

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: P265932

Luminaire Tested: **ARCH-AF24-40-D-U-T2R-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265932
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-AF24-40-D-U-T2R-7027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 500mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4486.4 lumens
Efficiency: N/A
Efficacy: 112.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G1

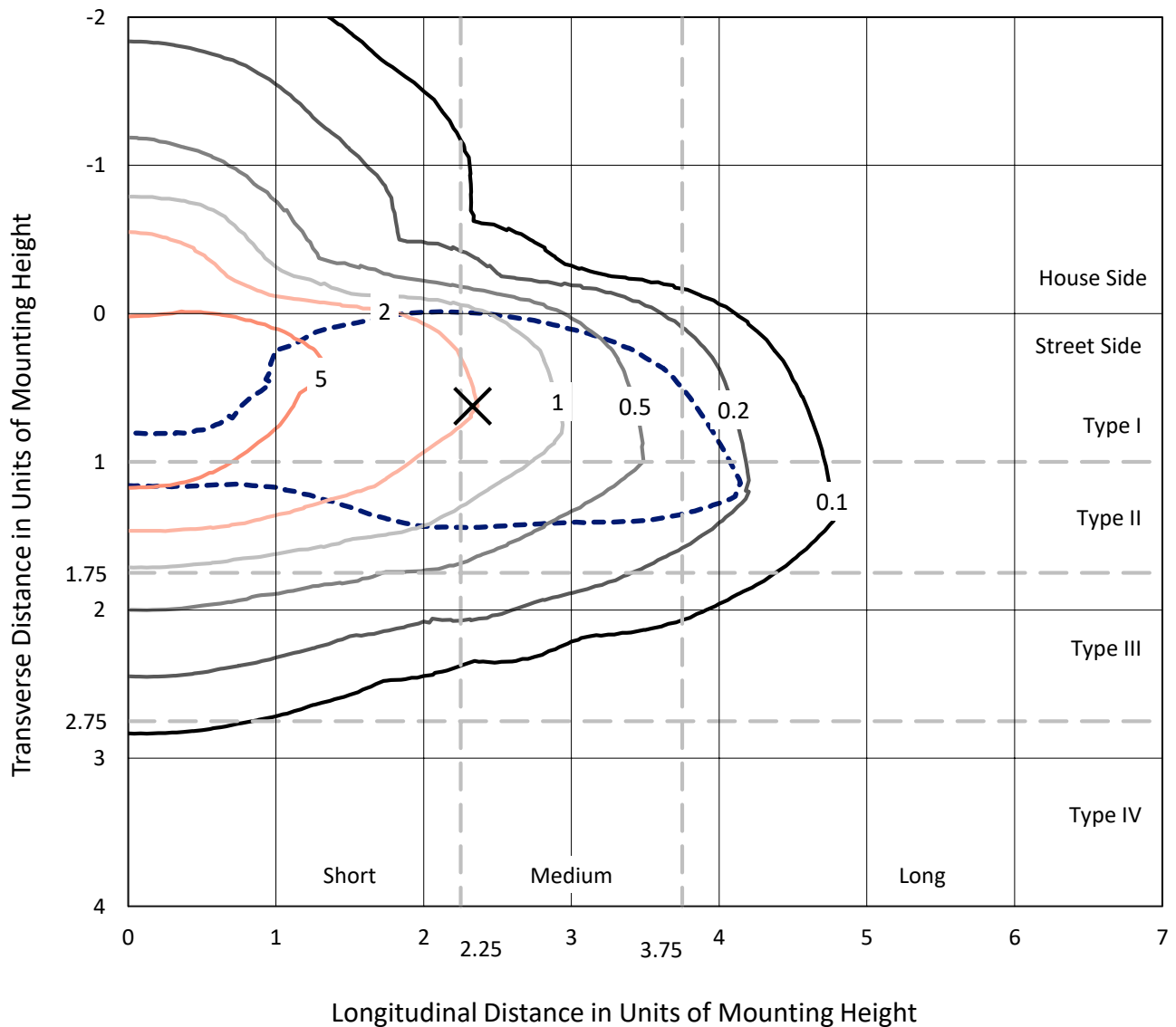
Input Watts (W): 40
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

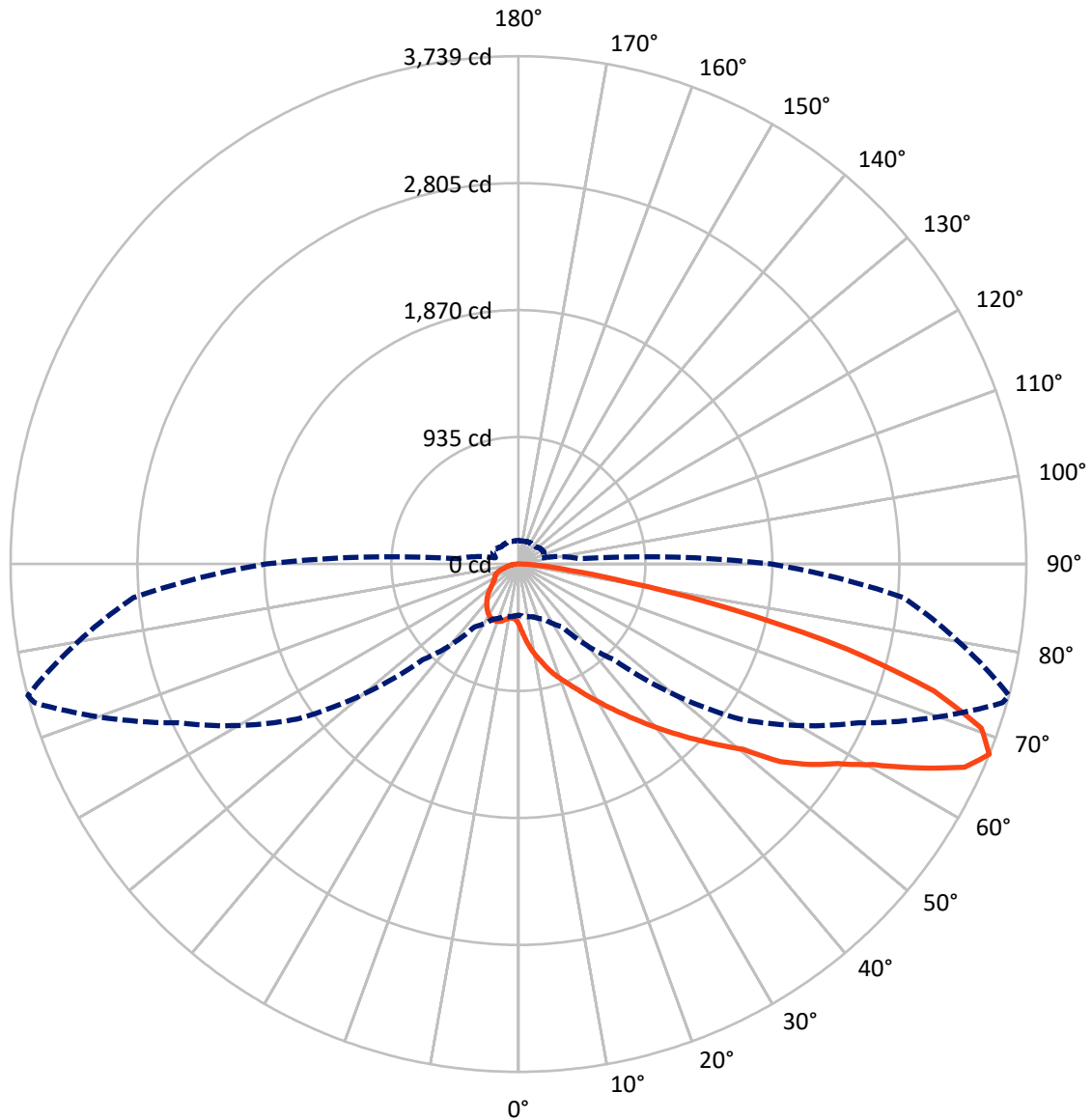
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.3 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	766.1	0.0	766.1
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	3720.3	0.0	3720.3
	% Fixture	82.9	0.0	82.9
Total	Lumens	4486.4	0.0	4486.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.2	1.2
10°-20°	188.7	4.2
20°-30°	344.2	7.7
30°-40°	565.0	12.6
40°-50°	817.1	18.2
50°-60°	963.0	21.5
60°-70°	935.8	20.9
70°-80°	520.2	11.6
80°-90°	100.0	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°	4486.4	100.0
0°-180°	4486.4	100.0



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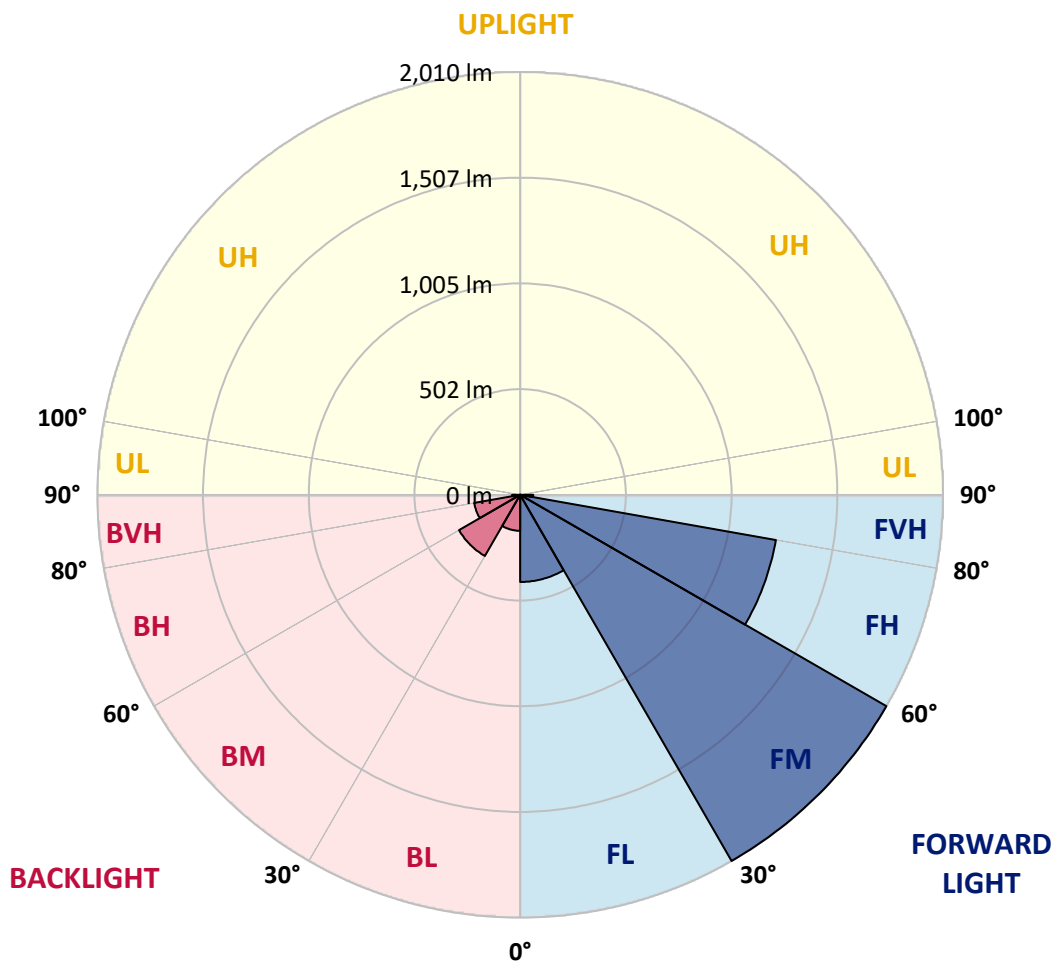
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	414.2	9.2			
FM	(30°-60°)	2009.7	44.8			
FH	(60°-80°)	1234.1	27.5			G1/1800
FVH	(80°-90°)	62.3	1.4			G1/100
BL	(0°-30°)	171.0	3.8	B1/500		
BM	(30°-60°)	335.5	7.5	B1/1000		
BH	(60°-80°)	221.8	4.9	B1/500		G1/500
BVH	(80°-90°)	37.8	0.8			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	444.5	444.5	444.5	444.5	444.5	444.5	444.5	444.5	444.5	444.5	444.5
2.5°	630.3	632.1	628.4	619.9	607.8	585.2	565.6	530.9	499.8	496.1	463.3
5°	740.9	742.8	738.0	727.7	714.6	690.3	663.0	618.0	568.4	558.9	489.5
7.5°	816.9	817.8	812.2	801.8	791.5	767.2	739.9	689.3	628.4	620.9	523.4
10°	881.5	883.5	875.9	869.4	858.2	833.7	805.6	752.2	689.3	678.9	558.0
12.5°	941.7	943.5	938.8	933.2	929.4	906.8	875.9	812.2	744.7	733.5	599.3
15°	981.9	983.9	984.8	992.3	996.9	980.9	950.0	880.7	804.7	794.5	648.0
17.5°	970.7	975.4	989.5	1016.6	1045.7	1046.6	1021.4	948.3	863.8	852.5	697.8
20°	937.9	941.7	958.5	999.8	1056.9	1089.9	1087.9	1016.6	919.1	906.8	743.7
22.5°	965.0	969.8	969.8	995.1	1051.3	1112.3	1136.7	1084.2	974.4	963.3	789.7
25°	1081.4	1084.2	1064.5	1054.3	1074.8	1131.1	1177.0	1157.3	1041.9	1028.9	839.3
27.5°	1243.7	1238.9	1214.6	1173.2	1150.8	1165.8	1212.7	1226.7	1119.8	1103.8	890.9
30°	1404.9	1402.2	1374.0	1318.6	1268.0	1236.1	1252.1	1288.7	1204.3	1185.5	940.6
32.5°	1556.0	1551.3	1520.3	1455.6	1398.4	1339.4	1308.3	1344.9	1294.3	1272.7	996.0
35°	1694.7	1682.5	1651.7	1584.2	1525.1	1468.6	1392.7	1398.4	1391.8	1369.2	1056.9
37.5°	1807.3	1797.9	1764.1	1701.3	1638.5	1585.0	1505.3	1459.3	1496.8	1475.2	1127.4
40°	1906.7	1896.4	1861.6	1798.9	1740.6	1690.0	1627.2	1533.4	1615.1	1590.7	1206.2
42.5°	1981.8	1974.3	1946.1	1884.1	1828.0	1782.0	1751.1	1627.2	1738.0	1714.4	1292.4
45°	2022.1	2014.5	1999.5	1949.9	1898.3	1862.6	1865.4	1738.8	1866.4	1846.6	1394.6
47.5°	1972.4	1978.0	1991.2	1981.8	1949.9	1933.0	1967.6	1854.2	2009.9	1991.2	1505.3
50°	1839.2	1844.8	1897.3	1962.1	1973.2	1993.9	2059.5	1987.4	2161.9	2146.8	1642.2
52.5°	1511.8	1542.7	1688.2	1843.0	1949.0	2034.2	2161.9	2185.2	2417.9	2417.9	1884.1
55°	1142.4	1169.6	1335.5	1605.6	1854.2	2038.1	2236.8	2319.3	2602.6	2606.3	2010.8
57.5°	925.7	942.6	1024.2	1300.8	1655.3	1991.2	2325.9	2434.8	2756.4	2773.2	2174.0
60°	751.3	760.7	814.0	1006.3	1380.5	1864.5	2389.8	2599.8	2975.8	2999.4	2382.2
62.5°	604.0	613.4	649.0	764.4	1083.3	1627.2	2378.4	2771.5	3268.6	3306.9	2655.1
65°	482.1	492.5	515.8	587.1	802.8	1332.7	2263.1	2859.6	3571.4	3608.9	2836.2
67.5°	376.1	385.5	401.5	448.3	565.6	996.9	1990.1	2766.7	3707.5	3739.4	2845.6
70°	284.1	288.9	302.0	332.1	404.2	662.1	1557.8	2455.3	3585.6	3614.6	2657.9
72.5°	220.4	219.5	226.9	242.0	282.2	455.8	1032.6	1996.8	3169.9	3200.0	2267.9
75°	180.1	179.1	183.9	188.6	204.5	305.8	609.6	1503.5	2558.6	2501.3	1701.3
77.5°	152.0	150.9	155.6	156.7	163.2	211.0	347.0	989.5	1706.9	1608.4	958.5
80°	128.5	127.6	133.2	135.0	139.7	154.8	199.8	535.5	857.3	812.2	457.6
82.5°	96.6	100.3	110.8	115.3	121.0	114.4	123.7	236.3	397.7	379.9	198.9
85°	46.9	55.3	83.5	92.9	99.4	72.3	84.4	111.6	179.1	170.7	80.7
87.5°	15.9	14.1	49.6	59.1	64.7	32.8	46.9	62.0	74.1	67.6	25.3
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°	444.5	444.5	444.5	444.5	444.5	444.5	444.5	444.5	444.5	444.5	444.5
2.5°	449.2	435.1	414.6	398.6	388.2	379.9	376.1	375.1	373.2	372.3	372.3
5°	458.7	433.3	401.5	384.6	379.9	376.1	377.9	378.9	378.9	378.9	378.9
7.5°	472.7	437.0	398.6	387.3	386.5	386.5	392.0	394.9	396.7	396.7	396.7
10°	491.5	443.7	403.2	393.8	396.7	398.6	405.1	408.9	410.7	411.8	412.7
12.5°	516.7	457.6	412.7	405.1	408.9	409.8	414.6	416.5	418.3	419.1	419.1
15°	550.5	478.3	427.7	418.3	419.1	418.3	418.3	416.5	415.5	415.5	417.4
17.5°	585.2	498.0	440.8	427.7	423.9	416.5	410.7	406.2	403.2	401.5	402.4
20°	619.9	515.8	448.3	429.6	419.1	407.0	396.7	390.1	386.5	382.7	384.6
22.5°	654.7	532.8	451.0	423.9	408.9	391.1	379.9	369.6	361.1	355.5	356.4
25°	693.1	551.5	451.0	417.4	394.9	376.1	362.0	345.2	332.9	328.3	330.1
27.5°	731.5	567.4	446.5	405.1	378.9	360.1	339.5	319.8	312.3	309.5	310.5
30°	769.9	579.5	436.0	390.1	362.0	341.4	314.1	301.0	291.7	284.1	285.1
32.5°	808.5	588.0	422.1	371.4	344.2	317.9	295.5	280.5	263.6	254.2	255.1
35°	852.5	594.6	405.1	352.7	324.5	297.2	280.5	256.0	238.2	230.8	228.9
37.5°	898.5	599.3	387.3	332.1	304.9	282.2	265.4	235.4	218.5	208.1	207.2
40°	948.3	601.1	365.8	310.5	286.0	272.9	245.7	223.1	194.2	187.6	187.6
42.5°	1007.3	600.2	344.2	288.9	265.4	251.3	231.7	221.3	196.0	189.5	185.7
45°	1074.8	600.2	320.8	263.6	244.8	224.1	215.8	209.1	192.2	195.1	197.0
47.5°	1151.6	598.5	292.6	242.9	227.9	210.1	205.4	191.2	184.7	186.7	188.6
50°	1257.6	601.1	267.2	226.1	215.8	200.7	195.1	187.6	184.7	185.7	184.7
52.5°	1404.9	591.9	242.9	215.8	206.3	186.7	186.7	185.7	186.7	185.7	185.7
55°	1485.5	571.1	225.0	210.1	199.8	180.1	183.9	185.7	187.6	186.7	186.7
57.5°	1600.1	557.0	211.0	206.3	196.0	178.3	181.9	185.7	186.7	185.7	185.7
60°	1735.0	547.7	201.6	207.2	193.1	178.3	182.8	185.7	184.7	183.9	183.9
62.5°	1891.7	544.0	195.1	210.1	190.4	179.1	182.8	185.7	181.9	181.0	181.0
65°	1950.8	510.1	186.7	212.0	192.2	179.1	181.9	182.8	178.3	177.2	176.2
67.5°	1859.9	452.0	174.5	208.1	197.8	179.1	179.1	178.3	172.6	171.7	169.8
70°	1656.2	375.1	155.6	196.0	201.6	180.1	175.3	170.7	165.1	165.1	161.3
72.5°	1356.3	295.5	131.3	174.5	198.9	182.8	167.9	161.3	154.8	154.8	150.9
75°	977.3	220.4	105.0	145.3	186.7	181.9	158.6	150.0	142.6	141.7	136.9
77.5°	557.0	154.8	85.3	113.5	165.9	177.2	150.0	136.9	128.5	125.7	122.9
80°	286.0	104.2	69.3	89.1	137.9	164.1	143.5	121.9	112.6	107.8	103.1
82.5°	136.1	69.3	53.4	65.7	104.2	143.5	135.0	105.0	94.7	89.1	83.5
85°	60.9	41.2	35.7	42.2	74.1	111.6	119.1	86.2	74.1	92.9	68.5
87.5°	19.8	18.8	18.8	19.8	35.7	48.8	87.2	63.8	59.1	48.8	41.2
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)