

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: P234702

Luminaire Tested: **ARCH-AF24-30-D-U-T2R-8027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234702  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF24-30-D-U-T2R-8027-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 2700K, 375mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2396 lumens  
Efficiency: N/A  
Efficacy: 77.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B0 - U0 - G1

Input Watts (W): 31  
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

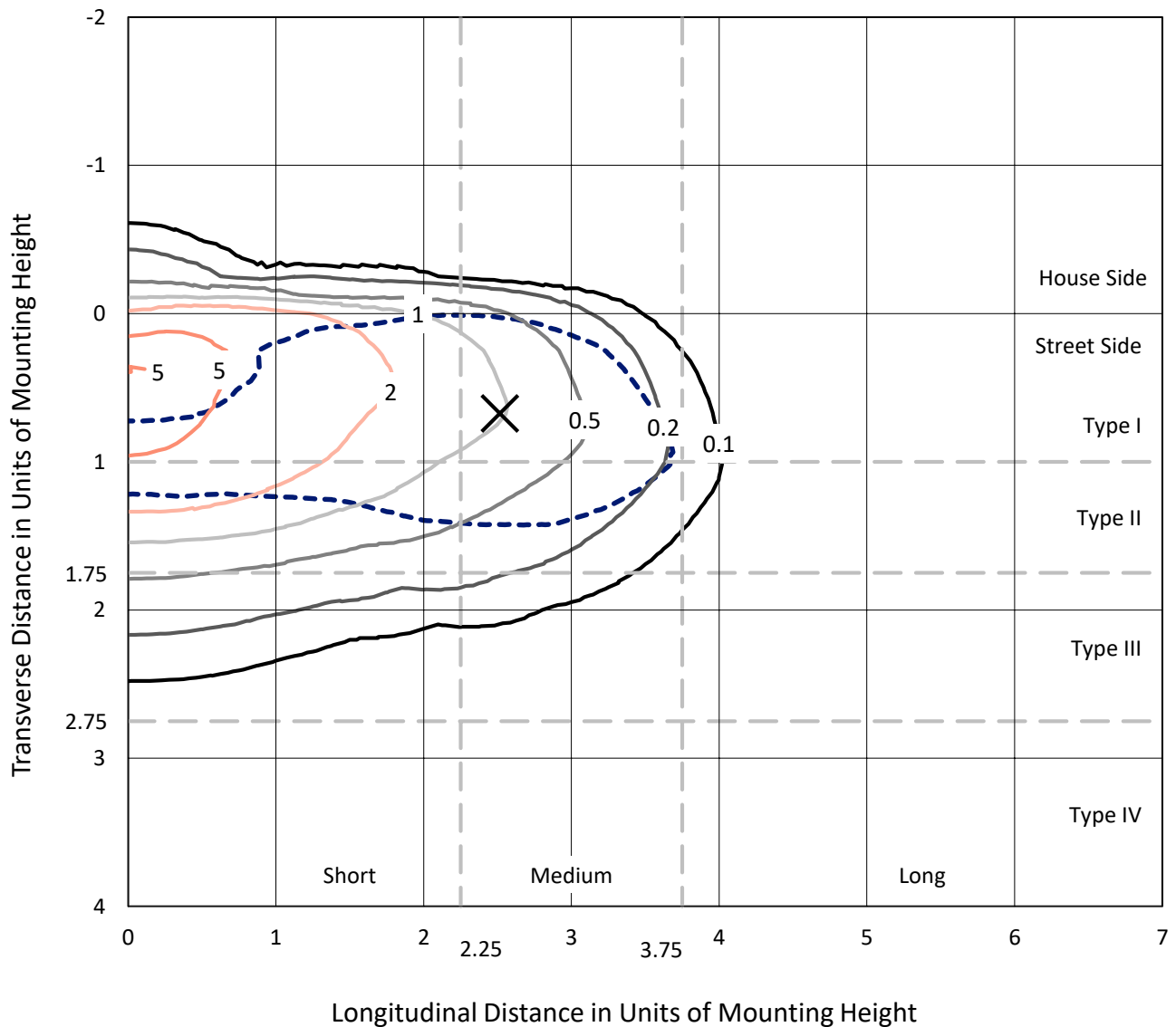


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

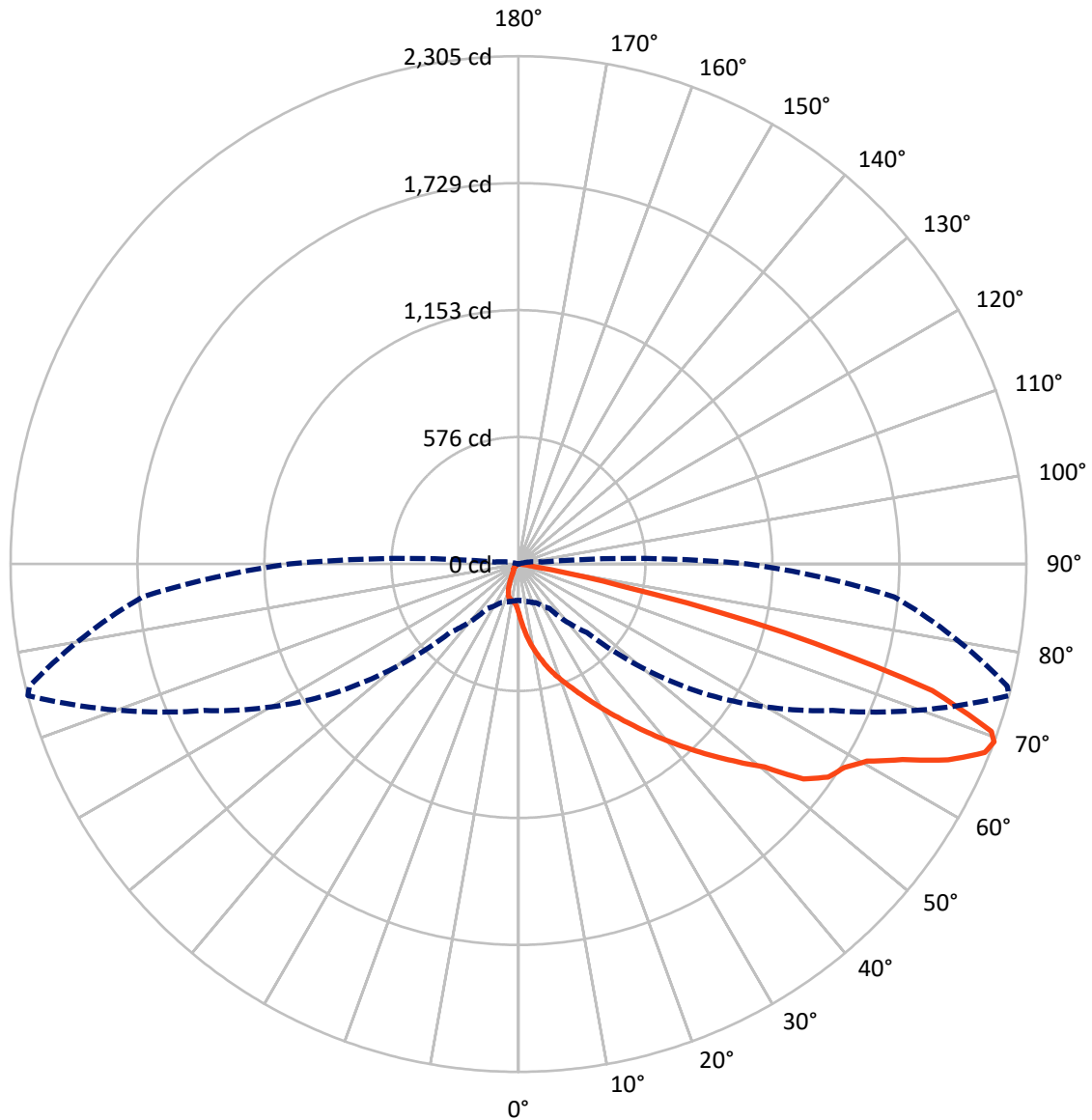


Based on 10 foot mounting height. Maximum calculated value = 6.1 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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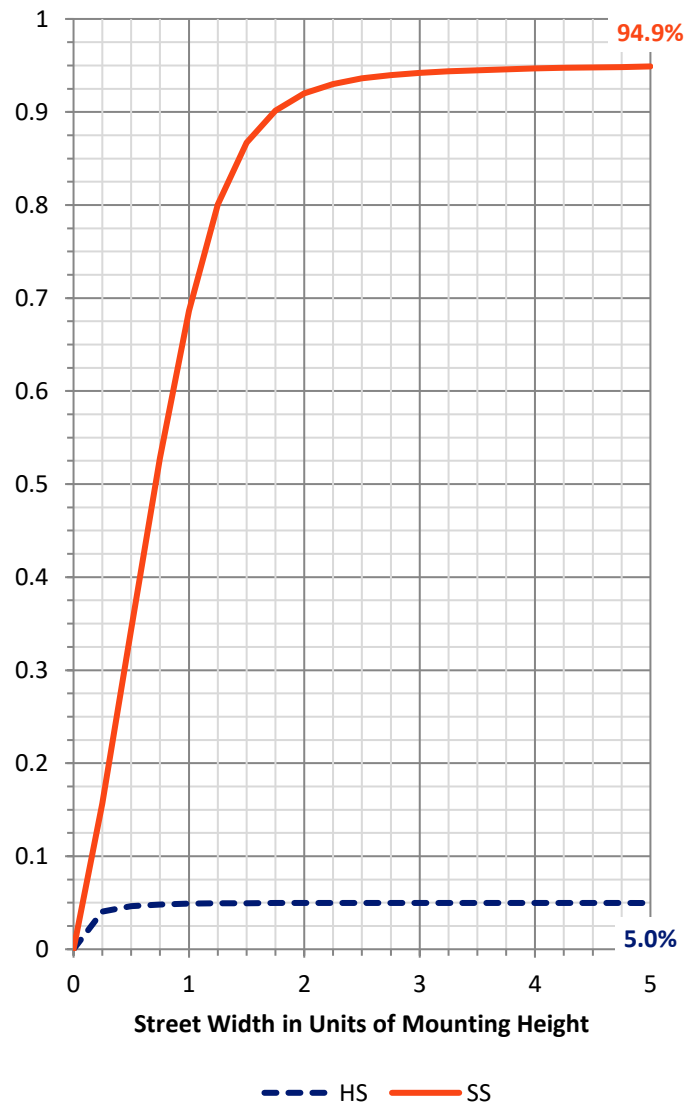
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	119.5	0.0	119.5
	% Fixture	5.0	0.0	5.0
<b>Street Side</b>	Lumens	2276.5	0.0	2276.5
	% Fixture	95.0	0.0	95.0
<b>Total</b>	Lumens	2396.0	0.0	2396.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.0	1.1
10°-20°	92.9	3.9
20°-30°	177.4	7.4
30°-40°	318.3	13.3
40°-50°	487.6	20.4
50°-60°	566.7	23.7
60°-70°	501.9	20.9
70°-80°	216.5	9.0
80°-90°	8.7	0.4
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°	2396.0	100.0
0°-180°	2396.0	100.0

**Coefficient of Utilization**



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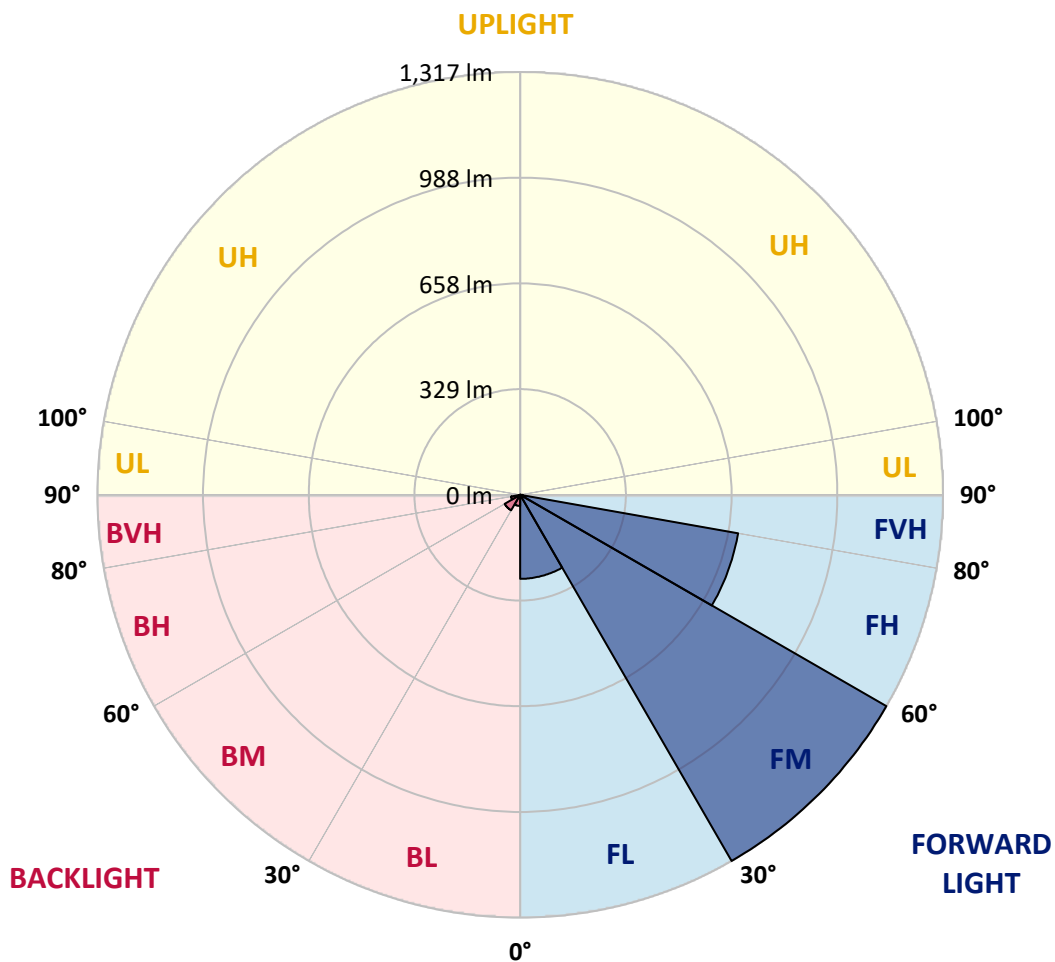
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	261.7	10.9			
FM	(30°-60°)	1316.9	55.0			
FH	(60°-80°)	689.4	28.8			G1/1800
FVH	(80°-90°)	8.5	0.4			G0/10
BL	(0°-30°)	34.7	1.4	B0/110		
BM	(30°-60°)	55.7	2.3	B0/220		
BH	(60°-80°)	29.0	1.2	B0/110		G0/110
BVH	(80°-90°)	0.1	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G1**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	222.9	222.9	222.9	222.9	222.9	222.9	222.9	222.9	222.9	222.9	222.9
2.5°	367.3	363.6	360.0	355.9	346.6	330.5	310.4	288.6	261.7	257.1	235.4
5°	445.9	444.3	440.7	435.0	424.7	407.1	384.3	352.3	307.3	299.5	253.5
7.5°	501.2	500.2	497.1	490.4	481.1	463.5	439.7	405.0	352.8	344.0	276.2
10°	550.9	550.4	547.8	541.6	532.3	513.1	487.8	451.6	396.2	386.4	302.6
12.5°	595.9	596.4	595.4	592.3	585.6	567.5	538.5	499.2	438.1	427.3	334.2
15°	622.3	623.8	628.0	634.2	636.3	621.8	591.8	548.3	481.1	471.8	370.4
17.5°	613.5	615.0	628.0	649.2	669.4	671.4	644.5	594.9	523.5	514.2	406.1
20°	592.3	594.4	607.8	636.8	676.1	703.5	692.6	645.6	563.8	552.5	440.2
22.5°	616.1	616.1	620.2	637.8	673.5	716.4	730.9	696.3	605.2	591.2	474.3
25°	697.8	696.3	687.5	680.2	691.6	729.9	759.9	748.0	653.8	637.8	510.6
27.5°	801.3	808.5	792.0	765.6	739.7	756.3	785.7	799.2	707.6	691.1	547.8
30°	917.1	920.2	900.6	865.4	819.9	803.9	816.3	843.2	766.1	748.0	586.6
32.5°	1021.6	1019.0	1002.5	965.8	909.4	874.7	855.6	878.3	829.7	809.0	626.4
35°	1114.2	1116.3	1096.1	1053.7	998.3	961.6	916.1	918.2	901.1	877.3	672.5
37.5°	1197.5	1193.9	1174.7	1132.3	1082.1	1042.3	994.2	959.6	979.2	954.4	724.2
40°	1265.3	1261.6	1241.5	1200.1	1153.0	1120.4	1082.7	1014.9	1061.5	1033.0	779.5
42.5°	1319.1	1314.9	1297.9	1258.0	1212.5	1183.5	1165.4	1083.2	1149.4	1120.9	841.6
45°	1345.4	1341.8	1331.5	1301.5	1261.6	1236.3	1245.1	1161.8	1243.5	1219.7	909.9
47.5°	1314.4	1312.9	1324.7	1319.6	1296.8	1283.4	1313.9	1247.7	1342.3	1319.1	988.5
50°	1220.3	1222.8	1257.5	1300.4	1311.3	1327.3	1370.3	1338.2	1448.4	1423.5	1079.0
52.5°	988.0	1005.6	1110.1	1213.5	1293.7	1354.2	1436.5	1467.5	1621.1	1596.8	1220.3
55°	737.6	744.9	858.7	1035.6	1222.8	1352.2	1485.6	1543.6	1706.5	1681.7	1257.5
57.5°	585.0	587.6	644.0	824.5	1077.0	1305.6	1511.5	1571.0	1743.7	1723.1	1312.9
60°	459.3	462.4	503.3	627.5	871.6	1179.9	1474.2	1594.8	1816.7	1800.1	1409.6
62.5°	357.4	360.5	385.4	458.3	653.8	986.4	1399.2	1633.0	1955.3	1947.6	1567.9
65°	276.7	277.8	294.8	329.0	461.9	777.0	1307.7	1668.7	2142.6	2135.8	1696.2
67.5°	204.3	205.9	217.8	239.0	311.9	558.1	1157.7	1641.3	2283.8	2264.1	1742.7
69°	165.0	166.6	176.9	194.0	246.2	439.7	1020.6	1573.6	2305.0	2286.4	1713.2
70°	141.2	142.3	152.6	167.1	210.0	373.5	912.0	1515.1	2277.1	2259.0	1646.0
72.5°	90.5	95.7	106.0	115.4	139.1	247.3	615.6	1256.5	1964.6	1933.6	1289.1
75°	50.2	51.7	70.3	81.7	92.6	160.9	342.4	783.7	1249.7	1228.0	689.5
77.5°	41.4	42.4	49.7	62.1	62.1	90.0	129.3	308.8	475.4	428.8	186.7
80°	29.0	30.0	37.8	40.9	44.5	50.7	41.9	67.8	73.5	65.2	27.9
82.5°	20.2	21.2	25.9	33.6	35.7	23.8	15.5	20.2	21.2	21.2	10.9
85°	3.6	5.2	19.1	27.9	21.2	7.2	8.8	7.2	6.7	7.2	2.6
87.5°	0.0	0.0	11.9	13.4	11.4	3.1	3.6	2.6	1.6	2.1	1.0
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°	222.9	222.9	222.9	222.9	222.9	222.9	222.9	222.9	222.9	222.9	222.9
2.5°	224.5	213.6	195.0	181.6	170.2	161.4	157.8	152.1	147.9	150.0	147.4
5°	230.7	211.6	181.6	162.4	149.0	137.6	128.3	121.0	115.4	114.3	113.3
7.5°	240.5	213.1	173.8	150.0	129.8	112.2	97.8	86.9	78.6	78.6	75.5
10°	254.0	217.3	169.1	137.6	107.6	83.8	69.3	59.0	54.8	54.3	53.3
12.5°	272.6	225.0	165.5	121.6	83.8	61.0	52.2	48.6	47.1	46.6	46.0
15°	298.0	236.4	161.4	101.9	63.6	50.2	46.6	43.5	41.9	41.4	40.9
17.5°	322.3	246.7	152.6	81.7	51.7	45.5	41.4	38.8	36.7	36.2	36.2
20°	345.0	255.5	137.6	63.6	46.6	40.9	36.7	33.6	31.6	31.0	31.0
22.5°	368.8	262.8	119.0	51.7	42.4	36.2	32.1	29.0	26.9	26.4	25.9
25°	394.2	268.0	97.8	46.0	38.3	32.1	27.4	24.8	23.3	22.8	22.2
27.5°	421.6	270.0	77.6	41.9	33.6	27.9	23.8	21.2	20.2	19.7	19.7
30°	446.4	268.0	60.0	37.2	29.5	24.3	20.7	18.6	17.6	17.1	17.1
32.5°	472.3	262.8	48.1	33.1	25.9	20.7	17.6	16.0	15.5	15.0	15.0
35°	499.7	256.1	41.4	29.5	22.2	18.1	15.5	14.5	14.0	13.4	13.4
37.5°	531.8	247.8	37.8	26.4	19.7	16.0	13.4	12.9	12.4	12.4	12.4
40°	568.0	237.4	35.2	23.8	17.6	14.0	11.9	11.4	10.9	10.9	10.9
42.5°	606.3	225.5	32.6	21.2	15.5	11.9	10.3	10.3	9.8	9.8	9.3
45°	649.2	213.6	30.0	18.6	13.4	10.3	8.8	8.3	8.3	7.8	7.8
47.5°	699.9	202.8	27.4	16.6	11.9	8.8	7.8	7.2	6.7	6.2	6.2
50°	771.3	201.7	24.3	14.5	10.9	7.2	6.2	5.7	5.2	4.7	4.7
52.5°	842.1	192.4	20.7	11.9	8.8	6.2	4.7	4.1	3.6	3.6	3.1
55°	858.2	176.9	18.1	10.3	6.7	4.7	3.6	2.6	2.6	2.1	2.1
57.5°	893.3	169.7	15.5	8.3	5.2	3.6	2.1	1.6	1.6	1.6	1.6
60°	962.7	167.6	13.4	7.2	3.6	2.6	1.6	1.0	1.0	0.5	0.5
62.5°	1058.4	165.5	11.4	6.2	2.6	1.6	1.0	0.5	0.0	0.0	0.0
65°	1111.1	151.6	9.3	4.7	2.1	1.6	0.5	0.0	0.0	0.0	0.0
67.5°	1097.1	125.2	8.3	3.1	1.6	1.0	0.5	0.0	0.0	0.0	0.0
69°	1038.7	105.5	6.7	2.6	1.6	1.0	0.5	0.0	0.0	0.0	0.0
70°	968.3	91.0	6.2	2.1	1.0	0.5	0.5	0.0	0.0	0.0	0.0
72.5°	687.5	47.6	4.1	1.6	1.0	0.5	0.0	0.0	0.0	0.0	0.0
75°	321.2	21.2	2.6	1.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0
77.5°	70.9	9.8	1.6	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
80°	13.4	3.6	1.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	4.7	1.6	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	1.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.5	0.0	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)