

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: P398087

Luminaire Tested: **ARCH-S-PA1-80-827-U-T2U-HSS**

Issue Date: 5/19/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P398087  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-568-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/19/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-S-PA1-80-827-U-T2U-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 2700K, 1050mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5458 lumens  
Efficiency: N/A  
Efficacy: 65.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B1 - U0 - G1

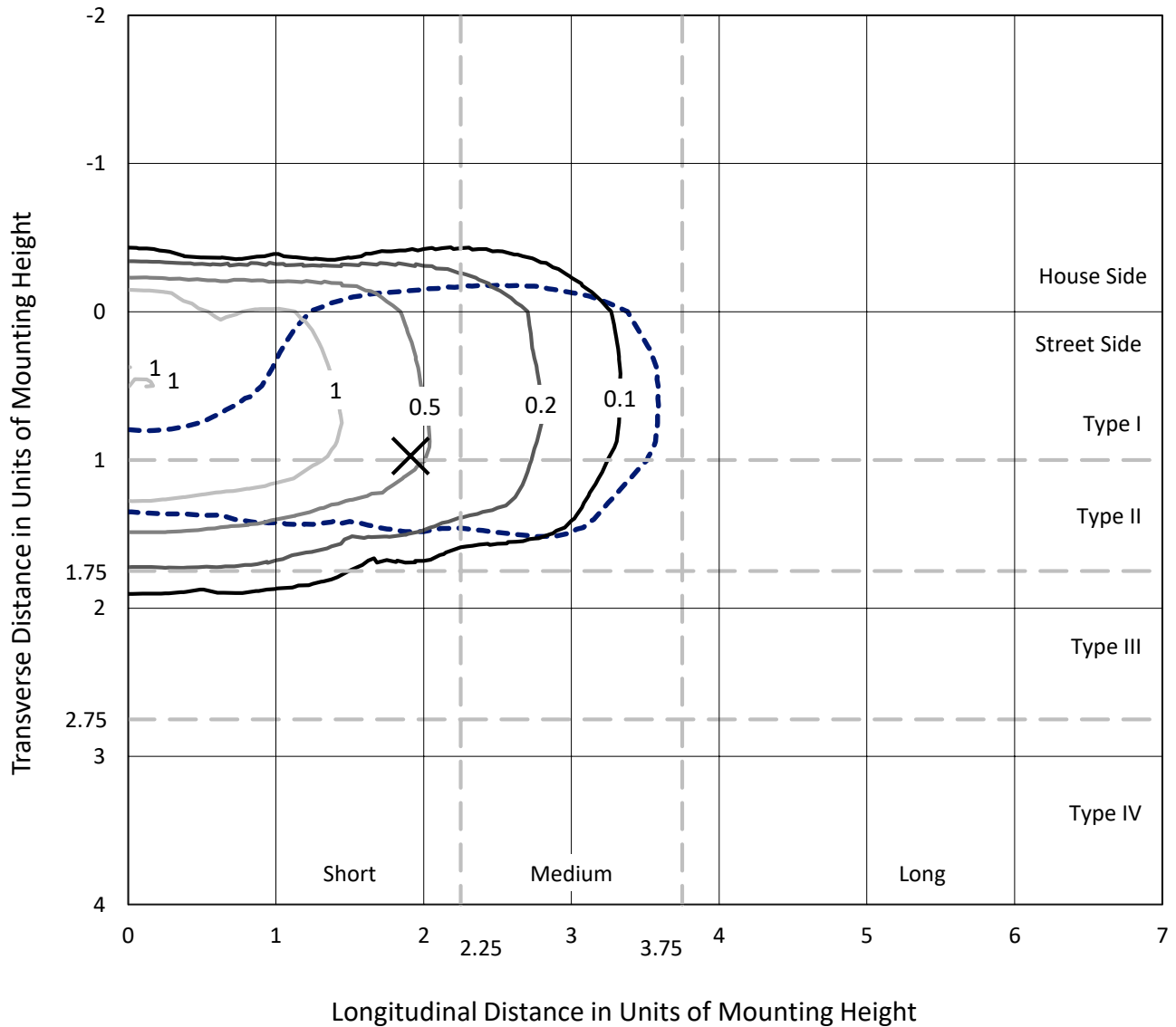
Input Watts (W): 83  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

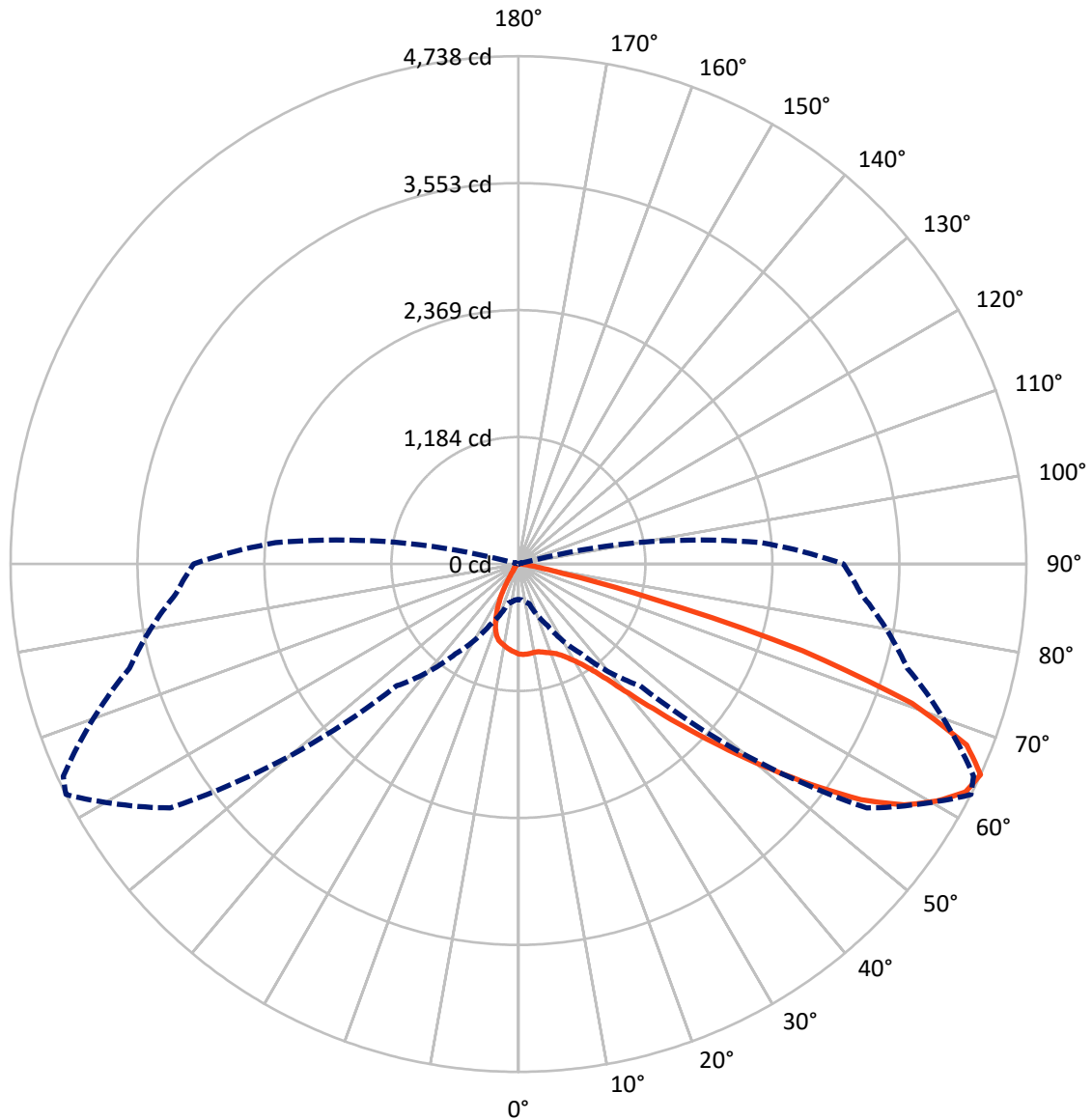
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 63-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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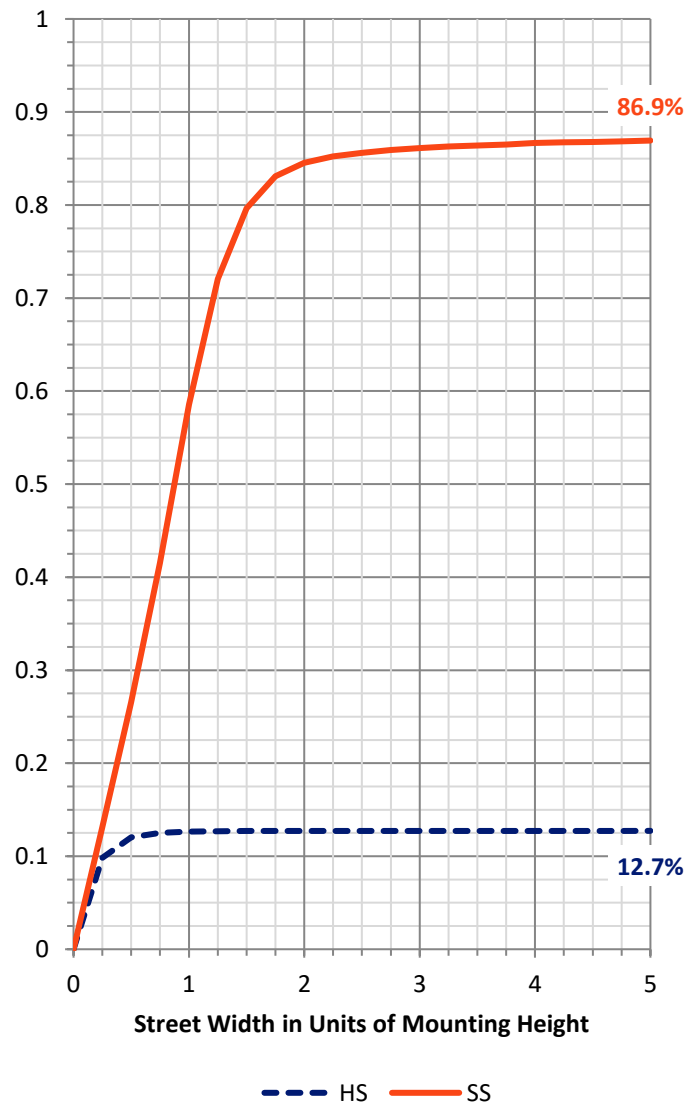
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	702.4	0.0	702.4
	% Fixture	12.9	0.0	12.9
<b>Street Side</b>	Lumens	4755.6	0.0	4755.6
	% Fixture	87.1	0.0	87.1
<b>Total</b>	Lumens	5458.0	0.0	5458.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.7	1.4
10°-20°	189.3	3.5
20°-30°	280.5	5.1
30°-40°	520.9	9.5
40°-50°	1103.4	20.2
50°-60°	1525.7	28.0
60°-70°	1221.4	22.4
70°-80°	507.5	9.3
80°-90°	32.6	0.6
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°	5458.0	100.0
0°-180°	5458.0	100.0



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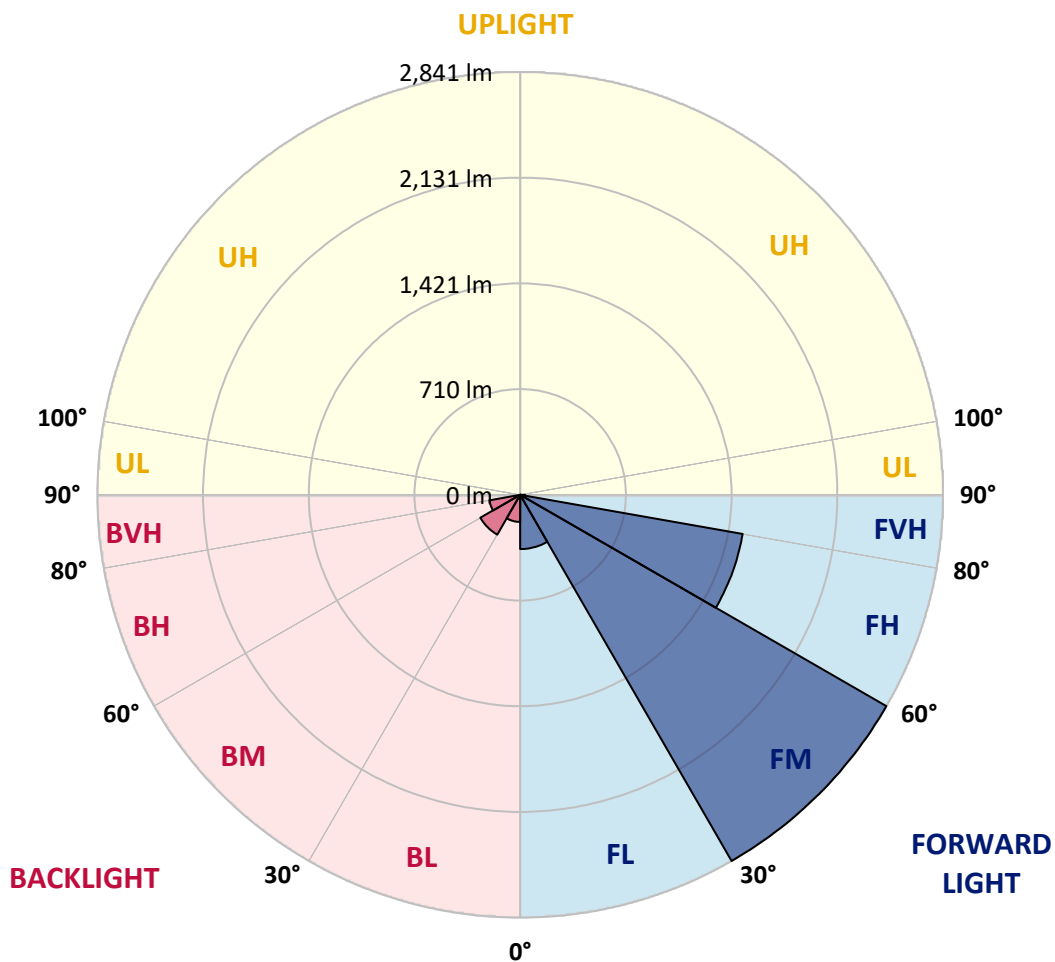
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	364.5	6.7			
FM (30°-60°)	2841.5	52.1			
FH (60°-80°)	1518.5	27.8			G1/1800
FVH (80°-90°)	31.1	0.6			G1/100
BL (0°-30°)	182.0	3.3	B1/500		
BM (30°-60°)	308.6	5.7	B1/1000		
BH (60°-80°)	210.3	3.9	B1/500		G1/500
BVH (80°-90°)	1.5	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-G1**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	840.8	840.8	840.8	840.8	840.8	840.8	840.8	840.8	840.8	840.8	840.8
2.5°	855.2	853.2	851.1	850.1	850.1	849.1	844.9	843.9	841.8	839.8	837.7
5°	847.0	843.9	842.9	843.9	844.9	847.0	844.9	844.9	842.9	840.8	836.7
7.5°	826.4	824.3	825.4	828.4	829.5	836.7	837.7	840.8	840.8	838.7	835.7
10°	801.7	800.6	800.6	805.8	810.9	821.2	828.4	836.7	837.7	837.7	832.6
12.5°	783.1	782.1	785.2	791.3	801.7	815.0	827.4	839.8	841.8	842.9	834.6
15°	771.8	771.8	775.9	788.3	802.7	821.2	835.7	852.1	854.2	853.2	841.8
17.5°	761.5	762.5	770.7	791.3	807.8	832.6	850.1	868.6	869.7	868.6	850.1
20°	757.3	759.4	771.8	798.6	817.1	844.9	867.6	886.1	887.2	883.1	858.3
22.5°	768.7	769.7	785.2	814.0	831.5	862.4	891.3	908.8	909.8	903.7	870.7
25°	807.8	807.8	821.2	846.0	861.4	892.3	923.2	943.8	943.8	936.6	898.5
27.5°	899.5	891.3	888.2	895.4	900.6	933.5	966.5	992.3	991.2	980.9	934.6
30°	1076.8	1056.2	1023.2	986.1	967.5	990.2	1021.1	1054.1	1053.1	1036.6	978.9
32.5°	1374.6	1344.7	1266.4	1168.5	1089.1	1063.4	1092.2	1128.3	1129.3	1109.7	1050.0
35°	1791.9	1744.5	1604.3	1468.3	1287.0	1189.1	1197.3	1236.5	1248.8	1238.5	1169.5
37.5°	2193.7	2150.4	2016.5	1827.9	1581.7	1381.8	1346.7	1380.7	1395.2	1395.2	1322.0
40°	2598.7	2548.2	2429.7	2240.1	1980.4	1682.6	1556.9	1584.8	1600.2	1603.3	1507.5
42.5°	2923.2	2890.3	2799.6	2652.3	2409.1	2210.2	1859.9	1844.4	1858.8	1847.5	1722.8
45°	3147.9	3122.1	3059.3	3003.6	2885.1	2785.2	2264.8	2160.8	2170.0	2130.9	1965.0
47.5°	3194.2	3165.4	3152.0	3229.3	3313.8	3338.5	2762.5	2536.8	2527.6	2441.0	2216.4
50°	2992.3	2995.4	3044.8	3265.3	3617.7	3840.3	3339.5	2961.4	2927.4	2734.7	2450.3
52.5°	2556.4	2605.9	2730.6	3088.1	3710.5	4205.1	3916.6	3411.7	3359.1	3020.1	2625.5
55°	2000.0	2063.9	2268.9	2680.1	3516.8	4367.9	4402.9	3879.5	3759.9	3234.4	2761.5
57.5°	1486.9	1506.4	1745.5	2120.6	3058.2	4208.2	4652.3	4240.1	4086.6	3405.5	2896.5
60°	926.3	938.7	1191.1	1614.6	2316.3	3617.7	4652.3	4488.4	4342.1	3559.0	3020.1
62.5°	576.0	580.1	674.9	1106.7	1574.5	2683.2	4459.6	4681.1	4563.6	3669.3	3126.2
65°	331.8	335.9	380.2	625.5	1024.2	1606.4	3967.0	4737.8	4685.2	3756.8	3208.7
67.5°	242.1	244.2	261.7	351.4	669.8	825.4	2979.9	4510.1	4576.0	3800.1	3206.6
70°	210.2	213.3	236.0	274.1	483.3	507.0	1516.8	3894.9	4079.4	3738.3	3110.8
72.5°	161.8	165.9	199.9	257.6	354.5	364.8	549.2	2771.8	3051.0	3351.9	2848.0
75°	111.3	115.4	149.4	212.3	292.6	273.1	301.9	1275.6	1609.5	2248.3	2168.0
77.5°	71.1	72.1	93.8	154.6	252.4	193.7	207.1	416.3	584.2	1017.0	1023.2
80°	47.4	48.4	57.7	99.9	173.1	179.3	127.8	192.7	211.2	296.8	206.1
82.5°	28.9	28.9	39.2	62.9	105.1	148.4	83.5	101.0	108.2	114.4	53.6
85°	11.3	11.3	23.7	41.2	65.9	69.0	52.6	58.7	61.8	67.0	24.7
87.5°	3.1	3.1	13.4	22.7	28.9	31.9	31.9	28.9	30.9	38.1	12.4
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°	840.8	840.8	840.8	840.8	840.8	840.8	840.8	840.8	840.8	840.8	840.8
2.5°	836.7	833.6	829.5	825.4	821.2	818.1	815.0	815.0	813.0	809.9	807.8
5°	834.6	829.5	820.2	813.0	801.7	793.4	787.2	782.1	779.0	771.8	770.7
7.5°	831.5	825.4	812.0	797.5	779.0	764.6	750.1	739.8	729.5	721.3	719.2
10°	826.4	819.2	799.6	779.0	753.2	726.4	692.4	653.3	617.2	596.6	590.4
12.5°	826.4	817.1	791.3	763.5	726.4	660.5	573.9	487.4	420.4	390.5	382.3
15°	831.5	819.2	785.2	747.0	678.0	544.1	403.9	289.5	216.4	193.7	188.6
17.5°	836.7	819.2	775.9	724.4	589.4	394.6	229.8	152.5	128.8	123.6	123.6
20°	838.7	817.1	763.5	682.1	470.9	245.2	137.0	114.4	105.1	102.0	102.0
22.5°	847.0	818.1	754.3	621.3	342.1	144.3	108.2	95.8	86.6	83.5	83.5
25°	867.6	830.5	756.3	544.1	219.5	109.2	91.7	79.3	70.1	65.9	65.9
27.5°	900.6	858.3	767.6	454.4	138.1	93.8	77.3	63.9	56.7	52.6	52.6
30°	937.7	889.2	772.8	351.4	103.0	79.3	62.9	50.5	45.3	42.2	41.2
32.5°	1002.6	942.8	768.7	241.1	84.5	67.0	50.5	40.2	36.1	35.0	35.0
35°	1106.7	1036.6	760.4	151.5	70.1	53.6	40.2	33.0	29.9	28.9	27.8
37.5°	1247.8	1173.6	735.7	99.9	57.7	42.2	33.0	27.8	24.7	23.7	23.7
40°	1419.9	1330.2	688.3	76.2	49.5	34.0	27.8	23.7	21.6	20.6	20.6
42.5°	1616.7	1504.4	613.1	65.9	41.2	28.9	23.7	19.6	18.5	17.5	17.5
45°	1832.1	1686.8	509.0	58.7	35.0	23.7	19.6	17.5	15.5	15.5	14.4
47.5°	2060.8	1870.2	391.6	51.5	29.9	20.6	17.5	14.4	13.4	12.4	12.4
50°	2281.3	2034.0	275.1	44.3	24.7	17.5	14.4	12.4	11.3	10.3	10.3
52.5°	2436.9	2132.9	194.7	38.1	20.6	15.5	11.3	9.3	8.2	8.2	8.2
55°	2561.6	2194.8	136.0	31.9	17.5	13.4	9.3	7.2	7.2	6.2	6.2
57.5°	2679.0	2234.9	99.9	26.8	14.4	10.3	7.2	5.2	5.2	4.1	4.1
60°	2800.6	2256.6	76.2	21.6	12.4	8.2	5.2	4.1	3.1	3.1	3.1
62.5°	2923.2	2270.0	58.7	17.5	10.3	6.2	4.1	3.1	2.1	1.0	1.0
65°	3030.4	2274.1	45.3	13.4	8.2	4.1	3.1	1.0	0.0	0.0	0.0
67.5°	3062.4	2226.7	35.0	10.3	6.2	3.1	2.1	0.0	0.0	0.0	0.0
70°	2975.8	2101.0	26.8	8.2	5.2	2.1	1.0	0.0	0.0	0.0	0.0
72.5°	2640.9	1762.0	20.6	5.2	4.1	2.1	1.0	0.0	0.0	0.0	0.0
75°	1889.8	939.7	14.4	4.1	3.1	1.0	0.0	0.0	0.0	0.0	0.0
77.5°	869.7	363.7	10.3	3.1	2.1	1.0	0.0	0.0	0.0	0.0	0.0
80°	170.0	90.7	4.1	2.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	39.2	15.5	2.1	2.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	13.4	5.2	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.2	2.1	1.0	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)