

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: P214654

Luminaire Tested: **ARCH-AF16-40-D-U-T2R-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214654
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-AF16-40-D-U-T2R-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 740mA LIGHT ENGINE WITH 16 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3771.6 lumens
Efficiency: N/A
Efficacy: 89.8 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

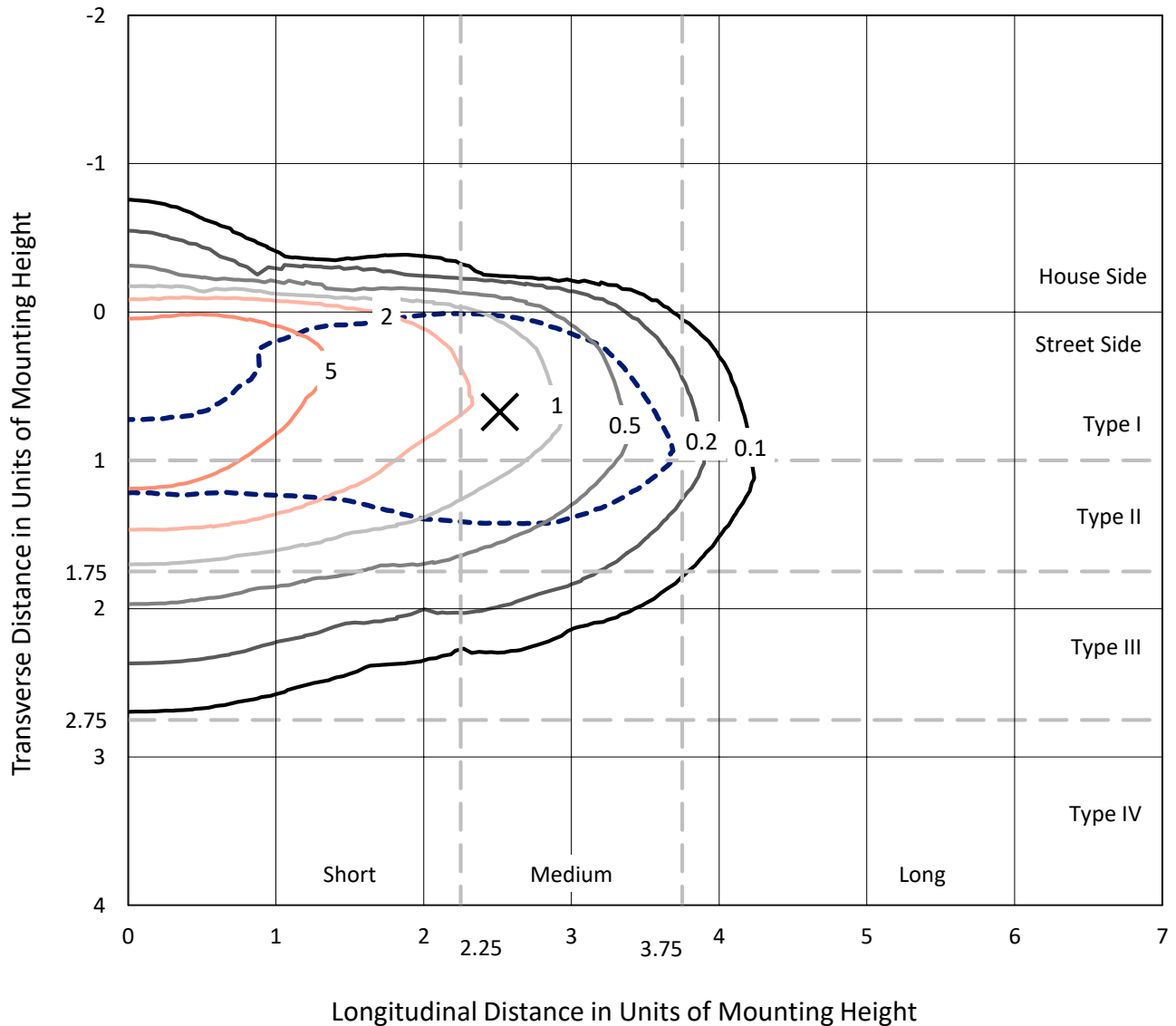
Input Watts (W): 42
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

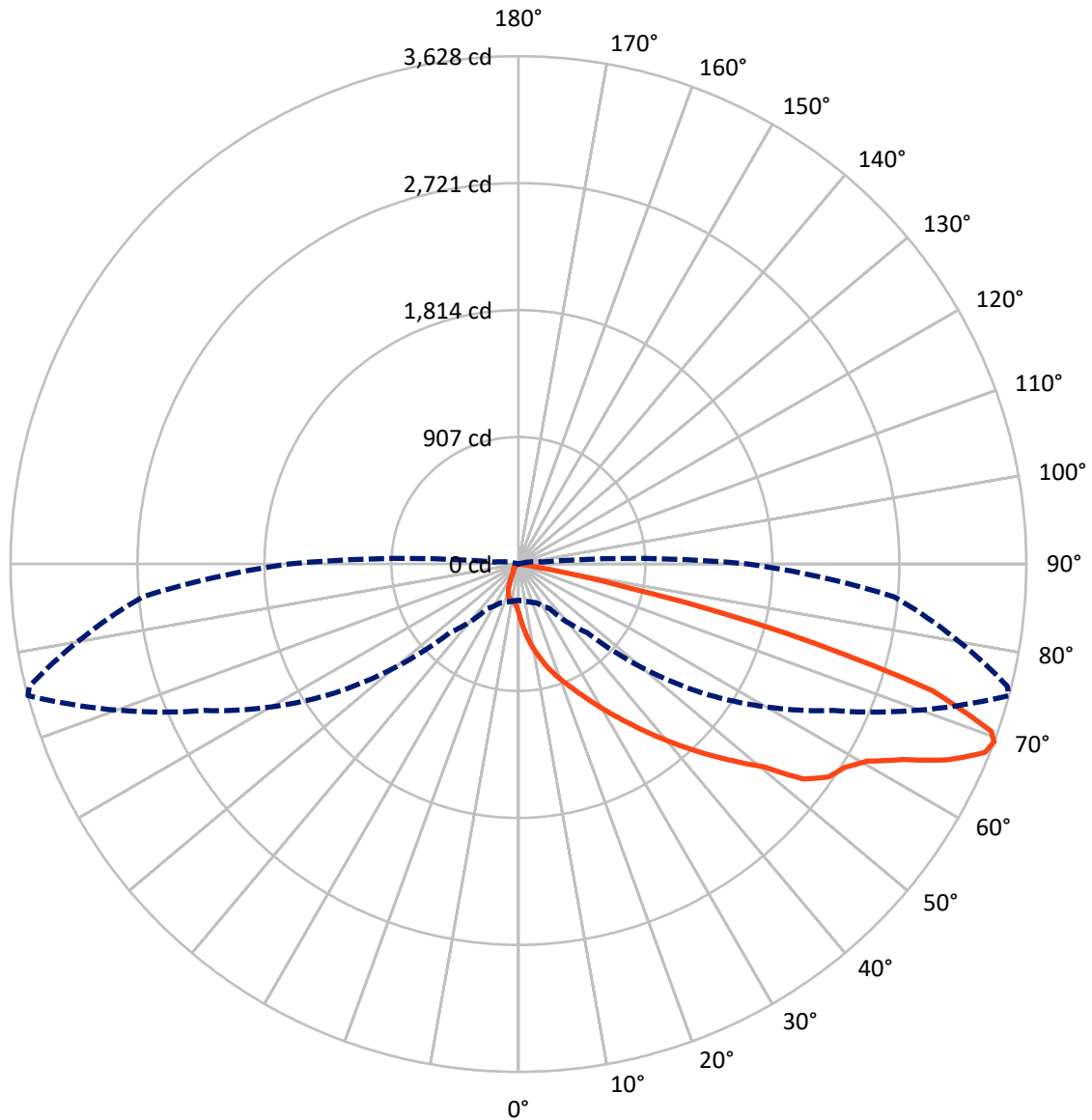
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.6 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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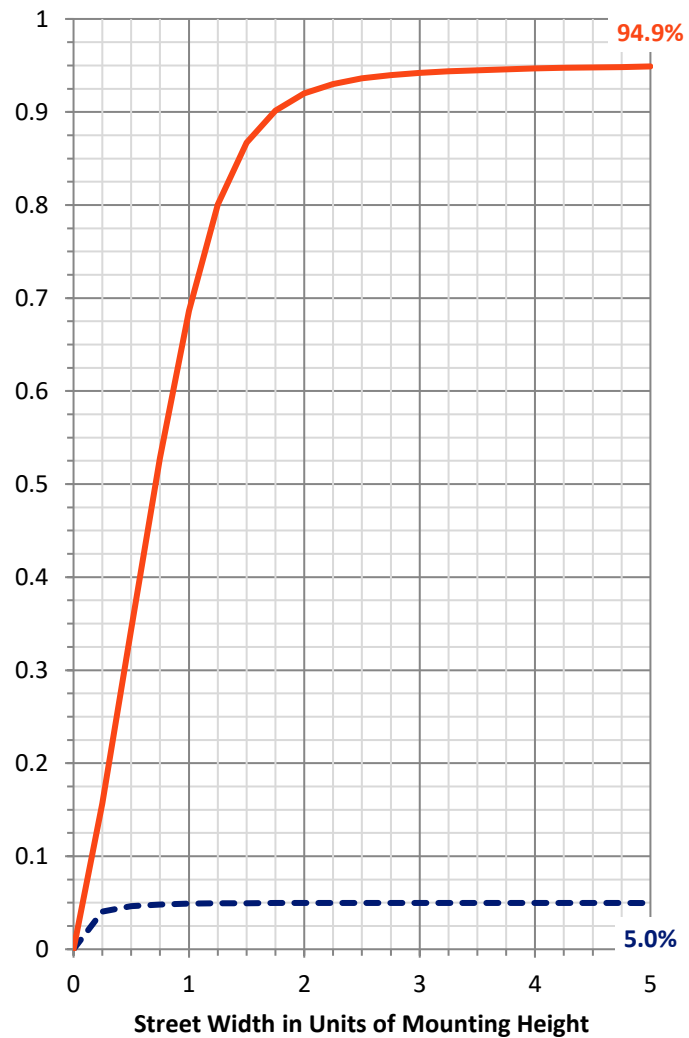
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	188.2	0.0	188.2
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	3583.4	0.0	3583.4
	% Fixture	95.0	0.0	95.0
Total	Lumens	3771.6	0.0	3771.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.9	1.1
10°-20°	146.3	3.9
20°-30°	279.3	7.4
30°-40°	501.0	13.3
40°-50°	767.6	20.4
50°-60°	892.1	23.7
60°-70°	790.0	20.9
70°-80°	340.8	9.0
80°-90°	13.6	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°	3771.6	100.0
0°-180°	3771.6	100.0



--- HS — SS

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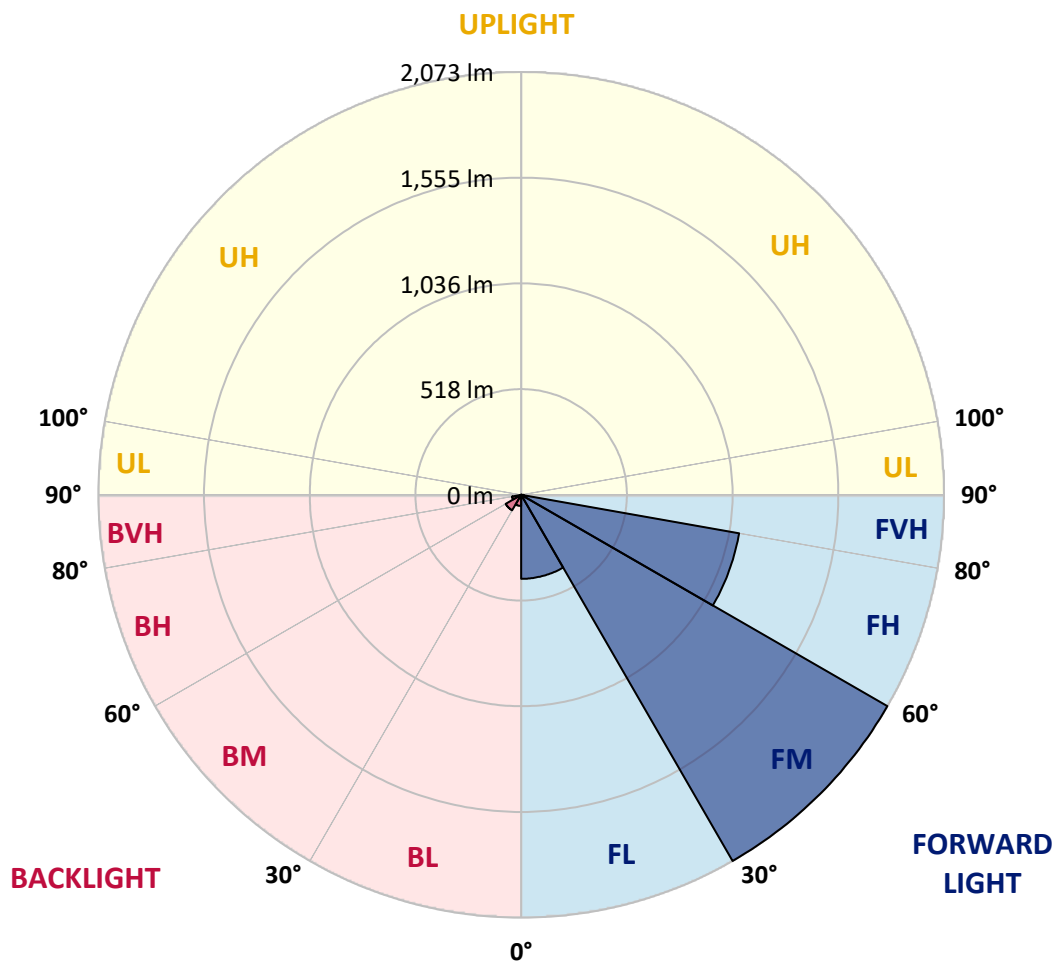
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	411.9	10.9			
FM	(30°-60°)	2073.0	55.0			
FH	(60°-80°)	1085.2	28.8			G1/1800
FVH	(80°-90°)	13.5	0.4			G1/100
BL	(0°-30°)	54.7	1.4	B0/110		
BM	(30°-60°)	87.7	2.3	B0/220		
BH	(60°-80°)	45.6	1.2	B0/110		G0/110
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: 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°	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0
2.5°	578.2	572.4	566.7	560.2	545.5	520.3	488.6	454.4	412.0	404.7	370.5
5°	701.8	699.5	693.8	684.8	668.5	640.8	605.0	554.5	483.7	471.5	399.0
7.5°	789.0	787.4	782.6	771.9	757.3	729.6	692.1	637.6	555.4	541.4	434.9
10°	867.2	866.3	862.3	852.5	837.9	807.7	767.8	710.8	623.7	608.2	476.4
12.5°	938.0	938.9	937.2	932.3	921.8	893.2	847.6	785.7	689.7	672.6	526.0
15°	979.6	982.0	988.5	998.3	1001.6	978.8	931.5	863.2	757.3	742.6	583.0
17.5°	965.8	968.1	988.5	1021.9	1053.6	1056.9	1014.6	936.4	824.0	809.4	639.2
20°	932.3	935.6	956.8	1002.4	1064.3	1107.4	1090.3	1016.2	887.5	869.6	692.9
22.5°	969.8	969.8	976.3	1004.0	1060.2	1127.8	1150.5	1096.0	952.7	930.7	746.7
25°	1098.4	1096.0	1082.2	1070.7	1088.6	1148.9	1196.1	1177.4	1029.2	1004.0	803.6
27.5°	1261.3	1272.7	1246.7	1205.1	1164.4	1190.4	1236.8	1258.0	1113.9	1087.8	862.3
30°	1443.7	1448.6	1417.6	1362.3	1290.7	1265.4	1284.9	1327.3	1206.0	1177.4	923.4
32.5°	1608.2	1604.1	1578.0	1520.2	1431.5	1376.9	1346.8	1382.6	1306.1	1273.5	986.1
35°	1754.0	1757.2	1725.4	1658.6	1571.6	1513.8	1442.1	1445.3	1418.4	1381.0	1058.5
37.5°	1885.0	1879.4	1849.2	1782.4	1703.4	1640.7	1565.0	1510.5	1541.4	1502.3	1140.0
40°	1991.7	1986.0	1954.2	1889.1	1815.0	1763.7	1704.2	1597.5	1670.9	1626.1	1227.1
42.5°	2076.4	2069.8	2043.0	1980.3	1908.6	1863.0	1834.6	1705.1	1809.3	1764.5	1324.8
45°	2117.9	2112.2	2095.9	2048.7	1986.0	1946.1	1960.0	1828.8	1957.5	1920.1	1432.3
47.5°	2069.0	2066.6	2085.3	2077.2	2041.4	2020.2	2068.2	1964.0	2113.0	2076.4	1556.0
50°	1920.9	1924.9	1979.5	2047.0	2064.1	2089.4	2157.0	2106.5	2280.0	2240.9	1698.5
52.5°	1555.3	1582.9	1747.4	1910.3	2036.5	2131.7	2261.2	2310.0	2551.9	2513.6	1920.9
55°	1161.2	1172.5	1351.7	1630.2	1924.9	2128.5	2338.6	2429.7	2686.3	2647.2	1979.5
57.5°	921.0	925.1	1013.7	1297.9	1695.3	2055.2	2379.3	2472.9	2744.9	2712.4	2066.6
60°	723.0	727.9	792.3	987.7	1372.1	1857.4	2320.7	2510.4	2859.7	2833.7	2218.9
62.5°	562.6	567.5	606.6	721.5	1029.2	1552.8	2202.6	2570.7	3078.0	3065.7	2468.1
65°	435.7	437.2	464.1	517.9	727.1	1223.0	2058.5	2626.8	3372.7	3362.1	2670.0
67.5°	321.6	324.1	342.8	376.1	491.0	878.6	1822.3	2583.7	3595.0	3564.1	2743.2
69°	259.7	262.2	278.4	305.4	387.6	692.1	1606.5	2477.0	3628.4	3599.0	2696.8
70°	222.3	223.9	240.2	263.0	330.6	587.9	1435.5	2385.0	3584.4	3555.9	2591.0
72.5°	142.5	150.7	166.9	181.6	219.0	389.2	968.9	1977.9	3092.6	3043.7	2029.1
75°	79.0	81.4	110.8	128.7	145.8	253.3	539.0	1233.6	1967.2	1933.1	1085.5
77.5°	65.2	66.8	78.2	97.7	97.7	141.7	203.6	486.1	748.3	675.0	294.0
80°	45.6	47.3	59.4	64.3	70.1	79.8	66.0	106.7	115.6	102.6	44.0
82.5°	31.7	33.3	40.7	52.9	56.2	37.4	24.4	31.7	33.3	33.3	17.1
85°	5.7	8.2	30.2	44.0	33.3	11.4	13.8	11.4	10.5	11.4	4.1
87.5°	0.0	0.0	18.7	21.2	17.9	4.9	5.7	4.1	2.5	3.3	1.6
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°	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0	351.0
2.5°	353.4	336.2	307.0	285.8	267.9	254.1	248.4	239.4	232.9	236.1	232.1
5°	363.1	333.1	285.8	255.6	234.5	216.6	201.9	190.6	181.6	179.9	178.3
7.5°	378.6	335.5	273.6	236.1	204.4	176.7	153.9	136.8	123.8	123.8	118.9
10°	399.8	342.0	266.3	216.6	169.4	132.0	109.1	92.8	86.3	85.5	83.9
12.5°	429.1	354.2	260.5	191.4	132.0	96.1	82.2	76.5	74.1	73.2	72.4
15°	469.0	372.1	254.1	160.4	100.1	79.0	73.2	68.4	66.0	65.2	64.3
17.5°	507.3	388.4	240.2	128.7	81.4	71.6	65.2	61.1	57.8	57.0	57.0
20°	543.1	402.2	216.6	100.1	73.2	64.3	57.8	52.9	49.7	48.9	48.9
22.5°	580.5	413.7	187.3	81.4	66.8	57.0	50.5	45.6	42.4	41.5	40.7
25°	620.4	421.8	153.9	72.4	60.3	50.5	43.2	39.1	36.6	35.8	35.0
27.5°	663.6	425.0	122.1	66.0	52.9	44.0	37.4	33.3	31.7	30.9	30.9
30°	702.7	421.8	94.4	58.6	46.4	38.3	32.5	29.4	27.7	26.9	26.9
32.5°	743.4	413.7	75.7	52.1	40.7	32.5	27.7	25.3	24.4	23.6	23.6
35°	786.5	403.0	65.2	46.4	35.0	28.5	24.4	22.8	22.0	21.2	21.2
37.5°	837.1	390.1	59.4	41.5	30.9	25.3	21.2	20.4	19.5	19.5	19.5
40°	894.1	373.8	55.3	37.4	27.7	22.0	18.7	17.9	17.1	17.1	17.1
42.5°	954.3	355.1	51.2	33.3	24.4	18.7	16.3	16.3	15.4	15.4	14.6
45°	1021.9	336.2	47.3	29.4	21.2	16.3	13.8	13.0	13.0	12.2	12.2
47.5°	1101.7	319.2	43.2	26.1	18.7	13.8	12.2	11.4	10.5	9.8	9.8
50°	1214.0	317.5	38.3	22.8	17.1	11.4	9.8	9.0	8.2	7.4	7.4
52.5°	1325.6	302.9	32.5	18.7	13.8	9.8	7.4	6.5	5.7	5.7	4.9
55°	1350.9	278.4	28.5	16.3	10.5	7.4	5.7	4.1	4.1	3.3	3.3
57.5°	1406.3	267.1	24.4	13.0	8.2	5.7	3.3	2.5	2.5	2.5	2.5
60°	1515.3	263.8	21.2	11.4	5.7	4.1	2.5	1.6	1.6	0.8	0.8
62.5°	1666.0	260.5	17.9	9.8	4.1	2.5	1.6	0.8	0.0	0.0	0.0
65°	1749.0	238.6	14.6	7.4	3.3	2.5	0.8	0.0	0.0	0.0	0.0
67.5°	1727.0	197.0	13.0	4.9	2.5	1.6	0.8	0.0	0.0	0.0	0.0
69°	1635.1	166.1	10.5	4.1	2.5	1.6	0.8	0.0	0.0	0.0	0.0
70°	1524.3	143.3	9.8	3.3	1.6	0.8	0.8	0.0	0.0	0.0	0.0
72.5°	1082.2	74.9	6.5	2.5	1.6	0.8	0.0	0.0	0.0	0.0	0.0
75°	505.6	33.3	4.1	1.6	0.8	0.8	0.0	0.0	0.0	0.0	0.0
77.5°	111.6	15.4	2.5	1.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0
80°	21.2	5.7	1.6	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	7.4	2.5	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.5	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.8	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)