

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: P231163

Luminaire Tested: **ARCH-M-AF48-140-D-U-T3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231163
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)
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-T3
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 905mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17381 lumens
Efficiency: N/A
Efficacy: 123.3 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B3 - U0 - G3

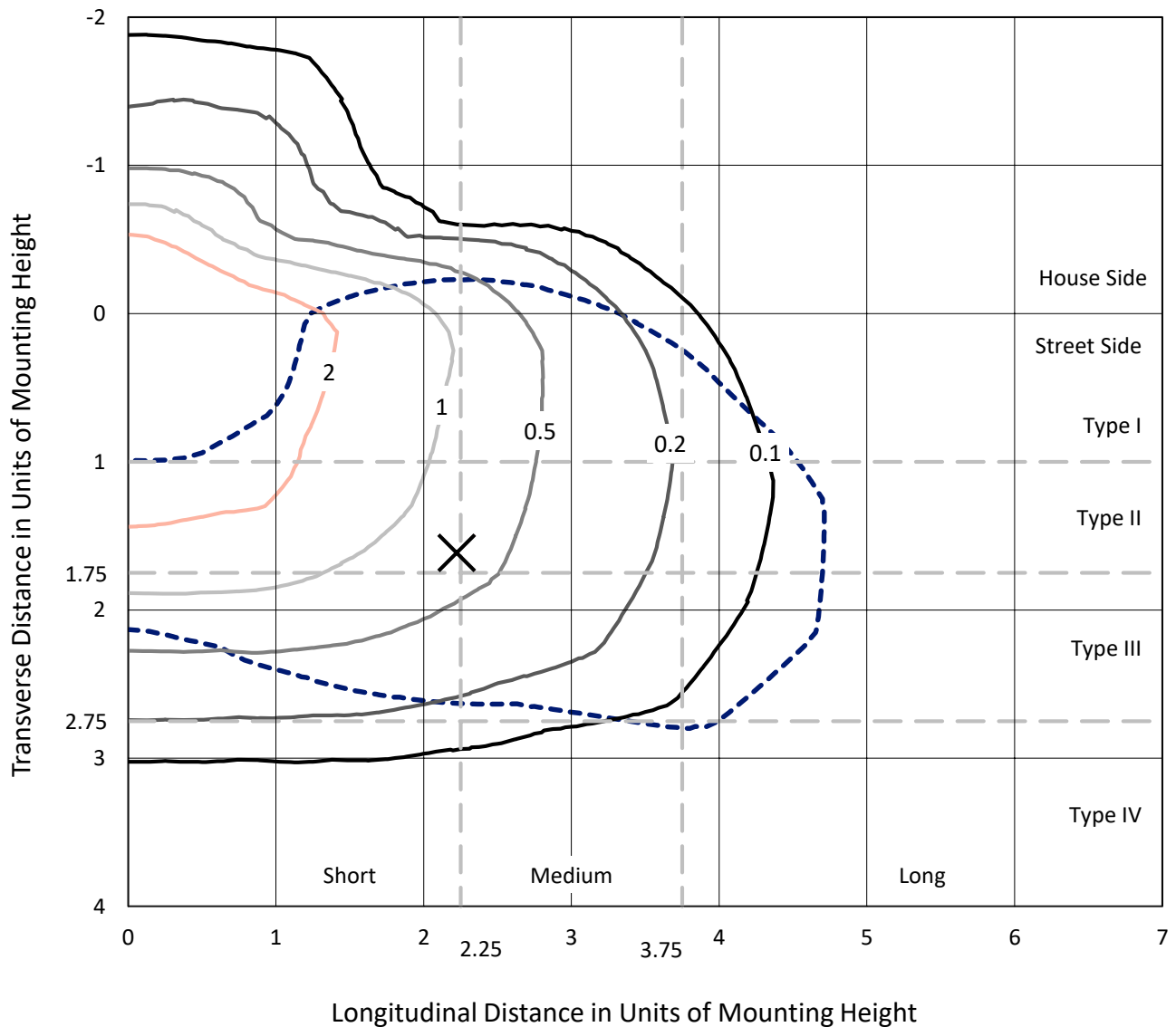
Input Watts (W): 141
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

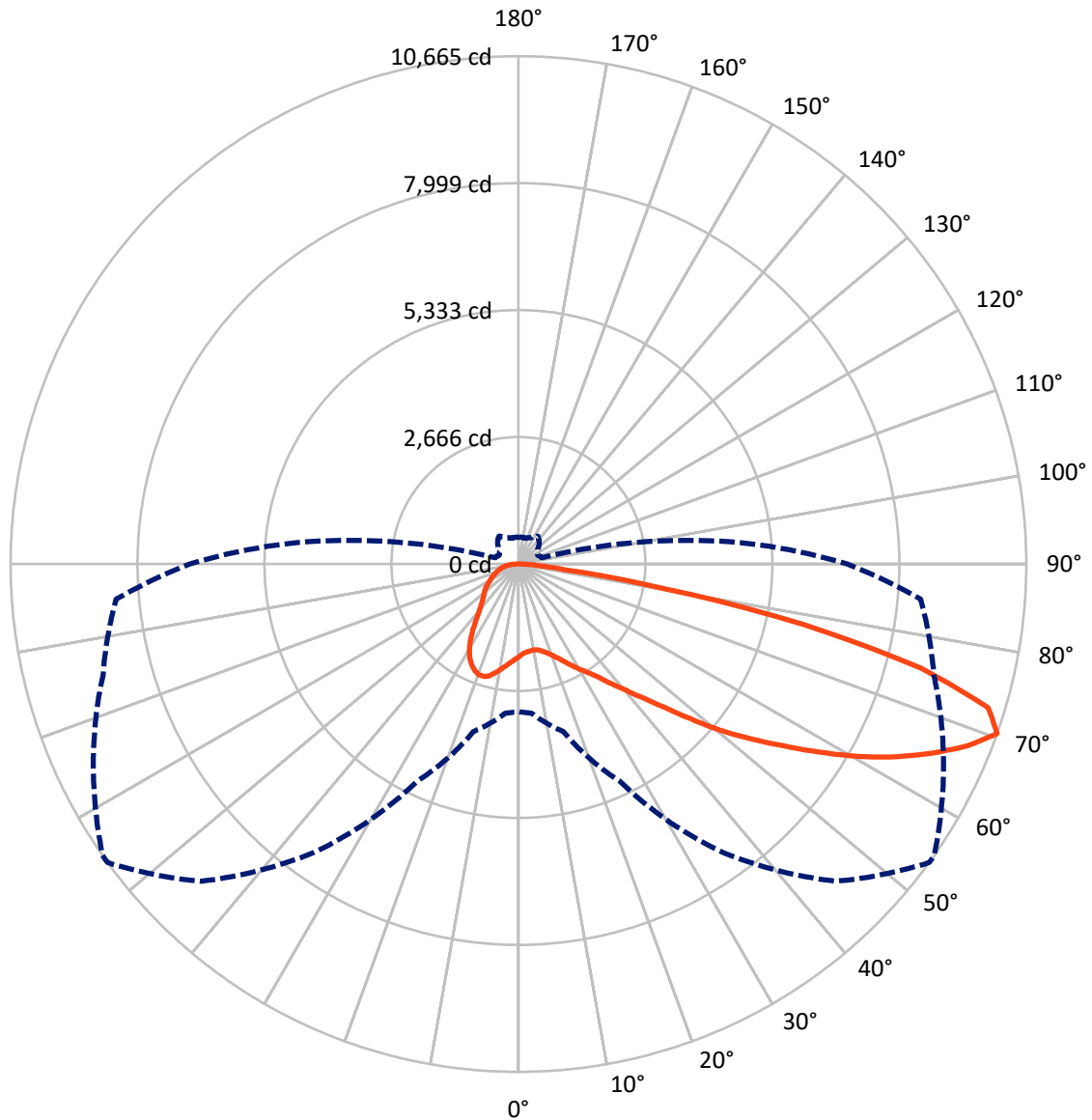


Based on 25 foot mounting height. Maximum calculated value = 3.6 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3942.0	0.0	3942.0
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	13439.0	0.0	13439.0
	% Fixture	77.3	0.0	77.3
Total	Lumens	17381.0	0.0	17381.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.8	1.1
10°-20°	609.8	3.5
20°-30°	1059.4	6.1
30°-40°	1548.2	8.9
40°-50°	2429.8	14.0
50°-60°	3736.5	21.5
60°-70°	4565.0	26.3
70°-80°	2830.3	16.3
80°-90°	411.2	2.4
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°	17381.0	100.0
0°-180°	17381.0	100.0

Coefficient of Utilization



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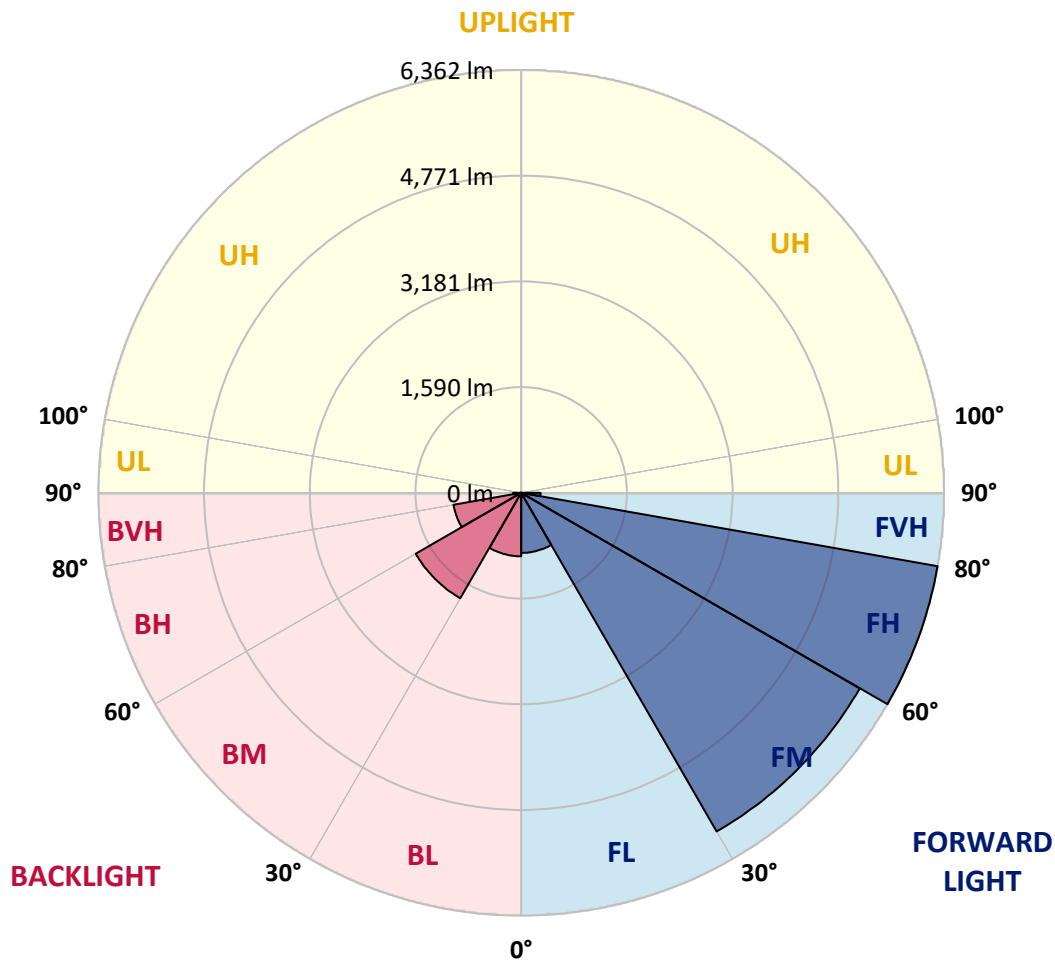
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	904.3	5.2			
FM	(30°-60°)	5882.7	33.8			
FH	(60°-80°)	6361.7	36.6			G3/7500
FVH	(80°-90°)	290.3	1.7			G3/500
BL	(0°-30°)	955.7	5.5	B2/1000		
BM	(30°-60°)	1831.8	10.5	B2/2500		
BH	(60°-80°)	1033.7	5.9	B3/2500		G3/2500
BVH	(80°-90°)	120.8	0.7			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	1944.5	1944.5	1944.5	1944.5	1944.5	1944.5	1944.5	1944.5	1944.5	1944.5	1944.5
2.5°	1868.2	1861.9	1861.9	1871.4	1874.6	1884.1	1884.1	1887.2	1896.9	1912.7	1931.8
5°	1810.9	1807.8	1810.9	1823.6	1830.0	1849.1	1855.4	1858.6	1877.7	1903.2	1931.8
7.5°	1753.6	1750.5	1756.8	1775.9	1795.0	1823.6	1839.6	1842.7	1871.4	1906.4	1944.5
10°	1734.5	1731.3	1740.9	1756.8	1775.9	1807.8	1833.2	1836.4	1877.7	1919.2	1973.3
12.5°	1760.0	1756.8	1766.3	1782.3	1801.3	1823.6	1852.3	1855.4	1909.5	1963.7	2020.9
15°	1823.6	1823.6	1826.8	1836.4	1855.4	1874.6	1900.0	1903.2	1960.5	2024.1	2081.4
17.5°	1922.3	1915.9	1915.9	1912.7	1925.5	1935.0	1966.8	1970.0	2030.6	2087.8	2145.1
20°	2043.2	2040.1	2027.3	2011.4	2008.3	2014.6	2046.4	2049.6	2110.0	2157.8	2211.9
22.5°	2189.6	2192.8	2164.2	2129.2	2113.2	2122.8	2151.5	2154.6	2199.1	2240.6	2288.3
25°	2383.8	2374.3	2332.8	2281.9	2250.1	2250.1	2278.7	2278.7	2320.2	2345.6	2377.4
27.5°	2568.3	2549.3	2511.0	2437.9	2387.0	2396.5	2425.1	2425.1	2463.4	2472.9	2488.8
30°	2768.9	2749.8	2702.0	2609.8	2543.0	2536.5	2571.6	2568.3	2619.3	2616.1	2603.4
32.5°	3013.9	3004.4	2924.8	2807.1	2718.0	2695.7	2727.5	2730.7	2762.5	2753.0	2711.6
35°	3357.6	3354.5	3281.3	3074.4	2956.6	2915.3	2934.3	2934.3	2956.6	2931.2	2861.2
37.5°	3790.5	3796.9	3733.3	3427.7	3262.2	3192.1	3195.4	3192.1	3198.6	3169.9	3096.7
40°	4223.4	4239.2	4236.0	3866.9	3656.8	3535.9	3491.3	3485.0	3500.8	3488.2	3418.1
42.5°	4793.0	4831.2	4742.1	4407.9	4172.4	3968.7	3847.8	3831.9	3866.9	3882.8	3815.9
45°	5385.0	5372.2	5232.2	4990.4	4777.1	4516.1	4287.0	4261.5	4287.0	4334.8	4264.7
47.5°	5693.7	5684.1	5649.1	5528.2	5496.4	5197.2	4850.3	4828.0	4780.2	4847.2	4764.4
50°	6202.9	6212.5	6069.3	6056.5	6190.2	6024.7	5486.8	5435.9	5349.9	5404.0	5334.1
52.5°	6572.2	6530.7	6441.6	6553.0	6970.0	6880.8	6085.1	6062.9	5983.3	5970.6	5938.7
55°	6721.7	6721.7	6737.6	6995.3	7590.5	7472.8	6734.4	6756.7	6648.5	6559.4	6600.8
57.5°	6766.2	6785.3	6922.2	7348.7	8319.4	7934.2	7450.5	7482.4	7326.4	7148.2	7278.6
60°	6546.7	6604.0	6931.7	7549.2	8730.0	8424.4	8204.8	8214.3	7988.3	7727.4	7956.5
62.5°	5983.3	6053.3	6639.0	7631.9	8663.1	8927.2	8917.7	8940.0	8631.2	8306.7	8593.1
65°	5292.6	5362.7	5986.5	7399.6	8612.1	9286.9	9570.1	9630.6	9232.7	8796.8	8990.9
67.5°	4277.5	4369.7	4961.7	6616.7	8364.0	9582.9	10181.2	10244.9	9697.5	9051.4	8955.8
70°	3099.8	3144.4	3640.9	5028.5	7351.8	9420.6	10665.0	10661.8	9850.2	9032.2	8478.5
72.5°	1492.7	1527.7	1957.3	3122.1	5257.7	7994.8	10314.8	10375.3	9640.2	8755.3	7386.8
75°	614.3	649.3	792.5	1317.6	2759.3	5283.1	8742.6	8885.9	8755.3	7857.9	5779.7
77.5°	381.9	394.7	464.6	681.1	1260.3	2466.5	6120.2	6314.3	6938.1	6295.2	3815.9
80°	286.4	295.9	346.9	477.4	795.7	910.2	3039.4	3284.5	4204.2	3612.2	1728.2
82.5°	238.7	241.9	276.9	346.9	541.0	521.9	973.8	1085.2	1960.5	1378.1	595.2
85°	222.8	229.1	248.3	248.3	343.7	327.9	404.2	423.3	569.7	471.1	206.8
87.5°	114.6	108.2	219.6	194.2	178.2	159.2	171.9	184.6	213.3	226.0	92.3
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°	1944.5	1944.5	1944.5	1944.5	1944.5	1944.5	1944.5	1944.5	1944.5	1944.5	1944.5
2.5°	1938.2	1947.8	1963.7	1979.6	1998.6	2020.9	2033.7	2049.6	2062.4	2055.9	2052.8
5°	1947.8	1963.7	1998.6	2030.6	2068.7	2113.2	2141.9	2173.8	2199.1	2205.6	2196.0
7.5°	1963.7	1992.3	2040.1	2097.4	2148.3	2205.6	2250.1	2294.7	2326.5	2332.8	2332.8
10°	2001.9	2033.7	2097.4	2173.8	2234.2	2294.7	2345.6	2380.6	2409.3	2421.9	2421.9
12.5°	2055.9	2094.2	2170.5	2262.9	2329.7	2387.0	2415.6	2431.6	2444.2	2457.0	2460.2
15°	2119.7	2161.0	2253.3	2352.0	2421.9	2450.6	2450.6	2447.4	2447.4	2453.8	2460.2
17.5°	2183.3	2227.8	2323.3	2428.4	2472.9	2457.0	2434.7	2425.1	2418.8	2415.6	2425.1
20°	2250.1	2294.7	2390.1	2488.8	2476.1	2409.3	2377.4	2355.1	2336.0	2326.5	2339.2
22.5°	2323.3	2364.7	2463.4	2530.2	2434.7	2332.8	2272.4	2237.4	2205.6	2186.5	2199.1
25°	2409.3	2450.6	2546.1	2543.0	2361.5	2218.3	2122.8	2065.5	2030.6	2011.4	2011.4
27.5°	2511.0	2546.1	2638.4	2511.0	2259.7	2065.5	1925.5	1871.4	1861.9	1845.9	1845.9
30°	2616.1	2644.7	2724.3	2437.9	2119.7	1865.0	1712.2	1686.7	1690.0	1674.1	1677.2
32.5°	2724.3	2753.0	2775.3	2329.7	1938.2	1639.1	1537.2	1518.1	1514.9	1502.2	1489.4
35°	2877.0	2918.5	2781.6	2183.3	1718.7	1451.3	1378.1	1359.0	1339.9	1295.4	1295.4
37.5°	3109.5	3154.0	2765.6	2001.9	1492.7	1304.9	1238.1	1212.6	1180.8	1136.2	1120.2
40°	3427.7	3427.7	2730.7	1798.1	1311.2	1187.1	1123.5	1091.6	1056.6	1012.1	1002.5
42.5°	3803.2	3714.1	2676.6	1591.3	1177.5	1107.5	1050.3	1015.3	973.8	923.0	916.6
45°	4242.4	4000.6	2600.2	1406.8	1078.9	1059.8	1024.8	964.3	894.4	840.3	830.6
47.5°	4668.8	4258.3	2527.0	1276.2	996.1	1040.8	1012.1	910.2	814.8	738.4	728.9
50°	5136.7	4487.5	2441.1	1168.0	932.5	1028.0	996.1	830.6	725.7	671.6	665.1
52.5°	5604.5	4719.8	2348.8	1053.4	878.4	1002.5	958.0	773.4	722.4	649.3	639.8
55°	6097.9	4990.4	2240.6	926.2	814.8	951.7	907.1	770.2	744.7	649.3	627.0
57.5°	6578.5	5289.5	2065.5	802.0	744.7	875.2	887.9	751.1	697.0	642.9	617.5
60°	7109.9	5607.8	1775.9	697.0	684.3	811.6	862.4	709.7	642.9	623.8	611.1
62.5°	7536.4	5894.2	1387.6	623.8	633.3	760.7	830.6	684.3	620.6	604.7	601.5
65°	7721.0	5900.6	996.1	560.2	582.5	712.9	798.8	662.0	601.5	595.2	592.0
67.5°	7526.9	5575.9	700.2	499.7	528.4	668.4	757.5	639.8	582.5	585.6	579.2
70°	6899.9	4891.6	512.4	442.4	477.4	620.6	712.9	611.1	560.2	566.5	557.0
72.5°	5773.2	3812.7	410.5	394.7	436.0	569.7	668.4	579.2	525.1	528.4	509.2
75°	4264.7	2527.0	343.7	353.2	388.3	521.9	611.1	537.9	486.9	474.2	461.5
77.5°	2536.5	1298.5	283.3	308.7	346.9	464.6	547.4	486.9	445.6	423.3	413.8
80°	1047.1	525.1	232.3	261.0	302.4	413.8	483.8	426.5	397.8	375.5	362.8
82.5°	417.0	257.8	184.6	213.3	254.6	359.7	423.3	375.5	346.9	331.0	295.9
85°	159.2	127.3	124.1	149.6	191.0	276.9	350.1	315.1	292.8	251.4	241.9
87.5°	63.6	57.3	57.3	73.2	108.2	175.0	251.4	219.6	229.1	181.4	184.6
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)