

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: P214665

Luminaire Tested: **ARCH-AF24-100-D-U-T2R-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214665
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-AF24-100-D-U-T2R-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 1200mA 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: 7862.4 lumens
Efficiency: N/A
Efficacy: 81.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B1 - U0 - G2

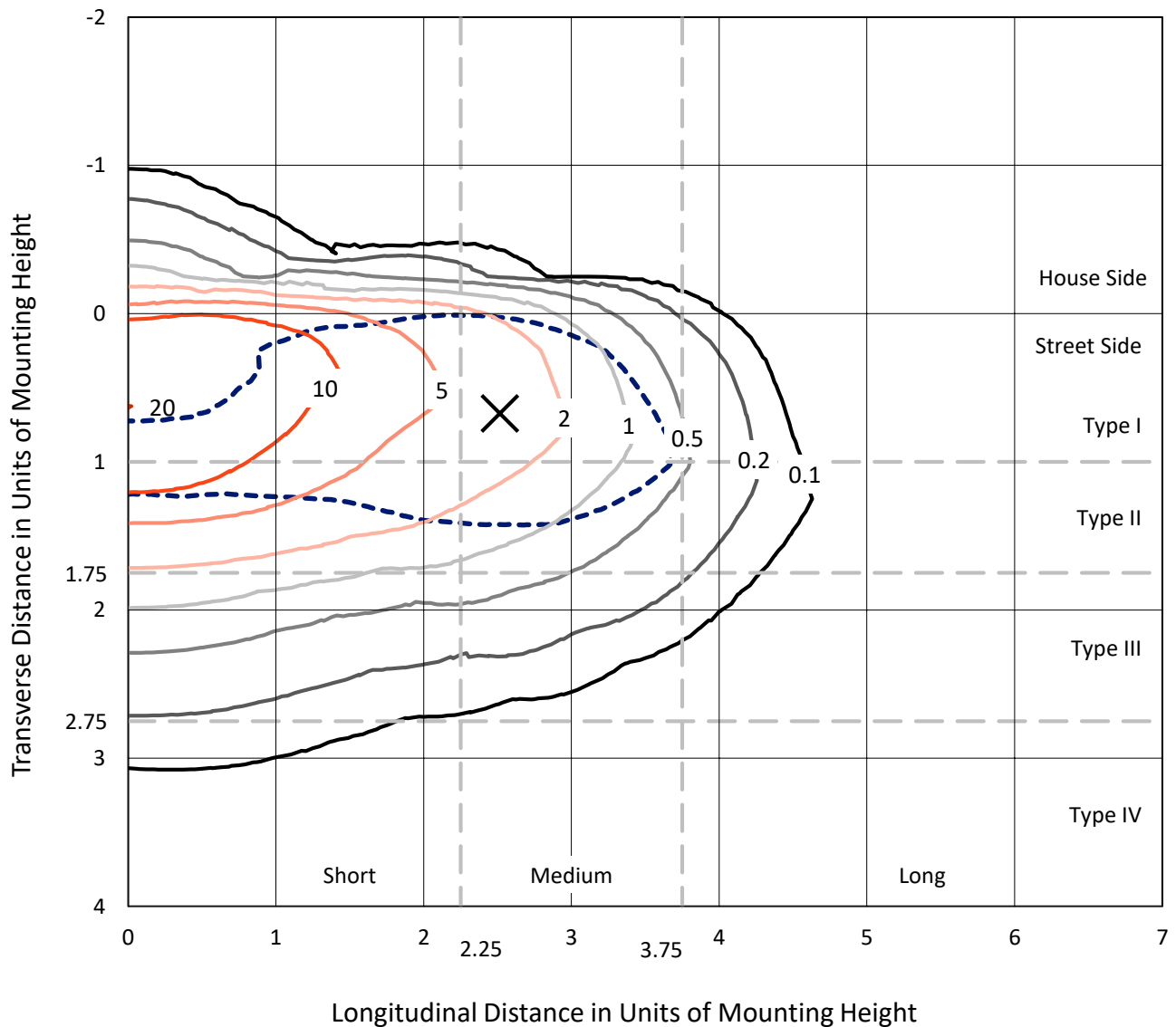
Input Watts (W): 96
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P214665
 CATALOG NUMBER: ARCH-AF24-100-D-U-T2R-HSS

Iso-Footcandle Lines of Horizontal Illumination

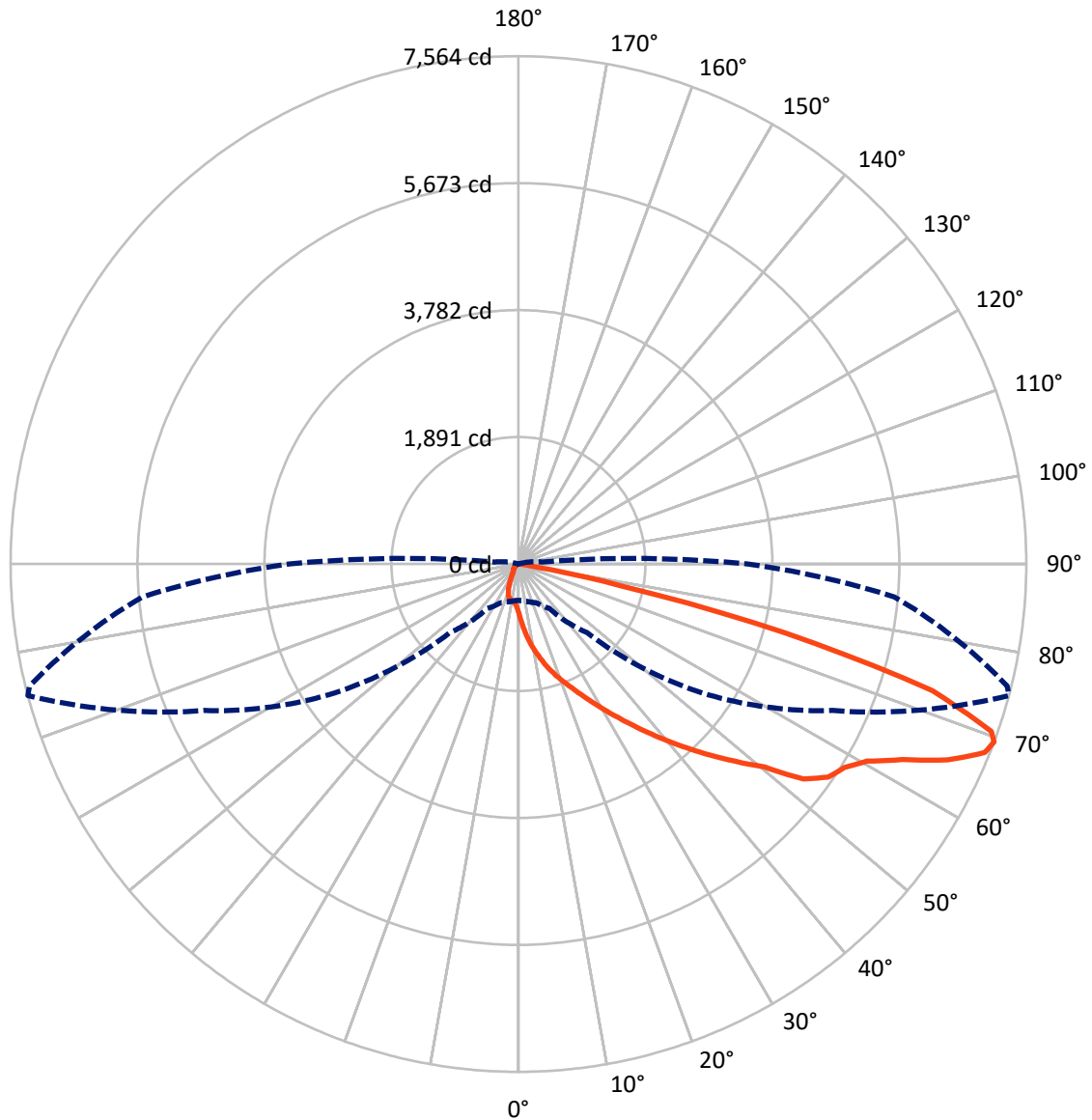
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 20 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P214665
CATALOG NUMBER: ARCH-AF24-100-D-U-T2R-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P214665

CATALOG NUMBER: ARCH-AF24-100-D-U-T2R-HSS

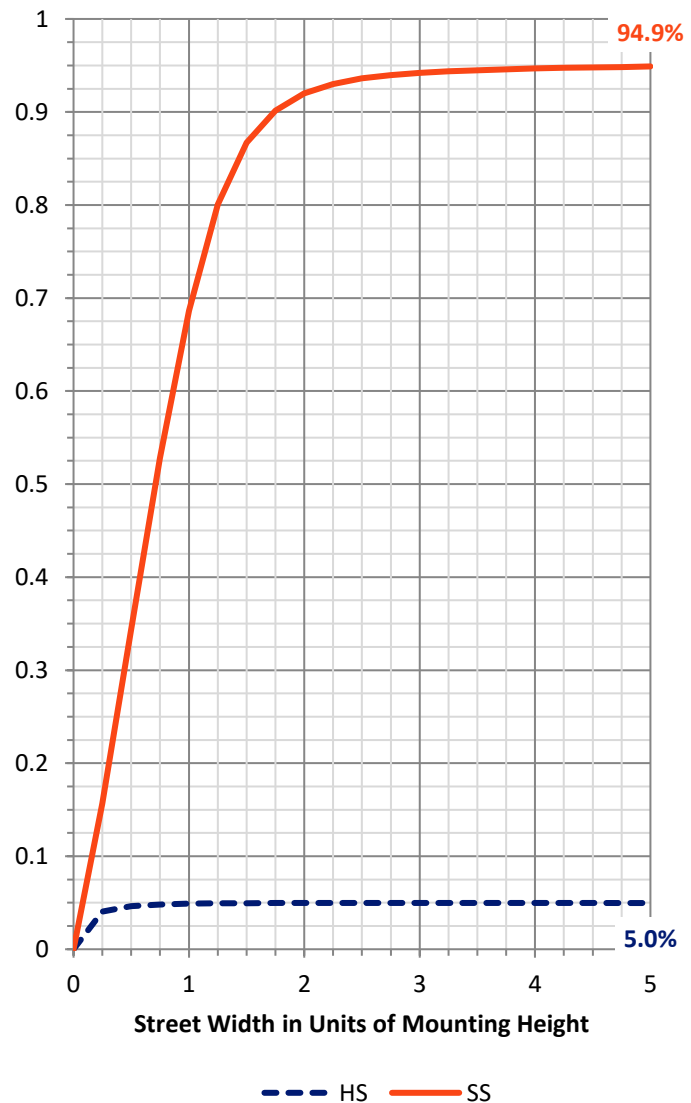
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	392.3	0.0	392.3
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	7470.1	0.0	7470.1
	% Fixture	95.0	0.0	95.0
Total	Lumens	7862.4	0.0	7862.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.3	1.1
10°-20°	305.0	3.9
20°-30°	582.2	7.4
30°-40°	1044.4	13.3
40°-50°	1600.1	20.4
50°-60°	1859.7	23.7
60°-70°	1646.8	20.9
70°-80°	710.3	9.0
80°-90°	28.5	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°	7862.4	100.0
0°-180°	7862.4	100.0

Coefficient of Utilization



REPORT NUMBER: P214665

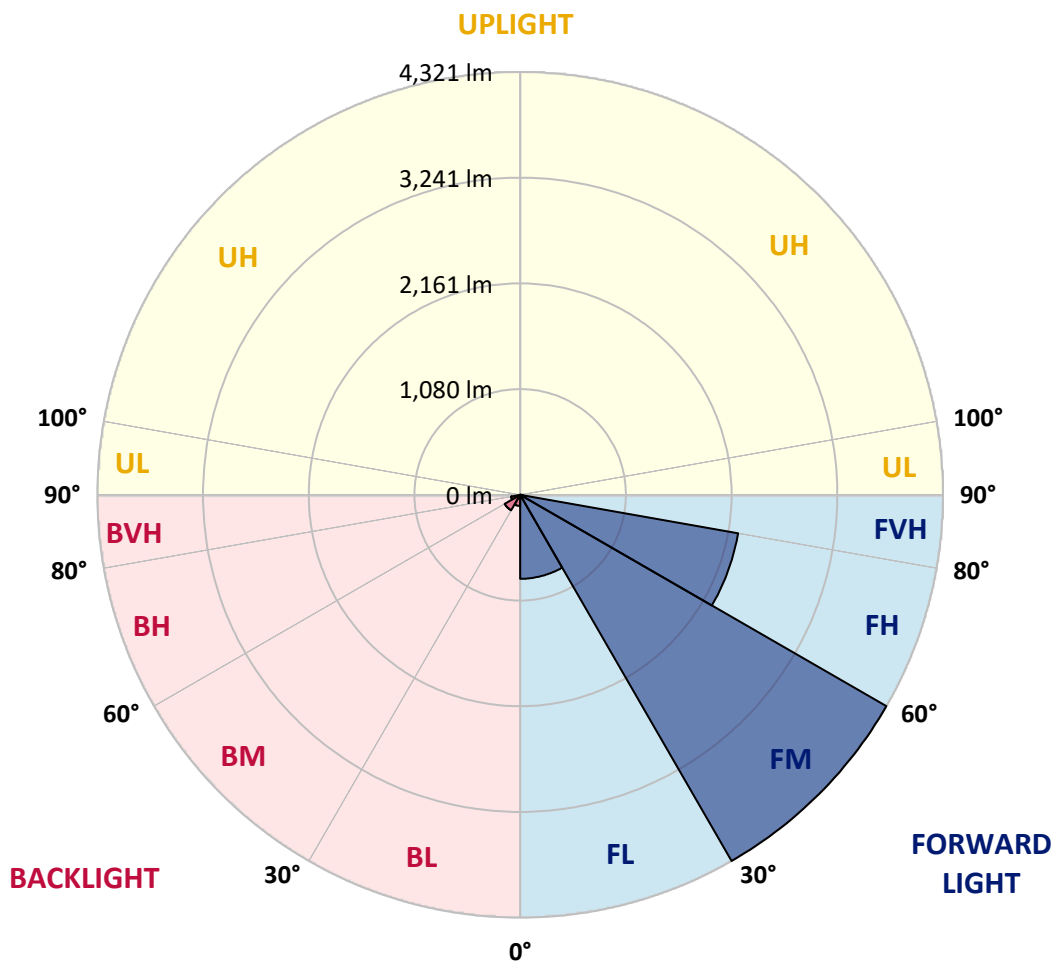
CATALOG NUMBER: ARCH-AF24-100-D-U-T2R-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	858.6	10.9			
FM	(30°-60°)	4321.4	55.0			
FH	(60°-80°)	2262.1	28.8			G2/5000
FVH	(80°-90°)	28.0	0.4			G1/100
BL	(0°-30°)	113.9	1.4	B1/500		
BM	(30°-60°)	182.9	2.3	B0/220		
BH	(60°-80°)	95.0	1.2	B0/110		G0/110
BVH	(80°-90°)	0.4	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 II Medium





REPORT NUMBER: P214665

CATALOG NUMBER: ARCH-AF24-100-D-U-T2R-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	731.6	731.6	731.6	731.6	731.6	731.6	731.6	731.6	731.6	731.6	731.6
2.5°	1205.1	1193.3	1181.4	1167.8	1137.3	1084.6	1018.4	947.2	858.9	843.6	772.3
5°	1463.2	1458.1	1446.2	1427.5	1393.6	1335.9	1261.2	1155.9	1008.3	982.9	831.8
7.5°	1644.8	1641.4	1631.2	1609.2	1578.6	1520.9	1442.8	1329.1	1157.7	1128.8	906.4
10°	1807.8	1806.0	1797.6	1777.2	1746.7	1683.9	1600.7	1481.8	1300.3	1267.9	993.0
12.5°	1955.5	1957.1	1953.7	1943.6	1921.5	1862.1	1767.0	1638.1	1437.8	1402.1	1096.5
15°	2042.0	2047.1	2060.6	2081.1	2087.8	2040.3	1941.9	1799.3	1578.6	1548.0	1215.4
17.5°	2013.2	2018.3	2060.6	2130.3	2196.5	2203.2	2115.0	1952.1	1717.8	1687.3	1332.5
20°	1943.6	1950.4	1994.4	2089.6	2218.6	2308.5	2272.9	2118.4	1850.2	1812.9	1444.5
22.5°	2021.7	2021.7	2035.3	2093.0	2210.1	2350.9	2398.5	2284.8	1986.0	1940.1	1556.5
25°	2289.9	2284.8	2255.9	2232.1	2269.4	2395.0	2493.5	2454.5	2145.5	2093.0	1675.4
27.5°	2629.3	2653.1	2598.8	2512.2	2427.4	2481.7	2578.4	2622.5	2322.1	2267.8	1797.6
30°	3009.5	3019.8	2955.2	2839.8	2690.5	2637.8	2678.6	2766.8	2513.9	2454.5	1924.9
32.5°	3352.4	3343.9	3289.6	3169.1	2984.0	2870.4	2807.6	2882.3	2722.7	2654.8	2055.6
35°	3656.2	3663.1	3596.9	3457.7	3276.0	3155.5	3006.1	3012.9	2956.9	2878.9	2206.7
37.5°	3929.6	3917.7	3854.9	3715.7	3551.1	3420.3	3262.5	3148.7	3213.2	3131.8	2376.4
40°	4152.0	4140.1	4073.8	3938.1	3783.6	3676.7	3552.7	3330.3	3483.1	3389.8	2558.0
42.5°	4328.4	4314.9	4258.9	4128.1	3978.8	3883.7	3824.3	3554.4	3771.7	3678.3	2761.8
45°	4415.1	4403.2	4369.2	4270.7	4140.1	4056.8	4085.8	3812.4	4080.7	4002.5	2985.8
47.5°	4313.2	4308.1	4347.1	4330.2	4255.5	4211.3	4311.4	4094.2	4404.8	4328.4	3243.8
50°	4004.2	4012.7	4126.5	4267.3	4302.9	4355.6	4496.5	4391.2	4752.8	4671.3	3540.8
52.5°	3242.1	3299.8	3642.7	3982.1	4245.2	4443.9	4713.8	4815.6	5319.8	5240.0	4004.2
55°	2420.5	2444.3	2817.7	3398.2	4012.7	4437.0	4875.1	5065.1	5599.8	5518.3	4126.5
57.5°	1919.8	1928.3	2113.3	2705.7	3534.1	4284.3	4959.9	5155.1	5722.1	5654.2	4308.1
60°	1507.3	1517.5	1651.6	2059.0	2860.2	3871.9	4837.6	5233.2	5961.3	5907.0	4625.5
62.5°	1172.9	1183.1	1264.6	1503.9	2145.5	3237.0	4591.5	5358.8	6416.3	6390.8	5144.9
65°	908.2	911.6	967.5	1079.5	1515.8	2549.5	4291.1	5476.0	7030.7	7008.7	5565.9
67.5°	670.4	675.6	714.6	784.2	1023.6	1831.5	3798.8	5385.9	7494.1	7429.7	5718.6
69°	541.4	546.6	580.5	636.6	808.0	1442.8	3349.0	5163.5	7563.8	7502.6	5621.9
70°	463.4	466.8	500.7	548.3	689.2	1225.6	2992.5	4971.7	7472.1	7412.7	5401.2
72.5°	297.1	314.0	348.0	378.5	456.6	811.4	2019.9	4123.1	6446.8	6345.0	4230.0
75°	164.7	169.7	230.9	268.2	303.8	527.9	1123.7	2571.6	4101.0	4029.7	2262.7
77.5°	135.7	139.2	163.0	203.7	203.7	295.3	424.3	1013.3	1559.9	1407.2	612.7
80°	95.0	98.4	123.9	134.1	146.0	166.3	137.5	222.4	241.0	213.9	91.7
82.5°	66.2	69.6	84.9	110.4	117.1	78.1	50.9	66.2	69.6	69.6	35.6
85°	11.9	17.0	62.8	91.7	69.6	23.7	28.8	23.7	22.1	23.7	8.5
87.5°	0.0	0.0	39.1	44.1	37.3	10.2	11.9	8.5	5.1	6.8	3.4
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: P214665

CATALOG NUMBER: ARCH-AF24-100-D-U-T2R-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	731.6	731.6	731.6	731.6	731.6	731.6	731.6	731.6	731.6	731.6	731.6
2.5°	736.7	701.0	640.0	595.8	558.4	529.6	517.7	499.0	485.5	492.2	483.8
5°	757.1	694.3	595.8	533.0	488.9	451.5	420.9	397.2	378.5	375.1	371.7
7.5°	789.3	699.4	570.3	492.2	426.1	368.4	320.8	285.2	258.0	258.0	247.9
10°	833.4	712.9	555.1	451.5	353.0	275.0	227.5	193.5	179.9	178.2	174.8
12.5°	894.6	738.4	543.2	398.8	275.0	200.3	171.4	159.6	154.5	152.7	151.1
15°	977.7	775.7	529.6	334.4	208.8	164.7	152.7	142.6	137.5	135.7	134.1
17.5°	1057.5	809.7	500.7	268.2	169.7	149.4	135.7	127.4	120.5	118.9	118.9
20°	1132.2	838.5	451.5	208.8	152.7	134.1	120.5	110.4	103.5	101.9	101.9
22.5°	1210.3	862.2	390.5	169.7	139.2	118.9	105.3	95.0	88.3	86.5	84.9
25°	1293.4	879.2	320.8	151.1	125.6	105.3	89.9	81.4	76.4	74.7	73.0
27.5°	1383.4	886.1	254.6	137.5	110.4	91.7	78.1	69.6	66.2	64.5	64.5
30°	1464.9	879.2	196.9	122.2	96.8	79.8	67.9	61.1	57.7	56.1	56.1
32.5°	1549.8	862.2	157.8	108.6	84.9	67.9	57.7	52.6	50.9	49.2	49.2
35°	1639.7	840.3	135.7	96.8	73.0	59.4	50.9	47.6	45.8	44.1	44.1
37.5°	1744.9	813.0	123.9	86.5	64.5	52.6	44.1	42.5	40.7	40.7	40.7
40°	1863.8	779.1	115.4	78.1	57.7	45.8	39.1	37.3	35.6	35.6	35.6
42.5°	1989.4	740.1	106.9	69.6	50.9	39.1	34.0	34.0	32.2	32.2	30.6
45°	2130.3	701.0	98.4	61.1	44.1	34.0	28.8	27.1	27.1	25.5	25.5
47.5°	2296.6	665.4	89.9	54.3	39.1	28.8	25.5	23.7	22.1	20.4	20.4
50°	2530.9	662.0	79.8	47.6	35.6	23.7	20.4	18.7	17.0	15.2	15.2
52.5°	2763.4	631.5	67.9	39.1	28.8	20.4	15.2	13.6	11.9	11.9	10.2
55°	2816.1	580.5	59.4	34.0	22.1	15.2	11.9	8.5	8.5	6.8	6.8
57.5°	2931.5	556.8	50.9	27.1	17.0	11.9	6.8	5.1	5.1	5.1	5.1
60°	3158.9	549.9	44.1	23.7	11.9	8.5	5.1	3.4	3.4	1.7	1.7
62.5°	3472.9	543.2	37.3	20.4	8.5	5.1	3.4	1.7	0.0	0.0	0.0
65°	3646.1	497.4	30.6	15.2	6.8	5.1	1.7	0.0	0.0	0.0	0.0
67.5°	3600.3	410.8	27.1	10.2	5.1	3.4	1.7	0.0	0.0	0.0	0.0
69°	3408.5	346.3	22.1	8.5	5.1	3.4	1.7	0.0	0.0	0.0	0.0
70°	3177.6	298.7	20.4	6.8	3.4	1.7	1.7	0.0	0.0	0.0	0.0
72.5°	2255.9	156.2	13.6	5.1	3.4	1.7	0.0	0.0	0.0	0.0	0.0
75°	1054.2	69.6	8.5	3.4	1.7	1.7	0.0	0.0	0.0	0.0	0.0
77.5°	232.5	32.2	5.1	3.4	1.7	0.0	0.0	0.0	0.0	0.0	0.0
80°	44.1	11.9	3.4	1.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	15.2	5.1	1.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.1	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.7	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)