

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: P214659

Luminaire Tested: **ARCH-AF24-40-D-U-T2R-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214659
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-AF24-40-D-U-T2R-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 500mA 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: 4070.3 lumens
Efficiency: N/A
Efficacy: 101.8 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

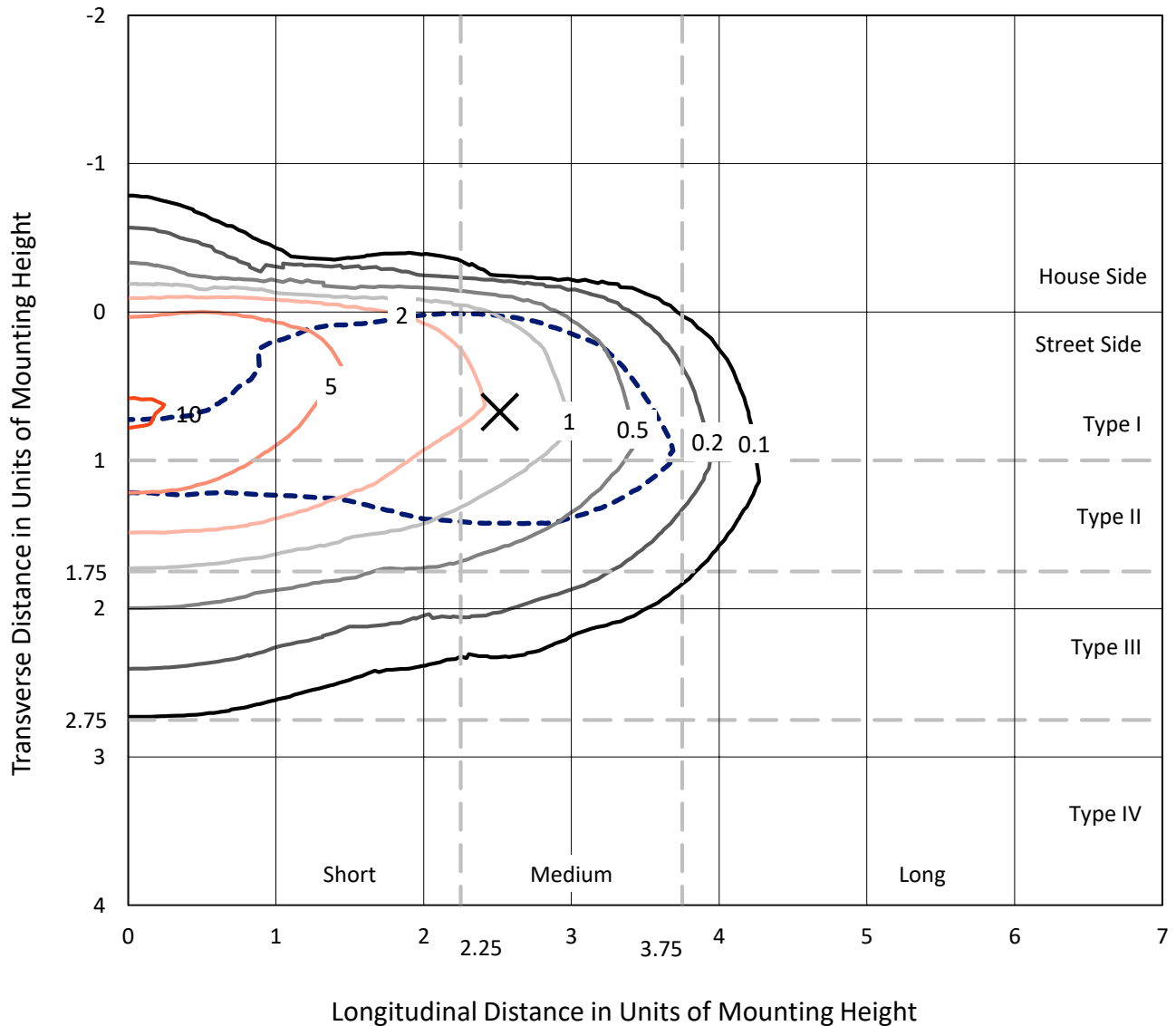
Input Watts (W): 40
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P214659
 CATALOG NUMBER: ARCH-AF24-40-D-U-T2R-HSS

Iso-Footcandle Lines of Horizontal Illumination

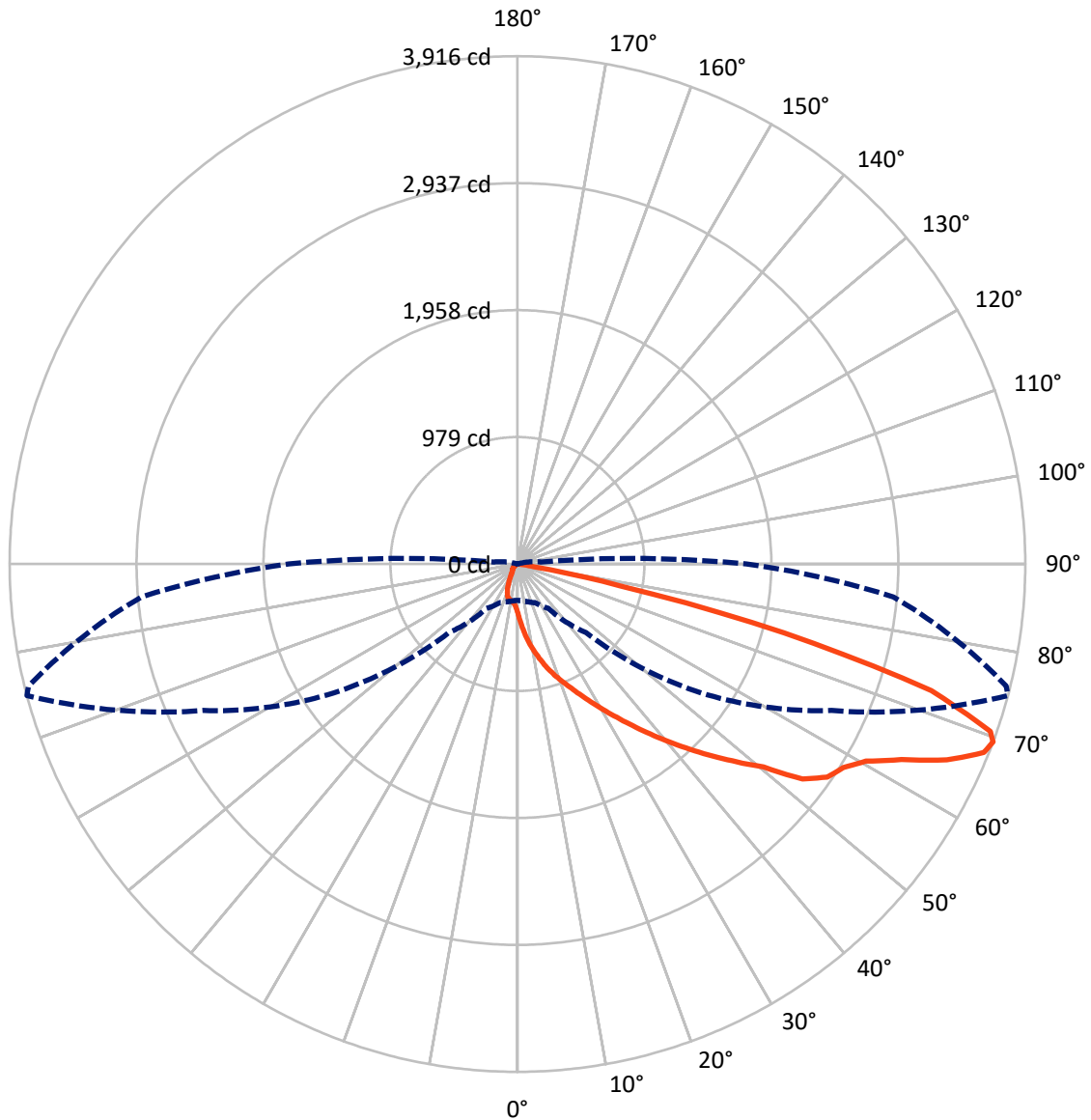
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.4 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P214659
CATALOG NUMBER: ARCH-AF24-40-D-U-T2R-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P214659

CATALOG NUMBER: ARCH-AF24-40-D-U-T2R-HSS

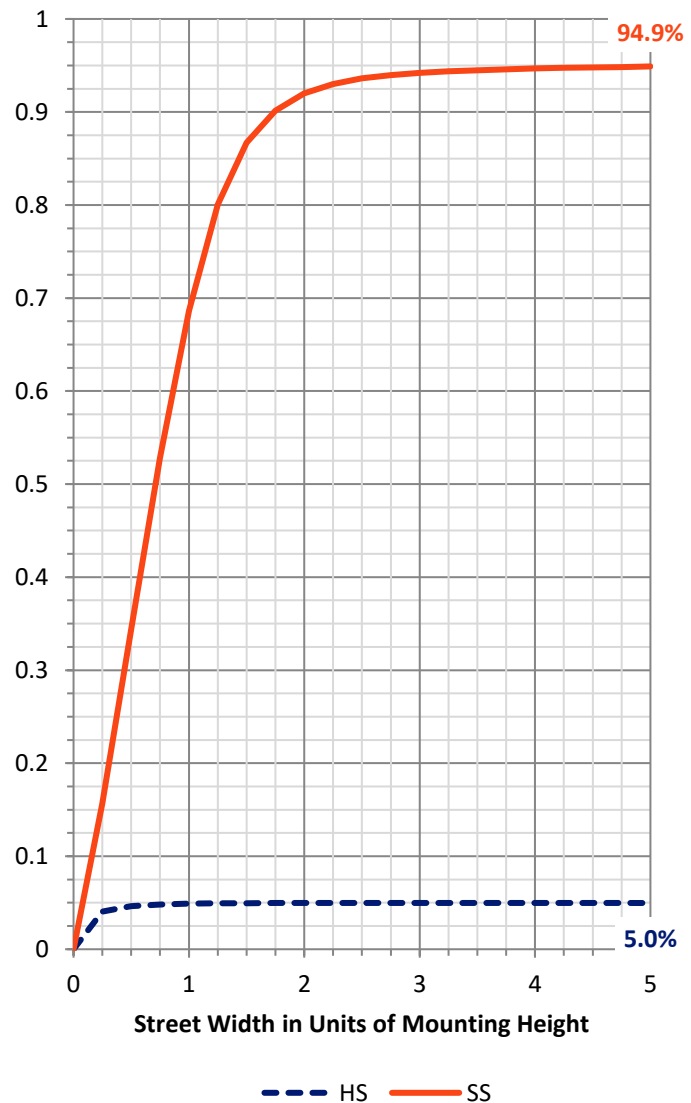
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	203.1	0.0	203.1
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	3867.2	0.0	3867.2
	% Fixture	95.0	0.0	95.0
Total	Lumens	4070.3	0.0	4070.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.2	1.1
10°-20°	157.9	3.9
20°-30°	301.4	7.4
30°-40°	540.7	13.3
40°-50°	828.4	20.4
50°-60°	962.8	23.7
60°-70°	852.5	20.9
70°-80°	367.7	9.0
80°-90°	14.7	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°	4070.3	100.0
0°-180°	4070.3	100.0

Coefficient of Utilization



REPORT NUMBER: P214659

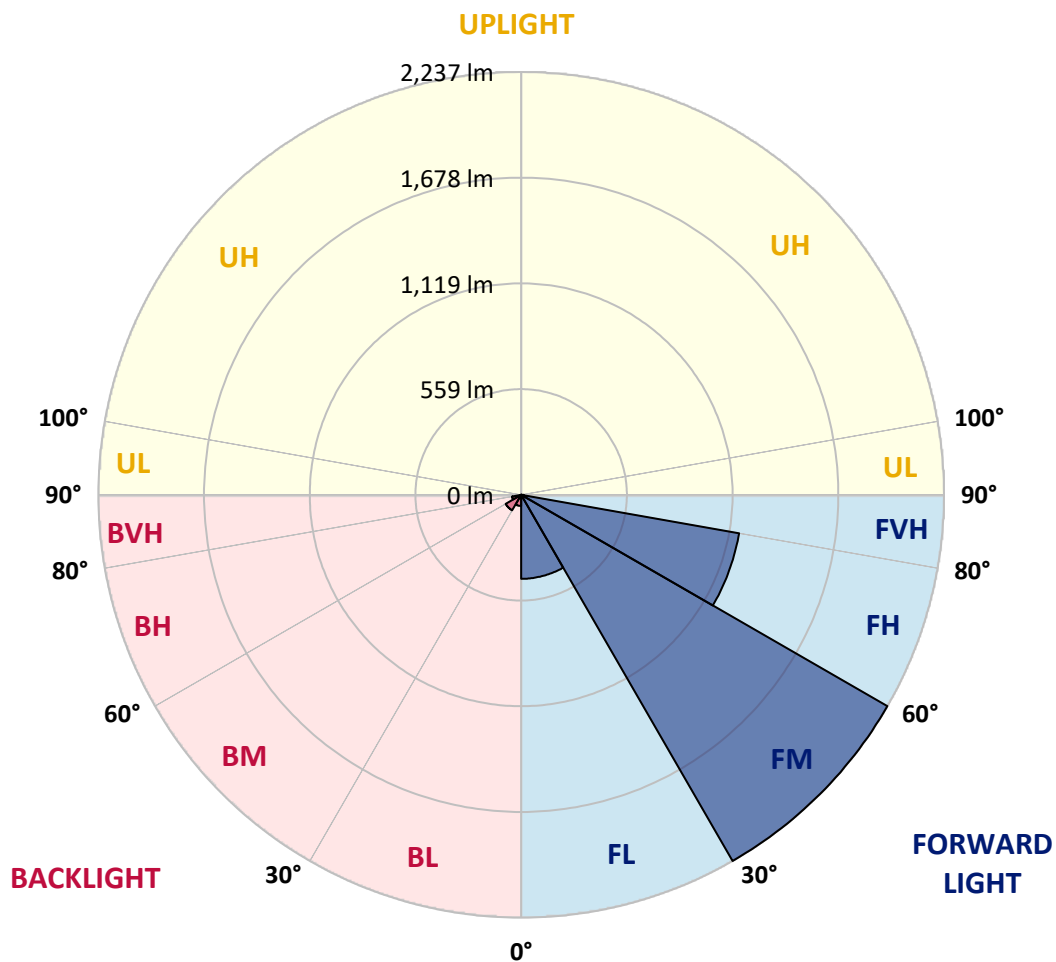
CATALOG NUMBER: ARCH-AF24-40-D-U-T2R-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	444.5	10.9			
FM (30°-60°)	2237.2	55.0			
FH (60°-80°)	1171.1	28.8			G1/1800
FVH (80°-90°)	14.5	0.4			G1/100
BL (0°-30°)	59.0	1.4	B0/110		
BM (30°-60°)	94.7	2.3	B0/220		
BH (60°-80°)	49.2	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





REPORT NUMBER: P214659

CATALOG NUMBER: ARCH-AF24-40-D-U-T2R-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	378.7	378.7	378.7	378.7	378.7	378.7	378.7	378.7	378.7	378.7	378.7
2.5°	623.9	617.8	611.6	604.6	588.8	561.5	527.2	490.3	444.7	436.7	399.9
5°	757.5	754.8	748.7	739.0	721.5	691.6	652.9	598.4	522.0	508.8	430.6
7.5°	851.5	849.8	844.4	833.1	817.2	787.4	747.0	688.0	599.3	584.4	469.2
10°	935.9	935.0	930.6	920.0	904.2	871.8	828.7	767.1	673.1	656.4	514.0
12.5°	1012.3	1013.2	1011.5	1006.2	994.7	964.0	914.8	848.0	744.3	725.9	567.6
15°	1057.1	1059.8	1066.8	1077.4	1080.8	1056.3	1005.3	931.5	817.2	801.4	629.2
17.5°	1042.2	1044.8	1066.8	1102.8	1137.1	1140.6	1095.0	1010.6	889.3	873.5	689.8
20°	1006.2	1009.7	1032.6	1081.8	1148.6	1195.1	1176.6	1096.7	957.8	938.6	747.8
22.5°	1046.6	1046.6	1053.6	1083.5	1144.2	1217.1	1241.7	1182.8	1028.2	1004.4	805.8
25°	1185.4	1182.8	1167.9	1155.5	1174.9	1239.9	1290.9	1270.7	1110.7	1083.5	867.4
27.5°	1361.1	1373.5	1345.4	1300.6	1256.6	1284.7	1334.8	1357.7	1202.2	1174.0	930.6
30°	1558.1	1563.3	1529.9	1470.2	1392.8	1365.5	1386.7	1432.3	1301.4	1270.7	996.5
32.5°	1735.5	1731.1	1703.0	1640.6	1544.9	1485.9	1453.4	1492.1	1409.5	1374.3	1064.2
35°	1892.9	1896.3	1862.1	1790.1	1696.0	1633.6	1556.3	1559.8	1530.7	1490.3	1142.3
37.5°	2034.3	2028.2	1995.7	1923.6	1838.3	1770.7	1689.0	1630.1	1663.5	1621.3	1230.3
40°	2149.4	2143.3	2109.0	2038.7	1958.7	1903.4	1839.3	1724.1	1803.2	1754.9	1324.3
42.5°	2240.8	2233.8	2204.8	2137.1	2059.8	2010.6	1979.8	1840.1	1952.6	1904.2	1429.8
45°	2285.7	2279.4	2261.9	2210.9	2143.3	2100.2	2115.2	1973.7	2112.5	2072.1	1545.7
47.5°	2232.9	2230.2	2250.5	2241.7	2203.0	2180.2	2232.1	2119.6	2280.4	2240.8	1679.3
50°	2073.0	2077.4	2136.2	2209.2	2227.7	2254.9	2327.8	2273.3	2460.5	2418.4	1833.0
52.5°	1678.5	1708.3	1885.8	2061.6	2197.7	2300.6	2440.2	2493.0	2754.0	2712.7	2073.0
55°	1253.1	1265.4	1458.7	1759.3	2077.4	2297.0	2523.8	2622.2	2899.0	2856.8	2136.2
57.5°	993.9	998.3	1094.0	1400.7	1829.5	2218.0	2567.7	2668.8	2962.3	2927.1	2230.2
60°	780.3	785.6	855.0	1065.9	1480.7	2004.5	2504.5	2709.2	3086.1	3058.0	2394.6
62.5°	607.2	612.4	654.7	778.6	1110.7	1675.8	2377.0	2774.2	3321.7	3308.5	2663.5
65°	470.1	471.9	500.9	558.8	784.7	1319.9	2221.4	2834.8	3639.8	3628.4	2881.4
67.5°	347.1	349.7	370.0	406.0	529.9	948.2	1966.6	2788.3	3879.6	3846.3	2960.5
69°	280.3	282.9	300.5	329.5	418.3	747.0	1733.8	2673.2	3915.8	3884.0	2910.4
70°	239.9	241.6	259.2	283.9	356.8	634.4	1549.3	2573.8	3868.3	3837.5	2796.2
72.5°	153.7	162.5	180.1	196.0	236.4	420.0	1045.8	2134.5	3337.5	3284.8	2189.8
75°	85.2	87.9	119.5	138.8	157.3	273.3	581.8	1331.3	2123.0	2086.2	1171.4
77.5°	70.3	72.0	84.4	105.5	105.5	152.9	219.7	524.6	807.6	728.4	317.2
80°	49.2	50.9	64.1	69.5	75.6	86.1	71.2	115.1	124.8	110.7	47.5
82.5°	34.3	36.0	44.0	57.1	60.7	40.4	26.4	34.3	36.0	36.0	18.4
85°	6.1	8.8	32.5	47.5	36.0	12.3	14.9	12.3	11.5	12.3	4.4
87.5°	0.0	0.0	20.3	22.8	19.3	5.3	6.1	4.4	2.7	3.5	1.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P214659

CATALOG NUMBER: ARCH-AF24-40-D-U-T2R-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	378.7	378.7	378.7	378.7	378.7	378.7	378.7	378.7	378.7	378.7	378.7
2.5°	381.4	362.9	331.3	308.4	289.1	274.2	268.0	258.4	251.3	254.8	250.4
5°	391.9	359.4	308.4	275.9	253.1	233.7	217.9	205.6	196.0	194.2	192.4
7.5°	408.7	362.0	295.2	254.8	220.5	190.7	166.1	147.6	133.6	133.6	128.3
10°	431.5	369.1	287.3	233.7	182.8	142.4	117.7	100.1	93.2	92.3	90.5
12.5°	463.1	382.3	281.2	206.5	142.4	103.7	88.8	82.6	80.0	79.1	78.3
15°	506.2	401.6	274.2	173.1	108.1	85.2	79.1	73.9	71.2	70.3	69.5
17.5°	547.5	419.2	259.2	138.8	87.9	77.3	70.3	65.9	62.4	61.5	61.5
20°	586.2	434.1	233.7	108.1	79.1	69.5	62.4	57.1	53.6	52.7	52.7
22.5°	626.6	446.4	202.1	87.9	72.0	61.5	54.5	49.2	45.7	44.8	44.0
25°	669.6	455.2	166.1	78.3	65.1	54.5	46.5	42.1	39.6	38.7	37.7
27.5°	716.2	458.7	131.9	71.2	57.1	47.5	40.4	36.0	34.3	33.3	33.3
30°	758.3	455.2	101.9	63.3	50.1	41.3	35.2	31.6	29.9	28.9	28.9
32.5°	802.3	446.4	81.7	56.3	44.0	35.2	29.9	27.2	26.4	25.5	25.5
35°	848.8	435.0	70.3	50.1	37.7	30.8	26.4	24.7	23.7	22.8	22.8
37.5°	903.4	420.9	64.1	44.8	33.3	27.2	22.8	22.0	21.1	21.1	21.1
40°	964.8	403.3	59.7	40.4	29.9	23.7	20.3	19.3	18.4	18.4	18.4
42.5°	1029.9	383.1	55.3	36.0	26.4	20.3	17.6	17.6	16.7	16.7	15.9
45°	1102.8	362.9	50.9	31.6	22.8	17.6	14.9	14.0	14.0	13.2	13.2
47.5°	1189.0	344.4	46.5	28.1	20.3	14.9	13.2	12.3	11.5	10.5	10.5
50°	1310.2	342.7	41.3	24.7	18.4	12.3	10.5	9.6	8.8	7.9	7.9
52.5°	1430.6	326.9	35.2	20.3	14.9	10.5	7.9	7.1	6.1	6.1	5.3
55°	1457.8	300.5	30.8	17.6	11.5	7.9	6.1	4.4	4.4	3.5	3.5
57.5°	1517.6	288.3	26.4	14.0	8.8	6.1	3.5	2.7	2.7	2.7	2.7
60°	1635.4	284.7	22.8	12.3	6.1	4.4	2.7	1.7	1.7	0.9	0.9
62.5°	1797.9	281.2	19.3	10.5	4.4	2.7	1.7	0.9	0.0	0.0	0.0
65°	1887.5	257.5	15.9	7.9	3.5	2.7	0.9	0.0	0.0	0.0	0.0
67.5°	1863.8	212.7	14.0	5.3	2.7	1.7	0.9	0.0	0.0	0.0	0.0
69°	1764.5	179.2	11.5	4.4	2.7	1.7	0.9	0.0	0.0	0.0	0.0
70°	1645.0	154.7	10.5	3.5	1.7	0.9	0.9	0.0	0.0	0.0	0.0
72.5°	1167.9	80.8	7.1	2.7	1.7	0.9	0.0	0.0	0.0	0.0	0.0
75°	545.7	36.0	4.4	1.7	0.9	0.9	0.0	0.0	0.0	0.0	0.0
77.5°	120.4	16.7	2.7	1.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0
80°	22.8	6.1	1.7	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	7.9	2.7	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.9	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)