

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: P214940

Luminaire Tested: **ARCH-AF24-50-D-U-T4W-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214940
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF24-50-D-U-T4W-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 670mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4771 lumens
Efficiency: N/A
Efficacy: 88.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

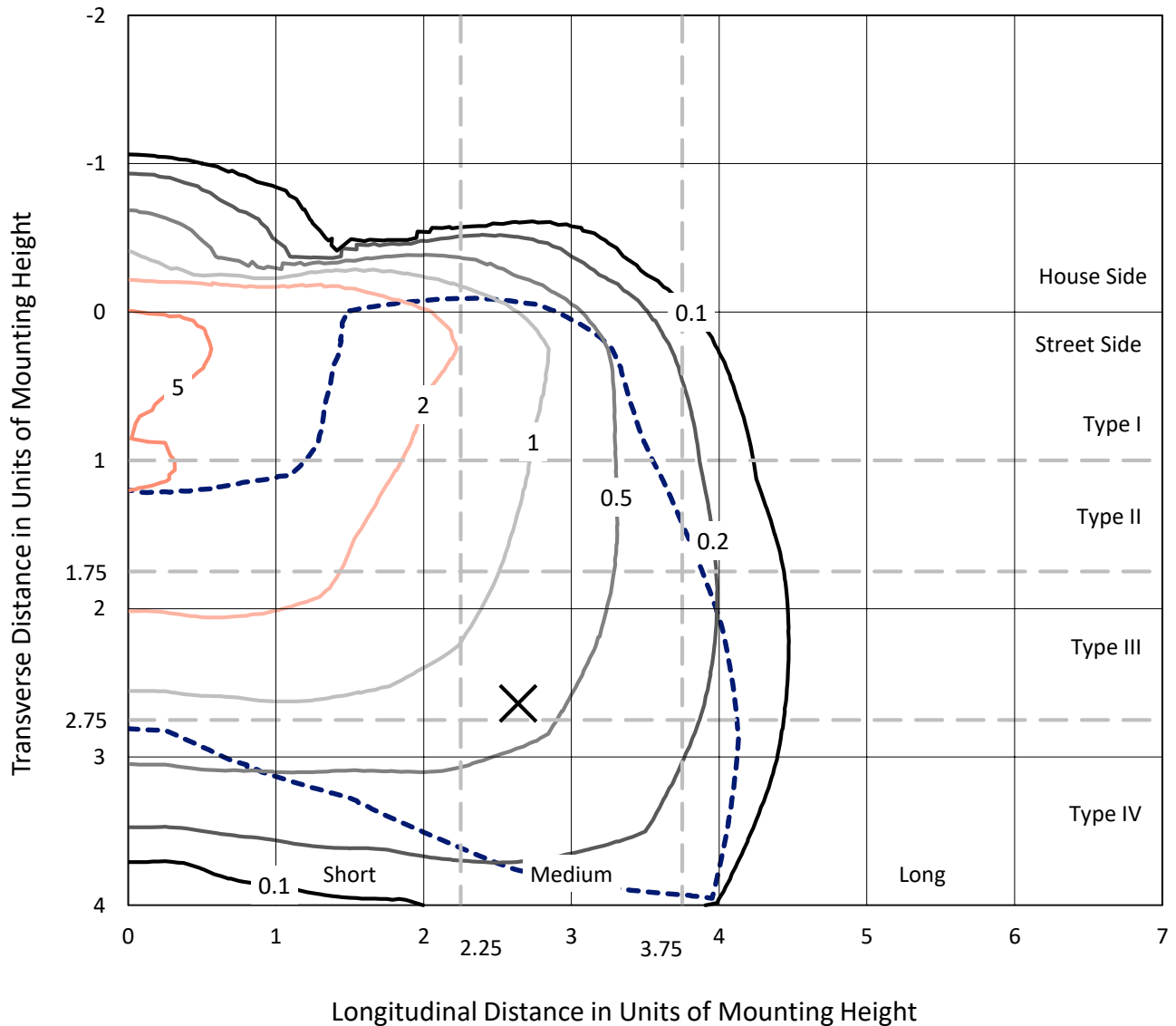
Input Watts (W): 54
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

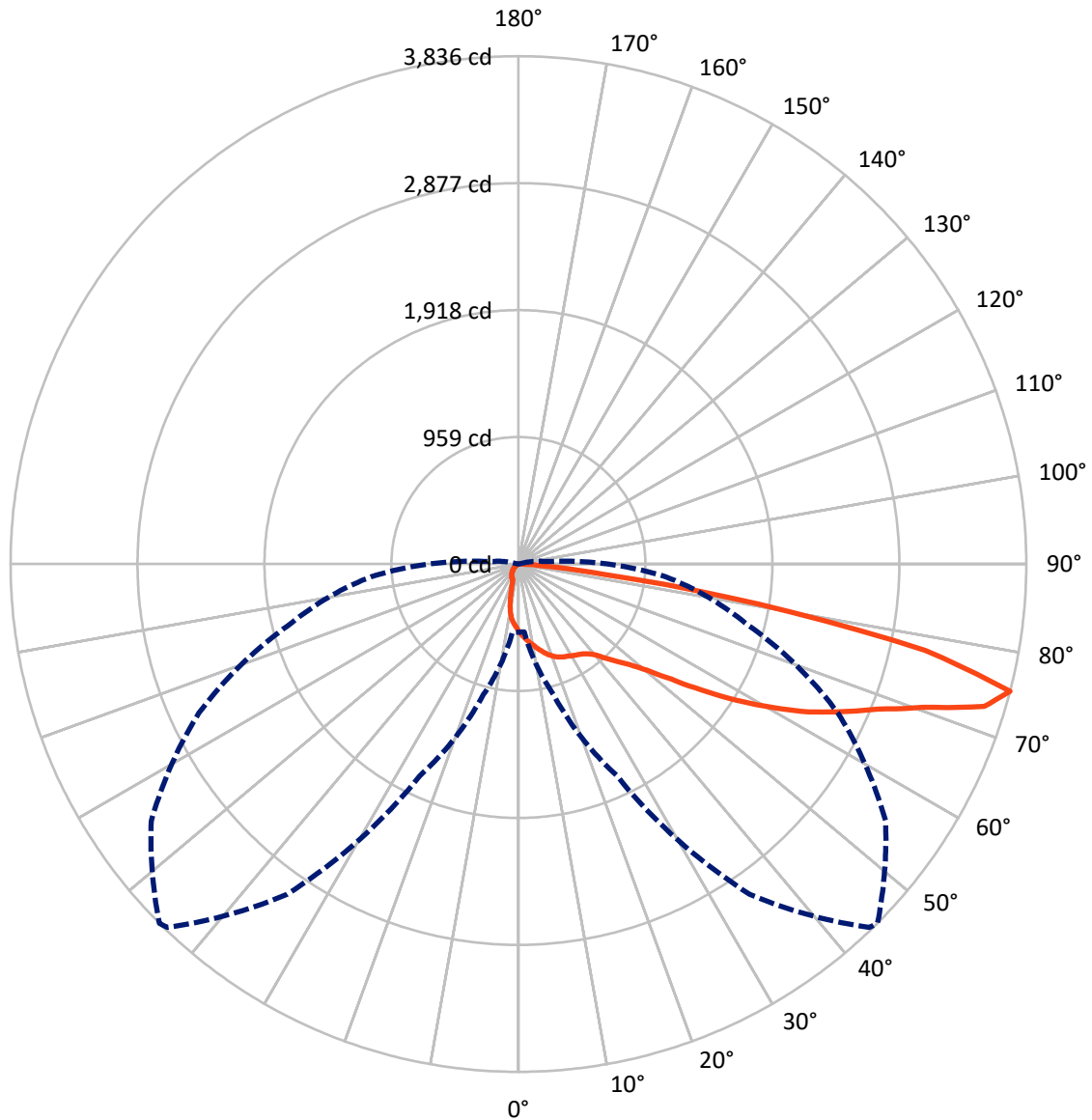
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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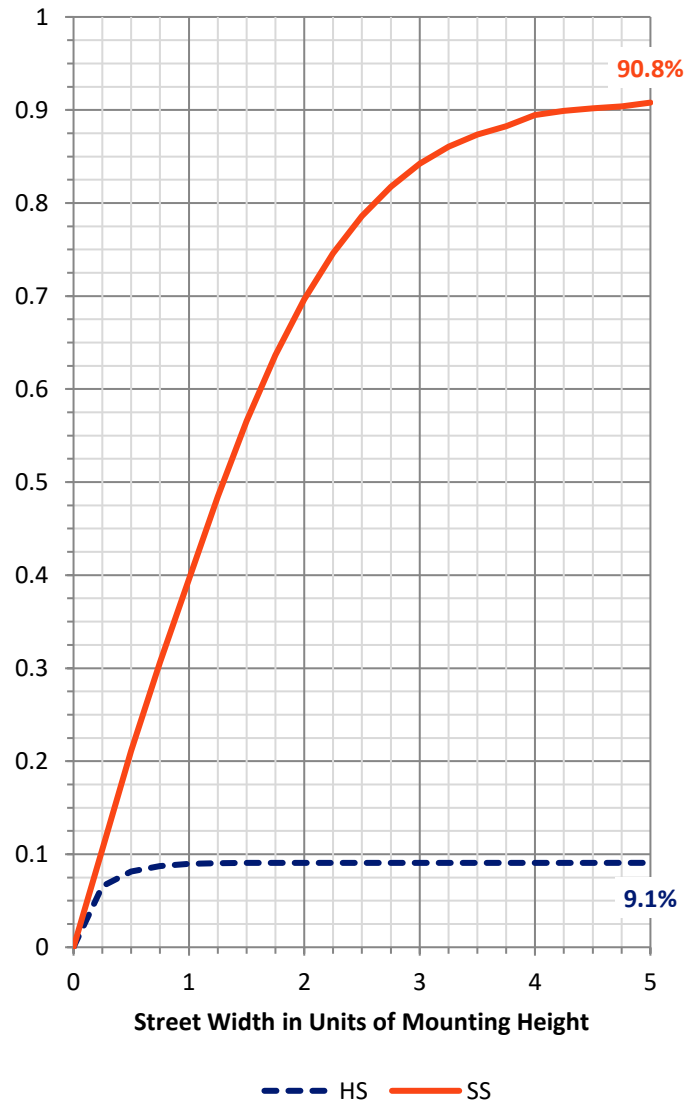
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	436.4	0.0	436.4
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	4334.6	0.0	4334.6
	% Fixture	90.9	0.0	90.9
Total	Lumens	4771.0	0.0	4771.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.2	1.0
10°-20°	136.4	2.9
20°-30°	226.0	4.7
30°-40°	327.0	6.9
40°-50°	535.5	11.2
50°-60°	954.1	20.0
60°-70°	1402.7	29.4
70°-80°	1058.2	22.2
80°-90°	83.0	1.7
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°	4771.0	100.0
0°-180°	4771.0	100.0



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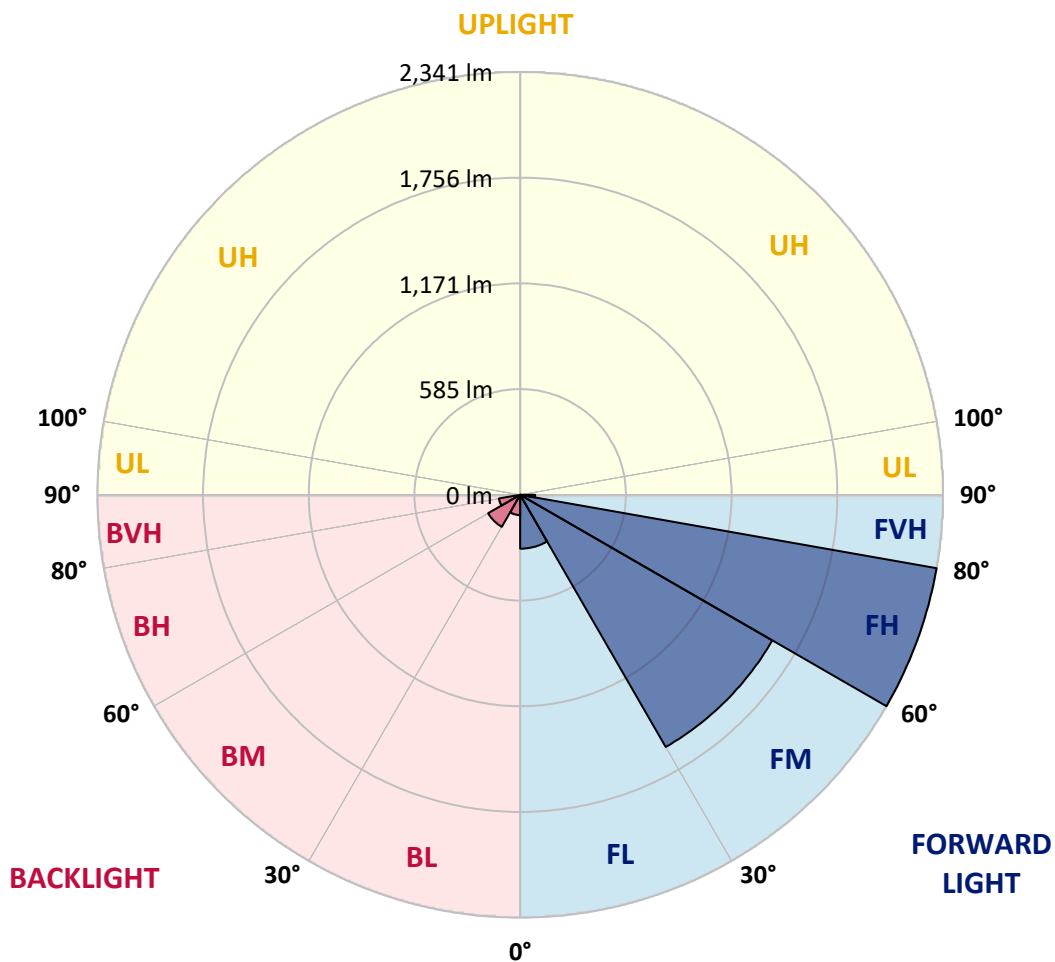
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	298.4	6.3			
FM	(30°-60°)	1612.1	33.8			
FH	(60°-80°)	2341.3	49.1			G2/5000
FVH	(80°-90°)	82.8	1.7			G1/100
BL	(0°-30°)	112.1	2.4	B1/500		
BM	(30°-60°)	204.5	4.3	B0/220		
BH	(60°-80°)	119.5	2.5	B1/500		G1/500
BVH	(80°-90°)	0.2	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 IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	510.2	510.2	510.2	510.2	510.2	510.2	510.2	510.2	510.2	510.2	510.2
2.5°	554.3	554.3	553.2	552.1	546.5	540.7	539.6	536.2	526.1	519.4	512.5
5°	600.6	601.7	599.4	593.8	581.4	569.0	567.8	558.8	539.6	526.1	511.4
7.5°	644.7	646.9	641.3	631.1	616.4	598.3	597.2	580.3	555.5	536.2	514.9
10°	681.9	681.9	674.0	661.5	645.8	626.6	624.3	605.1	576.9	553.2	525.0
12.5°	722.5	721.4	710.1	693.2	675.1	657.0	655.9	632.2	605.1	574.6	539.6
15°	759.7	757.5	742.9	727.0	707.9	688.7	687.5	663.8	635.6	599.4	561.1
17.5°	780.1	779.0	765.5	749.6	733.9	719.1	718.0	693.2	662.7	625.4	582.6
20°	783.5	784.6	773.4	759.7	750.7	742.9	742.9	720.3	687.5	648.0	605.1
22.5°	784.6	788.0	780.1	762.0	759.7	760.9	763.2	745.1	711.3	674.0	628.8
25°	792.5	797.1	791.4	770.0	767.7	775.6	777.9	770.0	739.5	702.3	655.9
27.5°	808.3	812.8	808.3	781.2	777.9	785.7	788.0	792.5	770.0	729.3	684.1
30°	839.9	841.1	830.9	797.1	790.2	800.5	803.8	816.2	798.2	755.2	711.3
32.5°	895.3	883.9	853.4	808.3	802.7	814.0	817.3	830.9	824.1	780.1	739.5
35°	1008.1	949.5	879.4	824.1	818.5	829.8	834.3	853.4	856.9	815.1	774.5
37.5°	1007.0	954.0	940.4	854.6	846.7	854.6	860.3	883.9	897.5	861.4	825.3
40°	1078.2	1055.6	1055.6	912.2	886.2	897.5	903.2	926.9	950.6	922.4	885.1
42.5°	1301.7	1287.0	1271.2	1022.8	941.5	973.1	976.5	991.2	1019.5	1010.4	966.4
45°	1551.2	1537.6	1476.6	1210.3	1036.4	1042.0	1050.0	1073.7	1114.3	1131.2	1079.3
47.5°	1746.5	1733.0	1681.0	1436.0	1184.3	1134.6	1134.6	1180.9	1244.1	1287.0	1237.4
50°	1903.4	1887.7	1856.0	1676.5	1427.0	1267.8	1261.1	1315.2	1408.9	1475.5	1441.6
52.5°	2055.8	2009.6	1990.4	1924.9	1701.4	1460.9	1442.8	1481.2	1611.0	1693.4	1665.3
55°	2157.4	2150.7	2130.3	2152.9	1989.2	1695.6	1679.9	1687.8	1850.3	1905.7	1870.7
57.5°	2252.2	2251.1	2296.3	2401.3	2303.1	1964.4	1939.5	1927.1	2081.8	2068.2	2098.7
60°	2369.7	2349.4	2454.4	2604.5	2590.9	2226.4	2198.1	2173.3	2259.1	2220.6	2371.9
62.5°	2375.3	2369.7	2583.1	2798.7	2876.5	2492.7	2460.0	2370.8	2413.8	2369.7	2632.8
65°	2159.7	2187.9	2637.3	2901.4	3115.9	2726.5	2686.9	2548.1	2551.4	2522.1	2939.8
67.5°	2111.2	2125.8	2488.2	3012.1	3288.7	2962.4	2925.1	2752.4	2711.7	2714.0	3121.5
70°	1990.4	2013.0	2303.1	3004.2	3425.2	3277.3	3240.1	3052.7	2954.5	2844.9	2981.6
72.5°	1520.7	1559.1	1940.6	2633.9	3388.0	3689.5	3679.2	3433.1	3051.6	2612.4	2255.6
75°	514.9	513.7	1019.5	1769.1	3043.7	3815.9	3836.2	3385.8	2662.1	1801.8	1119.9
77.5°	110.7	111.8	210.0	716.9	2022.0	3063.9	3141.9	2553.7	1717.1	802.7	256.2
80°	54.2	55.3	87.0	189.7	808.3	1718.3	1840.2	1313.0	634.4	160.3	42.9
82.5°	27.1	28.2	45.1	100.5	299.2	610.8	652.5	483.2	181.8	90.3	21.5
85°	10.1	10.1	22.6	59.8	136.6	143.4	176.2	139.9	109.6	73.3	5.6
87.5°	2.3	2.3	12.4	29.4	61.0	45.1	45.1	42.9	66.6	49.7	2.3
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°	510.2	510.2	510.2	510.2	510.2	510.2	510.2	510.2	510.2	510.2	510.2
2.5°	509.1	504.6	496.7	488.9	483.2	476.4	473.0	469.6	468.5	467.4	469.6
5°	503.5	496.7	482.0	469.6	458.4	449.3	442.5	435.8	432.4	430.2	431.3
7.5°	503.5	493.4	471.9	452.8	434.7	415.4	396.3	381.6	370.3	363.6	364.7
10°	509.1	495.6	467.4	441.4	407.5	366.9	325.1	293.5	272.1	259.6	259.6
12.5°	521.6	503.5	468.5	427.9	370.3	299.2	236.0	197.5	181.8	172.8	173.9
15°	538.5	517.1	474.1	409.8	318.3	222.4	164.8	139.9	139.9	142.3	143.4
17.5°	557.7	534.0	478.6	382.7	251.7	159.2	129.8	127.6	130.9	136.6	136.6
20°	576.9	551.0	480.9	339.8	188.5	126.4	123.1	123.1	125.3	130.9	132.1
22.5°	600.6	572.3	478.6	286.7	141.2	119.7	118.6	118.6	118.6	125.3	125.3
25°	625.4	597.2	469.6	230.3	119.7	115.2	114.1	112.9	112.9	118.6	119.7
27.5°	653.7	623.2	448.2	176.2	112.9	110.7	109.6	107.2	107.2	111.8	111.8
30°	681.9	652.5	415.4	133.2	107.2	106.1	103.8	101.6	99.3	103.8	103.8
32.5°	712.4	683.0	372.6	106.1	99.3	99.3	98.2	94.8	92.6	94.8	96.0
35°	753.0	718.0	324.0	92.6	89.2	89.2	89.2	88.1	83.6	85.8	85.8
37.5°	807.2	766.6	267.6	85.8	81.3	79.1	79.1	79.1	75.6	76.7	76.7
40°	876.1	823.0	213.4	80.2	75.6	70.0	67.7	68.8	66.6	66.6	65.5
42.5°	969.8	883.9	160.3	75.6	71.1	63.2	58.7	57.6	55.3	54.2	54.2
45°	1104.1	958.5	115.2	71.1	67.7	55.3	50.8	47.5	41.7	38.4	38.4
47.5°	1278.0	1043.2	85.8	66.6	64.3	48.6	42.9	36.1	28.2	26.0	26.0
50°	1490.2	1138.0	72.2	59.8	58.7	42.9	33.9	23.7	15.9	13.5	14.6
52.5°	1696.9	1227.1	64.3	53.1	52.0	37.2	24.9	12.4	6.8	6.8	6.8
55°	1870.7	1290.4	58.7	47.5	45.1	29.4	13.5	5.6	3.4	3.4	3.4
57.5°	2027.6	1326.6	53.1	41.7	36.1	20.4	5.6	2.3	2.3	1.1	1.1
60°	2171.0	1347.9	46.2	36.1	28.2	11.3	2.3	1.1	1.1	0.0	0.0
62.5°	2312.1	1363.8	39.5	29.4	21.5	4.5	1.1	1.1	0.0	0.0	0.0
65°	2419.4	1358.2	31.6	23.7	13.5	2.3	1.1	0.0	0.0	0.0	0.0
67.5°	2416.0	1281.3	23.7	18.1	6.8	1.1	0.0	0.0	0.0	0.0	0.0
70°	2160.8	1079.3	15.9	11.3	2.3	1.1	0.0	0.0	0.0	0.0	0.0
72.5°	1533.1	692.0	10.1	6.8	1.1	0.0	0.0	0.0	0.0	0.0	0.0
75°	675.1	210.0	5.6	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	132.1	48.6	3.4	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	31.6	5.6	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	13.5	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.4	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.3	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)