

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: P214954

Luminaire Tested: **ARCH-AF24-50-D-U-T4W-7050-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214954  
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-7050-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 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: 4664 lumens  
Efficiency: N/A  
Efficacy: 86.4 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

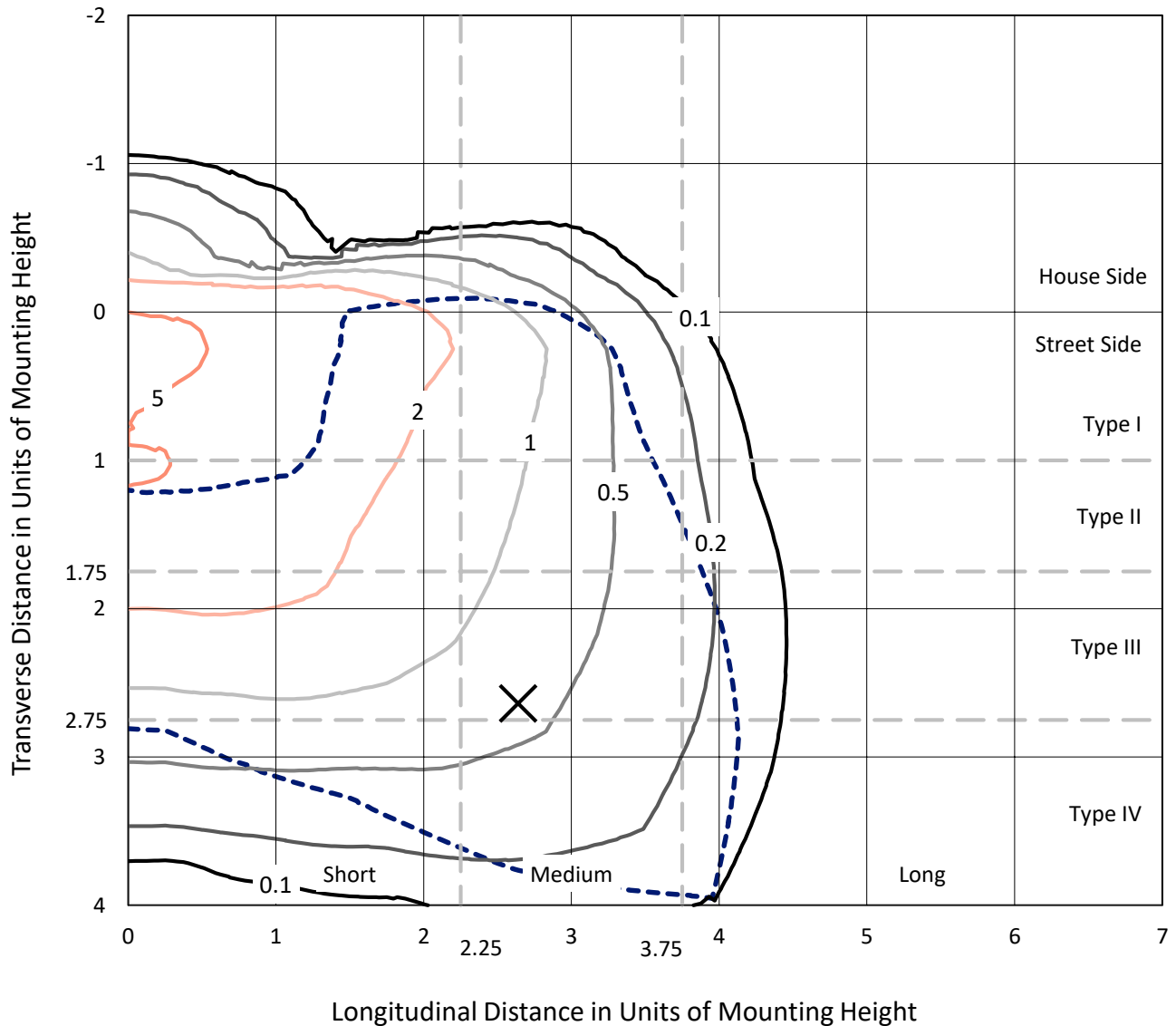


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

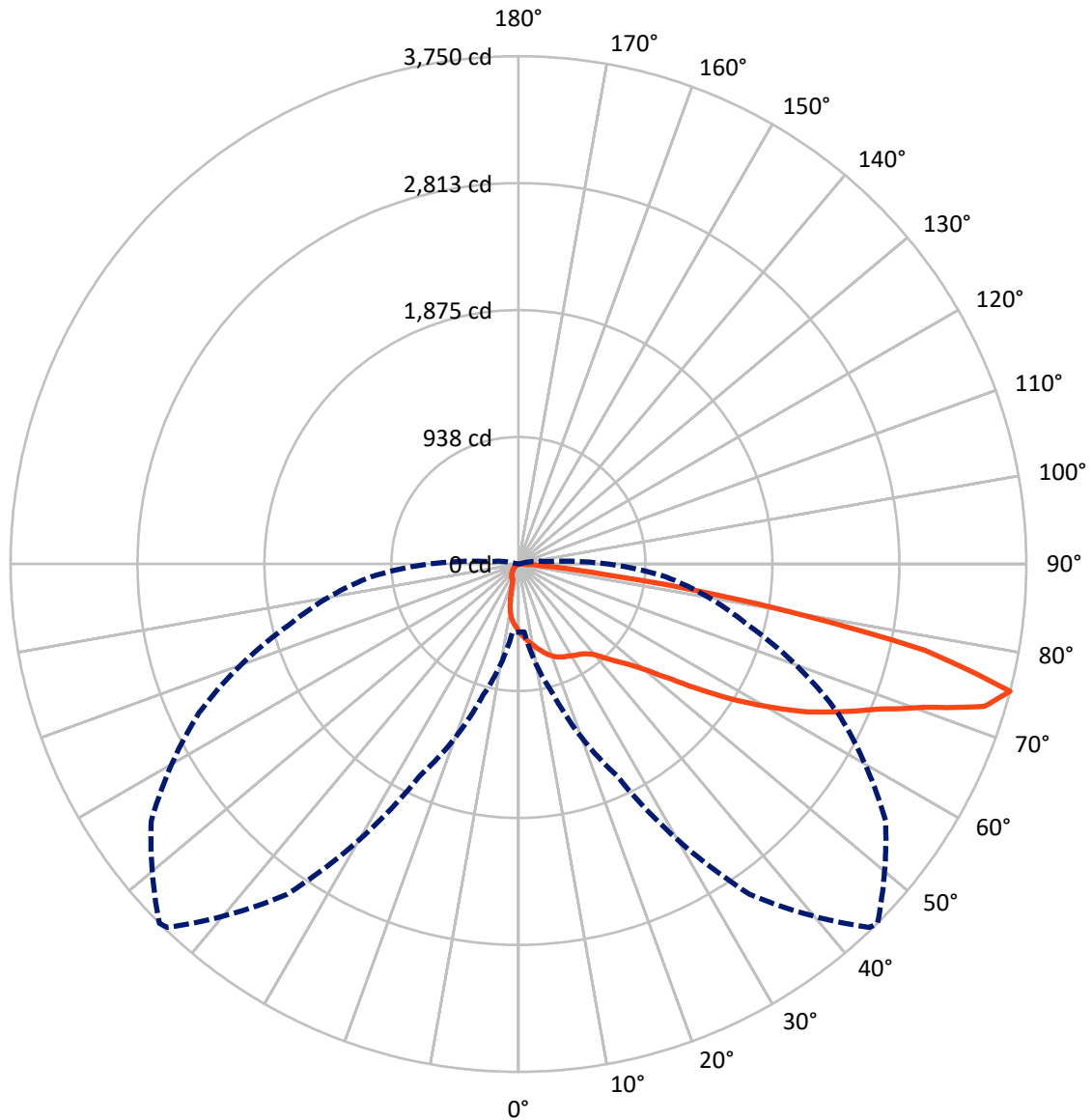


Based on 10 foot mounting height. Maximum calculated value = 6.7 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



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

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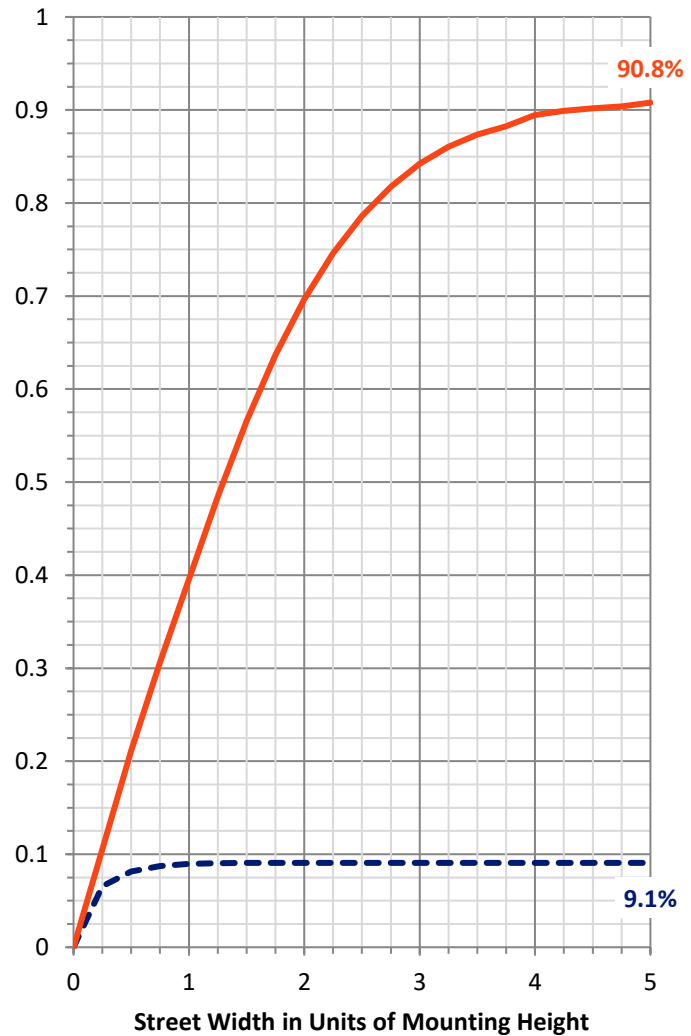
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	426.6	0.0	426.6
	% Fixture	9.1	0.0	9.1
<b>Street Side</b>	Lumens	4237.4	0.0	4237.4
	% Fixture	90.9	0.0	90.9
<b>Total</b>	Lumens	4664.0	0.0	4664.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.1	1.0
10°-20°	133.4	2.9
20°-30°	220.9	4.7
30°-40°	319.7	6.9
40°-50°	523.5	11.2
50°-60°	932.7	20.0
60°-70°	1371.2	29.4
70°-80°	1034.4	22.2
80°-90°	81.2	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°	4664.0	100.0
0°-180°	4664.0	100.0



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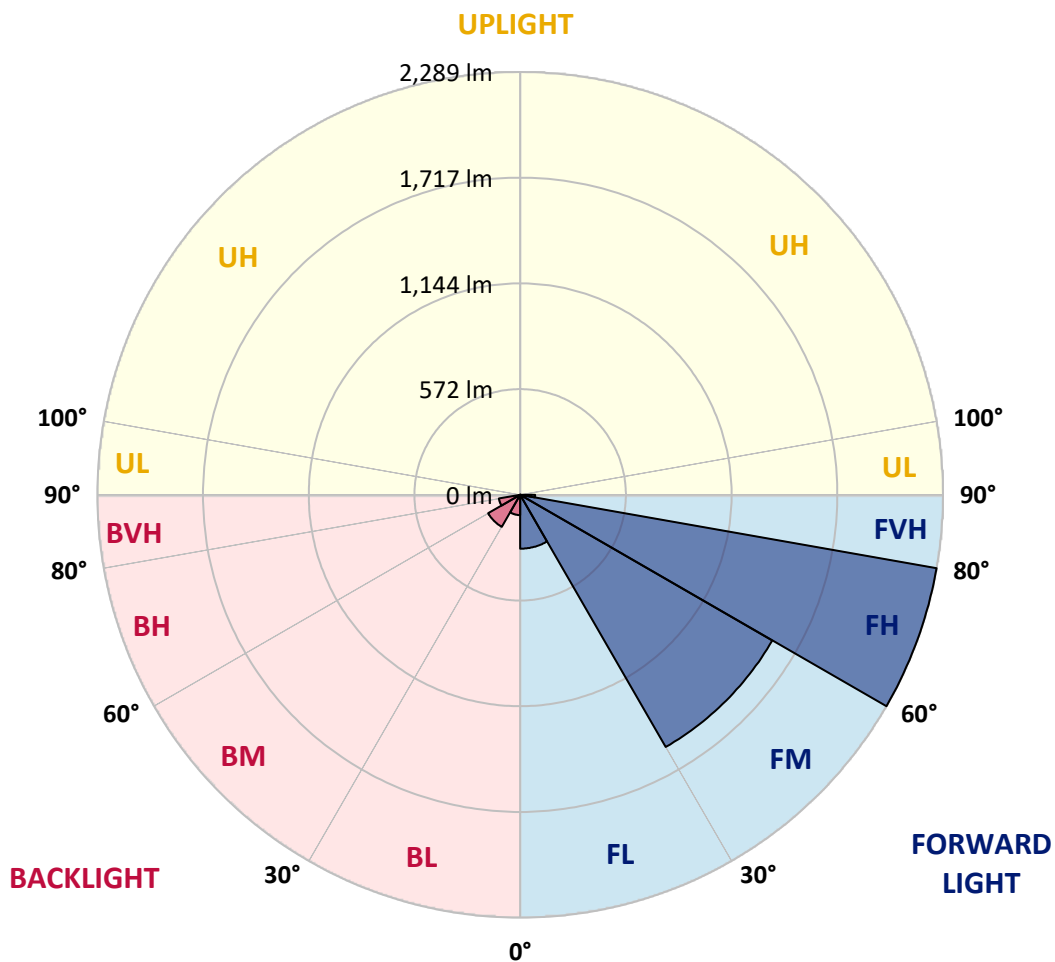
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	291.7	6.3			
FM	(30°-60°)	1575.9	33.8			
FH	(60°-80°)	2288.8	49.1			G2/5000
FVH	(80°-90°)	80.9	1.7			G1/100
BL	(0°-30°)	109.6	2.4	B0/110		
BM	(30°-60°)	199.9	4.3	B0/220		
BH	(60°-80°)	116.8	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°	498.8	498.8	498.8	498.8	498.8	498.8	498.8	498.8	498.8	498.8	498.8
2.5°	541.9	541.9	540.8	539.7	534.2	528.6	527.5	524.2	514.3	507.7	501.0
5°	587.1	588.2	586.0	580.5	568.4	556.2	555.1	546.3	527.5	514.3	499.9
7.5°	630.2	632.4	626.9	616.9	602.6	584.9	583.8	567.3	543.0	524.2	503.3
10°	666.6	666.6	658.9	646.7	631.3	612.5	610.3	591.5	564.0	540.8	513.2
12.5°	706.3	705.2	694.2	677.6	660.0	642.3	641.2	618.0	591.5	561.7	527.5
15°	742.7	740.5	726.2	710.7	692.0	673.2	672.1	648.9	621.3	586.0	548.5
17.5°	762.6	761.5	748.3	732.8	717.4	703.0	701.9	677.6	647.8	611.4	569.5
20°	765.9	767.0	756.0	742.7	733.9	726.2	726.2	704.1	672.1	633.5	591.5
22.5°	767.0	770.3	762.6	744.9	742.7	743.8	746.1	728.4	695.3	658.9	614.7
25°	774.7	779.2	773.6	752.7	750.5	758.2	760.4	752.7	722.9	686.5	641.2
27.5°	790.2	794.6	790.2	763.7	760.4	768.1	770.3	774.7	752.7	712.9	668.8
30°	821.1	822.2	812.3	779.2	772.5	782.5	785.8	797.9	780.3	738.3	695.3
32.5°	875.2	864.1	834.3	790.2	784.7	795.7	799.0	812.3	805.6	762.6	722.9
35°	985.5	928.2	859.7	805.6	800.1	811.2	815.6	834.3	837.7	796.8	757.1
37.5°	984.4	932.6	919.3	835.4	827.7	835.4	841.0	864.1	877.4	842.1	806.8
40°	1054.0	1031.9	1031.9	891.7	866.3	877.4	882.9	906.1	929.3	901.7	865.2
42.5°	1272.5	1258.1	1242.7	999.9	920.4	951.3	954.6	969.0	996.6	987.7	944.7
45°	1516.4	1503.1	1443.5	1183.1	1013.1	1018.6	1026.4	1049.6	1089.3	1105.8	1055.1
47.5°	1707.3	1694.1	1643.3	1403.8	1157.7	1109.1	1109.1	1154.4	1216.2	1258.1	1209.6
50°	1860.7	1845.3	1814.4	1638.9	1395.0	1239.4	1232.8	1285.7	1377.3	1442.4	1409.3
52.5°	2009.7	1964.5	1945.7	1881.7	1663.2	1428.1	1410.4	1448.0	1574.9	1655.4	1627.9
55°	2109.0	2102.4	2082.5	2104.6	1944.6	1657.6	1642.2	1649.9	1808.8	1862.9	1828.7
57.5°	2201.7	2200.6	2244.8	2347.4	2251.4	1920.3	1896.0	1883.9	2035.1	2021.8	2051.6
60°	2316.5	2296.7	2399.3	2546.1	2532.8	2176.4	2148.8	2124.5	2208.4	2170.8	2318.7
62.5°	2322.0	2316.5	2525.1	2735.9	2812.0	2436.8	2404.8	2317.6	2359.6	2316.5	2573.7
65°	2111.2	2138.8	2578.1	2836.3	3046.0	2665.3	2626.6	2490.9	2494.2	2465.5	2873.8
67.5°	2063.8	2078.1	2432.4	2944.5	3214.9	2895.9	2859.5	2690.6	2650.9	2653.1	3051.5
70°	1945.7	1967.8	2251.4	2936.8	3348.4	3203.8	3167.4	2984.2	2888.2	2781.1	2914.7
72.5°	1486.6	1524.1	1897.1	2574.8	3312.0	3606.7	3596.7	3356.1	2983.1	2553.8	2205.0
75°	503.3	502.2	996.6	1729.4	2975.4	3730.3	3750.1	3309.8	2602.4	1761.4	1094.8
77.5°	108.2	109.3	205.3	700.8	1976.6	2995.2	3071.4	2496.4	1678.6	784.7	250.5
80°	53.0	54.1	85.0	185.4	790.2	1679.7	1798.9	1283.5	620.2	156.7	41.9
82.5°	26.5	27.6	44.1	98.2	292.5	597.1	637.9	472.4	177.7	88.3	21.0
85°	9.9	9.9	22.1	58.5	133.5	140.2	172.2	136.8	107.1	71.7	5.5
87.5°	2.2	2.2	12.1	28.7	59.6	44.1	44.1	41.9	65.1	48.6	2.2
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°	498.8	498.8	498.8	498.8	498.8	498.8	498.8	498.8	498.8	498.8	498.8
2.5°	497.7	493.3	485.6	477.9	472.4	465.7	462.4	459.1	458.0	456.9	459.1
5°	492.2	485.6	471.2	459.1	448.1	439.2	432.6	426.0	422.7	420.5	421.6
7.5°	492.2	482.3	461.3	442.6	424.9	406.1	387.4	373.0	362.0	355.4	356.5
10°	497.7	484.5	456.9	431.5	398.4	358.7	317.8	286.9	266.0	253.8	253.8
12.5°	509.9	492.2	458.0	418.3	362.0	292.5	230.7	193.1	177.7	168.9	170.0
15°	526.4	505.5	463.5	400.6	311.2	217.4	161.1	136.8	136.8	139.1	140.2
17.5°	545.2	522.0	467.9	374.1	246.1	155.6	126.9	124.7	128.0	133.5	133.5
20°	564.0	538.6	470.1	332.2	184.3	123.6	120.3	120.3	122.5	128.0	129.1
22.5°	587.1	559.5	467.9	280.3	138.0	117.0	115.9	115.9	115.9	122.5	122.5
25°	611.4	583.8	459.1	225.1	117.0	112.6	111.5	110.4	110.4	115.9	117.0
27.5°	639.0	609.2	438.1	172.2	110.4	108.2	107.1	104.8	104.8	109.3	109.3
30°	666.6	637.9	406.1	130.2	104.8	103.7	101.5	99.3	97.1	101.5	101.5
32.5°	696.4	667.7	364.2	103.7	97.1	97.1	96.0	92.7	90.5	92.7	93.8
35°	736.1	701.9	316.7	90.5	87.2	87.2	87.2	86.1	81.7	83.9	83.9
37.5°	789.1	749.4	261.6	83.9	79.5	77.3	77.3	77.3	73.9	75.0	75.0
40°	856.4	804.5	208.6	78.4	73.9	68.4	66.2	67.3	65.1	65.1	64.0
42.5°	948.0	864.1	156.7	73.9	69.5	61.8	57.4	56.3	54.1	53.0	53.0
45°	1079.3	937.0	112.6	69.5	66.2	54.1	49.7	46.4	40.8	37.5	37.5
47.5°	1249.3	1019.8	83.9	65.1	62.9	47.5	41.9	35.3	27.6	25.4	25.4
50°	1456.8	1112.5	70.6	58.5	57.4	41.9	33.1	23.2	15.5	13.2	14.3
52.5°	1658.8	1199.6	62.9	51.9	50.8	36.4	24.3	12.1	6.6	6.6	6.6
55°	1828.7	1261.4	57.4	46.4	44.1	28.7	13.2	5.5	3.3	3.3	3.3
57.5°	1982.1	1296.8	51.9	40.8	35.3	19.9	5.5	2.2	2.2	1.1	1.1
60°	2122.3	1317.7	45.2	35.3	27.6	11.0	2.2	1.1	1.1	0.0	0.0
62.5°	2260.2	1333.2	38.6	28.7	21.0	4.4	1.1	1.1	0.0	0.0	0.0
65°	2365.1	1327.7	30.9	23.2	13.2	2.2	1.1	0.0	0.0	0.0	0.0
67.5°	2361.8	1252.6	23.2	17.7	6.6	1.1	0.0	0.0	0.0	0.0	0.0
70°	2112.3	1055.1	15.5	11.0	2.2	1.1	0.0	0.0	0.0	0.0	0.0
72.5°	1498.7	676.5	9.9	6.6	1.1	0.0	0.0	0.0	0.0	0.0	0.0
75°	660.0	205.3	5.5	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	129.1	47.5	3.3	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	30.9	5.5	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	13.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.3	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.2	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)