

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: P231294

Luminaire Tested: **ARCH-M-AF48-150-D-U-T4W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231294
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29615)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-150-D-U-T4W
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 970mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18147.1 lumens
Efficiency: N/A
Efficacy: 120.2 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B3 - U0 - G4

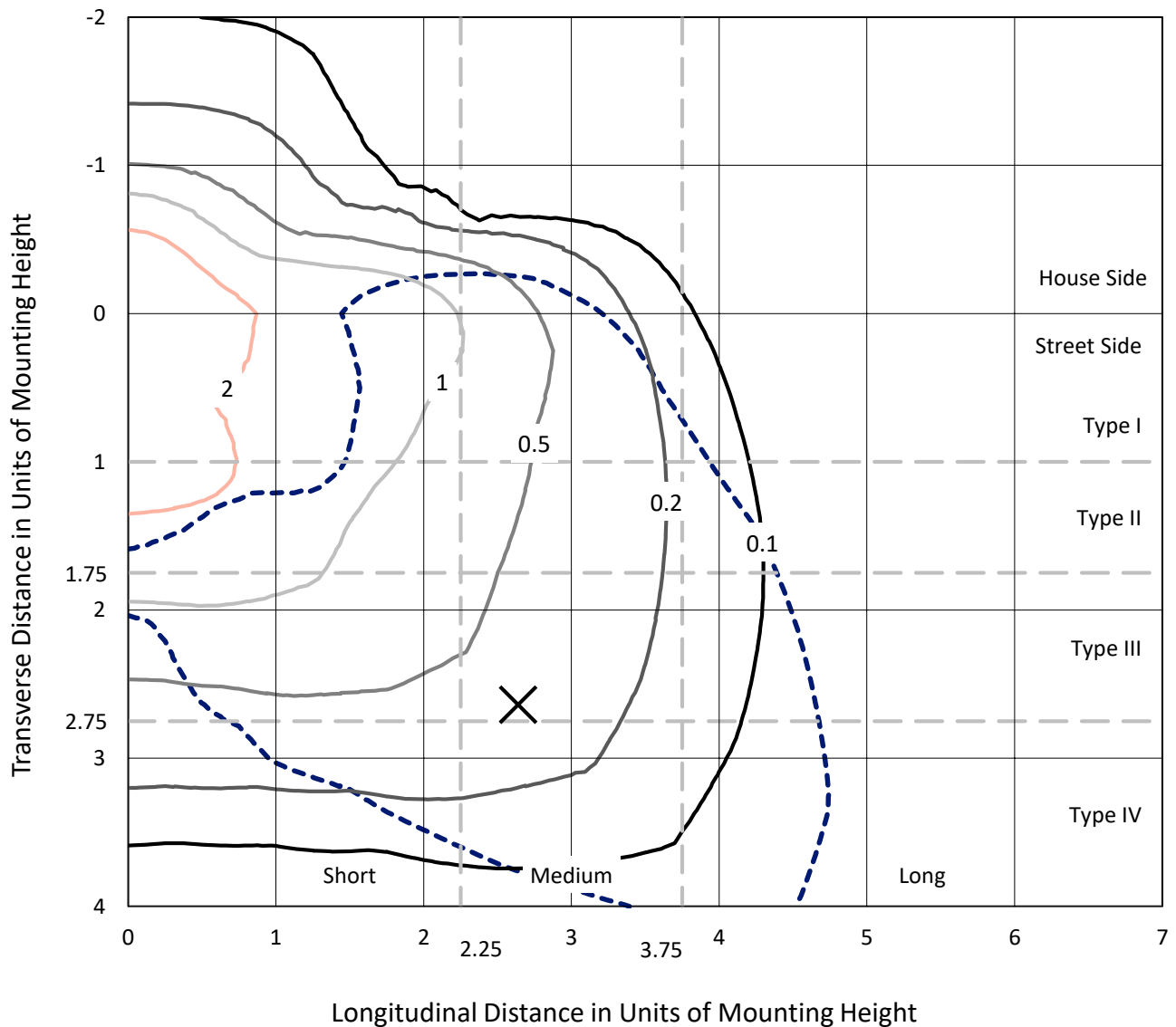
Input Watts (W): 151
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

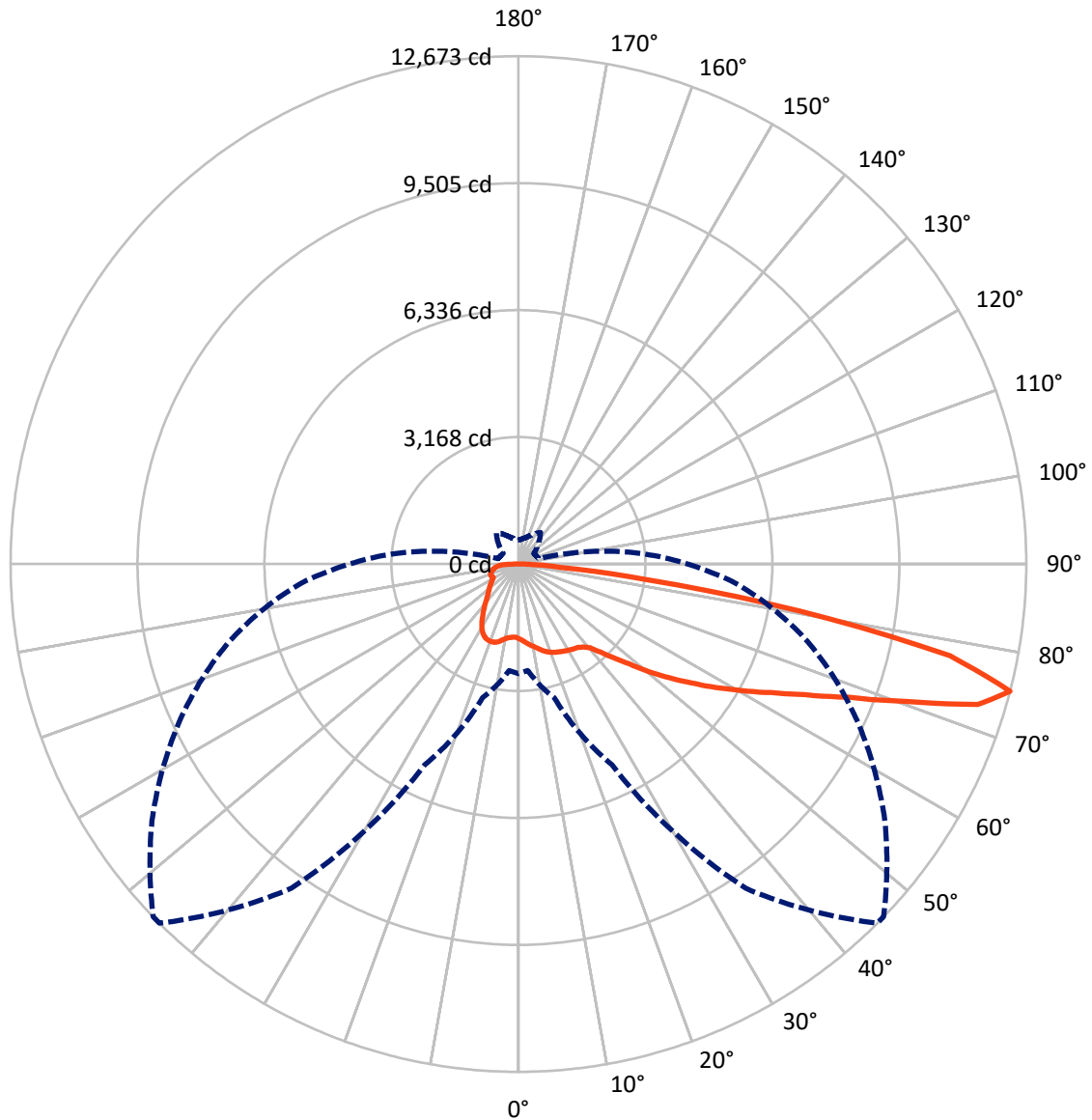
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.5 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4203.9	0.0	4203.9
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	13943.2	0.0	13943.2
	% Fixture	76.8	0.0	76.8
Total	Lumens	18147.1	0.0	18147.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.4	1.0
10°-20°	597.4	3.3
20°-30°	1025.2	5.6
30°-40°	1433.8	7.9
40°-50°	2103.3	11.6
50°-60°	3276.4	18.1
60°-70°	4714.5	26.0
70°-80°	4106.8	22.6
80°-90°	705.3	3.9
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°	18147.1	100.0
0°-180°	18147.1	100.0



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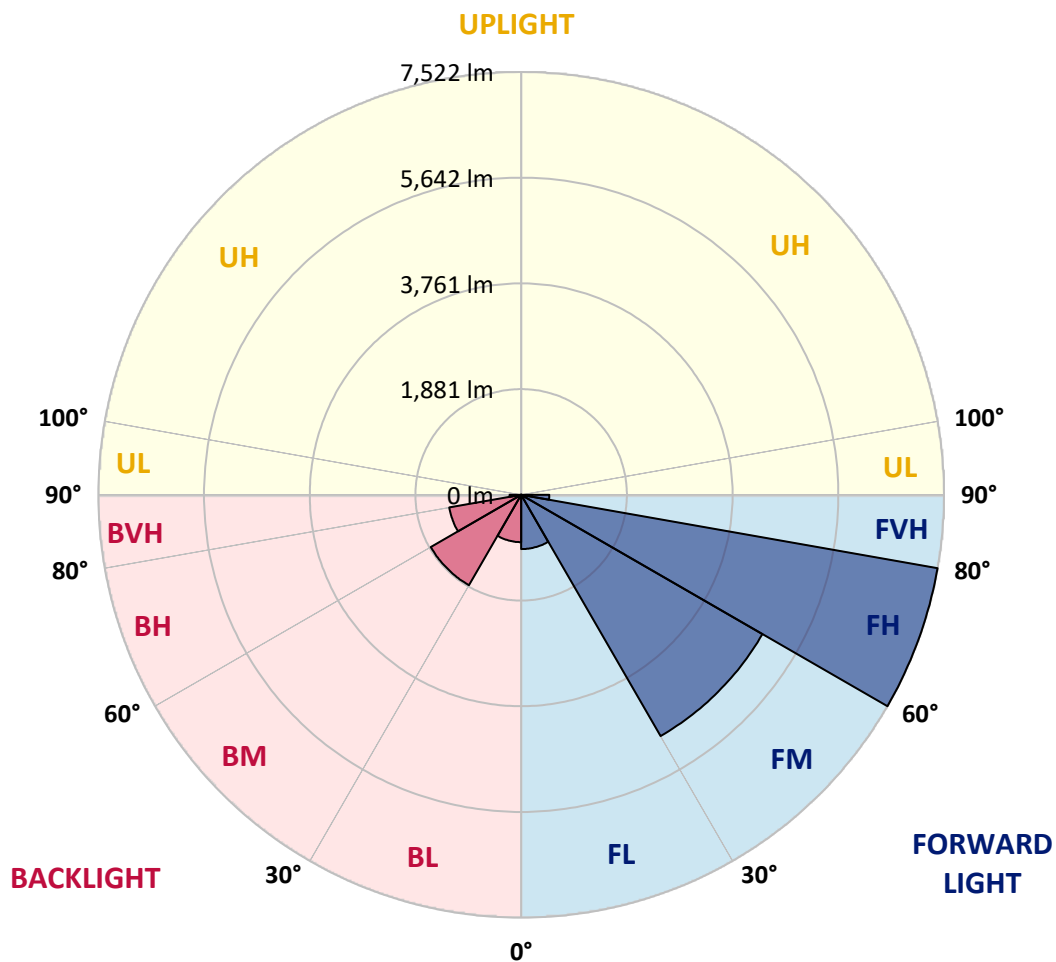
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	965.0	5.3			
FM	(30°-60°)	4955.6	27.3			
FH	(60°-80°)	7522.2	41.5			G4/12000
FVH	(80°-90°)	500.4	2.8			G4/750
BL	(0°-30°)	842.0	4.6	B2/1000		
BM	(30°-60°)	1857.9	10.2	B2/2500		
BH	(60°-80°)	1299.1	7.2	B3/2500		G3/2500
BVH	(80°-90°)	204.9	1.1			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 IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1860.3	1860.3	1860.3	1860.3	1860.3	1860.3	1860.3	1860.3	1860.3	1860.3	1860.3
2.5°	1952.1	1938.0	1938.0	1927.4	1927.4	1909.7	1902.7	1899.2	1881.5	1871.0	1860.3
5°	2065.1	2047.4	2043.9	2019.2	2008.6	1969.8	1966.2	1941.6	1909.7	1878.0	1853.3
7.5°	2167.4	2156.9	2139.2	2114.5	2082.7	2033.3	2029.7	1991.0	1938.0	1895.6	1860.3
10°	2241.6	2234.5	2209.8	2178.1	2142.8	2093.4	2089.8	2047.4	1983.9	1934.5	1885.1
12.5°	2329.9	2319.2	2287.5	2245.1	2206.3	2160.4	2156.9	2121.6	2050.9	1987.4	1923.9
15°	2414.6	2400.5	2361.6	2319.2	2276.9	2238.0	2238.0	2199.2	2125.1	2050.9	1976.9
17.5°	2456.9	2449.9	2411.0	2365.2	2329.9	2301.6	2298.1	2262.8	2188.6	2111.0	2029.7
20°	2471.0	2474.6	2439.2	2389.8	2365.2	2351.0	2347.5	2322.8	2241.6	2167.4	2089.8
22.5°	2467.5	2478.1	2449.9	2396.9	2389.8	2389.8	2389.8	2361.6	2298.1	2223.9	2146.3
25°	2481.7	2495.8	2474.6	2411.0	2411.0	2425.1	2425.1	2411.0	2354.5	2291.0	2213.4
27.5°	2531.1	2541.6	2524.0	2435.7	2439.2	2460.4	2456.9	2460.4	2425.1	2365.2	2287.5
30°	2591.0	2605.1	2584.0	2474.6	2471.0	2492.2	2492.2	2509.9	2485.2	2421.6	2358.1
32.5°	2753.5	2749.9	2682.9	2517.0	2506.3	2527.5	2527.5	2545.2	2531.1	2481.7	2421.6
35°	3237.0	3184.1	3035.8	2654.6	2548.7	2559.3	2559.3	2591.0	2598.1	2559.3	2506.3
37.5°	3731.3	3713.6	3600.7	3021.7	2704.1	2626.3	2622.8	2668.7	2700.5	2668.7	2633.4
40°	4229.0	4214.9	4190.2	3512.4	3028.8	2746.4	2735.8	2774.7	2831.1	2809.9	2788.8
42.5°	4691.5	4684.4	4709.1	3996.1	3441.8	3004.1	2972.3	2926.5	3007.6	3000.5	3000.5
45°	5055.0	5072.7	5086.8	4447.9	3890.1	3335.9	3297.1	3141.8	3251.1	3279.4	3300.7
47.5°	5259.8	5273.9	5323.3	4889.1	4338.4	3720.7	3692.4	3438.2	3583.0	3667.7	3727.7
50°	5552.8	5513.9	5556.3	5319.8	4878.6	4221.9	4144.3	3837.2	4020.7	4169.0	4310.2
52.5°	5835.2	5771.7	5807.0	5817.5	5492.7	4712.6	4631.4	4306.6	4536.2	4769.1	5019.7
55°	6089.3	6085.8	6121.1	6301.2	6085.8	5238.6	5146.8	4825.6	5157.4	5408.0	5831.6
57.5°	6294.1	6329.4	6484.7	6862.5	6770.6	5810.5	5708.1	5429.2	5821.1	6071.7	6774.2
60°	6534.1	6590.7	6848.3	7339.0	7395.4	6410.6	6304.7	6103.4	6502.4	6756.5	7865.0
62.5°	6615.3	6696.5	7226.0	7840.3	8048.6	7067.2	6971.8	6837.7	7219.0	7448.4	8952.3
65°	6075.2	6230.6	7434.3	8098.0	8751.0	7857.9	7776.7	7660.3	7932.1	8083.9	9690.0
67.5°	5927.0	5997.6	7028.4	8468.6	9411.1	8874.6	8793.4	8592.2	8599.2	8535.7	9930.1
70°	5718.7	5796.3	6611.8	8747.5	10357.2	10265.4	10166.6	9573.5	9209.9	8825.1	9457.0
72.5°	4871.5	4846.7	5697.5	7995.6	10812.6	11988.1	11871.5	10629.0	9661.8	8574.5	7981.5
75°	2735.8	2665.2	3455.9	5531.6	9873.5	12672.9	12669.3	11162.0	9344.0	7469.6	5432.8
77.5°	794.2	773.0	1140.2	2319.2	6647.1	11010.2	11144.4	10067.7	7797.9	5365.7	2982.9
80°	374.2	381.3	490.7	766.0	2838.2	7106.0	7490.8	6629.4	4659.6	2474.6	1231.9
82.5°	236.5	240.1	335.3	494.2	1200.2	3226.5	3544.2	2982.9	1846.2	1069.6	543.6
85°	148.2	148.2	222.4	324.8	716.6	1030.8	1119.0	1016.6	790.7	582.5	296.6
87.5°	81.2	81.2	134.1	187.1	391.8	331.8	342.4	405.9	494.2	356.5	148.2
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°	1860.3	1860.3	1860.3	1860.3	1860.3	1860.3	1860.3	1860.3	1860.3	1860.3	1860.3
2.5°	1856.9	1849.7	1839.2	1835.6	1832.1	1828.5	1832.1	1839.2	1832.1	1832.1	1835.6
5°	1846.2	1839.2	1825.0	1825.0	1828.5	1832.1	1849.7	1860.3	1863.9	1863.9	1863.9
7.5°	1846.2	1835.6	1825.0	1828.5	1835.6	1849.7	1878.0	1895.6	1909.7	1913.3	1913.3
10°	1863.9	1849.7	1842.6	1849.7	1871.0	1881.5	1909.7	1938.0	1955.7	1962.7	1962.7
12.5°	1895.6	1881.5	1881.5	1895.6	1923.9	1938.0	1962.7	1983.9	2005.1	2015.6	2015.6
15°	1948.6	1930.9	1934.5	1959.2	1991.0	2005.1	2022.7	2029.7	2047.4	2061.6	2061.6
17.5°	1998.0	1980.3	1987.4	2015.6	2036.8	2043.9	2054.5	2050.9	2058.0	2068.6	2072.2
20°	2054.5	2036.8	2040.4	2058.0	2061.6	2054.5	2054.5	2043.9	2040.4	2058.0	2065.1
22.5°	2111.0	2093.4	2089.8	2079.2	2061.6	2043.9	2033.3	2022.7	2015.6	2033.3	2040.4
25°	2178.1	2153.3	2135.7	2089.8	2043.9	2012.1	1998.0	1991.0	1987.4	2005.1	2012.1
27.5°	2252.1	2227.5	2174.5	2075.7	2001.5	1948.6	1938.0	1938.0	1945.0	1955.7	1962.7
30°	2322.8	2298.1	2202.7	2043.9	1927.4	1849.7	1839.2	1849.7	1867.4	1878.0	1888.6
32.5°	2393.4	2368.6	2220.4	1994.4	1818.0	1719.2	1712.1	1729.7	1757.9	1765.0	1772.1
35°	2488.7	2464.0	2241.6	1923.9	1680.3	1574.4	1567.4	1577.9	1602.7	1613.2	1623.8
37.5°	2622.8	2608.7	2273.4	1846.2	1553.2	1436.7	1415.6	1408.5	1422.6	1419.0	1433.2
40°	2799.3	2809.9	2329.9	1743.8	1429.7	1309.7	1263.8	1242.6	1228.5	1200.2	1214.3
42.5°	3057.0	3064.0	2393.4	1627.3	1323.8	1189.6	1129.6	1090.8	1062.5	1016.6	1023.7
45°	3434.8	3374.7	2467.5	1503.8	1228.5	1094.4	1023.7	977.8	939.0	900.2	903.7
47.5°	3936.0	3752.5	2548.7	1401.4	1133.1	1016.6	953.1	900.2	854.3	822.5	826.0
50°	4553.8	4221.9	2629.9	1306.1	1037.9	956.7	900.2	843.7	797.8	766.0	762.5
52.5°	5369.3	4786.8	2682.9	1200.2	942.5	903.7	854.3	801.3	744.8	706.0	702.5
55°	6216.5	5443.3	2728.7	1073.2	850.8	843.7	819.0	758.9	691.9	642.5	635.5
57.5°	7148.4	6145.8	2764.0	949.6	780.1	794.2	787.2	716.6	642.5	596.6	593.0
60°	7995.6	6873.0	2651.1	840.1	716.6	744.8	751.9	691.9	653.1	663.7	667.2
62.5°	8849.9	7434.3	2220.4	758.9	674.2	713.1	773.0	769.6	751.9	769.6	773.0
65°	9156.9	7550.8	1574.4	691.9	631.9	727.2	840.1	833.1	751.9	720.2	713.1
67.5°	8984.0	7204.8	1059.1	638.9	600.1	744.8	910.7	833.1	723.6	681.3	667.2
70°	8161.5	6354.1	776.6	585.9	571.8	741.3	949.6	829.6	709.5	663.7	646.0
72.5°	6509.4	4903.2	624.8	536.5	529.5	723.6	970.8	822.5	695.4	646.0	624.8
75°	4214.9	3049.9	526.0	487.1	466.0	695.4	960.1	801.3	677.8	614.2	600.1
77.5°	1955.7	1313.2	448.4	430.7	405.9	653.1	928.4	758.9	638.9	578.9	561.3
80°	910.7	621.3	377.7	374.2	363.6	617.8	886.1	709.5	593.0	543.6	515.4
82.5°	487.1	374.2	307.1	307.1	317.7	575.4	833.1	649.6	533.1	508.3	434.2
85°	257.7	215.3	222.4	240.1	271.8	508.3	762.5	585.9	466.0	388.3	377.7
87.5°	130.6	137.7	137.7	162.3	208.3	413.1	628.4	483.7	395.4	317.7	310.7
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)