

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: P258178

Luminaire Tested: **ARCH-M-AF48-50-D-U-T2U-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P258178  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1802-616-3)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-M-AF48-50-D-U-T2U-7030-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 305mA LIGHT ENGINES 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: 4539.7 lumens  
Efficiency: N/A  
Efficacy: 94.6 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B1 - U0 - G1

Input Watts (W): 48  
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

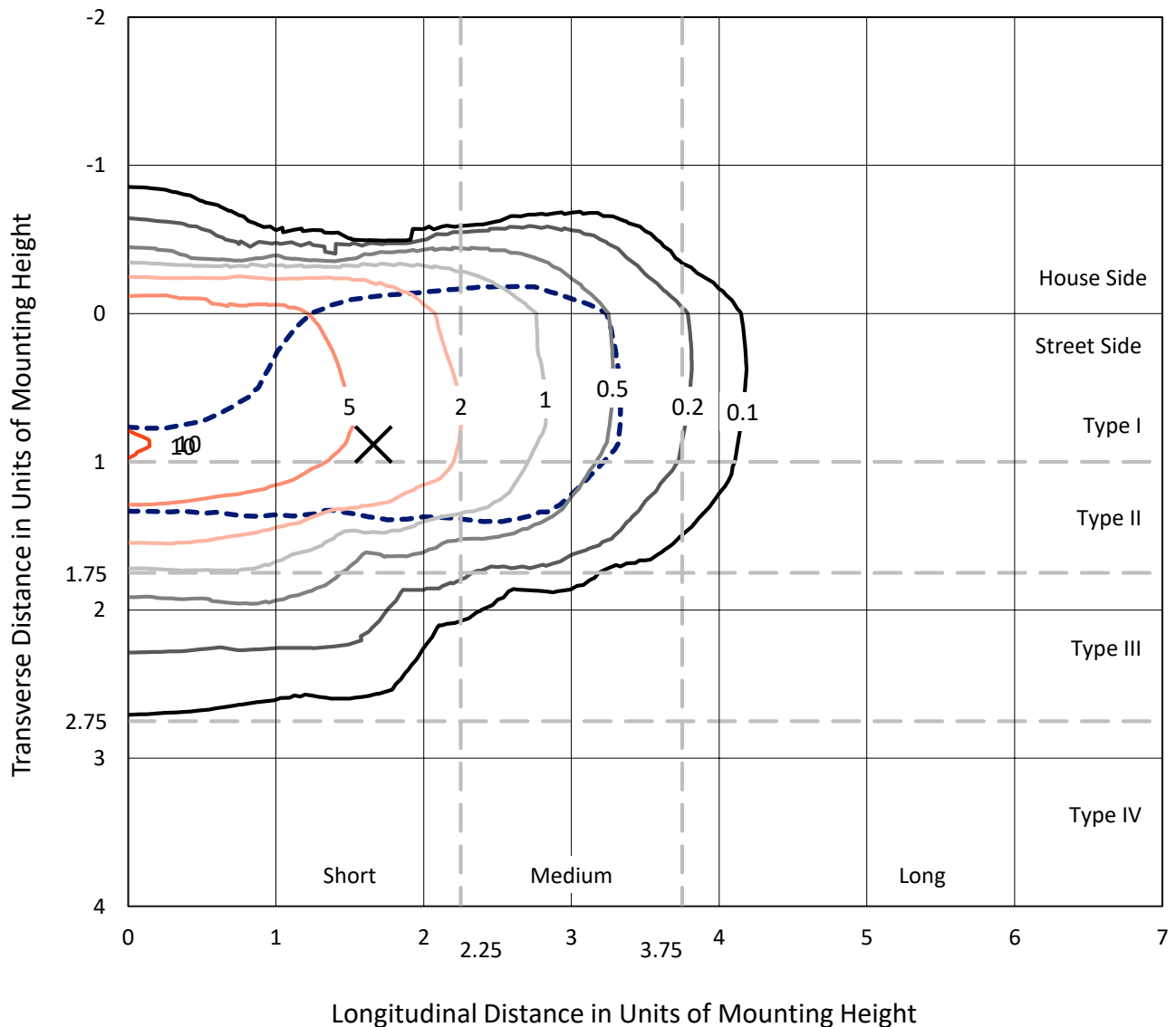


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

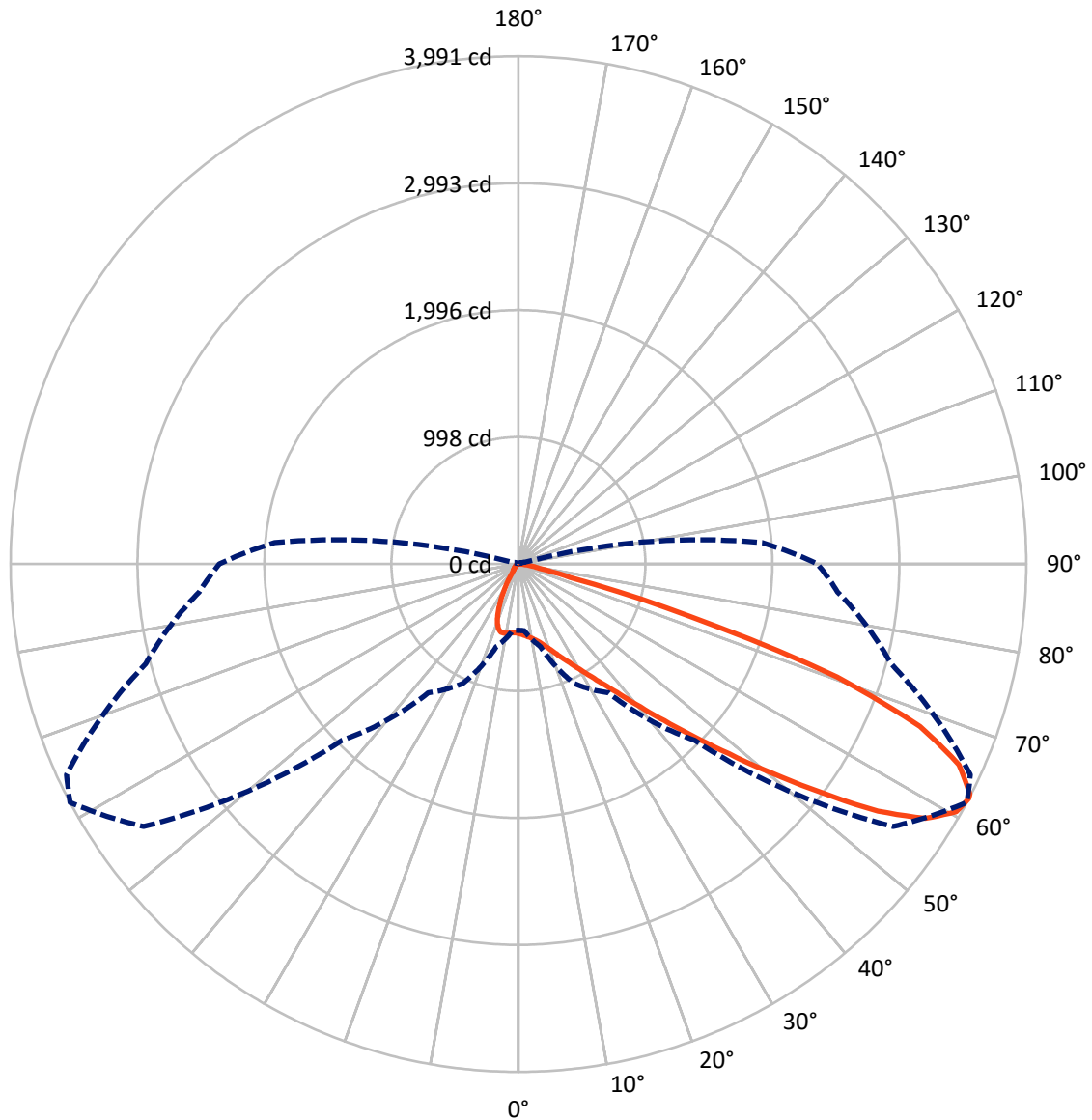


Based on 10 foot mounting height. Maximum calculated value = 10.4 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 62-Deg Lateral      - - - Horizontal Cone Through 62-Deg Vertical

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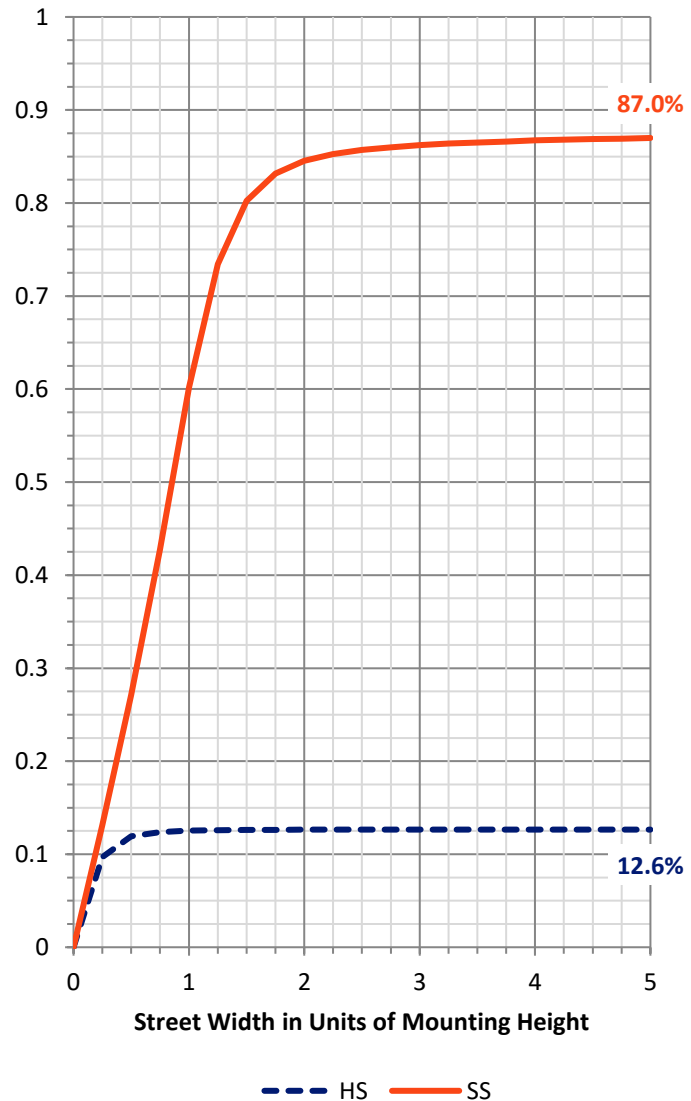
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	580.4	0.0	580.4
	% Fixture	12.8	0.0	12.8
<b>Street Side</b>	Lumens	3959.3	0.0	3959.3
	% Fixture	87.2	0.0	87.2
<b>Total</b>	Lumens	4539.7	0.0	4539.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.6	1.2
10°-20°	147.0	3.2
20°-30°	246.8	5.4
30°-40°	473.1	10.4
40°-50°	966.4	21.3
50°-60°	1278.9	28.2
60°-70°	993.5	21.9
70°-80°	358.6	7.9
80°-90°	22.8	0.5
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°	4539.7	100.0
0°-180°	4539.7	100.0



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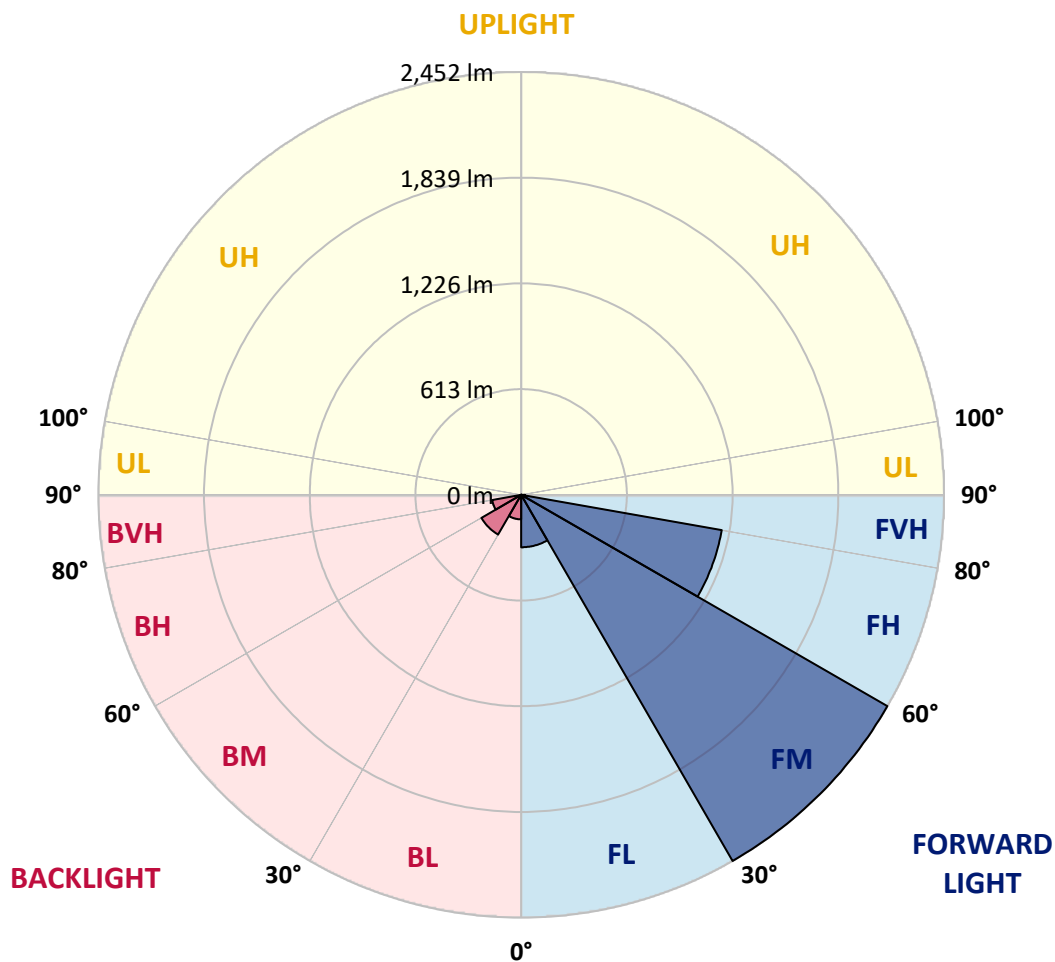
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	304.3	6.7			
FM	(30°-60°)	2451.9	54.0			
FH	(60°-80°)	1181.1	26.0			G1/1800
FVH	(80°-90°)	21.9	0.5			G1/100
BL	(0°-30°)	142.1	3.1	B1/500		
BM	(30°-60°)	266.5	5.9	B1/1000		
BH	(60°-80°)	170.9	3.8	B1/500		G1/500
BVH	(80°-90°)	1.0	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°	62°	65°	75°	85°
0°	546.9	546.9	546.9	546.9	546.9	546.9	546.9	546.9	546.9	546.9	546.9
2.5°	561.4	560.3	559.2	558.0	558.0	556.9	555.8	553.6	551.3	549.1	547.9
5°	571.4	570.4	569.2	570.4	569.2	569.2	568.0	565.9	563.6	560.3	556.9
7.5°	579.2	578.1	577.0	578.1	579.2	580.3	581.5	579.2	578.1	573.6	570.4
10°	589.2	588.2	587.0	589.2	589.2	594.8	596.0	594.8	593.8	590.4	584.9
12.5°	603.7	604.9	604.9	607.2	609.3	616.1	618.3	614.9	614.9	610.4	603.7
15°	630.5	630.5	630.5	632.8	633.9	642.9	645.0	641.7	644.0	636.1	629.5
17.5°	656.2	657.4	659.6	664.1	664.1	671.8	676.4	676.4	680.8	670.8	661.8
20°	681.9	683.0	686.3	696.4	696.4	706.5	714.2	717.7	722.1	712.1	696.4
22.5°	709.8	709.8	715.4	731.1	727.6	747.8	762.3	767.9	772.4	759.0	734.3
25°	752.2	747.8	752.2	766.8	764.5	792.3	819.2	824.8	830.4	814.7	777.9
27.5°	832.5	825.9	810.2	811.4	811.4	843.7	881.7	889.5	892.8	879.4	833.6
30°	993.2	993.2	935.3	896.2	870.6	899.5	953.1	966.5	971.0	950.9	890.6
32.5°	1273.4	1273.4	1166.3	1066.9	969.9	969.9	1031.2	1055.8	1060.3	1036.9	966.5
35°	1630.5	1628.3	1467.6	1331.5	1141.8	1070.3	1122.7	1164.0	1177.5	1146.2	1064.7
37.5°	2010.1	1995.5	1822.6	1666.3	1406.2	1231.1	1246.6	1301.3	1313.7	1287.9	1191.9
40°	2318.1	2301.3	2161.8	2031.2	1747.7	1487.7	1425.2	1475.4	1490.0	1454.2	1343.8
42.5°	2597.1	2555.8	2459.8	2366.0	2140.6	1931.9	1662.9	1683.0	1698.7	1660.7	1514.5
45°	2799.1	2735.5	2686.3	2657.3	2537.9	2419.6	1970.9	1930.8	1936.4	1889.5	1700.8
47.5°	2804.6	2760.0	2764.5	2840.4	2889.5	2885.0	2371.6	2228.8	2207.6	2129.5	1899.6
50°	2536.8	2562.4	2644.0	2860.4	3126.1	3286.8	2848.2	2581.5	2517.9	2377.2	2097.1
52.5°	2090.3	2130.5	2283.4	2648.5	3160.7	3551.3	3342.6	2984.3	2870.5	2622.8	2248.9
55°	1637.2	1639.6	1800.1	2171.8	2929.7	3599.3	3737.6	3427.5	3253.3	2809.2	2349.3
57.5°	1126.1	1187.5	1391.8	1641.7	2408.4	3360.5	3886.2	3771.2	3546.9	2924.1	2419.6
60°	737.7	741.1	978.8	1267.9	1639.6	2734.3	3795.6	3953.1	3784.5	2992.2	2467.6
62°	520.1	525.6	673.0	1035.7	1235.5	1959.8	3595.9	3991.0	3918.5	3032.4	2517.9
62.5°	482.2	486.6	610.4	977.7	1160.7	1757.8	3524.4	3982.1	3938.6	3045.7	2535.7
65°	353.8	353.8	399.6	671.8	850.5	949.8	2986.6	3804.6	3911.8	3152.9	2602.7
67.5°	273.4	275.7	291.2	414.1	641.7	575.9	1906.2	3405.1	3632.8	3311.3	2640.6
70°	235.5	234.4	245.5	274.6	463.2	382.9	839.3	2657.3	3042.4	3271.2	2606.0
72.5°	174.2	175.3	200.9	241.0	322.6	248.9	379.4	1410.6	1973.2	2560.3	2233.3
75°	111.6	112.7	141.7	189.8	232.1	162.9	218.7	420.7	808.0	1419.6	1366.1
77.5°	74.8	77.0	92.7	132.9	203.1	101.6	137.2	176.4	243.3	532.3	489.9
80°	50.3	50.3	59.1	89.3	128.4	84.7	73.6	117.2	126.0	165.2	82.6
82.5°	33.5	33.5	39.2	59.1	83.7	75.9	44.7	63.6	73.6	82.6	29.1
85°	20.1	20.1	26.8	36.8	54.7	42.4	29.1	35.7	37.9	52.5	15.7
87.5°	12.2	11.2	17.8	25.6	29.1	25.6	19.0	19.0	20.1	29.1	7.8
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°	546.9	546.9	546.9	546.9	546.9	546.9	546.9	546.9	546.9	546.9	546.9
2.5°	545.8	544.6	543.6	541.3	538.0	535.7	533.5	531.2	529.1	529.1	532.3
5°	555.8	552.5	547.9	543.6	536.8	532.3	529.1	524.6	522.4	522.4	523.5
7.5°	568.0	564.8	556.9	549.1	539.0	531.2	523.5	513.4	505.6	502.3	505.6
10°	581.5	577.0	565.9	553.6	542.4	522.4	496.7	465.5	438.5	426.3	431.9
12.5°	598.2	592.6	579.2	562.4	536.8	487.8	424.2	351.6	305.8	284.6	289.1
15°	622.8	614.9	596.0	570.4	513.4	407.3	303.5	219.8	177.4	159.6	161.8
17.5°	651.7	641.7	616.1	568.0	453.1	293.5	180.9	128.4	110.5	106.0	106.0
20°	683.0	669.6	636.1	551.3	361.6	184.1	112.7	98.3	91.6	88.2	88.2
22.5°	715.4	697.5	653.0	512.3	257.9	114.9	92.7	82.6	74.8	71.4	71.4
25°	754.4	731.1	669.6	444.1	164.1	92.7	79.2	69.2	61.4	57.0	58.0
27.5°	800.3	770.1	684.2	359.4	106.0	80.3	65.9	55.8	49.0	46.9	46.9
30°	848.2	812.5	687.5	269.0	86.0	69.2	54.7	45.8	41.3	39.2	39.2
32.5°	914.1	867.2	677.4	178.5	72.5	58.0	45.8	37.9	34.6	33.5	33.5
35°	1001.2	938.6	654.0	110.5	61.4	48.0	37.9	33.5	30.1	29.1	29.1
37.5°	1111.6	1038.0	612.7	75.9	52.5	39.2	32.3	29.1	26.8	25.6	25.6
40°	1258.8	1158.4	559.2	65.9	44.7	33.5	27.9	25.6	23.5	23.5	23.5
42.5°	1415.1	1304.7	489.9	58.0	37.9	29.1	24.6	22.3	21.2	20.1	20.1
45°	1585.9	1454.2	404.0	51.4	32.3	25.6	22.3	19.0	17.8	17.8	17.8
47.5°	1755.6	1608.2	310.3	44.7	27.9	22.3	19.0	16.7	15.7	14.5	14.5
50°	1929.6	1747.7	227.7	39.2	24.6	20.1	16.7	14.5	12.2	11.2	11.2
52.5°	2055.8	1831.4	166.3	33.5	21.2	16.7	13.4	11.2	9.0	7.8	7.8
55°	2148.4	1882.7	121.6	27.9	19.0	14.5	11.2	9.0	6.7	6.7	5.6
57.5°	2220.9	1907.3	91.6	24.6	16.7	12.2	9.0	6.7	5.6	4.5	4.5
60°	2276.8	1908.4	68.1	20.1	14.5	10.1	6.7	4.5	3.4	3.4	3.4
62°	2350.3	1923.0	55.8	16.7	13.4	9.0	5.6	3.4	2.1	1.1	1.1
62.5°	2371.6	1928.5	53.5	16.7	12.2	7.8	4.5	3.4	2.1	1.1	1.1
65°	2469.8	1938.6	41.3	13.4	10.1	6.7	3.4	2.1	0.0	0.0	0.0
67.5°	2559.1	1923.0	30.1	10.1	7.8	4.5	3.4	1.1	0.0	0.0	0.0
70°	2550.2	1815.8	21.2	6.7	5.6	3.4	2.1	0.0	0.0	0.0	0.0
72.5°	2101.5	1359.4	14.5	5.6	3.4	2.1	1.1	0.0	0.0	0.0	0.0
75°	1268.9	594.8	10.1	3.4	3.4	2.1	1.1	0.0	0.0	0.0	0.0
77.5°	416.3	215.3	6.7	2.1	2.1	1.1	1.1	0.0	0.0	0.0	0.0
80°	68.1	35.7	3.4	2.1	2.1	1.1	1.1	0.0	0.0	0.0	0.0
82.5°	21.2	9.0	2.1	2.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0
85°	7.8	3.4	2.1	2.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0
87.5°	3.4	2.1	2.1	2.1	1.1	1.1	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)