

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: P214809

Luminaire Tested: **ARCH-AF16-50-D-U-T3-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214809
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29624)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF16-50-D-U-T3-7050-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 980mA LIGHT ENGINE WITH 16 LEDS AND TYPE III OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4291 lumens
Efficiency: N/A
Efficacy: 81.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 53
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

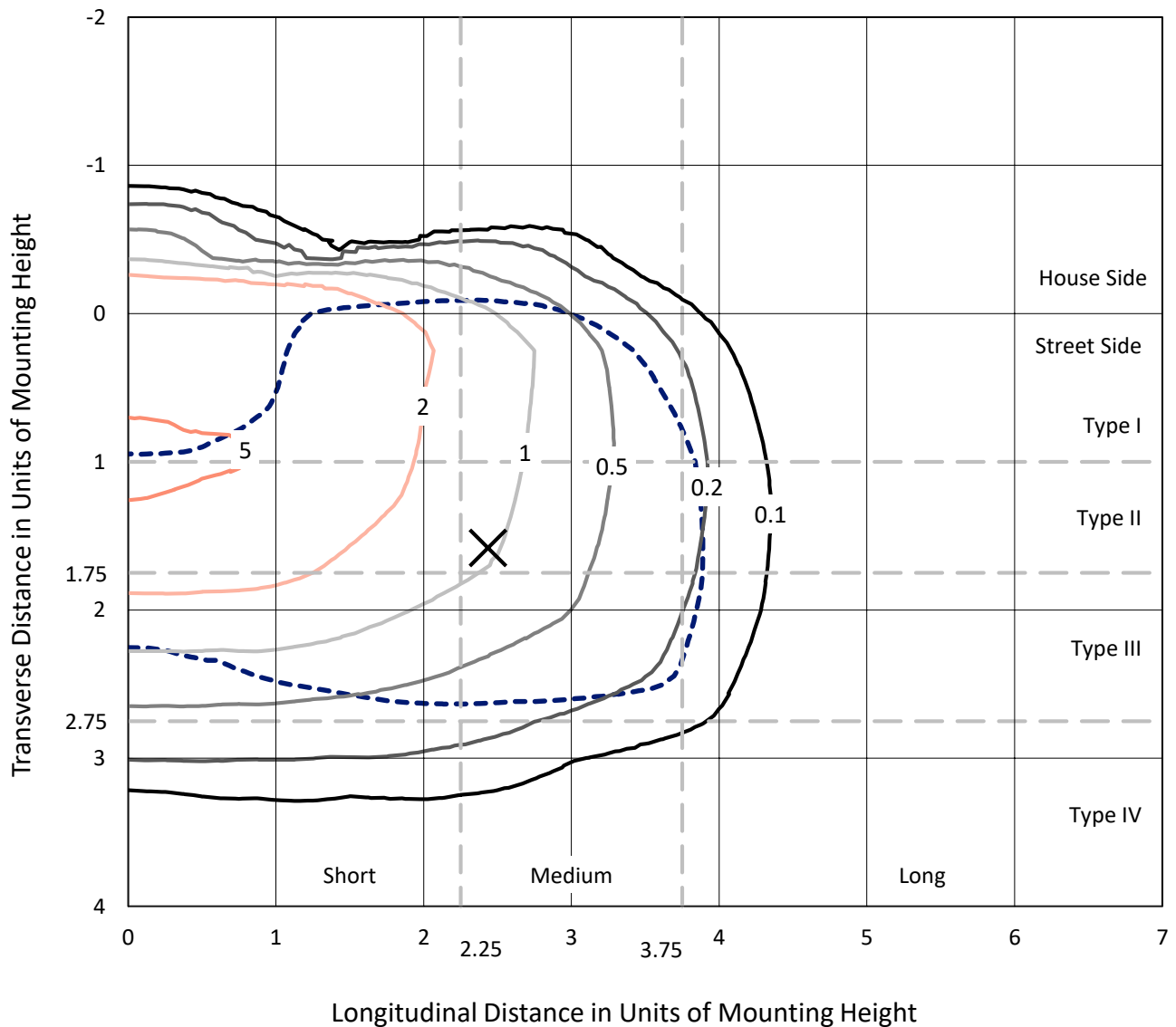


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

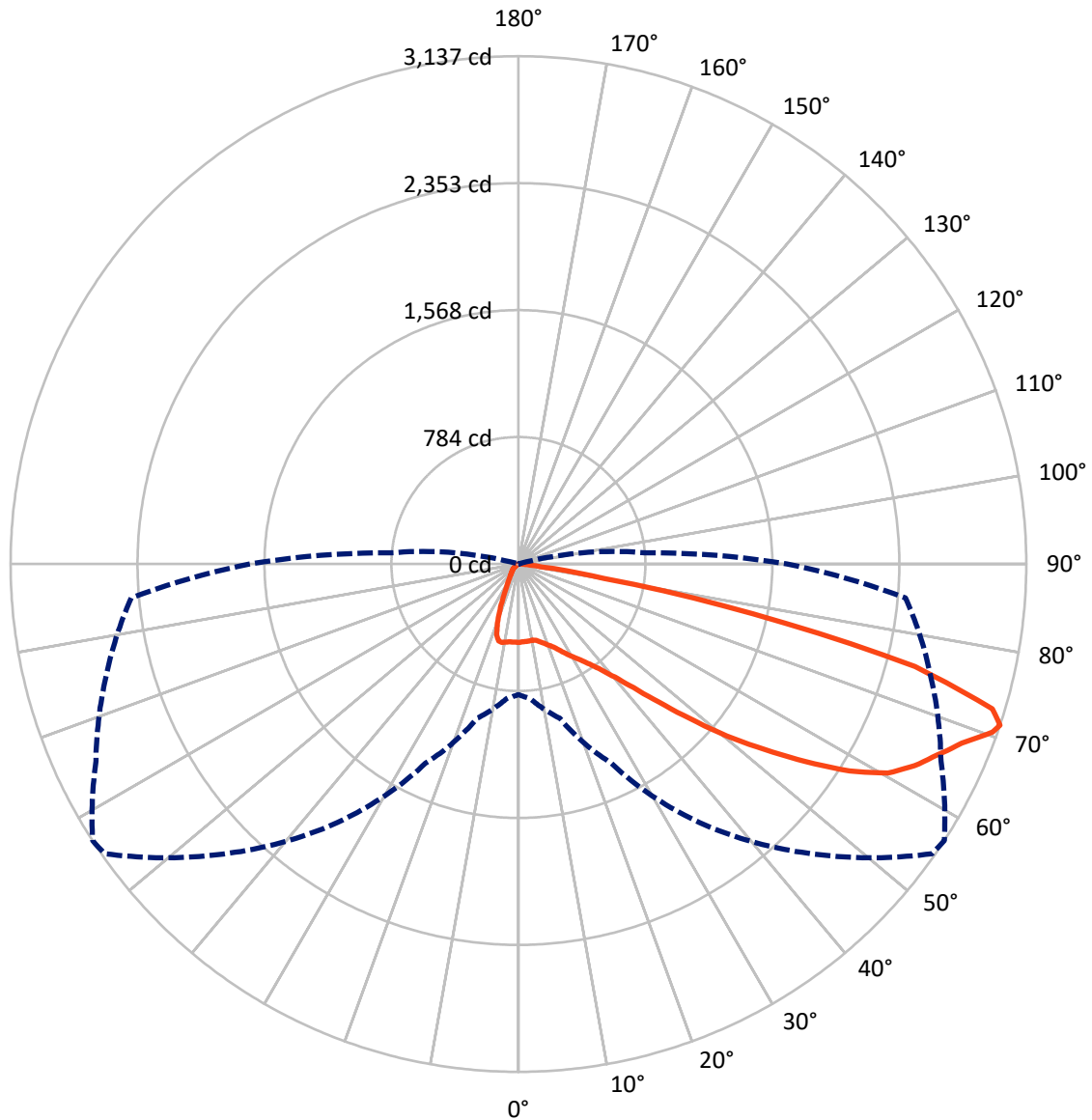


Based on 10 foot mounting height. Maximum calculated value = 6 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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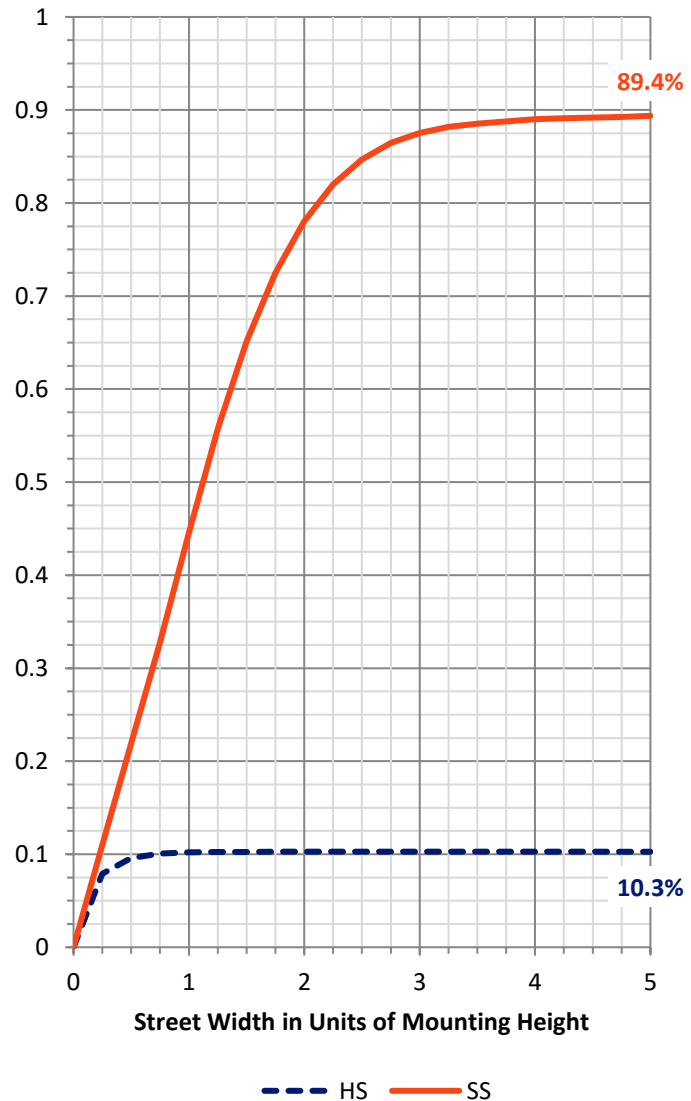
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	444.7	0.0	444.7
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	3846.3	0.0	3846.3
	% Fixture	89.6	0.0	89.6
Total	Lumens	4291.0	0.0	4291.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.5	1.1
10°-20°	121.8	2.8
20°-30°	190.0	4.4
30°-40°	321.1	7.5
40°-50°	623.6	14.5
50°-60°	1047.2	24.4
60°-70°	1249.7	29.1
70°-80°	658.6	15.3
80°-90°	33.5	0.8
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°	4291.0	100.0
0°-180°	4291.0	100.0



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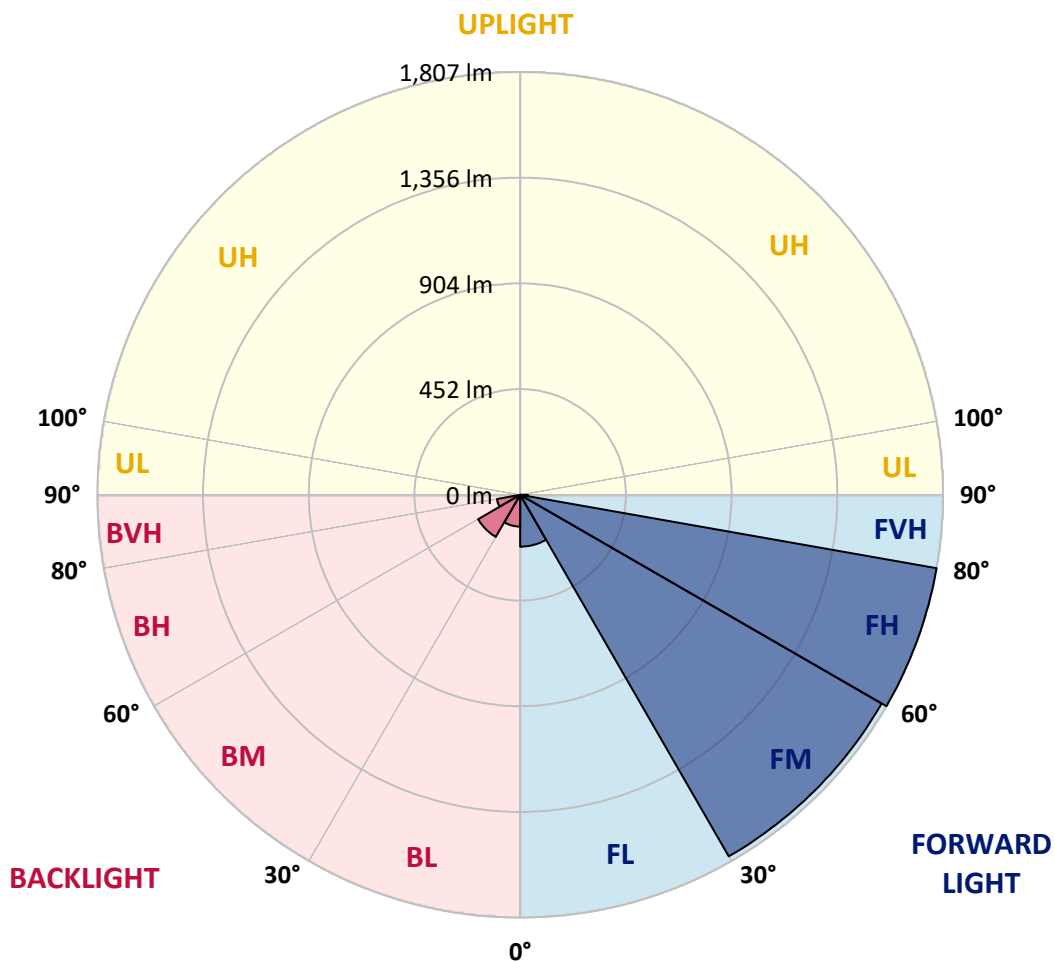
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	221.5	5.2			
FM	(30°-60°)	1784.2	41.6			
FH	(60°-80°)	1807.4	42.1			G2/5000
FVH	(80°-90°)	33.2	0.8			G1/100
BL	(0°-30°)	135.7	3.2	B1/500		
BM	(30°-60°)	207.6	4.8	B0/220		
BH	(60°-80°)	101.0	2.4	B0/110		G0/110
BVH	(80°-90°)	0.3	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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	484.9	484.9	484.9	484.9	484.9	484.9	484.9	484.9	484.9	484.9	484.9
2.5°	477.9	477.9	477.9	478.9	479.9	479.9	481.9	480.9	480.9	480.9	482.9
5°	465.0	466.0	466.9	468.9	472.9	475.9	480.9	480.9	481.9	483.9	484.9
7.5°	447.0	448.0	451.0	455.0	463.0	469.9	477.9	479.9	482.9	487.9	489.9
10°	436.0	438.0	442.0	447.0	456.0	465.0	474.9	477.9	486.9	495.9	500.9
12.5°	433.0	434.0	438.0	446.0	457.0	467.9	480.9	483.9	496.9	510.9	518.9
15°	438.0	439.0	441.0	450.0	463.0	476.9	493.9	497.9	513.9	529.9	539.9
17.5°	447.0	447.0	449.0	457.0	470.9	486.9	508.9	514.9	532.9	550.9	561.9
20°	453.0	453.0	456.0	464.0	479.9	500.9	526.9	534.9	554.9	574.9	584.9
22.5°	459.0	460.0	463.0	471.9	489.9	518.9	548.9	556.9	579.9	600.9	610.9
25°	475.9	474.9	475.9	483.9	504.9	540.9	578.9	588.9	612.9	635.9	640.9
27.5°	522.9	520.9	507.9	502.9	518.9	563.9	616.9	626.9	654.9	677.9	677.9
30°	630.9	626.9	594.9	553.9	540.9	584.9	652.9	666.9	702.9	722.9	716.9
32.5°	767.9	758.9	717.9	647.9	595.9	612.9	690.9	706.9	752.9	769.9	756.9
35°	917.9	916.9	865.9	775.9	701.9	670.9	739.9	758.9	816.9	831.9	810.9
37.5°	1076.9	1080.9	1046.9	922.9	835.9	765.9	804.9	826.9	897.9	915.9	895.9
40°	1253.9	1252.9	1239.9	1092.9	996.9	900.9	898.9	918.9	1004.9	1032.9	1004.9
42.5°	1477.8	1475.8	1428.8	1296.9	1191.9	1076.9	1035.9	1042.9	1138.9	1184.9	1143.9
45°	1705.8	1691.8	1637.8	1523.8	1430.8	1294.9	1216.9	1216.9	1298.9	1361.9	1297.9
47.5°	1832.8	1818.8	1796.8	1733.8	1705.8	1553.8	1438.8	1424.8	1488.8	1552.8	1462.8
50°	1999.8	1999.8	1944.8	1920.8	1968.8	1861.8	1683.8	1669.8	1700.8	1751.8	1633.8
52.5°	2131.8	2107.8	2068.8	2089.8	2226.8	2177.8	1928.8	1901.8	1925.8	1938.8	1782.8
55°	2186.8	2163.8	2160.8	2237.8	2449.7	2381.7	2179.8	2155.8	2153.8	2089.8	1912.8
57.5°	2197.8	2177.8	2215.8	2350.7	2666.7	2548.7	2429.7	2411.7	2355.7	2195.8	2045.8
60°	2104.8	2114.8	2206.8	2412.7	2794.7	2693.7	2640.7	2621.7	2492.7	2285.8	2193.8
62.5°	1913.8	1937.8	2109.8	2418.7	2747.7	2752.7	2757.7	2744.7	2598.7	2367.7	2342.7
65°	1687.8	1694.8	1901.8	2335.7	2665.7	2734.7	2843.7	2842.7	2679.7	2459.7	2510.7
67.5°	1390.9	1402.8	1581.8	2055.8	2501.7	2726.7	2956.7	2953.7	2771.7	2564.7	2610.7
70°	1034.9	1049.9	1194.9	1598.8	2135.8	2626.7	3104.7	3106.7	2868.7	2644.7	2541.7
71°	806.9	833.9	985.9	1357.9	1948.8	2525.7	3118.7	3136.7	2879.7	2633.7	2399.7
72.5°	396.0	428.0	618.9	955.9	1603.8	2299.8	3026.7	3061.7	2810.7	2496.7	2051.8
75°	103.0	109.0	185.0	391.0	859.9	1523.8	2440.7	2529.7	2297.8	1900.8	1253.9
77.5°	65.0	67.0	87.0	152.0	322.0	578.9	1433.8	1477.8	1312.9	962.9	442.0
80°	46.0	47.0	55.0	98.0	188.0	169.0	515.9	534.9	474.9	255.0	79.0
82.5°	28.0	28.0	40.0	63.0	116.0	92.0	136.0	145.0	128.0	71.0	26.0
85°	16.0	17.0	25.0	43.0	55.0	45.0	51.0	54.0	55.0	47.0	11.0
87.5°	13.0	14.0	22.0	36.0	30.0	22.0	22.0	23.0	24.0	28.0	5.0
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°	484.9	484.9	484.9	484.9	484.9	484.9	484.9	484.9	484.9	484.9	484.9
2.5°	482.9	482.9	483.9	482.9	482.9	482.9	483.9	483.9	483.9	485.9	486.9
5°	484.9	484.9	484.9	483.9	482.9	482.9	484.9	485.9	485.9	488.9	488.9
7.5°	489.9	489.9	487.9	485.9	483.9	480.9	481.9	482.9	481.9	482.9	482.9
10°	500.9	500.9	497.9	493.9	487.9	478.9	466.9	452.0	438.0	433.0	431.0
12.5°	518.9	517.9	511.9	504.9	491.9	461.0	416.0	363.0	319.0	307.0	303.0
15°	538.9	536.9	529.9	517.9	482.9	401.0	307.0	239.0	197.0	187.0	185.0
17.5°	559.9	556.9	546.9	522.9	442.0	298.0	198.0	150.0	127.0	125.0	126.0
20°	581.9	577.9	563.9	512.9	357.0	199.0	128.0	116.0	114.0	114.0	115.0
22.5°	606.9	601.9	582.9	476.9	260.0	132.0	110.0	109.0	108.0	107.0	107.0
25°	635.9	629.9	600.9	412.0	179.0	108.0	105.0	102.0	100.0	98.0	97.0
27.5°	670.9	662.9	614.9	332.0	123.0	101.0	99.0	94.0	90.0	86.0	86.0
30°	705.9	695.9	610.9	250.0	100.0	94.0	90.0	84.0	78.0	74.0	73.0
32.5°	742.9	732.9	584.9	168.0	91.0	86.0	81.0	72.0	65.0	60.0	59.0
35°	797.9	789.9	533.9	111.0	82.0	76.0	69.0	60.0	51.0	46.0	45.0
37.5°	879.9	869.9	470.9	85.0	72.0	63.0	57.0	47.0	38.0	33.0	32.0
40°	989.9	959.9	396.0	75.0	63.0	52.0	44.0	34.0	27.0	24.0	24.0
42.5°	1117.9	1046.9	315.0	68.0	56.0	43.0	32.0	23.0	19.0	18.0	18.0
45°	1253.9	1127.9	234.0	63.0	49.0	34.0	23.0	16.0	14.0	13.0	13.0
47.5°	1393.9	1193.9	163.0	57.0	41.0	26.0	16.0	12.0	10.0	9.0	9.0
50°	1524.8	1236.9	115.0	51.0	35.0	19.0	12.0	9.0	7.0	7.0	7.0
52.5°	1615.8	1232.9	83.0	44.0	27.0	13.0	8.0	6.0	6.0	6.0	6.0
55°	1695.8	1217.9	65.0	38.0	21.0	9.0	6.0	5.0	5.0	4.0	4.0
57.5°	1763.8	1193.9	55.0	31.0	15.0	7.0	4.0	4.0	3.0	3.0	3.0
60°	1821.8	1163.9	46.0	26.0	10.0	5.0	3.0	2.0	2.0	1.0	2.0
62.5°	1900.8	1144.9	40.0	20.0	7.0	3.0	2.0	1.0	1.0	0.0	0.0
65°	1958.8	1108.9	34.0	14.0	4.0	2.0	1.0	1.0	0.0	0.0	0.0
67.5°	1960.8	1043.9	25.0	8.0	3.0	2.0	1.0	0.0	0.0	0.0	0.0
70°	1802.8	889.9	16.0	4.0	2.0	1.0	1.0	0.0	0.0	0.0	0.0
71°	1657.8	787.9	13.0	3.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0
72.5°	1365.9	578.9	10.0	3.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0
75°	752.9	210.0	5.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	241.0	64.0	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	41.0	10.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	14.0	4.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.0	1.0	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)