

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: P265964

Luminaire Tested: **ARCH-AF24-70-D-U-T3-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265964  
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-AF24-70-D-U-T3-7027-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 930mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5281.4 lumens  
Efficiency: N/A  
Efficacy: 71.4 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): 74  
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

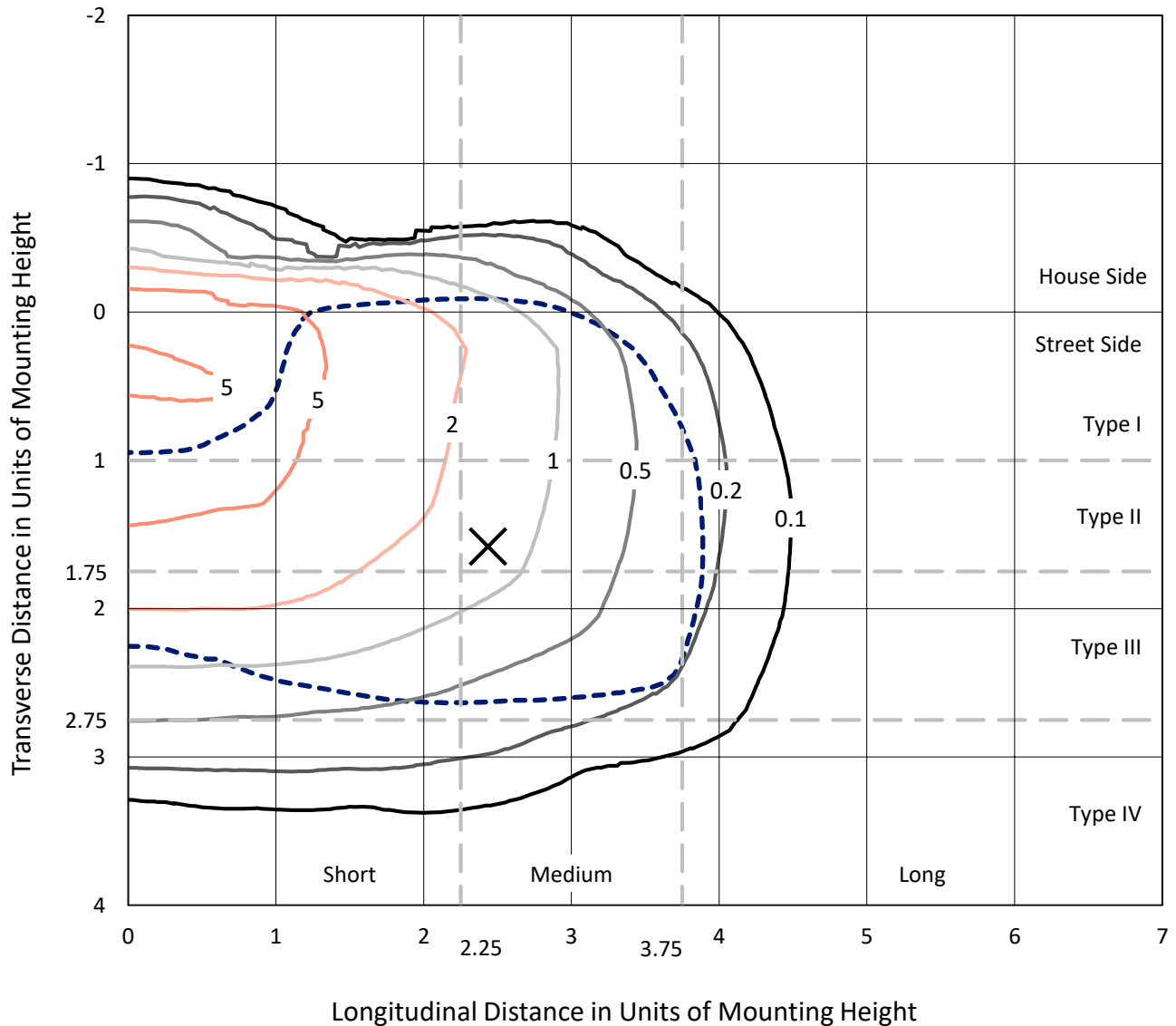


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

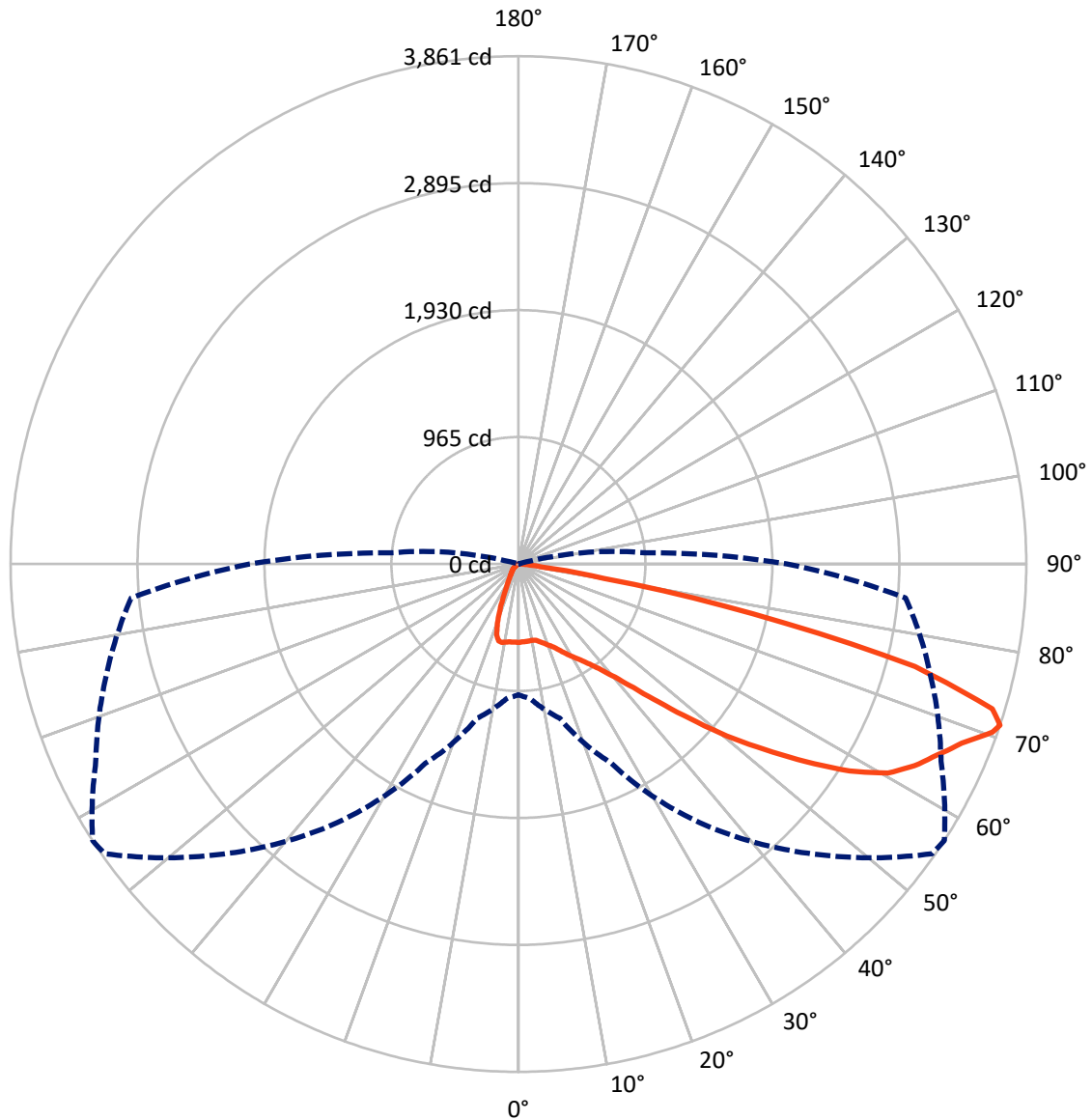


Based on 10 foot mounting height. Maximum calculated value = 7.4 fc  
 Type III - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



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



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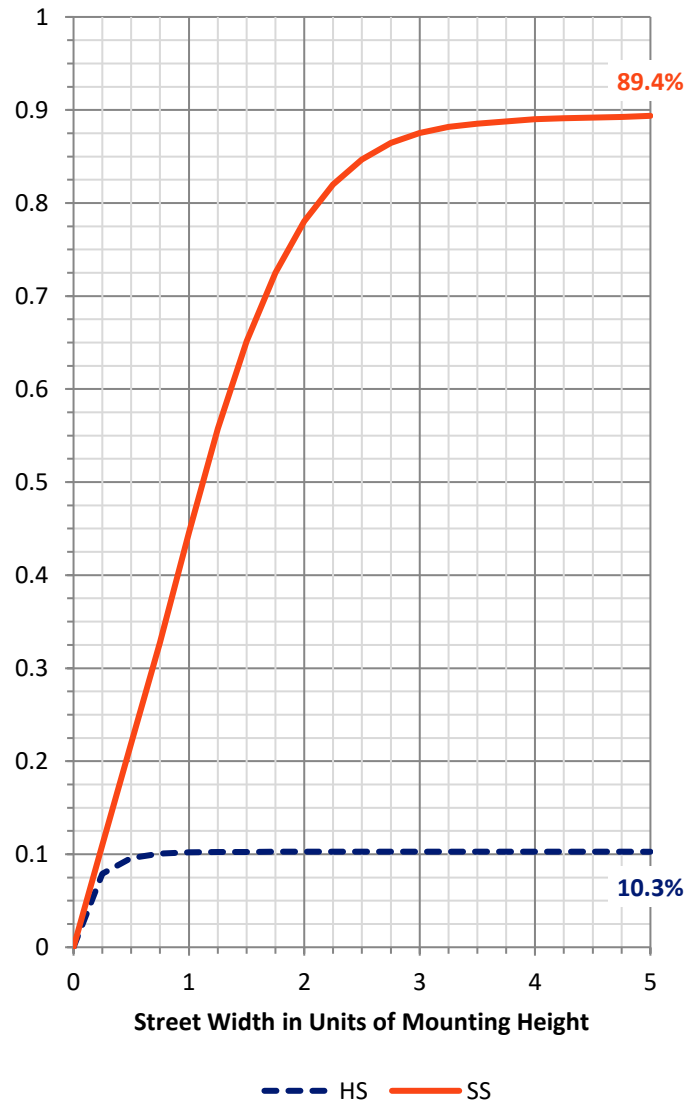
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	547.3	0.0	547.3
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	4734.0	0.0	4734.0
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	5281.4	0.0	5281.4
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.1	1.1
10°-20°	149.9	2.8
20°-30°	233.8	4.4
30°-40°	395.2	7.5
40°-50°	767.5	14.5
50°-60°	1288.9	24.4
60°-70°	1538.2	29.1
70°-80°	810.6	15.3
80°-90°	41.2	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°	5281.4	100.0
0°-180°	5281.4	100.0

**Coefficient of Utilization**



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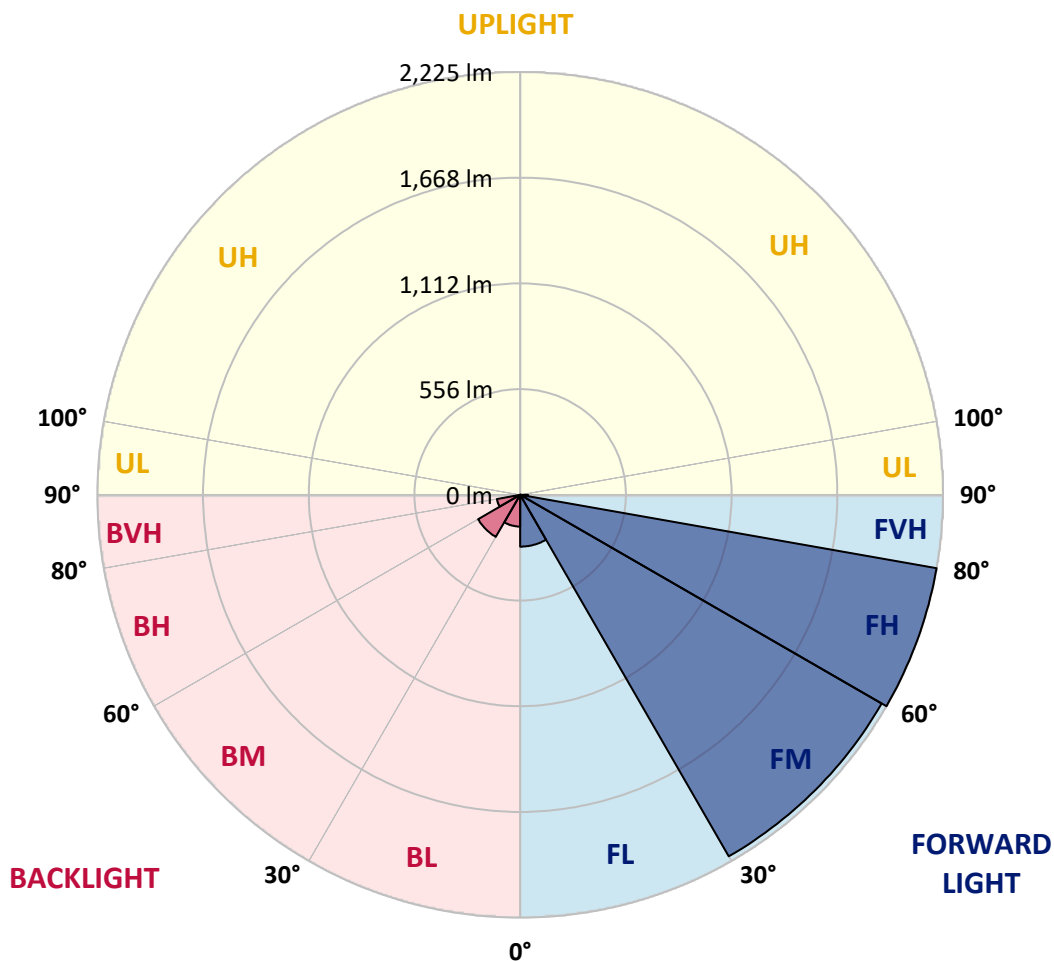
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	272.7	5.2			
FM	(30°-60°)	2196.0	41.6			
FH	(60°-80°)	2224.5	42.1			G2/5000
FVH	(80°-90°)	40.8	0.8			G1/100
BL	(0°-30°)	167.1	3.2	B1/500		
BM	(30°-60°)	255.6	4.8	B1/1000		
BH	(60°-80°)	124.3	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°	596.8	596.8	596.8	596.8	596.8	596.8	596.8	596.8	596.8	596.8	596.8
2.5°	588.3	588.3	588.3	589.5	590.7	590.7	593.2	592.0	592.0	592.0	594.4
5°	572.3	573.5	574.7	577.3	582.1	585.8	592.0	592.0	593.2	595.7	596.8
7.5°	550.1	551.3	555.1	560.0	569.7	578.4	588.3	590.7	594.4	600.5	603.0
10°	536.6	539.1	544.0	550.1	561.3	572.3	584.5	588.3	599.3	610.4	616.5
12.5°	532.9	534.1	539.1	548.9	562.3	576.0	592.0	595.7	611.7	628.9	638.8
15°	539.1	540.3	542.8	553.7	569.7	587.0	608.0	612.9	632.5	652.3	664.6
17.5°	550.1	550.1	552.5	562.3	579.6	599.3	626.4	633.8	655.9	678.1	691.6
20°	557.5	557.5	561.3	571.1	590.7	616.5	648.5	658.4	683.0	707.7	719.9
22.5°	564.9	566.1	569.7	580.8	603.0	638.8	675.6	685.4	713.9	739.7	751.9
25°	585.8	584.5	585.8	595.7	621.4	665.9	712.5	724.8	754.3	782.8	788.8
27.5°	643.6	641.2	625.2	619.0	638.8	694.1	759.2	771.6	806.0	834.3	834.3
30°	776.6	771.6	732.3	681.9	665.9	719.9	803.7	820.8	865.2	889.9	882.3
32.5°	945.1	934.1	883.7	797.4	733.5	754.3	850.3	870.1	926.7	947.6	931.6
35°	1129.8	1128.5	1065.7	955.0	863.9	825.8	910.7	934.1	1005.5	1023.9	998.0
37.5°	1325.4	1330.4	1288.4	1135.8	1028.7	942.7	990.7	1017.8	1105.2	1127.4	1102.7
40°	1543.3	1542.0	1526.0	1345.1	1226.9	1108.9	1106.4	1131.0	1236.8	1271.3	1236.8
42.5°	1818.9	1816.5	1758.6	1596.2	1466.9	1325.4	1275.0	1283.6	1401.7	1458.4	1407.9
45°	2099.5	2082.4	2015.8	1875.5	1761.0	1593.8	1497.7	1497.7	1598.7	1676.1	1597.4
47.5°	2255.9	2238.5	2211.4	2134.0	2099.5	1912.4	1770.9	1753.8	1832.5	1911.2	1800.5
50°	2461.4	2461.4	2393.7	2364.1	2423.2	2291.4	2072.4	2055.2	2093.4	2156.1	2010.9
52.5°	2623.8	2594.2	2546.2	2572.0	2740.6	2680.5	2374.0	2340.8	2370.3	2386.3	2194.3
55°	2691.4	2663.1	2659.4	2754.3	3015.2	2931.4	2682.9	2653.4	2650.9	2572.0	2354.3
57.5°	2704.9	2680.5	2727.2	2893.4	3282.1	3137.1	2990.5	2968.4	2899.5	2702.6	2517.9
60°	2590.5	2602.8	2716.0	2969.5	3439.7	3315.5	3250.2	3226.8	3068.0	2813.3	2700.0
62.5°	2355.4	2385.0	2596.7	2977.0	3381.8	3388.0	3394.2	3378.2	3198.4	2914.2	2883.5
65°	2077.4	2086.0	2340.8	2874.8	3281.0	3365.9	3500.1	3498.8	3298.1	3027.5	3090.2
67.5°	1711.9	1726.6	1946.8	2530.3	3079.1	3356.0	3639.0	3635.4	3411.5	3156.6	3213.2
70°	1273.7	1292.2	1470.6	1967.8	2628.7	3233.0	3821.2	3823.6	3530.8	3255.1	3128.3
71°	993.2	1026.4	1213.4	1671.2	2398.6	3108.7	3838.5	3860.6	3544.4	3241.5	2953.5
72.5°	487.3	526.8	761.9	1176.5	1973.9	2830.5	3725.2	3768.3	3459.5	3073.0	2525.3
75°	126.8	134.1	227.7	481.2	1058.4	1875.5	3004.0	3113.5	2828.0	2339.5	1543.3
77.5°	79.9	82.5	107.1	187.0	396.3	712.5	1764.8	1818.9	1616.0	1185.1	544.0
80°	56.7	57.9	67.7	120.6	231.4	208.0	635.0	658.4	584.5	313.8	97.2
82.5°	34.5	34.5	49.2	77.6	142.8	113.2	167.4	178.5	157.6	87.3	32.0
85°	19.8	20.9	30.7	52.9	67.7	55.3	62.7	66.5	67.7	57.9	13.6
87.5°	16.0	17.2	27.0	44.2	36.9	27.0	27.0	28.2	29.6	34.5	6.2
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°	596.8	596.8	596.8	596.8	596.8	596.8	596.8	596.8	596.8	596.8	596.8
2.5°	594.4	594.4	595.7	594.4	594.4	594.4	595.7	595.7	595.7	598.1	599.3
5°	596.8	596.8	596.8	595.7	594.4	594.4	596.8	598.1	598.1	601.9	601.9
7.5°	603.0	603.0	600.5	598.1	595.7	592.0	593.2	594.4	593.2	594.4	594.4
10°	616.5	616.5	612.9	608.0	600.5	589.5	574.7	556.3	539.1	532.9	530.4
12.5°	638.8	637.4	630.2	621.4	605.5	567.3	511.9	446.7	392.6	377.7	372.8
15°	663.3	660.9	652.3	637.4	594.4	493.4	377.7	294.1	242.5	230.1	227.7
17.5°	689.2	685.4	673.2	643.6	544.0	366.8	243.7	184.6	156.2	153.8	155.0
20°	716.3	711.3	694.1	631.2	439.4	244.9	157.6	142.8	140.2	140.2	141.6
22.5°	747.0	740.8	717.4	587.0	319.9	162.5	135.4	134.1	132.9	131.7	131.7
25°	782.8	775.2	739.7	507.1	220.3	132.9	129.3	125.6	123.1	120.6	119.4
27.5°	825.8	815.9	756.8	408.5	151.4	124.2	121.8	115.7	110.8	105.8	105.8
30°	868.8	856.5	751.9	307.7	123.1	115.7	110.8	103.3	95.9	91.1	89.8
32.5°	914.4	902.1	719.9	206.8	112.0	105.8	99.7	88.7	79.9	73.8	72.7
35°	982.0	972.2	657.2	136.6	100.9	93.6	84.9	73.8	62.7	56.7	55.3
37.5°	1082.9	1070.7	579.6	104.7	88.7	77.6	70.2	57.9	46.7	40.7	39.3
40°	1218.3	1181.5	487.3	92.3	77.6	64.0	54.2	41.9	33.2	29.6	29.6
42.5°	1375.8	1288.4	387.7	83.7	68.9	52.9	39.3	28.2	23.4	22.2	22.2
45°	1543.3	1388.2	287.9	77.6	60.2	41.9	28.2	19.8	17.2	16.0	16.0
47.5°	1715.6	1469.4	200.6	70.2	50.5	32.0	19.8	14.7	12.2	11.0	11.0
50°	1876.7	1522.4	141.6	62.7	43.1	23.4	14.7	11.0	8.7	8.7	8.7
52.5°	1988.8	1517.3	102.1	54.2	33.2	16.0	9.8	7.4	7.4	7.4	7.4
55°	2087.2	1498.9	79.9	46.7	25.8	11.0	7.4	6.2	6.2	4.9	4.9
57.5°	2170.9	1469.4	67.7	38.2	18.4	8.7	4.9	4.9	3.8	3.8	3.8
60°	2242.3	1432.4	56.7	32.0	12.2	6.2	3.8	2.4	2.4	1.3	2.4
62.5°	2339.5	1409.1	49.2	24.7	8.7	3.8	2.4	1.3	1.3	0.0	0.0
65°	2411.0	1364.9	41.9	17.2	4.9	2.4	1.3	1.3	0.0	0.0	0.0
67.5°	2413.3	1284.8	30.7	9.8	3.8	2.4	1.3	0.0	0.0	0.0	0.0
70°	2219.0	1095.4	19.8	4.9	2.4	1.3	1.3	0.0	0.0	0.0	0.0
71°	2040.4	969.8	16.0	3.8	2.4	1.3	0.0	0.0	0.0	0.0	0.0
72.5°	1681.1	712.5	12.2	3.8	1.3	1.3	0.0	0.0	0.0	0.0	0.0
75°	926.7	258.4	6.2	2.4	1.3	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	296.6	78.7	3.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	50.5	12.2	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	17.2	4.9	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.9	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.4	1.3	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)