.3	1819.0	1819.0	1796.3	1746.3	1709.4	1659.4	1632.0	1622.6
20°	2019.2	2001.3	1991.8	1983.3	1955.9	1905.9	1841.7	1768.9	1722.7	1714.2
22.5°	2196.8	2178.8	2188.3	2188.3	2138.2	2083.4	2014.5	1919.1	1864.3	1841.7
25°	2365.8	2356.4	2388.5	2406.4	2352.6	2261.0	2170.3	2056.1	1987.1	1969.2
27.5°	2562.3	2562.3	2607.6	2617.1	2552.8	2452.7	2338.4	2210.9	2142.9	2133.5
30°	2712.4	2735.1	2803.1	2803.1	2757.8	2643.5	2493.3	2393.2	2301.6	2297.8
32.5°	2876.8	2935.3	3009.0	2999.6	2981.6	2862.6	2707.7	2602.9	2498.1	2470.7
35°	3054.3	3113.8	3191.3	3154.4	3131.8	3040.2	2912.7	2807.8	2712.4	2698.3
37.5°	3264.0	3300.8	3341.4	3304.6	3291.4	3209.2	3090.2	3004.3	2922.1	2926.8
40°	3459.5	3519.0	3519.0	3478.4	3446.3	3378.3	3277.2	3177.1	3090.2	3099.7
42.5°	3642.7	3701.3	3710.7	3651.2	3610.6	3537.9	3441.6	3314.1	3241.3	3236.6
45°	3792.9	3865.6	3902.4	3801.4	3778.7	3696.6	3619.1	3455.7	3373.6	3336.7
47.5°	3902.4	4029.9	4120.6	3997.8	3984.6	3879.8	3756.1	3564.3	3446.3	3400.9
50°	4034.7	4166.9	4380.3	4299.1	4307.6	4143.3	3979.9	3642.7	3459.5	3409.4
52.5°	4047.9	4239.6	4489.9	4458.7	4454.0	4326.5	4065.8	3642.7	3354.7	3309.3
55°	4189.6	4526.7	4841.2	4676.9	4590.0	4572.1	4280.2	3842.9	3459.5	3391.5
57.5°	4918.7	5589.2	6012.3	5944.3	5593.0	5675.2	5270.0	4676.9	4029.9	3875.1
60°	6208.8	6897.3	7836.1	8419.7	8150.6	7955.1	6778.3	5747.9	5046.2	4931.9
62.5°	6545.9	7795.4	9240.4	10543.8	10712.8	10006.4	7927.7	6459.1	5365.4	5096.2
65°	6163.4	7535.7	9116.7	11446.7	12322.2	10867.7	8145.8	6491.2	4913.9	4768.5
67.5°	5771.5	7157.0	8615.2	11829.2	13365.8	11446.7	8245.9	6368.4	4458.7	4284.9
70°	4604.2	5830.1	7120.2	10895.1	12814.2	10748.7	7394.1	5670.4	3943.1	3828.8
72.5°	3491.6	4367.1	5283.2	9140.3	10963.1	9048.7	5712.0	4449.3	3054.3	2954.2
75°	2101.4	2643.5	3405.7	6641.3	8027.8	6555.4	3505.8	2662.4	1828.4	1768.9
77.5°	843.4	1167.3	1836.9	3961.0	4845.9	3888.3	1782.2	1112.6	770.7	856.6
80°	510.9	783.9	1285.4	2056.1	2775.7	1909.7	1253.3	661.1	501.5	483.6
82.5°	232.3	378.7	688.5	578.9	751.8	556.3	638.4	355.1	282.4	237.1
85°	59.5	77.4	104.8	114.3	154.9	109.6	109.6	77.4	68.0	54.8
87.5°	0.0	0.0	4.7	4.7	9.4	4.7	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)