

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: P214865

Luminaire Tested: **ARCH-AF16-50-D-U-T4W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214865
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-AF16-50-D-U-T4W
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 980mA LIGHT ENGINE WITH 16 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6098.8 lumens
Efficiency: N/A
Efficacy: 115.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

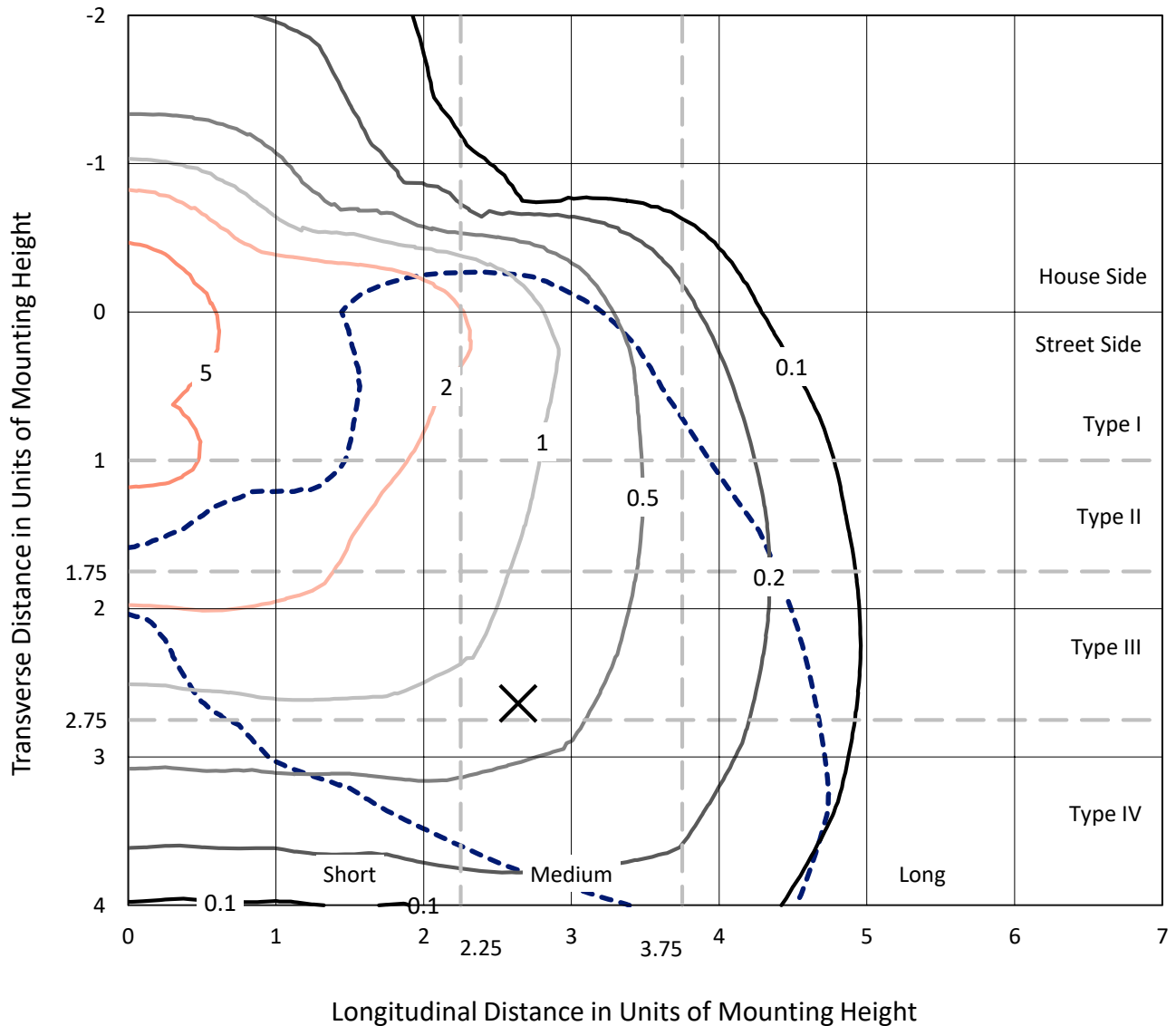
Input Watts (W): 53
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

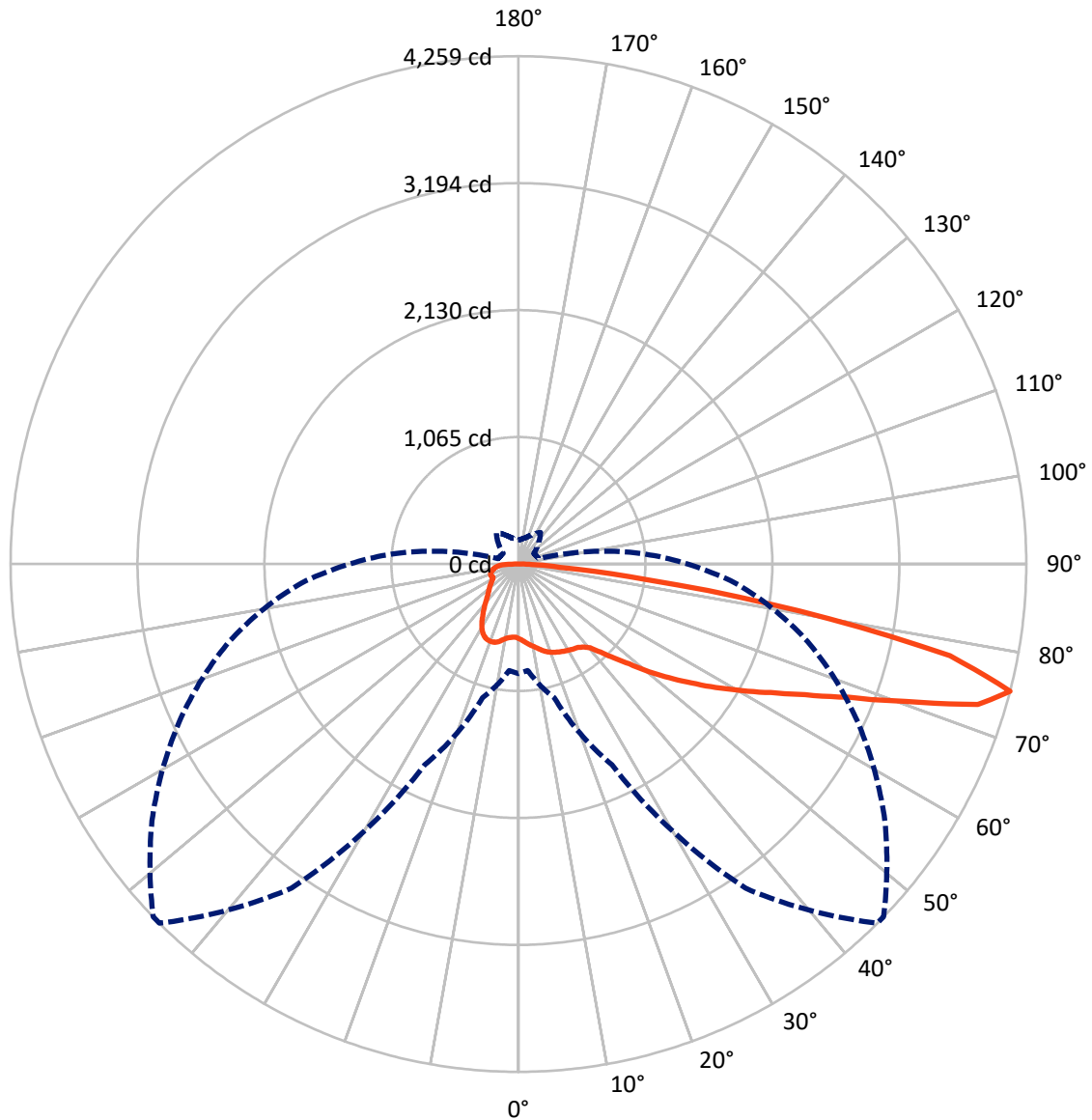


Based on 10 foot mounting height. Maximum calculated value = 7.3 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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

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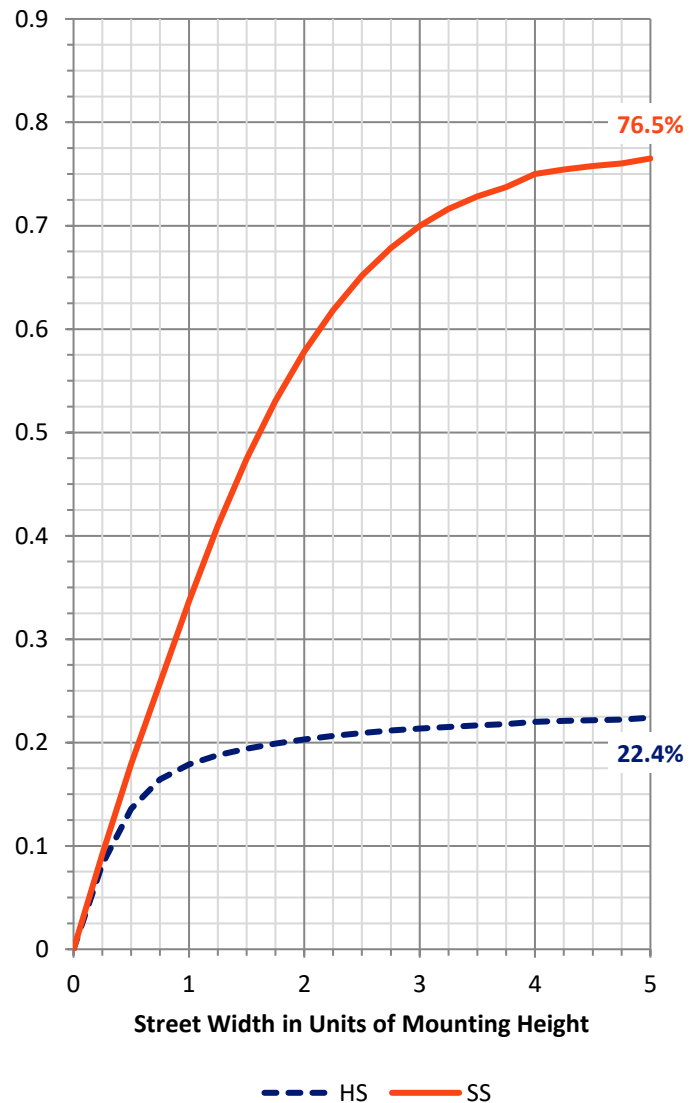
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1412.8	0.0	1412.8
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	4686.0	0.0	4686.0
	% Fixture	76.8	0.0	76.8
Total	Lumens	6098.8	0.0	6098.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.0	1.0
10°-20°	200.8	3.3
20°-30°	344.5	5.6
30°-40°	481.9	7.9
40°-50°	706.9	11.6
50°-60°	1101.1	18.1
60°-70°	1584.4	26.0
70°-80°	1380.2	22.6
80°-90°	237.0	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°	6098.8	100.0
0°-180°	6098.8	100.0

Coefficient of Utilization



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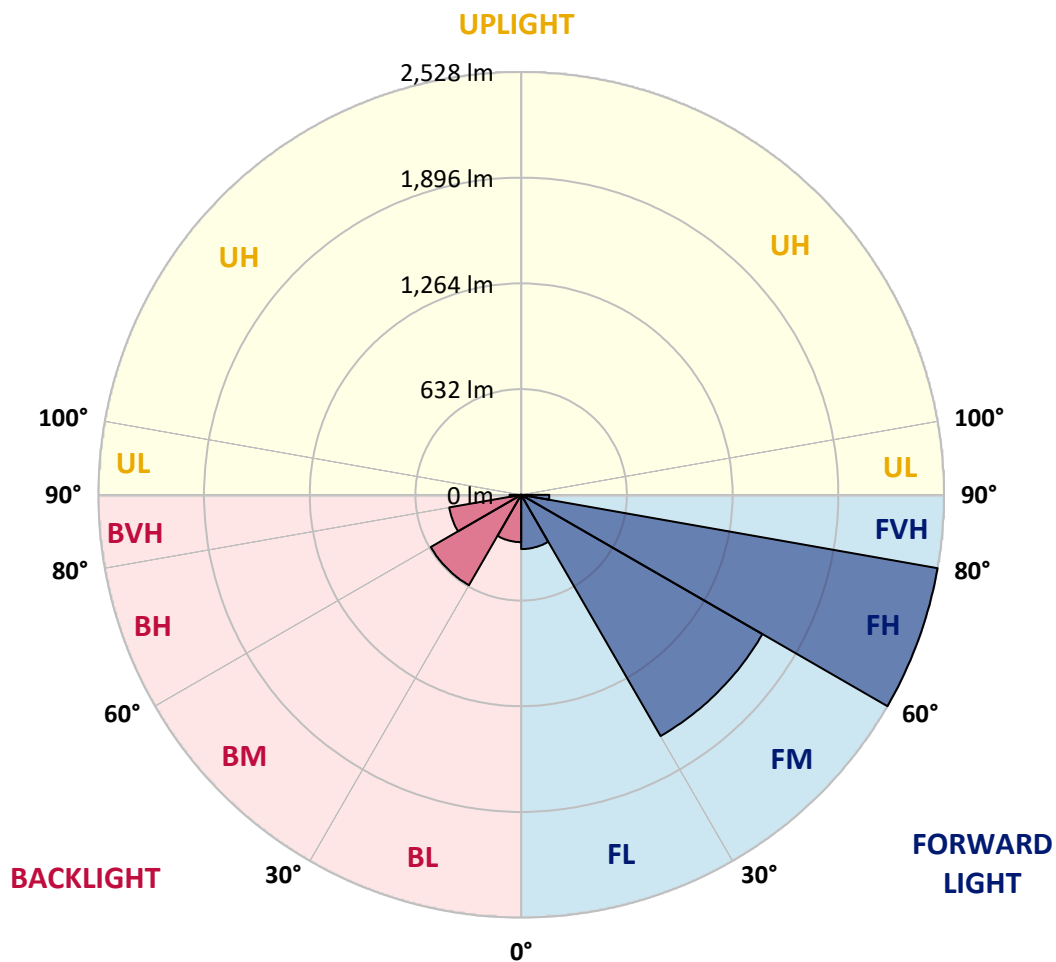
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	324.3	5.3			
FM	(30°-60°)	1665.5	27.3			
FH	(60°-80°)	2528.0	41.5			G2/5000
FVH	(80°-90°)	168.2	2.8			G2/225
BL	(0°-30°)	283.0	4.6	B1/500		
BM	(30°-60°)	624.4	10.2	B1/1000		
BH	(60°-80°)	436.6	7.2	B1/500		G1/500
BVH	(80°-90°)	68.8	1.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	625.2	625.2	625.2	625.2	625.2	625.2	625.2	625.2	625.2	625.2	625.2
2.5°	656.0	651.3	651.3	647.7	647.7	641.8	639.4	638.2	632.3	628.8	625.2
5°	694.1	688.1	686.9	678.6	675.0	662.0	660.8	652.5	641.8	631.2	622.9
7.5°	728.4	724.9	718.9	710.6	700.0	683.3	682.2	669.1	651.3	637.1	625.2
10°	753.3	750.9	742.7	732.0	720.2	703.5	702.4	688.1	666.8	650.1	633.5
12.5°	783.0	779.5	768.7	754.5	741.4	726.1	724.9	713.0	689.3	667.9	646.6
15°	811.5	806.7	793.7	779.5	765.2	752.2	752.2	739.1	714.2	689.3	664.4
17.5°	825.7	823.4	810.3	794.8	783.0	773.6	772.3	760.5	735.5	709.4	682.2
20°	830.4	831.7	819.8	803.2	794.8	790.1	788.9	780.6	753.3	728.4	702.4
22.5°	829.3	832.8	823.4	805.6	803.2	803.2	803.2	793.7	772.3	747.4	721.3
25°	834.0	838.7	831.7	810.3	810.3	815.1	815.1	810.3	791.4	770.0	743.9
27.5°	850.6	854.2	848.2	818.6	819.8	826.9	825.7	826.9	815.1	794.8	768.7
30°	870.8	875.5	868.4	831.7	830.4	837.6	837.6	843.5	835.2	813.9	792.5
32.5°	925.4	924.1	901.6	845.9	842.3	849.5	849.5	855.4	850.6	834.0	813.9
35°	1087.9	1070.1	1020.3	892.1	856.5	860.1	860.1	870.8	873.2	860.1	842.3
37.5°	1254.0	1248.1	1210.0	1015.5	908.8	882.7	881.5	896.9	907.6	896.9	885.1
40°	1421.3	1416.5	1408.2	1180.5	1017.9	923.0	919.4	932.5	951.4	944.4	937.2
42.5°	1576.7	1574.3	1582.6	1342.9	1156.8	1009.6	998.9	983.5	1010.8	1008.4	1008.4
45°	1698.9	1704.8	1709.6	1494.8	1307.3	1121.2	1108.1	1055.9	1092.6	1102.1	1109.3
47.5°	1767.7	1772.5	1789.0	1643.2	1458.0	1250.5	1240.9	1155.5	1204.1	1232.7	1252.8
50°	1866.2	1853.1	1867.4	1787.8	1639.6	1418.9	1392.7	1289.6	1351.3	1401.1	1448.6
52.5°	1961.1	1939.7	1951.6	1955.2	1846.0	1583.8	1556.5	1447.4	1524.5	1602.8	1687.1
55°	2046.5	2045.3	2057.2	2117.7	2045.3	1760.6	1729.7	1621.8	1733.3	1817.5	1959.9
57.5°	2115.3	2127.1	2179.4	2306.3	2275.5	1952.8	1918.3	1824.6	1956.3	2040.6	2276.7
60°	2196.0	2215.0	2301.5	2466.4	2485.5	2154.4	2118.8	2051.2	2185.3	2270.7	2643.2
62.5°	2223.3	2250.6	2428.5	2634.9	2704.9	2375.1	2343.1	2298.0	2426.1	2503.3	3008.6
65°	2041.7	2094.0	2498.5	2721.6	2941.0	2640.8	2613.5	2574.5	2665.8	2716.8	3256.6
67.5°	1991.9	2015.6	2362.1	2846.1	3162.9	2982.5	2955.2	2887.6	2890.0	2868.7	3337.3
70°	1921.9	1948.0	2222.1	2939.9	3480.8	3450.0	3416.8	3217.4	3095.2	2965.9	3178.3
72.5°	1637.2	1628.8	1914.8	2687.1	3633.8	4028.9	3989.7	3572.1	3247.1	2881.7	2682.4
75°	919.4	895.7	1161.5	1859.0	3318.2	4259.1	4257.9	3751.3	3140.4	2510.3	1825.9
77.5°	266.9	259.8	383.2	779.5	2233.9	3700.3	3745.3	3383.5	2620.7	1803.3	1002.5
80°	125.7	128.2	164.9	257.5	953.8	2388.2	2517.5	2228.0	1566.0	831.7	414.1
82.5°	79.5	80.7	112.7	166.1	403.3	1084.3	1191.1	1002.5	620.5	359.5	182.7
85°	49.8	49.8	74.8	109.1	240.8	346.4	376.0	341.7	265.8	195.8	99.6
87.5°	27.3	27.3	45.1	62.9	131.7	111.5	115.1	136.5	166.1	119.8	49.8
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°	625.2	625.2	625.2	625.2	625.2	625.2	625.2	625.2	625.2	625.2	625.2
2.5°	624.0	621.6	618.1	616.9	615.7	614.6	615.7	618.1	615.7	615.7	616.9
5°	620.5	618.1	613.4	613.4	614.6	615.7	621.6	625.2	626.4	626.4	626.4
7.5°	620.5	616.9	613.4	614.6	616.9	621.6	631.2	637.1	641.8	643.0	643.0
10°	626.4	621.6	619.3	621.6	628.8	632.3	641.8	651.3	657.2	659.6	659.6
12.5°	637.1	632.3	632.3	637.1	646.6	651.3	659.6	666.8	673.8	677.4	677.4
15°	654.9	649.0	650.1	658.5	669.1	673.8	679.8	682.2	688.1	692.8	692.8
17.5°	671.5	665.5	667.9	677.4	684.6	686.9	690.5	689.3	691.6	695.2	696.4
20°	690.5	684.6	685.7	691.6	692.8	690.5	690.5	686.9	685.7	691.6	694.1
22.5°	709.4	703.5	702.4	698.8	692.8	686.9	683.3	679.8	677.4	683.3	685.7
25°	732.0	723.6	717.8	702.4	686.9	676.3	671.5	669.1	667.9	673.8	676.3
27.5°	756.9	748.6	730.8	697.6	672.7	654.9	651.3	651.3	653.7	657.2	659.6
30°	780.6	772.3	740.3	686.9	647.7	621.6	618.1	621.6	627.6	631.2	634.7
32.5°	804.3	796.1	746.2	670.3	611.0	577.8	575.4	581.3	590.9	593.2	595.6
35°	836.4	828.1	753.3	646.6	564.7	529.1	526.7	530.3	538.6	542.2	545.7
37.5°	881.5	876.8	764.0	620.5	522.0	482.8	475.8	473.3	478.1	476.9	481.7
40°	940.8	944.4	783.0	586.0	480.5	440.2	424.7	417.6	412.9	403.3	408.2
42.5°	1027.3	1029.8	804.3	546.9	444.9	399.8	379.6	366.6	357.1	341.7	344.0
45°	1154.3	1134.1	829.3	505.4	412.9	367.8	344.0	328.7	315.6	302.5	303.7
47.5°	1322.8	1261.1	856.5	471.0	380.8	341.7	320.3	302.5	287.1	276.4	277.6
50°	1530.4	1418.9	883.8	438.9	348.8	321.5	302.5	283.6	268.1	257.5	256.2
52.5°	1804.5	1608.7	901.6	403.3	316.8	303.7	287.1	269.3	250.3	237.3	236.1
55°	2089.2	1829.3	917.1	360.7	285.9	283.6	275.3	255.0	232.5	215.9	213.6
57.5°	2402.4	2065.4	928.9	319.2	262.2	266.9	264.5	240.8	215.9	200.5	199.3
60°	2687.1	2309.8	891.0	282.3	240.8	250.3	252.7	232.5	219.5	223.0	224.2
62.5°	2974.2	2498.5	746.2	255.0	226.6	239.7	259.8	258.6	252.7	258.6	259.8
65°	3077.4	2537.6	529.1	232.5	212.4	244.4	282.3	280.0	252.7	242.0	239.7
67.5°	3019.3	2421.4	355.9	214.7	201.7	250.3	306.1	280.0	243.2	228.9	224.2
70°	2742.8	2135.5	261.0	196.9	192.2	249.1	319.2	278.8	238.4	223.0	217.1
72.5°	2187.7	1647.9	210.0	180.3	178.0	243.2	326.2	276.4	233.7	217.1	210.0
75°	1416.5	1025.0	176.8	163.7	156.6	233.7	322.7	269.3	227.8	206.4	201.7
77.5°	657.2	441.3	150.7	144.7	136.5	219.5	312.0	255.0	214.7	194.6	188.6
80°	306.1	208.8	126.9	125.7	122.2	207.7	297.8	238.4	199.3	182.7	173.2
82.5°	163.7	125.7	103.2	103.2	106.8	193.3	280.0	218.3	179.1	170.8	145.9
85°	86.6	72.3	74.8	80.7	91.3	170.8	256.2	196.9	156.6	130.5	126.9
87.5°	43.9	46.2	46.2	54.5	70.0	138.8	211.1	162.5	132.9	106.8	104.4
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)