

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: P214646

Luminaire Tested: **ARCH-AF24-50-D-U-T2R-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214646
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-AF24-50-D-U-T2R-7030-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 670mA 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: 4542 lumens
Efficiency: N/A
Efficacy: 84.1 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): 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

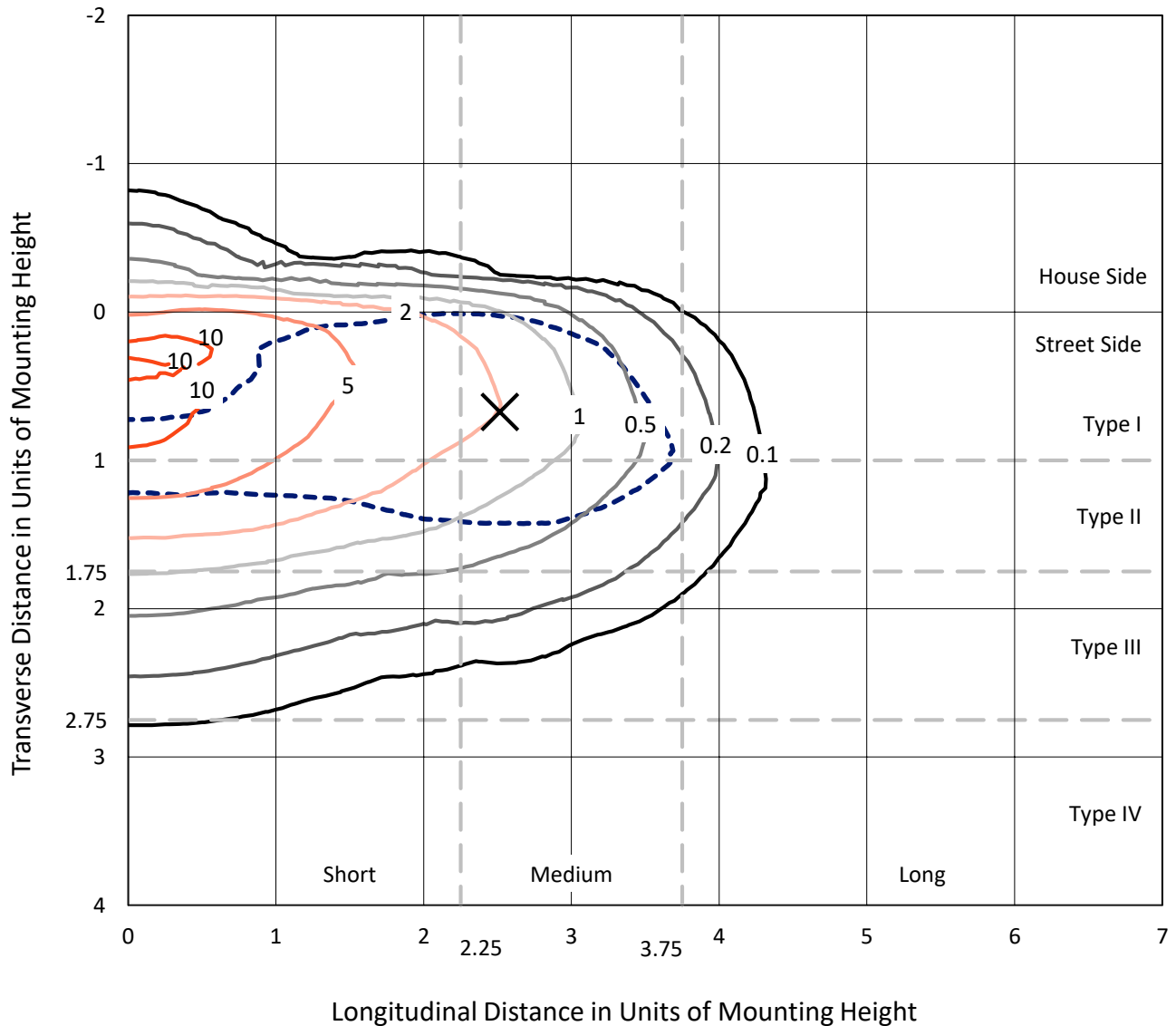


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

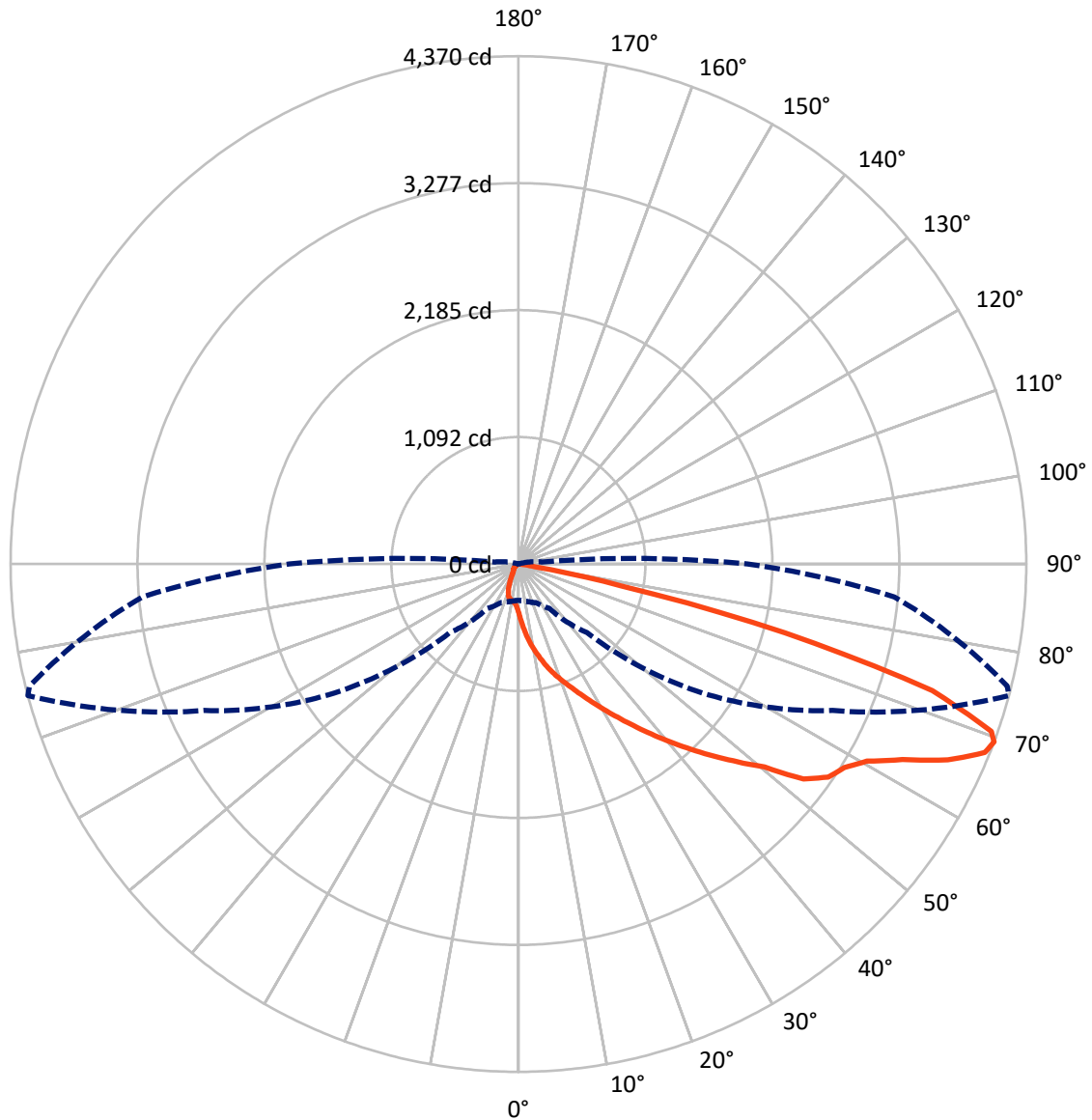


Based on 10 foot mounting height. Maximum calculated value = 11.6 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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

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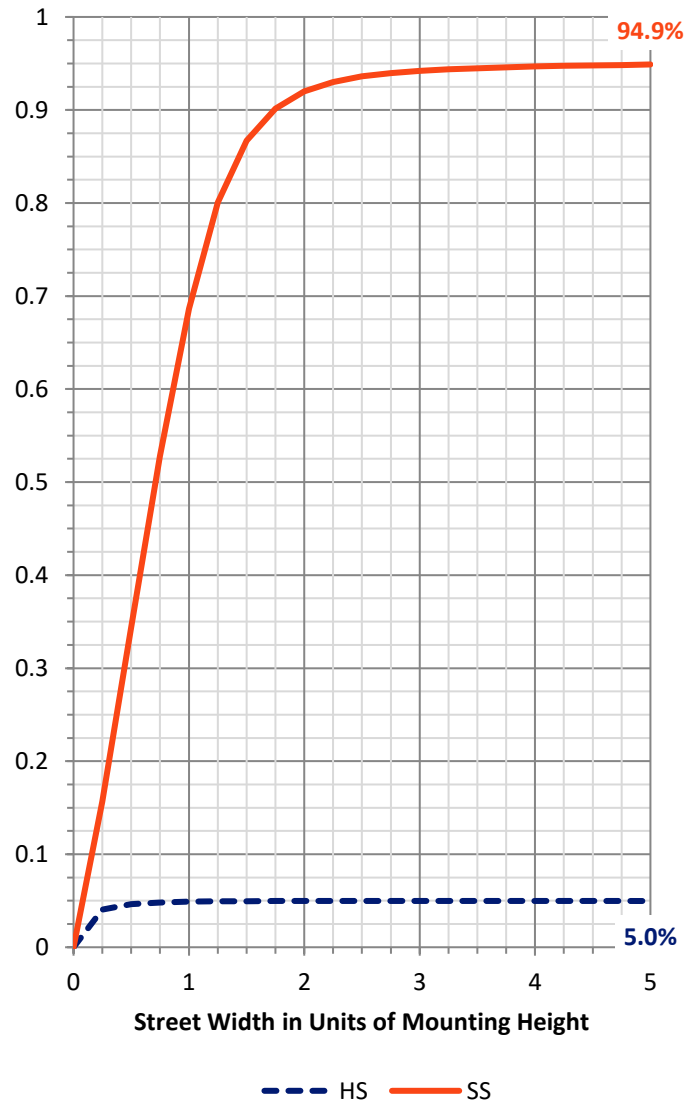
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	226.6	0.0	226.6
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	4315.4	0.0	4315.4
	% Fixture	95.0	0.0	95.0
Total	Lumens	4542.0	0.0	4542.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.3	1.1
10°-20°	176.2	3.9
20°-30°	336.3	7.4
30°-40°	603.3	13.3
40°-50°	924.4	20.4
50°-60°	1074.3	23.7
60°-70°	951.3	20.9
70°-80°	410.4	9.0
80°-90°	16.4	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°	4542.0	100.0
0°-180°	4542.0	100.0

Coefficient of Utilization



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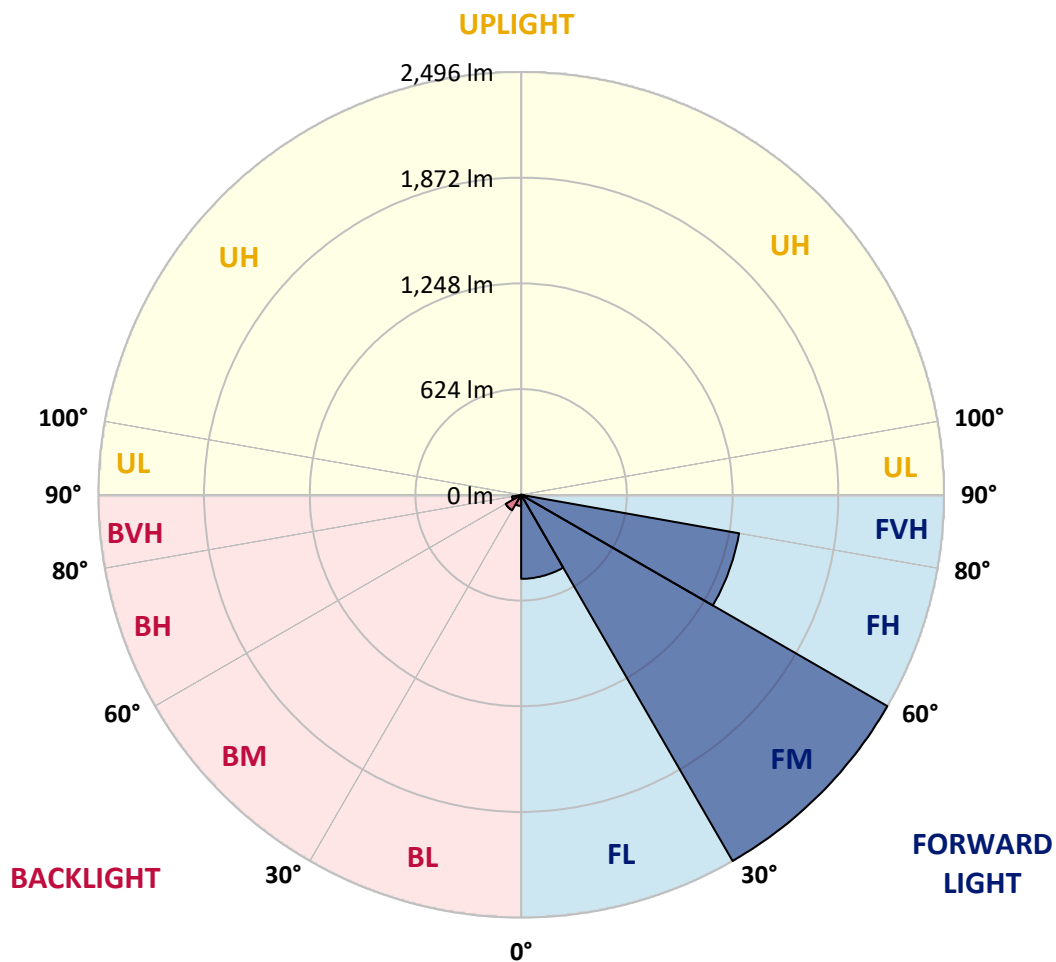
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	496.0	10.9			
FM (30°-60°)	2496.4	55.0			
FH (60°-80°)	1306.8	28.8			G1/1800
FVH (80°-90°)	16.2	0.4			G1/100
BL (0°-30°)	65.8	1.4	B0/110		
BM (30°-60°)	105.7	2.3	B0/220		
BH (60°-80°)	54.9	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°	422.6	422.6	422.6	422.6	422.6	422.6	422.6	422.6	422.6	422.6	422.6
2.5°	696.2	689.4	682.5	674.6	657.0	626.6	588.3	547.2	496.2	487.3	446.2
5°	845.3	842.3	835.5	824.7	805.1	771.7	728.6	667.8	582.5	567.8	480.5
7.5°	950.2	948.2	942.3	929.6	911.9	878.6	833.5	767.8	668.8	652.1	523.6
10°	1044.3	1043.3	1038.4	1026.7	1009.0	972.7	924.7	856.0	751.1	732.5	573.6
12.5°	1129.6	1130.6	1128.7	1122.8	1110.0	1075.7	1020.8	946.3	830.6	810.0	633.5
15°	1179.6	1182.6	1190.4	1202.2	1206.1	1178.7	1121.8	1039.4	911.9	894.3	702.1
17.5°	1163.0	1165.9	1190.4	1230.6	1268.9	1272.8	1221.8	1127.7	992.4	974.7	769.8
20°	1122.8	1126.7	1152.2	1207.1	1281.6	1333.6	1313.0	1223.8	1068.8	1047.3	834.5
22.5°	1167.9	1167.9	1175.7	1209.1	1276.7	1358.1	1385.6	1319.9	1147.3	1120.8	899.2
25°	1322.8	1319.9	1303.2	1289.5	1311.0	1383.6	1440.5	1417.9	1239.5	1209.1	967.8
27.5°	1518.9	1532.7	1501.3	1451.3	1402.2	1433.6	1489.5	1515.0	1341.4	1310.1	1038.4
30°	1738.6	1744.5	1707.2	1640.5	1554.2	1523.8	1547.4	1598.4	1452.2	1417.9	1112.0
32.5°	1936.7	1931.7	1900.4	1830.7	1723.9	1658.2	1621.9	1665.0	1572.9	1533.6	1187.5
35°	2112.2	2116.1	2077.9	1997.4	1892.5	1822.9	1736.6	1740.5	1708.2	1663.1	1274.8
37.5°	2270.1	2263.2	2226.9	2146.5	2051.4	1975.9	1884.7	1819.0	1856.2	1809.2	1372.8
40°	2398.5	2391.6	2353.4	2275.0	2185.7	2123.9	2052.4	1923.9	2012.2	1958.2	1477.7
42.5°	2500.5	2492.6	2460.3	2384.8	2298.5	2243.6	2209.3	2053.3	2178.9	2124.9	1595.4
45°	2550.5	2543.6	2524.0	2467.1	2391.6	2343.6	2360.3	2202.4	2357.3	2312.2	1724.8
47.5°	2491.7	2488.7	2511.3	2501.5	2458.3	2432.8	2490.7	2365.2	2544.6	2500.5	1873.9
50°	2313.2	2318.1	2383.8	2465.2	2485.8	2516.2	2597.6	2536.8	2745.6	2698.6	2045.5
52.5°	1872.9	1906.3	2104.3	2300.4	2452.4	2567.2	2723.1	2781.9	3073.1	3027.1	2313.2
55°	1398.3	1412.0	1627.8	1963.1	2318.1	2563.2	2816.2	2926.1	3234.9	3187.9	2383.8
57.5°	1109.0	1113.9	1220.8	1563.0	2041.6	2475.0	2865.3	2978.0	3305.5	3266.3	2488.7
60°	870.8	876.6	954.1	1189.4	1652.3	2236.7	2794.7	3023.1	3443.8	3412.4	2672.1
62.5°	677.6	683.5	730.5	868.8	1239.5	1870.0	2652.5	3095.7	3706.6	3691.9	2972.1
65°	524.6	526.6	558.9	623.7	875.7	1472.8	2478.9	3163.4	4061.6	4048.8	3215.3
67.5°	387.3	390.3	412.8	453.0	591.3	1058.0	2194.5	3111.4	4329.3	4292.0	3303.6
69°	312.8	315.7	335.4	367.7	466.8	833.5	1934.7	2982.9	4369.5	4334.2	3247.7
70°	267.7	269.7	289.3	316.7	398.1	708.0	1728.8	2872.1	4316.5	4282.2	3120.2
72.5°	171.6	181.4	201.0	218.7	263.8	468.7	1166.9	2381.8	3724.3	3665.4	2443.6
75°	95.1	98.1	133.4	154.9	175.5	305.0	649.1	1485.6	2369.1	2327.9	1307.1
77.5°	78.4	80.4	94.1	117.7	117.7	170.6	245.1	585.4	901.2	812.9	354.0
80°	54.9	56.9	71.6	77.5	84.3	96.1	79.4	128.5	139.2	123.6	53.0
82.5°	38.2	40.2	49.0	63.7	67.7	45.1	29.4	38.2	40.2	40.2	20.6
85°	6.9	9.8	36.3	53.0	40.2	13.7	16.7	13.7	12.7	13.7	4.9
87.5°	0.0	0.0	22.6	25.5	21.6	5.9	6.9	4.9	2.9	3.9	2.0
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°	422.6	422.6	422.6	422.6	422.6	422.6	422.6	422.6	422.6	422.6	422.6
2.5°	425.6	405.0	369.7	344.2	322.6	305.9	299.1	288.3	280.4	284.4	279.5
5°	437.3	401.1	344.2	307.9	282.4	260.8	243.2	229.5	218.7	216.7	214.7
7.5°	456.0	404.0	329.5	284.4	246.1	212.8	185.3	164.7	149.0	149.0	143.2
10°	481.5	411.8	320.7	260.8	204.0	158.9	131.4	111.8	103.9	103.0	101.0
12.5°	516.8	426.6	313.8	230.4	158.9	115.7	99.0	92.2	89.2	88.3	87.3
15°	564.8	448.1	305.9	193.2	120.6	95.1	88.3	82.4	79.4	78.4	77.5
17.5°	610.9	467.7	289.3	154.9	98.1	86.3	78.4	73.5	69.6	68.6	68.6
20°	654.0	484.4	260.8	120.6	88.3	77.5	69.6	63.7	59.8	58.8	58.8
22.5°	699.2	498.1	225.5	98.1	80.4	68.6	60.8	54.9	51.0	50.0	49.0
25°	747.2	507.9	185.3	87.3	72.6	60.8	52.0	47.1	44.1	43.1	42.2
27.5°	799.2	511.9	147.1	79.4	63.7	53.0	45.1	40.2	38.2	37.3	37.3
30°	846.2	507.9	113.7	70.6	55.9	46.1	39.2	35.3	33.3	32.4	32.4
32.5°	895.3	498.1	91.2	62.8	49.0	39.2	33.3	30.4	29.4	28.4	28.4
35°	947.2	485.4	78.4	55.9	42.2	34.3	29.4	27.5	26.5	25.5	25.5
37.5°	1008.0	469.7	71.6	50.0	37.3	30.4	25.5	24.5	23.5	23.5	23.5
40°	1076.7	450.1	66.7	45.1	33.3	26.5	22.6	21.6	20.6	20.6	20.6
42.5°	1149.2	427.5	61.8	40.2	29.4	22.6	19.6	19.6	18.6	18.6	17.7
45°	1230.6	405.0	56.9	35.3	25.5	19.6	16.7	15.7	15.7	14.7	14.7
47.5°	1326.7	384.4	52.0	31.4	22.6	16.7	14.7	13.7	12.7	11.8	11.8
50°	1462.0	382.4	46.1	27.5	20.6	13.7	11.8	10.8	9.8	8.8	8.8
52.5°	1596.4	364.8	39.2	22.6	16.7	11.8	8.8	7.8	6.9	6.9	5.9
55°	1626.8	335.4	34.3	19.6	12.7	8.8	6.9	4.9	4.9	3.9	3.9
57.5°	1693.5	321.6	29.4	15.7	9.8	6.9	3.9	2.9	2.9	2.9	2.9
60°	1824.9	317.7	25.5	13.7	6.9	4.9	2.9	2.0	2.0	1.0	1.0
62.5°	2006.3	313.8	21.6	11.8	4.9	2.9	2.0	1.0	0.0	0.0	0.0
65°	2106.3	287.3	17.7	8.8	3.9	2.9	1.0	0.0	0.0	0.0	0.0
67.5°	2079.8	237.3	15.7	5.9	2.9	2.0	1.0	0.0	0.0	0.0	0.0
69°	1969.0	200.0	12.7	4.9	2.9	2.0	1.0	0.0	0.0	0.0	0.0
70°	1835.7	172.6	11.8	3.9	2.0	1.0	1.0	0.0	0.0	0.0	0.0
72.5°	1303.2	90.2	7.8	2.9	2.0	1.0	0.0	0.0	0.0	0.0	0.0
75°	608.9	40.2	4.9	2.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0
77.5°	134.3	18.6	2.9	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	25.5	6.9	2.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	8.8	2.9	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.0	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)