

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: P299119

Luminaire Tested: **GLNA-AF-05-LED-E1-T3-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299119  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-05-LED-E1-T3-7027  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 25764.7 lumens  
Efficiency: N/A  
Efficacy: 92.3 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B3 - U0 - G4

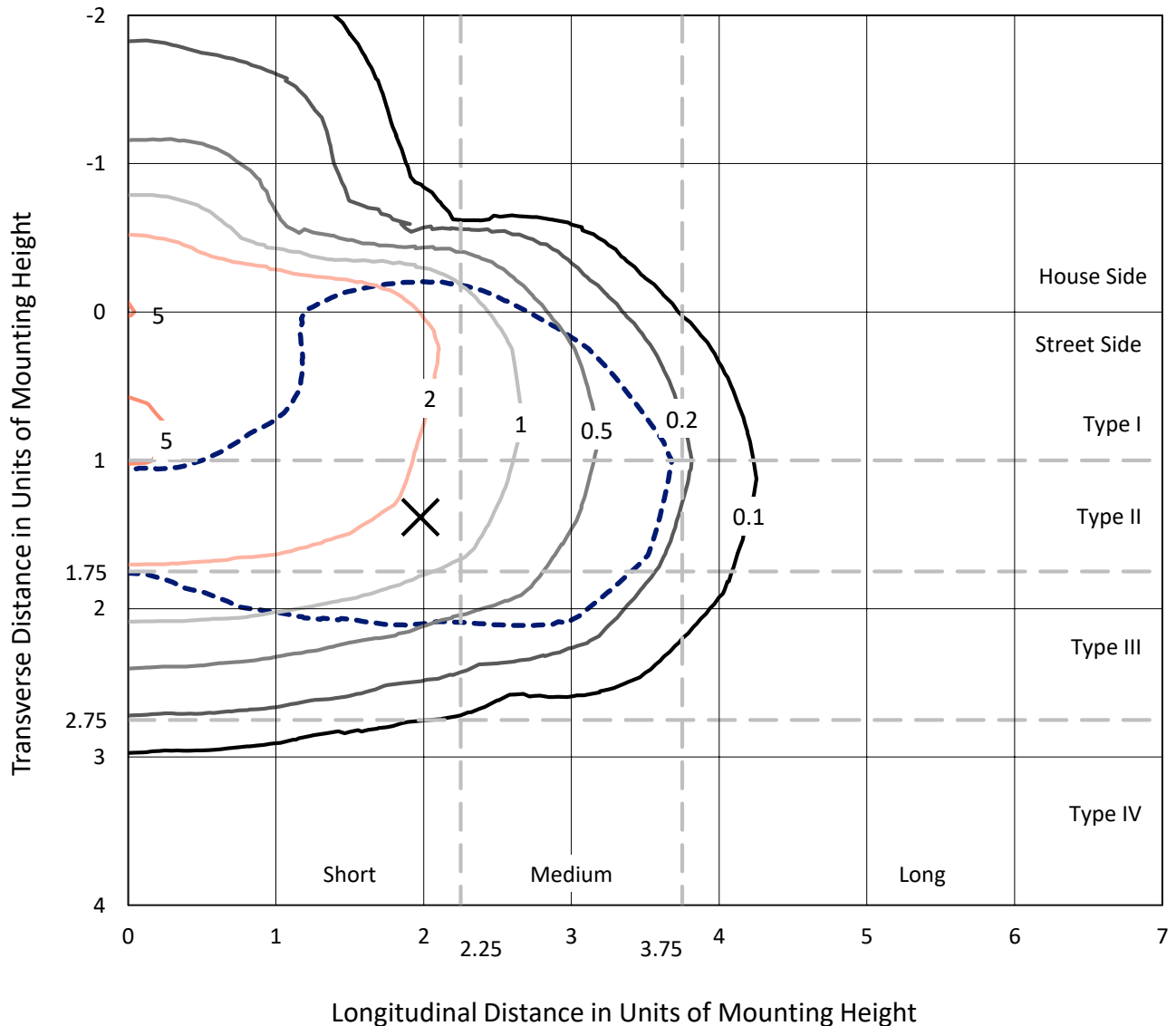
Input Watts (W): 279  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

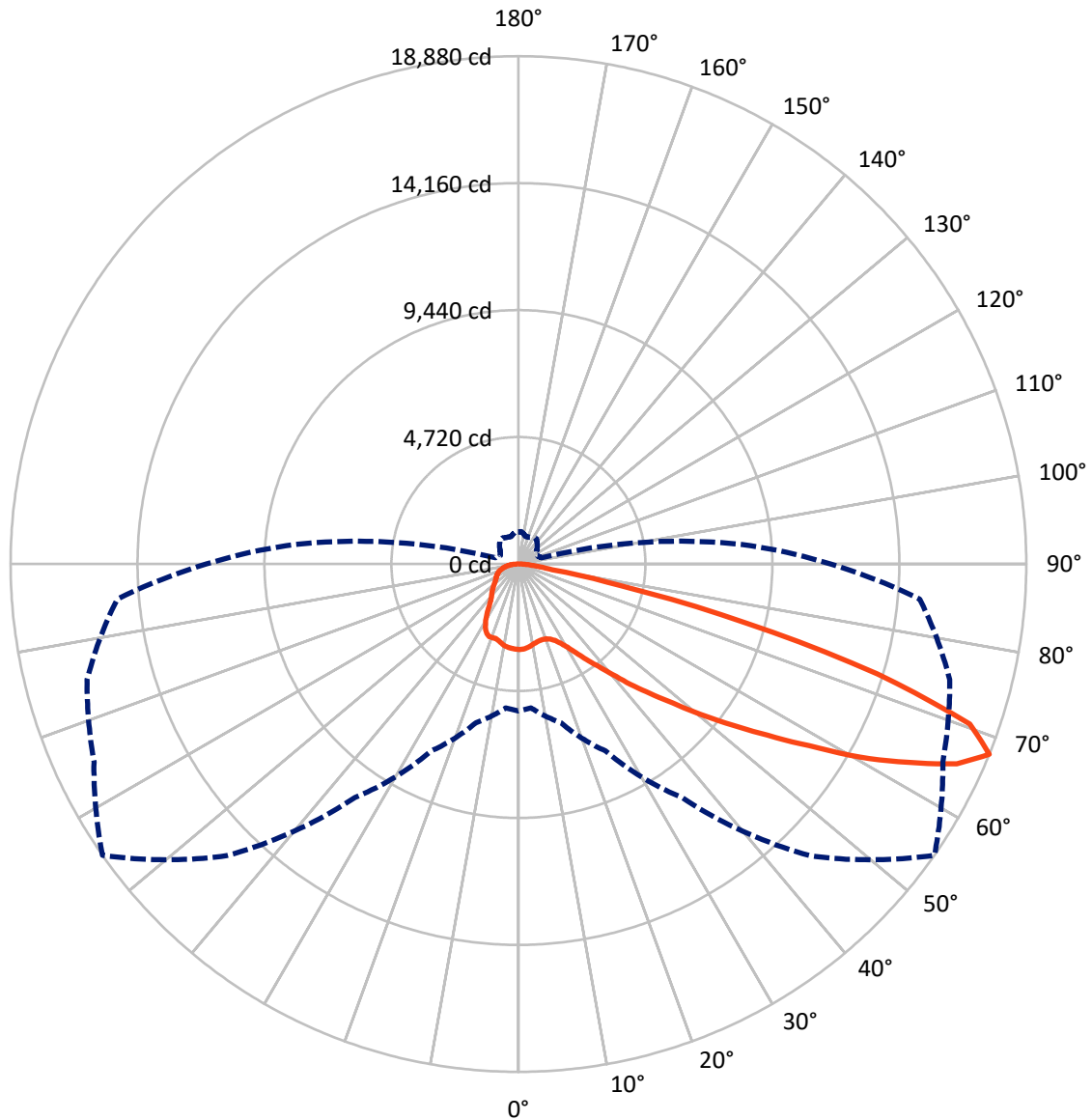
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.2 fc  
 Type III - Short - Full Cutoff

REPORT NUMBER: P299119  
CATALOG NUMBER: GLNA-AF-05-LED-E1-T3-7027

### Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P299119

CATALOG NUMBER: GLNA-AF-05-LED-E1-T3-7027

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5565.7	0.0	5565.7
	% Fixture	21.6	0.0	21.6
<b>Street Side</b>	Lumens	20199.0	0.0	20199.0
	% Fixture	78.4	0.0	78.4
<b>Total</b>	Lumens	25764.7	0.0	25764.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	296.5	1.2
10°-20°	839.9	3.3
20°-30°	1406.9	5.5
30°-40°	2313.5	9.0
40°-50°	3894.4	15.1
50°-60°	6129.4	23.8
60°-70°	7314.8	28.4
70°-80°	3141.1	12.2
80°-90°	428.3	1.7
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°	25764.7	100.0
0°-180°	25764.7	100.0



REPORT NUMBER: P299119

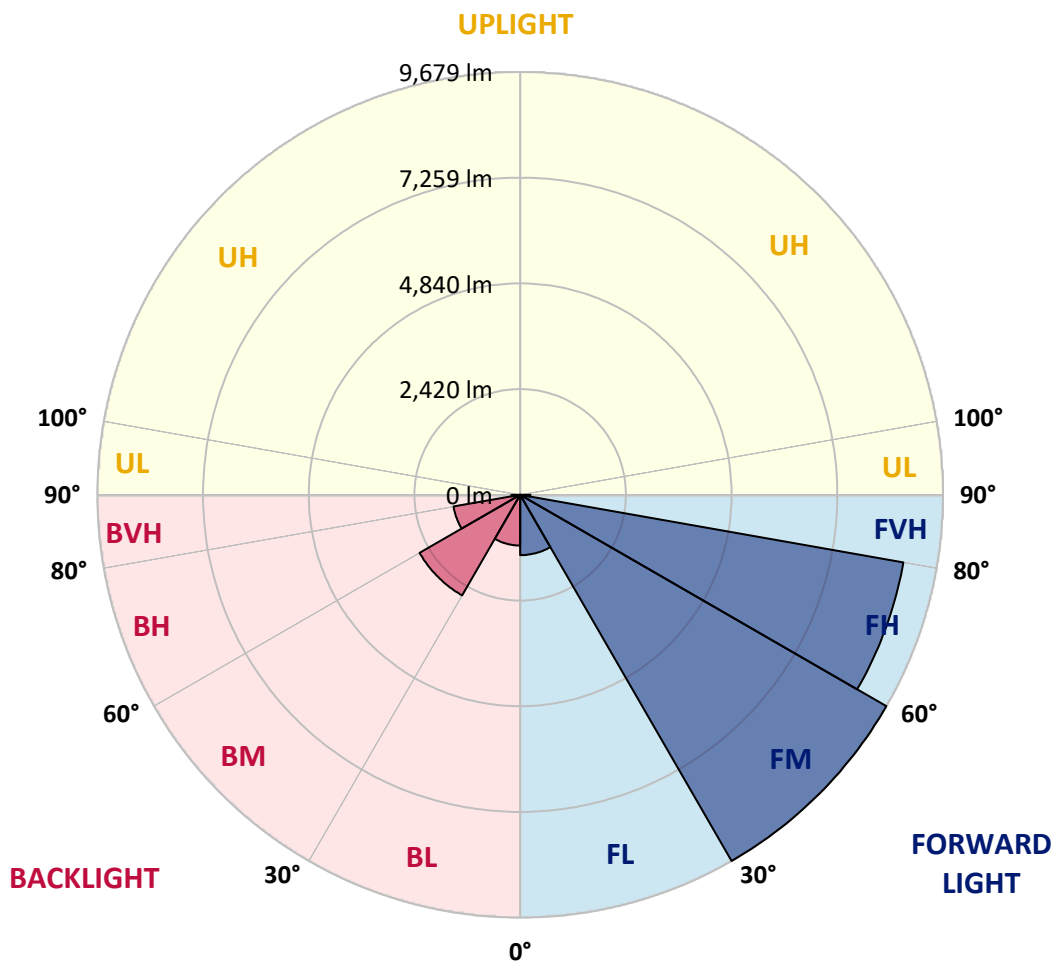
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1381.1	5.4			
FM	(30°-60°)	9679.1	37.6			
FH	(60°-80°)	8907.0	34.6			G4/12000
FVH	(80°-90°)	231.8	0.9			G3/500
BL	(0°-30°)	1162.2	4.5	B3/2500		
BM	(30°-60°)	2658.1	10.3	B3/5000		
BH	(60°-80°)	1548.9	6.0	B3/2500		G3/2500
BVH	(80°-90°)	196.4	0.8			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type III Short





REPORT NUMBER: P299119

CATALOG NUMBER: GLNA-AF-05-LED-E1-T3-7027

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3177.1	3177.1	3177.1	3177.1	3177.1	3177.1	3177.1	3177.1	3177.1	3177.1	3177.1
2.5°	3149.7	3150.9	3153.4	3163.4	3172.1	3169.6	3170.9	3165.9	3164.6	3157.2	3164.6
5°	3109.9	3113.6	3114.9	3131.0	3141.0	3143.5	3139.7	3133.5	3126.1	3118.6	3122.3
7.5°	3019.0	3029.0	3030.2	3052.6	3068.8	3090.0	3091.2	3092.5	3088.7	3083.7	3091.2
10°	2961.8	2964.3	2963.0	2979.2	2991.7	3015.3	3029.0	3052.6	3062.6	3065.1	3070.1
12.5°	2958.1	2955.6	2951.8	2951.8	2948.1	2958.1	2982.9	3016.5	3040.2	3047.7	3053.9
15°	2997.9	2996.6	2984.2	2965.5	2941.9	2934.4	2955.6	2992.9	3024.0	3040.2	3046.4
17.5°	3087.5	3080.0	3060.1	3017.8	2966.8	2946.9	2949.3	2980.5	3016.5	3037.7	3043.9
20°	3251.7	3251.7	3209.4	3129.8	3038.9	2991.7	2969.3	2987.9	3022.8	3051.4	3060.1
22.5°	3535.5	3538.0	3467.0	3336.4	3183.3	3082.5	3026.5	3022.8	3063.8	3096.2	3106.1
25°	3937.4	3927.5	3827.9	3641.3	3408.5	3241.8	3144.7	3122.3	3157.2	3193.3	3205.7
27.5°	4405.3	4369.3	4251.0	4025.8	3724.6	3480.7	3331.4	3295.3	3328.9	3370.0	3382.4
30°	4868.3	4830.9	4690.3	4443.9	4109.2	3800.5	3586.5	3528.0	3575.3	3633.8	3641.3
32.5°	5331.2	5331.2	5174.4	4886.9	4522.3	4182.6	3926.2	3856.5	3934.9	4005.9	4022.1
35°	5885.0	5887.5	5735.7	5389.7	4997.7	4638.1	4355.6	4304.5	4422.8	4472.5	4511.1
37.5°	6565.7	6579.4	6384.0	5965.9	5536.5	5158.2	4822.2	4752.5	4870.8	5006.4	5130.9
40°	7301.2	7318.6	7103.3	6588.1	6158.8	5763.0	5399.7	5274.0	5470.6	5729.4	5890.0
42.5°	8003.0	8092.6	7884.8	7354.7	6893.0	6483.6	6115.2	5932.3	6178.7	6569.4	6708.8
45°	9017.3	9082.0	8719.8	8239.5	7805.2	7347.2	6859.4	6666.5	7011.2	7504.0	7532.6
47.5°	9693.0	9644.5	9460.3	9161.6	8886.6	8458.5	7724.3	7512.7	7970.7	8550.6	8390.1
50°	10052.6	10067.6	10042.7	10060.1	10070.1	9801.3	8784.6	8494.6	9040.9	9741.5	9371.9
52.5°	10388.6	10289.1	10371.2	10779.4	11272.2	11172.6	9938.2	9635.8	10188.3	11063.1	10409.8
55°	10381.2	10229.4	10496.9	11217.4	12286.4	12400.9	11233.6	10885.2	11401.6	12480.6	11509.9
57.5°	10014.1	10021.5	10433.4	11376.7	12993.3	13555.8	12736.9	12214.2	12688.4	13916.7	12514.2
60°	9508.8	9577.3	10170.9	11350.6	13559.5	14502.8	14581.2	13646.6	13949.0	15222.1	13345.5
62.5°	8693.7	8765.9	9584.7	11079.3	13473.6	15415.0	16248.7	15271.9	15266.9	16013.5	13589.4
65°	7408.2	7387.0	8247.0	10065.1	12753.1	16089.5	17905.1	16676.8	16259.9	16026.0	13099.1
67.5°	5463.1	5368.5	6106.5	7665.8	10600.2	15334.1	18879.5	17408.6	16598.4	14971.9	11600.7
70°	2834.9	2740.3	3337.6	4476.3	6971.4	11967.8	17800.6	17030.3	15850.5	12550.2	9088.2
72.5°	1212.1	1195.9	1438.6	1963.7	3372.5	6902.9	13957.7	14740.5	13600.6	9350.8	6248.4
75°	815.1	810.1	901.0	1070.2	1517.0	2801.3	8734.8	10463.3	9950.6	5797.9	3514.3
77.5°	639.6	633.4	686.9	769.1	983.1	1105.1	3876.5	5617.4	5199.3	2523.7	1538.1
80°	500.3	495.3	528.9	573.7	706.8	696.9	1275.6	2235.0	1729.8	966.9	747.9
82.5°	394.5	394.5	421.9	423.1	501.5	475.4	665.8	984.4	863.6	563.7	458.0
85°	360.9	360.9	389.5	316.1	327.3	299.9	413.2	583.6	547.6	231.5	199.1
87.5°	181.7	176.7	327.3	280.0	178.0	159.3	201.6	282.5	303.6	128.2	99.6
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: P299119

CATALOG NUMBER: GLNA-AF-05-LED-E1-T3-7027

**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3177.1	3177.1	3177.1	3177.1	3177.1	3177.1	3177.1	3177.1	3177.1	3177.1
2.5°	3162.1	3160.9	3163.4	3164.6	3174.6	3188.3	3194.5	3203.2	3208.2	3205.7
5°	3124.8	3127.3	3137.3	3144.7	3162.1	3184.5	3197.0	3206.9	3215.7	3211.9
7.5°	3093.7	3099.9	3114.9	3121.1	3131.0	3137.3	3136.0	3139.7	3147.2	3138.5
10°	3076.3	3083.7	3094.9	3086.2	3062.6	3029.0	2997.9	2981.7	2986.7	2980.5
12.5°	3058.9	3068.8	3060.1	3019.0	2953.1	2909.5	2885.9	2888.4	2899.6	2902.1
15°	3048.9	3052.6	3015.3	2938.1	2870.9	2864.7	2877.2	2874.7	2875.9	2875.9
17.5°	3048.9	3038.9	2969.3	2892.1	2863.5	2852.3	2813.7	2765.2	2744.0	2736.5
20°	3065.1	3038.9	2954.3	2903.3	2841.1	2745.3	2643.2	2553.6	2513.8	2502.6
22.5°	3113.6	3068.8	2996.6	2908.3	2731.6	2571.0	2409.2	2302.2	2230.0	2217.6
25°	3211.9	3162.1	3080.0	2842.3	2557.3	2328.4	2144.2	2024.7	1952.5	1942.6
27.5°	3383.7	3351.3	3124.8	2696.7	2325.9	2080.7	1910.2	1818.1	1764.6	1760.9
30°	3642.5	3626.3	3102.4	2481.4	2040.9	1840.5	1758.4	1704.9	1665.1	1663.8
32.5°	4055.7	3925.0	3029.0	2218.8	1780.8	1670.0	1636.4	1604.1	1573.0	1573.0
35°	4587.0	4166.4	2889.6	1937.6	1622.8	1575.5	1533.2	1482.1	1441.1	1438.6
37.5°	5211.7	4315.7	2639.5	1711.1	1548.1	1512.0	1449.8	1373.9	1301.7	1289.2
40°	5842.7	4360.5	2287.3	1571.7	1500.8	1448.5	1372.6	1283.0	1213.3	1209.6
42.5°	6421.3	4274.7	1914.0	1475.9	1453.5	1383.8	1304.2	1224.5	1169.8	1168.5
45°	6906.7	4051.9	1600.4	1385.1	1403.7	1325.3	1254.4	1189.7	1147.4	1138.7
47.5°	7363.4	3737.1	1380.1	1289.2	1354.0	1293.0	1233.2	1172.3	1131.2	1125.0
50°	7893.5	3397.3	1225.8	1195.9	1310.4	1281.8	1250.7	1187.2	1118.8	1111.3
52.5°	8535.7	3103.7	1105.1	1113.8	1276.8	1296.7	1295.5	1229.5	1110.0	1100.1
55°	9252.5	2777.6	1014.2	1046.6	1263.1	1324.1	1306.7	1269.3	1117.5	1102.6
57.5°	9958.1	2396.8	950.8	995.6	1243.2	1321.6	1253.2	1199.6	1134.9	1113.8
60°	10487.0	1885.3	902.2	950.8	1199.6	1280.5	1194.7	1123.7	1131.2	1115.0
62.5°	10521.8	1457.2	843.7	912.2	1133.7	1239.5	1156.1	1090.1	1147.4	1132.4
65°	9903.3	1101.3	787.7	866.1	1062.8	1213.3	1118.8	1071.5	1181.0	1164.8
67.5°	8337.8	886.0	740.4	818.8	991.8	1158.6	1085.2	1054.0	1210.8	1182.2
70°	6019.4	755.4	694.4	761.6	928.4	1096.4	1055.3	1022.9	1130.0	1085.2
72.5°	3706.0	654.6	642.1	685.7	879.8	1031.6	1010.5	964.4	1018.0	981.9
75°	1850.5	567.5	583.6	611.0	811.4	958.2	935.8	889.8	897.2	889.8
77.5°	886.0	485.3	515.2	536.4	723.0	874.8	851.2	803.9	795.2	796.4
80°	561.2	405.7	434.3	449.2	645.9	777.8	754.1	706.8	806.4	747.9
82.5°	350.9	329.8	337.2	364.6	562.5	677.0	645.9	603.6	726.8	574.9
85°	194.1	230.2	240.2	263.8	433.1	566.2	535.1	481.6	431.8	424.4
87.5°	115.7	136.9	140.6	158.0	291.2	409.4	362.1	343.5	285.0	283.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)