

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: P214810

Luminaire Tested: **ARCH-AF16-60-D-U-T3-7050-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214810  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29624)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF16-60-D-U-T3-7050-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 1160mA LIGHT ENGINE WITH 16 LEDS AND TYPE III OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4815 lumens  
Efficiency: N/A  
Efficacy: 76.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type III - Medium - Semi-Cutoff  
BUG Rating: B1 - U0 - G2

Input Watts (W): 63  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

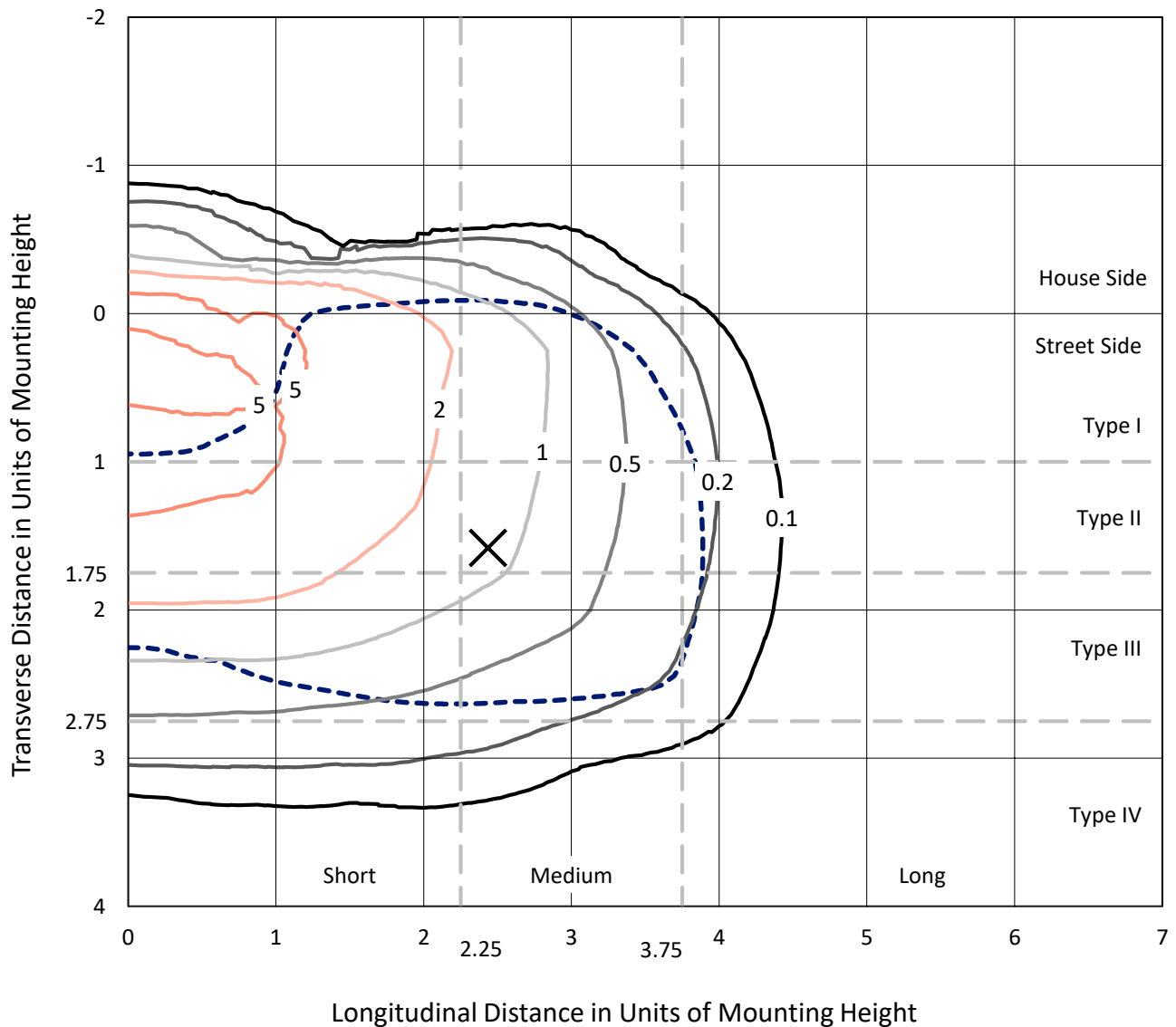


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

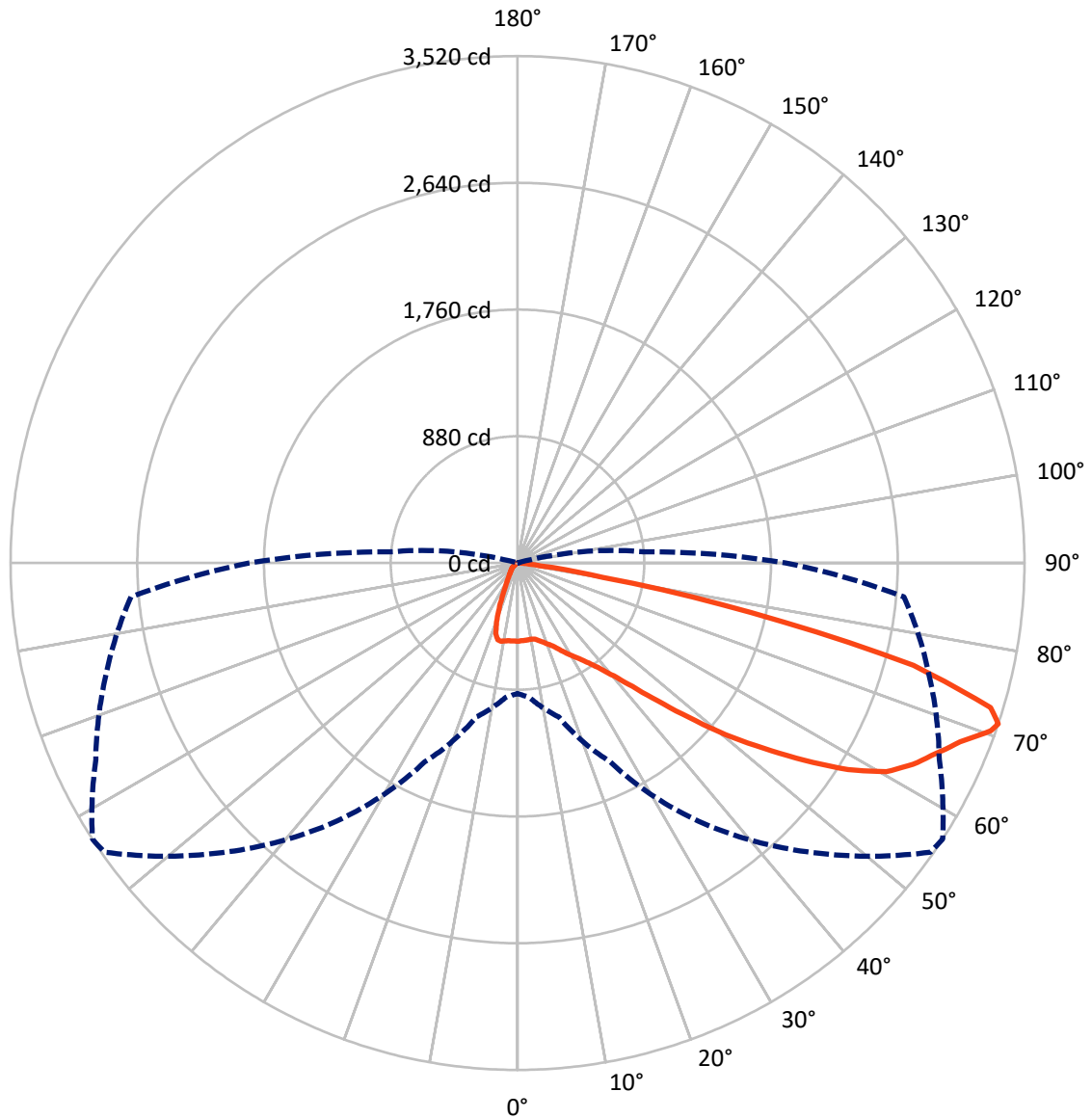


Based on 10 foot mounting height. Maximum calculated value = 6.8 fc  
 Type III - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral    - - - Horizontal Cone Through 71-Deg Vertical

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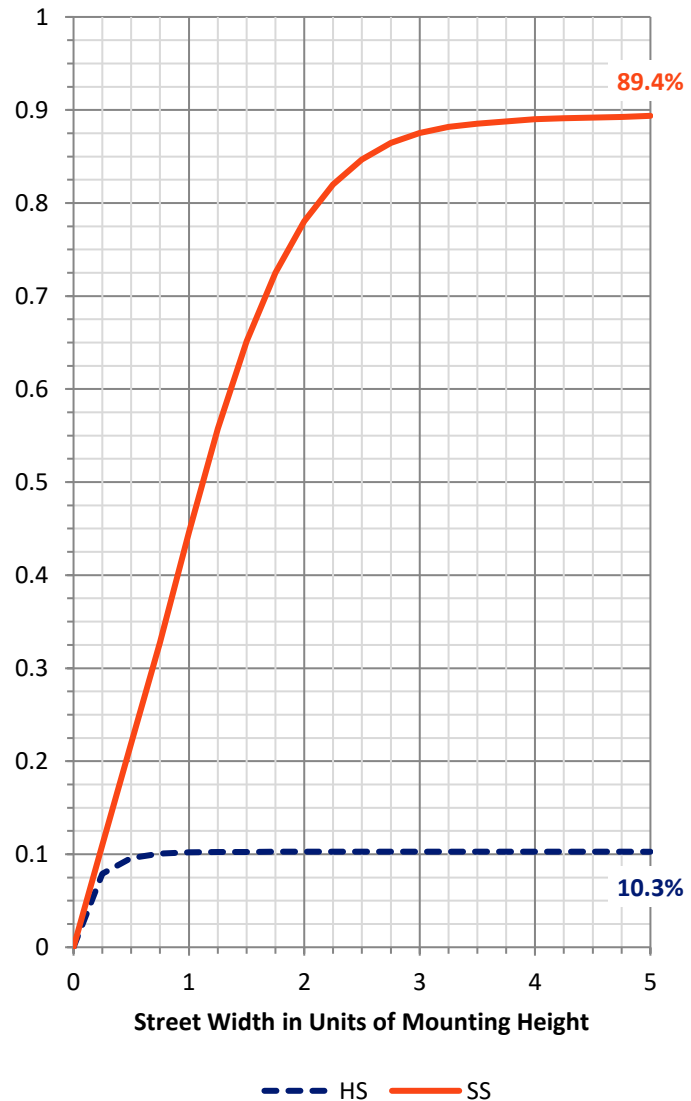
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	499.0	0.0	499.0
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	4316.0	0.0	4316.0
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	4815.0	0.0	4815.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.1	1.1
10°-20°	136.6	2.8
20°-30°	213.2	4.4
30°-40°	360.3	7.5
40°-50°	699.7	14.5
50°-60°	1175.1	24.4
60°-70°	1402.4	29.1
70°-80°	739.1	15.3
80°-90°	37.6	0.8
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°	4815.0	100.0
0°-180°	4815.0	100.0



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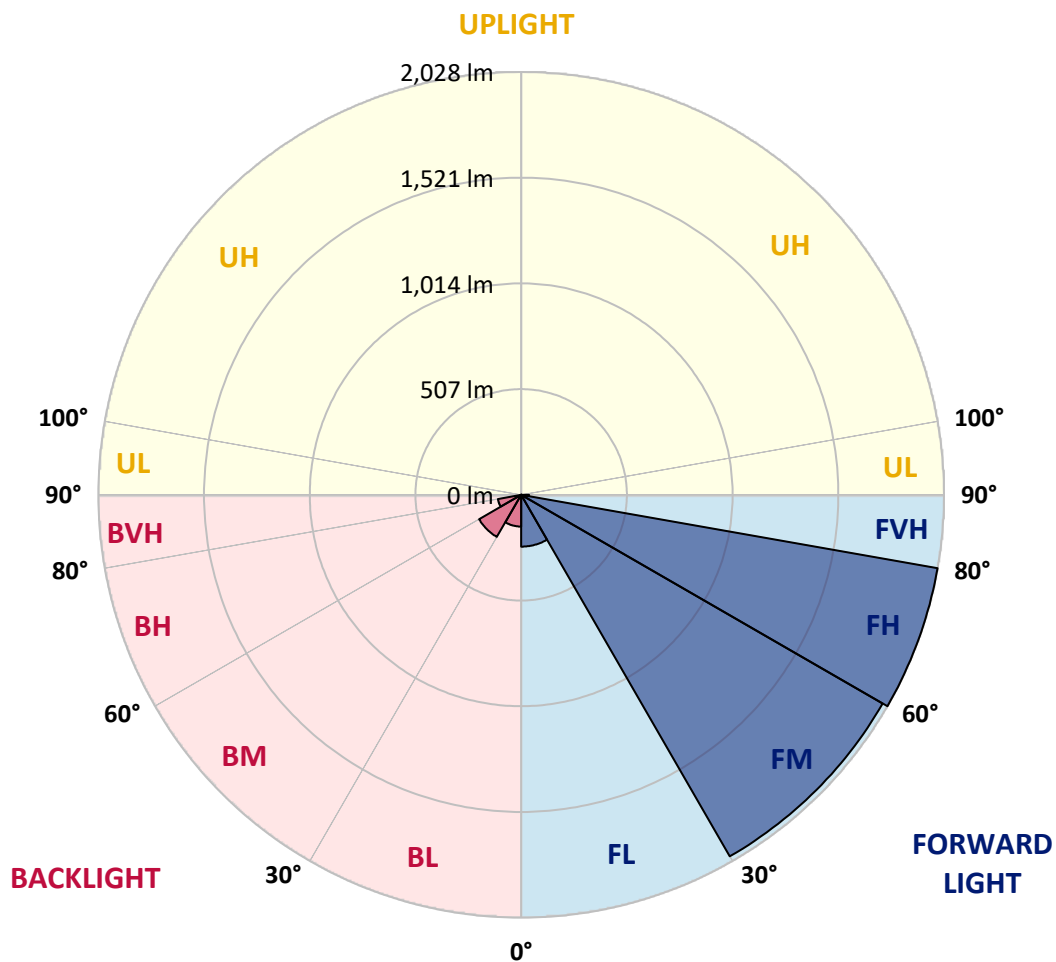
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	248.6	5.2			
FM	(30°-60°)	2002.1	41.6			
FH	(60°-80°)	2028.1	42.1			G2/5000
FVH	(80°-90°)	37.2	0.8			G1/100
BL	(0°-30°)	152.3	3.2	B1/500		
BM	(30°-60°)	233.0	4.8	B1/1000		
BH	(60°-80°)	113.3	2.4	B1/500		G1/500
BVH	(80°-90°)	0.4	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	544.2	544.2	544.2	544.2	544.2	544.2	544.2	544.2	544.2	544.2	544.2
2.5°	536.3	536.3	536.3	537.4	538.6	538.6	540.8	539.7	539.7	539.7	541.9
5°	521.7	522.9	524.0	526.2	530.7	534.1	539.7	539.7	540.8	543.0	544.2
7.5°	501.5	502.7	506.0	510.5	519.5	527.3	536.3	538.6	541.9	547.5	549.8
10°	489.2	491.4	495.9	501.5	511.6	521.7	532.9	536.3	546.4	556.5	562.1
12.5°	485.8	486.9	491.4	500.4	512.8	525.1	539.7	543.0	557.6	573.3	582.3
15°	491.4	492.6	494.8	504.9	519.5	535.2	554.3	558.8	576.7	594.7	605.9
17.5°	501.5	501.5	503.8	512.8	528.5	546.4	571.1	577.8	598.0	618.2	630.6
20°	508.3	508.3	511.6	520.6	538.6	562.1	591.3	600.3	622.7	645.1	656.4
22.5°	515.0	516.1	519.5	529.6	549.8	582.3	616.0	625.0	650.8	674.3	685.5
25°	534.1	532.9	534.1	543.0	566.6	607.0	649.6	660.9	687.8	713.6	719.2
27.5°	586.8	584.6	570.0	564.4	582.3	632.8	692.3	703.5	734.9	760.7	760.7
30°	708.0	703.5	667.6	621.6	607.0	656.4	732.7	748.4	788.8	811.2	804.5
32.5°	861.7	851.6	805.6	727.1	668.7	687.8	775.3	793.3	844.9	863.9	849.4
35°	1030.0	1028.9	971.6	870.7	787.6	752.9	830.3	851.6	916.7	933.5	909.9
37.5°	1208.4	1212.9	1174.7	1035.6	938.0	859.4	903.2	927.9	1007.6	1027.7	1005.3
40°	1407.0	1405.9	1391.3	1226.3	1118.6	1010.9	1008.7	1031.1	1127.6	1159.0	1127.6
42.5°	1658.3	1656.1	1603.3	1455.2	1337.4	1208.4	1162.4	1170.2	1278.0	1329.6	1283.6
45°	1914.1	1898.4	1837.8	1709.9	1605.6	1453.0	1365.5	1365.5	1457.5	1528.2	1456.4
47.5°	2056.6	2040.9	2016.2	1945.5	1914.1	1743.6	1614.6	1598.8	1670.7	1742.5	1641.5
50°	2244.0	2244.0	2182.3	2155.4	2209.2	2089.2	1889.4	1873.7	1908.5	1965.7	1833.3
52.5°	2392.1	2365.2	2321.4	2345.0	2498.7	2443.7	2164.3	2134.0	2161.0	2175.6	2000.5
55°	2453.8	2428.0	2424.6	2511.0	2748.9	2672.6	2446.0	2419.0	2416.8	2345.0	2146.4
57.5°	2466.1	2443.7	2486.3	2637.8	2992.4	2860.0	2726.5	2706.3	2643.4	2463.9	2295.6
60°	2361.8	2373.0	2476.2	2707.4	3136.0	3022.7	2963.2	2941.9	2797.1	2564.9	2461.7
62.5°	2147.5	2174.4	2367.4	2714.1	3083.2	3088.9	3094.5	3079.9	2916.1	2656.9	2628.8
65°	1893.9	1901.8	2134.0	2621.0	2991.2	3068.7	3191.0	3189.8	3006.9	2760.1	2817.3
67.5°	1560.7	1574.2	1775.0	2306.8	2807.2	3059.7	3317.7	3314.4	3110.2	2877.9	2929.5
70°	1161.3	1178.1	1340.8	1794.1	2396.6	2947.5	3483.8	3486.0	3219.0	2967.7	2852.1
71°	905.5	935.7	1106.3	1523.7	2186.8	2834.2	3499.5	3519.7	3231.3	2955.3	2692.8
72.5°	444.3	480.2	694.5	1072.6	1799.7	2580.6	3396.3	3435.6	3153.9	2801.6	2302.3
75°	115.6	122.3	207.6	438.7	964.9	1709.9	2738.8	2838.6	2578.3	2132.9	1407.0
77.5°	72.9	75.2	97.6	170.5	361.3	649.6	1608.9	1658.3	1473.2	1080.5	495.9
80°	51.6	52.7	61.7	110.0	210.9	189.6	578.9	600.3	532.9	286.1	88.6
82.5°	31.4	31.4	44.9	70.7	130.2	103.2	152.6	162.7	143.6	79.7	29.2
85°	18.0	19.1	28.0	48.2	61.7	50.5	57.2	60.6	61.7	52.7	12.3
87.5°	14.6	15.7	24.7	40.4	33.7	24.7	24.7	25.8	26.9	31.4	5.6
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°	544.2	544.2	544.2	544.2	544.2	544.2	544.2	544.2	544.2	544.2	544.2
2.5°	541.9	541.9	543.0	541.9	541.9	541.9	543.0	543.0	543.0	545.3	546.4
5°	544.2	544.2	544.2	543.0	541.9	541.9	544.2	545.3	545.3	548.7	548.7
7.5°	549.8	549.8	547.5	545.3	543.0	539.7	540.8	541.9	540.8	541.9	541.9
10°	562.1	562.1	558.8	554.3	547.5	537.4	524.0	507.1	491.4	485.8	483.6
12.5°	582.3	581.2	574.5	566.6	552.0	517.2	466.8	407.3	357.9	344.5	340.0
15°	604.8	602.5	594.7	581.2	541.9	449.9	344.5	268.2	221.0	209.8	207.6
17.5°	628.3	625.0	613.7	586.8	495.9	334.4	222.2	168.3	142.5	140.2	141.4
20°	653.0	648.5	632.8	575.6	400.6	223.3	143.6	130.2	127.9	127.9	129.0
22.5°	681.1	675.4	654.1	535.2	291.7	148.1	123.4	122.3	121.2	120.1	120.1
25°	713.6	706.9	674.3	462.3	200.8	121.2	117.8	114.4	112.2	110.0	108.8
27.5°	752.9	743.9	690.0	372.5	138.0	113.3	111.1	105.5	101.0	96.5	96.5
30°	792.1	780.9	685.5	280.5	112.2	105.5	101.0	94.2	87.5	83.0	81.9
32.5°	833.6	822.4	656.4	188.5	102.1	96.5	90.9	80.8	72.9	67.3	66.2
35°	895.4	886.4	599.1	124.5	92.0	85.3	77.4	67.3	57.2	51.6	50.5
37.5°	987.4	976.1	528.5	95.4	80.8	70.7	64.0	52.7	42.6	37.0	35.9
40°	1110.8	1077.1	444.3	84.1	70.7	58.3	49.4	38.1	30.3	26.9	26.9
42.5°	1254.4	1174.7	353.4	76.3	62.8	48.2	35.9	25.8	21.3	20.2	20.2
45°	1407.0	1265.6	262.5	70.7	55.0	38.1	25.8	18.0	15.7	14.6	14.6
47.5°	1564.1	1339.7	182.9	64.0	46.0	29.2	18.0	13.5	11.2	10.1	10.1
50°	1711.0	1387.9	129.0	57.2	39.3	21.3	13.5	10.1	7.9	7.9	7.9
52.5°	1813.1	1383.4	93.1	49.4	30.3	14.6	9.0	6.7	6.7	6.7	6.7
55°	1902.9	1366.6	72.9	42.6	23.6	10.1	6.7	5.6	5.6	4.5	4.5
57.5°	1979.2	1339.7	61.7	34.8	16.8	7.9	4.5	4.5	3.4	3.4	3.4
60°	2044.3	1306.0	51.6	29.2	11.2	5.6	3.4	2.2	2.2	1.1	2.2
62.5°	2132.9	1284.7	44.9	22.4	7.9	3.4	2.2	1.1	1.1	0.0	0.0
65°	2198.0	1244.3	38.1	15.7	4.5	2.2	1.1	1.1	0.0	0.0	0.0
67.5°	2200.2	1171.4	28.0	9.0	3.4	2.2	1.1	0.0	0.0	0.0	0.0
70°	2023.0	998.6	18.0	4.5	2.2	1.1	1.1	0.0	0.0	0.0	0.0
71°	1860.3	884.1	14.6	3.4	2.2	1.1	0.0	0.0	0.0	0.0	0.0
72.5°	1532.6	649.6	11.2	3.4	1.1	1.1	0.0	0.0	0.0	0.0	0.0
75°	844.9	235.6	5.6	2.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	270.4	71.8	3.4	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	46.0	11.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	15.7	4.5	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.5	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)