

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: P214576

Luminaire Tested: **ARCH-AF24-50-D-U-T2R-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214576  
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-AF24-50-D-U-T2R-7030  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 670mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5894 lumens  
Efficiency: N/A  
Efficacy: 109.1 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

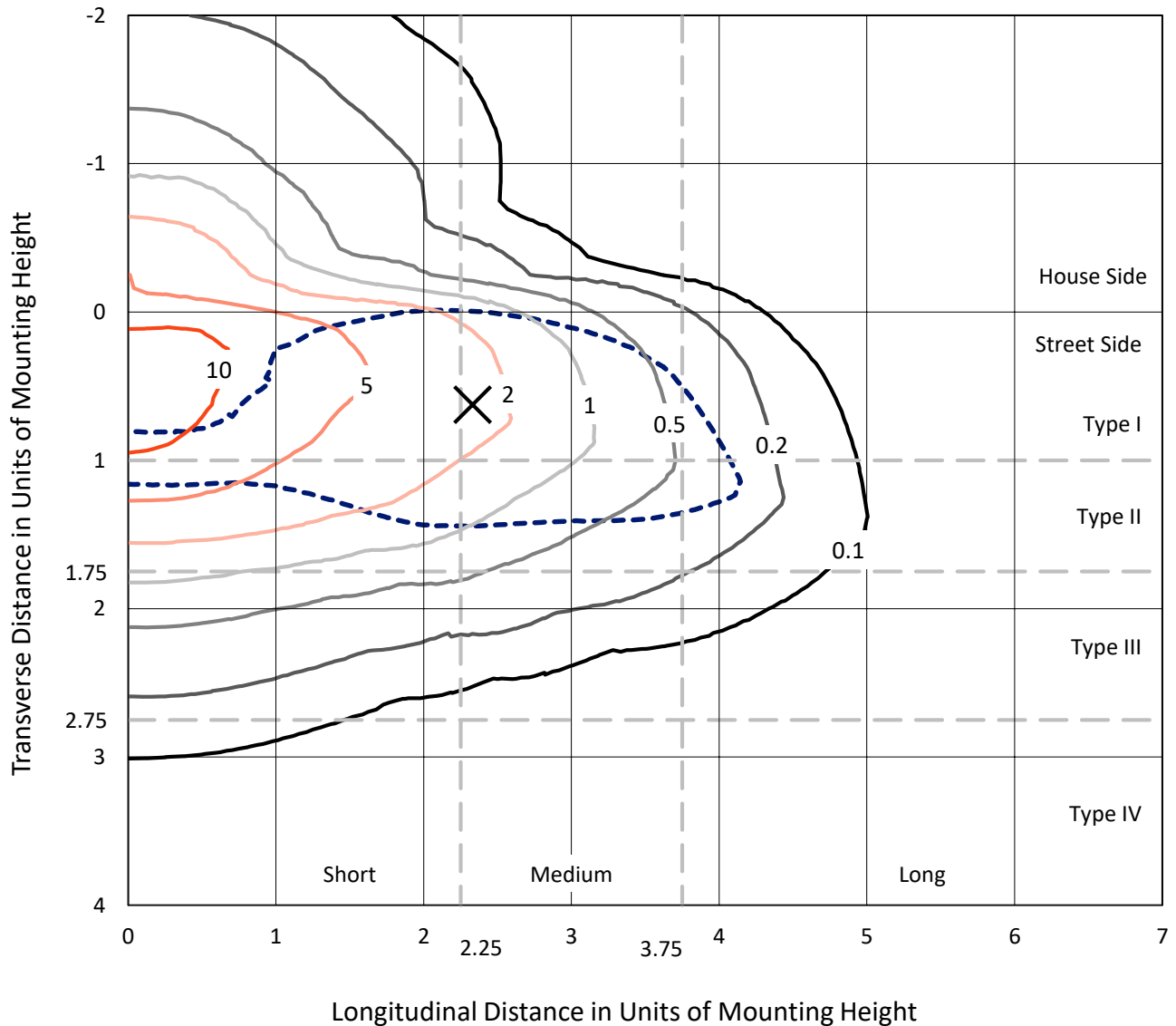
Input Watts (W): 54  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

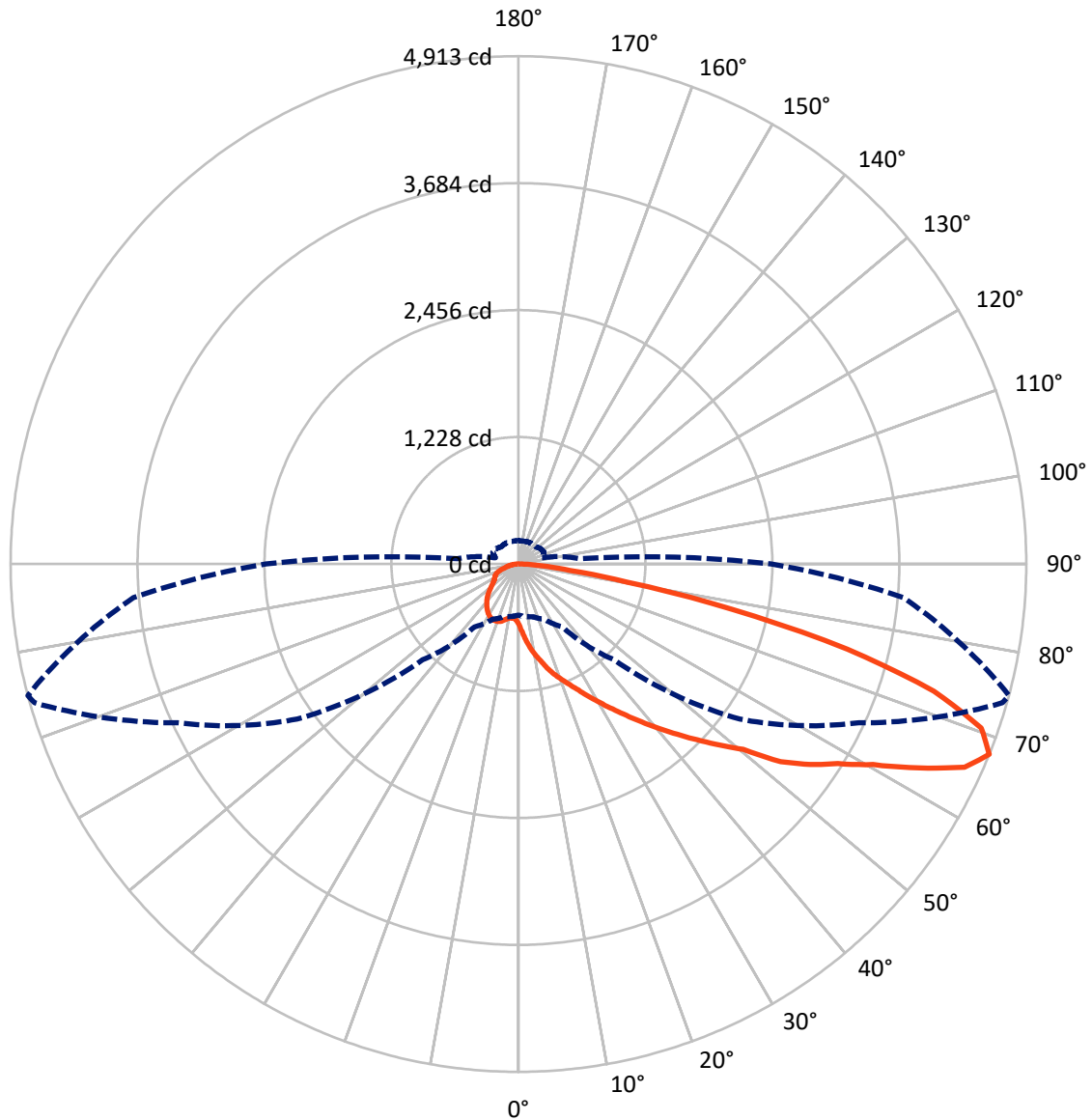
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.2 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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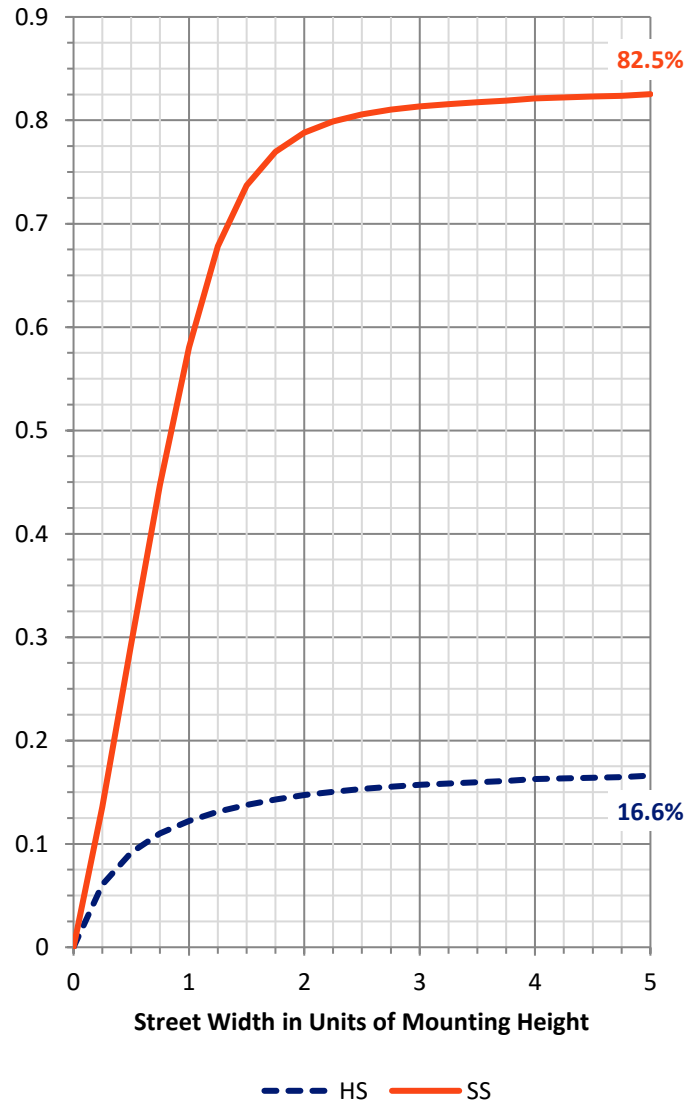
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1006.5	0.0	1006.5
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	4887.5	0.0	4887.5
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	5894.0	0.0	5894.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.6	1.2
10°-20°	248.0	4.2
20°-30°	452.3	7.7
30°-40°	742.3	12.6
40°-50°	1073.5	18.2
50°-60°	1265.1	21.5
60°-70°	1229.4	20.9
70°-80°	683.4	11.6
80°-90°	131.4	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°	5894.0	100.0
0°-180°	5894.0	100.0

**Coefficient of Utilization**



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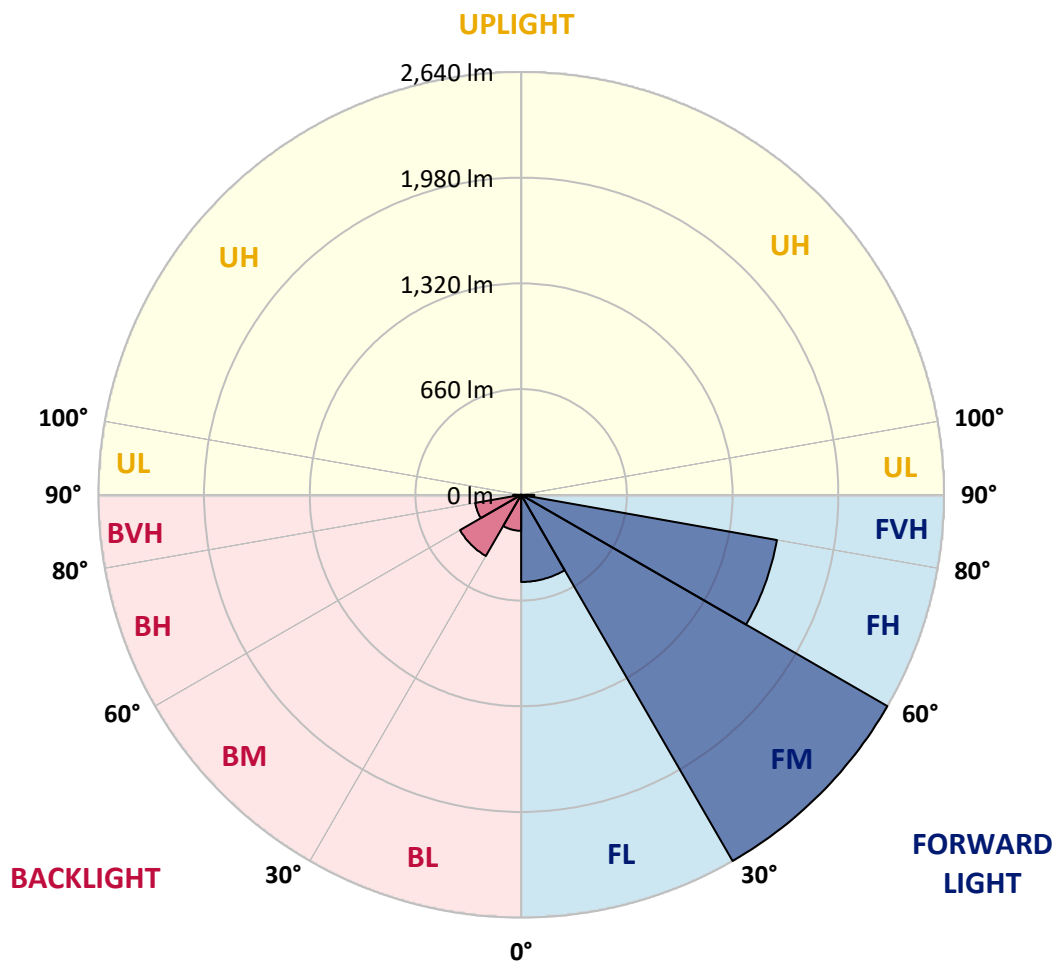
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	544.2	9.2			
FM	(30°-60°)	2640.2	44.8			
FH	(60°-80°)	1621.4	27.5			G1/1800
FVH	(80°-90°)	81.8	1.4			G1/100
BL	(0°-30°)	224.6	3.8	B1/500		
BM	(30°-60°)	440.8	7.5	B1/1000		
BH	(60°-80°)	291.4	4.9	B1/500		G1/500
BVH	(80°-90°)	49.6	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°	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
2.5°	828.0	830.5	825.5	814.4	798.4	768.9	743.0	697.4	656.7	651.8	608.7
5°	973.4	975.9	969.7	956.1	938.9	906.9	871.1	812.0	746.7	734.4	643.2
7.5°	1073.2	1074.4	1067.0	1053.5	1039.9	1007.9	972.2	905.6	825.5	815.7	687.5
10°	1158.2	1160.7	1150.8	1142.2	1127.4	1095.4	1058.4	988.2	905.6	892.1	733.1
12.5°	1237.1	1239.5	1233.4	1226.0	1221.1	1191.5	1150.8	1067.0	978.3	963.5	787.3
15°	1290.1	1292.5	1293.8	1303.6	1309.8	1288.8	1248.2	1157.0	1057.2	1043.6	851.4
17.5°	1275.3	1281.4	1299.9	1335.6	1373.8	1375.1	1341.8	1245.7	1134.8	1120.0	916.7
20°	1232.1	1237.1	1259.3	1313.5	1388.6	1431.8	1429.3	1335.6	1207.5	1191.5	977.1
22.5°	1267.9	1274.0	1274.0	1307.3	1381.2	1461.3	1493.4	1424.4	1280.2	1265.4	1037.5
25°	1420.7	1424.4	1398.5	1384.9	1412.0	1486.0	1546.3	1520.5	1368.9	1351.7	1102.8
27.5°	1633.8	1627.7	1595.6	1541.4	1511.8	1531.6	1593.2	1611.6	1471.2	1450.2	1170.5
30°	1845.8	1842.1	1805.1	1732.4	1665.9	1624.0	1644.9	1693.0	1582.1	1557.4	1235.8
32.5°	2044.1	2038.0	1997.3	1912.3	1837.1	1759.5	1718.8	1766.9	1700.4	1672.0	1308.5
35°	2226.5	2210.5	2169.8	2081.1	2003.5	1929.5	1829.7	1837.1	1828.5	1798.9	1388.6
37.5°	2374.3	2362.0	2317.7	2235.1	2152.6	2082.3	1977.6	1917.2	1966.5	1938.2	1481.0
40°	2505.0	2491.4	2445.8	2363.3	2286.9	2220.3	2137.8	2014.6	2121.8	2089.7	1584.5
42.5°	2603.5	2593.7	2556.7	2475.4	2401.5	2341.1	2300.4	2137.8	2283.2	2252.4	1697.9
45°	2656.5	2646.7	2626.9	2561.6	2493.9	2447.0	2450.7	2284.4	2452.0	2426.1	1832.2
47.5°	2591.2	2598.6	2615.8	2603.5	2561.6	2539.5	2585.0	2436.0	2640.5	2615.8	1977.6
50°	2416.2	2423.6	2492.6	2577.7	2592.4	2619.5	2705.8	2610.9	2840.1	2820.4	2157.5
52.5°	1986.2	2026.9	2217.9	2421.2	2560.4	2672.5	2840.1	2870.9	3176.5	3176.5	2475.4
55°	1500.8	1536.5	1754.6	2109.4	2436.0	2677.5	2938.7	3047.1	3419.2	3424.1	2641.7
57.5°	1216.1	1238.3	1345.5	1709.0	2174.7	2615.8	3055.7	3198.7	3621.3	3643.5	2856.1
60°	986.9	999.3	1069.5	1322.1	1813.7	2449.5	3139.5	3415.5	3909.6	3940.4	3129.7
62.5°	793.5	805.8	852.6	1004.2	1423.1	2137.8	3124.7	3641.0	4294.0	4344.5	3488.2
65°	633.3	646.9	677.7	771.3	1054.7	1750.9	2973.2	3756.8	4692.0	4741.3	3726.0
67.5°	494.1	506.4	527.4	589.0	743.0	1309.8	2614.6	3634.8	4870.7	4912.6	3738.3
70°	373.3	379.5	396.8	436.2	531.1	869.9	2046.6	3225.8	4710.5	4748.7	3491.9
72.5°	289.6	288.3	298.2	317.9	370.9	598.8	1356.6	2623.2	4164.7	4204.1	2979.3
75°	236.6	235.3	241.5	247.7	268.6	401.7	800.9	1975.1	3361.3	3286.1	2235.1
77.5°	199.6	198.4	204.5	205.8	214.4	277.2	455.9	1299.9	2242.5	2113.1	1259.3
80°	168.8	167.6	175.0	177.4	183.6	203.3	262.4	703.6	1126.2	1067.0	601.3
82.5°	126.9	131.8	145.4	151.6	158.9	150.3	162.6	310.5	522.4	499.0	261.2
85°	61.6	72.7	109.7	122.0	130.6	94.9	110.9	146.6	235.3	224.3	106.0
87.5°	20.9	18.5	65.3	77.6	85.0	43.1	61.6	81.3	97.3	88.7	33.3
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°	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
2.5°	590.2	571.7	544.6	523.7	510.1	499.0	494.1	492.9	490.4	489.2	489.2
5°	602.5	569.3	527.4	505.2	499.0	494.1	496.6	497.8	497.8	497.8	497.8
7.5°	621.0	574.2	523.7	508.9	507.6	507.6	515.0	518.7	521.2	521.2	521.2
10°	645.6	582.8	529.8	517.5	521.2	523.7	532.3	537.2	539.7	540.9	542.1
12.5°	678.9	601.3	542.1	532.3	537.2	538.4	544.6	547.1	549.5	550.8	550.8
15°	723.3	628.4	561.9	549.5	550.8	549.5	549.5	547.1	545.8	545.8	548.3
17.5°	768.9	654.3	579.1	561.9	556.9	547.1	539.7	533.5	529.8	527.4	528.6
20°	814.4	677.7	589.0	564.3	550.8	534.8	521.2	512.6	507.6	502.7	505.2
22.5°	860.0	699.9	592.7	556.9	537.2	513.8	499.0	485.5	474.4	467.0	468.2
25°	910.6	724.5	592.7	548.3	518.7	494.1	475.6	453.4	437.4	431.3	433.7
27.5°	961.1	745.4	586.5	532.3	497.8	473.1	446.0	420.2	410.3	406.6	407.8
30°	1011.6	761.5	572.9	512.6	475.6	448.5	412.8	395.5	383.2	373.3	374.6
32.5°	1062.1	772.6	554.5	487.9	452.2	417.7	388.1	368.4	346.2	333.9	335.1
35°	1120.0	781.2	532.3	463.3	426.3	390.6	368.4	336.4	313.0	303.1	300.6
37.5°	1180.4	787.3	508.9	436.2	400.4	370.9	348.7	309.3	287.1	273.5	272.3
40°	1245.7	789.8	480.5	407.8	375.8	358.6	322.8	293.3	255.1	246.4	246.4
42.5°	1323.3	788.6	452.2	379.5	348.7	330.2	304.3	290.8	257.5	248.9	244.0
45°	1412.0	788.6	421.4	346.2	321.6	294.5	283.4	274.8	252.6	256.3	258.8
47.5°	1513.1	786.1	384.4	319.1	299.4	276.0	269.8	251.4	242.7	245.2	247.7
50°	1652.3	789.8	351.2	296.9	283.4	263.7	256.3	246.4	242.7	244.0	242.7
52.5°	1845.8	777.5	319.1	283.4	271.1	245.2	245.2	244.0	245.2	244.0	244.0
55°	1951.7	750.4	295.7	276.0	262.4	236.6	241.5	244.0	246.4	245.2	245.2
57.5°	2102.0	731.9	277.2	271.1	257.5	234.1	239.0	244.0	245.2	244.0	244.0
60°	2279.5	719.6	264.9	272.3	253.8	234.1	240.3	244.0	242.7	241.5	241.5
62.5°	2485.2	714.6	256.3	276.0	250.1	235.3	240.3	244.0	239.0	237.8	237.8
65°	2562.9	670.3	245.2	278.5	252.6	235.3	239.0	240.3	234.1	232.9	231.6
67.5°	2443.3	593.9	229.2	273.5	260.0	235.3	235.3	234.1	226.7	225.5	223.0
70°	2176.0	492.9	204.5	257.5	264.9	236.6	230.4	224.3	216.9	216.9	211.9
72.5°	1781.7	388.1	172.5	229.2	261.2	240.3	220.6	211.9	203.3	203.3	198.4
75°	1283.9	289.6	138.0	191.0	245.2	239.0	208.2	197.1	187.3	186.1	179.9
77.5°	731.9	203.3	112.1	149.1	218.1	232.9	197.1	179.9	168.8	165.1	161.4
80°	375.8	136.8	91.2	117.1	181.1	215.6	188.5	160.2	147.9	141.7	135.5
82.5°	178.7	91.2	70.2	86.3	136.8	188.5	177.4	138.0	124.4	117.1	109.7
85°	80.1	54.2	46.8	55.4	97.3	146.6	156.5	113.4	97.3	122.0	89.9
87.5°	25.9	24.6	24.6	25.9	46.8	64.1	114.6	83.8	77.6	64.1	54.2
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)