

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: P257851

Luminaire Tested: **ARCH-M-AF48-90-D-U-T2U-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P257851
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1802-616-3)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-90-D-U-T2U-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 600mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8763.6 lumens
Efficiency: N/A
Efficacy: 95.3 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G2

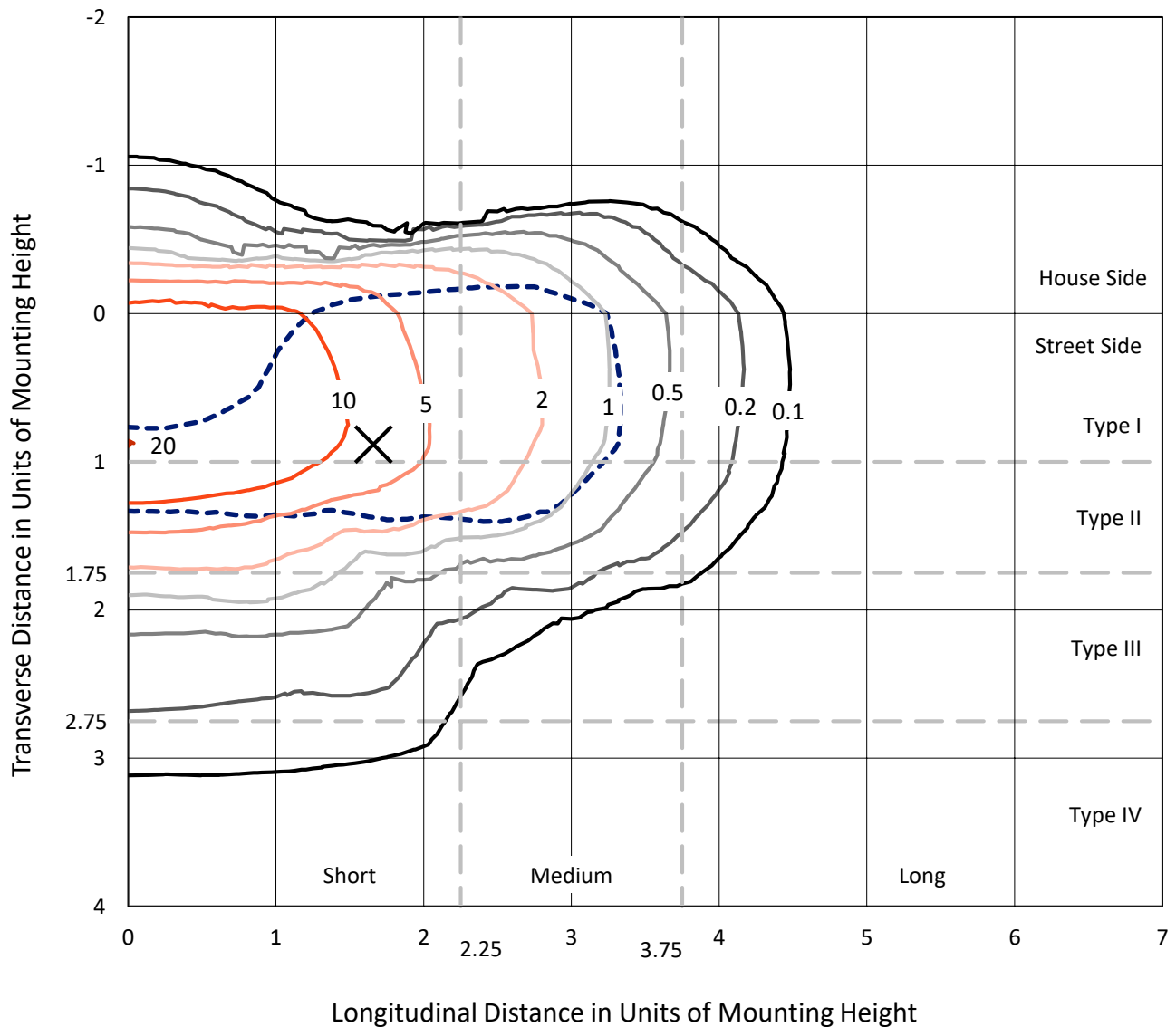
Input Watts (W): 92
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P257851
 CATALOG NUMBER: ARCH-M-AF48-90-D-U-T2U-HSS

Iso-Footcandle Lines of Horizontal Illumination

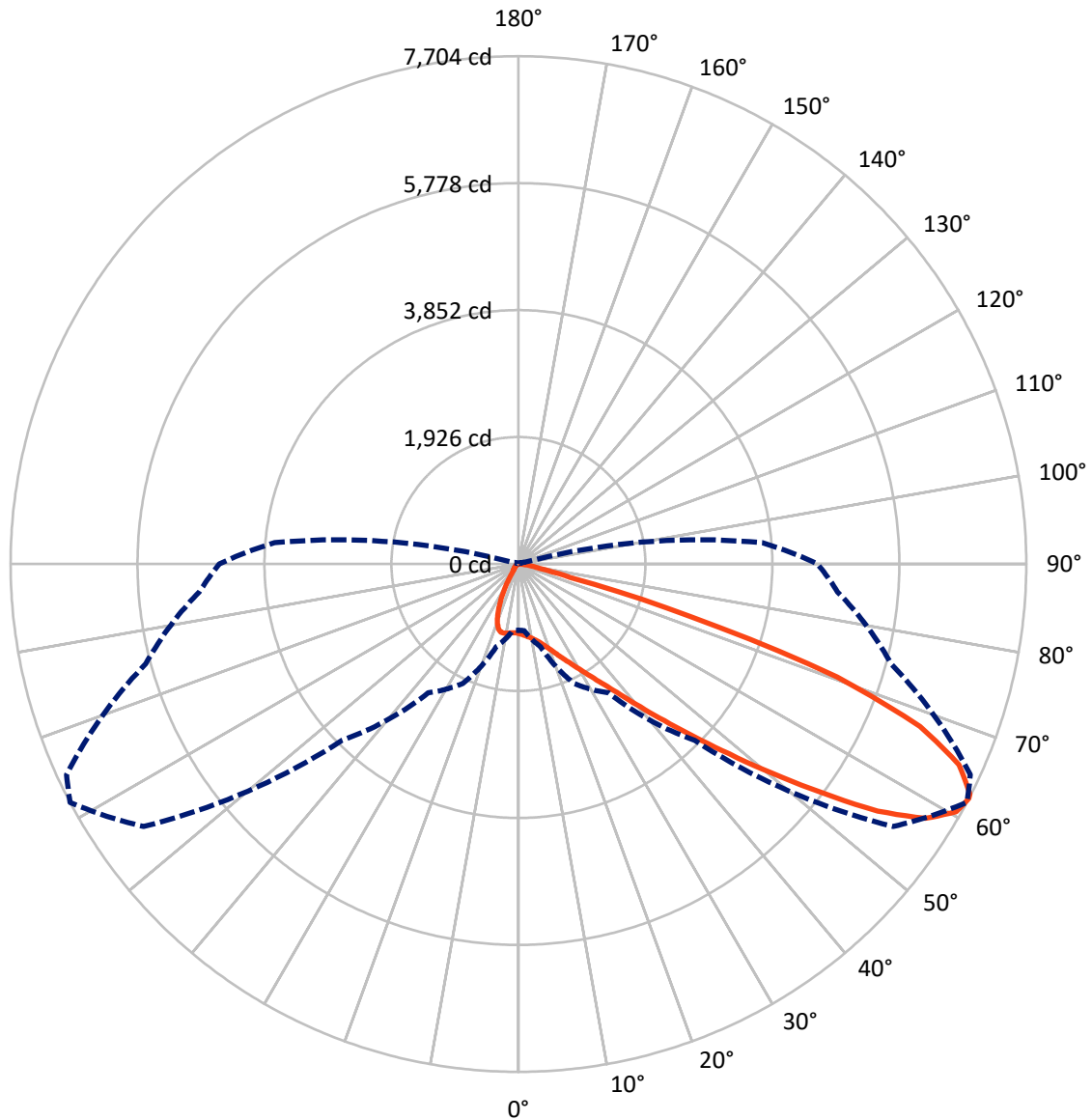
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 20.2 fc
 Type II - Short - Full Cutoff

REPORT NUMBER: P257851
CATALOG NUMBER: ARCH-M-AF48-90-D-U-T2U-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 62-Deg Lateral - - - Horizontal Cone Through 62-Deg Vertical

REPORT NUMBER: P257851

CATALOG NUMBER: ARCH-M-AF48-90-D-U-T2U-HSS

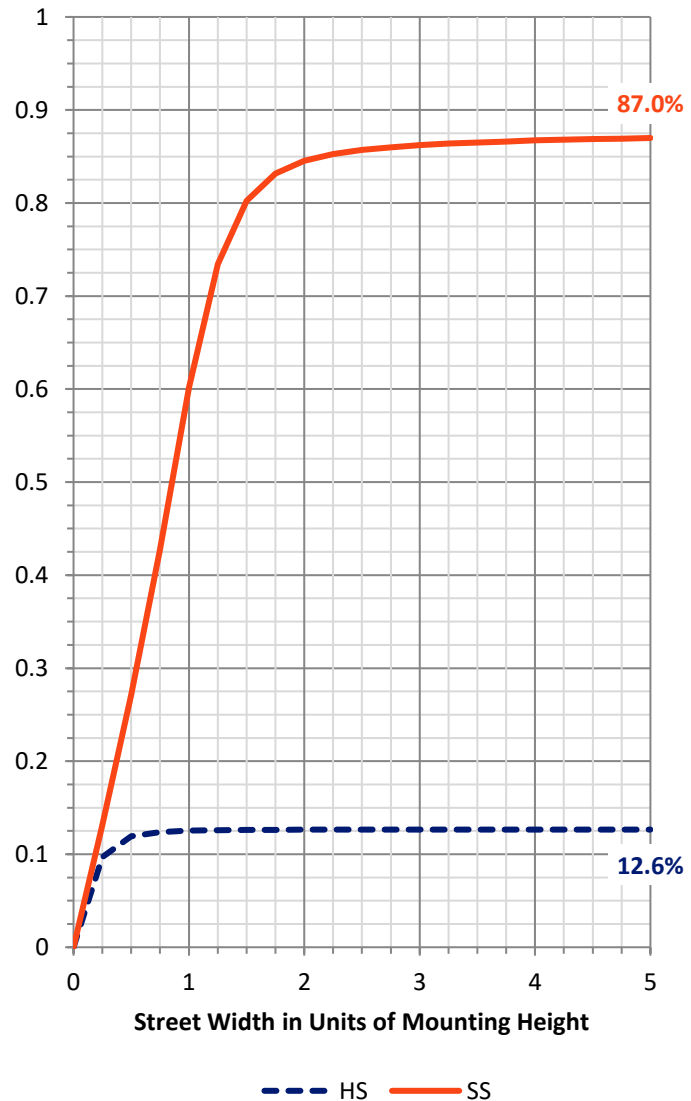
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1120.5	0.0	1120.5
	% Fixture	12.8	0.0	12.8
Street Side	Lumens	7643.1	0.0	7643.1
	% Fixture	87.2	0.0	87.2
Total	Lumens	8763.6	0.0	8763.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.6	1.2
10°-20°	283.7	3.2
20°-30°	476.5	5.4
30°-40°	913.4	10.4
40°-50°	1865.5	21.3
50°-60°	2468.8	28.2
60°-70°	1917.8	21.9
70°-80°	692.2	7.9
80°-90°	44.1	0.5
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°	8763.6	100.0
0°-180°	8763.6	100.0



REPORT NUMBER: P257851

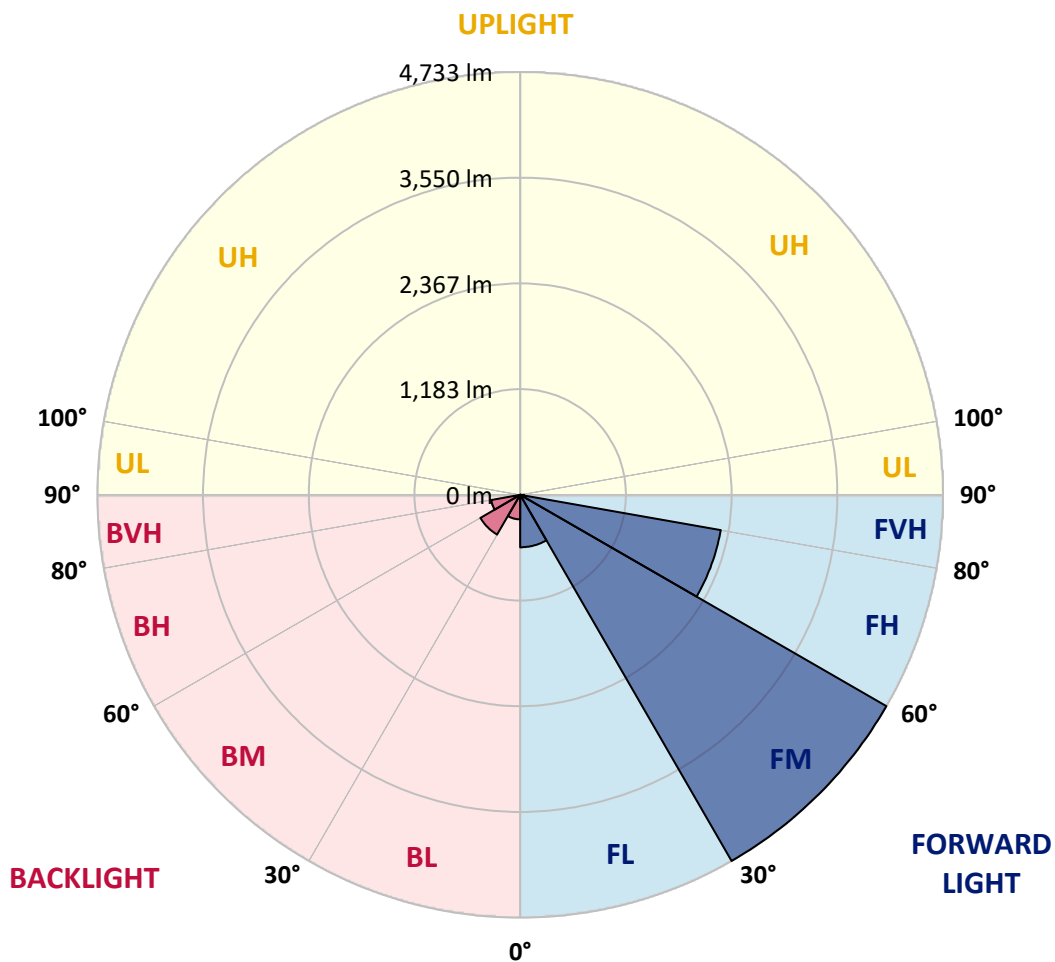
CATALOG NUMBER: ARCH-M-AF48-90-D-U-T2U-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	587.5	6.7			
FM	(30°-60°)	4733.3	54.0			
FH	(60°-80°)	2280.1	26.0			G2/5000
FVH	(80°-90°)	42.2	0.5			G1/100
BL	(0°-30°)	274.2	3.1	B1/500		
BM	(30°-60°)	514.4	5.9	B1/1000		
BH	(60°-80°)	329.9	3.8	B1/500		G1/500
BVH	(80°-90°)	1.9	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 Short





REPORT NUMBER: P257851

CATALOG NUMBER: ARCH-M-AF48-90-D-U-T2U-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	62°	65°	75°	85°
0°	1055.7	1055.7	1055.7	1055.7	1055.7	1055.7	1055.7	1055.7	1055.7	1055.7	1055.7
2.5°	1083.7	1081.6	1079.4	1077.3	1077.3	1075.1	1073.0	1068.6	1064.3	1060.0	1057.8
5°	1103.0	1100.9	1098.8	1100.9	1098.8	1098.8	1096.6	1092.3	1088.0	1081.6	1075.1
7.5°	1118.2	1116.0	1113.9	1116.0	1118.2	1120.3	1122.5	1118.2	1116.0	1107.4	1100.9
10°	1137.5	1135.4	1133.2	1137.5	1137.5	1148.4	1150.5	1148.4	1146.2	1139.7	1128.9
12.5°	1165.6	1167.7	1167.7	1172.0	1176.4	1189.3	1193.6	1187.1	1187.1	1178.5	1165.6
15°	1217.3	1217.3	1217.3	1221.6	1223.8	1240.9	1245.2	1238.8	1243.1	1228.1	1215.2
17.5°	1266.8	1269.0	1273.3	1282.0	1282.0	1297.0	1305.6	1305.6	1314.2	1294.9	1277.6
20°	1316.3	1318.6	1325.0	1344.4	1344.4	1363.8	1378.8	1385.3	1394.0	1374.5	1344.4
22.5°	1370.2	1370.2	1381.0	1411.2	1404.7	1443.5	1471.5	1482.3	1490.8	1465.1	1417.6
25°	1452.1	1443.5	1452.1	1480.1	1475.8	1529.7	1581.4	1592.1	1603.0	1572.8	1501.7
27.5°	1607.3	1594.3	1564.2	1566.3	1566.3	1628.7	1702.0	1717.1	1723.6	1697.7	1609.4
30°	1917.5	1917.5	1805.4	1730.0	1680.5	1736.5	1839.9	1865.8	1874.4	1835.6	1719.3
32.5°	2458.3	2458.3	2251.4	2059.7	1872.2	1872.2	1990.8	2038.1	2046.7	2001.5	1865.8
35°	3147.7	3143.4	2833.2	2570.3	2204.0	2066.2	2167.4	2247.1	2273.0	2212.6	2055.4
37.5°	3880.3	3852.2	3518.2	3216.7	2714.6	2376.4	2406.6	2512.2	2535.8	2486.3	2301.0
40°	4474.8	4442.6	4173.2	3921.2	3373.9	2871.9	2751.2	2848.2	2876.2	2807.3	2594.0
42.5°	5013.5	4933.8	4748.4	4567.5	4132.3	3729.4	3210.1	3249.0	3279.1	3205.8	2923.6
45°	5403.4	5280.6	5185.8	5129.8	4899.3	4670.9	3804.8	3727.2	3738.0	3647.5	3283.5
47.5°	5414.2	5328.0	5336.6	5483.1	5577.9	5569.4	4578.2	4302.5	4261.5	4110.7	3666.9
50°	4897.1	4946.7	5103.9	5521.9	6034.7	6345.0	5498.3	4983.3	4860.4	4589.1	4048.2
52.5°	4035.3	4112.9	4408.1	5112.6	6101.5	6855.5	6452.7	5761.1	5541.3	5063.0	4341.3
55°	3160.6	3164.9	3475.2	4192.6	5655.5	6948.2	7215.4	6616.3	6280.3	5422.8	4535.2
57.5°	2173.9	2292.3	2686.7	3169.2	4649.3	6487.1	7501.9	7279.9	6846.9	5644.7	4670.9
60°	1424.2	1430.6	1889.5	2447.5	3164.9	5278.4	7327.4	7631.1	7305.8	5776.2	4763.6
62°	1004.0	1014.8	1299.1	1999.4	2385.0	3783.3	6941.7	7704.4	7564.3	5853.7	4860.4
62.5°	930.8	939.4	1178.5	1887.3	2240.7	3393.3	6803.9	7687.2	7603.2	5879.5	4894.9
65°	682.9	682.9	771.3	1297.0	1641.7	1833.4	5765.4	7344.6	7551.4	6086.4	5024.2
67.5°	527.8	532.1	562.3	799.3	1238.8	1111.7	3679.9	6573.3	7012.8	6392.3	5097.5
70°	454.6	452.5	474.0	530.0	894.1	739.0	1620.1	5129.8	5873.1	6314.8	5030.7
72.5°	336.1	338.3	387.8	465.3	622.7	480.5	732.5	2723.3	3809.1	4942.4	4311.1
75°	215.4	217.6	273.6	366.2	448.2	314.6	422.3	812.2	1559.8	2740.5	2637.1
77.5°	144.3	148.6	178.8	256.4	392.1	196.1	265.0	340.4	469.6	1027.7	945.8
80°	97.0	97.0	114.2	172.4	247.8	163.8	142.2	226.2	243.5	318.9	159.5
82.5°	64.7	64.7	75.4	114.2	161.6	146.5	86.1	122.8	142.2	159.5	56.1
85°	38.8	38.8	51.7	71.1	105.6	81.8	56.1	68.9	73.2	101.3	30.2
87.5°	23.7	21.6	34.5	49.5	56.1	49.5	36.6	36.6	38.8	56.1	15.0
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: P257851

CATALOG NUMBER: ARCH-M-AF48-90-D-U-T2U-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1055.7	1055.7	1055.7	1055.7	1055.7	1055.7	1055.7	1055.7	1055.7	1055.7	1055.7
2.5°	1053.5	1051.4	1049.2	1044.9	1038.5	1034.1	1029.8	1025.5	1021.2	1021.2	1027.7
5°	1073.0	1066.4	1057.8	1049.2	1036.4	1027.7	1021.2	1012.6	1008.3	1008.3	1010.5
7.5°	1096.6	1090.2	1075.1	1060.0	1040.6	1025.5	1010.5	991.0	976.0	969.6	976.0
10°	1122.5	1113.9	1092.3	1068.6	1047.1	1008.3	958.7	898.5	846.7	823.0	833.8
12.5°	1154.8	1144.1	1118.2	1085.9	1036.4	941.5	818.7	678.6	590.3	549.4	558.0
15°	1202.2	1187.1	1150.5	1100.9	991.0	786.3	586.0	424.4	342.6	308.1	312.4
17.5°	1258.2	1238.8	1189.3	1096.6	874.7	566.6	349.0	247.8	213.3	204.7	204.7
20°	1318.6	1292.7	1228.1	1064.3	698.1	355.5	217.6	189.6	176.7	170.2	170.2
22.5°	1381.0	1346.5	1260.4	988.9	497.7	221.9	178.8	159.5	144.3	137.9	137.9
25°	1456.4	1411.2	1292.7	857.4	316.7	178.8	152.9	133.6	118.5	109.9	112.0
27.5°	1544.8	1486.6	1320.7	693.8	204.7	155.1	127.2	107.7	94.8	90.5	90.5
30°	1637.4	1568.5	1327.2	519.2	165.9	133.6	105.6	88.4	79.7	75.4	75.4
32.5°	1764.5	1674.1	1307.7	344.7	140.0	112.0	88.4	73.2	66.8	64.7	64.7
35°	1932.6	1812.0	1262.5	213.3	118.5	92.7	73.2	64.7	58.2	56.1	56.1
37.5°	2145.8	2003.7	1182.8	146.5	101.3	75.4	62.5	56.1	51.7	49.5	49.5
40°	2430.2	2236.4	1079.4	127.2	86.1	64.7	53.9	49.5	45.2	45.2	45.2
42.5°	2731.9	2518.6	945.8	112.0	73.2	56.1	47.4	43.1	40.9	38.8	38.8
45°	3061.5	2807.3	779.9	99.1	62.5	49.5	43.1	36.6	34.5	34.5	34.5
47.5°	3389.0	3104.6	598.9	86.1	53.9	43.1	36.6	32.3	30.2	28.0	28.0
50°	3725.1	3373.9	439.6	75.4	47.4	38.8	32.3	28.0	23.7	21.6	21.6
52.5°	3968.5	3535.5	321.0	64.7	40.9	32.3	25.9	21.6	17.2	15.0	15.0
55°	4147.3	3634.6	234.9	53.9	36.6	28.0	21.6	17.2	12.9	12.9	10.7
57.5°	4287.4	3682.0	176.7	47.4	32.3	23.7	17.2	12.9	10.7	8.6	8.6
60°	4395.1	3684.2	131.4	38.8	28.0	19.4	12.9	8.6	6.4	6.4	6.4
62°	4537.3	3712.2	107.7	32.3	25.9	17.2	10.7	6.4	4.3	2.1	2.1
62.5°	4578.2	3722.9	103.4	32.3	23.7	15.0	8.6	6.4	4.3	2.1	2.1
65°	4767.9	3742.4	79.7	25.9	19.4	12.9	6.4	4.3	0.0	0.0	0.0
67.5°	4940.2	3712.2	58.2	19.4	15.0	8.6	6.4	2.1	0.0	0.0	0.0
70°	4923.0	3505.3	40.9	12.9	10.7	6.4	4.3	0.0	0.0	0.0	0.0
72.5°	4056.9	2624.2	28.0	10.7	6.4	4.3	2.1	0.0	0.0	0.0	0.0
75°	2449.7	1148.4	19.4	6.4	6.4	4.3	2.1	0.0	0.0	0.0	0.0
77.5°	803.6	415.8	12.9	4.3	4.3	2.1	2.1	0.0	0.0	0.0	0.0
80°	131.4	68.9	6.4	4.3	4.3	2.1	2.1	0.0	0.0	0.0	0.0
82.5°	40.9	17.2	4.3	4.3	2.1	2.1	0.0	0.0	0.0	0.0	0.0
85°	15.0	6.4	4.3	4.3	2.1	2.1	0.0	0.0	0.0	0.0	0.0
87.5°	6.4	4.3	4.3	4.3	2.1	2.1	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)