

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: P265815

Luminaire Tested: **ARCH-M-AF48-110-D-U-T2R-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265815
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-AF48-110-D-U-T2R-7027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 720mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12454 lumens
Efficiency: N/A
Efficacy: 112.2 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): 111
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

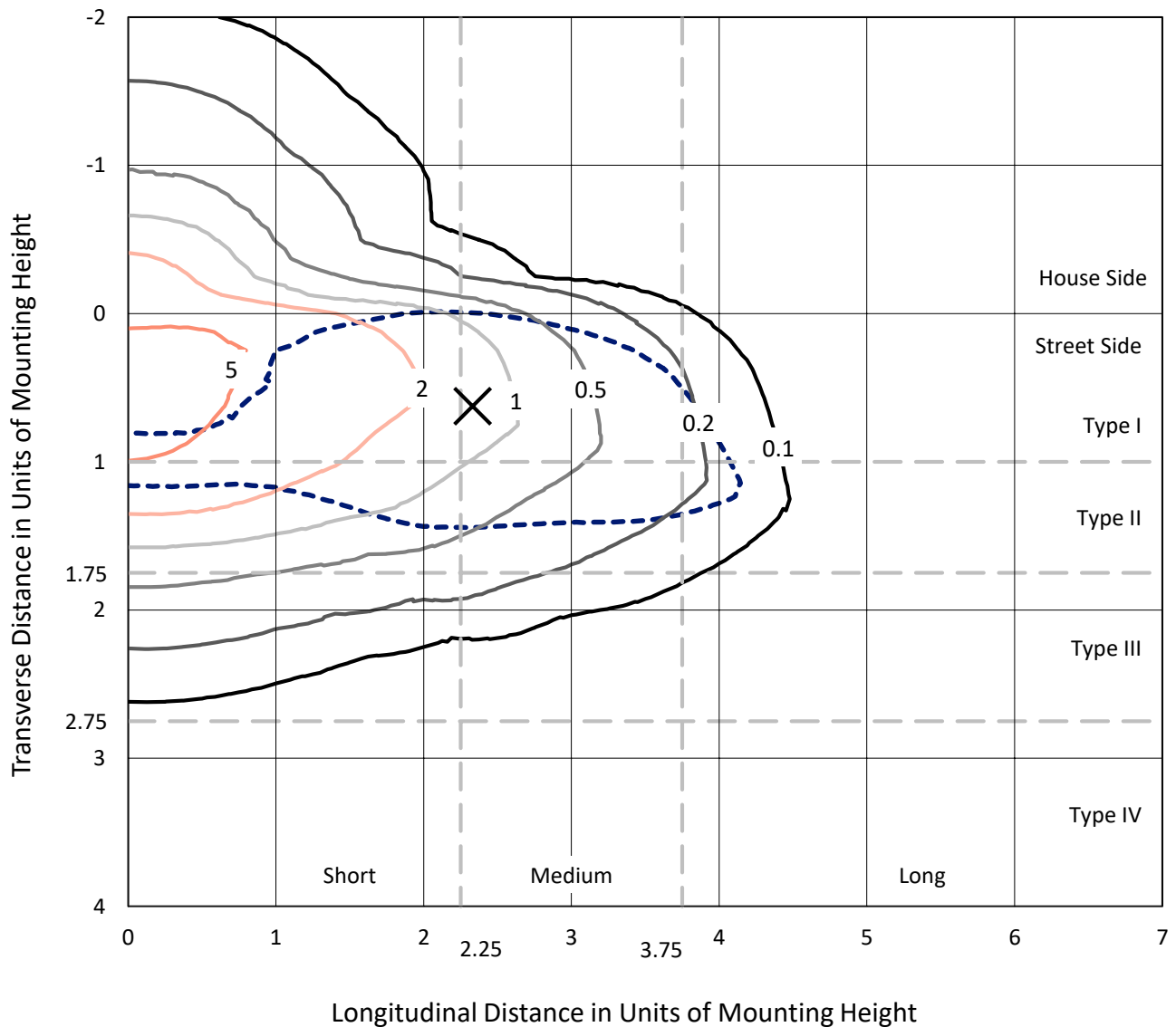


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

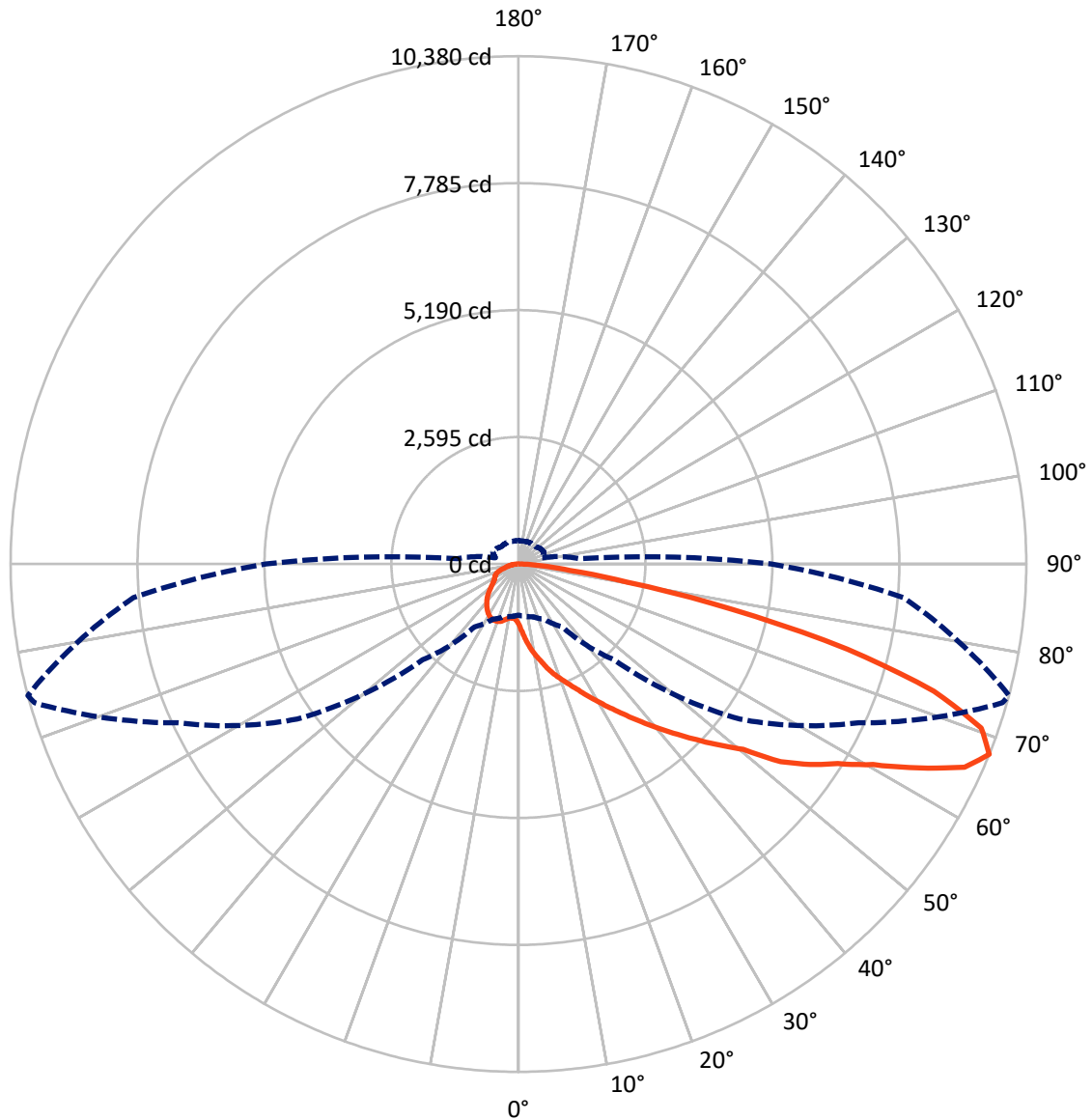


Based on 20 foot mounting height. Maximum calculated value = 6.5 fc
 Type II - Medium - Semi-Cutoff

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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
House Side	Lumens	2126.7	0.0	2126.7
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	10327.3	0.0	10327.3
	% Fixture	82.9	0.0	82.9
Total	Lumens	12454.0	0.0	12454.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.0	1.2
10°-20°	523.9	4.2
20°-30°	955.6	7.7
30°-40°	1568.5	12.6
40°-50°	2268.3	18.2
50°-60°	2673.2	21.5
60°-70°	2597.7	20.9
70°-80°	1444.0	11.6
80°-90°	277.7	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°	12454.0	100.0
0°-180°	12454.0	100.0



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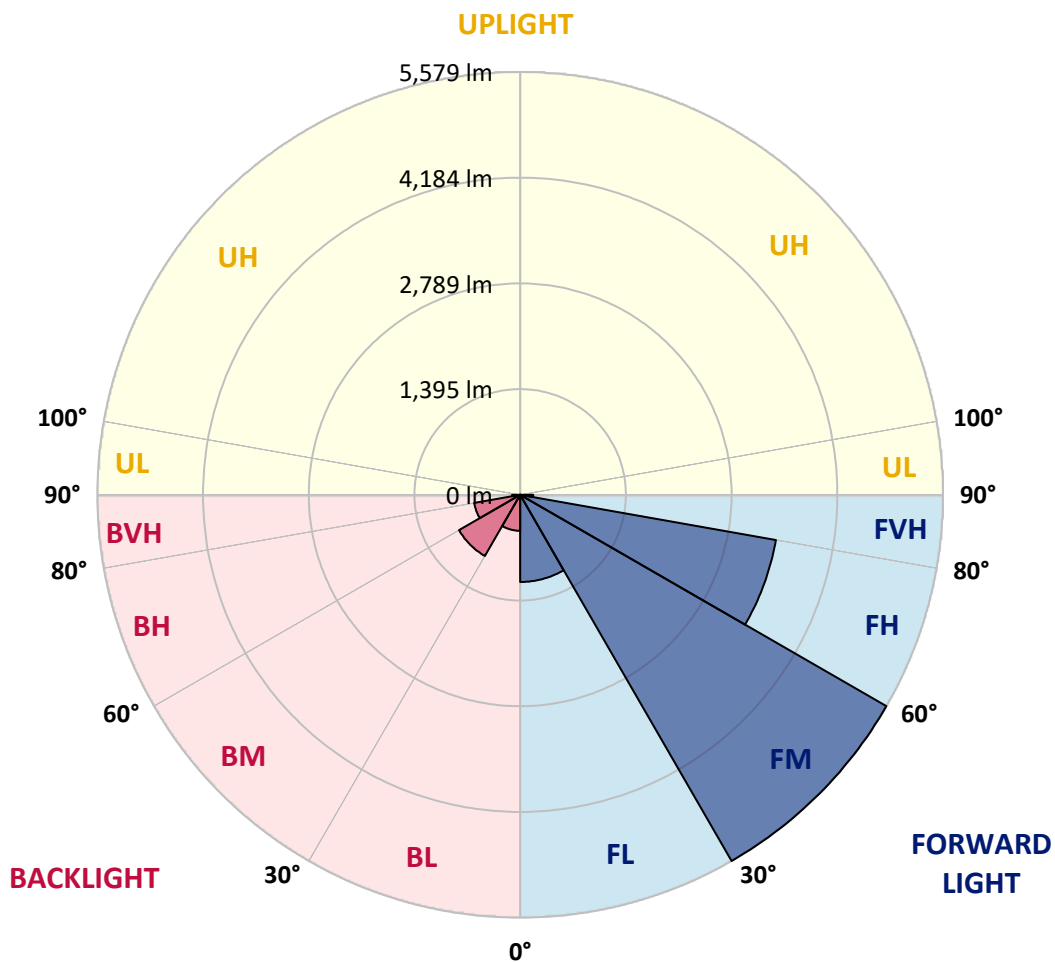
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1149.8	9.2			
FM	(30°-60°)	5578.7	44.8			
FH	(60°-80°)	3425.9	27.5			G2/5000
FVH	(80°-90°)	172.8	1.4			G2/225
BL	(0°-30°)	474.7	3.8	B1/500		
BM	(30°-60°)	931.4	7.5	B1/1000		
BH	(60°-80°)	615.8	4.9	B2/1000		G2/1000
BVH	(80°-90°)	104.9	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°	1234.1	1234.1	1234.1	1234.1	1234.1	1234.1	1234.1	1234.1	1234.1	1234.1	1234.1
2.5°	1749.5	1754.7	1744.4	1721.0	1687.0	1624.7	1569.9	1473.6	1387.7	1377.3	1286.2
5°	2056.8	2062.0	2048.9	2020.4	1983.8	1916.2	1840.6	1715.8	1577.8	1551.7	1359.0
7.5°	2267.7	2270.2	2254.7	2226.0	2197.3	2129.7	2054.2	1913.6	1744.4	1723.6	1452.7
10°	2447.3	2452.6	2431.7	2413.4	2382.2	2314.6	2236.4	2088.0	1913.6	1885.0	1549.0
12.5°	2614.0	2619.2	2606.2	2590.5	2580.1	2517.6	2431.7	2254.7	2067.2	2036.0	1663.7
15°	2725.8	2731.0	2733.7	2754.6	2767.6	2723.3	2637.3	2444.6	2233.8	2205.2	1799.0
17.5°	2694.6	2707.8	2746.7	2822.2	2903.0	2905.6	2835.2	2632.2	2397.8	2366.7	1937.0
20°	2603.5	2614.0	2660.8	2775.4	2934.1	3025.3	3020.1	2822.2	2551.5	2517.6	2064.7
22.5°	2679.0	2692.0	2692.0	2762.4	2918.6	3087.7	3155.4	3009.7	2705.1	2673.8	2192.1
25°	3001.9	3009.7	2955.1	2926.4	2983.6	3139.8	3267.4	3212.8	2892.5	2856.2	2330.2
27.5°	3452.2	3439.3	3371.6	3257.1	3194.6	3236.1	3366.4	3405.5	3108.7	3064.4	2473.4
30°	3900.1	3892.3	3814.2	3660.6	3520.0	3431.4	3475.7	3577.2	3343.0	3290.9	2611.4
32.5°	4319.2	4306.3	4220.2	4040.7	3881.8	3717.8	3631.8	3733.4	3593.0	3532.9	2765.0
35°	4704.6	4670.7	4584.8	4397.4	4233.4	4077.0	3866.2	3881.8	3863.6	3801.2	2934.1
37.5°	5017.0	4991.0	4897.2	4722.7	4548.4	4400.0	4178.6	4051.0	4155.2	4095.4	3129.4
40°	5293.0	5264.3	5167.9	4993.6	4832.2	4691.6	4517.0	4256.8	4483.4	4415.6	3348.2
42.5°	5501.2	5480.4	5402.2	5230.6	5074.3	4946.6	4860.8	4517.0	4824.3	4759.2	3587.7
45°	5613.1	5592.4	5550.6	5412.7	5269.5	5170.6	5178.4	4827.0	5181.1	5126.4	3871.4
47.5°	5475.2	5490.8	5527.4	5501.2	5412.7	5365.8	5462.2	5147.2	5579.4	5527.4	4178.6
50°	5105.4	5121.1	5266.9	5446.6	5477.9	5535.0	5717.4	5516.9	6001.1	5959.4	4558.8
52.5°	4196.9	4282.8	4686.4	5115.9	5410.1	5647.0	6001.1	6066.3	6711.9	6711.9	5230.6
55°	3171.0	3246.7	3707.5	4457.2	5147.2	5657.4	6209.4	6438.5	7224.8	7235.2	5582.0
57.5°	2569.7	2616.6	2843.0	3611.0	4595.2	5527.4	6456.7	6758.8	7651.8	7698.7	6035.0
60°	2085.4	2111.5	2259.9	2793.5	3832.3	5175.9	6633.8	7217.0	8261.1	8326.1	6613.0
62.5°	1676.6	1702.6	1801.6	2121.8	3007.0	4517.0	6602.5	7693.4	9073.3	9180.0	7370.6
65°	1338.3	1366.9	1432.0	1629.9	2228.7	3699.6	6282.2	7938.1	9914.2	10018.3	7873.0
67.5°	1044.0	1070.1	1114.3	1244.5	1569.9	2767.6	5524.7	7680.4	10291.7	10380.3	7899.1
70°	788.9	801.8	838.4	921.7	1122.2	1838.1	4324.4	6816.0	9953.3	10034.0	7378.4
72.5°	611.8	609.2	630.0	671.8	783.6	1265.4	2866.5	5542.9	8799.9	8883.2	6295.3
75°	499.8	497.3	510.2	523.4	567.5	848.8	1692.2	4173.4	7102.4	6943.5	4722.7
77.5°	421.8	419.1	432.2	434.8	453.0	585.8	963.3	2746.7	4738.4	4465.0	2660.8
80°	356.6	354.1	369.7	375.0	387.9	429.6	554.6	1486.7	2379.6	2254.7	1270.6
82.5°	268.1	278.6	307.2	320.2	335.8	317.6	343.6	656.1	1103.8	1054.4	552.0
85°	130.2	153.6	231.8	257.8	276.0	200.5	234.3	309.8	497.3	473.9	223.9
87.5°	44.2	39.0	138.0	164.0	179.7	91.1	130.2	171.8	205.7	187.4	70.2
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°	1234.1	1234.1	1234.1	1234.1	1234.1	1234.1	1234.1	1234.1	1234.1	1234.1	1234.1
2.5°	1247.0	1208.0	1150.8	1106.5	1077.8	1054.4	1044.0	1041.5	1036.3	1033.6	1033.6
5°	1273.1	1202.8	1114.3	1067.5	1054.4	1044.0	1049.2	1051.8	1051.8	1051.8	1051.8
7.5°	1312.2	1213.3	1106.5	1075.2	1072.7	1072.7	1088.2	1096.1	1101.3	1101.3	1101.3
10°	1364.3	1231.4	1119.5	1093.4	1101.3	1106.5	1124.7	1135.2	1140.4	1143.0	1145.6
12.5°	1434.6	1270.6	1145.6	1124.7	1135.2	1137.8	1150.8	1155.9	1161.1	1163.8	1163.8
15°	1528.2	1327.9	1187.2	1161.1	1163.8	1161.1	1161.1	1155.9	1153.3	1153.3	1158.5
17.5°	1624.7	1382.5	1223.6	1187.2	1176.8	1155.9	1140.4	1127.4	1119.5	1114.3	1117.0
20°	1721.0	1432.0	1244.5	1192.4	1163.8	1129.9	1101.3	1083.0	1072.7	1062.2	1067.5
22.5°	1817.2	1478.8	1252.2	1176.8	1135.2	1085.7	1054.4	1025.8	1002.4	986.8	989.4
25°	1924.0	1530.9	1252.2	1158.5	1096.1	1044.0	1004.9	958.1	924.3	911.2	916.5
27.5°	2030.8	1575.2	1239.3	1124.7	1051.8	999.8	942.5	887.9	867.0	859.1	861.7
30°	2137.4	1609.0	1210.6	1083.0	1004.9	947.7	872.2	835.8	809.7	788.9	791.4
32.5°	2244.2	1632.4	1171.6	1031.0	955.4	882.6	820.2	778.4	731.6	705.6	708.1
35°	2366.7	1650.6	1124.7	979.0	900.8	825.4	778.4	710.7	661.3	640.5	635.2
37.5°	2494.1	1663.7	1075.2	921.7	846.2	783.6	736.8	653.4	606.6	578.0	575.4
40°	2632.2	1668.8	1015.4	861.7	794.1	757.6	682.2	619.7	539.0	520.7	520.7
42.5°	2796.2	1666.3	955.4	801.8	736.8	697.8	643.0	614.4	544.2	525.9	515.4
45°	2983.6	1666.3	890.4	731.6	679.5	622.3	598.8	580.6	533.8	541.6	546.8
47.5°	3197.2	1661.1	812.2	674.3	632.6	583.2	570.2	531.1	512.9	518.1	523.4
50°	3491.4	1668.8	742.0	627.5	598.8	557.2	541.6	520.7	512.9	515.4	512.9
52.5°	3900.1	1642.8	674.3	598.8	572.8	518.1	518.1	515.4	518.1	515.4	515.4
55°	4123.9	1585.6	624.9	583.2	554.6	499.8	510.2	515.4	520.7	518.1	518.1
57.5°	4441.6	1546.5	585.8	572.8	544.2	494.6	505.0	515.4	518.1	515.4	515.4
60°	4816.5	1520.4	559.7	575.4	536.3	494.6	507.7	515.4	512.9	510.2	510.2
62.5°	5251.3	1510.1	541.6	583.2	528.6	497.3	507.7	515.4	505.0	502.5	502.5
65°	5415.3	1416.3	518.1	588.4	533.8	497.3	505.0	507.7	494.6	492.1	489.4
67.5°	5162.7	1254.9	484.2	578.0	549.4	497.3	497.3	494.6	479.1	476.5	471.3
70°	4597.9	1041.5	432.2	544.2	559.7	499.8	486.8	473.9	458.2	458.2	447.9
72.5°	3764.6	820.2	364.5	484.2	552.0	507.7	466.0	447.9	429.6	429.6	419.1
75°	2712.9	611.8	291.6	403.6	518.1	505.0	440.0	416.5	395.8	393.1	380.2
77.5°	1546.5	429.6	237.0	315.0	460.8	492.1	416.5	380.2	356.6	348.9	341.0
80°	794.1	289.0	192.6	247.4	382.7	455.6	398.4	338.4	312.4	299.4	286.4
82.5°	377.5	192.6	148.4	182.3	289.0	398.4	375.0	291.6	262.9	247.4	231.8
85°	169.2	114.5	99.0	117.1	205.7	309.8	330.7	239.5	205.7	257.8	190.0
87.5°	54.6	52.1	52.1	54.6	99.0	135.4	242.2	177.1	164.0	135.4	114.5
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)