

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: P265842

Luminaire Tested: **ARCH-M-AF48-140-D-U-T2R-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265842  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-M-AF48-140-D-U-T2R-7027  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 905mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14854.7 lumens  
Efficiency: N/A  
Efficacy: 105.4 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type II - Medium - Semi-Cutoff  
BUG Rating: B2 - U0 - G2

Input Watts (W): 141  
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: 28.75 FT

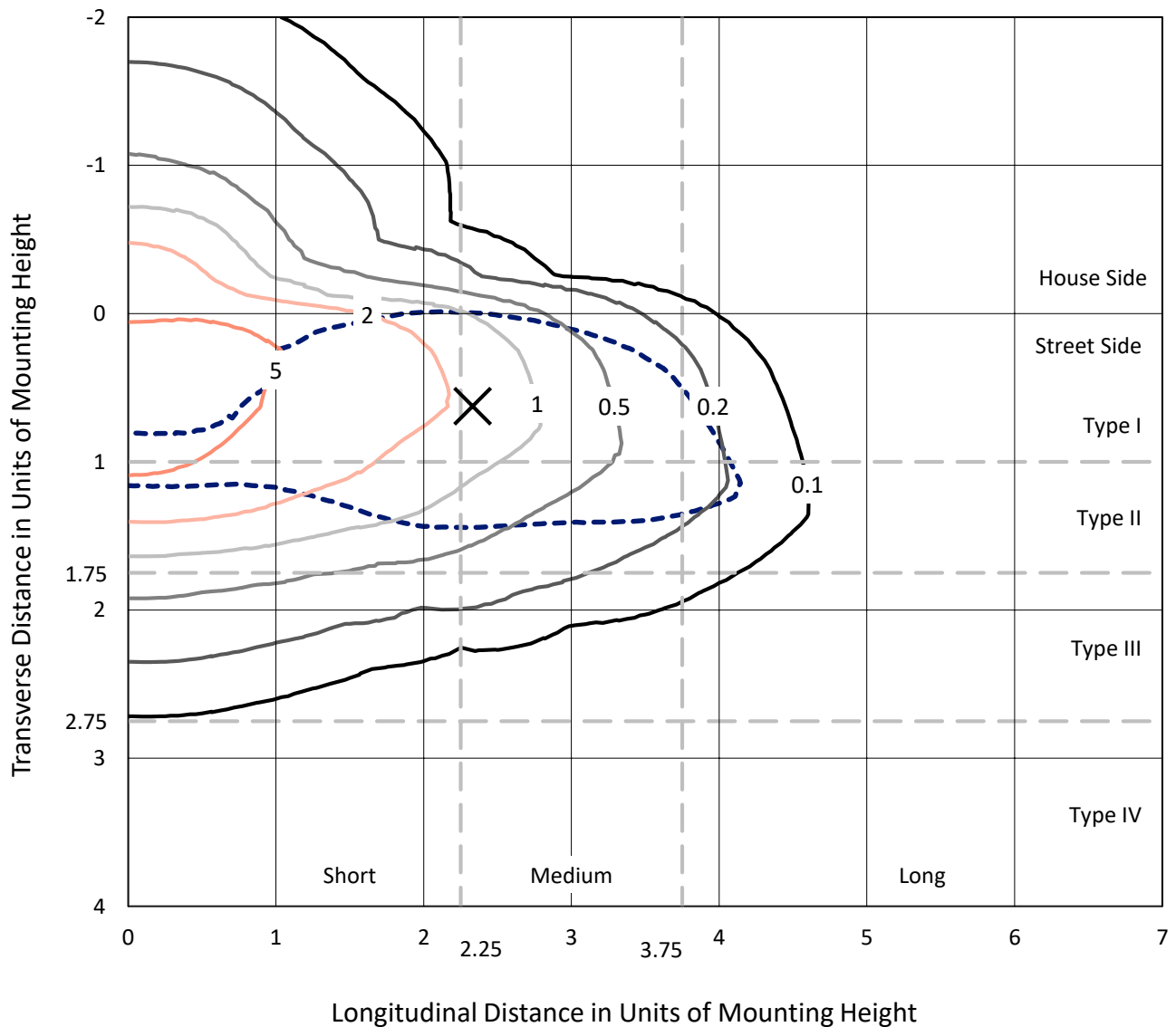


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

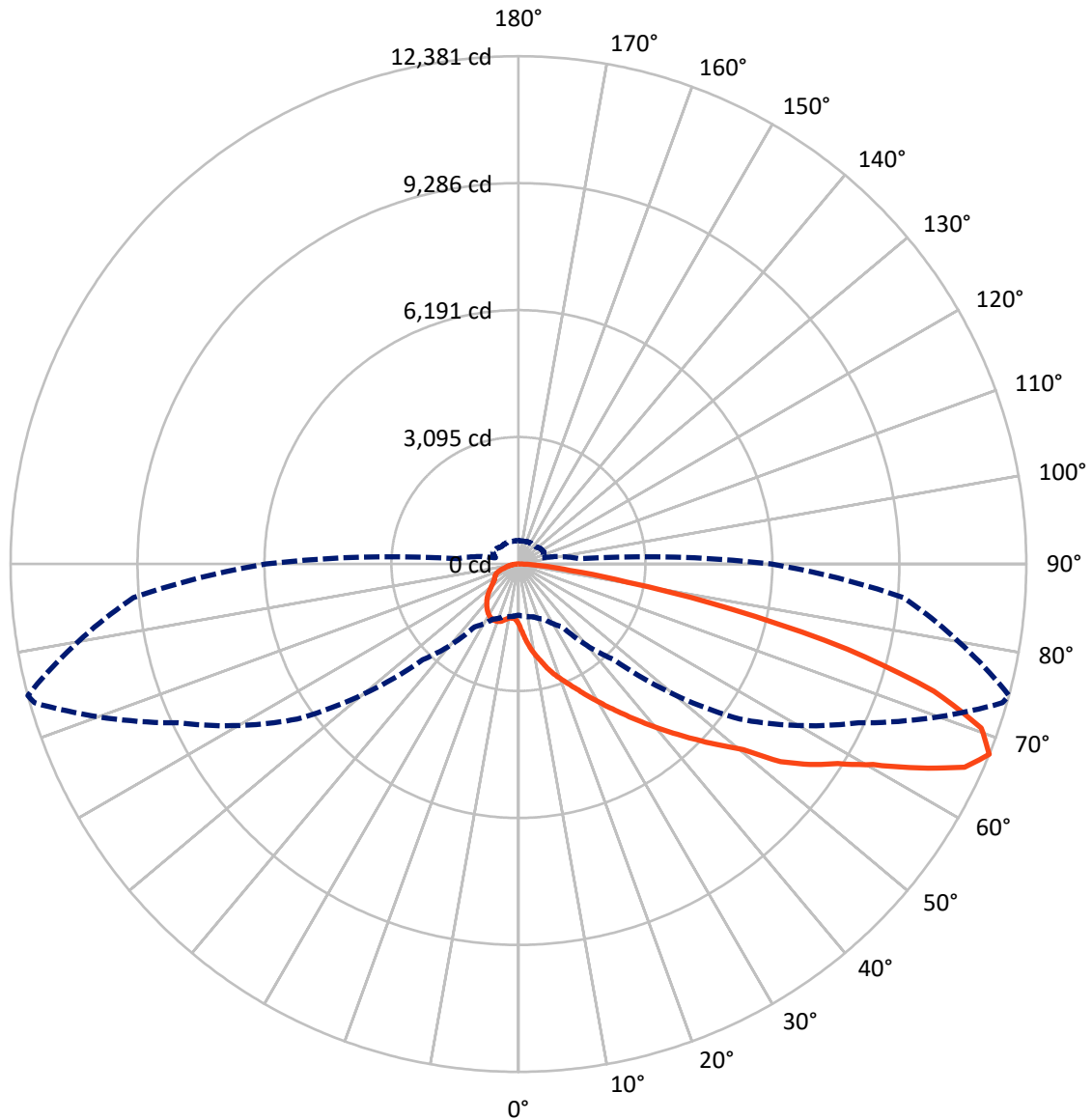


Based on 20 foot mounting height. Maximum calculated value = 7.7 fc  
 Type II - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2536.7	0.0	2536.7
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	12318.1	0.0	12318.1
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	14854.7	0.0	14854.7
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	172.9	1.2
10°-20°	624.9	4.2
20°-30°	1139.8	7.7
30°-40°	1870.9	12.6
40°-50°	2705.6	18.2
50°-60°	3188.6	21.5
60°-70°	3098.5	20.9
70°-80°	1722.3	11.6
80°-90°	331.2	2.2
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°	14854.7	100.0
0°-180°	14854.7	100.0

**Coefficient of Utilization**



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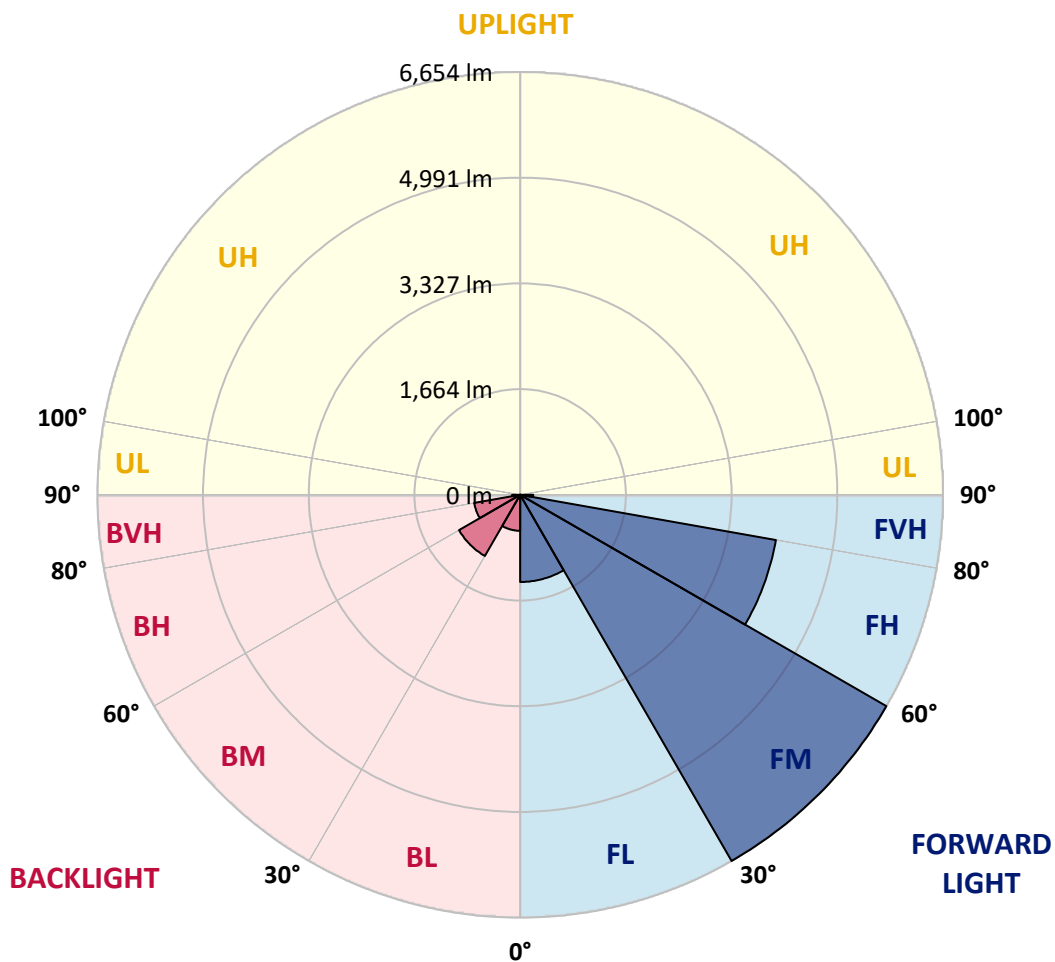
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1371.5	9.2			
FM (30°-60°)	6654.1	44.8			
FH (60°-80°)	4086.4	27.5			G2/5000
FVH (80°-90°)	206.1	1.4			G2/225
BL (0°-30°)	566.2	3.8	B2/1000		
BM (30°-60°)	1110.9	7.5	B2/2500		
BH (60°-80°)	734.5	4.9	B2/1000		G2/1000
BVH (80°-90°)	125.1	0.8			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	1472.0	1472.0	1472.0	1472.0	1472.0	1472.0	1472.0	1472.0	1472.0	1472.0	1472.0
2.5°	2086.9	2093.1	2080.7	2052.6	2012.4	1937.7	1872.5	1757.7	1655.1	1642.7	1534.0
5°	2453.4	2459.5	2444.0	2409.9	2366.3	2285.6	2195.5	2046.5	1881.9	1850.8	1621.0
7.5°	2704.7	2707.9	2689.3	2655.1	2621.0	2540.1	2450.1	2282.5	2080.7	2055.9	1732.8
10°	2919.0	2925.3	2900.4	2878.7	2841.3	2760.8	2667.5	2490.6	2282.5	2248.3	1847.8
12.5°	3117.7	3124.0	3108.6	3089.9	3077.5	3002.9	2900.4	2689.3	2465.7	2428.4	1984.4
15°	3251.3	3257.6	3260.7	3285.6	3301.0	3248.2	3145.8	2916.0	2664.5	2630.2	2145.8
17.5°	3214.0	3229.5	3276.2	3366.3	3462.4	3465.7	3381.8	3139.5	2860.1	2822.8	2310.4
20°	3105.4	3117.7	3173.7	3310.3	3499.7	3608.5	3602.3	3366.3	3043.3	3002.9	2462.6
22.5°	3195.5	3211.0	3211.0	3294.9	3481.1	3683.1	3763.8	3589.8	3226.5	3189.3	2614.7
25°	3580.6	3589.8	3524.6	3490.5	3558.7	3745.2	3897.2	3832.1	3450.1	3406.6	2779.4
27.5°	4117.7	4102.2	4021.5	3884.8	3810.3	3859.9	4015.2	4061.9	3707.8	3655.1	2950.2
30°	4652.0	4642.6	4549.3	4366.2	4198.5	4092.9	4145.7	4266.8	3987.3	3925.2	3114.8
32.5°	5151.9	5136.2	5033.8	4819.5	4630.1	4434.6	4332.0	4453.2	4285.5	4213.9	3297.9
35°	5611.4	5571.1	5468.6	5245.1	5049.4	4863.1	4611.4	4630.1	4608.5	4533.8	3499.7
37.5°	5984.1	5953.1	5841.3	5633.2	5425.1	5248.1	4984.2	4832.1	4956.2	4884.9	3732.6
40°	6313.3	6279.2	6164.2	5956.1	5763.6	5595.9	5387.9	5077.3	5347.5	5266.8	3993.5
42.5°	6561.7	6536.8	6443.7	6238.8	6052.4	5900.2	5797.8	5387.9	5754.4	5676.7	4279.3
45°	6695.2	6670.4	6620.7	6456.1	6285.4	6167.4	6176.7	5757.3	6179.7	6114.6	4617.6
47.5°	6530.7	6549.3	6592.8	6561.7	6456.1	6400.2	6515.0	6139.3	6654.9	6592.8	4984.2
50°	6089.7	6108.4	6282.1	6496.5	6533.7	6602.1	6819.5	6580.4	7158.0	7108.3	5437.5
52.5°	5005.9	5108.4	5589.8	6102.0	6453.1	6735.6	7158.0	7235.6	8005.8	8005.8	6238.8
55°	3782.4	3872.5	4422.0	5316.3	6139.3	6748.0	7406.3	7679.6	8617.5	8629.8	6658.0
57.5°	3065.0	3120.9	3391.1	4307.3	5481.0	6592.8	7701.3	8061.6	9126.8	9182.7	7198.3
60°	2487.4	2518.5	2695.5	3332.2	4571.1	6173.5	7912.5	8608.2	9853.4	9931.0	7887.7
62.5°	1999.8	2030.9	2148.9	2530.9	3586.8	5387.9	7875.4	9176.5	10822.3	10949.6	8791.4
65°	1596.2	1630.3	1707.9	1944.0	2658.3	4412.7	7493.3	9468.3	11825.4	11949.6	9390.7
67.5°	1245.3	1276.3	1329.1	1484.4	1872.5	3301.0	6589.6	9160.9	12275.6	12381.2	9421.8
70°	941.0	956.4	1000.0	1099.3	1338.5	2192.5	5158.1	8129.9	11871.9	11968.2	8800.6
72.5°	729.8	726.6	751.5	801.2	934.7	1509.2	3419.0	6611.3	10496.2	10595.6	7508.8
75°	596.3	593.2	608.6	624.2	677.0	1012.4	2018.5	4978.0	8471.6	8282.2	5633.2
77.5°	503.1	499.9	515.4	518.6	540.3	698.7	1149.0	3276.2	5651.9	5325.7	3173.7
80°	425.4	422.4	441.0	447.1	462.6	512.5	661.4	1773.2	2838.4	2689.3	1515.4
82.5°	319.8	332.3	366.5	382.0	400.6	378.8	409.8	782.6	1316.6	1257.6	658.4
85°	155.2	183.3	276.4	307.4	329.1	239.0	279.6	369.6	593.2	565.2	267.1
87.5°	52.8	46.6	164.6	195.7	214.2	108.7	155.2	205.0	245.3	223.6	83.8
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°	1472.0	1472.0	1472.0	1472.0	1472.0	1472.0	1472.0	1472.0	1472.0	1472.0	1472.0
2.5°	1487.6	1440.9	1372.6	1319.8	1285.7	1257.6	1245.3	1242.1	1236.0	1232.8	1232.8
5°	1518.6	1434.8	1329.1	1273.2	1257.6	1245.3	1251.5	1254.7	1254.7	1254.7	1254.7
7.5°	1565.0	1447.1	1319.8	1282.5	1279.5	1279.5	1298.1	1307.4	1313.6	1313.6	1313.6
10°	1627.2	1468.9	1335.3	1304.2	1313.6	1319.8	1341.4	1353.9	1360.2	1363.3	1366.4
12.5°	1711.1	1515.4	1366.4	1341.4	1353.9	1357.1	1372.6	1378.8	1384.9	1388.2	1388.2
15°	1822.9	1583.7	1416.1	1384.9	1388.2	1384.9	1384.9	1378.8	1375.7	1375.7	1382.0
17.5°	1937.7	1649.0	1459.6	1416.1	1403.6	1378.8	1360.2	1344.7	1335.3	1329.1	1332.2
20°	2052.6	1707.9	1484.4	1422.2	1388.2	1347.7	1313.6	1291.9	1279.5	1267.0	1273.2
22.5°	2167.6	1763.8	1493.7	1403.6	1353.9	1294.9	1257.6	1223.5	1195.6	1177.0	1180.1
25°	2294.9	1826.0	1493.7	1382.0	1307.4	1245.3	1198.7	1142.7	1102.4	1086.9	1093.1
27.5°	2422.2	1878.7	1478.3	1341.4	1254.7	1192.5	1124.1	1058.9	1034.0	1024.7	1027.9
30°	2549.5	1919.0	1444.0	1291.9	1198.7	1130.3	1040.2	996.8	965.8	941.0	944.1
32.5°	2676.9	1947.0	1397.5	1229.7	1139.7	1052.8	978.3	928.5	872.7	841.5	844.6
35°	2822.8	1968.8	1341.4	1167.6	1074.5	984.5	928.5	847.8	788.8	763.9	757.7
37.5°	2974.9	1984.4	1282.5	1099.3	1009.2	934.7	878.8	779.5	723.6	689.4	686.2
40°	3139.5	1990.6	1211.2	1027.9	947.2	903.7	813.7	739.0	642.7	621.1	621.1
42.5°	3335.1	1987.5	1139.7	956.4	878.8	832.2	767.1	732.8	649.0	627.2	614.9
45°	3558.7	1987.5	1062.1	872.7	810.5	742.2	714.2	692.6	636.5	645.9	652.1
47.5°	3813.5	1981.2	968.9	804.3	754.5	695.6	680.0	633.6	611.7	617.9	624.2
50°	4164.4	1990.6	885.0	748.4	714.2	664.6	645.9	621.1	611.7	614.9	611.7
52.5°	4652.0	1959.6	804.3	714.2	683.3	617.9	617.9	614.9	617.9	614.9	614.9
55°	4918.9	1891.2	745.4	695.6	661.4	596.3	608.6	614.9	621.1	617.9	617.9
57.5°	5297.8	1844.6	698.7	683.3	649.0	590.0	602.5	614.9	617.9	614.9	614.9
60°	5745.0	1813.6	667.7	686.2	639.8	590.0	605.5	614.9	611.7	608.6	608.6
62.5°	6263.6	1801.1	645.9	695.6	630.4	593.2	605.5	614.9	602.5	599.3	599.3
65°	6459.3	1689.4	617.9	701.8	636.5	593.2	602.5	605.5	590.0	587.0	583.8
67.5°	6158.1	1496.8	577.6	689.4	655.3	593.2	593.2	590.0	571.4	568.3	562.1
70°	5484.2	1242.1	515.4	649.0	667.7	596.3	580.8	565.2	546.6	546.6	534.1
72.5°	4490.4	978.3	434.8	577.6	658.4	605.5	556.0	534.1	512.5	512.5	499.9
75°	3235.9	729.8	347.9	481.3	617.9	602.5	524.8	496.9	472.0	468.9	453.4
77.5°	1844.6	512.5	282.5	375.8	549.7	587.0	496.9	453.4	425.4	416.2	406.8
80°	947.2	344.7	229.7	295.1	456.5	543.5	475.2	403.7	372.6	357.2	341.5
82.5°	450.3	229.7	177.0	217.4	344.7	475.2	447.1	347.9	313.7	295.1	276.4
85°	201.8	136.6	117.9	139.7	245.3	369.6	394.4	285.8	245.3	307.4	226.7
87.5°	65.1	62.2	62.2	65.1	117.9	161.4	288.9	211.2	195.7	161.4	136.6
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)