

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: P214803

Luminaire Tested: **ARCH-AF24-80-D-U-T3-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214803  
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-AF24-80-D-U-T3-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 1050mA 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: 6719.8 lumens  
Efficiency: N/A  
Efficacy: 81.0 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

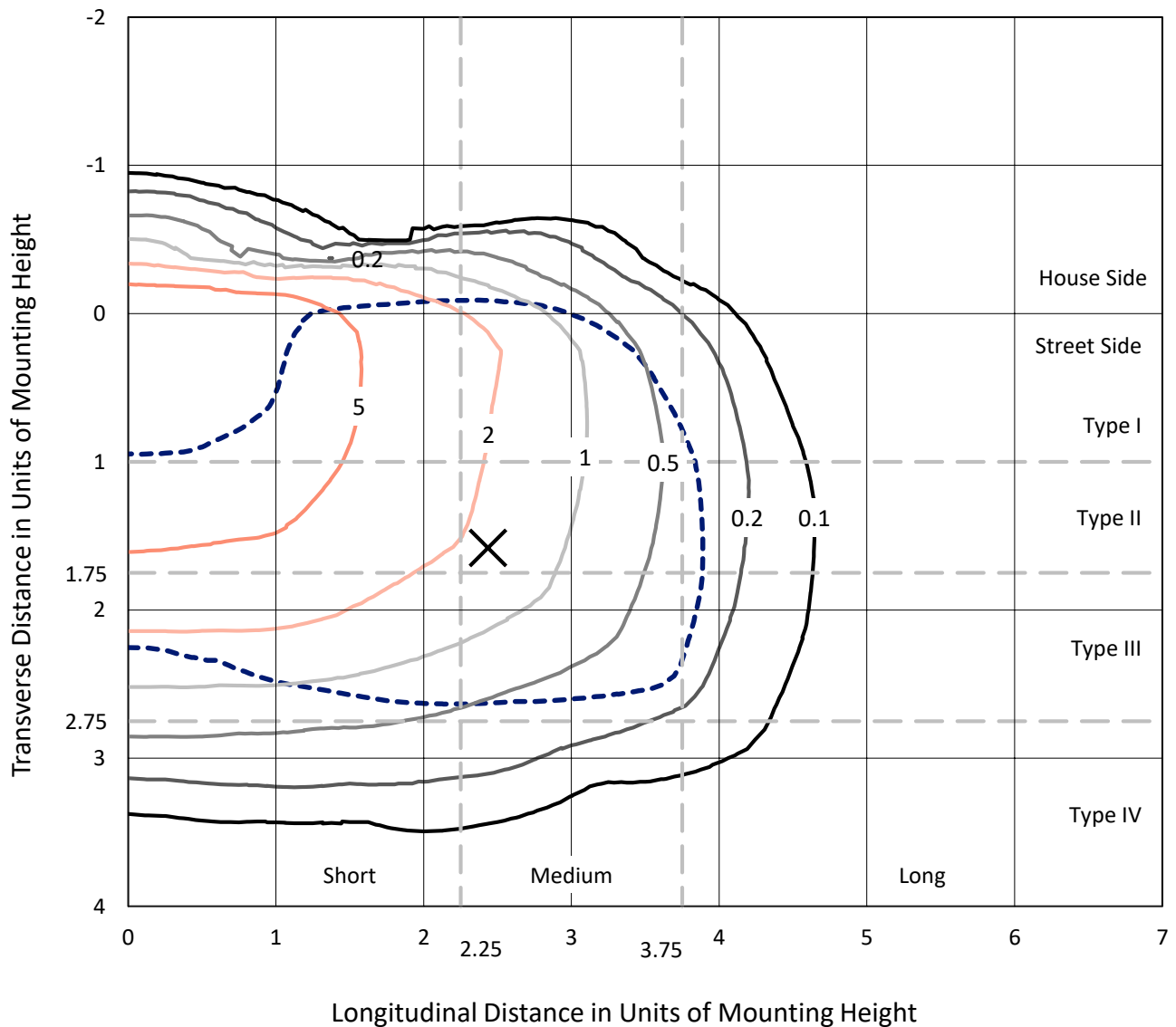
Input Watts (W): 83  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

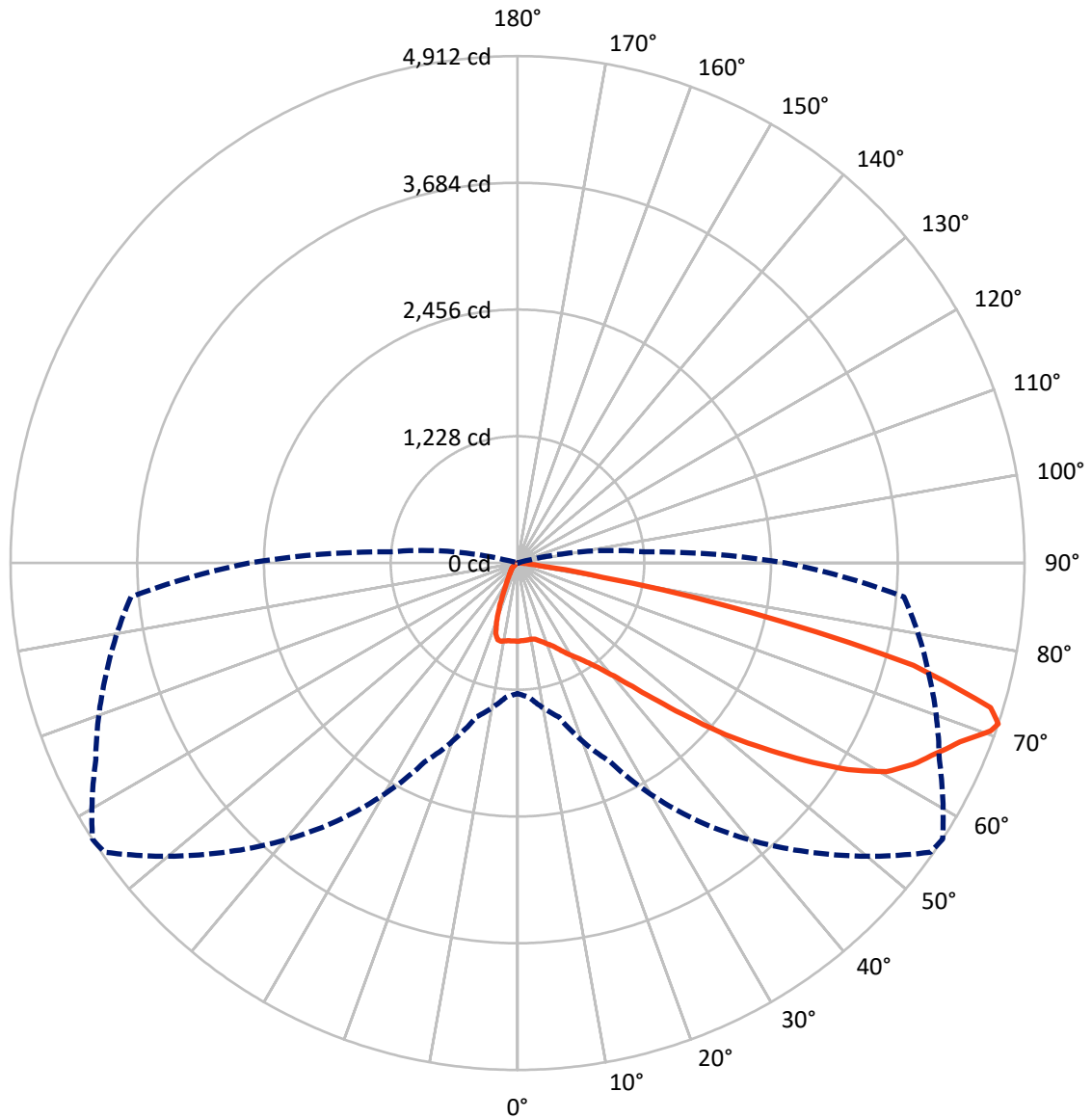


Based on 10 foot mounting height. Maximum calculated value = 9.4 fc  
 Type III - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



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



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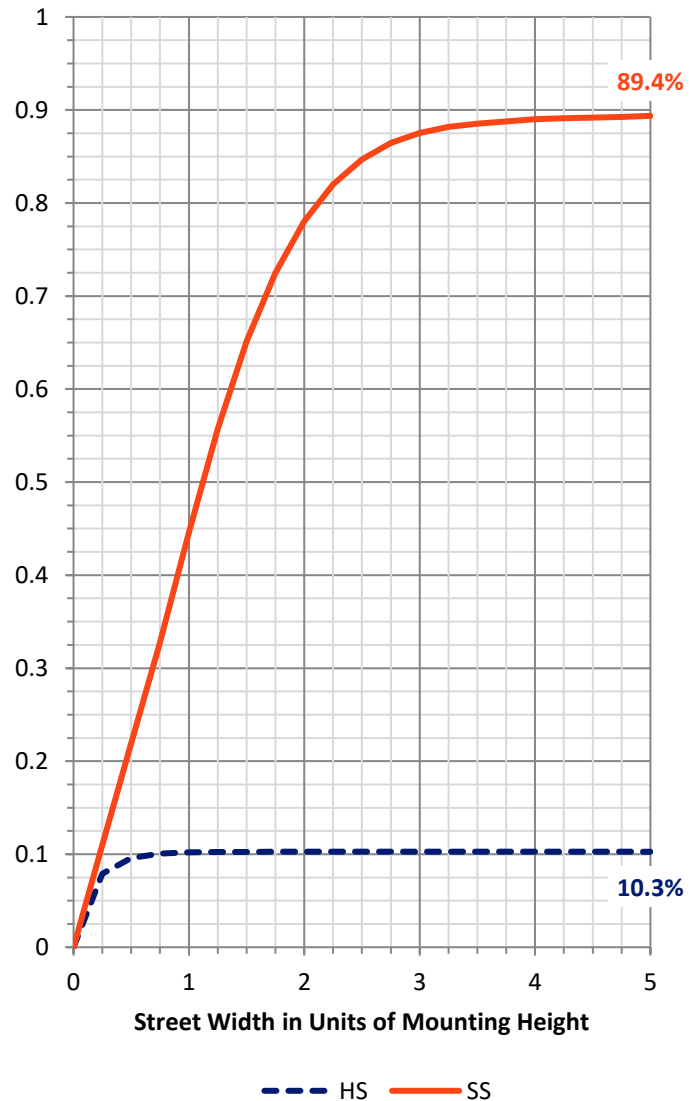
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	696.4	0.0	696.4
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	6023.4	0.0	6023.4
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	6719.8	0.0	6719.8
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.3	1.1
10°-20°	190.7	2.8
20°-30°	297.5	4.4
30°-40°	502.8	7.5
40°-50°	976.6	14.5
50°-60°	1639.9	24.4
60°-70°	1957.1	29.1
70°-80°	1031.4	15.3
80°-90°	52.4	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°	6719.8	100.0
0°-180°	6719.8	100.0

**Coefficient of Utilization**



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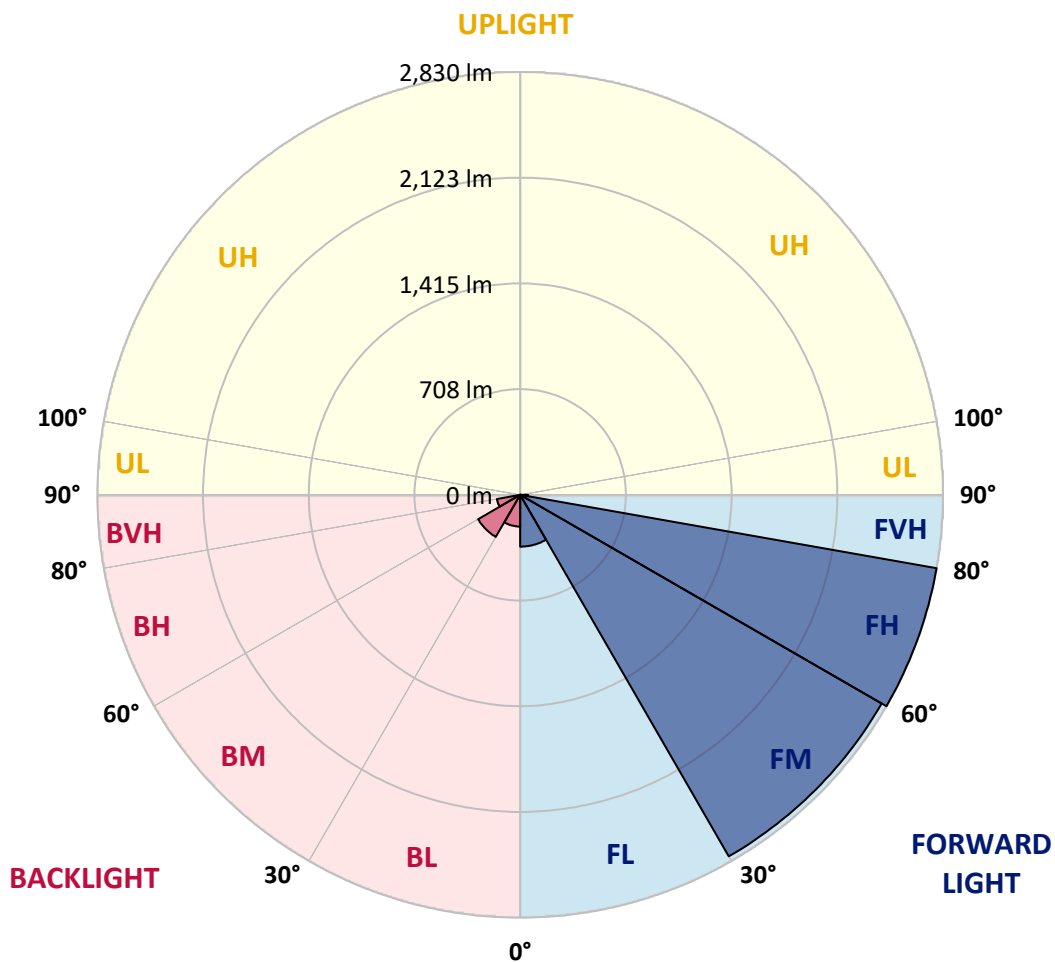
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	346.9	5.2			
FM	(30°-60°)	2794.1	41.6			
FH	(60°-80°)	2830.4	42.1			G2/5000
FVH	(80°-90°)	51.9	0.8			G1/100
BL	(0°-30°)	212.6	3.2	B1/500		
BM	(30°-60°)	325.2	4.8	B1/1000		
BH	(60°-80°)	158.1	2.4	B1/500		G1/500
BVH	(80°-90°)	0.5	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°	759.4	759.4	759.4	759.4	759.4	759.4	759.4	759.4	759.4	759.4	759.4
2.5°	748.5	748.5	748.5	750.0	751.6	751.6	754.7	753.2	753.2	753.2	756.3
5°	728.1	729.7	731.2	734.4	740.6	745.3	753.2	753.2	754.7	757.9	759.4
7.5°	699.9	701.5	706.2	712.5	725.0	735.9	748.5	751.6	756.3	764.1	767.3
10°	682.7	685.9	692.1	699.9	714.0	728.1	743.8	748.5	762.6	776.6	784.5
12.5°	678.0	679.5	685.9	698.4	715.6	732.8	753.2	757.9	778.3	800.2	812.6
15°	685.9	687.4	690.5	704.6	725.0	747.0	773.6	779.8	804.9	829.9	845.6
17.5°	699.9	699.9	703.1	715.6	737.5	762.6	797.0	806.4	834.6	862.8	880.0
20°	709.3	709.3	714.0	726.6	751.6	784.5	825.2	837.7	869.0	900.4	916.1
22.5°	718.7	720.3	725.0	739.1	767.3	812.6	859.7	872.2	908.2	941.1	956.8
25°	745.3	743.8	745.3	757.9	790.7	847.1	906.6	922.3	959.8	995.8	1003.7
27.5°	819.0	815.8	795.4	787.6	812.6	883.1	966.2	981.8	1025.6	1061.6	1061.6
30°	988.1	981.8	931.7	867.5	847.1	916.1	1022.5	1044.4	1100.8	1132.1	1122.7
32.5°	1202.6	1188.5	1124.3	1014.7	933.2	959.8	1082.0	1107.0	1179.1	1205.8	1185.4
35°	1437.5	1435.9	1356.0	1215.1	1099.3	1050.7	1158.7	1188.5	1279.3	1302.8	1269.9
37.5°	1686.4	1692.7	1639.5	1445.2	1309.1	1199.4	1260.5	1295.0	1406.1	1434.3	1403.0
40°	1963.6	1962.0	1941.7	1711.5	1561.1	1410.9	1407.7	1439.0	1573.7	1617.5	1573.7
42.5°	2314.3	2311.2	2237.6	2030.9	1866.5	1686.4	1622.2	1633.1	1783.5	1855.5	1791.3
45°	2671.3	2649.4	2564.8	2386.3	2240.8	2027.8	1905.7	1905.7	2034.0	2132.6	2032.5
47.5°	2870.2	2848.3	2813.8	2715.2	2671.3	2433.3	2253.3	2231.4	2331.5	2431.8	2290.8
50°	3131.7	3131.7	3045.5	3008.0	3083.2	2915.6	2636.9	2615.0	2663.5	2743.3	2558.6
52.5°	3338.4	3300.8	3239.7	3272.6	3487.1	3410.4	3020.5	2978.2	3015.9	3036.2	2791.9
55°	3424.5	3388.5	3383.8	3504.3	3836.4	3729.9	3413.6	3375.9	3372.9	3272.6	2995.5
57.5°	3441.7	3410.4	3470.0	3681.3	4176.1	3991.3	3805.0	3776.8	3689.2	3438.5	3203.7
60°	3296.2	3311.8	3455.8	3778.4	4376.5	4218.3	4135.4	4105.6	3903.7	3579.5	3435.5
62.5°	2997.0	3034.6	3303.9	3787.8	4302.9	4310.8	4318.6	4298.2	4069.6	3707.9	3668.8
65°	2643.1	2654.1	2978.2	3657.8	4174.6	4282.6	4453.3	4451.7	4196.5	3852.0	3931.8
67.5°	2178.1	2196.9	2477.2	3219.3	3917.7	4270.1	4630.2	4625.5	4340.5	4016.4	4088.4
70°	1620.7	1644.2	1871.2	2503.8	3344.6	4113.5	4862.0	4865.1	4492.4	4141.6	3980.4
71°	1263.7	1305.9	1543.9	2126.4	3051.9	3955.3	4883.9	4912.1	4509.7	4124.4	3758.0
72.5°	620.1	670.1	969.2	1497.0	2511.7	3601.4	4739.8	4794.6	4401.6	3909.9	3213.1
75°	161.3	170.6	289.7	612.2	1346.6	2386.3	3822.3	3961.6	3598.3	2976.7	1963.6
77.5°	101.8	105.0	136.3	238.0	504.2	906.6	2245.4	2314.3	2055.9	1507.9	692.1
80°	72.0	73.6	86.1	153.4	294.4	264.6	807.9	837.7	743.8	399.3	123.7
82.5°	43.9	43.9	62.6	98.6	181.7	144.0	213.0	227.1	200.4	111.2	40.7
85°	25.1	26.6	39.2	67.3	86.1	70.5	79.9	84.6	86.1	73.6	17.2
87.5°	20.4	21.9	34.5	56.4	47.0	34.5	34.5	36.0	37.5	43.9	7.9
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°	759.4	759.4	759.4	759.4	759.4	759.4	759.4	759.4	759.4	759.4	759.4
2.5°	756.3	756.3	757.9	756.3	756.3	756.3	757.9	757.9	757.9	761.0	762.6
5°	759.4	759.4	759.4	757.9	756.3	756.3	759.4	761.0	761.0	765.7	765.7
7.5°	767.3	767.3	764.1	761.0	757.9	753.2	754.7	756.3	754.7	756.3	756.3
10°	784.5	784.5	779.8	773.6	764.1	750.0	731.2	707.8	685.9	678.0	674.8
12.5°	812.6	811.1	801.7	790.7	770.4	721.9	651.4	568.4	499.5	480.7	474.4
15°	844.0	840.9	829.9	811.1	756.3	627.9	480.7	374.2	308.5	292.8	289.7
17.5°	876.9	872.2	856.5	819.0	692.1	466.7	310.1	234.9	198.9	195.7	197.3
20°	911.3	905.1	883.1	803.3	559.0	311.6	200.4	181.7	178.5	178.5	180.0
22.5°	950.4	942.6	912.9	747.0	407.1	206.7	172.3	170.6	169.1	167.6	167.6
25°	995.8	986.5	941.1	645.2	280.3	169.1	164.4	159.7	156.6	153.4	151.9
27.5°	1050.7	1038.2	963.0	519.9	192.6	158.1	155.0	147.2	141.0	134.6	134.6
30°	1105.5	1089.9	956.8	391.5	156.6	147.2	141.0	131.6	122.1	115.9	114.3
32.5°	1163.4	1147.8	916.1	263.1	142.5	134.6	126.8	112.7	101.8	93.9	92.4
35°	1249.5	1237.1	836.2	173.8	128.4	119.0	108.0	93.9	79.9	72.0	70.5
37.5°	1377.9	1362.3	737.5	133.1	112.7	98.6	89.3	73.6	59.5	51.7	50.1
40°	1550.2	1503.2	620.1	117.4	98.6	81.4	68.9	53.2	42.2	37.5	37.5
42.5°	1750.6	1639.5	493.3	106.5	87.7	67.3	50.1	36.0	29.8	28.2	28.2
45°	1963.6	1766.2	366.4	98.6	76.7	53.2	36.0	25.1	21.9	20.4	20.4
47.5°	2182.8	1869.6	255.2	89.3	64.2	40.7	25.1	18.8	15.7	14.1	14.1
50°	2387.9	1937.0	180.0	79.9	54.8	29.8	18.8	14.1	10.9	10.9	10.9
52.5°	2530.4	1930.7	129.9	68.9	42.2	20.4	12.5	9.4	9.4	9.4	9.4
55°	2655.7	1907.2	101.8	59.5	32.8	14.1	9.4	7.9	7.9	6.2	6.2
57.5°	2762.2	1869.6	86.1	48.6	23.5	10.9	6.2	6.2	4.7	4.7	4.7
60°	2853.0	1822.7	72.0	40.7	15.7	7.9	4.7	3.2	3.2	1.5	3.2
62.5°	2976.7	1792.9	62.6	31.3	10.9	4.7	3.2	1.5	1.5	0.0	0.0
65°	3067.5	1736.6	53.2	21.9	6.2	3.2	1.5	1.5	0.0	0.0	0.0
67.5°	3070.6	1634.8	39.2	12.5	4.7	3.2	1.5	0.0	0.0	0.0	0.0
70°	2823.2	1393.6	25.1	6.2	3.2	1.5	1.5	0.0	0.0	0.0	0.0
71°	2596.1	1233.9	20.4	4.7	3.2	1.5	0.0	0.0	0.0	0.0	0.0
72.5°	2139.0	906.6	15.7	4.7	1.5	1.5	0.0	0.0	0.0	0.0	0.0
75°	1179.1	328.9	7.9	3.2	1.5	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	377.4	100.2	4.7	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	64.2	15.7	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	21.9	6.2	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	6.2	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.2	1.5	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)